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**Duluth Teachers' Retirement Fund
ACTUARIAL VALUATION REPORT**

July 1, 2000



MILLIMAN & ROBERTSON, INC.

Actuaries & Consultants

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November 27, 2000

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

RE: Duluth Teachers' 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, 2000.

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 Duluth Teachers' Retirement Fund 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.

Respectfully submitted,

MILLIMAN & ROBERTSON, INC.

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Duluth Teachers' Retirement Fund

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Duluth Teachers' Retirement Fund

Report Highlights

(dollars in thousands)

	07/01/1999 Valuation	07/01/2000 Valuation
A. CONTRIBUTIONS (Table 11)		
1. Statutory Contributions - Chapter 354A % of Payroll	12.20%	12.21%
2. Required Contributions - Chapter 356 % of Payroll	9.16%	8.51%
3. Sufficiency (Deficiency): (A.1. - A.2.)	3.04%	3.70%
B. FUNDING RATIOS		
1. Accrued Benefit Funding Ratio		
a. Current Assets (Table 1)	\$218,698	\$251,007
b. Current Benefit Obligations (Table 8)	\$209,785	\$231,146
c. Funding Ratio: (a/b)	104.25%	108.59%
2. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	\$218,698	\$251,007
b. Actuarial Accrued Liability (Table 9)	\$220,540	\$241,899
c. Funding Ratio: (a/b)	99.16%	103.77%
3. Projected Benefit Funding Ratio (Table 8)		
a. Current and Expected Future Assets	\$278,561	\$313,384
b. Current and Expected Future Benefit Obligations	\$256,872	\$281,027
c. Funding Ratio: (a/b)	108.44%	111.51%
C. PLAN PARTICIPANTS		
1. Active Members		
a. Number (Table 3)	1,509	1,441
b. Projected Annual Earnings	\$53,229	\$53,102
c. Average Annual Earnings (Projected \$)	\$35,274	\$36,851
d. Average Age	44.3	44.1
e. Average Service	10.3	10.5
2. Others		
a. Service Retirements (Table 4)	880	937
b. Survivors (Table 5)	56	53
c. Disability Retirements (Table 6)	11	6
d. Deferred Retirements (Table 7)	165	172
e. Terminated Other Non-vested (Table 7)	539	575
f. Total	1,651	1,743

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 108.59%. The corresponding ratio for the prior year was 104.25%.
- 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 2000 the ratio is 103.77%, which is an increase from the 1999 value of 99.16%.
- The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 111.51% verifies that the current statutory contributions are sufficient.

Asset Information (Tables 1 and 2)

Effective with the July 1, 2000 valuation of the fund, Minnesota Statutes require that the asset value used for actuarial purposes spread differences between actual return (measured on a market-value basis) and expected return on assets over five years. The previous method required under Minnesota Statutes recognized one third of the unrealized gains and losses. An Asset Valuation Method 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 intent of the change to the current method is to employ a more effective asset smoothing technique which is market-value based and which eliminates artificial bias related to manager style. The effective date of this requirement is July 1, 2000 with full transition to be accomplished as of July 1, 2003.

The calculation of the Actuarial Value of Assets is shown in Table 1 on lines E.1 to E.4. Actuarial Value of Assets is determined as:

Market Value of Assets at June 30, 2000, *less*

80% of the current year Unrecognized Asset Return at July 1, 2000 (the difference between actual net return on Market Value of Assets between 06/30/99 and 06/30/2000 and the asset return expected during that period based on the assumed interest rate employed in the July 1, 1999 Actuarial Valuation); *less*

60% of the Unrecognized Asset Return at July 1, 1999 (the difference between Market Value of Assets on 06/30/99 and the Actuarial Value of Assets used in the July 1, 1999 Actuarial Valuation).

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 levels is calculated as follows:

- 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

Disclosure of the Current Benefit Obligation amounts used to be required by Statement No. 5 of the Governmental Accounting Standards Board (GASB). However, Statement No. 5 has been superceded by Statement No. 25. Tables 14 and 15 of this report are included to fulfill the requirements of Statement No. 25.

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 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.

Source 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 expectations. For a detailed analysis of the major components, refer to Table 10.

As anticipated last year, there is a source of modest gain which deserves special mention. The valuation assumes that each year salaries of teachers will increase according to the scale in Table 12. Last year the Duluth teachers union had negotiated a new contract with the Board. Since the old contract expired over one year before the previous valuation date last year, the reported salaries did not reflect any increases in pay. This meant that last year's salaries included a portion of back pay associated with that settlement. Accordingly, this year's reported salaries did not increase as much as projected by the valuation assumptions, thereby producing a modest gain.

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 12.21% compared to the Required Contribution Rate of 8.51%.

Changes in Actuarial Assumptions and Methods

All actuarial assumptions and methods listed in Table 12 are the same as those used in the prior valuation.

Effective with this July 1, 2000 valuation, the following method changes have been incorporated:

- Asset Valuation Method is changed to employ a more effective asset smoothing technique which is market-value based and which eliminates artificial bias related to manager style.
- The actuarial funding method was modified to reflect a 30-year amortization credit of the surplus of the Actuarial Value of Assets over the Actuarial Accrued Liability.

Changes in Plan Provisions

All plan provisions are the same as those used in the prior actuarial valuation of the Fund.

Duluth Teachers' Retirement Fund

Statement of Plan Net Assets*(dollars in thousands)*

JULY 1, 2000

	Market Value	Cost Value
A. ASSETS IN TRUST		
1. Cash, Equivalents, Short-term Securities	\$54,503	\$54,503
2. Fixed Income	151,190	153,353
3. Equity	104,585	59,358
4. Real Estate and Mortgage Loans	4,226	4,226
5. Equity in MPRIF	0	0
6. Invested Securities Lending Collateral	42,663	42,663
7. Other	509	509
Subtotal	<u>\$357,676</u>	<u>\$314,612</u>
B. ASSETS RECEIVABLE	17,075	17,075
C. LIABILITIES		
1. Invested Securities Lending Collateral	(42,663)	(42,663)
2. Other	(33,249)	(33,249)
Subtotal	<u>(75,912)</u>	<u>(75,912)</u>
D. NET ASSETS HELD IN TRUST FOR PENSION BENEFITS		
1. MPRIF Reserves	0	0
2. Member Reserves	25,209	25,209
3. Other Non-MPRIF Reserves	273,630	230,566
4. Total Assets Available for Benefits	<u>\$298,839</u>	<u>\$255,775</u>
E. DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
1. Market Value of Assets Available for Benefits (D4)		\$298,839
2. Unrecognized Asset Returns (UAR)		
a. June 30, 2000	\$41,405	
b. June 30, 1999	24,513	
3. UAR Adjustment: $.80 * (E2.a) + .60 * (E2.b)$		<u>47,832</u>
4. Actuarial Value of Assets (E1 - E3) (Same as "Current Assets")		<u><u>251,007</u></u>

Duluth Teachers' Retirement Fund

Statement of Change In Plan Net Assets

(dollars in thousands)

YEAR ENDING JUNE 30, 2000

	Non-MPRIF Assets	MPRIF Reserve	Market Value
A. ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$243,211	\$0	\$243,211
B. ADDITIONS			
1. Member Contributions	\$3,152	\$0	\$3,152
2. Employer Contributions	3,026	0	3,026
3. Contributions From Other Sources	486	0	486
4. MPRIF Income	0	0	0
5. Net Investment Income			
a. Interest and Dividends	10,627	0	10,627
b. Net Realized Gain (Loss)	46,099	0	46,099
c. Net Change in Unrealized Gain (Loss)	6,298	0	6,298
d. Investment Expenses	(1,391)	0	(1,391)
e. Net Subtotal	61,633	0	61,633
6. Other	182	0	182
7. Total Additions	\$68,479	\$0	\$68,479
C. OPERATING EXPENSES			
1. Service Retirements	\$11,577	\$0	\$11,577
2. Disability Benefits	164	0	164
3. Survivor Benefits	619	0	619
4. Refunds	90	0	90
5. Administrative Expenses	401	0	401
6. Other	0	0	0
7. Total Disbursements	\$12,851	\$0	\$12,851
D. OTHER CHANGES IN RESERVES			
1. Annuities Awarded	0	0	0
2. Total Other Changes	0	0	0
E. ASSETS AVAILABLE AT END OF PERIOD	\$298,839	\$0	\$298,839
F. DETERMINATION OF CURRENT YEAR UNRECOGNIZED ASSET RETURN			
1. Average Balance			
(a) Assets Available at Beginning of Period			243,211
(b) Assets Available at End of Period			298,839
(c) Average Balance { [F1.a + F1.b - B5.e - B6] / 2 }			240,118
2. Expected Return: .085 * F1.c			20,410
3. Actual Return			61,815
4. Current Year Unrecognized Asset Return: F3 - F2			41,405

DULUTH TEACHERS' RETIREMENT FUND**ACTIVE MEMBERS AS OF JUNE 30, 2000**

Age	Years of Service								ALL
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	
<25	35	8	0	0	0	0	0	0	43
25-29	44	88	10	0	0	0	0	0	142
30-34	26	56	41	2	0	0	0	0	125
35-39	19	35	31	36	5	0	0	0	126
40-44	20	52	43	55	18	1	0	0	189
45-49	48	49	39	60	53	46	16	0	311
50-54	11	30	37	50	38	42	70	19	297
55-59	10	14	10	17	16	22	33	45	167
60-64	1	3	4	7	3	9	3	1	31
65+	4	1	0	2	2	0	0	1	10
ALL	218	336	215	229	135	120	122	66	1,441

AVERAGE ANNUAL EARNINGS

Age	Years of Service								ALL
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	
<25	3,368	25,302	0	0	0	0	0	0	7,449
25-29	3,497	25,819	31,330	0	0	0	0	0	19,290
30-34	6,054	27,914	31,251	29,389	0	0	0	0	24,485
35-39	5,460	26,533	31,934	45,062	40,177	0	0	0	30,520
40-44	3,749	26,791	36,314	42,536	51,368	51,045	0	0	33,570
45-49	5,583	29,590	34,836	44,601	49,815	51,928	53,846	0	37,437
50-54	4,945	31,842	33,424	49,481	47,178	51,054	54,877	54,635	45,579
55-59	7,495	15,162	35,329	51,350	42,429	51,818	53,169	53,784	44,953
60-64	720	9,476	31,563	48,868	44,896	51,169	55,441	53,914	42,352
65+	12,147	8,785	0	19,567	49,105	0	0	52,742	24,746
ALL	4,837	26,828	33,586	45,523	47,928	51,538	54,294	54,015	35,085

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	1,054	9,014	7,220	10,424	6,470	6,184	6,623	3,564	50,557

DULUTH TEACHERS' RETIREMENT FUND

SERVICE RETIREMENTS AS OF JUNE 30, 2000

<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	0	2	0	0	0	0	2
50-54	0	3	0	1	0	0	0	4
55-59	35	65	3	1	0	0	0	104
60-64	26	88	67	0	0	0	0	181
65-69	7	32	128	39	0	1	0	207
70-74	1	3	60	91	32	1	0	188
75-79	0	0	2	29	66	10	0	107
80-84	0	0	0	2	35	26	6	69
85+	1	0	0	0	1	29	44	75
ALL	70	191	262	163	134	67	50	937

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	0	8,253	0	0	0	0	8,253
50-54	0	7,536	0	2,574	0	0	0	6,296
55-59	23,979	19,934	14,437	10,700	0	0	0	21,048
60-64	21,850	20,793	13,143	0	0	0	0	18,113
65-69	9,078	12,779	15,697	10,356	0	6,472	0	13,971
70-74	875	10,723	13,939	12,151	9,331	5,378	0	12,123
75-79	0	0	19,932	10,639	10,059	6,512	0	10,069
80-84	0	0	0	4,308	9,182	7,324	6,089	8,072
85+	13,415	0	0	0	11,582	7,264	9,781	8,880
ALL	21,217	18,792	14,602	11,289	9,667	7,135	9,338	13,853

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	1,485	3,589	3,825	1,840	1,295	478	466	12,980

DULUTH TEACHERS' RETIREMENT FUND

SURVIVORS AS OF JUNE 30, 2000

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	1	0	0	2	0	0	0	3
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	1	0	0	0	1
60-64	0	1	4	0	0	0	0	5
65-69	0	0	4	4	1	0	0	9
70-74	1	0	2	5	2	1	0	11
75-79	0	0	1	2	8	1	0	12
80-84	0	0	0	0	2	3	1	6
85+	0	0	0	0	0	1	5	6
ALL	2	1	11	14	13	6	6	53

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	9,283	0	0	6,661	0	0	0	7,535
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	15,253	0	0	0	15,253
60-64	0	8,716	22,633	0	0	0	0	19,850
65-69	0	0	11,847	13,640	7,852	0	0	12,200
70-74	14,603	0	15,004	7,621	14,726	13,459	0	11,421
75-79	0	0	1,502	16,078	12,660	4,799	0	11,645
80-84	0	0	0	0	10,581	9,003	7,685	9,309
85+	0	0	0	0	0	5,515	7,469	7,143
ALL	11,943	8,716	15,403	10,957	12,288	8,464	7,505	11,528

TOTAL ANNUAL BENEFIT (ACTUAL DOLLARS) 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	23,886	8,716	169,433	153,398	159,744	50,784	45,030	610,984

DULUTH TEACHERS' RETIREMENT FUND

DISABILITY RETIREMENTS AS OF JUNE 30, 2000

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	0	0	0	0	0	0	0	0
50-54	0	0	2	0	0	0	0	2
55-59	0	2	0	0	0	0	0	2
60-64	0	1	1	0	0	0	0	2
65-69	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	3	3	0	0	0	0	6

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	0	0	0	0	0	0	0	0
50-54	0	0	15,727	0	0	0	0	15,727
55-59	0	3,680	0	0	0	0	0	3,680
60-64	0	2,745	24,585	0	0	0	0	13,665
65-69	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	3,368	18,680	0	0	0	0	11,024

TOTAL ANNUAL BENEFIT (ACTUAL DOLLARS) 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	0	10,104	56,040	0	0	0	0	66,144

Duluth Teachers' Retirement Fund

Reconciliation Of Members

	Actives	Terminated	
		Deferred Retirement	Other Non-Vested
A. ON JUNE 30, 1999	1,509	165	539
B. ADDITIONS	199	169	0
C. DELETIONS			
1. Service Retirement	(64)	(14)	0
2. Disability	0	0	0
3. Death	(1)	0	0
4. Terminated - Deferred	(169)	0	0
5. Terminated - Refund	(36)	(16)	0
6. Terminated - Other Non-Vested	0	0	0
7. Returned as Active	0	(25)	0
8. Transferred to Other Fund	0	0	0
D. DATA ADJUSTMENTS	3	(107)	36
Vested	845		
Non-Vested	596		
E. TOTAL ON JUNE 30, 2000	1,441	172	575

	Recipients		
	Retirement Annuitants	Disabled	Survivors
A. ON JUNE 30, 1999	880	11	56
B. ADDITIONS	82	0	8
C. DELETIONS			
1. Service Retirement	0	0	0
2. Death	(29)	0	(3)
3. Annuity Expired	0	0	0
4. Returned as Active	0	0	0
D. DATA ADJUSTMENTS	4	(5)	(8)
E. TOTAL ON JUNE 30, 2000	937	6	53

Duluth Teachers' Retirement Fund

Actuarial Balance Sheet*(dollars in thousands)*

JULY 1, 2000

A. CURRENT ASSETS (TABLE 1, E6)				\$251,007
B. EXPECTED FUTURE ASSETS				
1. Present Value of Expected Future Statutory Supplemental Contributions (See Table 11)				\$23,249
2. Present Value of Future Normal Costs				39,128
3. Total Expected Future Assets				<u>\$62,377</u>
C. TOTAL CURRENT AND EXPECTED FUTURE ASSETS				<u><u>\$313,384</u></u>
D. CURRENT BENEFIT OBLIGATIONS	Non-Vested	Vested	Total	
1. Benefit Recipients				
a. Retirement Annuities		\$133,999	\$133,999	
b. Disability Benefits		604	604	
c. Surviving Spouse and Child Benefits		6,094	6,094	
2. Deferred Retirements with Future Augmentation		5,941	5,941	
3. Former Members without Vested Rights		522	522	
4. Active Members				
a. Retirement Annuities	472	77,268	77,740	
b. Disability Benefits	1,822	0	1,822	
c. Survivor's Benefits	1,148	0	1,148	
d. Deferred Retirements	52	2,628	2,680	
e. Refund Liability Due to Death or Withdrawal	0	596	596	
5. Total Current Benefit Obligations	<u>\$3,494</u>	<u>\$227,652</u>	<u>\$231,146</u>	
E. EXPECTED FUTURE BENEFIT OBLIGATIONS				<u>\$49,881</u>
F. TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS				<u><u>\$281,027</u></u>
G. CURRENT UNFUNDED ACTUARIAL LIABILITY (D5-A)				(\$19,861)
H. CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)				(\$32,357)

Duluth Teachers' Retirement Fund

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

JULY 1, 2000

	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	\$123,519	\$32,286	\$91,233
b. Disability Benefits	2,969	1,092	1,877
c. Survivor's Benefit	1,850	702	1,148
d. Deferred Retirements	4,297	3,286	1,011
e. Refunds Due to Death or Withdrawal	1,233	1,762	(529)
f. Total	<u>\$133,868</u>	<u>\$39,128</u>	<u>\$94,740</u>
2. Deferred Retirements With Future Augmentation	5,941		5,941
3. Former Members Without Vested Rights	522		522
4. Annuitants in MPRIF	0		0
5. Recipients Not in MPRIF	<u>140,696</u>		<u>140,696</u>
6. Total	<u>\$281,027</u>	<u>\$39,128</u>	<u>\$241,899</u>
B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)			
1. AAL (A6)			\$241,899
2. Current Assets (Table 1, E6)			<u>251,007</u>
3. UAAL (B1-B2)			<u>(\$9,108)</u>
C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE			
1. Present Value of Future Payrolls Through the Amortization Date of July 1, 2030			\$986,298
2. Supplemental Contribution Rate (B3/C1)			-0.92%

Duluth Teachers' Retirement Fund

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

YEAR ENDING JUNE 30, 2000

A. UAAL AT BEGINNING OF YEAR	\$1,842
B. CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING	
1. Normal Cost and Expenses	\$4,756
2. Contribution	(6,179)
3. Interest on A, B1 and B2	96
4. Total (B1+B2+B3)	<u>(\$1,327)</u>
C. EXPECTED UAAL AT END OF YEAR (A+B4)	\$515
D. INCREASE (DECREASE) DUE TO ACTUARIAL LOSSES (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED	
1. Salary Increases	(\$2,606)
2. Investment Return	(29,156)
3. MPRIF Mortality	0
4. Mortality of Other Benefit Recipients	(2,603)
5. Other Items	5,619
6. Total	<u>(\$28,746)</u>
E. UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTION (C+D6)	(\$28,231)
F. CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY DUE TO CHANGE IN ACTUARIAL METHODS	19,123
G. CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS	0
H. UAAL AT END OF YEAR (E+F+G)	<u><u>(\$9,108)</u></u>

* Gross asset gain of \$39,291 offset by \$10,135 of excess assets allocated for 1/1/2001
'excess earnings' COLA to existing retirees and beneficiaries.

Duluth Teachers' Retirement Fund

Determination Of Contribution Sufficiency*(dollars in thousands)*

JULY 1, 2000

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	5.50%	\$2,921
2. Employer Contributions	5.79%	3,075
3. Additional State Contribution*	0.92%	486
4. Total	12.21%	\$6,482
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	7.17%	\$3,810
b. Disability Benefits	0.24%	126
c. Survivors	0.16%	83
d. Deferred Retirement Benefits	0.72%	382
e. Refunds Due to Death or Withdrawal	0.39%	208
f. Total	8.68%	\$4,609
2. Supplemental Contribution Amortization by July 1, 2030 of UAAL	-0.92%	(489)
3. Allowance for Expenses	0.75%	398
4. Total	8.51%	\$4,518
C. CONTRIBUTION SUFFICIENCY (DEFICIENCY) [A3-B4]	3.70%	\$1,964

Note: Projected Annual Payroll for Fiscal Year Beginning on JULY 1, 2000 is \$53,102.

* Additional State Contribution is a level dollar amount which implies a decreasing

percentage of payroll.

Duluth Teachers' Retirement Fund

Summary of Actuarial Assumptions and Methods

Interest:	Pre-Retirement: 8.5% per annum Post-Retirement: 8.5% per annum
Salary Increases:	Graded from 8.0% to 5.25%. The graded rates consist of a 5% inflation component and varying levels of merit and productivity increases.
Mortality:	Pre-Retirement: Male - 1983 GAM (Males -4) Female - 1983 GAM (Females -3) Post-Retirement: Male - 1983 GAM (Males -2) Female - 1983 GAM (Females -1) Post-Disability: Male - 1977 RRB Female - 1977 RRB
Retirement Age:	Age-related from 15% to 80% for the old plan and age-related from 10% to 80% for the new plan. In addition, 40% of the Members are assumed to retire each year that they are eligible for Rule of 90.
Separation:	Graded rates shown in rate table.
Disability:	Rates as shown in rate table.
Expenses:	Prior year administrative 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.

<i>Family Composition:</i>	80% of Members are assumed to be married. Female is three years younger than male.				
<i>Social Security:</i>	N/A				
<i>Benefit Increases After Retirement:</i>	N/A				
<i>Special Consideration:</i>	<p>Annual 2% increase for annuitants is accounted for by using a 6.5% post-retirement interest rate. Members in the Old Plan are assumed to receive their retirement benefits from the New Plan. Members who terminated under the Old Plan are assumed to take refund under the New Plan.</p> <p>Married Members assumed to elect subsidized joint and survivor form of annuity as follows:</p> <table> <tr> <td>Males -</td><td>30% elect 50% J&S option 55% elect 100% J&S option</td></tr> <tr> <td>Females -</td><td>30% elect 50% J&S option 20% elect 100% J&S option</td></tr> </table>	Males -	30% elect 50% J&S option 55% elect 100% J&S option	Females -	30% elect 50% J&S option 20% elect 100% J&S option
Males -	30% elect 50% J&S option 55% elect 100% J&S option				
Females -	30% elect 50% J&S option 20% elect 100% J&S option				
<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>	On and after July 1, 2000, Market Value, adjusted for amortization obligations receivable at the end of each fiscal year, less a percentage of the Unrecognized Asset Return determined at the close of each of the four preceding fiscal years. Unrecognized Asset Return is the difference between actual net return on Market Value of Assets and the asset return expected during the fiscal year (based on the assumed interest rate employed in the July 1 Actuarial Valuation of the fiscal year). Transition rules apply between July 1, 2000 and July 1, 2003, when the method is fully in effect.				

***Payment on the
Unfunded Actuarial
Accrued Liability:***

A level percentage of payroll each year to the statutory amortization date assuming payroll increases of 5% per annum. If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll.

TABLE 12
(Continued)

Duluth Teachers' Retirement Fund

Summary of Actuarial Assumptions and Methods

Separation Expressed as Number of Occurrences Per 10,000:

<u>Age</u>	<u>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>Old</u>	<u>New</u>	
20	3	2	2,000	1,500	4	4	0	0	8.00%
21	3	2	1,931	1,360	4	4	0	0	8.00
22	4	2	1,731	1,220	4	4	0	0	8.00
23	4	2	1,532	1,080	5	5	0	0	7.90
24	4	2	1,332	940	5	5	0	0	7.80
25	4	2	1,132	800	5	5	0	0	7.70
26	4	2	932	660	5	5	0	0	7.60
27	4	2	732	520	5	5	0	0	7.50
28	4	3	703	500	5	5	0	0	7.40
29	5	3	673	480	5	5	0	0	7.30
30	5	3	643	460	6	6	0	0	7.20
31	5	3	612	440	6	6	0	0	7.10
32	5	3	582	420	6	6	0	0	7.00
33	6	3	552	400	6	6	0	0	6.90
34	6	4	522	380	6	6	0	0	6.80
35	6	4	491	360	6	6	0	0	6.70
36	7	4	461	340	7	7	0	0	6.60
37	7	4	430	320	7	7	0	0	6.50
38	8	5	409	300	8	8	0	0	6.40
39	9	5	389	280	8	8	0	0	6.30
40	9	5	368	260	8	8	0	0	6.20
41	10	6	347	240	9	9	0	0	6.10
42	10	6	325	220	9	9	0	0	6.00
43	11	7	304	210	10	10	0	0	5.90
44	12	7	282	200	10	10	0	0	5.80
45	14	8	260	190	11	11	0	0	5.70
46	15	8	237	180	12	12	0	0	5.60
47	17	9	214	170	13	13	0	0	5.50
48	19	10	191	160	14	14	0	0	5.45
49	22	11	167	150	16	16	0	0	5.40

TABLE 12
(Continued)

Duluth Teachers' Retirement Fund

Summary of Actuarial Assumptions and Methods

Separation Expressed as Number of Occurrences Per 10,000:

<u>Age</u>	<u>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>Old</u>	<u>New</u>	
50	25	12	143	140	17	17	0	0	5.35%
51	28	14	118	118	19	19	0	0	5.30
52	31	15	92	92	22	22	0	0	5.25
53	35	16	67	67	26	26	0	0	5.25
54	39	18	40	40	30	30	0	0	5.25
55	43	19	13	13	36	36	1,500	1,000	5.25
56	48	21	0	0	41	41	1,500	1,000	5.25
57	52	23	0	0	47	47	1,500	1,000	5.25
58	57	25	0	0	52	52	1,500	1,000	5.25
59	61	28	0	0	58	58	1,500	1,000	5.25
60	66	31	0	0	63	63	1,500	1,000	5.25
61	71	34	0	0	69	69	4,000	2,000	5.25
62	77	38	0	0	76	76	4,000	2,000	5.25
63	84	42	0	0	84	84	4,000	2,000	5.25
64	92	47	0	0	93	93	4,000	2,000	5.25
65	101	52	0	0	0	0	4,000	2,000	5.25
66	111	58	0	0	0	0	5,000	4,000	5.25
67	124	64	0	0	0	0	5,000	4,000	5.25
68	139	71	0	0	0	0	5,000	4,000	5.25
69	156	78	0	0	0	0	5,000	4,000	5.25
70	176	87	0	0	0	0	5,000	4,000	5.25

TABLE 14

Duluth Teachers' Retirement Fund

SCHEDULE OF FUNDING PROGRESS

(dollars in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (A)	Actuarial Accrued Liability (AAL) (B)	Unfunded AAL (UAAL) (B - A)	Funded Ratio (A)/(B)	Actual Covered Payroll (Previous FY) (C)	UAAL as % of Covered Payroll (B - A) / (C)
07/01/1991	105,087	117,582	12,495	89.37%	42,297	29.54%
07/01/1992	116,492	124,140	7,648	93.84%	42,884	17.83%
07/01/1993	130,856	132,700	1,844	98.61%	43,282	4.26%
07/01/1994	133,632	137,042	3,410	97.51%	43,109	7.91%
07/01/1995	142,852	173,965	31,113	82.12%	46,528	66.87%
07/01/1996	157,007	189,518	32,511	82.85%	44,870	72.46%
07/01/1997	170,059	197,820	27,761	85.97%	46,770	59.36%
07/01/1998	187,482	197,078	9,596	95.13%	47,064	20.39%
07/01/1999	218,699	220,540	1,841	99.17%	52,176	3.53%
07/01/2000	251,007	241,899	(9,108)	103.77%	52,270	-17.42%

TABLE 15

Duluth Teachers' Retirement Fund
SCHEDULE OF EMPLOYER CONTRIBUTIONS
(dollars in thousands)

Year Ended June 30	Actuarially Required Contribution Rate (A)	Actual Covered Payroll (B)	Actual Member Contributions (C)	Annual Required Contribution [(A) x (B)] - (C)	Actual Employer Contribution*	Percentage Contributed
1991	10.70%	42,297	2,043	2,483	2,449	98.63%
1992	11.09%	42,884	2,124	2,632	2,483	94.34%
1993	11.42%	43,282	2,126	2,817	2,506	88.96%
1994	10.21%	43,109	2,230	2,171	2,496	114.97%
1995	10.36%	46,528	2,144	2,676	2,694	100.67%
1996	13.23%	44,870	2,570	3,366	2,598	77.18%
1997	13.60%	46,770	2,644	3,717	2,708	72.85%
1998	12.87%	47,064	2,664	3,393	3,211	94.64%
1999	10.24%	52,176	3,118	2,225	3,507	157.62%
2000	9.16%	52,270	3,152	1,636	3,026	184.96%
2001	8.51% ***					

* Includes contributions from other sources (if applicable).

***Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 6.57%

DULUTH TEACHERS' RETIREMENT FUND
ACTIVE MEMBERS AS OF JUNE 30, 2000

Age	Years of Service								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>25-29</u>	<u>30+</u>	
<25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	1	3	1	0	0	5
45-49	0	1	0	1	11	45	16	0	74
50-54	0	0	1	0	8	42	70	19	140
55-59	0	0	0	0	3	22	33	45	103
60-64	0	0	0	0	2	9	3	1	15
65+	0	0	0	0	1	0	0	1	2
ALL	0	1	1	2	28	119	122	66	339

AVERAGE ANNUAL EARNINGS

Age	Years of Service								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>25-29</u>	<u>30+</u>	
<25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	15,722	59,212	51,045	0	0	48,881
45-49	0	49,410	0	51,444	49,190	51,939	53,846	0	51,902
50-54	0	0	39,341	0	50,084	51,054	54,877	54,635	53,312
55-59	0	0	0	0	33,180	51,818	53,169	53,784	52,567
60-64	0	0	0	0	49,048	51,169	55,441	53,914	51,924
65+	0	0	0	0	47,914	0	0	52,742	50,328
ALL	0	49,410	39,341	33,583	48,748	51,539	54,294	54,015	52,633

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

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>25-29</u>	<u>30+</u>	ALL
All	0	49	39	67	1,364	6,133	6,623	3,564	17,842

DULUTH TEACHERS' RETIREMENT FUND

AS OF JUNE 30, 2000

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	0	0	1	0	0	0	0	1
50-54	0	1	0	0	0	0	0	1
55-59	19	34	1	1	0	0	0	55
60-64	4	36	36	0	0	0	0	76
65-69	0	8	42	19	0	1	0	70
70-74	0	0	3	34	16	1	0	54
75-79	0	0	0	11	47	10	0	68
80-84	0	0	0	1	28	26	6	61
85+	0	0	0	0	1	29	44	74
ALL	23	79	83	66	92	67	50	460

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	0	0	11,191	0	0	0	0	11,191
50-54	0	8,500	0	0	0	0	0	8,500
55-59	16,371	16,866	16,597	10,700	0	0	0	16,578
60-64	30,097	12,556	13,201	0	0	0	0	13,785
65-69	0	10,729	11,921	6,956	0	6,472	0	10,359
70-74	0	0	12,289	10,129	4,959	5,378	0	8,629
75-79	0	0	0	10,627	8,059	6,512	0	8,247
80-84	0	0	0	1,073	8,739	7,324	6,089	7,750
85+	0	0	0	0	11,582	7,264	9,781	8,819
ALL	18,758	14,175	12,537	9,170	7,765	7,135	9,338	10,557

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	431	1,119	1,040	605	714	478	466	4,856

DULUTH TEACHERS' RETIREMENT FUND

SURVIVORS AS OF JUNE 30, 2000

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	0	0	0	1	0	0	0	1
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	1	0	0	0	1
60-64	0	0	1	0	0	0	0	1
65-69	0	0	1	2	0	0	0	3
70-74	0	0	0	2	2	1	0	5
75-79	0	0	0	0	6	1	0	7
80-84	0	0	0	0	1	3	1	5
85+	0	0	0	0	0	1	5	6
ALL	0	0	2	6	9	6	6	29

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	0	0	0	4,039	0	0	0	4,039
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	15,253	0	0	0	15,253
60-64	0	0	22,537	0	0	0	0	22,537
65-69	0	0	10,676	12,348	0	0	0	11,791
70-74	0	0	0	6,396	14,726	13,459	0	11,141
75-79	0	0	0	0	13,271	4,799	0	12,061
80-84	0	0	0	0	5,181	9,003	7,685	7,975
85+	0	0	0	0	0	5,515	7,469	7,143
ALL	0	0	16,607	9,463	12,695	8,464	7,505	10,347

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	0	0	33,214	56,778	114,255	50,784	45,030	300,063

DULUTH TEACHERS' RETIREMENT FUND

DISABILITY RETIREMENTS AS OF JUNE 30, 2000

<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	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	0	0	0	0	0	0	0

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	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	0	0	0	0	0	0	0

TOTAL ANNUAL BENEFIT (ACTUAL DOLLARS) BY 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>
All	0	0	0	0	0	0	0	0

Duluth Teachers' Retirement Fund

Determination Of Contribution Sufficiency*(dollars in thousands)*

JULY 1, 2000

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 353		
1. Employee Contributions	5.50%	\$1,031
2. Employer Contributions	5.79%	1,085
3. Total	<u>11.29%</u>	<u>\$2,116</u>
 B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	6.22%	\$1,166
b. Disability Benefits	0.19%	35
c. Survivors	0.14%	27
d. Deferred Retirement Benefits	0.87%	163
e. Refunds Due to Death or Withdrawal	<u>0.56%</u>	<u>104</u>
f. Total	<u>7.98%</u>	<u>\$1,495</u>

Note: Projected Annual Payroll for Fiscal Year Beginning on JULY 1, 2000 is \$18,738.

Duluth Teachers' Retirement Fund
Summary of Plan Provisions

GENERAL

<i>Eligibility:</i>	A licensed teacher who is employed by the Duluth Public Schools, and eligible licensed staff at Lake Superior College, who have elected to retain their membership in the DTRFA. Also includes any employees of the Retirement Fund and certain part-time employees licensed by the State Department of Education. Employees in the Old Plan are those first hired before July 1, 1981.
<i>Contributions:</i>	
<i>Member:</i>	5.5% of salary.
<i>Employer:</i>	5.79% of salary. (In addition, the State will contribute \$486,000 to the DTRFA plans each year on October 1.)
<i>Credited Service:</i>	Earned while employed in a covered position and employee contributions are deducted. Credit is granted for service less than a legal school year on a pro rata basis.
<i>Salary:</i>	Annual contract salary.
<i>Average Salary:</i>	Average of the five highest years of annual salary.

RETIREMENT

Normal Retirement Benefit:

<i>Eligibility:</i>	Age 60 and one year of Credited Service.
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Amount: The greater of
1.45% of Average Salary for each year of Credited Service
or
the New Plan Benefit.

Early Retirement Benefit:

Eligibility: Age 55 and five years of Credited Service.
Rule of 90: Age plus Credited Service totals 90.

Amount: The greater of
1.45% of Average Salary for each year of Credited
Service with reduction of 0.25% for each month the
Member is under age 60. No reduction if age plus years
of Credited Service totals 90.
or
the New Plan Benefit.

Form of Payment: Life annuity. Actuarially equivalent options are:

5, 10, 15 or 20 year certain and life.
50% or 100% joint and survivor with bounce back
feature without additional reduction.
Other equivalent options approved by the Board.

Benefit Increases: Annual Cost-of-Living Adjustment (COLA):
Increase all benefits by 2% each January 1. An additional
increase will be allowed when the 5-year average rate of
return of the fund exceeds the interest rate assumption of
the plan, currently 8.5%. To be eligible for a COLA, a
retiree or beneficiary must have received a payment for at
least 12 months as of the adjustment date.

Members retired under laws in effect before June 30, 1971 receive an additional lump-sum payment each year. In 1989 this lump-sum payment is the greater of \$25 times each full year of Credited Service or the difference between \$400 times each full year of Credited Service and the sum of the benefits paid from any Minnesota public pension plan plus cash payments from the Social Security Administration for the fiscal year July 1, 1988 through June 30, 1989. In each following year, the lump sum will increase by the same increase that is applied to regular annuities.

DISABILITY

Disability Benefit:

<i>Eligibility:</i>	Totally and permanently disabled as a teacher before the age of 60 with five years of Credited Service.
<i>Amount:</i>	Normal Retirement Benefit based on Credited Service and Average Salary at disability date without reduction for early commencement. Amount is reduced for Workers' Compensation. Payment stops at age 60 or earlier if disability ceases or death occurs.
<i>Form of Payment:</i>	Same as for retirement.
<i>Benefit Increases:</i>	Same as for retirement.

DEATH***Return of Contributions I:***

<i>Eligibility:</i>	Death while active.
<i>Amount:</i>	Two times regular contributions accumulated with 5% interest if death occurred before May 16, 1989 or 6% interest if death occurred on or after May 16, 1989.

Return of Contributions II:

<i>Eligibility:</i>	Death of Member who terminated employment after 10 years of service.
<i>Amount:</i>	Regular contributions accumulated with 5% interest if death occurred before May 16, 1989 or 6% interest if death occurred on or after May 16, 1989.

Return of Contributions III:

<i>Eligibility:</i>	Death of a retired or disabled Member whose benefits have commenced in the form of a life annuity or the death of a survivor of a retired or disabled Member under a joint and survivor option.
<i>Amount:</i>	Excess of regular contributions accumulated with 5% interest if death occurred before May 16, 1989 or 6% interest if death occurred on or after May 16, 1989 over total benefits paid.

Surviving Spouse Benefit

Optional Annuity I

<i>Eligibility:</i>	Death of active Member with 10 years of Credited Service.
<i>Amount:</i>	In lieu of Return of Contributions I, an annuity to surviving spouse equivalent to 120% of the value of what would have been refunded.

Optional Annuity II

<i>Eligibility:</i>	Death of active Member who is age 50 with 10 years of Credited Service. If the Member dies before age 55, benefits commence when Member would have been age 55.
<i>Amount:</i>	In lieu of Return of Contributions I or Surviving Spouse Optional Annuity I, spouse receives survivor portion of the joint and 100% contingent annuity the Member could have elected if terminated.

TERMINATION

Refund of Employee Contributions:

<i>Eligibility:</i>	Termination from teaching 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 the Member has 10 years of Credited Service.

Deferred Annuity:

Eligibility: Ten years of Credited Service.

Amount: Benefit computed under law in effect at termination and increased by the following annual percentage: 3% 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.

TABLE 3B
NEW

DULUTH TEACHERS' RETIREMENT FUND

ACTIVE MEMBERS AS OF JUNE 30, 2000

Age	Years of Service								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>25-29</u>	<u>30+</u>	
<25	35	8	0	0	0	0	0	0	43
25-29	44	88	10	0	0	0	0	0	142
30-34	26	56	41	2	0	0	0	0	125
35-39	19	35	31	36	5	0	0	0	126
40-44	20	52	43	54	15	0	0	0	184
45-49	48	48	39	59	42	1	0	0	237
50-54	11	30	36	50	30	0	0	0	157
55-59	10	14	10	17	13	0	0	0	64
60-64	1	3	4	7	1	0	0	0	16
65+	4	1	0	2	1	0	0	0	8
ALL	218	335	214	227	107	1	0	0	1,102

AVERAGE ANNUAL EARNINGS

Age	Years of Service								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>25-29</u>	<u>30+</u>	
<25	3,368	25,302	0	0	0	0	0	0	7,449
25-29	3,497	25,819	31,330	0	0	0	0	0	19,290
30-34	6,054	27,914	31,251	29,389	0	0	0	0	24,485
35-39	5,460	26,533	31,934	45,062	40,177	0	0	0	30,520
40-44	3,749	26,791	36,314	43,033	49,802	0	0	0	33,155
45-49	5,583	29,178	34,836	44,487	49,987	51,377	0	0	32,923
50-54	4,945	31,842	33,260	49,481	46,407	0	0	0	38,683
55-59	7,495	15,162	35,329	51,350	44,564	0	0	0	32,700
60-64	720	9,476	31,563	48,868	36,594	0	0	0	33,379
65+	12,147	8,785	0	19,567	50,296	0	0	0	18,350
ALL	4,837	26,760	33,559	45,629	47,718	51,377	0	0	29,687

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

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>25-29</u>	<u>30+</u>	ALL
All	1,054	8,964	7,181	10,357	5,105	51	0	0	32,715

DULUTH TEACHERS' RETIREMENT FUND

SERVICE RETIREMENTS AS OF JUNE 30, 2000

<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	0	1	0	0	0	0	1
50-54	0	2	0	1	0	0	0	3
55-59	16	31	2	0	0	0	0	49
60-64	22	52	31	0	0	0	0	105
65-69	7	24	86	20	0	0	0	137
70-74	1	3	57	57	16	0	0	134
75-79	0	0	2	18	19	0	0	39
80-84	0	0	0	1	7	0	0	8
85+	1	0	0	0	0	0	0	1
ALL	47	112	179	97	42	0	0	477

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	0	5,315	0	0	0	0	5,315
50-54	0	7,054	0	2,574	0	0	0	5,561
55-59	33,022	23,313	13,358	0	0	0	0	26,077
60-64	20,351	26,512	13,095	0	0	0	0	21,260
65-69	9,078	13,469	17,561	13,593	0	0	0	15,831
70-74	875	10,723	14,028	13,378	13,711	0	0	13,542
75-79	0	0	19,932	10,652	15,032	0	0	13,262
80-84	0	0	0	7,543	10,962	0	0	10,535
85+	13,415	0	0	0	0	0	0	13,415
ALL	22,424	22,061	15,574	12,745	13,850	0	0	17,045

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	1,053	2,470	2,787	1,236	581	0	0	8,130

DULUTH TEACHERS' RETIREMENT FUND

SURVIVORS AS OF JUNE 30, 2000

<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	1	0	0	1	0	0	0	2
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-64	0	1	3	0	0	0	0	4
65-69	0	0	3	2	1	0	0	6
70-74	1	0	2	3	0	0	0	6
75-79	0	0	1	2	2	0	0	5
80-84	0	0	0	0	1	0	0	1
85+	0	0	0	0	0	0	0	0
ALL	2	1	9	8	4	0	0	24

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	9,283	0	0	9,283	0	0	0	9,283
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-64	0	8,716	22,665	0	0	0	0	19,178
65-69	0	0	12,237	14,933	7,852	0	0	12,405
70-74	14,603	0	15,004	8,438	0	0	0	11,654
75-79	0	0	1,502	16,078	10,830	0	0	11,064
80-84	0	0	0	0	15,982	0	0	15,982
85+	0	0	0	0	0	0	0	0
ALL	11,943	8,716	15,135	12,077	11,374	0	0	12,956

TOTAL ANNUAL BENEFIT (ACTUAL DOLLARS) BY YEARS SINCE DEATH

<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	23,886	8,716	136,215	96,616	45,496	0	0	310,944

DULUTH TEACHERS' RETIREMENT FUND

DISABILITY RETIREMENTS AS OF JUNE 30, 2000

Age	Years Disabled							ALL
	<1	1-4	5-9	10-14	15-19	20-24	25+	
<50	0	0	0	0	0	0	0	0
50-54	0	0	2	0	0	0	0	2
55-59	0	2	0	0	0	0	0	2
60-64	0	1	1	0	0	0	0	2
65-69	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	3	3	0	0	0	0	6

AVERAGE ANNUAL BENEFIT

Age	Years Disabled							ALL
	<1	1-4	5-9	10-14	15-19	20-24	25+	
<50	0	0	0	0	0	0	0	0
50-54	0	0	15,727	0	0	0	0	15,727
55-59	0	3,680	0	0	0	0	0	3,680
60-64	0	2,745	24,585	0	0	0	0	13,665
65-69	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	3,368	18,680	0	0	0	0	11,024

TOTAL ANNUAL BENEFIT (ACTUAL DOLLARS) BY YEARS DISABLED

Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
All	0	10,104	56,040	0	0	0	0	66,144

Duluth Teachers' Retirement Fund

Determination Of Contribution Sufficiency
(dollars in thousands)

JULY 1, 2000

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 353		
1. Employee Contributions	5.50%	\$1,890
2. Employer Contributions	5.79%	1,990
3. Total	<u>11.29%</u>	<u>\$3,880</u>
 B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	7.70%	\$2,645
b. Disability Benefits	0.27%	92
c. Survivors	0.16%	56
d. Deferred Retirement Benefits	0.64%	220
e. Refunds Due to Death or Withdrawal	<u>0.30%</u>	<u>104</u>
f. Total	<u>9.07%</u>	<u>\$3,117</u>

Note: Projected Annual Payroll for Fiscal Year Beginning on JULY 1, 2000 is \$34,364.

Duluth Teachers' Retirement Fund

Summary of Plan Provisions

GENERAL

<i>Eligibility:</i>	A licensed teacher who is employed by the Duluth Public Schools, and eligible licensed staff at Lake Superior College, who have elected to retain their membership in DTRFA. Also includes any employees of the Retirement Fund and certain part-time employees licensed by the State Department of Education. Employees in the New Plan are those first hired on or after July 1, 1981 including any Old Plan Members who may elect to join any time prior to retirement.
<i>Contributions:</i>	
<i>Member:</i>	5.5% of salary.
<i>Employer:</i>	5.79% of salary. (In addition, the State will contribute \$486,000 to the DTRFA plans each year on October 1.)
<i>Allowable Service:</i>	Earned 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 any lump-sum annual leave or sick leave payments and lump-sum payment at separation.
<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:******Eligibility:***

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.

First hired after June 30, 1989:

The greater of age 65 or the age eligible for full Social Security retirement benefits but not higher than age 66 and three years of Allowable Service. Proportionate Retirement Annuity is available at normal retirement age and one year of Allowable Service.

Amount:

Hired before July 1, 1989:

The greater of 1.2% of Average Salary for each of the first 10 years of Allowable Service and 1.7% of Average Salary for each subsequent year.

or

1.7% of Average Salary for each year of Allowable Service.

Hired after June 30, 1989:

1.7% of Average Salary for each year of Allowable Service.

Early Retirement Benefit:***Eligibility:***

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.

Hired after June 30, 1989:

Age 55 and three years of Allowable Service.

Amount:

Hired before July 1, 1989:

The greater of 1.2% of Average Salary for the first 10 years of Allowable Service and 1.7% 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 (age 62 if 30 years of Allowable service). No reduction if age plus years of Allowable Service totals 90.

or

1.7% 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.

Hired after June 30, 1989:

1.7% of Average Salary for each year of Allowable Service with 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. Actuarially equivalent options are:

5, 10, 15 or 20 year certain and life.

50% or 100% joint and survivor with bounce back feature without additional reduction.

A larger life annuity before age 62 and reduced thereafter.

Benefit Increases: Annual Cost-of-Living Adjustment (COLA):

Increase all benefits by 2% each January 1. An additional increase will be allowed when the 5-year average rate of return of the fund exceeds the interest rate assumption of the plan, currently 8.5%. To be eligible for a COLA, a retiree or beneficiary must have received a payment for at least 12 months as of the adjustment date.

DISABILITY***Disability Benefit:***

Eligibility: Totally and permanently disabled under normal retirement age with three years of Allowable Service. Also, at least two 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 commencement before retirement age. Benefit is reduced by Workers' Compensation.

Payments may begin 90 days after disability and stops at normal retirement age, or earlier if disability ceases or death occurs. Benefits paid while partially employed may be reduced.

Form of Payment: Same as for retirement.

Benefit Increases: Same as for retirement.

Retirement After Disability:

Eligibility: Normal retirement age if still totally and permanently disabled.

Amount: 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 actuarial equivalent optional annuity.

Benefit Increase: Same as for retirement.

DEATH

Surviving Spouse Optional Annuity:

<i>Eligibility:</i>	Member who dies before retirement benefits commence with three years of Allowable Service.
<i>Amount:</i>	Survivor's payment of the 100% joint and survivor benefit 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: Same as for retirement.

Refund of Member's Contributions:

<i>Eligibility:</i>	Member or former Member dies before receiving any disability or retirement benefits and survivor benefits are not payable.
<i>Amount:</i>	Member's contributions with 5% interest if death occurred before May 16, 1989 or 6% interest if death occurred on or after May 16, 1989.

TERMINATION

Refund of Member's Contributions:

<i>Eligibility:</i>	Termination from teaching service.
<i>Amount:</i>	Member's contributions with 5% interest 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.

Deferred Annuity:

Eligibility: Three years of Allowable Service.

Amount: Benefit computed under law in effect at termination and increased by the following annual percentage: 3% 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.

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