

Minneapolis Teachers' Retirement Fund
ACTUARIAL VALUATION REPORT

July 1, 1995

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Minneapolis Teachers' Retirement Fund
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December 27, 1995

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

Re: *Minneapolis Teachers' Retirement Fund*

Commission Members:

Pursuant the terms of our actuarial services contract, we have performed an actuarial valuation of the Minneapolis Teachers' Retirement 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 Minneapolis Teachers' 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 of Actuarial Work, adopted by the Commission on July 8, 1992.

Respectfully submitted,

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

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Minneapolis Teachers' Retirement Fund
Report Highlights
(dollars in thousands)

	July 1, 1994 Valuation	July 1, 1995 Valuation
A. CONTRIBUTIONS (Table 11)		
1. Statutory Contributions - Chapter 354A % of Payroll	19.16%	19.00%
2. Required Contributions - Chapter 356 % of Payroll	25.03%	25.18%
3. Sufficiency (Deficiency): (A1-A2)	(5.87)%	(6.18)%
B. FUNDING RATIOS		
1. Accrued Benefit Funding Ratio		
a. Current Assets (Table 1)	\$ 514,138	\$ 554,960
b. Current Benefit Obligations (Table 8)	\$ 874,233	\$ 963,977
c. Funding Ratio: (a/b)	58.81%	59.23%
2. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	\$ 514,138	\$ 554,960
b. Actuarial Accrued Liability (Table 9)	\$ 920,470	\$ 983,249
c. Funding Ratio: (a/b)	55.86%	56.44%
3. Projected Benefit Funding Ratio (Table 8)		
a. Current and Expected Future Assets	\$ 876,785	\$ 923,541
b. Current and Expected Future Benefit Obligations	\$ 1,109,037	\$ 1,173,787
c. Funding Ratio: (a/b)	79.06%	78.68%

Minneapolis Teachers' Retirement Fund

Report Highlights

(dollars in thousands)

	<u>July 1, 1994 Valuation</u>	<u>July 1, 1995 Valuation</u>
C. PLAN PARTICIPANTS		
1. Active Members		
a. Number (Table 3)	4,484	4,686
b. Projected Annual Earnings	\$ 165,789	\$ 174,473
c. Average Annual Earnings (Actual \$)	\$ 36,793	\$ 37,233
d. Average Age	43.1	43.3
e. Average Service	9.4	9.6
f. Additional Members on Leave of Absence *	109	92
2. Others		
a. Service Retirements (Table 4)	2,497	2,482
b. Disability Retirements (Table 5)	48	49
c. Survivors (Table 6)	219	225
d. Deferred Retirements (Table 7)	652	628
e. Terminated Other Non-Vested (Table 7)	671	895
f. Total	<u>4,087</u>	<u>4,279</u>

* Valued as deferred retirements, liability included with actives.

Minneapolis Teachers' Retirement Fund

Commentary

Purpose

The purpose of this valuation is to determine the financial status of the Plan. 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 59.23%. The corresponding ratio for the prior year was 58.81%.

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 56.44%, which is an increase from the 1994 value of 55.86%.

The *Projected Benefit Funding Ratio* is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 78.68% shows that the current statutory contributions are insufficient.

Asset Information (Tables 1 and 2)

Minnesota Statutes require that the asset value used for actuarial purposes recognize only one third of the unrealized gains and losses. This requirement exists because market values (which include all unrealized gains 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 F.1 to F.6. 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.

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 level 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	\$	528,683,000	
Current Employees			
Accumulated employee contributions including allocated investment income	\$	137,023,000	*
Employer-financed vested		244,136,000	
Employer-financed non-vested		27,135,000	
Total Pension Benefit Obligation	\$	936,977,000	
Net Assets Available for Benefits at Cost	\$	527,502,000	
Total Benefit Obligation less Assets	\$	409,475,000	
Funded Ratio		56.30%	

*Estimated

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 of 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 A.6, 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 B.3, 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 6.5% 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 an analysis of the major components of the Actuarial Gain or Loss 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 Fund has a contribution deficiency since the Statutory Contribution Rate is 19.00% compared to the Required Contribution Rate of 25.18%.

Changes in Actuarial Assumptions

All actuarial assumptions are the same as those used in the prior valuation. Table 12 contains a summary of actuarial assumptions and methods.

Changes in Plan Provisions

All Plan provisions are the same as those used in the prior valuation.

TABLE 1

Minneapolis Teachers' 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	\$ 60,816	\$ 60,816
2. Investments		
a. Fixed Income	142,526	140,901
b. Equity	345,603	265,339
c. Real Estate	51,969	51,969
3. Equity in Minnesota Post-Retirement Investment Fund (MPRIF)	0	0
4. Other	12,076	11,590
B. TOTAL ASSETS	<u>\$ 612,990</u>	<u>\$ 530,615</u>
C. AMOUNTS CURRENTLY PAYABLE	<u>\$ 3,113</u>	<u>\$ 3,113</u>
D. ASSETS AVAILABLE FOR BENEFITS		
1. Member Reserves	\$ 283,083	\$ 283,083
2. Employer Reserves	326,794	244,419
3. MPRIF Reserves	0	0
4. Non-MPRIF Reserves	0	0
5. Total Assets Available for Benefits	<u>\$ 609,877</u>	<u>\$ 527,502</u>
E. TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS	<u>\$ 612,990</u>	<u>\$ 530,615</u>
F. DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
1. Cost Value of Assets Available for Benefits (D5)		\$ 527,502
2. Market Value (D5)	\$ 609,877	
3. Cost Value (D5)	527,502	
4. Market Over Cost: (F2-F3)	<u>\$ 82,375</u>	
5. 1/3 of Market Over Cost: (F4)/3		27,458
6. Actuarial Value of Assets (F1+F5)		<u>\$ 554,960</u>

TABLE 2

Minneapolis Teachers' Retirement Fund
Change In Assets Available For Benefits
(dollars in thousands)

Year Ending June 30, 1995

	<u>Market Value</u>	<u>Cost Value</u>
A. ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$ 536,947	\$ 502,734
B. OPERATING REVENUES		
1. Member Contributions	\$ 10,470	\$ 10,470
2. Employer Contributions	16,271	16,271
3. Supplemental Contributions *	4,923	4,923
4. Investment Income	22,130	22,130
5. MPRIF Income	0	0
6. Net Realized Gain (Loss)	24,425	24,425
7. Other	0	0
8. Net Change in Unrealized Gain (Loss)	48,162	0
9. Total Revenue	<u>\$ 126,381</u>	<u>\$ 78,219</u>
C. OPERATING EXPENSES		
1. Service Retirements	\$ 46,128	\$ 46,128
2. Disability Benefits	762	762
3. Survivor Benefits	3,320	3,320
4. Refunds	477	477
5. Administrative Expenses	559	559
6. Investment Expenses	2,205	2,205
7. Total Disbursements	<u>\$ 53,451</u>	<u>\$ 53,451</u>
D. CHANGES IN ACCOUNTING METHOD	0	0
E. ASSETS AVAILABLE AT END OF PERIOD	<u>\$ 609,877</u>	<u>\$ 527,502</u>

* Includes contributions from School District Number 1, the city of Minneapolis and matching State contributions.

TABLE 3

Minneapolis Teachers' Retirement Fund
Active Members as of June 30, 1995

<u>AGE</u>	<u>YEARS OF SERVICE</u>								<u>TOTAL</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	57	12	-	-	-	-	-	-	69
25-29	159	315	4	-	-	-	-	-	478
30-34	134	338	139	24	-	-	-	-	635
35-39	66	234	132	79	5	-	-	-	516
40-44	56	231	179	93	48	16	-	-	623
45-49	49	241	178	114	93	163	123	-	961
50-54	21	121	99	73	55	90	268	31	758
55-59	9	52	59	48	34	48	115	52	417
60-64	4	24	26	8	20	25	37	20	164
65+	9	14	8	3	3	7	13	8	65
ALL	564	1,582	824	442	258	349	556	111	4,686

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	5,152	15,676	-	-	-	-	-	-	6,982
25-29	9,781	22,287	32,586	-	-	-	-	-	18,213
30-34	9,436	24,301	34,086	41,828	-	-	-	-	23,968
35-39	11,949	28,826	35,341	41,920	46,273	-	-	-	30,507
40-44	10,283	28,646	40,303	44,977	46,712	50,459	-	-	34,735
45-49	15,010	29,073	42,169	47,519	45,416	49,303	52,779	-	41,017
50-54	13,265	27,684	41,911	47,576	48,001	51,578	52,986	55,697	45,461
55-59	12,938	26,092	38,522	46,972	48,264	50,742	52,938	53,766	45,470
60-64	13,498	23,560	41,180	40,090	44,418	48,491	50,523	50,342	42,608
65+	26,143	7,876	19,907	45,686	45,832	50,662	53,144	48,046	33,988
ALL	10,457	26,026	38,720	45,478	46,528	50,110	52,770	53,276	34,960

PRIOR FISCAL YEAR EARNINGS (IN THOUSANDS) BY YEARS OF SERVICE

<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>TOTAL</u>
5,898	41,173	31,906	20,101	12,004	17,488	29,340	5,914	163,824

TABLE 4

Minneapolis Teachers' Retirement Fund
Service Retirements as of June 30, 1995

<u>AGE</u>	<u>YEARS RETIRED</u>							<u>TOTAL</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	-	-	-	-	-	-	-	0
50-54	3	31	-	-	-	-	-	34
55-59	5	151	32	-	-	-	-	188
60-64	6	214	134	31	-	-	-	385
65-69	3	124	224	105	20	-	-	476
70-74	-	21	104	201	77	15	-	418
75-79	-	-	28	105	140	20	2	295
80-84	-	-	1	26	134	97	17	275
85+	-	-	-	-	27	163	221	411
ALL	17	541	523	468	398	295	240	2,482

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	-	-	-	-	-	-	-	0
50-54	41,731	14,273	-	-	-	-	-	16,696
55-59	4,399	26,754	15,680	-	-	-	-	24,274
60-64	7,346	23,282	25,087	19,240	-	-	-	23,337
65-69	5,037	20,501	22,613	22,663	14,997	-	-	21,643
70-74	-	21,294	20,131	21,017	19,447	7,078	-	20,021
75-79	-	-	20,964	17,328	16,979	7,646	10,135	16,802
80-84	-	-	689	19,422	15,267	11,247	10,705	13,907
85+	-	-	-	-	14,994	12,394	11,366	12,012
ALL	12,140	23,020	22,199	20,352	16,646	11,425	11,309	18,737

TOTAL ANNUAL ANNUITY (IN THOUSANDS) BY YEARS RETIRED

<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>TOTAL</u>
206	12,454	11,610	9,525	6,625	3,370	2,714	46,504

TABLE 5

Minneapolis Teachers' Retirement Fund
Disability Retirements as of June 30, 1995

<u>AGE</u>	<u>YEARS DISABLED</u>							<u>TOTAL</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	-	2	-	-	-	6
50-54	-	3	-	-	-	-	-	3
55-59	-	1	1	1	1	-	-	4
60-64	-	2	3	1	-	-	-	6
65-69	-	1	-	2	2	1	-	6
70-74	-	-	-	1	2	1	-	4
75-79	-	-	-	-	1	8	3	12
80-84	-	-	-	-	-	3	3	6
85+	-	-	-	-	-	-	2	2
ALL	0	11	4	7	6	13	8	49

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	-	22,563	-	18,097	-	-	-	21,074
50-54	-	31,898	-	-	-	-	-	31,898
55-59	-	33,933	20,384	27,460	9,190	-	-	22,741
60-64	-	13,901	19,869	18,339	-	-	-	17,625
65-69	-	13,022	-	17,771	25,370	9,791	-	18,182
70-74	-	-	-	18,651	15,673	15,705	-	16,425
75-79	-	-	-	-	11,433	12,275	9,855	11,600
80-84	-	-	-	-	-	11,215	10,456	10,836
85+	-	-	-	-	-	-	4,962	4,962
ALL	0	23,700	19,998	19,455	17,118	12,103	8,857	16,485

TOTAL ANNUAL ANNUITY (IN THOUSANDS) BY YEARS DISABLED

<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>TOTAL</u>
0	261	80	136	103	157	71	808

TABLE 6

Minneapolis Teachers' Retirement Fund
Survivors as of June 30, 1995
YEARS SINCE MEMBER'S RETIREMENT *

<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>TOTAL</u>
<50	-	17	6	23	10	-	-	56
50-54	-	2	-	1	-	-	-	3
55-59	-	3	2	-	3	-	-	8
60-64	-	2	9	7	2	1	-	21
65-69	1	5	9	12	8	1	-	36
70-74	-	1	8	9	12	-	1	31
75-79	-	-	3	5	6	1	1	16
80-84	-	2	-	1	7	9	7	26
85+	-	1	-	1	3	5	18	28
ALL	1	33	37	59	51	17	27	225

AVERAGE ANNUAL BENEFIT
YEARS SINCE MEMBER'S RETIREMENT

<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>
<50	-	7,945	5,338	4,843	9,121	-	-	6,601
50-54	-	17,031	-	3,330	-	-	-	12,464
55-59	-	19,408	21,406	-	11,417	-	-	16,911
60-64	-	19,042	20,307	18,659	17,467	10,008	-	18,876
65-69	28,755	16,584	19,133	23,203	16,475	8,083	-	19,506
70-74	-	22,256	20,612	13,607	16,659	-	6,159	16,635
75-79	-	-	14,710	11,486	17,994	11,977	6,928	14,277
80-84	-	21,922	-	15,334	11,490	12,504	12,001	12,929
85+	-	16,867	-	6,994	11,940	16,001	11,955	12,674
ALL	28,755	13,070	17,266	12,305	14,045	13,095	11,566	13,672

**TOTAL ANNUAL ANNUITY (IN THOUSANDS) BY YEARS SINCE MEMBER'S
RETIREMENT**

<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>TOTAL</u>
29	431	639	726	716	223	312	3,076

* Due to insufficient data, this table is based upon the Member's date of retirement rather than the Member's date of death

TABLE 7

Minneapolis Teachers' Retirement Fund
Reconciliation of Members

	Actives*	Terminated	
		Deferred Retirement	Other Non-Vested
A. ON JUNE 30, 1994	4,593	652	671
B. ADDITIONS	637	47	360
C. DELETIONS			
1. Service Retirement	(29)	(20)	(14)
2. Disability	(2)	-	-
3. Death - Survivor	(2)	-	-
4. Death - Other	(1)	(1)	-
5. Terminated - Deferred	(33)	-	(14)
6. Terminated - Refund	(37)	(4)	(83)
7. Terminated - Other Non-Vested	(338)	(22)	-
8. Returned as Active	-	(20)	(22)
D. DATA ADJUSTMENTS	(10)	(4)	(3)
1. Vested	3,231		
2. Non-Vested	1,547		
E. TOTAL ON June 30, 1995	4,778	628	895

	Recipients		
	Retirement Annuitants	Disabled	Survivors
A. ON JUNE 30, 1994	2,497	48	219
B. ADDITIONS	72	2	14
C. DELETIONS			
1. Service Retirement	-	-	-
2. Death	(85)	(3)	(7)
3. Annuity Expired	-	-	(2)
4. Returned as Active	-	-	-
D. DATA ADJUSTMENTS	(2)	2	1
E. TOTAL ON June 30, 1995	2,482	49	225

* Includes 92 members on leave of absence.

TABLE 8

Minneapolis Teachers' Retirement Fund
Actuarial Balance Sheet
(dollars in thousands)

July 1, 1995

A.	CURRENT ASSETS (TABLE 1, F6)			\$	554,960
B.	EXPECTED FUTURE ASSETS				
1.	Present Value of Expected Future Statutory Supplemental Contributions				178,043
2.	Present Value of Future Normal Costs				190,538
3.	Total Expected Future Assets				<u>368,581</u>
C.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS			\$	<u>923,541</u>
D.	CURRENT BENEFIT OBLIGATIONS	Non-Vested	Vested		Total
1.	Benefit Recipients				
a.	Retirement Annuities	\$	\$ 479,730	\$	479,730
b.	Disability Benefits		9,237		9,237
c.	Surviving Spouse and Child Benefits		21,881		21,881
2.	Deferred Retirements With Future Augmentation		16,745		16,745
3.	Former Members Without Vested Rights		1,090		1,090
4.	Active Members				
a.	Retirement Annuities*	1,864	363,980		365,844
b.	Disability Benefits	15,656	0		15,656
c.	Survivors' Benefits	9,461	0		9,461
d.	Deferred Retirements	154	15,413		15,567
e.	Refund Liability Due to Death or Withdrawal	0	1,766		1,766
5.	Total Current Benefit Obligations	\$ <u>27,135</u>	\$ <u>909,842</u>	\$	<u>936,977</u>
E.	EXPECTED FUTURE BENEFIT OBLIGATIONS			\$	<u>236,810</u>
F.	TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS			\$	<u>1,173,787</u>
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY: (D5-A)			\$	382,017
H.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY: (F-C)			\$	250,246

* Includes members on leave of absence.

TABLE 9

Minneapolis Teachers' 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	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
	(1)	(2)	(3)
A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)			
1. Active Members			
a. Retirement Annuities*	\$ 576,445	\$ 150,216	\$ 426,229
b. Disability Benefits	26,912	12,528	14,384
c. Survivors' Benefits	14,961	5,836	9,125
d. Deferred Retirements	22,842	14,947	7,895
e. Refunds Due to Death or Withdrawal	3,944	7,011	(3,067)
f. Total	<u>\$ 645,104</u>	<u>\$ 190,538</u>	<u>\$ 454,566</u>
2. Deferred Retirements With Future Augmentation	16,745		16,745
3. Former Members Without Vested Rights	1,090		1,090
4. Annuitants in MPRIF	0		0
5. Recipients Not in MPRIF	510,848		510,848
6. Total	<u><u>\$ 1,173,787</u></u>	<u><u>\$ 190,538</u></u>	<u><u>\$ 983,249</u></u>
B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)			
1. AAL: (A6)			\$ 983,249
2. Current Assets (Table 1, F6)			554,960
3. UAAL: (B1-B2)			<u><u>\$ 428,289</u></u>
C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE			
1. Present Value of Future Payrolls Through the Amortization Date of July 1, 2020			\$ 3,367,790
2. Supplemental Contribution Rate: (B3/C1)			12.72%

* Includes members on leave of absence

TABLE 10

Minneapolis Teachers' Retirement Fund
Changes in Unfunded Actuarial Accrued Liability (UAAL)
(dollars in thousands)

Year Ending June 30, 1995

A.	UAAL AT BEGINNING OF YEAR	\$ 406,332
B.	CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING	
1.	Normal Cost and Expenses	\$ 21,094
2.	Contribution	(31,664)
3.	Interest on A, B1 and B2	34,985
4.	Total: (B1+B2+B3)	\$ 24,415
C.	EXPECTED UAAL AT END OF YEAR: (A+B4)	\$ 430,747
D.	INCREASE (DECREASE) DUE TO ACTUARIAL LOSSES (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED	
1.	Salary Increases	\$ (4,435)
2.	Investment Return	(19,833)
3.	MPRIF Mortality	0
4.	Mortality of Other Benefit Recipients	(807)
5.	Other Items	22,617
6.	Total	\$ (2,458)
E.	UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTIONS: (C+D5)	\$ 428,289
F.	CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO PLAN AMENDMENTS	
G.	CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS	0
H.	UAAL AT END OF YEAR: (E+F+G)	\$ 428,289

TABLE 11

Minneapolis Teachers' Retirement Fund
Determination of Contribution Sufficiency
(dollars in thousands)

July 1, 1995

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	6.16%	\$ 10,753
2. Employer Contributions	9.80%	17,104
3. Supplemental Contribution *	2.87%	5,000
4. Administrative Expense Assessment **	0.17%	297
5. Total	<u>19.00%</u>	<u>\$ 33,154</u>
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	9.62%	\$ 16,792
b. Disability Benefits	0.77%	1,336
c. Survivors' Benefits	0.37%	645
d. Deferred Retirement Benefits	0.94%	1,639
e. Refunds Due to Death or Withdrawal	0.42%	731
f. Total	<u>12.12%</u>	<u>\$ 21,143</u>
2. Supplemental Contribution Amortization by July 1, 2020 of UAAL	<u>12.72%</u>	<u>\$ 22,193</u>
3. Allowance for Expenses	0.34%	\$ 593
4. Total	<u>25.18%</u>	<u>\$ 43,929</u>
C. CONTRIBUTION SUFFICIENCY (DEFICIENCY): (A5-B4)	<u>(6.18)%</u>	<u>\$ (10,775)</u>

Note: Projected Annual Payroll for Fiscal Year Beginning on July 1, 1995 is \$174,473

* Includes contributions from School District Number 1, the City of Minneapolis and matching State contributions.

** Effective July 1, 1995.

Minneapolis Teachers' Retirement Fund
Summary of Actuarial Assumptions and Methods

<i>Interest:</i>	Pre-Retirement:	8.50% per annum
	Post-Retirement:	8.50% per annum
<i>Salary Increases:</i>	Total reported pay for prior fiscal year increased 6.50% to current fiscal year and 6.50% annually for each future year.	
<i>Mortality:</i>	Pre-Retirement:	
	Male -	1971 Group Annuity Mortality Table male rates set back 8 years.
	Female -	1971 Group Annuity Mortality Table male rates set back 8 years.
	Post-Retirement:	
	Male -	same as above.
	Female -	same as above.
	Post-Disability:	
	Male -	same as above.
	Female -	same as above.
<i>Retirement Age:</i>	Basic Members are assumed to retire at age 60. Coordinated Members are assumed to retire at age 63. If over the assumed retirement age, one year from valuation date. In addition, 30% of Coordinated Members are assumed to retire each year that they are eligible for the Rule of 90.	
<i>Separation:</i>	Graded rates shown in the rate table.	
<i>Disability:</i>	Graded rates shown in the rate table.	
<i>Administrative Expenses:</i>	Prior year administrative expenses (excluding investment expenses) expressed as a percentage of prior year payroll.	
<i>Return of Contributions:</i>	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.	
<i>Family Composition:</i>	80% of male Members and 60% of female Members are assumed to be married. Female is assumed to be three years younger than male.	
<i>Social Security:</i>	N/A	

TABLE 12
(cont)

*Benefit Increases
After Retirement:*

2.0% per annum

Special Consideration:

Additional post retirement benefit increase is accounted for by increasing the reserve value for all service retirements, disability retirements and survivors eligible for the increase by an amount that equals the excess of the five year time weighted total rate of return over the assumed interest rate of 8.50% multiplied by the quantity of one minus the rate of contribution deficiency.

Married Members are assumed to elect subsidized joint and survivor forms of annuity as follows:

Males -	15% elect 50% J&S option
	50% elect 100% J&S option
Females -	10% elect 50% J&S option
	10% 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 of Unrealized Gains or Losses.

*Payment on the
Unfunded Actuarial
Accrued Liability:*

The Unfunded Actuarial Accrued Liability is amortized as level percentage of payroll each year to the statutory amortization date assuming payroll increases of 6.50% per annum.

TABLE 12
(cont)

Minneapolis Teachers' Retirement 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	4	4	1,200	1,200	3	4	0	0
21	4	4	1,150	1,150	3	4	0	0
22	4	4	1,100	1,100	3	4	0	0
23	4	4	1,050	1,050	3	5	0	0
24	4	4	1,000	1,000	3	5	0	0
25	5	5	950	950	3	5	0	0
26	5	5	900	900	4	5	0	0
27	5	5	850	850	4	5	0	0
28	5	5	800	800	4	6	0	0
29	5	5	750	750	4	6	0	0
30	5	5	700	700	4	6	0	0
31	6	6	650	650	4	6	0	0
32	6	6	600	600	4	7	0	0
33	6	6	550	550	5	7	0	0
34	7	7	500	500	5	8	0	0
35	7	7	450	450	5	8	0	0
36	7	7	400	400	6	8	0	0
37	8	8	350	350	6	9	0	0
38	8	8	300	300	6	9	0	0
39	9	9	250	250	6	10	0	0
40	9	9	200	200	7	10	0	0
41	10	10	190	190	7	11	0	0
42	10	10	180	180	8	12	0	0
43	11	11	170	170	8	13	0	0
44	12	12	160	160	9	14	0	0
45	13	13	150	150	10	15	0	0
46	14	14	140	140	11	16	0	0
47	15	15	130	130	12	18	0	0
48	16	16	120	120	14	20	0	0
49	18	18	110	110	16	23	0	0
50	20	20	100	100	18	26	0	0
51	23	23	90	90	20	29	0	0
52	26	26	80	80	23	33	0	0
53	29	29	70	70	26	37	0	0
54	33	33	60	60	30	42	0	0

TABLE 12
(cont)

Minneapolis Teachers' Retirement 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>
55	38	38	50	50	36	49	0	0
56	42	42	40	40	42	58	0	0
57	47	47	30	30	50	68	0	0
58	53	53	20	20	59	80	0	0
59	59	59	10	10	69	94	0	0
60	65	65	0	0	90	121	0	0
61	71	71	0	0	116	154	0	0
62	78	78	0	0	146	193	0	0
63	85	85	0	0	0	0	10,000	10,000
64	93	93	0	0	0	0	0	0
65	100	100	0	0	0	0	0	0
66	109	109	0	0	0	0	0	0
67	119	119	0	0	0	0	0	0
68	131	131	0	0	0	0	0	0
69	144	144	0	0	0	0	0	0
70	159	159	0	0	0	0	0	0

TABLE 3A

BASIC

Minneapolis Teachers' Retirement Fund
Active Members as of June 30, 1995

<u>AGE</u>	<u>YEARS OF SERVICE</u>								<u>TOTAL</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	-	-	-	-	-	-	-	-	0
25-29	-	-	-	-	-	-	-	-	0
30-34	-	-	-	-	-	-	-	-	0
35-39	-	-	-	-	-	-	-	-	0
40-44	-	3	5	10	32	16	-	-	66
45-49	-	3	25	34	70	163	123	-	418
50-54	-	1	10	27	46	90	266	31	471
55-59	-	1	9	11	25	48	115	52	261
60-64	-	-	6	3	18	25	37	20	109
65+	-	1	1	1	2	7	13	8	33
ALL	0	9	56	86	193	349	554	111	1,358

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	-	-	-	-	-	-	-	-	0
25-29	-	-	-	-	-	-	-	-	0
30-34	-	-	-	-	-	-	-	-	0
35-39	-	-	-	-	-	-	-	-	0
40-44	-	34,413	38,851	42,824	48,797	50,459	-	-	46,888
45-49	-	28,323	40,857	47,827	46,118	49,303	52,779	-	49,017
50-54	-	32,893	39,868	45,843	49,190	51,578	52,999	55,697	51,801
55-59	-	12,959	37,975	47,057	46,981	50,742	52,938	53,766	51,212
60-64	-	-	36,664	33,643	44,146	48,491	50,523	50,342	47,743
65+	-	4,693	2,820	45,068	44,626	50,662	53,144	48,046	47,627
ALL	0	26,528	38,910	45,997	47,207	50,110	52,775	53,276	50,165

PRIOR FISCAL YEAR EARNINGS (IN THOUSANDS) BY YEARS OF SERVICE

<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>TOTAL</u>
0	239	2,179	3,956	9,111	17,488	29,237	5,914	68,124

TABLE 4A

BASIC

Minneapolis Teachers' Retirement Fund
Service Retirements as of June 30, 1995

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>TOTAL</u>
<50	-	-	-	-	-	-	-	0
50-54	3	31	-	-	-	-	-	34
55-59	4	148	32	-	-	-	-	184
60-64	6	209	132	31	-	-	-	378
65-69	3	119	221	105	20	-	-	468
70-74	-	20	104	201	77	15	-	417
75-79	-	-	28	105	140	20	2	295
80-84	-	-	1	26	134	97	17	275
85+	-	-	-	-	27	163	221	411
ALL	16	527	518	468	398	295	240	2,462

AVERAGE ANNUAL BENEFIT**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>
<50	-	-	-	-	-	-	-	0
50-54	41,731	14,273	-	-	-	-	-	16,696
55-59	5,426	27,165	15,680	-	-	-	-	24,695
60-64	7,346	23,664	25,414	19,240	-	-	-	23,653
65-69	5,037	21,138	22,877	22,663	14,997	-	-	21,936
70-74	-	22,267	20,131	21,017	19,447	7,078	-	20,064
75-79	-	-	20,964	17,328	16,979	7,646	10,135	16,802
80-84	-	-	689	19,422	15,267	11,247	10,705	13,907
85+	-	-	-	-	14,994	12,394	11,366	12,012
ALL	12,880	23,472	22,381	20,352	16,646	11,425	11,309	18,848

TOTAL ANNUAL ANNUITY (IN THOUSANDS) BY YEARS RETIRED

<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>TOTAL</u>
206	12,370	11,593	9,525	6,625	3,370	2,714	46,403

TABLE 5A

BASIC

Minneapolis Teachers' Retirement Fund
Disability Retirements as of June 30, 1995

YEARS DISABLED

<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>TOTAL</u>
<50	-	4	-	2	-	-	-	6
50-54	-	3	-	-	-	-	-	3
55-59	-	1	1	1	1	-	-	4
60-64	-	2	3	1	-	-	-	6
65-69	-	1	-	2	2	1	-	6
70-74	-	-	-	1	2	1	-	4
75-79	-	-	-	-	1	8	3	12
80-84	-	-	-	-	-	3	3	6
85+	-	-	-	-	-	-	2	2
ALL	0	11	4	7	6	13	8	49

AVERAGE ANNUAL BENEFIT

YEARS DISABLED

<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>
<50	-	22,563	-	18,097	-	-	-	21,074
50-54	-	31,898	-	-	-	-	-	31,898
55-59	-	33,933	20,384	27,460	9,190	-	-	22,741
60-64	-	13,901	19,869	18,339	-	-	-	17,625
65-69	-	13,022	-	17,771	25,370	9,791	-	18,182
70-74	-	-	-	18,651	15,673	15,705	-	16,425
75-79	-	-	-	-	11,433	12,275	9,855	11,600
80-84	-	-	-	-	-	11,215	10,456	10,836
85+	-	-	-	-	-	-	4,962	4,962
ALL	0	23,700	19,998	19,455	17,118	12,103	8,857	16,485

TOTAL ANNUAL ANNUITY (IN THOUSANDS) BY YEARS DISABLED

<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>TOTAL</u>
0	261	80	136	103	157	71	808

TABLE 6A

BASIC

Minneapolis Teachers' Retirement Fund
Survivors as of June 30, 1995

YEARS SINCE MEMBER'S RETIREMENT*

<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>TOTAL</u>
<50	-	17	6	23	10	-	-	56
50-54	-	2	-	1	-	-	-	3
55-59	-	3	2	-	3	-	-	8
60-64	-	2	9	7	2	1	-	21
65-69	1	5	9	12	8	1	-	36
70-74	-	1	8	9	12	-	1	31
75-79	-	-	3	5	6	1	1	16
80-84	-	2	-	1	7	9	7	26
85+	-	1	-	1	3	5	18	28
ALL	1	33	37	59	51	17	27	225

AVERAGE ANNUAL BENEFIT

YEARS SINCE MEMBER'S RETIREMENT

<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>
<50	-	7,945	5,338	4,843	9,121	-	-	6,601
50-54	-	17,031	-	3,330	-	-	-	12,464
55-59	-	19,408	21,406	-	11,417	-	-	16,911
60-64	-	19,042	20,307	18,659	17,467	10,008	-	18,876
65-69	28,755	16,584	19,133	23,203	16,475	8,083	-	19,506
70-74	-	22,256	20,612	13,607	16,659	-	6,159	16,635
75-79	-	-	14,710	11,486	17,994	11,977	6,928	14,277
80-84	-	21,922	-	15,334	11,490	12,504	12,001	12,929
85+	-	16,867	-	6,994	11,940	16,001	11,955	12,674
ALL	28,755	13,070	17,266	12,305	14,045	13,095	11,566	13,672

**TOTAL ANNUAL ANNUITY (IN THOUSANDS) BY YEARS SINCE MEMBER'S
RETIREMENT**

<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>TOTAL</u>
29	431	639	726	716	223	312	3,076

* Due to insufficient data, this table is based upon the Member's date of retirement rather than the Member's date of death.

Minneapolis Teachers' Retirement Fund
Determination of Contribution Sufficiency
(dollars in thousands)

July 1, 1995

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	8.50%	\$ 6,167
2. Employer Contributions	12.14%	8,808
3. Supplemental Contribution	2.87%	2,079
4. Administrative Expense Assessment	0.17%	123
5. Total	23.68%	\$ 17,177
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	12.57%	\$ 9,121
b. Disability Benefits	0.95%	685
c. Survivors' Benefits	0.50%	361
d. Deferred Retirement Benefits	1.58%	1,145
e. Refunds Due to Death or Withdrawal	0.67%	489
f. Total	16.27%	\$ 11,801

Note: Projected Annual Payroll for Fiscal Year Beginning on July 1, 1995 is \$72,552.

Minneapolis Teachers' Retirement Fund
Summary of Plan Provisions

GENERAL

<i>Eligibility:</i>	A teacher who is employed by the Board of Education of Special School District No. 1 and who is not covered by the Social Security Act. Certain part-time licensed employees are covered as well as employees of the Minneapolis Teachers Retirement Fund (unless they belong to the Minneapolis Employees Retirement Fund).
<i>Contributions:</i>	Member: 8.50% of Salary. Employer: 12.14% of Salary.
<i>Teaching Service:</i>	A year is earned during a calendar year if the Member is employed in a covered position and employee contributions are deducted. Certain part-time service and military service is also included.
<i>Salary:</i>	Total compensation. Excludes lump sum payments for unused vacation leave or unused sick leave at separation.
<i>Average Salary:</i>	Average of the 5 highest consecutive years of Salary.

RETIREMENT

Normal Retirement Benefit:

<i>Eligibility:</i>	Age 60. Any age with 30 years of Teaching Service.
<i>Amount:</i>	2.50% of Average Salary for each year of Teaching Service.

Early Retirement Benefit:

<i>Eligibility:</i>	Age 55 with less than 30 years of Teaching Service.
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TABLE 13A
(cont)
BASIC

Amount:

The greater of:

2.25% of Average Salary for each year of Teaching Service with reduction of 0.25% for each month the Member is under age first eligible for a normal retirement benefit.

or

2.50% of Average Salary for each year of Teaching Service assuming augmentation to the age first eligible for a normal retirement benefit at 3.00% per year and actuarial reduction for each month the Member is under the age first eligible for a normal retirement benefit.

An alternative benefit is available to Members who are at least age 50 and have 7 years of Teaching Service. The benefit is based on the accumulation of the 6.5% "city deposits" to the Retirement Fund. Other benefits are also provided under this alternative depending on the Member's age and Teaching Service.

Form of Payment:

Life annuity.

Actuarially equivalent options are:

- 10 or 15 year certain and life
- 50%, 75% or 100% joint and Survivor with bounce back feature without additional reduction (option is canceled if Member is predeceased by beneficiary.

Benefit Increases:

Benefits are increased 2.0% annually beginning on the January 1 or July 1 if the Member has been receiving benefits for at least 12 months. Beneficiaries are entitled to the same increase the Member would have received.

In addition, if the time weighted rate of return over the last 5 years exceeds 8.5%, the Board of Trustees will increase benefits by the excess rate of return multiplied by the quantity of one minus the rate of contribution deficiency.

Members retired under laws in effect before May 1, 1974 and before any adjustment under Laws 1987, Chapter 372, receive an additional lump sum payment each year. In 1989, this lump sum payment is the greater of \$25 times each full year of Teaching 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

TABLE 13A
(cont)
BASIC

sum will increase by the same increase that is applied to regular annuities.

DISABILITY

Disability Benefit:

Eligibility: Total and permanent disability with 3 years of Teaching Service.

Amount: An annuity based on the continued accumulation of Member and city contributions at the current rate for a period of 15 years (but not beyond age 65) plus an additional benefit equal to the smaller of 100% of the annuity provided by city contributions only or \$150 per month. A Member with 20 years of Teaching Service also receives an additional \$7.50 per month.

Payments stop if disability ceases or death occurs. Benefits may be reduced on resumption of partial employment.

Form of Payment: Same as for retirement.

Benefit Increases: Same as for retirement.

DEATH

A choice of Benefit A, Benefit B, or Benefit C.

Benefit A:

Eligibility: Death before retirement.

Amount: The accumulation of Member and city contributions plus 5% interest if death occurred before May 16, 1989, or 6% interest if death occurred on or after May 16, 1989. Paid as a life annuity, 15 year certain and life, or lump sum. If an annuity is chosen the beneficiary also receives additional benefits.

Benefit B:

Eligibility: An active Member with 7 years of Teaching Service. A former Member age 60 with 7 years of Teaching Service who dies before retirement or disability benefits begin.

Amount: The actuarial equivalent of any benefits the Member could have received if he had resigned on the date of death. Paid to the beneficiary in the form of a life annuity or a 15 year certain and life annuity.

TABLE 13A
(cont)
BASIC

Benefit C:

<i>Eligibility:</i>	An active Member who dies and leaves surviving children.
<i>Amount:</i>	A monthly benefit of \$248.30 to the surviving widow while caring for a child and an additional \$248.30 per month for each surviving dependent child. The maximum family benefit is \$579.30 per month. These benefits may be increased by the Board of Trustees. Benefits to the widow cease upon death or when no longer caring for an eligible child. Benefits for dependent children cease upon marriage or age 18 (age 22 if a full time student).
<i>Benefit Increases:</i>	Same as retirement.

TERMINATION

Deferred Annuity:

<i>Eligibility:</i>	7 years of Teaching Service.
<i>Amount:</i>	Benefit computed under law in effect at termination and increased by the following annual percentage: 3.00% until January 1 of the year following the attainment of 55, and, 5.00% thereafter until the annuity begins. In addition, the interest earned on the Member and city contributions between termination and age 60 can be applied to provide an additional annuity.

Refund of Contributions:

<i>Eligibility:</i>	Termination of teaching service.
<i>Amount:</i>	Member's contributions with 6.00% interest. A deferred annuity may be elected in lieu of a refund.

TABLE 3B

COORDINATED

Minneapolis Teachers' Retirement Fund
Active Members as of June 30, 1995

<u>AGE</u>	<u>YEARS OF SERVICE</u>								<u>TOTAL</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	57	12	-	-	-	-	-	-	69
25-29	159	315	4	-	-	-	-	-	478
30-34	134	338	139	24	-	-	-	-	635
35-39	66	234	132	79	5	-	-	-	516
40-44	56	228	174	83	16	-	-	-	557
45-49	49	238	153	80	23	-	-	-	543
50-54	21	120	89	46	9	-	2	-	287
55-59	9	51	50	37	9	-	-	-	156
60-64	4	24	20	5	2	-	-	-	55
65+	9	13	7	2	1	-	-	-	32
ALL	564	1,573	768	356	65	0	2	0	3,328

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	5,152	15,676	-	-	-	-	-	-	6,982
25-29	9,781	22,287	32,586	-	-	-	-	-	18,213
30-34	9,436	24,301	34,086	41,828	-	-	-	-	23,968
35-39	11,949	28,826	35,341	41,920	46,273	-	-	-	30,507
40-44	10,283	28,571	40,345	45,237	42,542	-	-	-	33,295
45-49	15,010	29,082	42,383	47,389	43,282	-	-	-	34,859
50-54	13,265	27,640	42,141	48,593	41,923	-	51,348	-	35,056
55-59	12,938	26,350	38,621	46,946	51,828	-	-	-	35,864
60-64	13,498	23,560	42,535	43,958	46,864	-	-	-	32,430
65+	26,143	8,121	22,348	45,995	48,243	-	-	-	19,923
ALL	10,457	26,023	38,707	45,352	44,512	0	51,348	0	28,756

PRIOR FISCAL YEAR EARNINGS (IN THOUSANDS) BY YEARS OF SERVICE

<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>TOTAL</u>
5,898	40,934	29,727	16,145	2,893	0	103	0	95,700

TABLE 4B

COORDINATED

Minneapolis Teachers' Retirement Fund
Service Retirements as of June 30, 1995

<u>AGE</u>	<u>YEARS RETIRED</u>							<u>TOTAL</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	-	-	-	-	-	-	-	0
50-54	-	-	-	-	-	-	-	0
55-59	1	3	-	-	-	-	-	4
60-64	-	5	2	-	-	-	-	7
65-69	-	5	3	-	-	-	-	8
70-74	-	1	-	-	-	-	-	1
75-79	-	-	-	-	-	-	-	0
80-84	-	-	-	-	-	-	-	0
85+	-	-	-	-	-	-	-	0
ALL	1	14	5	0	0	0	0	20

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	-	-	-	-	-	-	-	0
50-54	-	-	-	-	-	-	-	0
55-59	290	6,459	-	-	-	-	-	4,917
60-64	-	7,297	3,554	-	-	-	-	6,228
65-69	-	5,330	3,141	-	-	-	-	4,509
70-74	-	1,835	-	-	-	-	-	1,835
75-79	-	-	-	-	-	-	-	0
80-84	-	-	-	-	-	-	-	0
85+	-	-	-	-	-	-	-	0
ALL	290	6,025	3,306	0	0	0	0	5,058

TOTAL ANNUAL ANNUITY (IN THOUSANDS) BY YEARS RETIRED

<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>TOTAL</u>
0	84	17	0	0	0	0	101

Minneapolis Teachers' Retirement Fund
Determination of Contribution Sufficiency

(dollars in thousands)

July 1, 1995

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	4.50%	\$ 4,586
2. Employer Contributions	8.14%	8,296
3. Supplemental Contribution	2.87%	2,921
4. Administrative Expense Assessment	0.17%	174
5. Total	15.68%	\$ 15,977
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	7.53%	\$ 7,671
b. Disability Benefits	0.64%	651
c. Survivors' Benefits	0.28%	284
d. Deferred Retirement Benefits	0.48%	494
e. Refunds Due to Death or Withdrawal	0.24%	242
f. Total	9.17%	\$ 9,342

Note: Projected Annual Payroll for Fiscal Year Beginning on July 1, 1995 is \$101,921

Minneapolis Teachers' Retirement Fund
Summary of Plan Provisions

GENERAL

<i>Eligibility:</i>	A teacher who is employed by the Board of Education of Special School District No. 1 and who is covered by the Social Security Act. Certain part-time licensed employees are covered as well as employees of the Minneapolis Teachers Retirement Fund (unless they belong to the Minneapolis Employees Retirement Fund).
<i>Contributions:</i>	Member: 4.50% of Salary. Employer: 8.14% of Salary.
<i>Allowable Service:</i>	A year is earned during a school year if the Member is employed in a covered position and employee contributions are deducted. May also include certain part-time service, extended leaves of absence, sabbatical leaves, and military service.
<i>Salary:</i>	Total compensation. Excludes lump sum payments for unused vacation leave or unused sick leave at separation.
<i>Average Salary:</i>	Average of the 5 highest consecutive years of Salary. Average Salary is based on all Allowable Service if less than 5 years.

RETIREMENT

Normal Retirement Benefit:

<i>Eligibility:</i>	
First hired before July 1, 1989:	Age 65 and 3 years of Allowable Service. Proportionate Retirement Annuity is available at age 65 and 1 year of Allowable Service.
First hired after July 1, 1989:	The greater of age 65 or the age eligible for full Social Security retirement benefits and 3 years of Allowable Service. Proportionate Retirement Annuity is available at normal retirement age and 1 year of Allowable Service.
<i>Amount:</i>	1.50% of Average Salary for each year of Allowable Service.

TABLE 13B
(cont)
COORDINATED

Early Retirement Benefit:

Eligibility: Age 55 and 3 years of Allowable Service. Any age with 30 years of Allowable Service. Rule of 90: Age plus Allowable Service totals 90.

Amount:

**First hired before
July 1, 1989:**

The greater of:

1.00% of Average Salary for each of the first 10 years of Allowable Service plus 1.50% of Average Salary for each subsequent year of Allowable Service with reduction of 0.25% for each month the Member is under age 65 (age 62 if 30 years of Allowable Service). No reduction if age plus years of Allowable Service totals 90.

or

1.50% of Average Salary for each year of Allowable Service assuming augmentation to age 65 at 3.00% per year and actuarial reduction for each month the Member is under age 65.

**First hired after
July 1, 1989:**

1.50% of Average Salary for each year of Allowable Service assuming augmentation to the age eligible for full Social Security retirement benefits at 3.00% per year and actuarial reduction for each month the Member is under the Social Security retirement age.

Form of Payment:

Life annuity. Actuarial equivalent options are:

- Guaranteed refund
- 10 or 15 year certain and life
- 50%, 75%, or 100% joint and survivor with bounce back feature without additional reduction (option is canceled if Member is predeceased by beneficiary).

Benefit Increases:

Benefits are increased 2.0% annually beginning on the January 1 or July 1 if the Member has been receiving benefits for at least 12 months. Beneficiaries are entitled to the increase the Member would have received.

TABLE 13B
(cont)
COORDINATED

In addition, if the time weighted rate of return over the last 5 years exceeds 8.5%, the Board of Trustees will increase benefits by the excess rate of return multiplied by the quantity of one minus the rate of contribution deficiency.

DISABILITY

Disability Benefit:

Eligibility: Total and permanent disability before the normal retirement age with 3 years of Allowable Service. Also, at least 2 of the years of Allowable Service must have been uninterrupted.

Amount: Normal Retirement Benefit based on Allowable Service and Average Salary at disability without reduction for commencement before the normal retirement age. Benefit is reduced by Workers' Compensation.

Payments are recomputed as a retirement at the normal retirement age. Payments stop if disability ceases or death occurs. Benefits may be reduced on resumption of partial employment.

Form of Payment: Same as for retirement.

Benefit Increases: Same as for retirement.

Retirement After Disability:

Eligibility: Normal retirement age with continued disability.

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

Benefit Increases: Same as for retirement.

DEATH

Surviving Spouse Annuity:

Eligibility: Any active Member who dies with 3 years of Allowable Service prior to retirement or disability benefits commence.

TABLE 13B
(cont)
COORDINATED

Any former Member who dies before retirement or disability benefits commence, if age 50 with 3 years of Allowable Service or any age with 30 years of Allowable Service. If the former Member dies prior to age 55 benefits are deferred to age 55.

Amount: Survivor's payment of the 100% joint and survivor benefit the Member could have elected if terminated.

Upon the death of any vested active member, the benefit is calculated using 50% of otherwise applicable early retirement reduction from the Member's age 55 to the Member's benefit commencement age.

Benefit Increases: Same as for retirement.

Refund of Contributions:

Eligibility: Member or former Member dies before receiving any retirement benefits and survivor's benefits are not payable.

Amount: Member's contributions with 6.00% interest.

TERMINATION

Deferred Annuity:

Eligibility: 3 years of Allowable Service.

Amount: Benefit computed under law in effect at termination and increased by the following annual percentage:

3.00% until January 1 of the year following the attainment of 55, and

5.00% thereafter until the annuity begins.

Amount is payable as a normal or early retirement benefit.

Refund of Contributions:

Eligibility: Termination of teaching service.

TABLE 13B
(cont)
COORDINATED

Amount:

Member's contributions with 6.00% interest. A deferred annuity may be elected in lieu of a refund.