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**St. Paul Teachers Retirement Fund
ACTUARIAL VALUATION REPORT**

July 1, 2003



Milliman USA

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November 6, 2003

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

**RE: St. Paul Teachers Retirement Fund
July 1, 2003 Actuarial Valuation Report**

Commission Members:

Pursuant the terms of our actuarial services contract, we have performed an actuarial valuation of the St. Paul Teachers Retirement Fund as of July 1, 2003.

The results of our calculations are set forth in the following report, as are the actuarial assumptions upon which our calculations have been made. Although we have reviewed the data for reasonableness and consistency, we have relied on the basic employee data and asset figures as submitted by the St. Paul 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 Legislative Commission on Pensions and Retirement.

We, Thomas K. Custis and Lance M. Burma, are actuaries for Milliman USA. We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Milliman USA

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

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St. Paul Teachers Retirement Fund
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St. Paul Teachers Retirement Fund
Report Highlights
(dollars in thousands)

	July 1, 2002 Valuation	July 1, 2003 Valuation
A. CONTRIBUTIONS % OF PAYROLL (Table 11)		
1. Statutory Contributions - Chapter 354A	17.06%	16.90%
2. Required Contributions - Chapter 356	18.56%	20.36%
3. Sufficiency / (Deficiency)	(1.50%)	(3.46%)
B. FUNDING RATIOS		
1. Accrued Benefit Funding Ratio		
a. Current Assets (Table 1)	\$ 899,572	\$ 898,760
b. Current Benefit Obligations (Table 8)	1,089,692	1,137,675
c. Funding Ratio	82.55%	79.00%
2. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	\$ 899,572	\$ 898,760
b. Actuarial Accrued Liability (Table 9)	1,141,300	1,189,361
c. Funding Ratio	78.82%	75.57%
3. Projected Benefit Funding Ratio (Table 8)		
a. Current and Expected Future Assets	\$ 1,288,741	\$ 1,282,863
b. Current and Expected Future Benefit Obligations	1,352,343	1,401,096
c. Funding Ratio	95.30%	91.56%
C. PLAN PARTICIPANTS		
1. Active Members		
a. Number (Table 3)	4,306	4,331
b. Projected Annual Earnings	\$ 214,594	\$ 218,898
c. Average Annual Earnings (Projected dollars)	\$ 49,836	\$ 50,542
d. Average Age	43.7	44.0
e. Average Service	11.1	11.2
f. Additional Members on Leave of Absence*	156	184
2. Others		
a. Service Retirements (Table 4)	1,884	1,988
b. Disability Retirements (Table 5)	24	21
c. Survivors (Table 6)	228	239
d. Deferred Retirements (Table 7)	815	858
e. Terminated Other Non-Vested (Table 7)	2,078	1,966
f. Total	5,029	5,072

* Valued as deferred retirements, liability included with actives.

St. Paul 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. As of July 1, 2003, the *Accrued Benefit Funding Ratio* is 79.00%.

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 2003 the *Accrued Liability Funding Ratio* is 75.57%.

The *Projected Benefit Funding Ratio* is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 91.56% shows that the current statutory contributions are not sufficient in the long run.

Please see page 1 of this report regarding the comparable funding ratios determined as of July 1, 2002.

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 a five year period. 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 F.1 to F.4. Actuarial Value of Assets is determined as:

Market Value of Assets at June 30, 2003, *less*

80% of the current year Unrecognized Asset Return at July 1, 2003 (the difference between actual net return on Market Value of Assets between June 30, 2002 and June 30, 2003 and the asset return expected during that period based on the assumed interest rate employed in the July 1, 2002 Actuarial Valuation); *less*

60% of the current year Unrecognized Asset Return at July 1, 2002 (the difference between actual net return on Market Value of Assets between June 30, 2001 and June 30, 2002 and the asset return expected during that period based on the assumed interest rate employed in the July 1, 2001 Actuarial Valuation); *less*

40% of the current year Unrecognized Asset Return at July 1, 2001 (the difference between actual net return on Market Value of Assets between June 30, 2000 and June 30, 2001 and the asset return expected during that period based on the assumed interest rate employed in the July 1, 2000 Actuarial Valuation); *less*

20% of the current year Unrecognized Asset Return at July 1, 2000 (the difference between actual net return on Market Value of Assets between June 30, 1999 and June 30, 2000 and the asset return expected during that period based on the assumed interest rate employed in the July 1, 1999 Actuarial Valuation).

Since its adoption on July 1, 2000, the Asset Valuation Method has functioned effectively to smooth the significant variability in market value returns. It is prudent to note, however, that the deferral of recognition of the large market losses of the last three fiscal years means there has accumulated a significant negative return amount that will be recognized over the next few years. This means that in order for asset returns on a "Current Assets" basis to be at or near the assumed 8.5%, market value returns will need to be substantially above 8.5%; conversely, if market value returns are at or near the assumed 8.5%, returns measured on a "Current Assets" basis will be substantially lower, resulting in actuarial losses.

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.

The following table presents the components of Table 1, line A.4:

Other Assets
Table 1 Item A.4
(dollars in thousands)

	<u>Market Value</u>
Accounts Receivable	
Employer Contribution	\$1,078
Employee Contribution	72
Interest	3
Commission Recapture	10
MN Amortization Aid	430
ISD #625 Amortization Match	<u>800</u>
Total Accounts Receivable	\$2,393
Fixed Assets	<u>41</u>
Total Other Assets	<u>\$2,434</u>

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 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.

Actuarial Cost Method (Table 9)

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

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

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

The payments will increase 5.0% 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 current year contribution deficiency of 3.46% since the Statutory Contribution Rate is 16.90% compared to the Required Contribution Rate of 20.36%.

Changes in Actuarial Assumption

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

Changes in Plan Provisions

All plan provisions are the same as those used in the prior actuarial valuation of the Fund. Tables 13A and 13B contain summaries of current plan benefits.

St. Paul Teachers Retirement Fund
Accounting Balance Sheet
(dollars in thousands)

July 1, 2003

	Market Value	Cost Value
A. ASSETS		
1. Cash, Equivalents, Short-Term Securities	\$ 11,882	\$ 11,882
2. Investments		
a. Fixed Income	191,921	152,374
b. Equity	550,992	498,459
c. Real Estate	-	-
d. Alternative	1,030	1,397
3. Equity in Minnesota Post-Retirement Investment Fund	-	-
4. Other Assets*	2,434	2,434
B. TOTAL ASSETS	<u>\$ 758,259</u>	<u>\$ 666,546</u>
C. AMOUNTS CURRENTLY PAYABLE	\$ 619	\$ 619
D. ASSETS AVAILABLE FOR BENEFITS		
1. Member Reserves	\$ 117,622	\$ 117,622
2. Employer Reserves	640,018	548,305
3. MPRIF Reserves	-	-
4. Non-MPRIF Reserves	-	-
5. Total Assets Available for Benefits	<u>\$ 757,640</u>	<u>\$ 665,927</u>
E. TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS	<u>\$ 758,259</u>	<u>\$ 666,546</u>
F. DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
1. Market Value of Assets Available for Benefits (D.5)	\$ 757,640	
2. Unrecognized Asset Returns		
a. June 30, 2003	\$ (56,015)	
b. June 30, 2002	(96,072)	
c. June 30, 2001	(104,645)	
d. June 30, 2000	15,965	
3. UAR Adjustment: $.80 * 2(a) + .60 * 2(b) + .40 * 2(c) + .20 * 2(d)$	(141,120)	
4. Actuarial Value of Assets (F.1 - F.3)	<u>\$ 898,760</u>	

*See "Asset Information" in the Commentary Section of this report.

St. Paul Teachers Retirement Fund
Change In Assets Available for Benefits
(dollars in thousands)

June 30, 2003

	Market Value	Cost Value
A. ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$ 776,086	\$ 697,085
B. OPERATING REVENUES		
1. Member Contributions	\$ 14,222	\$ 14,222
2. Employer Contributions	19,186	19,186
3. Supplemental Contributions	4,184	4,184
4. Investment Income	8,085	8,085
5. MPRIF Income	-	-
6. Investment Expenses	(2,648)	(2,648)
7. Net Realized Gain / (Loss)	(9,405)	(9,405)
8. Other	-	-
9. Net Change in Unrealized Gain / (Loss)	12,763	-
10. Total Operating Revenue	\$ 46,387	\$ 33,624
C. OPERATING EXPENSES		
1. Service Retirements	\$ 57,030	\$ 57,030
2. Disability Benefits	842	842
3. Survivor Benefits	5,486	5,486
4. Refunds	976	976
5. Administrative Expenses	499	499
6. Total Operating Expenses	\$ 64,833	\$ 64,833
D. OTHER CHANGES IN RESERVES	\$ -	\$ -
E. ASSETS AVAILABLE AT END OF PERIOD	\$ 757,640	\$ 665,876
F. DETERMINATION OF CURRENT YEAR UNRECOGNIZED ASSET RETURN		
1. Average Balance		
(a) Assets Available at Beginning of Period	\$ 776,086	
(b) Assets Available at End of Period	757,640	
(c) Average Balance {[(a) + (b) - Net Investment Income] / 2 }	\$ 762,466	
{Net Investment Income: B.4+B.5+B.6+B.7+B.8+B.9}		
2. Expected Return: .085 * F.1	64,810	
3. Actual Return	8,795	
4. Current Year UAR: F.3 - F.2	\$ (56,015)	

TABLE 3
Total Plan

St. Paul Teachers Retirement Fund
ACTIVE MEMBERS AS OF JUNE 30, 2003

<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	69	29	0	0	0	0	0	0	98
25-29	77	309	67	0	0	0	0	0	453
30-34	48	200	264	15	0	0	0	0	527
35-39	30	153	215	98	17	0	0	0	513
40-44	29	130	153	110	77	3	0	0	502
45-49	41	131	129	98	100	75	13	0	587
50-54	34	140	137	120	107	87	106	42	773
55-59	17	74	77	79	79	60	70	176	632
60-64	7	37	29	23	26	27	21	32	202
65+	1	16	11	0	8	1	5	2	44
ALL	353	1,219	1,082	543	414	253	215	252	4,331

AVERAGE ANNUAL EARNINGS

<u>Age</u>	<u>Years of Service</u>								<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	
<25	9,002	23,179	0	0	0	0	0	0	13,197
25-29	12,786	32,371	39,566	0	0	0	0	0	30,106
30-34	19,223	33,246	44,181	48,718	0	0	0	0	37,887
35-39	16,323	35,567	48,191	52,888	61,004	0	0	0	43,884
40-44	19,863	37,651	48,412	57,225	64,402	67,300	0	0	48,473
45-49	24,212	33,336	47,013	57,367	61,123	68,586	72,211	0	49,815
50-54	19,753	30,012	49,133	58,671	61,572	65,356	70,674	71,121	53,555
55-59	15,245	36,114	51,669	58,254	64,918	68,870	71,560	72,793	61,066
60-64	8,558	26,634	53,793	56,017	58,914	71,728	73,260	74,130	55,806
65+	10,573	5,379	22,771	0	67,455	59,360	72,502	84,572	33,586
ALL	15,830	32,792	46,828	56,651	62,552	67,826	71,351	72,778	47,039

Prior Fiscal Year Earnings (In THOUSANDS) by Years of Service

<u>Age</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
ALL	5,588	39,973	50,668	30,762	25,897	17,160	15,341	18,340	203,726

TABLE 4
Total Plan

St. Paul Teachers Retirement Fund

SERVICE RETIREMENTS AS OF JUNE 30, 2003

<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	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	55	89	1	0	0	0	0	145
60-64	36	261	99	1	0	0	0	397
65-69	21	132	262	65	1	0	0	481
70-74	1	6	157	152	71	2	1	390
75-79	0	4	17	89	118	31	1	260
80-84	1	0	1	9	66	76	7	160
85+	0	1	0	3	10	42	99	155
ALL	114	493	537	319	266	151	108	1,988

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	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	36,767	25,175	10,375	0	0	0	0	29,470
60-64	29,966	28,643	28,805	8,282	0	0	0	28,752
65-69	28,533	28,672	34,919	24,979	63,420	0	0	31,642
70-74	1,739	20,993	41,366	34,387	27,890	51,824	50,019	35,853
75-79	0	20,014	27,381	35,977	27,397	23,777	55,245	29,895
80-84	27,423	0	51,825	26,732	27,490	26,530	24,753	27,023
85+	0	48,929	0	60,045	27,950	19,505	20,756	21,824
ALL	32,713	27,903	35,424	32,857	27,708	24,346	21,606	30,367

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	3,729	13,756	19,023	10,481	7,370	3,676	2,333	60,369

TABLE 5
Total Plan

St. Paul Teachers Retirement Fund

DISABILITY RETIREMENTS AS OF JUNE 30, 2003

<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	2	0	0	0	0	2
50-54	0	3	0	0	0	0	0	3
55-59	1	2	6	1	0	0	0	10
60-64	0	0	5	0	0	0	1	6
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	1	5	13	1	0	0	1	21

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	3,511	0	0	0	0	3,511
50-54	0	19,258	0	0	0	0	0	19,258
55-59	15,219	41,589	37,319	54,119	0	0	0	37,643
60-64	0	0	31,818	0	0	0	17,027	29,353
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	15,219	28,190	30,002	54,119	0	0	17,027	29,397

Total Annual Benefit (IN THOUSANDS) 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	15	141	390	54	0	0	17	617

TABLE 6
Total Plan

St. Paul Teachers Retirement Fund
SURVIVORS AS OF JUNE 30, 2003

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	6	3	0	0	0	0	10
50-54	0	1	0	0	1	0	1	3
55-59	1	2	4	2	0	1	0	10
60-64	0	6	6	7	3	1	0	23
65-69	0	4	4	11	5	4	1	29
70-74	0	1	1	10	17	2	3	34
75-79	0	1	0	4	24	15	3	47
80-84	0	0	0	2	7	19	12	40
85+	0	0	0	0	6	9	28	43
ALL	2	21	18	36	63	51	48	239

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	11,731	9,985	5,028	0	0	0	0	8,673
50-54	0	11,515	0	0	23,152	0	3,350	12,672
55-59	24,196	13,578	29,362	26,477	0	17,083	0	23,884
60-64	0	32,965	36,238	22,687	16,454	20,416	0	27,992
65-69	0	39,802	31,026	30,861	21,971	17,042	12,102	28,031
70-74	0	28,935	87,466	34,351	25,060	16,916	20,215	28,836
75-79	0	50,482	0	29,248	27,888	19,380	27,862	25,767
80-84	0	0	0	63,954	20,690	17,690	18,799	20,861
85+	0	0	0	0	13,808	20,841	19,479	18,972
ALL	17,964	25,476	31,196	31,657	23,895	18,704	19,389	23,691

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>	<u>ALL</u>
ALL	36	535	562	1,140	1,505	954	931	5,662

St. Paul Teachers Retirement Fund
Reconciliation of Members

	<u>Actives</u>	<u>Terminated</u>		
		<u>Leave of Absence</u>	<u>Deferred Retirement</u>	<u>Other Non-Vested</u>
A. ON JUNE 30, 2002	4,306	156	815	2,078
B. ADDITIONS	411	132	122	203
C. DELETIONS				
1. Service Retirement	(99)	(1)	(11)	(20)
2. Disability	(1)	(1)	0	0
3. Death - Survivor	(2)	0	0	0
4. Death - Other	0	0	0	0
5. Terminated - Deferred	(77)	(45)	0	0
6. Terminated - Refund	(55)	(5)	(13)	(266)
7. Terminated - Other Non-Vested	(309)	(24)	(1)	(1)
8. Returned as active	132	(28)	(17)	(87)
9. Transferred to another fund	0	0	0	0
D. DATA ADJUSTMENTS	25	0	(37)	59
1. Vested	3,285	184	858	1,966
2. Non-Vested	1,046	0	0	0
E. TOTAL ON JUNE 30, 2003	4,331	184	858	1,966

	<u>Recipients</u>			
	<u>Retirement Annuitants</u>	<u>Disabled</u>	<u>Survivors</u>	<u>Other Beneficiary</u>
A. ON JUNE 30, 2002	1,878	24	228	6
B. ADDITIONS	131	2	18	0
C. DELETIONS				
1. Service Retirement	0	0	0	0
2. Death	(38)	(2)	(9)	0
3. Annuity Expired	0	0	0	0
4. Returned as Active	0	0	0	0
D. DATA ADJUSTMENTS	11	(3)	2	0
E. TOTAL ON JUNE 30, 2003	1,982	21	239	6

St. Paul Teachers Retirement Fund
Actuarial Balance Sheet
(dollars in thousands)

July 1, 2003

A. CURRENT ASSETS (Table 1; Line F.6)				\$	898,760
B. EXPECTED FUTURE ASSETS					
1. Present Value of Expected Future Statutory Supplemental Contributions				\$	172,368
2. Present Value of Future Normal Costs					211,735
3. Total Expected Future Assets					<u>384,103</u>
C. TOTAL CURRENT AND EXPECTED FUTURE ASSETS				\$	<u>1,282,863</u>
D. CURRENT BENEFIT OBLIGATIONS		Non-Vested	Vested		Total
1. Benefit Recipients					
a. Retirement Annuities			\$ 639,108	\$	639,108
b. Disability Benefits			6,054		6,054
c. Surviving Spouse and Child Benefits			49,596		49,596
2. Deferred Retirements			15,594		15,594
3. Former Members Without Vested Rights			4,506		4,506
4. Active Members					
a. Retirement Annuities *	\$	3,343	397,178		400,521
b. Disability Benefits		6,373	-		6,373
c. Surviving Spouse and Child Benefits		3,885	-		3,885
d. Deferred Retirements		335	9,256		9,591
e. Refund Liability Due to Death or Withdrawal		-	2,447		2,447
5. Total Current Benefit Obligations	\$	<u>13,936</u>	\$ <u>1,123,739</u>	\$	<u>1,137,675</u>
E. EXPECTED FUTURE BENEFIT OBLIGATIONS				\$	<u>263,421</u>
F. TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS				\$	<u>1,401,096</u>
G. CURRENT UNFUNDED ACTUARIAL LIABILITY (D.5 - A)				\$	238,915
H. CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F - C)				\$	118,233

* Includes members on leave of absence.

St. Paul Teachers Retirement Fund
Determination of Unfunded Actuarial Accrued Liability (UAAL) and
Supplemental Contribution Rate
(dollars in thousands)

July 1, 2003

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)			
1. Active Members			
a. Retirement Benefits *	\$ 643,866	\$ 181,749	\$ 462,117
b. Disability Benefits	11,749	5,631	6,118
c. Surviving Spouse and Child Benefits	7,534	3,585	3,949
d. Deferred Retirements	18,301	13,806	4,495
e. Refund Liability Due to Death or Withdrawal	4,788	6,964	(2,176)
f. Total	<u>\$ 686,238</u>	<u>\$ 211,735</u>	<u>\$ 474,503</u>
2. Deferred Retirements	\$ 15,594		\$ 15,594
3. Former Members Without Vested Rights	4,506		4,506
4. Annuitants in MPRIF	-		-
5. Annuitants Not in MPRIF	694,758		694,758
6. Total	<u><u>\$ 1,401,096</u></u>	<u><u>\$ 211,735</u></u>	<u><u>\$ 1,189,361</u></u>
B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)			
1. Actuarial Accrued Liability (A.6)			\$ 1,189,361
2. Current Assets (Table 1; Line F.6)			<u>898,760</u>
3. Unfunded Actuarial Accrued Liability (B.1 - B.2)			<u><u>\$ 290,601</u></u>
C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE			
1. Present Value of Future Payrolls Through the Amortization Date of June 30, 2021			2,895,000
2. Supplemental Contribution Rate (B.3 / C.1)			<u><u>10.04%</u></u>

* Includes members on leave of absence.

St. Paul Teachers Retirement Fund
Changes in Unfunded Actuarial Accrued Liability (UAAL)
(dollars in thousands)

June 30, 2003

A. UAAL AT BEGINNING OF YEAR	\$ 241,728
B. CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING	
1. Normal Cost and Expenses	\$ 22,255
2. Contributions	(37,592)
3. Interest	20,841
4. Total	<u>\$ 5,504</u>
C. EXPECTED UAAL AT END OF YEAR (A. + B.4)	\$ 247,232
D. INCREASE / (DECREASE) DUE TO ACTUARIAL LOSSES / (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED	
1. Age and Service Retirements *	\$ -
2. Disability Retirements *	-
3. Death-in-Service Benefits *	-
4. Withdrawal *	-
5. Salary Increases	(8,245)
6. Contribution Income *	-
7. Investment Income **	48,877
8. Mortality of Annuitants	(1,742)
9. Other Items	4,479
10. Total	<u>\$ 43,369</u>
E. UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTIONS (C + D.10)	\$ 290,601
F. CHANGE IN UAAL DUE TO PLAN AMENDMENTS	-
G. CHANGE IN UAAL DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS	<u>-</u>
H. UAAL AT END OF YEAR (E + F + G)	<u><u>\$ 290,601</u></u>

* Included in Item D.9.

** Includes a gross investment loss of \$48,877, increased by \$0 used to provide next year's cost of living adjustments to retirees.

St. Paul Teachers Retirement Fund
Determination of Contribution Sufficiency
(dollars in thousands)

July 1, 2003

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	5.87%	\$ 12,846
2. Employer Contributions	8.83%	19,321
3. Supplemental Contribution		
a. 1996 Legislation	0.85%	1,850
b. 1997 Legislation	1.35%	2,953
4. Administrative Expense Assessment	0.00%	-
5. Total	16.90%	\$ 36,970
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	8.71%	\$ 19,068
b. Disability Benefits	0.27%	585
c. Surviving Spouse and Child Benefits	0.16%	340
d. Deferred Retirements	0.63%	1,387
e. Refund Liability Due to Death or Withdrawal	0.32%	696
f. Total	10.09%	\$ 22,076
2. Supplemental Contribution Amortization	10.04%	21,977
3. Allowance for Administrative Expenses	0.23%	503
4. Total	20.36%	\$ 44,556
C. CONTRIBUTION SUFFICIENCY / (DEFICIENCY) (A.5 - B.4)	(3.46%)	(7,586)
Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date:		\$ 218,898

St. Paul Teachers Retirement Fund
Summary of Actuarial Assumptions and Methods

Interest:	Pre-Retirement: 8.50% per annum Post-Retirement: 8.50% per annum
Salary Increases:	Reported salary for prior fiscal year, with new hires annualized, increased to current fiscal year and annually for each future year according to the ultimate rate table below. During a 10-year select period, $0.3\% \times (10-T)$ where T is completed years of service is added to the ultimate rate.
Mortality:	<p><u>Pre-Retirement:</u></p> <p>Male: 1983 Group Annuity Mortality Table male rates set back 7 years.</p> <p>Female: 1983 Group Annuity Mortality Table female rates set back 5 years.</p> <p><u>Post-Retirement:</u></p> <p>Male: 1983 Group Annuity Mortality Table male rates set back 3 years.</p> <p>Female: 1983 Group Annuity Mortality Table female rates set back 1 years.</p> <p><u>Post-Disability:</u></p> <p>Male: 1977 Railroad Retirement Board Mortality for Disabled Annuitants</p> <p>Female: 1977 Railroad Retirement Board Mortality for Disabled Annuitants</p>
Retirement Age:	<p><u>Active Members:</u></p> <p>Active Members are assumed to retire according to the graded rates shown in the rate table. Rates are applied beginning at the participant's first early retirement age.</p> <p><u>Deferred Members:</u></p> <p>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.</p> <p><u>Other Non-Vested Members:</u></p> <p>Return of contributions is assumed to occur immediately.</p>

Separation:	<p>Select and ultimate rates are based on recent plan experience. Ultimate rates after the third year are shown in the rate table. Select rates are as follows:</p> <table> <tr> <td>First Year</td><td>40%</td></tr> <tr> <td>Second Year</td><td>10%</td></tr> <tr> <td>Third Year</td><td>6%</td></tr> </table>	First Year	40%	Second Year	10%	Third Year	6%						
First Year	40%												
Second Year	10%												
Third Year	6%												
Disability:	Graded rates shown in the rate table.												
Allowance for Combined Service Annuity:	7.0% load on liabilities for active members and 30% load on liabilities for former Members.												
Administrative Expenses:	Prior year administrative expenses (excluding investment expenses) expressed as a percentage of prior year payroll.												
Return of Contributions:	All employees withdrawing after becoming eligible for a deferred benefit were assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit.												
Family Composition:	85% of male Members and 60% of female Members are assumed to be married. Female is assumed to be four years younger than male. Married members are assumed to have two children.												
Social Security:	N/A												
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.												
Optional Benefit Forms:	<p>Married Members are assumed to elect the following forms of benefit:</p> <table> <tr> <td>Males:</td><td>45% elect life annuity option</td></tr> <tr> <td></td><td>10% elect 50% J&S option</td></tr> <tr> <td></td><td>45% elect 100% J&S option</td></tr> <tr> <td>Females:</td><td>80% elect life annuity option</td></tr> <tr> <td></td><td>10% elect 50% J&S option</td></tr> <tr> <td></td><td>10% elect 100% J&S option</td></tr> </table>	Males:	45% elect life annuity option		10% elect 50% J&S option		45% elect 100% J&S option	Females:	80% elect life annuity option		10% elect 50% J&S option		10% elect 100% J&S option
Males:	45% elect life annuity option												
	10% elect 50% J&S option												
	45% elect 100% J&S option												
Females:	80% elect life annuity option												
	10% elect 50% J&S option												
	10% 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>	Market Value, adjusted for amortization obligations receivable at the end of each fiscal year, less of 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 that 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.
<i>Payment on the Unfunded Actuarial Accrued Liability:</i>	The Unfunded Actuarial Accrued Liability is amortized as level percentage of payroll each year to the statutory amortization date assuming payroll increases of 5.00% per annum.
<i>Missing Data:</i>	The submitted participant data has been reviewed for reasonableness and constancy with data submitted for prior valuations. We have not audited this data, and the results of this valuation may change based on the accuracy of the underlying data. In cases where submitted data was missing or incomplete, the following assumptions were applied:
Date of Birth:	Average age of participant group based on prior years valuation report.
Date of Hire:	Current valuation date minus years of service.
Years of Service:	Years of service on last year's valuation plus one year.
Sex:	Male.
Deferred Benefit:	Calculated. Salary at termination is estimated based on termination date. Estimated salary is \$58,366 for 2002/2003 terminations and is decreased by 6.5% for each year that actual termination precedes July 1, 2003.

Supplemental Contributions:

The St. Paul School District and the State of Minnesota are scheduled to make the following supplemental contributions to the plan:

1996 Legislation:

Supplemental contributions according to the following schedule (thousands of dollars):

<u>Year</u>	<u>State</u>	<u>School</u>
06/30/03+	1,050	800

1997 Legislation:

Annual supplemental contributions of \$2,953,000 made on October 1.

St. Paul Teachers Retirement Fund
Summary of Actuarial Assumptions and Methods

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

<u>Age</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Age</u>	<u>Withdrawal</u>	<u>Disability</u>
20	600	2	45	125	6
21	570	2	46	120	6
22	540	2	47	115	6
23	510	2	48	110	6
24	480	2	49	105	6
25	450	2	50	100	12
26	420	2	51	90	12
27	390	2	52	80	12
28	360	2	53	70	12
29	330	2	54	60	12
30	300	3	55	50	24
31	285	3	56	40	24
32	270	3	57	30	24
33	255	3	58	20	24
34	240	3	59	10	24
35	225	3	60	0	48
36	210	3	61	0	48
37	195	3	62	0	48
38	180	3	63	0	48
39	165	3	64	0	48
40	150	4	65	0	0
41	145	4	66	0	0
42	140	4	67	0	0
43	135	4	68	0	0
44	130	4	69	0	0

St. Paul Teachers Retirement Fund
Summary of Actuarial Assumptions and Methods

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

<u>Age</u>	<u>Pre-Retirement Mortality</u>		<u>Post-Retirement Mortality</u>		<u>Post-Disability Mortality</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
20	3	2	3	2	271	271
21	3	2	4	2	271	271
22	3	2	4	2	271	271
23	3	2	4	2	272	272
24	3	2	4	2	272	272
25	4	2	4	2	272	272
26	4	2	4	3	272	272
27	4	2	4	3	272	272
28	4	2	5	3	272	272
29	4	2	5	3	272	272
30	4	3	5	3	272	272
31	4	3	5	3	272	272
32	5	3	6	4	272	272
33	5	3	6	4	272	272
34	5	3	6	4	273	273
35	5	3	7	4	273	273
36	6	4	7	5	273	273
37	6	4	8	5	273	273
38	6	4	9	5	273	273
39	7	4	9	6	273	273
40	7	5	10	6	273	273
41	8	5	10	7	273	273
42	9	5	11	7	273	273
43	9	6	12	8	274	274
44	10	6	14	8	274	274

St. Paul Teachers Retirement Fund
Summary of Actuarial Assumptions and Methods

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

<u>Age</u>	<u>Pre-Retirement Mortality</u>		<u>Post-Retirement Mortality</u>		<u>Post-Disability Mortality</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
45	10	7	15	9	274	274
46	11	7	17	10	275	275
47	12	8	19	11	276	276
48	14	8	22	12	279	279
49	15	9	25	14	283	283
50	17	10	28	15	289	289
51	19	11	31	16	298	298
52	22	12	35	18	310	310
53	25	14	39	19	327	327
54	28	15	43	21	348	348
55	31	16	48	23	371	371
56	35	18	52	25	395	395
57	39	19	57	28	417	417
58	43	21	61	31	437	437
59	48	23	66	34	455	455
60	52	25	71	38	473	473
61	57	28	77	42	494	494
62	61	31	84	47	516	516
63	66	34	92	52	541	541
64	71	38	101	58	569	569
65	77	42	111	64	598	598
66	84	47	124	71	628	628
67	92	52	139	78	658	658
68	101	58	156	87	687	687
69	111	64	176	98	716	716

St. Paul Teachers Retirement Fund
Summary of Actuarial Assumptions and Methods

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

Age	Basic Members Eligible for Rule of 90 Provision	Basic Members Not Eligible for Rule of 90 Provision	Coordinated Members Eligible for Rule of 90 Provision	Coordinated Members Not Eligible for Rule of 90 Provision
<55	4,000	0	4,000	0
55	4,000	1,000	4,000	500
56	4,000	1,000	4,000	500
57	4,000	1,000	4,000	500
58	4,000	1,000	4,000	500
59	4,000	1,000	4,000	500
60	4,000	1,000	4,000	500
61	4,000	1,000	4,000	500
62	4,000	4,000	4,000	2,000
63	4,000	4,000	4,000	2,000
64	4,000	4,000	4,000	2,000
65	4,000	4,000	4,000	2,000
66	5,000	5,000	4,000	4,000
67	5,000	5,000	4,000	4,000
68	5,000	5,000	4,000	4,000
69	5,000	5,000	4,000	4,000
70	5,000	5,000	4,000	4,000
71	8,000	8,000	8,000	8,000
72	8,000	8,000	8,000	8,000
73	8,000	8,000	8,000	8,000
74	8,000	8,000	8,000	8,000
75	8,000	8,000	8,000	8,000
76	8,000	8,000	8,000	8,000
77	8,000	8,000	8,000	8,000
78	8,000	8,000	8,000	8,000
79	8,000	8,000	8,000	8,000
80 or more	10,000	10,000	10,000	10,000

St. Paul Teachers Retirement Fund
Summary of Actuarial Assumptions and Methods

Annual Salary Increases

Ultimate Rate of Annual Salary Increases		Ultimate Rate of Annual Salary Increases	
Age		Age	
<22	6.90%	45	5.75%
23	6.85	46	5.70
24	6.80	47	5.65
		48	5.60
25	6.75	49	5.55
26	6.70		
27	6.65	50	5.50
28	6.60	51	5.45
29	6.55	52	5.40
		53	5.35
30	6.50	54	5.30
31	6.45		
32	6.40	55	5.25
33	6.35	56	5.20
34	6.30	57	5.15
		58	5.10
35	6.25	59	5.05
36	6.20		
37	6.15	60 & Over	5.00
38	6.10		
39	6.05		
40	6.00		
41	5.95		
42	5.90		
43	5.85		
44	5.80		

TABLE 3A
Basic Plan

St. Paul Teachers Retirement Fund
ACTIVE MEMBERS AS OF JUNE 30, 2003

<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	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	0	0	0	0	0	0
45-49	0	0	0	0	2	2	9	0	13
50-54	0	0	0	0	6	17	74	39	136
55-59	0	0	0	0	1	10	53	166	230
60-64	0	0	0	0	0	0	17	30	47
65+	0	0	0	0	0	0	2	2	4
ALL	0	0	0	0	9	29	155	237	430

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	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	0	0	0	0	0	0
45-49	0	0	0	0	40,915	67,026	71,365	0	66,013
50-54	0	0	0	0	57,690	60,239	71,293	70,153	68,984
55-59	0	0	0	0	65,628	70,858	71,849	72,682	72,380
60-64	0	0	0	0	0	0	72,065	74,594	73,679
65+	0	0	0	0	0	0	68,369	84,572	76,471
ALL	0	0	0	0	54,844	64,369	71,534	72,608	71,293

Prior Fiscal Year Earnings (In THOUSANDS) by Years of Service

<u>Age</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
ALL	0	0	0	0	494	1,867	11,088	17,208	30,656

TABLE 4A
Basic Plan

St. Paul Teachers Retirement Fund

SERVICE RETIREMENTS AS OF JUNE 30, 2003

<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	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	43	70	1	0	0	0	0	114
60-64	18	196	82	1	0	0	0	297
65-69	9	77	215	61	1	0	0	363
70-74	0	1	123	138	69	2	1	334
75-79	0	1	13	76	114	31	1	236
80-84	0	0	1	8	62	74	7	152
85+	0	1	0	3	10	40	99	153
ALL	70	346	435	287	256	147	108	1,649

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	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	39,998	29,426	10,375	0	0	0	0	33,247
60-64	40,954	33,395	31,887	8,282	0	0	0	33,352
65-69	48,554	39,748	39,806	26,146	63,420	0	0	37,780
70-74	0	83,660	48,729	36,826	28,632	51,824	50,019	39,786
75-79	0	33,624	30,192	40,284	28,102	23,777	55,245	31,710
80-84	0	0	51,825	29,728	29,019	26,799	24,753	27,929
85+	0	48,929	0	60,045	27,950	20,352	20,756	22,075
ALL	41,344	34,197	40,509	35,417	28,599	24,748	21,606	33,842

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	2,894	11,832	17,621	10,165	7,321	3,638	2,333	55,805

St. Paul Teachers Retirement Fund

DISABILITY RETIREMENTS AS OF JUNE 30, 2003

<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	1	0	0	0	0	0	1
55-59	0	2	4	1	0	0	0	7
60-64	0	0	2	0	0	0	1	3
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	6	1	0	0	1	11

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	37,365	0	0	0	0	0	37,365
55-59	0	41,589	50,333	54,119	0	0	0	48,376
60-64	0	0	56,765	0	0	0	17,027	43,519
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	40,181	52,477	54,119	0	0	17,027	46,050

Total Annual Benefit (IN THOUSANDS) 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	121	315	54	0	0	17	507

TABLE 6A
Basic Plan

St. Paul Teachers Retirement Fund
SURVIVORS AS OF JUNE 30, 2003

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	3	1	0	0	0	0	5
50-54	0	0	0	0	1	0	1	2
55-59	1	1	3	2	0	1	0	8
60-64	0	3	6	7	3	1	0	20
65-69	0	3	4	11	5	4	1	28
70-74	0	1	1	9	17	2	3	33
75-79	0	1	0	3	24	15	3	46
80-84	0	0	0	2	7	19	12	40
85+	0	0	0	0	6	9	28	43
ALL	2	12	15	34	63	51	48	225

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	11,731	10,737	9,625	0	0	0	0	10,713
50-54	0	0	0	0	23,152	0	3,350	13,251
55-59	24,196	18,844	38,008	26,477	0	17,083	0	28,388
60-64	0	39,386	36,238	22,687	16,454	20,416	0	28,209
65-69	0	40,630	31,026	30,861	21,971	17,042	12,102	27,699
70-74	0	28,935	87,466	37,378	25,060	16,916	20,215	29,494
75-79	0	50,482	0	38,562	27,888	19,380	27,862	26,299
80-84	0	0	0	63,954	20,690	17,690	18,799	20,861
85+	0	0	0	0	13,808	20,841	19,479	18,972
ALL	17,964	30,877	36,843	33,271	23,895	18,704	19,389	24,357

Total Annual Benefit (IN THOUSANDS) by Years SINCE DEATH

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>	
ALL	36	371	553	1,131	1,505	954	931	5,480

St. Paul Teachers Retirement Fund
Determination of Contribution Sufficiency
(dollars in thousands)

July 1, 2003

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	8.00%	\$ 2,582
2. Employer Contributions	11.64%	3,757
3. Supplemental Contribution		
a. 1996 Legislation	0.85%	274
b. 1997 Legislation	1.35%	436
4. Administrative Expense Assessment	0.00%	-
5. Total	21.84%	\$ 7,049
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	11.12%	\$ 3,589
b. Disability Benefits	0.48%	154
c. Surviving Spouse and Child Benefits	0.16%	51
d. Deferred Retirements	1.11%	359
e. Refund Liability Due to Death or Withdrawal	0.69%	224
f. Total	13.56%	\$ 4,377
Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date:		\$ 32,277

St. Paul Teachers Retirement Fund
Summary of Plan Provisions

This summary of provisions reflects the interpretation of applicable Statutes by the Commission Actuary for purposes of preparing this valuation. This interpretation is not intended to create or rescind any benefit rights in conflict with any Minnesota Statutes.

GENERAL

<i>Eligibility:</i>	A teacher who is employed in a public school district, other than a charter school, located in the corporate limits of the City of St. Paul and who is not covered by the Social Security Act. Also includes employees of the St. Paul Teachers Retirement Fund.
<i>Contributions:</i>	Member: 8.00% of Salary. Employer: 11.64% of Salary.
<i>Allowable Service:</i>	All periods of service for which salary deductions were made and service during sabbatical leave. After June 30, 1974, St. Paul service for part-time teachers is granted on a proportional basis using actual duty days vs. the agreed number of annual duty days. Years of service credited prior to May 31, 1976 are not recomputed.
<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 years of Salary during the last 10 years while making contributions or while disabled.

RETIREMENT

Normal Retirement Benefit:

<i>Eligibility:</i>	Age 65 and 5 years of Allowable Service. Proportionate Retirement Annuity is available at age 65 and 1 year of Allowable Service.
<i>Amount:</i>	2.50% of Average Salary for each year of Allowable Service.

Early Retirement Benefit:

Eligibility:

An unreduced benefit is available upon the attainment of age 60 and 25 years of Allowable Service, or Rule of 90 (Age plus Allowable Service totals 90).

A reduced benefit is available upon the attainment of age 55 and 5 years of Allowable Service.

Amount:

The greater of:

2.00% of Average Salary for each year of Allowable Service not to exceed 40 years with reduction of 0.25% for each month the Member is under age 65 (age 60 if 25 years of Allowable Service). No reduction if age plus years of Allowable Service totals 90.

or

2.50% 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.

Form of Payment:

Life annuity.

Benefit Increases:

Benefits are increased 2.0% annually beginning on the January 1 following fiscal year end if the Member has been receiving benefits for at least 12 months at fiscal year end. Beneficiaries are entitled to the 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.

DISABILITY

Disability Benefit:

<i>Eligibility:</i>	Totally and permanently disabled before the age of 65 with 5 years of St. Paul service.
<i>Amount:</i>	An annuity of 75% of the annual contract salary for the last full year of service reduced by any Social Security and Workers' Compensation benefits.
<i>-</i>	Payments are recomputed as a retirement at age 65. Payments stop if disability ceases or death occurs.
<i>Form of Payment:</i>	Life annuity.
<i>Benefit Increases:</i>	Same as for retirement.

Retirement After Disability:

<i>Eligibility:</i>	Age 65 with continued disability.
<i>Amount:</i>	Normal Retirement Benefit based on Average Salary and Allowable Service as if Member had continued in his latest position during the period of his disability.
<i>Form of Payment:</i>	Life annuity.
<i>Benefit Increases:</i>	Same as for retirement.

DEATH

Family Benefits:

<i>Eligibility:</i>	Active Member with 3 years of St. Paul service.
<i>Amount:</i>	Benefit of 15% of B.A. salary to spouse plus 25% of B.A. salary to each eligible child (maximum of 2). B.A. salary is the maximum salary payable to a teacher holding a B.A. degree.

Spouse's benefits cease upon death or when the spouse elects to receive survivor's benefits. Such election does not affect benefits paid to children but total benefits may not exceed 90% of the Member's final salary. Children's benefits cease upon marriage or age 18 (22 if full time student).

Survivor's Benefits:

Eligibility:

Active or retired Member with 5 years of St. Paul service. A surviving spouse must have been married to the Member for 3 years at the time of his death or retirement, whichever occurs first.

Amount:

Survivor's payment of the 100% joint and survivor benefit earned by the Member to the date of his death or his retirement, whichever occurs first.

Benefit Increases:

Same as for a retired person if payments have been made over one year. The allocation is based on the years of Allowable Service of the person on whose behalf the annuity is paid and the years receiving the payment.

Refund of Contributions:

Eligibility:

Death of a Member or former Member when Family Benefits and Survivor's Benefits are not payable.

Amount:

The excess of the Member's contributions with 6.00% interest (unless the Member was disabled) over total benefits paid.

TERMINATION

Deferred Annuity:

Eligibility:

5 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.

Amount: Member's contributions with 5.00% interest if termination occurred before May 16, 1989 and 6.00% interest if termination occurred after May 16, 1989. A deferred annuity may be elected in lieu of a refund.

TABLE 3B
Coordinated Plan

St. Paul Teachers Retirement Fund
ACTIVE MEMBERS AS OF JUNE 30, 2003

<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	69	29	0	0	0	0	0	0	98
25-29	77	309	67	0	0	0	0	0	453
30-34	48	200	264	15	0	0	0	0	527
35-39	30	153	215	98	17	0	0	0	513
40-44	29	130	153	110	77	3	0	0	502
45-49	41	131	129	98	98	73	4	0	574
50-54	34	140	137	120	101	70	32	3	637
55-59	17	74	77	79	78	50	17	10	402
60-64	7	37	29	23	26	27	4	2	155
65+	1	16	11	0	8	1	3	0	40
ALL	353	1,219	1,082	543	405	224	60	15	3,901

AVERAGE ANNUAL EARNINGS

<u>Age</u>	<u>Years of Service</u>								<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	
<25	9,002	23,179	0	0	0	0	0	0	13,197
25-29	12,786	32,371	39,566	0	0	0	0	0	30,106
30-34	19,223	33,246	44,181	48,718	0	0	0	0	37,887
35-39	16,323	35,567	48,191	52,888	61,004	0	0	0	43,884
40-44	19,863	37,651	48,412	57,225	64,402	67,300	0	0	48,473
45-49	24,212	33,336	47,013	57,367	61,536	68,629	74,115	0	49,448
50-54	19,753	30,012	49,133	58,671	61,803	66,599	69,240	83,703	50,260
55-59	15,245	36,114	51,669	58,254	64,909	68,472	70,661	74,643	54,593
60-64	8,558	26,634	53,793	56,017	58,914	71,728	78,337	67,174	50,386
65+	10,573	5,379	22,771	0	67,455	59,360	75,257	0	29,297
ALL	15,830	32,792	46,828	56,651	62,723	68,274	70,875	75,459	44,365

Prior Fiscal Year Earnings (In THOUSANDS) by Years of Service

<u>Age</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
ALL	5,588	39,973	50,668	30,762	25,403	15,293	4,253	1,132	173,068

TABLE 4B
Coordinated Plan

St. Paul Teachers Retirement Fund

SERVICE RETIREMENTS AS OF JUNE 30, 2003

Age	Years Retired							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	0	0	0	0	0	0
55-59	12	19	0	0	0	0	0	31
60-64	18	65	17	0	0	0	0	100
65-69	12	55	47	4	0	0	0	118
70-74	1	5	34	14	2	0	0	56
75-79	0	3	4	13	4	0	0	24
80-84	1	0	0	1	4	2	0	8
85+	0	0	0	0	0	2	0	2
ALL	44	147	102	32	10	4	0	339

AVERAGE ANNUAL BENEFIT

Age	Years Retired							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	0	0	0	0	0	0
55-59	25,188	9,513	0	0	0	0	0	15,581
60-64	18,978	14,314	13,938	0	0	0	0	15,090
65-69	13,518	13,166	12,566	7,172	0	0	0	12,760
70-74	1,739	8,459	14,729	10,345	2,264	0	0	12,396
75-79	0	15,477	18,245	10,799	7,315	0	0	12,044
80-84	27,423	0	0	2,767	3,790	16,589	0	9,816
85+	0	0	0	0	0	2,561	0	2,561
ALL	18,983	13,089	13,738	9,896	4,895	9,575	0	13,465

Total Annual Benefit (IN THOUSANDS) by Years RETIRED

Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
ALL	835	1,924	1,401	317	49	38	0	4,564

TABLE 5B
Coordinated Plan

St. Paul Teachers Retirement Fund

DISABILITY RETIREMENTS AS OF JUNE 30, 2003

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	2	0	0	0	0	2
50-54	0	2	0	0	0	0	0	2
55-59	1	0	2	0	0	0	0	3
60-64	0	0	3	0	0	0	0	3
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	1	2	7	0	0	0	0	10

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	3,511	0	0	0	0	3,511
50-54	0	10,205	0	0	0	0	0	10,205
55-59	15,219	0	11,290	0	0	0	0	12,600
60-64	0	0	15,187	0	0	0	0	15,187
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	15,219	10,205	10,738	0	0	0	0	11,079

Total Annual Benefit (IN THOUSANDS) by Years DISABLED

Age	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL	15	20	75	0	0	0	0	111

TABLE 6B
Coordinated Plan

St. Paul Teachers Retirement Fund
SURVIVORS AS OF JUNE 30, 2003

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	3	2	0	0	0	0	5
50-54	0	1	0	0	0	0	0	1
55-59	0	1	1	0	0	0	0	2
60-64	0	3	0	0	0	0	0	3
65-69	0	1	0	0	0	0	0	1
70-74	0	0	0	1	0	0	0	1
75-79	0	0	0	1	0	0	0	1
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	9	3	2	0	0	0	14

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	9,234	2,730	0	0	0	0	6,632
50-54	0	11,515	0	0	0	0	0	11,515
55-59	0	8,312	3,423	0	0	0	0	5,868
60-64	0	26,544	0	0	0	0	0	26,544
65-69	0	37,318	0	0	0	0	0	37,318
70-74	0	0	0	7,102	0	0	0	7,102
75-79	0	0	0	1,307	0	0	0	1,307
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	18,275	2,961	4,205	0	0	0	12,983

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>	<u>ALL</u>
ALL	0	164	9	8	0	0	0	182

COORDINATED

St. Paul Teachers Retirement Fund
Determination of Contribution Sufficiency
(dollars in thousands)

July 1, 2003

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 354A		
1. Employee Contributions	5.50%	\$ 10,264
2. Employer Contributions	8.34%	15,564
3. Supplemental Contribution		
a. 1996 Legislation	0.85%	1,576
b. 1997 Legislation	1.35%	2,517
4. Administrative Expense Assessment	0.00%	-
5. Total	16.04%	\$ 29,921
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	8.29%	\$ 15,479
b. Disability Benefits	0.23%	431
c. Surviving Spouse and Child Benefits	0.15%	289
d. Deferred Retirements	0.55%	1,028
e. Refund Liability Due to Death or Withdrawal	0.25%	472
f. Total	9.47%	\$ 17,699
Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date:		\$ 186,621

St. Paul Teachers Retirement Fund
Summary of Plan Provisions

This summary of provisions reflects the interpretation of applicable Statutes by the Commission Actuary for purposes of preparing this valuation. This interpretation is not intended to create or rescind any benefit rights in conflict with any Minnesota Statutes.

GENERAL

<i>Eligibility:</i>	A teacher who is employed in a public school district, other than a charter school, located in the corporate limits of the City of St. Paul and who is covered by the Social Security Act. Also includes employees of the St. Paul Teachers Retirement Fund.
<i>Contributions:</i>	Member: 5.50% of Salary. Employer: 8.34% of Salary.
<i>Allowable Service:</i>	All periods of service for which salary deductions were made and service during sabbatical leave. After June 30, 1974, St. Paul service for part-time teachers is granted on a proportional basis using actual duty days vs. the agreed number of annual duty days. Years of service credited prior to May 31, 1976 are not recomputed.
<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 successive years of Salary. Average Salary is based on all Allowable Service is less than 5 years

RETIREMENT

Normal Retirement Benefit:

Eligibility:

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.
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First hired after
July 1, 1989: The greater of age 65 or the age eligible for full Social Security retirement benefits (but not greater than age 66) and 3 years of Allowable Service. Proportionate Retirement Annuity is available at normal retirement age and 1 year of Allowable Service.

Amount: 1.70% of Average Salary for each year of Allowable Service.

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:

1.20% of Average Salary for each of the first 10 years of Allowable Service plus 1.70% 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

1.70% 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:

1.70% of Average Salary for each year of Allowable Service assuming augmentation to Normal Retirement Age at 3.00% per year and actuarial reduction for each month the Member is under Normal Retirement Age.

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

- Guaranteed refund,
- 15 year certain and life, and
- 50% or 100% joint and survivor with bounce back feature without additional reduction.

Benefit Increases: Benefits are increased 2.0% annually beginning on the January 1 following fiscal year end if the Member has been receiving benefits for at least 12 months at fiscal year end. Beneficiaries are entitled to the 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.

DISABILITY

Disability Benefit:

Eligibility: Totally and permanently disabled before 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 normal retirement age. Benefit is reduced by Workers' Compensation.

Payments are recomputed as a retirement benefit 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:

<i>Eligibility:</i>	Normal retirement age with continued disability.
<i>Amount:</i>	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.
<i>Benefit Increases:</i>	Same as for retirement.

DEATH

Surviving Spouse Annuity:

<i>Eligibility:</i>	<p>Any active Member who dies with 3 years of Allowable Service prior to retirement or disability benefits commence.</p> <p>Any former Member who dies before retirement or disability benefits commence.</p>
<i>Amount:</i>	<p>Survivor's payment of the 100% joint and survivor benefit the Member could have elected if terminated.</p> <p>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.</p> <p>If a former Member had attained age 55 prior to death and had earned at least 3 years of Allowable Service prior to separation of service, benefits will commence immediately reduced for early commencement from Normal Retirement Age. If a former Member had earned at least 30 years of Allowable Service prior to separation of service, benefit will commence immediately, reduced for early commencement from age 62. If a former Member dies prior to age 55, benefits are deferred to age 55.</p>
<i>Benefit Increases:</i>	Same as for a retired person if payments have been made over one year. The allocation is based on the years of

Allowable Service of the person on whose behalf the annuity is paid and the years receiving the payment.

Refund of Contributions:

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

Amount: Member's contributions with 5.00% interest if death occurred before May 16, 1989 and 6.00% interest if death occurred after May 16, 1989.

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.

Amount: Member's contributions with 5.00% interest if termination occurred before May 16, 1989 and 6.00% interest if termination occurred after May 16, 1989. A deferred annuity may be elected in lieu of a refund.

St. Paul Teachers Retirement Fund
Schedule of Funding Progress
(dollars in thousands)

July 1, 2003

Actuarial Valuation Date	Actuarial Value of Assets (A)	Actuarial Accrued Liability (B)	Unfunded AAL (UAAL) (B)-(A)	Funded Ratio (A)/(B)	Actual Covered Payroll (Previous FY) (C)	UAAL as % of Covered Payroll ((B)-(A))/(C)
07/01/91	\$ 326,357	\$ 495,740	\$ 169,383	65.83%	\$ 110,131	153.80%
07/01/92	355,998	533,865	177,867	66.68%	115,274	154.30%
07/01/93	393,168	571,059	177,891	68.85%	122,930	144.71%
07/01/94	407,275	596,441	189,166	68.28%	129,308	146.29%
07/01/95	445,733	633,070	187,337	70.41%	139,175	134.61%
07/01/96	494,931	664,072	169,141	74.53%	145,677	116.11%
07/01/97	556,406	805,066	248,660	69.11%	151,363	164.28%
07/01/98	625,053	861,584	236,531	72.55%	168,564	140.32%
07/01/99	704,233	938,847	234,614	75.01%	178,254	131.62%
07/01/00	801,823	998,253	196,430	80.32%	187,950	104.51%
07/01/01	869,045	1,060,931	191,886	81.91%	202,915	94.56%
07/01/02	899,572	1,141,300	241,728	78.82%	201,456	119.99%
07/01/03	898,760	1,189,361	290,601	75.57%	205,655	141.31%

St. Paul Teachers Retirement Fund
Schedule of Employer Contributions
(dollars in thousands)

July 1, 2003

Year Ended June 30	Actuarially Required Contribution Rate (A)	Actual Covered Payroll (B)	Actual Member Contributions (C)	Annual Required Contributions [(A)*(B)]-(C)	Actual Employer Contributions ⁽¹⁾	Percentage Contributed
1991	18.86%	\$ 110,131	\$ 7,518	\$ 13,253	\$ 10,255	77.38%
1992	18.87%	115,274	7,821	13,931	10,489	75.29%
1993	19.74%	122,930	8,202	16,064	10,839	67.47%
1994	18.68%	129,308	9,100	15,055	11,736	77.95%
1995	18.63%	139,175	8,788	17,140	13,084	76.34%
1996	17.96%	145,677	9,093	17,071	15,101	88.46%
1997	16.97%	151,363	9,484	16,202	16,043	99.02%
1998	20.35%	168,564	11,057	23,246	21,702	93.36%
1999	18.82%	178,254	11,649	21,898	21,066	96.19%
2000	18.09%	187,950	13,184	20,816	22,622	108.69%
2001	16.57%	202,915	13,170	20,453	23,569	115.28%
2002	15.81%	201,456	14,468	17,382	24,216	139.32%
2003	18.56% ⁽²⁾	205,655	14,222	23,948	23,370	97.59%

⁽¹⁾ Includes contributions from other sources (if applicable)

⁽²⁾ Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 16.19%.