

Public Employees Retirement Fund
ACTUARIAL VALUATION REPORT

JULY 1, 1995

 **FILE COPY**

MILLIMAN & ROBERTSON, INC.

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Chairman Emeritus

November 10, 1995

Legislative Commission on
Pensions and Retirement
55 State Office Building
St. Paul, Minnesota 55155

RE: Public Employees Retirement Fund

Commission Members:

Pursuant to the terms of our Actuarial Services Contract, we have performed an actuarial valuation of the Fund as of July 1, 1995.

The results of our calculations are set forth in the following report, as are the actuarial assumptions upon which our calculations have been made. We have relied on the basic employee data and asset figures as submitted by the Public Employees Retirement Fund.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with the requirements of Section 356.215, Minnesota Statutes, and the requirements of the Standards for Actuarial Work, adopted by the Commission on July 8, 1992.

Respectfully submitted,

Thomas K. Custis, F.S.A., M.A.A.A.
Consulting Actuary

William V. Hogan, F.S.A., M.A.A.A.
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TKC/WVH/bh

Public Employees Retirement Fund

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Public Employees Retirement Fund

Report Highlights

(dollars in thousands)

	07/01/94 Valuation	07/01/95 Valuation
A. CONTRIBUTIONS (Table 11)		
1. Statutory Contributions - Chapter 353 % of Payroll	8.90%	8.91%
2. Required Contributions - Chapter 356 % of Payroll	9.76%	9.61%
3. Sufficiency (Deficiency): (A.1. - A.2.)	-0.86%	-0.70%
B. FUNDING RATIOS		
1. Accrued Benefit Funding Ratio		
a. Current Assets (Table 1)	\$4,747,128	\$5,138,461
b. Current Benefit Obligations (Table 8)	\$5,625,598	\$5,994,492
c. Funding Ratio: (a/b)	84.38%	85.72%
2. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	\$4,747,128	\$5,138,461
b. Actuarial Accrued Liability (Table 9)	\$6,223,622	\$6,622,069
c. Funding Ratio: (a/b)	76.28%	77.60%
3. Projected Benefit Funding Ratio (Table 8)		
a. Current and Expected Future Assets	\$7,232,704	\$7,769,607
b. Current and Expected Future Benefit Obligations	\$7,681,359	\$8,147,393
c. Funding Ratio: (a/b)	94.16%	95.36%
C. PLAN PARTICIPANTS		
1. Active Members		
a. Number (Table 3)	120,199	126,612
b. Projected Annual Earnings	\$2,749,217	\$2,930,993
c. Average Annual Earnings (Actual \$)	\$22,872	\$23,149
d. Average Age	43.1	43.3
e. Average Service	8.0	8.2
2. Others		
a. Service Retirements (Table 4)	30,414	31,487
b. Survivors (Table 5)	5,091	5,260
c. Disability Retirements (Table 6)	871	959
d. Deferred Retirements (Table 7)	6,277	7,156
e. Terminated Other Non-vested (Table 7)	9,180	9,683
f. Total	51,833	54,545

Public Employees Retirement Fund

Commentary

Purpose

The purpose of this valuation is to determine the financial status of the Plan. In order to achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by Section 356.215 of Minnesota Statutes.

Report Highlights

The financial status of the Plan can be measured by three different funding ratios:

- ° The Accrued Benefit Funding Ratio is a measure of current funding status and, when viewed over a period of years, presents a view of the funding progress. It is based upon benefits which have been earned by service to the valuation date. This year's ratio is 85.72%. The corresponding ratio for the prior year was 84.38%.
- ° The Accrued Liability Funding Ratio is also a measure of funding status and funding progress. It is based on the actuarial cost method that has historically been used by the State. For 1995 the ratio is 77.60%, which is an increase from the 1994 value of 76.28%.
- ° The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 95.36% shows that the current statutory contributions are inadequate.

Asset Information (Tables 1 and 2)

Minnesota Statutes require that the asset value used for actuarial purposes recognize only a third of the unrealized gains and losses. This requirement exists because market values (which include all unrealized gain and losses) are typically volatile and can produce erratic changes in the contribution requirements from year to year.

The calculation of the Actuarial Value of Assets is shown in Table 1 on lines F1 to F6. It combines the cost value of the Assets Available for Benefits and one-third of the difference between the market value and cost value of those assets.

The term "Actuarial Value of Assets" is used to indicate that the value was determined for use in this actuarial valuation. Since Minnesota Statutes refer to this value as "Current Assets", the latter phrase will be used in the remainder of this report.

This Plan participates in the Minnesota Post Retirement Investment Fund (i.e. MPRIF). After the MPRIF liability has been calculated for each participating Plan, the State Board of Investments, (i.e. SBI), will determine each Plan's portion of the excess earnings for the January benefit increase as well as the Plan's allocated market share of MPRIF.

Actuarial Balance Sheet (Table 8)

An actuarial balance sheet provides a method for evaluating current and future levels of funding.

The Current Benefit Obligation used to measure current funding levels is calculated in accordance with Statement No. 5 of the Governmental Accounting Standards Board (GASB). Those requirements are:

- ° For Active Members - salary and service are projected to retirement to determine benefits for each member and the ratio of credited service to total service establishes the portion of the projected benefit to be used in calculating the current funding level.
- ° For Non-active Members - the discounted value of benefits, including augmentation in cases where benefits have not commenced.

GASB Disclosure

The Current Benefit Obligation amounts in Table 8 are required to be disclosed by Statement No. 5 of the Governmental Accounting Standards Board (GASB). However, Statement No. 5 uses the terms "Actuarial Present Value of Credited Projected Benefits" and "Pension Benefit Obligation" rather than "Current Benefit Obligation".

The JULY 1, 1995 Pension Benefit Obligation reported in Table 8 is reformatted for GASB reporting purposes in the following table:

Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$3,170,343,000
Current Employees	
Accumulated employee contributions including allocated investment income	\$867,498,000
Employer-financed vested	1,739,072,000
Employer-financed nonvested	<u>217,579,000</u>
Total Pension Benefit Obligation	\$5,994,492,000
Net Assets Available for Benefits at Cost	\$5,074,347,000
Total Benefit Obligation less Assets	\$920,145,000
Funded Ratio	84.65%

Actuarial Cost Method (Table 9)

The approach used by the State of Minnesota to determine contribution sufficiency is the Entry Age Normal Actuarial Cost Method. The primary characteristic of this method is that it allocates costs as a level percentage of payroll.

A comparison of this actuarial method (Table 9) to the actuarial balance sheet (Table 8) illustrates the two techniques for allocating liabilities of active Members to past and future. As noted in the prior section, the balance sheet allocates benefits and the corresponding liabilities, on the basis of service. The method used in Table 9 allocates liabilities so that the cost each year will be a constant percentage of payroll. Both approaches, however, calculate the value of all future benefits the same way (see line F of Table 8 and line A6, column 1, of Table 9).

An Unfunded Actuarial Accrued Liability is computed under the Entry Age Normal Actuarial Cost Method by comparing the liabilities allocated to past service (Actuarial Accrued Liability) to the Current Assets. This amount, line B3, is funded over the remaining years to the amortization date by a series of payments that remain a constant percentage of payroll each year.

The payments will increase 6.00% each year because that is the assumed rate of increase in payroll. Although the payment schedule will be adequate to amortize the existing unfunded, the lower payments in the earlier years will not be sufficient to cover the interest on the unfunded liability. After a few years, the annual payment will cover the interest and also repay a portion of the unfunded.

Sources of Actuarial Gains and Losses (Table 10)

The assumptions used in making the calculations using the Entry Age Normal Actuarial Cost Method are based on long-term expectations. Each year the actual experience will deviate from the long-term expectation. For a detailed analysis of the major components, refer to Table 10.

Contribution Sufficiency (Table 11)

This report determines the adequacy of Statutory Contributions by comparing the Statutory Contributions to the Required Contributions.

The Required Contributions, set forth in Chapter 356, consist of:

- ° Normal costs based on the Entry Age Normal Actuarial Cost Method.
- ° A Supplemental Contribution for amortizing any Unfunded Actuarial Accrued Liability.
- ° An Allowance for Expenses.

Table 11 shows the Plan has a contribution deficiency since the Statutory Contribution Rate is 8.91% compared to the Required Contribution Rate of 9.61%.

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There were no changes in actuarial assumptions since the last valuation which impacted funding costs.

Changes in Plan Provisions

There were no changes in plan provisions since the last valuation which impacted funding costs.

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TABLE 1

Public Employees Retirement Fund

Accounting Balance Sheet*(dollars in thousands)*

JULY 1, 1995

	<u>Market Value</u>	<u>Cost Value</u>
A. ASSETS		
1. Cash, Equivalents, Short-term Securities	\$37,512	\$37,512
2. Investments		
a. Fixed Income	675,946	660,207
b. Equity	1,556,411	1,376,776
c. Real Estate	97,839	100,872
3. Equity in Minnesota Post-Retirement Investment Fund (MPRIF)	2,900,042	2,900,042
4. Other	1,202	1,202
B. TOTAL ASSETS	<u>\$5,268,952</u>	<u>\$5,076,611</u>
C. AMOUNTS CURRENTLY PAYABLE	\$2,264	\$2,264
D. ASSETS AVAILABLE FOR BENEFITS		
1. Member Reserves	\$916,109	\$916,109
2. Employer Reserves	1,450,537	1,258,196
3. MPRIF Reserves	2,900,042	2,900,042
4. Non-MPRIF Reserves	0	0
5. Total Assets Available for Benefits	<u>\$5,266,688</u>	<u>\$5,074,347</u>
E. TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS	<u>\$5,268,952</u>	<u>\$5,076,611</u>
<hr/>		
F. DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
1. Cost Value of Assets Available for Benefits (D5)		\$5,074,347
2. Market Value (D5)	\$5,266,688	
3. Cost Value (D5)	5,074,347	
4. Market Over Cost: (F2-F3)	<u>\$192,341</u>	
5. 1/3 of Market Over Cost: (F4)/3		64,114
6. Actuarial Value of Assets (F1+F5) (Same as "Current Assets")		<u>\$5,138,461</u>

TABLE 2

Public Employees Retirement Fund

Change In Assets Available For Benefits
(dollars in thousands)

YEAR ENDING JUNE 30, 1995

	Market Value	Cost Value
A. ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$4,773,695	\$4,733,844
B. OPERATING REVENUES		
1. Member Contributions	\$115,986	\$115,986
2. Employer Contributions	123,984	123,984
3. Investment Income	173,330	173,330
4. MPRIF Income	237,717	237,717
5. Net Realized Gain (Loss)	0	0
6. Other	790	790
7. Net Change in Unrealized Gain (Loss)	152,490	0
8. Total Revenue	\$804,297	\$651,807
C. OPERATING EXPENSES		
1. Service Retirements	\$270,269	\$270,269
2. Disability Benefits	6,706	6,706
3. Survivor Benefits	13,508	13,508
4. Refunds	11,929	11,929
5. Investment Fees	3,326	3,326
6. Administrative Expenses	4,803	4,803
7. Other	763	763
8. Total Disbursements	\$311,304	\$311,304
D. OTHER CHANGES IN RESERVES	0	0
E. ASSETS AVAILABLE AT END OF PERIOD	\$5,266,688	\$5,074,347

TABLE 3

Public Employees Retirement Fund
ACTIVE MEMBERS AS OF JUNE 30, 1995

AGE	YEARS OF SERVICE								ALL
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	
<25	1,808	1,797	39	1					3,645
25-29	2,159	5,630	1,457	45				1	9,292
30-34	1,916	5,862	4,407	1,437	92				13,714
35-39	2,229	7,106	5,387	2,974	1,994	71		1	19,762
40-44	1,805	7,113	6,146	3,333	3,259	1,331	41	1	23,029
45-49	2,298	6,218	5,795	3,334	3,011	2,138	646	19	23,459
50-54	586	2,572	3,276	2,557	2,460	1,605	1,038	254	14,348
55-59	372	1,616	2,007	1,683	2,006	1,594	938	474	10,690
60-64	216	874	1,199	990	1,120	1,028	637	161	6,225
65+	150	566	630	335	314	259	143	51	2,448
ALL	13,539	39,354	30,343	16,689	14,256	8,026	3,443	962	126,612

AVERAGE ANNUAL EARNINGS

AGE	YEARS OF SERVICE								ALL
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	
<25	9,083	12,367	15,869	14,121					10,776
25-29	11,497	18,014	22,917	23,334				19,298	17,295
30-34	11,523	18,796	26,360	26,735	25,881				21,090
35-39	10,589	16,854	25,490	30,499	29,438	29,817		16,107	21,871
40-44	10,569	15,840	23,552	30,009	33,674	33,064	31,982	7,653	23,083
45-49	8,807	15,712	22,220	27,611	32,861	37,802	38,617	31,544	23,192
50-54	11,275	15,922	21,549	24,286	27,648	33,403	39,038	39,958	24,571
55-59	9,645	14,773	20,420	22,801	24,477	26,918	33,490	39,236	23,278
60-64	8,943	12,927	18,860	21,167	23,371	25,116	29,122	38,932	21,464
65+	6,875	9,346	12,864	16,564	19,182	18,925	22,666	27,503	14,519
ALL	10,296	16,399	23,178	26,918	29,397	31,670	34,849	38,524	21,858

PRIOR FISCAL YEAR EARNINGS (IN MILLIONS) BY YEARS OF SERVICE									
AGE	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	ALL
ALL	139	645	703	449	419	254	120	37	2,768

TABLE 4

Public Employees Retirement Fund
SERVICE RETIREMENTS AS OF JUNE 30, 1995

AGE	YEARS RETIRED							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50		1						1
50-54		7	1					8
55-59	376	938	15					1,329
60-64	813	2,599	923	3				4,338
65-69	565	4,048	2,969	503				8,085
70-74	92	1,014	4,163	2,048	39	1		7,357
75-79	17	205	887	3,532	616	13		5,270
80-84	3	31	106	777	2,131	172	4	3,224
85+	1	6	25	70	360	1,069	344	1,875
ALL	1,867	8,849	9,089	6,933	3,146	1,255	348	31,487

AVERAGE ANNUAL BENEFIT

AGE	YEARS RETIRED							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50		3,581						3,581
50-54		8,509	9,894					8,682
55-59	7,702	9,519	13,730					9,053
60-64	5,943	9,404	8,563	14,951				8,580
65-69	5,809	6,406	7,991	17,363				7,629
70-74	3,960	5,679	6,337	12,161	11,352	12,930		7,865
75-79	3,875	3,983	5,108	7,592	10,590	13,972		7,388
80-84	4,625	3,511	3,712	6,007	7,473	10,923	6,886	7,138
85+	19,445	2,234	2,082	2,633	5,929	6,435	6,446	6,133
ALL	6,145	7,466	6,954	9,427	7,954	7,133	6,451	7,696

TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS RETIRED								
AGE	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	11,473	66,067	63,205	65,357	25,023	8,952	2,245	242,324

TABLE 5

Public Employees Retirement Fund
SURVIVORS AS OF JUNE 30, 1995

AGE	YEARS SINCE DEATH							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	17	63	48	15	5	1	1	150
50-54	13	51	33	12	13	2	1	125
55-59	14	97	65	42	13	5	2	238
60-64	13	110	161	72	31	9	9	405
65-69	5	112	276	268	62	30	32	785
70-74	4	46	229	394	143	42	53	911
75-79	1	31	88	328	308	94	78	928
80-84	4	35	50	106	265	178	147	785
85+	12	56	95	97	155	225	293	933
ALL	83	601	1,045	1,334	995	586	616	5,260

AVERAGE ANNUAL BENEFIT

AGE	YEARS SINCE DEATH							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	6,161	5,641	5,451	8,684	6,133	3,267	3,465	5,930
50-54	3,644	6,927	7,361	10,143	5,551	11,778	4,777	6,926
55-59	4,340	7,075	8,564	10,128	8,505	5,278	5,643	7,888
60-64	6,191	6,048	8,349	10,830	8,924	6,648	3,974	8,004
65-69	3,930	5,177	8,375	11,035	7,626	5,608	3,954	8,454
70-74	2,821	3,670	6,518	8,582	7,625	6,532	3,252	7,235
75-79	4,500	4,237	6,153	7,520	7,158	6,490	3,246	6,693
80-84	3,787	4,127	5,209	6,016	6,214	6,644	3,506	5,608
85+	5,325	4,671	5,238	5,634	5,717	6,920	5,236	5,731
ALL	4,913	5,568	7,185	8,581	6,824	6,664	4,313	6,856

TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS SINCE DEATH								
AGE	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	408	3,346	7,508	11,447	6,790	3,905	2,657	36,063

TABLE 6

Public Employees Retirement Fund

DISABILITY RETIREMENTS AS OF JUNE 30, 1995

AGE	YEARS DISABLED							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	31	119	36	6	1			193
50-54	21	75	23	3	3			125
55-59	27	133	56	11	2	1		230
60-64	26	188	106	37	8	1		366
65-69	5	16	17	3	3	1		45
70-74								
75-79								
80-84								
85+								
ALL	110	531	238	60	17	3		959

AVERAGE ANNUAL BENEFIT

AGE	YEARS DISABLED							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	3,855	3,491	3,567	3,318	5,213			3,567
50-54	6,973	6,577	5,130	5,490	4,150			6,293
55-59	6,598	7,501	6,489	11,143	5,894	8,360		7,313
60-64	5,913	8,045	7,073	10,993	8,064	5,815		7,904
65-69	7,184	8,584	8,941	3,514	14,719	6,801		8,595
70-74								
75-79								
80-84								
85+								
ALL	5,761	6,697	6,350	9,604	8,124	6,992		6,712

TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS DISABLED

AGE	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	634	3,556	1,511	576	138	21		6,437

TABLE 7

Public Employees Retirement Fund

Reconciliation Of Members

	Actives	Terminated	
		Deferred Retirement	Other Non-Vested
A. ON JUNE 30, 1994	120,199	6,277	9,180
B. ADDITIONS	15,371	1,662	3,117
C. DELETIONS			
1. Service Retirement	(1,584)	(302)	(60)
2. Disability	(171)	(19)	(6)
3. Death	(203)	(12)	(17)
4. Terminated - Deferred	(1,651)	0	0
5. Terminated - Refund	(3,224)	0	(1,206)
6. Terminated - Other Non-Vested	(2,003)	0	0
7. Returned as Active	0	(207)	(784)
8. Transferred to Other Fund	0	0	0
D. DATA ADJUSTMENTS	(122)	(243)	(541)
Vested	90,530		
Non-Vested	36,082		
E. TOTAL ON JUNE 30, 1995	126,612	7,156	9,683

	Recipients		
	Retirement Annuitants	Disabled	Survivors
A. ON JUNE 30, 1994	30,414	871	5,091
B. ADDITIONS	2,058	216	427
C. DELETIONS			
1. Service Retirement	0	(75)	0
2. Death	(975)	(43)	(256)
3. Annuity Expired	0	0	0
4. Returned as Active	0	0	0
D. DATA ADJUSTMENTS	(10)	(10)	(2)
E. TOTAL ON JUNE 30, 1995	31,487	959	5,260

TABLE 8

Public Employees Retirement Fund

Actuarial Balance Sheet*(dollars in thousands)*

JULY 1, 1995

A. CURRENT ASSETS (TABLE 1, F6)				\$5,138,461
B. EXPECTED FUTURE ASSETS				
1. Present Value of Expected Future Statutory Supplemental Contributions (See Table 11)				\$1,105,822
2. Present Value of Future Normal Costs				1,525,324
3. Total Expected Future Assets				<u>\$2,631,146</u>
C. TOTAL CURRENT AND EXPECTED FUTURE ASSETS				<u>\$7,769,607</u>
D. CURRENT BENEFIT OBLIGATIONS	Non-Vested	Vested	Total	
1. Benefit Recipients				
a. Retirement Annuities		\$2,673,474	\$2,673,474	
b. Disability Benefits		63,416	63,416	
c. Surviving Spouse and Child Benefits		350,388	350,388	
2. Deferred Retirements with Future Augmentation		79,170	79,170	
3. Former Members without Vested Rights		3,895	3,895	
4. Active Members				
a. Retirement Annuities	11,710	2,048,743	2,060,453	
b. Disability Benefits	150,727	0	150,727	
c. Survivor's Benefits	46,393	0	46,393	
d. Deferred Retirements	8,749	522,736	531,485	
e. Refund Liability Due to Death or Withdrawal	0	35,091	35,091	
5. Total Current Benefit Obligations	<u>\$217,579</u>	<u>\$5,776,913</u>	<u>\$5,994,492</u>	
E. EXPECTED FUTURE BENEFIT OBLIGATIONS				<u>\$2,152,901</u>
F. TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS				<u>\$8,147,393</u>
G. CURRENT UNFUNDED ACTUARIAL LIABILITY (D5-A)				\$856,031
H. CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)				\$377,786

TABLE 9

Public Employees Retirement Fund

**Determination Of Unfunded Actuarial Accrued Liability (UAAL)
And Supplemental Contribution Rate**
(dollars in thousands)

JULY 1, 1995

	Actuarial Present Value of Projected Benefits (1)	Actuarial Present Value of Future Normal Costs (2)	Actuarial Accrued Liability (3)=(1)-(2)
A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)			
1. Active Members			
a. Retirement Annuities	\$3,650,738	\$864,825	\$2,785,913
b. Disability Benefits	279,564	112,835	166,729
c. Survivor's Benefit	80,740	30,753	49,987
d. Deferred Retirements	895,649	455,833	439,816
e. Refunds Due to Death or Withdrawal	70,359	61,078	9,281
f. Total	<u>\$4,977,050</u>	<u>\$1,525,324</u>	<u>\$3,451,726</u>
2. Deferred Retirements With Future Augmentation	79,170		79,170
3. Former Members Without Vested Rights	3,895		3,895
4. Annuitants in MPRIF	2,900,042		2,900,042
5. Recipients Not in MPRIF	<u>187,236</u>		<u>187,236</u>
6. Total	<u>\$8,147,393</u>	<u>\$1,525,324</u>	<u>\$6,622,069</u>
B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)			
1. AAL (A6)			\$6,622,069
2. Current Assets (Table 1, F6)			<u>5,138,461</u>
3. UAAL (B1-B2)			<u>\$1,483,608</u>
C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE			
1. Present Value of Future Payrolls Through the Amortization Date of July 1, 2020			\$53,764,903
2. Supplemental Contribution Rate (B3/C1)			2.76%

TABLE 10

Public Employees Retirement Fund

Changes In Unfunded Actuarial Accrued Liability (UAAL)
(dollars in thousands)

YEAR ENDING JUNE 30, 1995

A. UAAL AT BEGINNING OF YEAR	\$1,476,494
B. CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING	
1. Normal Cost and Expenses	\$190,171
2. Contribution	(239,969)
3. Interest on A, B1 and B2	123,386
4. Total (B1+B2+B3)	\$73,588
C. EXPECTED UAAL AT END OF YEAR (A+B4)	\$1,550,082
D. INCREASE (DECREASE) DUE TO ACTUARIAL LOSSES (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED	
1. Salary Increases	\$1,734
2. Investment Return	(50,279)
3. MPRIF Mortality	252
4. Mortality of Other Benefit Recipients	(3,479)
5. Other Items	(14,702)
6. Total	(\$66,474)
E. UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTION (C+D6)	\$1,483,608
F. CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO PLAN AMENDMENTS	0
G. CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS	0
H. UAAL AT END OF YEAR (E+F+G)	\$1,483,608

Public Employees Retirement Fund

Determination Of Contribution Sufficiency
(dollars in thousands)

JULY 1, 1995

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 353		
1. Employee Contributions	4.31%	\$126,321
2. Employer Contributions	4.60%	134,962
3. Total	8.91%	\$261,283
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	3.88%	\$113,770
b. Disability benefits	0.49%	14,235
c. Survivors	0.13%	3,745
d. Deferred Retirement Benefits	1.92%	56,171
e. Refunds Due to Death or Withdrawal	0.26%	7,685
f. Total	6.68%	\$195,606
2. Supplemental Contribution Amortization by July 1, 2020 of UAAL	2.76%	80,895
3. Allowance for Expenses	0.17%	4,983
4. Total	9.61%	\$281,484
C. CONTRIBUTION SUFFICIENCY (DEFICIENCY) [A3-B4]	-0.70%	(\$20,201)

Note: Projected Annual Payroll for Fiscal Year Beginning on JULY 1, 1995 is \$2,930,993.

Public Employees Retirement Fund

Summary of Actuarial Assumptions and Methods

Interest:	Pre-Retirement: 8.5% per annum Post-Retirement: 5.0% per annum
Salary Increases:	Reported salary for prior fiscal year, with new hires annualized, increased to current fiscal year and annually for each future year according to the rate table below.
Mortality:	Pre-Retirement: Male - 1983 Group Annuity Mortality Table for males setback five years. Female - 1983 Group Annuity Mortality Table for females setback five years. Post-Retirement: Male - 1983 Group Annuity Mortality Table for males set forward one year. Female - 1983 Group Annuity Mortality Table for females set forward one year. Post-Disability: Male - 1965 RRB rates Female - 1965 RRB rates
Retirement Age:	Age 64 or if over age 64, one year from valuation date. In addition, 50% of employees are assumed to retire under the Rule of 90 when first eligible.
Separation:	Graded rates based on experience as of June 30, 1990. Rates are shown in rate table.
Disability:	Rates as shown in rate table.
Administrative and Investment Expenses:	Prior year expenses expressed as percentage of prior year payroll.
Return of Contributions:	All employees withdrawing after becoming eligible for a deferred benefit take the larger of their contributions accumulated with interest or the value of their deferred benefit.

TABLE 12
(Continued)

Family Composition:	85% of male Members and 65% of female Members are assumed to be married. Female is four years younger than male. Assume Members have no children.
Social Security:	N/A
Benefit Increases After Retirement:	Payment of earnings on retired reserves in excess of 5% accounted for by 5% post-retirement assumptions.
Special Consideration:	Married Members assumed to elect subsidized joint and survivor form of annuity as follows: Males - 30% elect 50% J&S option 45% elect 100% J&S option Females - 15% elect 50% J&S option 15% elect 100% J&S option
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method with normal costs expressed as a level percentage of earnings. Under this method, Actuarial Gains (Losses) reduce (increase) the Unfunded Actuarial Accrued Liability.
Asset Valuation Method:	Cost Value plus one-third Unrealized Gains or Losses.
Payment on the Unfunded Actuarial Accrued Liability:	A level percentage of payroll each year to the statutory amortization date assuming payroll increases of 6% per annum.

TABLE 12
(Continued)

Public Employees Retirement Fund

Summary of Actuarial Assumptions and Methods

Separation Expressed as Number of Occurrences Per 10,000:

Age	Pre-Retirement Death		Withdrawal		Disability		Retirement		Salary Increases
	Male	Female	Male	Female	Male	Female	Male	Female	
20	3	1	2,542	2,913	9	9	0	0	7.7%
21	3	1	2,277	2,666	9	9	0	0	7.7
22	3	2	2,050	2,450	9	9	0	0	7.7
23	4	2	1,854	2,259	10	10	0	0	7.7
24	4	2	1,684	2,091	10	10	0	0	7.7
25	4	2	1,536	1,942	10	10	0	0	7.6
26	4	2	1,406	1,808	10	10	0	0	7.51
27	4	2	1,291	1,688	10	10	0	0	7.39
28	4	2	1,189	1,580	11	11	0	0	7.30
29	4	2	1,099	1,482	11	11	0	0	7.2
30	5	3	1,018	1,394	11	11	0	0	7.2
31	5	3	945	1,313	11	11	0	0	7.1
32	5	3	880	1,239	11	11	0	0	7.1
33	5	3	821	1,172	12	12	0	0	7.0
34	6	3	767	1,110	12	12	0	0	7.0
35	6	3	719	1,053	12	12	0	0	6.9
36	7	4	675	1,000	12	12	0	0	6.8
37	7	4	634	952	13	13	0	0	6.7
38	8	4	597	907	13	13	0	0	6.6
39	9	4	563	865	14	14	0	0	6.5
40	9	5	532	826	15	15	0	0	6.4
41	10	5	503	790	16	16	0	0	6.3
42	10	5	476	756	17	17	0	0	6.3
43	11	6	452	724	18	18	0	0	6.3
44	12	6	429	695	20	20	0	0	6.2
45	14	7	408	667	22	22	0	0	6.2
46	15	7	388	641	23	23	0	0	6.09
47	17	8	370	616	25	25	0	0	6.0
48	19	8	352	593	27	27	0	0	5.9
49	22	9	336	571	30	30	0	0	5.8

TABLE 12
(Continued)

Public Employees Retirement Fund

Summary of Actuarial Assumptions and Methods

Separation Expressed as Number of Occurrences Per 10,000:

<u>Age</u>	<u>Pre-Retirement Death</u>		<u>Withdrawal</u>		<u>Disability</u>		<u>Retirement</u>		<u>Salary Increases</u>
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	
50	22	10	321	550	33	33	0	0	5.7%
51	25	11	316	531	36	36	0	0	5.7
52	28	12	310	513	40	40	0	0	5.7
53	31	14	270	495	45	45	0	0	5.7
54	35	15	230	487	51	51	0	0	5.7
55	39	16	195	478	58	58	0	0	5.7
56	43	18	150	410	66	66	0	0	5.7
57	48	19	100	362	76	76	0	0	5.7
58	52	21	50	210	88	88	0	0	5.7
59	57	23	20	50	102	102	0	0	5.0
60	61	25	0	0	118	118	0	0	5.0
61	66	28	0	0	136	136	0	0	5.0
62	71	31	0	0	157	157	0	0	5.0
63	77	34	0	0	181	181	0	0	5.0
64	83	38	0	0	208	208	10,000	10,000	5.0
65	91	42	0	0	0	0	0	0	5.0
66	101	47	0	0	0	0	0	0	5.0
67	111	52	0	0	0	0	0	0	5.0
68	124	58	0	0	0	0	0	0	5.0
69	139	64	0	0	0	0	0	0	5.0
70	156	71	0	0	0	0	0	0	5.0

TABLE 3A
BASIC

Public Employees Retirement Fund
ACTIVE MEMBERS AS OF JUNE 30, 1995

<u>AGE</u>	<u>YEARS OF SERVICE</u>								<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	
<25									
25-29									
30-34									
35-39									
40-44						1	1		2
45-49						2	104	14	120
50-54						1	278	200	479
55-59						4	268	331	603
60-64						2	162	99	263
65+							56	44	100
ALL						10	869	688	1,567

AVERAGE ANNUAL EARNINGS

<u>AGE</u>	<u>YEARS OF SERVICE</u>								<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	
<25									
25-29									
30-34									
35-39									
40-44						36,412	37,739		37,076
45-49						18,606	35,400	34,788	35,049
50-54						33,562	38,906	39,645	39,203
55-59						33,338	34,847	37,949	36,540
60-64						33,502	28,062	32,866	29,912
65+							20,464	26,307	23,035
ALL						30,754	34,023	36,902	35,266

<u>PRIOR FISCAL YEAR EARNINGS (IN THOUSANDS) BY YEARS OF SERVICE</u>									
<u>AGE</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
ALL						308	29,566	25,389	55,262

TABLE 4A
BASIC

Public Employees Retirement Fund

SERVICE RETIREMENTS AS OF JUNE 30, 1995

AGE	YEARS RETIRED							ALL
	<1	1-4	5-9	10-14	15-19	20-24	25+	
<50		1						1
50-54		6	1					7
55-59	80	319	13					412
60-64	93	775	365	3				1,236
65-69	67	795	1,019	380				2,261
70-74	6	173	1,245	1,238	35	1		2,698
75-79	2	27	211	1,834	471	13		2,558
80-84	1	3	17	314	1,393	157	4	1,889
85+		2	5	17	216	806	306	1,352
ALL	249	2,101	2,876	3,786	2,115	977	310	12,414

AVERAGE ANNUAL BENEFIT

AGE	YEARS RETIRED							ALL
	<1	1-4	5-9	10-14	15-19	20-24	25+	
<50		3,581						3,581
50-54		7,669	9,894					7,987
55-59	21,348	19,909	14,267					20,010
60-64	16,125	19,777	17,412	14,951				18,792
65-69	14,829	14,627	15,759	21,402				16,282
70-74	12,818	14,419	12,895	16,725	12,157	12,930		14,740
75-79	8,951	11,051	12,227	11,324	12,415	13,972		11,608
80-84	12,055	18,416	14,193	10,524	9,268	11,142	6,886	9,688
85+		4,307	5,856	6,573	7,511	7,325	6,760	7,208
ALL	17,301	17,236	14,435	14,017	9,837	8,033	6,762	13,360

TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS RETIRED								
AGE	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
ALL	4,307	36,212	41,515	53,068	20,805	7,848	2,096	165,851

**TABLE 5A
BASIC**

Public Employees Retirement Fund

SURVIVORS AS OF JUNE 30, 1995

AGE	YEARS SINCE DEATH							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	2	6	16	9	4	1	1	39
50-54		16	13	8	11	2	1	51
55-59		30	30	29	10	5	2	106
60-64	2	29	79	50	27	9	9	205
65-69		37	129	189	52	26	32	465
70-74		12	94	258	112	40	53	569
75-79	1	25	46	204	236	81	78	671
80-84	4	33	43	73	192	145	145	635
85+	12	53	92	89	133	194	287	860
ALL	21	241	542	909	777	503	608	3,601

AVERAGE ANNUAL BENEFIT

AGE	YEARS SINCE DEATH							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	17,722	15,377	9,844	11,548	7,591	3,267	3,465	10,929
50-54		12,558	12,335	12,500	6,370	11,778	4,777	10,974
55-59		13,480	14,170	13,051	10,086	5,278	5,643	12,703
60-64	15,063	12,425	12,773	13,806	9,837	6,648	3,974	11,956
65-69		9,098	13,240	13,563	8,713	5,874	3,954	11,485
70-74		5,334	10,379	11,001	8,920	6,761	3,252	9,349
75-79	4,500	4,656	8,426	9,787	8,304	7,026	3,246	7,879
80-84	3,787	4,302	5,755	7,877	7,149	7,301	3,509	6,173
85+	5,325	4,710	5,365	5,824	6,250	7,487	5,266	5,954
ALL	7,101	8,160	10,266	10,742	7,828	7,190	4,322	8,267

TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS SINCE DEATH								
AGE	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	149	1,966	5,564	9,764	6,082	3,616	2,627	29,769

**TABLE 6A
BASIC**

Public Employees Retirement Fund
DISABILITY RETIREMENTS AS OF JUNE 30, 1995

<u>AGE</u>	<u>YEARS DISABLED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50					1			1
50-54	3	9	3		1			16
55-59	2	18	11	5	1	1		38
60-64	1	35	26	22	6	1		91
65-69		4	6		3	1		14
70-74								
75-79								
80-84								
85+								
ALL	6	66	46	27	12	3		160

AVERAGE ANNUAL BENEFIT

<u>AGE</u>	<u>YEARS DISABLED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50					5,213			5,213
50-54	18,701	20,259	16,530		6,908			18,433
55-59	16,349	21,505	16,021	17,245	8,598	8,360		18,400
60-64	18,435	20,238	17,729	16,331	9,988	5,815		17,723
65-69		14,078	14,960		14,719	6,801		14,074
70-74								
75-79								
80-84								
85+								
ALL	17,873	20,213	16,881	16,500	10,400	6,992		17,557

<u>TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS DISABLED</u>								
<u>AGE</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL	107	1,334	776	445	124	20		2,809

TABLE 11A
Basic

Public Employees Retirement Fund

Determination Of Contribution Sufficiency
(dollars in thousands)

JULY 1, 1995

	<u>Percent of Payroll</u>	<u>Dollar Amount</u>
A. STATUTORY CONTRIBUTIONS - CHAPTER 353		
1. Employee Contributions	8.23%	\$4,802
2. Employer Contributions	10.73%	6,261
3. Total	<u>18.96%</u>	<u>\$11,063</u>
 B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	4.75%	\$2,769
b. Disability benefits	0.77%	449
c. Survivors	0.53%	310
d. Deferred Retirement Benefits	3.44%	2,006
e. Refunds Due to Death or Withdrawal	0.01%	4
f. Total	<u>9.50%</u>	<u>\$5,538</u>

Note: Projected Annual Payroll for Fiscal Year Beginning on JULY 1, 1995 is \$58,353.

Public Employees Retirement Fund

Summary of Plan Provisions

GENERAL

<i>Eligibility:</i>	A public employee who is not covered under the Social Security Act. General exceptions are employees covered by other public funds and certain part-time employees.
<i>Contributions:</i>	
<i>Member:</i>	8.23% of salary.
<i>Employer:</i>	10.73% of salary.
<i>Allowable Service:</i>	Service during which Member contributions were deducted. May also include certain leaves of absence and military service.
<i>Salary:</i>	Includes amounts deducted for deferred compensation or supplemental retirement plans, net income from fees and sick leave payments funded by the employer. Excludes unused annual leave and sick leave payments, severance payments, Workers' Compensation benefits and employer-paid flexible spending accounts, cafeteria plans, healthcare expense accounts, day-care expenses, fringe benefits and the cost of insurance coverage.
<i>Average Salary:</i>	Average of the five highest successive years of salary. Average salary is based on all Allowable Service if less than five years.

RETIREMENT

Normal Retirement Benefit:

<i>Eligibility:</i>	Age 65 and three years of Allowable Service. Proportionate Retirement Annuity is available at age 65 and one year of Allowable Service.
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Early Retirement Benefit:

- Eligibility:*** Age 55 and three years of Allowable Service.
Any age with 30 years of Allowable Service.
Rule of 90: Age plus Allowable Service totals 90.
- Amount:*** The greater of
2% of average salary for each of the first 10 years of Allowable Service and 2.5% of average salary for each subsequent year with reduction of 0.25% for each month the Member is under age 65 at time of retirement or age 62 if 30 years of Allowable Service. No reduction if age plus years of Allowable Service totals 90;
OR
2.5% of average salary for each year of Allowable Service assuming augmentation to age 65 at 3% per year and actuarial reduction for each month the Member is under age 65.
- Form of Payment:*** Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are:

50% or 100% joint and survivor with bounce back feature without additional reduction (option canceled if Member is predeceased by beneficiary).
- Benefit Increases:*** Benefits may be increased each January 1 depending on the investment performance of the Minnesota Post Retirement Investment Fund (MPRIF). (Note: The MPRIF methodology for this increase will change effective 1/1/94.) A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Members receiving benefits for at least one full month but less than 12 full months will receive a partial increase.

Benefit Increases: (continued) Members retired under laws in effect before July 1, 1973 receive an additional lump-sum payment each year. In 1989, this lump-sum payment is the greater of \$25 times each full year of Allowable Service or the difference between \$400 times each full year of Allowable Service and the sum of the benefits paid from any Minnesota public pension plan plus cash payments from the Social Security Administration for the preceding fiscal year July 1, 1988 through June 30, 1989. In each following year, the lump-sum payment will increase by the same percentage increase that is applied to regular annuities paid from MPRIF.

DISABILITY

Disability Benefit:

Eligibility: Total and permanent disability before normal retirement age with three years of Allowable Service.

Amount: Normal Retirement Benefit based on Allowable Service and average salary at disability without reduction for commencement before normal retirement age. Supplemental benefit of \$25 per month payable to the later of the normal retirement age or the 5-year anniversary at commencement of disability. The disability benefit is reduced to that amount which, when added to Workers' Compensation, does not exceed the salary the disabled Member received as of the date of the disability or the salary currently payable for the same employment position substantially similar to the one the person held as of the date of the disability, whichever is greater.

Payments stop if disability ceases. If death occurs prior to age 65 or within five years of disability, the surviving spouse can receive a refund or a survivor benefit. Dependent children are entitled to dependent child benefits subject to the 70% family maximum. Payments change to a retirement annuity at normal retirement age. Benefits may be reduced on resumption of partial employment.

Form of Payment: Same as for retirement.

Benefit Increases: Adjusted by PERA to provide same increase as MPRIF.

Retirement After Disability

Eligibility: Normal retirement age.

Amount: Any optional annuity continues. Otherwise, the larger of the disability benefit paid before normal retirement age or the normal retirement benefit available at normal retirement age, or an actuarially equivalent optional annuity.

Benefit Increases: Same as for retirement.

DEATH

Surviving Spouse Benefit

Eligibility: Active Member with 18 months of Allowable Service or Member receiving a disability benefit.

Amount: 50% of salary averaged over last six months. Family benefit is maximum of 70% and minimum of 50% of average salary. Benefit paid until spouse's death but no payments while spouse is remarried prior to July 1, 1991.

Surviving spouse optional annuity may be elected in lieu of this benefit.

Surviving Dependent Child Benefit

Eligibility: Active Member with 18 months of Allowable Service or Member receiving a disability benefit.

Amount: 10% of salary averaged over last six months for each child. Family benefit minimum (including spouse's benefit) of 50% of salary and maximum of 70% of average salary. Benefits paid until child marries, dies, or attains age 18 (age 22 if full-time student.)

Surviving Spouse Optional Annuity

Eligibility: Member or former Member who dies before retirement benefits commence and other survivor annuity is waived by spouse.

Amount: Survivor's payment of the 100% joint and survivor benefit the Member could have elected if terminated or an actuarial equivalent term certain annuity. If commencement is prior to age 65 (age 62 if 30 years of service), the benefit is reduced same as early retirement with half the applicable reduction factor used from age 55 to the actual commencement age. If no surviving spouse, then an actuarial equivalent dependent child benefit is paid to age 20 or for five years if longer.

Benefit Increases: Adjusted by PERA to provide same increase as MPRIF.

Refund of Contributions

Eligibility: Member dies before receiving any retirement benefits and survivor benefits are not payable.

Amount: The excess of the Member's contributions with 6% interest over any disability or survivor benefits paid.

TERMINATION

Refund of Contributions

<i>Eligibility:</i>	Termination of public service.
<i>Amount:</i>	Member's contributions with 5% interest compounded annually if termination occurred before May 16, 1989 and 6% interest if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund if three or more years of Allowable Service.

Deferred Benefit

<i>Eligibility:</i>	Three years of Allowable Service.
<i>Amount:</i>	Benefit computed under law in effect at termination and increased by the following percentage compounded annually: 0% before 7/1/71; 5% from 7/1/71 to 1/1/81; and 3% thereafter until January 1 of the year following attainment of age 55 and 5% thereafter until the annuity begins. Amount is payable as a normal or early retirement.

SUMMARY OF SIGNIFICANT CHANGES

None

**TABLE 3B
COORDINATED**

Public Employees Retirement Fund
ACTIVE MEMBERS AS OF JUNE 30, 1995

<u>AGE</u>	<u>YEARS OF SERVICE</u>								<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	
<25	1,808	1,797	39	1					3,645
25-29	2,159	5,630	1,457	45				1	9,292
30-34	1,916	5,862	4,407	1,437	92				13,714
35-39	2,229	7,106	5,387	2,974	1,994	71		1	19,762
40-44	1,805	7,113	6,146	3,333	3,259	1,330	40	1	23,027
45-49	2,298	6,218	5,795	3,334	3,011	2,136	542	5	23,339
50-54	586	2,572	3,276	2,557	2,460	1,604	760	54	13,869
55-59	372	1,616	2,007	1,683	2,006	1,590	670	143	10,087
60-64	216	874	1,199	990	1,120	1,026	475	62	5,962
65+	150	566	630	335	314	259	87	7	2,348
ALL	13,539	39,354	30,343	16,689	14,256	8,016	2,574	274	125,045

AVERAGE ANNUAL EARNINGS

<u>AGE</u>	<u>YEARS OF SERVICE</u>								<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	
<25	9,083	12,367	15,869	14,121					10,776
25-29	11,497	18,014	22,917	23,334				19,298	17,295
30-34	11,523	18,796	26,360	26,735	25,881				21,090
35-39	10,589	16,854	25,490	30,499	29,438	29,817		16,107	21,871
40-44	10,569	15,840	23,552	30,009	33,674	33,062	31,838	7,653	23,082
45-49	8,807	15,712	22,220	27,611	32,861	37,820	39,234	22,463	23,131
50-54	11,275	15,922	21,549	24,286	27,648	33,403	39,086	41,120	24,066
55-59	9,645	14,773	20,420	22,801	24,477	26,902	32,948	42,216	22,485
60-64	8,943	12,927	18,860	21,167	23,371	25,100	29,484	48,619	21,091
65+	6,875	9,346	12,864	16,564	19,182	18,925	24,084	35,021	14,157
ALL	10,296	16,399	23,178	26,918	29,397	31,672	35,128	42,600	21,691

<u>PRIOR FISCAL YEAR EARNINGS (IN MILLIONS) BY YEARS OF SERVICE</u>									
<u>AGE</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
ALL	139	645	703	449	419	254	90	12	2,712

**TABLE 4B
COORDINATED**

Public Employees Retirement Fund
SERVICE RETIREMENTS AS OF JUNE 30, 1995

<u>AGE</u>	<u>YEARS RETIRED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50								
50-54		1						1
55-59	296	619	2					917
60-64	720	1,824	558					3,102
65-69	498	3,253	1,950	123				5,824
70-74	86	841	2,918	810	4			4,659
75-79	15	178	676	1,698	145			2,712
80-84	2	28	89	463	738	15		1,335
85+	1	4	20	53	144	263	38	523
ALL	1,618	6,748	6,213	3,147	1,031	278	38	19,073

AVERAGE ANNUAL BENEFIT

<u>AGE</u>	<u>YEARS RETIRED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50								
50-54		13,550						13,550
55-59	4,015	4,166	10,240					4,131
60-64	4,628	4,998	2,775					4,512
65-69	4,596	4,398	3,933	4,886				4,270
70-74	3,343	3,882	3,540	5,187	4,312			3,885
75-79	3,199	2,911	2,886	3,563	4,665			3,408
80-84	910	1,915	1,711	2,944	4,085	8,641		3,532
85+	19,445	1,198	1,139	1,370	3,556	3,708	3,921	3,357
ALL	4,429	4,425	3,492	3,905	4,094	3,974	3,921	4,010

TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS RETIRED

<u>AGE</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL	7,166	29,859	21,695	12,289	4,220	1,104	148	76,482

**TABLE 5B
COORDINATED**

**Public Employees Retirement Fund
SURVIVORS AS OF JUNE 30, 1995**

<u>AGE</u>	<u>YEARS SINCE DEATH</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	15	57	32	6	1			111
50-54	13	35	20	4	2			74
55-59	14	67	35	13	3			132
60-64	11	81	82	22	4			200
65-69	5	75	147	79	10	4		320
70-74	4	34	135	136	31	2		342
75-79		6	42	124	72	13		257
80-84		2	7	33	73	33	2	150
85+		3	3	8	22	31	6	73
ALL	62	360	503	425	218	83	8	1,659

AVERAGE ANNUAL BENEFIT

<u>AGE</u>	<u>YEARS SINCE DEATH</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	4,620	4,617	3,255	4,389	305			4,174
50-54	3,644	4,354	4,129	5,429	1,051			4,137
55-59	4,340	4,208	3,760	3,610	3,238			4,022
60-64	4,578	3,765	4,087	4,067	2,763			3,955
65-69	3,930	3,244	4,106	4,989	1,977	3,886		4,050
70-74	2,821	3,083	3,831	3,995	2,948	1,956		3,719
75-79		2,492	3,664	3,792	3,402	3,157		3,599
80-84		1,246	1,858	1,902	3,755	3,758	3,299	3,220
85+		3,998	1,356	3,531	2,501	3,373	3,806	3,106
ALL	4,173	3,833	3,867	3,960	3,250	3,483	3,679	3,794

<u>TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS SINCE DEATH</u>								
<u>AGE</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL	258	1,379	1,945	1,683	708	289	29	6,294

**TABLE 6B
COORDINATED**

Public Employees Retirement Fund

DISABILITY RETIREMENTS AS OF JUNE 30, 1995

<u>AGE</u>	<u>YEARS DISABLED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	31	119	36	6				192
50-54	18	66	20	3	2			109
55-59	25	115	45	6	1			192
60-64	25	153	80	15	2			275
65-69	5	12	11	3				31
70-74								
75-79								
80-84								
85+								
ALL	104	465	192	33	5			799

AVERAGE ANNUAL BENEFIT

<u>AGE</u>	<u>YEARS DISABLED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	3,855	3,491	3,567	3,318				3,559
50-54	5,019	4,712	3,420	5,490	2,772			4,511
55-59	5,818	5,310	4,159	6,059	3,191			5,119
60-64	5,413	5,256	3,610	3,165	2,293			4,656
65-69	7,184	6,753	5,659	3,514				6,121
70-74								
75-79								
80-84								
85+								
ALL	5,063	4,779	3,828	3,962	2,664			4,541

<u>TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS DISABLED</u>								
<u>AGE</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL	526	2,222	734	130	13			3,628

Public Employees Retirement Fund

Determination Of Contribution Sufficiency
(dollars in thousands)

JULY 1, 1995

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 353		
1. Employee Contributions	4.23%	\$121,519
2. Employer Contributions	4.48%	128,701
3. Total	8.71%	\$250,220
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	3.86%	\$111,001
b. Disability benefits	0.48%	13,786
c. Survivors	0.12%	3,434
d. Deferred Retirement Benefits	1.89%	54,165
e. Refunds Due to Death or Withdrawal	0.27%	7,681
f. Total	6.62%	\$190,067

Note: Projected Annual Payroll for Fiscal Year Beginning on JULY 1, 1995 is \$2,872,790.

Public Employees Retirement Fund

Summary of Plan Provisions

GENERAL

<i>Eligibility</i>	A public employee who is covered under the Social Security Act. General exceptions are employees covered by other public funds and certain part-time employees. City managers and persons holding elective office may choose to become Members.
<i>Contributions</i>	
<i>Member:</i>	4.23% of salary.
<i>Employer:</i>	4.48% of salary.
<i>Allowable Service:</i>	Service during which Member contributions were deducted. May also include certain leaves of absence and military service.
<i>Salary:</i>	Includes amounts deducted for deferred compensation or supplemental retirement plans, net income from fees and sick leave payments funded by the employer. Excludes unused annual leave and sick leave payments, severance payments, Workers' Compensation benefits and employer-paid flexible spending accounts, cafeteria plans, healthcare expense accounts, day-care expenses, fringe benefits and the cost of insurance coverage.
<i>Average Salary:</i>	Average of the five highest successive years of salary. Average salary is based on all Allowable Service if less than five years.

RETIREMENT

Normal Retirement Benefit

<i>Eligibility:</i>	First hired before July 1, 1989: Age 65 and three years of Allowable Service. Proportionate Retirement Annuity is available at age 65 and one year of Allowable Service.
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Eligibility:
(Continued)

First hired after June 30, 1989:

The greater of age 65 or the age eligible for full Social Security retirement benefits and three years of Allowable Service. Proportionate Retirement Annuity is available at normal retirement age and one year of Allowable Service.

Amount: 1.5% of Average salary for each year of Allowable Service.

Early Retirement Benefit

Eligibility:

First hired before July 1, 1989:

Age 55 and three years of Allowable Service. Any age with 30 years of Allowable Service. Rule of 90: Age plus Allowable Service totals 90.

First hired after June 30, 1989:

Age 55 with three years of Allowable Service.

Amount:

First hired before July 1, 1989:

The greater of

1% of average salary for each of the first 10 years of Allowable Service and 1.5% of average salary for each subsequent year with reduction of 0.25% for each month the Member is under age 65 at time of retirement or age 62 if 30 years of Allowable Service. No reduction if age plus years of Allowable Service totals 90;

OR

1.5% of average salary for each year of Allowable Service assuming augmentation to age 65 at 3% per year and actuarial reduction for each month the Member is under age 65.

First hired after June 30, 1989:

1.5% of average salary for each year of allowable Service assuming augmentation to the age eligible for full Social Security retirement benefits at 3% per year and actuarial reduction for each month the Member is under the Social Security retirement age.

Form of Payment: Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are:

50% or 100% joint and survivor with bounce back feature without additional reduction (option canceled if Member is predeceased by beneficiary).

Benefit Increases: Benefits may be increased each January 1 depending on the investment performance of the Minnesota Post Retirement Investment Fund (MPRIF). A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Benefit recipients receiving benefits for at least one full month but less than 12 full months will receive a partial increase.

Members retired under laws in effect before July 1, 1973 receive an additional lump-sum payment each year. In 1989, this lump-sum payment is \$25 times each full year of Allowable Service. In each following year, the lump-sum payment will increase by the same percentage increase that is applied to regular annuities paid from MPRIF.

DISABILITY

Disability Benefit

Eligibility: Total and permanent disability before normal retirement age with three years of Allowable Service.

Amount: Normal Retirement Benefit based on Allowable Service and average salary at disability without reduction for commencement before normal retirement age. The disability benefit is reduced to that amount which, when added to Workers' Compensation, does not exceed the salary the disabled Member received as of the date of the disability or the salary currently payable for the same employment position substantially similar to the one the person held as of the date of the disability, whichever is greater.

Amount: Payments stop if disability ceases or death occurs. Payments change to a retirement annuity at normal retirement age. Benefits may be reduced on resumption of partial employment.

Form of Payment: Same as for retirement.

Benefit Increases: Adjusted by PERA to provide same increase as MPRIF.

Retirement After Disability

Eligibility: Normal retirement age.

Amount: Any optional annuity continues. Otherwise, the larger of the disability benefit paid before normal retirement age or the normal retirement benefit available at normal retirement age, or an actuarially equivalent optional annuity.

Benefit Increases: Same as for retirement.

DEATH

Surviving Spouse Optional Annuity

Eligibility: Member or former Member who dies before retirement or disability benefits commence.

Amount: Survivor's payment of the 100% joint and survivor benefit the Member could have elected if terminated or an actuarial equivalent term certain annuity. If commencement is prior to age 65 (age 62 if 30 years of service), the benefit is reduced same as early retirement with half the applicable reduction factor used from age 55 to the actual commencement age. If no surviving spouse, then an actuarial equivalent dependent child benefit is paid to age 20 or for five years if longer.

Benefit Increases: Adjusted by PERA to provide same increase as MPRIF.

Refund of Contributions

<i>Eligibility:</i>	Member dies before receiving any retirement benefits and survivor benefits are not payable.
<i>Amount:</i>	The excess of the Member's contributions with 6% interest over any disability or survivor benefits paid.

TERMINATION

Refund of Contributions

<i>Eligibility:</i>	Termination of public service.
<i>Amount:</i>	Member's contributions with 5% interest compounded annually if termination occurred before May 16, 1989 and 6% interest if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund if three or more years of Allowable Service.

Deferred Benefit

<i>Eligibility:</i>	Three years of Allowable Service.
<i>Amount:</i>	Benefit computed under law in effect at termination and increased by the following percentage compounded annually: 0% before 7/1/71; 5% from 7/1/71 to 1/1/81; and 3% thereafter until January 1 of the year following attainment of age 55 and 5% thereafter until the annuity begins. Amount is payable as a normal or early retirement.

SUMMARY OF SIGNIFICANT CHANGES

None

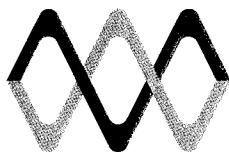
Public Employees Police and Fire Fund
ACTUARIAL VALUATION REPORT

July 1, 1995

 **FILE COPY**

MILLIMAN & ROBERTSON, INC.

LCP & R NOV 13 1995



MILLIMAN & ROBERTSON, INC.

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Chairman Emeritus

November 10, 1995

Legislative Commission on
Pensions and Retirement
55 State Office Building
St. Paul, Minnesota 55155

RE: Public Employees Police and Fire Fund


Commission Members:


Pursuant to the terms of our Actuarial Services Contract, we have performed an actuarial valuation of the Fund as of July 1, 1995.

The results of our calculations are set forth in the following report, as are the actuarial assumptions upon which our calculations have been made. We have relied on the basic employee data and asset figures as submitted by the Public Employees Retirement Association.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with the requirements of Section 356.215, Minnesota Statutes, and the requirements of the Standards for Actuarial Work, adopted by the Commission on July 8, 1992.

Respectfully submitted,


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Public Employees Police and Fire Fund

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Public Employees Police and Fire Fund

Report Highlights
(dollars in thousands)

	07/01/94 Valuation	07/01/95 Valuation
A. CONTRIBUTIONS (Table 11)		
1. Statutory Contributions - Chapter 353 % of Payroll	19.00%	19.00%
2. Required Contributions - Chapter 356 % of Payroll	17.28%	16.49%
3. Sufficiency (Deficiency): (A.1. - A.2.)	<u>1.72%</u>	<u>2.51%</u>
B. FUNDING RATIOS		
1. Accrued Benefit Funding Ratio		
a. Current Assets (Table 1)	\$1,234,961	\$1,385,901
b. Current Benefit Obligations (Table 8)	<u>\$1,020,950</u>	<u>\$1,113,225</u>
c. Funding Ratio: (a/b)	120.96%	124.49%
2. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	\$1,234,961	\$1,385,901
b. Actuarial Accrued Liability (Table 9)	<u>\$1,099,221</u>	<u>\$1,196,795</u>
c. Funding Ratio: (a/b)	112.35%	115.80%
3. Projected Benefit Funding Ratio (Table 8)		
a. Current and Expected Future Assets	\$1,959,463	\$2,154,949
b. Current and Expected Future Benefit Obligations	<u>\$1,858,416</u>	<u>\$2,002,817</u>
c. Funding Ratio: (a/b)	105.44%	107.60%
C. PLAN PARTICIPANTS		
1. Active Members		
a. Number (Table 3)	7,043	7,380
b. Projected Annual Earnings	\$295,299	\$313,885
c. Average Annual Earnings (Actual \$)	\$41,928	\$42,532
d. Average Age	38.3	38.4
e. Average Service	10.5	10.5
2. Others		
a. Service Retirements (Table 4)	1,347	1,435
b. Survivors (Table 5)	411	426
c. Disability Retirements (Table 6)	116	146
d. Deferred Retirements (Table 7)	234	250
e. Terminated Other Non-vested (Table 7)	<u>140</u>	<u>141</u>
f. Total	2,248	2,398

Public Employees Police and Fire Fund

Commentary

Purpose

The purpose of this valuation is to determine the financial status of the Plan. In order to achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by Section 356.215 of Minnesota Statutes.

Report Highlights

The financial status of the Plan can be measured by three different funding ratios:

- ° The Accrued Benefit Funding Ratio is a measure of current funding status and, when viewed over a period of years, presents a view of the funding progress. It is based upon benefits which have been earned by service to the valuation date. This year's ratio is 124.49%. The corresponding ratio for the prior year was 120.96%.
- ° The Accrued Liability Funding Ratio is also a measure of funding status and funding progress. It is based on the actuarial cost method that has historically been used by the State. For 1995 the ratio is 115.80%, which is an increase from the 1994 value of 112.35%.
- ° The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 107.60% verifies that the current statutory contributions are sufficient.

Asset Information (Tables 1 and 2)

Minnesota Statutes require that the asset value used for actuarial purposes recognize only a third of the unrealized gains and losses. This requirement exists because market values (which include all unrealized gain and losses) are typically volatile and can produce erratic changes in the contribution requirements from year to year.

The calculation of the Actuarial Value of Assets is shown in Table 1 on lines F1 to F6. It combines the cost value of the Assets Available for Benefits and one-third of the difference between the market value and cost value of those assets.

The term "Actuarial Value of Assets" is used to indicate that the value was determined for use in this actuarial valuation. Since Minnesota Statutes refer to this value as "Current Assets", the latter phrase will be used in the remainder of this report.

This Plan participates in the Minnesota Post Retirement Investment Fund (i.e. MPRIF). After the MPRIF liability has been calculated for each participating Plan, the State Board of Investments, (i.e. SBI), will determine each Plan's portion of the excess earnings for the January benefit increase as well as the Plan's allocated market share of MPRIF.

Actuarial Balance Sheet (Table 8)

An actuarial balance sheet provides a method for evaluating current and future levels of funding.

The Current Benefit Obligation used to measure current funding levels is calculated in accordance with Statement No. 5 of the Governmental Accounting Standards Board (GASB). Those requirements are:

- ° For Active Members - salary and service are projected to retirement to determine benefits for each member and the ratio of credited service to total service establishes the portion of the projected benefit to be used in calculating the current funding level.
- ° For Non-active Members - the discounted value of benefits, including augmentation in cases where benefits have not commenced.

GASB Disclosure

The Current Benefit Obligation amounts in Table 8 are required to be disclosed by Statement No. 5 of the Governmental Accounting Standards Board (GASB). However, Statement No. 5 uses the terms "Actuarial Present Value of Credited Projected Benefits" and "Pension Benefit Obligation" rather than "Current Benefit Obligation".

The JULY 1, 1995 Pension Benefit Obligation reported in Table 8 is reformatted for GASB reporting purposes in the following table:

Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$409,004,000
Current Employees	
Accumulated employee contributions including allocated investment income	\$189,976,000
Employer-financed vested	377,322,000
Employer-financed nonvested	<u>136,923,000</u>
Total Pension Benefit Obligation	\$1,113,225,000
Net Assets Available for Benefits at Cost	\$1,356,179,000
Total Benefit Obligation less Assets	(\$242,954,000)
Funded Ratio	121.82%

Actuarial Cost Method (Table 9)

The approach used by the State of Minnesota to determine contribution sufficiency is the Entry Age Normal Actuarial Cost Method. The primary characteristic of this method is that it allocates costs as a level percentage of payroll.

A comparison of this actuarial method (Table 9) to the actuarial balance sheet (Table 8) illustrates the two techniques for allocating liabilities of active Members to past and future. As noted in the prior section, the balance sheet allocates benefits and the corresponding liabilities, on the basis of service. The method used in Table 9 allocates liabilities so that the cost each year will be a constant percentage of payroll. Both approaches, however, calculate the value of all future benefits the same way (see line F of Table 8 and line A6, column 1, of Table 9).

An Unfunded Actuarial Accrued Liability is computed under the Entry Age Normal Actuarial Cost Method by comparing the liabilities allocated to past service (Actuarial Accrued Liability) to the Current Assets. This amount, line B3, is funded over the remaining years to the amortization date by a series of payments that remain a constant percentage of payroll each year.

The payments will increase 6.50% each year because that is the assumed rate of increase in payroll. Although the payment schedule will be adequate to amortize the existing unfunded, the lower payments in the earlier years will not be sufficient to cover the interest on the unfunded liability. After a few years, the annual payment will cover the interest and also repay a portion of the unfunded.

Sources of Actuarial Gains and Losses (Table 10)

The assumptions used in making the calculations using the Entry Age Normal Actuarial Cost Method are based on long-term expectations. Each year the actual experience will deviate from the long-term expectation. For a detailed analysis of the major components, refer to Table 10.

Contribution Sufficiency (Table 11)

This report determines the adequacy of Statutory Contributions by comparing the Statutory Contributions to the Required Contributions.

The Required Contributions, set forth in Chapter 356, consist of:

- ° Normal costs based on the Entry Age Normal Actuarial Cost Method.
- ° A Supplemental Contribution for amortizing any Unfunded Actuarial Accrued Liability.
- ° An Allowance for Expenses.

Table 11 shows the Plan has a contribution sufficiency since the Statutory Contribution Rate is 19.00% compared to the Required Contribution Rate of 16.49%.

) ***Changes in Actuarial Assumptions***

There were no changes in actuarial assumptions since the last valuation.

Changes in Plan Provisions

There were no changes in plan provisions since the last valuation which impacted funding costs.

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TABLE 1

Public Employees Police and Fire Fund

Accounting Balance Sheet*(dollars in thousands)*

JULY 1, 1995

	<u>Market Value</u>	<u>Cost Value</u>
A. ASSETS		
1. Cash, Equivalents, Short-term Securities	\$13,174	\$13,174
2. Investments		
a. Fixed Income	317,082	308,308
b. Equity	730,117	647,744
c. Real Estate	45,896	47,877
3. Equity in Minnesota Post-Retirement Investment Fund (MPRIF)	339,181	339,181
4. Other	<u>91</u>	<u>91</u>
B. TOTAL ASSETS	<u>\$1,445,541</u>	<u>\$1,356,375</u>
C. AMOUNTS CURRENTLY PAYABLE	\$196	\$196
D. ASSETS AVAILABLE FOR BENEFITS		
1. Member Reserves	\$196,185	\$196,185
2. Employer Reserves	909,979	820,813
3. MPRIF Reserves	339,181	339,181
4. Non-MPRIF Reserves	<u>0</u>	<u>0</u>
5. Total Assets Available for Benefits	<u>\$1,445,345</u>	<u>\$1,356,179</u>
E. TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS	<u>\$1,445,541</u>	<u>\$1,356,375</u>
<hr/>		
F. DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
1. Cost Value of Assets Available for Benefits (D5)		\$1,356,179
2. Market Value (D5)	\$1,445,345	
3. Cost Value (D5)	<u>1,356,179</u>	
4. Market Over Cost: (F2-F3)	\$89,166	
5. 1/3 of Market Over Cost: (F4)/3		29,722
6. Actuarial Value of Assets (F1+F5) (Same as "Current Assets")		<u>\$1,385,901</u>

TABLE 2

Public Employees Police and Fire Fund

Change In Assets Available For Benefits
(dollars in thousands)

YEAR ENDING JUNE 30, 1995

	Market Value	Cost Value
A. ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$1,245,346	\$1,229,769
B. OPERATING REVENUES		
1. Member Contributions	\$22,356	\$22,356
2. Employer Contributions	33,548	33,548
3. Investment Income	78,811	78,811
4. MPRIF Income	26,472	26,472
5. Net Realized Gain (Loss)	0	0
6. Other	32	32
7. Net Change in Unrealized Gain (Loss)	73,589	0
8. Total Revenue	\$234,808	\$161,219
C. OPERATING EXPENSES		
1. Service Retirements	\$27,331	\$27,331
2. Disability Benefits	2,473	2,473
3. Survivor Benefits	2,348	2,348
4. Refunds	592	592
5. Investment Fees	1,550	1,550
6. Administrative Expenses	344	344
7. Other	171	171
8. Total Disbursements	\$34,809	\$34,809
D. OTHER CHANGES IN RESERVES	0	0
E. ASSETS AVAILABLE AT END OF PERIOD	\$1,445,345	\$1,356,179

TABLE 3

Public Employees Police and Fire Fund
ACTIVE MEMBERS AS OF JUNE 30, 1995

AGE	YEARS OF SERVICE								ALL
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	
<25	92	82							174
25-29	190	661	228						1,079
30-34	83	473	761	190					1,507
35-39	27	227	470	507	204	2			1,437
40-44	26	83	207	296	517	168			1,297
45-49	30	48	78	132	271	419	77		1,055
50-54	4	21	34	49	77	148	203	15	551
55-59	2	14	17	12	24	46	61	23	199
60-64	1	3	9	7	10	14	22	7	73
65+	1	1	2		1	1	1	1	8
ALL	456	1,613	1,806	1,193	1,104	798	364	46	7,380

AVERAGE ANNUAL EARNINGS

AGE	YEARS OF SERVICE								ALL
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	
<25	18,801	25,874							22,134
25-29	21,080	33,037	39,075						32,207
30-34	21,827	34,185	42,192	42,509					38,597
35-39	24,205	34,321	42,400	45,271	43,709	44,771			41,984
40-44	29,618	32,691	41,062	44,785	45,227	44,440			43,244
45-49	21,762	31,178	40,203	42,691	44,271	46,302	47,401		43,572
50-54	32,531	36,468	31,036	36,401	40,268	45,790	48,492	52,648	44,004
55-59	22,126	39,192	31,687	36,296	39,672	42,676	47,847	49,525	42,915
60-64	12,537	20,284	36,877	33,337	31,707	29,937	44,957	49,446	37,123
65+	43,480	13,325	5,563		42,407	25,601	34,269	39,314	26,190
ALL	21,608	33,179	41,261	43,901	44,120	45,289	47,900	50,309	39,954

PRIOR FISCAL YEAR EARNINGS (IN THOUSANDS) BY YEARS OF SERVICE									
AGE	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	ALL
ALL	9.853	53.518	74.517	52.374	48.709	36.141	17.436	2.314	294.861

TABLE 4

Public Employees Police and Fire Fund
SERVICE RETIREMENTS AS OF JUNE 30, 1995

<u>AGE</u>	<u>YEARS RETIRED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50								
50-54	22	23						45
55-59	70	198	7					275
60-64	21	119	176					316
65-69	12	54	123	114				303
70-74	2	7	71	88	62			230
75-79		2	7	54	61	20		144
80-84			3	6	48	28		85
85+			3		5	20	9	37
ALL	127	403	390	262	176	68	9	1,435

AVERAGE ANNUAL BENEFIT

<u>AGE</u>	<u>YEARS RETIRED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50								
50-54	16,318	19,084						17,732
55-59	24,587	21,386	13,834					22,009
60-64	18,935	19,063	20,273					19,728
65-69	23,038	15,890	19,586	21,794				19,895
70-74	19,331	14,419	16,750	18,067	16,704			17,193
75-79		23,384	13,969	12,934	18,072	11,854		15,156
80-84			11,085	8,090	14,111	11,931		12,861
85+			7,785		11,580	10,518	8,328	9,907
ALL	21,991	19,721	19,020	18,402	16,325	11,493	8,328	18,613

<u>TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS RETIRED</u>								
<u>AGE</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL	2,792	7,947	7,417	4,821	2,873	781	74	26,709

TABLE 5

Public Employees Police and Fire Fund
SURVIVORS AS OF JUNE 30, 1995

AGE	YEARS SINCE DEATH							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	4	24	18	9	3			58
50-54	1	7	3	4	3	1		19
55-59	1	6	13	5	3	1	1	30
60-64	1	7	10	11	10	2	2	43
65-69		8	17	25	12	6	3	71
70-74		1	10	23	17	8	3	62
75-79			5	12	23	13	8	61
80-84		2	5	5	12	11	7	42
85+		5	3	5	8	10	9	40
ALL	7	60	84	99	91	52	33	426

AVERAGE ANNUAL BENEFIT

AGE	YEARS SINCE DEATH							ALL
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	13,100	19,030	14,989	14,731	11,054			16,287
50-54	17,282	14,739	12,154	15,582	12,116	9,959		13,976
55-59	5,400	13,088	17,756	14,389	11,134	4,616	2,739	14,249
60-64	17,130	19,212	15,967	15,265	9,978	9,188	2,650	14,015
65-69		8,052	14,766	12,598	10,147	6,472	3,098	11,272
70-74		5,952	13,066	10,009	10,565	8,414	2,775	10,033
75-79			6,643	11,528	9,626	8,209	3,513	8,652
80-84		4,317	6,101	3,097	7,310	6,105	3,963	5,649
85+		4,873	5,853	6,179	4,956	4,346	4,941	5,010
ALL	13,173	14,605	13,806	11,764	9,372	6,854	3,817	10,864

TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS SINCE DEATH								
AGE	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	92	876	1,159	1,164	852	356	125	4,628

TABLE 6

Public Employees Police and Fire Fund
DISABILITY RETIREMENTS AS OF JUNE 30, 1995

<u>AGE</u>	<u>YEARS DISABLED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	8	36	24	2	1			71
50-54	7	17	17	7	3	1		52
55-59	5	12			1			18
60-64	2	2						4
65-69		1						1
70-74								
75-79								
80-84								
85+								
ALL	22	68	41	9	5	1		146

AVERAGE ANNUAL BENEFIT

<u>AGE</u>	<u>YEARS DISABLED</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	18,906	15,322	15,921	12,363	9,617			15,765
50-54	22,906	21,293	16,833	16,321	16,158	7,259		18,817
55-59	26,615	20,400			18,785			22,037
60-64	19,103	9,321						14,212
65-69		8,800						8,800
70-74								
75-79								
80-84								
85+								
ALL	21,949	17,439	16,299	15,441	15,375	7,259		17,535

<u>TOTAL ANNUAL BENEFIT (IN THOUSANDS) BY YEARS DISABLED</u>								
<u>AGE</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL	482	1,185	668	138	76	7		2,560

TABLE 7

Public Employees Police and Fire Fund

Reconciliation Of Members

	Actives	Terminated	
		Deferred Retirement	Other Non-Vested
A. ON JUNE 30, 1994	7,043	234	140
B. ADDITIONS	565	53	36
C. DELETIONS			
1. Service Retirement	(97)	(19)	(5)
2. Disability	(23)	(4)	(1)
3. Death	(5)	0	(1)
4. Terminated - Deferred	(52)	0	0
5. Terminated - Refund	(27)	0	(20)
6. Terminated - Other Non-Vested	(24)	0	0
7. Returned as Active	0	(10)	(11)
8. Transferred to Other Fund	0	0	0
D. DATA ADJUSTMENTS	0	(4)	3
Vested	6,010		
Non-Vested	1,370		
E. TOTAL ON JUNE 30, 1995	7,380	250	141

	Recipients		
	Retirement Annuitants	Disabled	Survivors
A. ON JUNE 30, 1994	1,347	116	411
B. ADDITIONS	132	33	31
C. DELETIONS			
1. Service Retirement	0	(3)	0
2. Death	(41)	(1)	(14)
3. Annuity Expired	0	0	0
4. Returned as Active	0	0	0
D. DATA ADJUSTMENTS	(3)	1	(2)
E. TOTAL ON JUNE 30, 1995	1,435	146	426

TABLE 8

Public Employees Police and Fire Fund

Actuarial Balance Sheet*(dollars in thousands)*

JULY 1, 1995

A. CURRENT ASSETS (TABLE 1, F6)				\$1,385,901
B. EXPECTED FUTURE ASSETS				
1. Present Value of Expected Future Statutory Supplemental Contributions (See Table 11)				(\$36,974)
2. Present Value of Future Normal Costs				806,022
3. Total Expected Future Assets				<u>\$769,048</u>
C. TOTAL CURRENT AND EXPECTED FUTURE ASSETS				<u>\$2,154,949</u>
D. CURRENT BENEFIT OBLIGATIONS	Non-Vested	Vested	Total	
1. Benefit Recipients				
a. Retirement Annuities		\$314,063	\$314,063	
b. Disability Benefits		26,447	26,447	
c. Surviving Spouse and Child Benefits		54,830	54,830	
2. Deferred Retirements with Future Augmentation		13,476	13,476	
3. Former Members without Vested Rights		188	188	
4. Active Members				
a. Retirement Annuities	3,803	512,625	516,428	
b. Disability Benefits	68,385	0	68,385	
c. Survivor's Benefits	63,504	0	63,504	
d. Deferred Retirements	1,231	52,815	54,046	
e. Refund Liability Due to Death or Withdrawal	0	1,858	1,858	
5. Total Current Benefit Obligations	<u>\$136,923</u>	<u>\$976,302</u>	<u>\$1,113,225</u>	
E. EXPECTED FUTURE BENEFIT OBLIGATIONS				<u>\$889,592</u>
F. TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS				<u>\$2,002,817</u>
G. CURRENT UNFUNDED ACTUARIAL LIABILITY (D5-A)				(\$272,676)
H. CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)				(\$152,132)

TABLE 9

Public Employees Police and Fire Fund

**Determination Of Unfunded Actuarial Accrued Liability (UAAL)
And Supplemental Contribution Rate**
(dollars in thousands)

JULY 1, 1995

	Actuarial Present Value of Projected Benefits (1)	Actuarial Present Value of Future Normal Costs (2)	Actuarial Accrued Liability (3)=(1)-(2)
A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)			
1. Active Members			
a. Retirement Annuities	\$1,215,588	\$554,548	\$661,040
b. Disability Benefits	142,316	87,888	54,428
c. Survivor's Benefit	129,087	78,783	50,304
d. Deferred Retirements	102,702	81,936	20,766
e. Refunds Due to Death or Withdrawal	4,119	2,867	1,252
f. Total	<u>\$1,593,812</u>	<u>\$806,022</u>	<u>\$787,790</u>
2. Deferred Retirements With Future Augmentation	13,476		13,476
3. Former Members Without Vested Rights	188		188
4. Annuitants in MPRIF	339,181		339,181
5. Recipients Not in MPRIF	<u>56,160</u>		<u>56,160</u>
6. Total	<u>\$2,002,817</u>	<u>\$806,022</u>	<u>\$1,196,795</u>
B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)			
1. AAL (A6)			\$1,196,795
2. Current Assets (Table 1, F6)			<u>1,385,901</u>
3. UAAL (B1-B2)			<u>(\$189,106)</u>
C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE			
1. Present Value of Future Payrolls Through the Amortization Date of July 1, 2020			\$6,061,255
2. Supplemental Contribution Rate (B3/C1)			-3.12%

TABLE 10

Public Employees Police and Fire Fund

Changes In Unfunded Actuarial Accrued Liability (UAAL)
(dollars in thousands)

YEAR ENDING JUNE 30, 1995

A. UAAL AT BEGINNING OF YEAR	(\$135,738)
B. CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING	
1. Normal Cost and Expenses	\$57,843
2. Contribution	(55,904)
3. Interest on A, B1 and B2	(11,455)
4. Total (B1+B2+B3)	(\$9,516)
C. EXPECTED UAAL AT END OF YEAR (A+B4)	(\$145,254)
D. INCREASE (DECREASE) DUE TO ACTUARIAL LOSSES (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED	
1. Salary Increases	(\$12,956)
2. Investment Return	(21,891)
3. MPRIF Mortality	(516)
4. Mortality of Other Benefit Recipients	125
5. Other Items	(8,614)
6. Total	(\$43,852)
E. UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTION (C+D6)	(\$189,106)
F. CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO PLAN AMENDMENTS	0
G. CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS	0
H. UAAL AT END OF YEAR (E+F+G)	(\$189,106)

TABLE 11

Public Employees Police and Fire Fund

Determination Of Contribution Sufficiency*(dollars in thousands)*

JULY 1, 1995

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 353		
1. Employee Contributions	7.60%	\$23,855
2. Employer Contributions	11.40%	35,783
3. Total	19.00%	\$59,638
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	13.44%	\$42,197
b. Disability benefits	2.12%	6,661
c. Survivors	1.97%	6,177
d. Deferred Retirement Benefits	1.89%	5,928
e. Refunds Due to Death or Withdrawal	0.07%	213
f. Total	19.49%	\$61,176
2. Supplemental Contribution Amortization by July 1, 2020 of UAAL	-3.12%	(9,793)
3. Allowance for Expenses	0.12%	377
4. Total	16.49%	\$51,760
C. CONTRIBUTION SUFFICIENCY (DEFICIENCY) [A3-B4]	2.51%	\$7,878

Note: Projected Annual Payroll for Fiscal Year Beginning on JULY 1, 1995 is \$313,885.

Public Employees Police and Fire Fund

Summary of Actuarial Assumptions and Methods

Interest:	Pre-Retirement: 8.5% per annum Post-Retirement: 5% per annum
Salary Increases:	Reported salary for prior fiscal year, with new hires annualized, increased 6.5% to current fiscal year and 6.5% annually for each future year.
Mortality:	Pre-Retirement: Male - 1971 Group Annuity Mortality Table male rates projected to 1984 by Scale D Female - 1971 Group Annuity Mortality Table female rates projected to 1984 by Scale D Post-Retirement: Male - Same as above Female - Same as above Post-Disability: Male - 1965 RRB rates Female - 1965 RRB rates
Retirement Age:	Age 60, or if over age 60, one year from the valuation date.
Separation:	Graded rates based on plan experience as of June 30, 1989. Rates are shown in rate table.
Disability:	Rates as shown in rate table.
Expenses:	Prior year expenses expressed as percentage of prior year payroll.
Return of Contributions:	All employees withdrawing after becoming eligible for a deferred benefit were assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit.
Family Composition:	85% of male Members and 65% of female Members are assumed to be married. Female is four years younger than male. Assume Members have no children.

TABLE 12
(Continued)

<i>Social Security:</i>	N/A
<i>Benefit Increases After Retirement:</i>	Payment of earnings on retired reserves in excess of 5% accounted for by 5% post-retirement assumption.
<i>Special Consideration:</i>	Married Members assumed to elect subsidized joint and survivor form of annuity as follows: <div style="margin-left: 40px;"> Males - 40% elect 50% J&S option 45% elect 100% J&S option Females - 15% elect 50% J&S option 15% elect 100% J&S option </div>
<i>Actuarial Cost Method:</i>	Entry Age Normal Actuarial Cost Method with normal costs expressed as a level percentage of earnings. Under this method, Actuarial Gains (Losses) reduce (increase) the Unfunded Actuarial Accrued Liability.
<i>Asset Valuation Method:</i>	Cost Value plus one-third Unrealized Gains or Losses.
<i>Payment on the Unfunded Actuarial Accrued Liability:</i>	A level percentage of payroll each year to the statutory amortization date assuming payroll increases of 6.5% per annum.

TABLE 12
(Continued)

Public Employees Police and Fire Fund

Summary of Actuarial Assumptions and Methods

Separations Expressed as the Number of Occurrences per 10,000:

<u>Age</u>	<u>Death</u>		<u>Withdrawal</u>		<u>Disability</u>		<u>Retirement</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
20	5	2	859	859	11	11	0	0
21	5	2	750	750	11	11	0	0
22	5	2	660	660	12	12	0	0
23	5	3	583	583	12	12	0	0
24	5	3	519	519	13	13	0	0
25	6	3	463	463	13	13	0	0
26	6	3	416	416	14	14	0	0
27	6	3	374	374	14	14	0	0
28	7	3	339	339	14	14	0	0
29	7	4	307	307	15	15	0	0
30	7	4	280	280	16	16	0	0
31	8	4	256	256	16	16	0	0
32	8	4	234	234	17	17	0	0
33	9	5	215	215	17	17	0	0
34	10	5	198	198	18	18	0	0
35	10	5	183	183	19	19	0	0
36	11	6	169	169	20	20	0	0
37	12	6	157	157	22	22	0	0
38	13	7	146	146	23	23	0	0
39	14	7	135	135	24	24	0	0
40	15	8	126	126	26	26	0	0
41	16	9	118	118	28	28	0	0
42	18	9	110	110	29	29	0	0
43	21	10	103	103	31	31	0	0
44	24	11	97	97	34	34	0	0
45	27	12	91	91	36	36	0	0
46	30	13	86	86	41	41	0	0
47	34	14	81	81	46	46	0	0
48	39	15	69	69	52	52	0	0
49	44	17	59	59	60	60	0	0

TABLE 12
(Continued)

Public Employees Police and Fire Fund

Summary of Actuarial Assumptions and Methods

Separations Expressed as the Number of Occurrences per 10,000:

<u>Age</u>	<u>Death</u>		<u>Withdrawal</u>		<u>Disability</u>		<u>Retirement</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	49	18	50	50	69	69	0	0
51	54	20	39	39	80	80	0	0
52	60	21	29	29	91	91	0	0
53	65	23	22	22	104	104	0	0
54	72	25	15	15	119	119	0	0
55	78	27	11	11	135	135	0	0
56	85	30	7	7	152	152	0	0
57	92	33	5	5	171	171	0	0
58	100	37	3	3	192	192	0	0
59	110	41	1	1	215	215	0	0
60	121	46	0	0	0	0	10,000	10,000
61	133	52	0	0	0	0	0	0
62	146	58	0	0	0	0	0	0
63	160	65	0	0	0	0	0	0
64	176	73	0	0	0	0	0	0
65	195	81	0	0	0	0	0	0
66	219	90	0	0	0	0	0	0
67	243	99	0	0	0	0	0	0
68	270	109	0	0	0	0	0	0
69	300	123	0	0	0	0	0	0
70	334	140	0	0	0	0	0	0

Public Employees Police and Fire Fund

Summary of Plan Provisions**GENERAL**

<i>Eligibility:</i>	All full-time and certain part-time, police officers and fire fighters, who are not contributing to any other local retirement fund.
<i>Contributions:</i>	
<i>Member:</i>	7.6% of salary. Beginning July 1, 1995, automatically adjusted downward after four continuous years of sufficiencies at or above .5% of salary.
<i>Employer:</i>	11.4% of salary. Beginning July 1, 1995, automatically adjusted downward after four continuous years of sufficiencies at or above .5% of salary.
<i>Allowable Service:</i>	Police and fire service during which Member contributions were deducted. May also include certain leaves of absence and military service.
<i>Salary:</i>	Includes amounts deducted for deferred compensation or supplemental retirement plans, net income from fees and sick leave payments funded by the employer. Excludes lump-sum annual leave and sick leave payments and Workers' Compensation benefits.
<i>Average Salary:</i>	Average of the five highest successive years of salary. Average salary is based on all Allowable Service if less than five years.

RETIREMENT*Normal Retirement Benefit:*

<i>Eligibility:</i>	Age 55 and three years of Allowable Service. Proportionate Retirement Annuity is available at age 65 and one year of Allowable Service.
<i>Amount:</i>	2.65% of average salary for each year of Allowable Service.

Early Retirement Benefit:

<i>Eligibility:</i>	Age 50 and three years of Allowable Service.
<i>Amount:</i>	Normal Retirement Benefit based on Allowable Service and average salary at retirement date assuming augmentation to age 55 at 3% per year and a 0.2%* reduction for each month the Member is under age 55.
<i>Form of Payment:</i>	Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are: 50% or 100% joint and survivor with bounce back feature without additional reduction.
<i>Benefit Increases:</i>	Benefits may be increased each January 1 depending on the investment performance of the Minnesota Post Retirement Investment Fund (MPRIF). (Note: The MPRIF methodology for this increase will change effective 1/1/94.) A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Benefit recipients receiving benefits for at least one full month but less than 12 full months will receive a partial increase. Members retired under law in effect before July 1, 1973 receive an additional lump-sum payment each year. In 1989, this lump-sum payment is the greater of \$25 times each full year of Allowable Service or the difference between \$400 times each full year of Allowable Service and the sum of the benefits paid from any Minnesota public pension plan plus cash payments from the Social Security Administration for the preceding fiscal year July 1, 1988 through June 30, 1989. In each following year, the lump-sum payment will increase by the same percentage increase that is applied to regular annuities paid from MPRIF.

*Effective July 1, 1996. Prior to that date, an actuarial reduction is used.

DISABILITY

Duty Disability Benefit:

<i>Eligibility:</i>	Physically or mentally unable to perform duties as a police officer or fire fighter as a direct result of an act of duty.
<i>Amount:</i>	53% of average salary plus 2.65% of average salary for each year in excess of 20 years of Allowable Service. The disability benefit is reduced to that amount which when added to Workers' Compensation and actual earnings, does not exceed salary or 125% of pay for an employee at same position. Payments change to retirement annuity at age 55.

Non-Duty Disability Benefits:

<i>Eligibility:</i>	Physically or mentally unable to perform duties as a police officer or fire fighter with one year of Allowable Service.
<i>Amount:</i>	Normal Retirement benefit based on Allowable Service (minimum of 15 years) and average salary at disability without reduction for commencement before age 55. Payments change to retirement annuity at age 55.
<i>Form of Payment:</i>	Same as for retirement.
<i>Benefit Increases:</i>	Adjusted by PERA to provide same increase as MPRIF.

Retirement Benefits:

<i>Eligibility:</i>	Age 55
<i>Amount:</i>	Any optional annuity continues. Otherwise, the larger of the disability benefit paid before age 55 or the normal retirement benefit available at age 55, or an actuarially equivalent optional annuity.
<i>Benefit Increases:</i>	Same as for retirement.

DEATH

Surviving Spouse Benefit:

<i>Eligibility:</i>	Active or Disabled Member with surviving spouse, married for at least one year unless death in the line of duty.
<i>Amount:</i>	50% of salary averaged over last six months. Benefit paid until spouse's death but no payments while spouse is remarried prior to July 1, 1991.

Surviving Dependent Child Benefit:

<i>Eligibility:</i>	Active or Disabled Member with dependent child.
<i>Amount:</i>	10% of salary averaged over last six months for each child. Family benefit minimum (including spouse's benefit) of 50% of salary and maximum of 70% of salary. Benefits paid until child marries, dies, or attains age 18 (age 23 if full-time student.)

Surviving Spouse Optional Annuity:

<i>Eligibility:</i>	Active or Disabled Member dies before age 55, benefits commence when Member would have been age 55 or as early as age 50 if qualified for early retirement except that benefits commence immediately if Member had 30 years of service.
<i>Amount:</i>	Survivor's payment of the 100% joint and survivor benefit the Member could have elected if terminated. Alternatively, spouse may elect refund of deceased's contributions with interest if there are no dependent children.
<i>Benefit Increases:</i>	Adjusted by PERA to provide same increase as MPRIF.

TERMINATION

Refund of Contributions:

<i>Eligibility:</i>	Termination of public service.
<i>Amount:</i>	Member's contributions with 5% interest compounded annually if termination occurred before May 16, 1989 and 6% interest if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund if three or more years of Allowable Service.

Deferred Annuity:

<i>Eligibility:</i>	Three years of Allowable Service.
<i>Amount:</i>	Benefit computed under law in effect at termination and increased by the following percentage compounded annually: 0% before 7/1/71; 5% from 7/1/71 to 1/1/81; and 3% thereafter until January of the year following attainment of age 55 and 5% thereafter until the annuity begins. Amount is payable as a normal or early retirement.

SUMMARY OF SIGNIFICANT CHANGES

1. Early retirement reduction factor was changed from actuarial equivalent to 2.4% for each year that retirement precedes age 55, effective as of July 1, 1996.