Minneapolis Teachers' Retirement Fund Association

Actuarial Valuation and Review as of July 1, 2005

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November 28, 2005

Ms. Karen U. Kilberg
Minneapolis Teachers' Retirement Fund Association
730 Second Avenue South, Suite 815
Minneapolis, Minnesota 55402

Office of the State Auditor (2 copies)

Dear Ms. Kilberg:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2005. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2006 and analyzes the preceding year's experience. We are expressing continued serious concerns about the financial health of this plan. Absent a significant financial solution, we are concerned about the liability of this plan to make its benefit promises.

The census information on which our calculations were based was prepared by the Fund and the financial information was provided by the Fund. That assistance is gratefully acknowledged. The actuarial calculations were completed under our supervision.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in the valuation are consistent with those in the statute, and reasonably represent the experience of the plan.

We look forward to reviewing this report at your next meeting and to answering any questions. Sincerely,

Leslie L. Thompson, FSA, MAAA, EA	Susan M. Hogarth, EA, MAAA
Senior Vice President and Consulting Actuary	Consulting Actuary
Legislative Commission on Pensions and Retirement	(3 copies)
Minnesota Legislative Reference Library (6 copies)	
Minnesota Department of Finance (2 copies)	

SECTION 1

VALUATION SUMMARY
Purpose
Significant Issues in Valuation Yeari
Summary of Key Valuation
Resultsii

VALUATION CUMMADY

SECTION 2

VA	ALUATION RESULTS	
A.	Member Data	
B.	Financial Information	4
C.	Actuarial Experience	4
	Information Required by the	

SECTION 3

SUPPLEMENTAL

INFORMATION EXHIBIT A Table of Plan Coverage7 EXHIBIT B Members in Active Service as of June 30, 20058 EXHIBIT C Retired Participants as of June 30, 2005......11 EXHIBIT D Disabled Members as of June 30, 2005......14 EXHIBIT E Beneficiaries as of June 30, 2005.......17 EXHIBIT F Reconciliation of Member Data......20 EXHIBIT G Statement of Change in Assets Available for Benefits for Year Ended June 30, 200521 EXHIBIT H Accounting Balance Sheet for Year Ended June 30, 200522 EXHIBIT I Development of the Fund Through June 30, 200523 EXHIBIT J Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended June 30, 200524

Definitions of Pension Terms25

EXHIBIT K

SECTION 4

REPORTING INFORMATION
EXHIBIT I Summary of Actuarial Valuation Results27
EXHIBIT I (continued) Summary of Actuarial Valuation Results28
EXHIBIT II Actuarial Balance Sheet29
EXHIBIT III Supplementary Information Required by the GASB – Schedule of Employer Contributions
EXHIBIT IV Supplementary Information Required by the GASB – Schedule of Funding Progress
EXHIBIT V Determination of Contribution Sufficiency – Total
EXHIBIT VI Determination of Contribution Sufficiency – Basic
EXHIBIT VII Determination of Contribution Sufficiency – Coordinated34
EXHIBIT VIII Supplementary Information Required by the GASB
EXHIBIT IX Actuarial Assumptions and Actuarial Cost Method36
EXHIBIT X Summary of Plan Provisions - Basic 43
EXHIBIT XI Summary of Plan Provisions – Coordinated48

Purpose

This report has been prepared by The Segal Company to present a valuation of the Minneapolis Teachers' Retirement Fund Association as of July 1, 2005. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- > Section 356.215 of the Minnesota Statutes;
- > The benefit provisions of the Retirement Fund, as administered by the Legislative Commission on Pensions and Retirement;
- > The characteristics of covered active members, inactive vested members, pensioners and beneficiaries as of July 1, 2005, provided by the Fund;
- > The assets of the Fund as of June 30, 2005, provided by the Fund;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- > The plan remains in serious financial trouble. Unless significant improvement is made in the funding of this plan (we recognize work is being done on this issue), future benefits could be in jeopardy. The contributions being made to fund this plan are less than those required, and the deficiency continues to increase the unfunded actuarial accrued liability.
- > The actuarial accrued liability funded ratio based on the actuarial value of assets over the actuarial accrued liability as of July 1, 2005 is 44.61% compared to 50.75% as of July 1, 2004. This ratio is a measure of funding status, and its history is a measure of funding progress, and is the ratio required to be reported under GASB 25.
- As indicated on page 4 of this report, the total unrecognized investment loss as of June 30, 2005 is \$38,139,280. This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment gains derived from future experience.
- > The statutory contribution rate under Chapter 354A is equal to 22.99% of payroll compared to the required contribution rate under Chapter 356 of 46.29% of payroll. Therefore, the contribution deficiency is 23.30% of payroll as of July 1, 2005.
- > There were no changes in plan provisions, actuarial assumptions or actuarial cost methods since the prior valuation.

SECTION 1: Valuation Summary for the Minneapolis Teachers' Retirement Fund Association

Summary of Key Valuation Results		
	2005	2004
Contributions (% of payroll) for plan year beginning July 1:		
Statutory – Chapter 354A	22.99%	22.87%
Required – Chapter 356	46.29%	38.11%
Sufficiency/(Deficiency)	-23.30%	-15.24%
Funding elements for plan year beginning July 1:		
Normal cost	\$21,981,273	\$23,889,438
Market value of assets	745,214,858	763,089,276
Actuarial value of assets (AVA)	783,354,138	877,763,977
Actuarial accrued liability (AAL)	1,755,912,975	1,729,551,327
Unfunded/(Overfunded) actuarial accrued liability	972,558,837	851,787,350
Funded ratios:		
Accrued Benefit Funded Ratio	46.05%	52.44%
Current assets (AVA)	\$783,354,138	\$877,763,977
Current benefit obligations	1,701,068,129	1,673,999,414
Projected Benefit Funded Ratio	65.29%	72.96%
Current and expected future assets	\$1,279,126,474	\$1,425,914,880
Current and expected future benefit obligations (Present Value of Benefits)	1,959,273,001	1,954,384,577
GASB 25/27 for plan year beginning July 1:		
Annual required employer contributions	\$68,516,528	\$58,809,150
Accrued Liability Funded Ratio (AVA/AAL)	44.61%	50.75%
Covered actual payroll	\$216,051,644	\$232,386,459
Demographic data for plan year beginning July 1:		
Number of pensioners and beneficiaries	3,839	3,764
Number of vested terminated members	1,377	1,243
Number of other non-vested terminated members	3,604	3,384
Number of active members	4,702	5,023
Number of members on leave of absence*	54	51
Total projected payroll**	\$231,208,456	\$249,069,999
Average annual payroll (projected dollars)**	48,614	49,088

^{*} Members on leave of absence treated as active members.

^{**} Calculated as covered actual payroll, projected one year with salary scale. Also includes members on leave of absence.

A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, pensioners and beneficiaries. This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, C, D, E and F.

A historical perspective of how the member population has changed over the past four valuations can be seen in this chart.

CHART 1 Member Population: 2002 – 2005

Year Ended June 30			Pensioners and Beneficiaries	Ratio of Non-Actives to Actives
2002	5,720	1,043	3,572	0.81
2003	5,381	1,123	3,642	0.89
2004	5,074	1,243	3,764	0.99
2005	4,756	1,377	3,839	1.10

^{*} For years after 2003, includes members on leave of absence.

^{**} Excludes terminated members due a refund of employee contributions.

Active Members

Plan costs are affected by the age, years of service and payroll of active members. In this year's valuation, there were 4,756 active members (including 54 members on leave of absence) with an average age of 44.5, average years of service of 10.1 years and average projected payroll of \$48,614. The 5,074 active members (including 51 members on leave of absence) in the prior valuation had an average age of 43.8, average service of 9.5 years and average projected payroll of \$49,088.

Inactive Members

In this year's valuation, there were 1,377 members with a vested right to a deferred or immediate vested benefit.

In addition, there were 3,604 other non-vested terminated members entitled to a return of their employee contributions.

These graphs show a distribution of active members by age and by years of service.

CHART 2
Distribution of Active Members by Age as of June 30, 2005

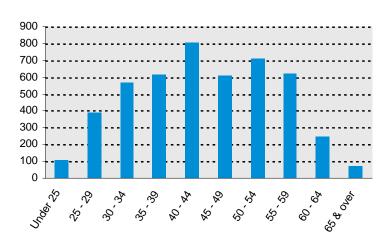
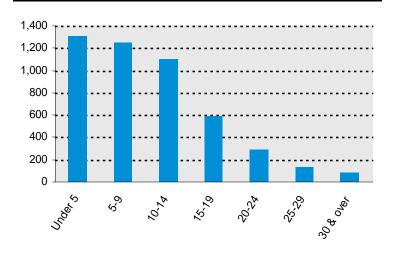


CHART 3
Distribution of Active Members by Years of Service as of June 30, 2005



Pensioners and Beneficiaries

As of June 30, 2005, 3,562 pensioners (including 25 disableds) and 277 beneficiaries were receiving total monthly benefits of \$10,369,245. For comparison, in the previous valuation, there were 3,473 pensioners (including 24 disableds) and 291 beneficiaries receiving monthly benefits of \$10,016,143.

These graphs show a distribution of the current pensioners and beneficiaries based on their monthly amount and age, by type of pension.

CHART 4
Distribution of Pensioners and Beneficiaries by Type and by Monthly Amount as of June 30, 2005

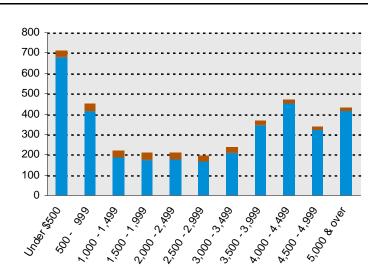
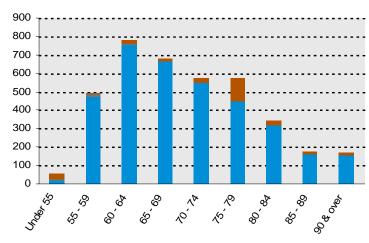


CHART 5
Distribution of Pensioners and Beneficiaries by Type and by Age as of June 30, 2005



*SEGAL

■ Survivor■ Disability

B. FINANCIAL INFORMATION

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Minnesota Statutes require an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Both the actuarial value and market value of assets are representations of the Fund's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Fund's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 6

Determination of Actuarial Value of Assets for Year Ended June 30, 2005

1.	Market value of assets available for benefits			\$745,214,858
		Original Amount	% Not Recognized	
2.	Calculation of unrecognized return		_	
	(a) Year ended June 30, 2005	-\$8,143,756	80%	-\$6,515,004
	(b) Year ended June 30, 2004	48,441,874	60%	29,065,124
	(c) Year ended June 30, 2003	-57,727,000	40%	-23,090,800
	(d) Year ended June 30, 2002	-187,993,000	20%	<u>-37,598,600</u>
	(e) Total unrecognized return			-\$38,139,280
3.	Actuarial value of assets: (1) – (2e) ("Current Assets")			<u>\$783,354,138</u>

C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions.

For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

For the plan year ended June 30, 2005, the total loss is \$77,303,375, which includes a loss of \$94,426,526 from investments and a gain of \$17,123,151 from all other sources. The net experience variation from individual sources other than investments was 0.98% of the actuarial accrued liability, which is less than 1.00% of the total actuarial accrued liability, and includes age/service retirements, disability, mortality (pre and post-retirement), withdrawal and salary increases.

This chart provides a summary of the actuarial experience during the past year.

CHART 7 Actuarial Experience for Year Ended June 30, 2005

1.	Net gain/(loss) from investments	-\$94,426,526
2.	Net gain/(loss) from other experience	<u>17,123,151</u>
3.	Net experience gain/(loss): $(1) + (2)$	-\$77,303,375

D. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with the GASB funding requirements. Section 4, Exhibit III presents a schedule of this information for the Fund.

The other critical piece of information regarding the Fund's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

GASB requires that the actuarial value of assets be used to determine the funded ratio, as shown in Section 4, Exhibit IV.

SECTION 3: Supplemental Information for the Minneapolis Teachers' Retirement Fund Association

EXHIBIT A

Table of Plan Coverage

	Year End	ed June 30	– Change From Prior Year	
Category	2005	2004		
Active members in valuation*:				
Number	4,756	5,074	-6.3%	
Average age	44.5	43.8	N/A	
Average service	10.1	9.5	N/A	
Total projected payroll	\$231,208,456	\$249,069,999	-7.2%	
Average projected payroll	48,614	49,088	-1.0%	
Total active vested members	3,894	4,011	-2.9%	
Vested terminated members	1,377	1,243	10.8%	
Retired participants:				
Number in pay status	3,537	3,449	2.6%	
Average age	70.5	70.3	N/A	
Average monthly benefit	\$2,735	\$2,699	1.3%	
Disabled members:				
Number in pay status	25	24	4.2%	
Average age	57.3	57.1	N/A	
Average monthly benefit	\$2,818	\$2,932	-3.9%	
Beneficiaries:				
Number in pay status	277	291	-4.8%	
Average age	75.2	75.5	N/A	
Average monthly benefit	\$2,254	\$2,189	3.0%	
Other non-vested terminated members	3,604	3,384	6.5%	

^{*} For 2004, includes 51 members on leave of absence, and for 2005, includes 54 members on leave of absence.

EXHIBIT B-1
Members in Active Service as of June 30, 2005
By Age, Years of Service, and Average Projected Payroll - Total

	Years of Service								
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30 & Over	
Under 25	108	108							
	\$9,520	\$9,520							
25 - 29	393	320	73						
	19,941	16,940	\$33,095						
30 - 34	568	203	333	32					
	37,026	22,181	44,768	\$50,636					
35 - 39	617	134	251	224	8				
	46,613	25,969	48,294	56,303	\$68,335				
40 - 44	807	230	207	222	118	30			
	48,355	23,229	51,259	61,546	62,731	\$66,798			
45 - 49	611	119	129	174	114	67	8		
	55,986	29,312	54,497	63,264	64,935	69,682	\$76,285	-	
50 - 54	713	88	123	199	160	77	54	12	
	59,413	27,852	52,003	61,003	67,764	74,147	71,641	\$79,490	
55 - 59	624	65	97	158	128	82	54	40	
	61,690	26,740	53,841	61,724	70,726	73,185	70,945	72,404	
60 - 64	246	23	31	75	51	24	14	28	
	60,853	24,989	53,514	59,879	63,923	72,487	81,974	74,925	
65 & Over	69	17	7	16	9	8	4		
	50,678	14,281	28,117	62,325	63,563	82,561	73,193	66,83	
Total	4,756	1,307	1,251	1,100	588	288	134	88	
	\$48,614	\$21,629	\$48,410	\$60,258	\$66,461	\$72,164	\$72,764	\$73,666	

EXHIBIT B-2
Members in Active Service as of June 30, 2005
By Age, Years of Service, and Average Projected Payroll - Basic

 Age		Years of Service							
	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30 & over	
Under 25									
25 - 29									
30 - 34									
35 - 39									
40 - 44									
45 - 49	3					1	2		
	\$71,444					\$75,849	\$69,241		
50 - 54	65			3	6	11	33	12	
	73,034			\$71,533	\$59,006	75,962	72,397	\$79,490	
55 - 59	119			4	15	20	41	39	
	72,189			69,217	69,774	77,088	71,462	71,675	
60 - 64	50			2	9	5	8	26	
	72,719			55,874	56,848	71,981	78,657	77,824	
65 & Over	16					4	4	8	
	70,906					76,770	73,193	66,831	
Total	253			9	30	41	88	85	
	\$72,421			\$67,024	\$63,743	\$76,102	\$72,495	\$74,203	

EXHIBIT B-3
Members in Active Service as of June 30, 2005
By Age, Years of Service, and Average Projected Payroll - Coordinated

	Years of Service									
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30 & over		
Under 25	108	108								
	\$9,520	\$9,520								
25 - 29	393	320	73							
	19,941	16,940	\$33,095							
30 - 34	568	203	333	32						
	37,026	22,181	44,768	\$50,636						
35 - 39	617	134	251	224	8					
	46,613	25,969	48,294	56,303	\$68,335					
40 - 44	807	230	207	222	118	30				
	48,355	23,229	51,259	61,546	62,731	\$66,798				
45 - 49	608	119	129	174	114	66	6			
	55,910	29,312	54,497	63,264	64,935	69,588	\$78,634			
50 - 54	648	88	123	196	154	66	21			
	58,046	27,852	52,003	60,842	68,105	73,845	70,455			
55 - 59	505	65	97	154	113	62	13	1		
	59,216	26,740	53,841	61,530	70,852	71,925	69,315	\$100,831		
60 - 64	196	23	31	73	42	19	6	2		
	57,826	24,989	53,514	59,989	65,439	72,621	86,396	74,493		
65 & Over	53	17	7	16	9	4				
	44,571	14,281	28,117	62,325	63,563	88,352				
Total	4,503	1,307	1,251	1,091	558	247	46	3		
	\$47,277	\$21,629	\$48,410	\$60,202	\$66,607	\$71,511	\$73,279	\$83,272		

EXHIBIT C-1
Retired Participants as of June 30, 2005
By Age, Years Retired and Average Annual Benefit - Total

	Years Retired											
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & ove			
Under 45									-			
									-			
45 - 49									-			
									-			
50 - 54	17	17							-			
	\$38,019	\$38,019							-			
55 - 59	474	317	156	1					-			
	38,429	37,081	\$41,254	\$25,226								
60 - 64	753	313	385	54	1				-			
	32,270	25,671	37,146	36,282	\$3,612				-			
65 - 69	665	128	279	223	33	1	1		-			
	30,993	19,767	27,272	42,371	29,600	\$30,359	\$15,213		-			
70 - 74	548	22	136	236	126	28			-			
	34,034	25,872	25,856	36,351	40,108	33,307			-			
75 - 79	446	3	20	116	198	90	18	1	-			
	35,268	23,151	34,248	33,944	36,120	37,800	25,931	\$16,987				
80 - 84	315	3	2	11	81	144	63	10	1			
	32,314	3,516	53,098	37,216	36,004	32,015	31,755	10,495	\$20,943			
85 - 89	164				19	65	67	11	2			
	27,864				36,710	27,821	29,033	8,028	15,184			
90 & Over	155					14	60	57	24			
	20,602					27,157	22,714	17,956	17,782			
Total	3,537	803	978	641	458	342	209	79	2			
	\$32,822	\$29,409	\$33,388	\$38,001	\$36,681	\$32,642	\$27,706	\$15,617	\$17,706			

EXHIBIT C-2
Retired Participants as of June 30, 2005
By Age, Years Retired and Average Annual Benefit - Basic

	Years Retired											
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over			
Under 45												
45 - 49												
50 - 54	15	15										
	\$40,980	\$40,980										
55 - 59	415	265	150									
	42,046	41,804	\$42,473									
60 - 64	642	225	363	53	1							
	35,742	30,518	38,911	\$36,822	\$3,612							
65 - 69	553	63	244	211	33	1	1					
	35,204	28,725	29,972	44,184	29,600	\$30,359	\$15,213					
70 - 74	502	9	112	228	125	28						
	36,167	43,701	29,007	37,424	40,388	33,307						
75 - 79	431	1	18	106	197	90	18	1				
	36,192	48,436	36,571	36,446	36,260	37,800	25,931	\$16,987				
80 - 84	314	3	2	10	81	144	63	10	1			
	32,408	3,516	53,098	40,634	36,004	32,015	31,755	10,495	\$20,943			
85 - 89	164				19	65	67	11	2			
	27,864				36,710	27,821	29,033	8,028	15,184			
90 & Over	155					14	60	57	24			
	20,602					27,157	22,714	17,956	17,782			
Total	3,191	581	889	608	456	342	209	79	27			
	\$35,153	\$35,837	\$35,795	\$39,600	\$36,811	\$32,642	\$27,706	\$15,617	\$17,706			

EXHIBIT C-3
Retired Participants as of June 30, 2005
By Age, Years Retired and Average Annual Benefit - Coordinated

	Years Retired											
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & ove			
Under 45												
									-			
45 - 49									-			
									-			
50 - 54	2	2							-			
	\$15,809	\$15,809							-			
55 - 59	59	52	6	1					-			
	12,990	13,008	\$10,790	\$25,226					-			
60 - 64	111	88	22	1					-			
	12,187	13,279	8,024	7,663					-			
65 - 69	112	65	35	12					-			
	10,198	11,085	8,454	10,485					-			
70 - 74	46	13	24	8	1				-			
	10,755	13,529	11,149	5,771	\$5,107				-			
75 - 79	15	2	2	10	1				-			
	8,700	10,509	13,345	7,416	8,633				-			
80 - 84	1			1					-			
	3,038			3,038					-			
85 - 89									-			
									-			
90 & Over									-			
									-			
Total	346	222	89	33	2				-			
	\$11,333	\$12,585	\$9,342	\$8,548	\$6,870				-			

SECTION 3: Supplemental Information for the Minneapolis Teachers' Retirement Fund Association

EXHIBIT D-1
Disabled Members as of June 30, 2005
By Age, Years Disabled and Average Annual Benefit - Total

	Years Disabled												
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over				
Under 45													
45 - 49	2	2											
	\$3,288	\$3,288											
50 - 54	4	1	2	1									
	13,977	1,074	\$6,109	\$42,618									
55 - 59	12	7	2	2		1							
	37,051	26,075	58,867	53,206		\$37,942							
60 - 64	7	2	1	4									
	48,321	13,761	50,453	65,069									
65 - 69													
70 - 74													
75 - 79													
80 - 84													
85 - 89													
90 & Over													
Total	25	12	5	7		1							
	\$33,814	\$18,141	\$36,081	\$58,472		\$37,942							

SECTION 3: Supplemental Information for the Minneapolis Teachers' Retirement Fund Association

EXHIBIT D-2 Disabled Members as of June 30, 2005 By Age, Years Disabled and Average Annual Benefit - Basic

				Yea	ars Disable	k			
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 45									
45 - 49									
50 - 54	2		1	1					
	\$22,241		\$1,865	\$42,618					
55 - 59	7	2	2	2		1			
	49,713	\$42,952	58,867	53,206		\$37,942			
60 - 64	5		1	4					
	62,145		50,453	65,069					
65 - 69									
70 - 74									
75 - 79									
80 - 84									
85 - 89									
90 & Over									
Total	14	2	4	7		1			
	\$50,229	\$42,952	\$42,513	\$58,472		\$37,942			

SECTION 3: Supplemental Information for the Minneapolis Teachers' Retirement Fund Association

EXHIBIT D-3
Disabled Members as of June 30, 2005
By Age, Years Disabled and Average Annual Benefit - Coordinated

	Years Disabled												
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over				
Under 45													
45 - 49	2	2											
	\$3,288	\$3,288											
50 - 54	2	1	1										
	5,713	1,074	\$10,352										
55 - 59	5	5											
	19,325	19,325											
60 - 64	2	2											
	13,761	13,761											
65 - 69													
70 - 74													
									-				
75 - 79													
80 - 84													
85 - 89													
90 & Over													
Total	11	10	1										
	\$12,922	\$13,179	\$10,352										

EXHIBIT E-1
Beneficiaries as of June 30, 2005
By Age, Years Since Death and Average Annual Benefit - Total

	Years Since Death											
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over			
Under 45	19	13	5			1						
	\$17,422	\$15,119	\$19,733			\$35,809						
45 - 49	7	4	1			2						
	20,460	24,511	30,901			7,137						
50 - 54	6	4			1	1						
	16,037	20,590			\$6,570	7,292						
55 - 59	6	4		2								
	26,564	30,274		\$19,145								
60 - 64	19	16	3									
	26,199	29,690	7,583									
65 - 69	15	8	3	3			1					
	38,295	33,105	34,014	63,073			\$18,333					
70 - 74	24	11	3	2	5	1	1	1				
	34,846	32,146	58,539	14,710	40,611	26,809	27,507	\$20,307				
75 - 79	126	19	56	34	11	3	3					
	27,391	28,022	21,793	35,274	30,268	29,309	26,072					
80 - 84	26	12	2	2		4	5		1			
	27,205	31,396	28,485	24,832		23,230	23,706		\$12,497			
85 - 89	13	5	1	3	1	1	1		1			
	25,062	30,547	29,621	21,935	19,526	5,880	28,658		23,578			
90 & Over	16	4		3	1	3	3		2			
	23,118	30,168		23,141	23,062	23,608	18,801		14,747			
Total	277	100	74	49	19	16	14	1	4			
	\$27,049	\$27,741	\$23,472	\$33,492	\$30,798	\$21,359	\$23,403	\$20,307	\$16,392			

EXHIBIT E-2
Beneficiaries as of June 30, 2005
By Age, Years Since Death and Average Annual Benefit - Basic

	Years Since Death											
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over			
Under 45	13	7	5			1						
	\$21,351	\$20,440	\$19,733			\$35,809						
45 - 49	7	4	1			2						
	20,460	24,511	30,901			7,137						
50 - 54	6	4			1	1						
	16,037	20,590			\$6,570	7,292						
55 - 59	4	2		2								
	23,606	28,068		\$19,145								
60 - 64	18	15	3									
	24,356	27,711	7,583									
65 - 69	14	8	2	3			1					
	40,837	33,105	49,663	63,073			\$18,333					
70 - 74	22	9	3	2	5	1	1	1				
	34,450	30,577	58,539	14,710	40,611	26,809	27,507	\$20,307				
75 - 79	120	13	56	34	11	3	3					
	27,654	30,742	21,793	35,274	30,268	29,309	26,072					
80 - 84	22	8	2	2		4	5		1			
	26,988	32,896	28,485	24,832		23,230	23,706		\$12,497			
85 - 89	12	4	1	3	1	1	1		1			
	26,202	35,340	29,621	21,935	19,526	5,880	28,658		23,578			
90 & Over	16	4		3	1	3	3		2			
	23,118	30,168		23,141	23,062	23,608	18,801		14,747			
Total	254	78	73	49	19	16	14	1	4			
	\$27,464	\$28,977	\$23,757	\$33,492	\$30,798	\$21,359	\$23,403	\$20,307	\$16,392			

SECTION 3: Supplemental Information for the Minneapolis Teachers' Retirement Fund Association

EXHIBIT E-3
Beneficiaries as of June 30, 2005
By Age, Years Since Death and Average Annual Benefit - Coordinated

				Years Since Death												
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over							
Under 45	6	6														
	\$8,911	\$8,911														
45 - 49																
50 - 54																
55 - 59	2	2														
	32,480	32,480														
60 - 64	1	1														
	59,371	59,371														
65 - 69	1		1													
	2,718		\$2,718													
70 - 74	2	2														
	39,205	39,205														
75 - 79	6	6														
	22,127	22,127														
80 - 84	4	4														
	28,396	28,396														
85 - 89	1	1														
	11,376	11,376														
90 & Over																
Total	23	22	1													
	\$22,463	\$23,360	\$2,718													

SECTION 3: Supplemental Information for the Minneapolis Teachers' Retirement Fund Association

EXHIBIT FReconciliation of Member Data

	Active Members	Leave of Absence	Vested Terminated Members	Other Non-Vested Terminated Members	Retired Participants	Disableds	Beneficiaries	Other Beneficiaries	Total
A. Number as of June 30, 2004	5,023	51	1,243	3,384	3,415	24	291	34	13,465
B. Additions	401	9	238	358	183	4	25	2	1,220
C. Deletions:									
1. Retirements	-127	-5	-40	-8	-	-3	-	-	-183
2. Disability	-	-1	-	-	-2	-	-	-	-3
3. Died with beneficiary	-	-	-	-	-21	-	-	-	-21
4. Died without beneficiary	-1	-	-1	-1	-58	-	-9	-2	-72
5. Terminated - deferred	-228	-	-	-2	-	-	-	-	-230
6. Terminated – other non-vested	-358	-	-	-	-	-	-	-	-358
7. Refunds	-74	-	-36	-79	-	-	-	-	-189
8. Rehired as active	74	-	-26	-48	-	-	-	-	-
9. Leave of absence	-8	-	-1	-	-	-	-	-	-9
10. Expired benefits	-	-	-	-	-	-	-14	-	-14
D. Data adjustments			_=	_=	14		<u>-16</u>	<u></u>	-30
E. Total as of June 30, 2005	4,702	54	1,377	3,604	3,503	25	277	34	13,576

EXHIBIT G
Statement of Change in Assets Available for Benefits for Year Ended June 30, 2005

		Market Value	Cost Value
A.	Assets available at beginning of period	\$763,089,276	\$723,527,738
В.	Operating revenues		
	1. Member contributions	\$13,820,754	\$13,820,754
	2. Employer contributions	18,356,191	18,356,191
	3. Supplemental contributions*	21,191,153	21,191,153
	4. Investment income	13,563,171	13,563,171
	5. Net realized gain/(loss)	29,994,213	29,994,213
	6. Other	-	-
	7. Net change in unrealized gain/(loss)	12,638,593	<u>-</u>
	8. Total Additions	\$109,564,075	\$96,925,482
C.	Operating expenses:		
	1. Service retirements	\$114,772,079	\$114,772,079
	2. Disability benefits	845,352	845,352
	3. Survivor benefits	7,413,924	7,413,924
	4. Refunds	1,167,926	1,167,926
	5. Administrative expenses	721,096	721,096
	6. Investment expenses	<u>2,518,116</u>	2,518,116
	7. Total operating expenses	\$127,438,493	\$127,438,493
D.	Change in accounting method	-	-
E.	Assets available at end of period	\$745,214,858	\$693,014,727
F.	Determination of current year unrecognized asset return		
	1. Average balance:		
	(a) Assets available at BOY: (A)		\$763,089,276
	(b) Assets available at EOY: (E)		745,214,858
	(c) Average balance [(a) + (b) – Net Investment Income	e] / 2	727,313,137
	[Net Investment Income: $(B.4) + (B.5) + (B.6) + (B.6)$	3.7) – (C.6)]	
	2. Expected return: 8.50% x (F.1.(c))		\$61,821,617
	3. Actual return: $(B.4) + (B.5) + (B.6) + (B.7) - (C.6)$		53,677,861
	4. Current year unrecognized asset return: (F.3) – (F.2)		-\$8,143,756

^{*} Includes contributions from School District #1, the City of Minneapolis, and matching State contributions.

EXHIBIT H
Accounting Balance Sheet for Year Ended June 30, 2005

	Market Value	Cost Value
Assets		
Cash, equivalents, short-term securities	\$92,972,379	\$92,976,986
Investments:		
Fixed income	\$269,816,500	\$265,823,561
Equity	420,958,777	365,501,336
Real estate	-	-
Other assets	27,969,114	<u>35,214,756</u>
Total assets	\$811,716,770	\$759,516,639
Amounts currently payable	\$66,501,912	\$66,501,912
Assets available for benefits		
Member reserves	\$196,445,769	\$196,445,769
Employer reserves	<u>548,769,089</u>	496,568,958
Total assets available for benefits	\$745,214,858	\$693,014,727
Total amounts currently payable and assets available for benefits	<u>\$811,716,770</u>	<u>\$759,516,639</u>
Net Assets at Market/Cost Value	\$811,716,770	\$759,516,639

EXHIBIT I

Development of the Fund Through June 30, 2005

Year Ended June 30	Employer Contributions	Employee Contributions	Supplemental Contributions	Net Investment Return*	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2002							\$1,027,883,000
2003	\$21,104,000	\$16,673,000	\$21,082,000	-\$14,707,000	\$804,000	\$114,318,000	956,913,000
2004	19,801,636	15,461,562	21,201,448	-15,727,065	730,892	119,155,712	877,763,977
2005	18,356,191	13,820,754	21,191,153	-22,857,560	721,096	124,199,281	783,354,138

^{*} Net Investment Return on an Actuarial Value of Assets basis and net of investment fees.

EXHIBIT J Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended June 30, 2005

Unfunded/(Overfunded) actuarial accrued liability at beginning of year		\$851,787,350
2. Normal cost at beginning of year, including expenses		24,610,534
3. Total contributions		53,368,098
4. Interest		
(a) For whole year on $(1) + (2)$	\$74,493,820	
(b) For half year on (3)	2,268,144	
(c) Total interest: (4a) – (4b)		72,225,676
5. Expected unfunded/(overfunded) actuarial accrued liability		\$895,255,462
6. Changes due to (gain)/loss from:		
(a) Investments	\$94,426,526	
(b) Demographics*	<u>-17,123,151</u>	
(c) Total changes due to (gain)/loss		<u>\$77,303,375</u>
7. Unfunded/(Overfunded) actuarial accrued liability at end of year		<u>\$972,558,837</u>

^{*} Includes (gain)/loss due to age/service retirements, disability, mortality (pre and post-retirement), withdrawal and salary increases.

EXHIBIT K

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions:

The estimates on which the cost of the Fund is calculated including:

- (a) <u>Investment return</u> the rate of investment yield that the Fund will earn over the long-term future;
- (b) <u>Mortality rates</u> the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) <u>Retirement rates</u> the rate or probability of retirement at a given age;
- (d) <u>Turnover rates</u> the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost:

The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives:

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Pensioners:

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded Actuarial Accrued Liability:

The extent to which the actuarial accrued liability of the Fund exceeds the assets of the Fund. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the Unfunded

Actuarial Accrued Liability: Payments made over a period of years equal in value to the Fund's unfunded actuarial

accrued liability.

Investment Return: The rate of earnings of the Fund from its investments, including interest, dividends

and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from

one year to the next.

Accrued Benefit Funded Ratio: A current year funded status that measures the percent of benefits covered by Current

Assets. This ratio is based on benefits earned to the valuation date (accrued service) and includes future salary increases to retirement. The liability for these benefits is defined as the Current Benefit Obligations. The Accrued Benefit Funded Ratio is calculated as the Actuarial Value of Assets (Current Assets) divided by the Current

Benefit Obligations.

Projected Benefit Funded Ratio: A projected funded status that measures contribution sufficiency/deficiency, which is

based on a present value of all plan benefits for the lifetime of all plan members. The liability for these benefits is defined as the Current and Expected Future Benefit Obligations, or Present Value of Benefits. The Current and Expected Future Assets are determined as the sum of the Actuarial Value of Assets (Current Assets), the Present Value of Expected Future Statutory Supplemental Contributions and the Present Value of Future Normal Costs. The Projected Benefit Funded Ratio is calculated as the Current and Expected Future Assets divided by the Current and Expected Future Benefit Obligations. If the ratio is equal to or more than 100%, there

is a contribution sufficiency, and if it is less than 100% there is a contribution

deficiency.

SECTION 4: Reporting Information for the Minneapolis Teachers' Retirement Fund Association

EXHIBIT I

Summary of Actuarial Valuation Results

Th	e valuation was made with respect to the following data supplied to us:		
1.	Pensioners as of the valuation date (including 277 beneficiaries in pay status)		3,839
2.	Members inactive during year ended June 30, 2005 with vested rights		1,377
3.	Members active during the year ended June 30, 2005*		4,756
	Fully vested	3,894	
	Not vested	862	
4.	Other non-vested terminated members as of June 30, 2005		3,604

^{*} Includes 54 members on leave of absence.

SECTION 4: Reporting Information for the Minneapolis Teachers' Retirement Fund Association

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

		Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability			
A. Det	ermination of Actuarial Accrued Liability						
1.	Active members:						
	(a) Retirement benefits	\$590,584,561	\$167,663,468	\$422,921,093			
	(b) Disability benefits	5,983,855	2,615,935	3,367,920			
	(c) Death benefits	8,016,277	3,109,274	4,907,003			
	(d) Withdrawal benefits	34,362,636	29,971,349	4,391,287			
	(e) Total	\$638,947,329	\$203,360,026	\$435,587,303			
2.	Vested terminated members	\$45,040,483	-	\$45,040,483			
3.	Other non-vested terminated members	4,109,461	-	4,109,461			
4.	Annuitants	1,271,175,728		1,271,175,728			
5.	Total	\$1,959,273,001	\$203,360,026	\$1,755,912,975			
B. Det	Determination of Unfunded Actuarial Accrued Liability						
1.	Actuarial Accrued Liability			\$1,755,912,975			
2.	Actuarial Value of Assets			783,354,138			
3.	Unfunded Actuarial Accrued Liability: (B.1) – (B.2)			\$972,558,837			
C. Det	termination of Supplemental Contribution Rate						
1.	Present value of future payrolls through the amortization date of June 30, 2020			\$2,664,852,983			
2.	Supplemental contribution rate: (B.3) / (C.1)			36.50%			

SECTION 4: Reporting Information for the Minneapolis Teachers' Retirement Fund Association

		IT II					
Ac	tuai	rial Ba	alance Sheet				
A.	Cu	rrent A	Assets			\$783,354,138	
B.	Expected Future Assets						
	1.	Prese	ent Value of Expected Future Statutory Supplemental Contributions			\$292,412,310	
	2.	Prese	ent Value of Future Normal Costs			203,360,026	
	3.	Total	Expected Future Assets			\$495,772,336	
C.	To	tal Cu	rrent and Expected Future Assets			\$1,279,126,474	
D.	Cu	rrent E	Benefit Obligations	Non-Vested	Vested	<u>Total</u>	
	1.	Bene	fit recipients:				
		(a)	Retirement annuities	-	\$1,207,664,276	\$1,207,664,276	
		(b)	Disability benefits	-	7,817,666	7,817,666	
		(c)	Beneficiaries	-	55,693,786	55,693,786	
	2.	Veste	ed terminated members	-	45,040,483	45,040,483	
	3.	Other	r non-vested terminated members	-	4,109,461	4,109,461	
	4.	Activ	re members:				
		(a)	Retirement benefits	\$1,496,941	\$349,687,662	\$351,184,603	
		(b)	Disability benefits	28,447	3,487,023	3,515,470	
		(c)	Death benefits	33,531	4,494,394	4,527,925	
		(d)	Withdrawal benefits	<u>577,987</u>	20,936,472	21,514,459	
	5.	Total	Current Benefit Obligations	\$2,136,906	\$1,698,931,223	\$1,701,068,129	
E.	Expected Future Benefit Obligations						
F.			rrent and Expected Future Benefit Obligations - Value of Benefits: (D.5 + E)			\$1,959,273,001	
G.	Cu	rrent U	Infunded Actuarial Liability (D.5 - A)			\$917,713,991	
H.							

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended June 30	Actuarially Required Contribution Rate (Prior Year) (a)	Actual Covered Payroll (b)	Actual Member Contributions (c)	Annual Required Contributions [(a) x (b)] – (c) = (d)	Actual Employer Contributions* (e)	Percentage Contributed (e) / (d)
1991	30.40%	\$119,065,000	\$9,337,000	\$26,859,000	\$12,358,000	46.01%
1992	30.55	136,870,000	10,307,000	31,507,000	13,638,000	43.29
1993	27.43	135,505,000	10,713,000	26,456,000	13,711,000	51.83
1994	25.83	155,671,000	11,507,000	28,703,000	16,355,000	56.98
1995	25.03	163,824,000	10,470,000	30,535,000	21,194,000	69.41
1996	25.18	171,060,000	11,294,000	31,779,000	23,085,000	72.64
1997	25.15	185,229,000	11,697,000	34,888,000	24,021,000	68.85
1998	28.23	199,376,000	13,852,000	42,432,000	43,640,000	102.85
1999	25.80	230,189,000	14,935,000	44,454,000	40,476,000	91.05
2000	23.88	242,072,000	16,169,000	41,638,000	42,556,000	102.20
2001	25.25	254,100,000	16,321,000	47,839,000	42,904,000	89.68
2002	25.45	248,304,000	17,715,000	45,478,000	42,105,000	92.58
2003**	29.05	247,418,000	16,673,000	55,202,000	42,186,000	76.42
2004	31.96	232,386,459	15,461,562	58,809,150	41,003,084	69.72
2005	38.11	216,051,644	13,820,754	68,516,528	39,547,344	57.72

^{*} Includes contributions from other sources (if applicable)

^{**} Actuarially Required Contribution Rate prior to change in actuarial assumptions and plan provisions is 17.89%.

EXHIBIT IV

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Actual Covered Payroll (Previous FY) (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)] / (c)
07/01/1991	\$424,677,000	\$826,574,000	\$401,897,000	51.38%	\$119,065,000	337.54%
07/01/1992	457,978,000	840,840,000	382,862,000	54.47	136,870,000	279.73
07/01/1993	501,741,000	878,693,000	376,952,000	57.10	135,505,000	278.18
07/01/1994	514,138,000	920,470,000	406,332,000	55.86	155,671,000	261.02
07/01/1995	554,960,000	983,249,000	428,289,000	56.44	163,824,000	261.43
07/01/1996	612,852,000	1,055,063,000	442,211,000	58.09	171,060,000	258.51
07/01/1997	673,209,000	1,173,412,000	500,203,000	57.37	185,229,000	270.05
07/01/1998	809,978,000	1,267,424,000	457,446,000	63.91	199,376,000	229.44
07/01/1999	939,459,000	1,394,357,000	454,898,000	67.38	230,189,000	197.62
07/01/2000	1,027,633,000	1,544,358,000	516,725,000	66.54	242,072,000	213.46
07/01/2001	1,061,983,000	1,610,364,000	548,381,000	65.95	254,100,000	215.81
07/01/2002	1,027,883,000	1,659,512,000	631,629,000	61.94	248,304,000	254.38
07/01/2003	956,913,000	1,671,982,000	715,069,000	57.23	247,418,000	289.01
07/01/2004	877,763,977	1,729,551,327	851,787,350	50.75	232,386,459	366.54
07/01/2005	783,354,138	1,755,912,975	972,558,837	44.61	216,051,644	450.15

EXHIBIT V

Determination of Contribution Sufficiency – Total

	July 1, 2005			
A. Statutory Contributions – Chapter 354A	Percent of Payroll	Dollar Amount		
. Member contributions	5.74%	\$13,266,140		
2. Employer contributions	8.46	19,553,269		
3. Supplemental contributions*				
(a) 1993 Legislation	2.16	5,000,000		
(b) 1996 Legislation	0.87	2,000,000		
(c) 1997 Legislation	5.76	13,314,000		
Administrative expense assessment	-	<u>-</u> _		
5. Total	<u>22.99%</u>	\$53,133,409		
3. Required Contributions – Chapter 356				
. Normal Cost:				
(a) Retirement	8.03%	\$18,576,495		
(b) Disability	0.11	265,609		
(c) Death	0.14	324,655		
(d) Withdrawal	<u>1.22</u>	<u>2,814,514</u>		
(e) Total	<u>9.50%</u>	\$21,981,273		
2. Supplemental contribution amortization	36.50%	\$84,391,086		
3. Allowance for administrative expenses	0.29	670,505		
l. Total	<u>46.29%</u>	<u>\$107,042,864</u>		
C. Contribution Sufficiency / (Deficiency): (A.5) – (B.4)	-23.30%	-\$53,909,455		
Projected annual payroll for fiscal year beginning on the valuation da	nte	\$231,208,456		

^{*} Includes contributions from School District #1, the City of Minneapolis, and matching State contributions.

EXHIBIT VI

Determination of Contribution Sufficiency – Basic

	July 1, 2005			
. Statutory Contributions – Chapter 354A	Percent of Payroll	Dollar Amount		
. Member contributions	8.50%	\$1,557,413		
. Employer contributions	12.14	2,224,353		
. Supplemental contributions*				
(a) 1993 Legislation	2.16	395,766		
(b) 1996 Legislation	0.87	159,406		
(c) 1997 Legislation	5.76	1,055,377		
. Administrative expense assessment				
. Total	<u>29.43%</u>	\$5,392,315		
3. Required Contributions – Chapter 356				
. Normal Cost:				
. Normal Cost: (a) Retirement	12.63%	\$2,313,874		
	12.63% 0.18			
(a) Retirement		33,321		
(a) Retirement(b) Disability	0.18	33,321 41,538		
(a) Retirement(b) Disability(c) Death	0.18 0.23	\$2,313,874 33,321 41,538 <u>426,162</u> <u>\$2,814,895</u>		
(a) Retirement(b) Disability(c) Death(d) Withdrawal	0.18 0.23 <u>2.33</u>	33,321 41,538 <u>426,162</u>		

^{*} Includes contributions from School District #1, the City of Minneapolis, and matching State contributions.

EXHIBIT VII

Determination of Contribution Sufficiency – Coordinated

	July 1, 2005			
A. Statutory Contributions – Chapter 354A	Percent of Payroll	Dollar Amount		
1. Member contributions	5.50%	\$11,708,727		
2. Employer contributions	8.14	17,328,916		
3. Supplemental contributions*				
(a) 1993 Legislation	2.16	4,598,336		
(b) 1996 Legislation	0.87	1,852,108		
(c) 1997 Legislation	5.76	12,262,230		
4. Administrative expense assessment	-			
5. Total	<u>22.43%</u>	<u>\$47,750,317</u>		
B. Required Contributions – Chapter 356				
1. Normal Cost:				
(a) Retirement	7.64%	\$16,262,621		
(b) Disability	0.11	232,288		
(c) Death	0.13	283,117		
(d) Withdrawal	<u>1.12</u>	2,388,352		
(e) Total	<u>9.00%</u>	<u>\$19,166,378</u>		
Projected annual payroll for fiscal year beginning on the valuation date		\$212,885,945		

^{*} Includes contributions from School District #1, the City of Minneapolis, and matching State contributions.

EXHIBIT VIII

Supplementary Information Required by the GASB

Valuation date	July 1, 2005			
Actuarial cost method	Entry Age Normal			
Amortization method	Level percentage of payroll, assuming payroll increases of 5.00% per annum			
Remaining amortization period	15 years remaining as of July 1, 2005			
Asset valuation method	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 that fiscal year (based on the assumed interest rate employed in the July 1 Actuarial Valuation of the fiscal year).			
Actuarial assumptions:				
Investment rate of return:				
Pre-retirement	8.50% per annum			
Post-retirement	8.50% per annum (6.50% per annum is valued to imply a 2.00% per annum COLA)			
Projected salary increases	Select and ultimate rates by age, with ultimate rates of 5.00% - 6.50%			
Plan membership:				
Pensioners and beneficiaries receiving benefits	3,839			
Terminated vested members entitled to, but not yet receiving benefits	1,377			
Other terminated non-vested members	3,604			
Active members*	<u>4,756</u>			
Total	13,576			

^{*} Includes 54 members on leave of absence.

EXHIBIT IX

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Healthy Pre-Retirement:

Male: 1983 Group Annuity Mortality Table for males set back 12 years

Female: 1983 Group Annuity Mortality Table for females set back 10 years

Healthy Post-Retirement:

Male: 1983 Group Annuity Mortality Table for males set back 4 years

Female: 1983 Group Annuity Mortality Table for females set back 1 year

Disabled:

Male: 1977 Railroad Retirement Board Mortality Table for Disabled Lives

Female: 1977 Railroad Retirement Board Mortality Table for Disabled Lives

SECTION 4: Reporting Information for the Minneapolis Teachers' Retirement Fund Association

Summary of Rates:

Shown below for selected ages:

Rate (%)

		etirement rtality	Post-Retirement Mortality				Post-Disability
Age	Male	Female	Male	Female	Withdrawal	Disability	Mortality
20	0.03	0.01	0.03	0.02	13.00	0.00	2.71
25	0.03	0.01	0.04	0.02	10.50	0.00	2.72
30	0.04	0.02	0.05	0.03	8.00	0.00	2.72
35	0.04	0.03	0.06	0.04	5.50	0.01	2.73
40	0.05	0.03	0.09	0.06	3.00	0.03	2.73
45	0.07	0.05	0.14	0.09	2.25	0.06	2.74
50	0.10	0.07	0.25	0.15	1.50	0.10	2.89
55	0.17	0.10	0.43	0.23	0.75	0.15	3.71
60	0.31	0.16	0.66	0.38	0.00	0.21	4.73
65	0.52	0.25	1.01	0.64	0.00	0.00	5.98
70	0.77	0.42	1.76	1.09	0.00	0.00	7.46

SECTION 4: Reporting Information for the Minneapolis Teachers' Retirement Fund Association

Summary of Retirement Rates:

Shown below for selected ages:

Rate (%)

			· ,	
Age	Basic Members Eligible for 30 and Out Provision	Basic Members Not Eligible for 30 and Out Provision	Coordinated Members Eligible for Rule of 90 Provision	Coordinated Members Not Eligible For Rule of 90 Provision
55 & under	40.0	5.0	40.0	5.0
60	25.0	25.0	20.0	8.0
65	40.0	40.0	45.0	45.0
70	60.0	60.0	60.0	60.0
75	60.0	60.0	60.0	60.0
80 & over	100.0	100.0	100.0	100.0

Withdrawal Rates:

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:

First year: 30% Second year: 15%

Third year: 10%*

^{*} Ultimate rate is used if greater than 10%

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 ten-year select period, $0.40\% \times (10-T)$ where T is completed years of service is added to the ultimate rate.

Ultimate Rate of Annual Salary Increases
6.50%
6.50
6.50
6.50
6.50
6.00
5.50
5.00

Retirement Age:

Active Members: 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.

Deferred Members: 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.

Other Non-Vested Members: Return of contributions is assumed to occur immediately.

SECTION 4: Reporting Information for the Minneapolis Teachers' Retirement Fund Association

Unknown Data for Members:	The submitted participant data has been reviewed for reasonableness and consistency 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 year's valuation report.				
	Date of hire:	Current valuation date minus years of service.				
	Years of service:	Years of service from last year's valuation data plus one year.				
	Sex:	Male				
	Salary:	Participants with current year salary of less than 40% of prior year salary are assumed to be terminations.				
	Deferred benefit: Calculated using service at termination date assuming termination on the valuation date in which the participant is fit reported in vested status. Salary at termination is estimated based on assumed termination date if not available.					
Percent Married:	80% of male memb	ers and 60% of female members are assumed to be married.				
Age of Spouse:	Females three years	s younger than males.				
Net Investment Return:						
Pre-Retirement:	8.50% per annum (6.50% per annum is valued to imply a 2.00% per annum COLA)					
Post-Retirement:						
Administrative Expenses:	Prior year administrative expenses (excluding investment expenses) expressed as a percentage of prior year payroll.					
Allowance for Combined Service Annuity: 4.00% load on liabilities for active members and 30.00% load for former members.						

SECTION 4: Reporting Information for the Minneapolis Teachers' Retirement Fund Association

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.			
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.			
Benefit Increases After Retirement:	: 2.00% per annum.			
Optional Benefit Forms:	Married members are assumed to elect the following forms of benefit:			
	Males:	25% elect life annuity option		
		15% elect 50% J&S option		
		20% elect 75% J&S option		
		40% elect 100% J&S option		
	Females:	65% elect life annuity option		
		15% elect 50% J&S option		
		5% elect 75% J&S option		
		15% elect 100% J&S option		
Asset Valuation Method:	fiscal year, close of eac difference b expected du	ue, adjusted for amortization obligations receivable at the end of each less of a percentage of the Unrecognized Asset Return determined at the th of the four preceding fiscal years. Unrecognized Asset Return is the petween actual net return on Market Value of Assets and the asset return uring that fiscal year (based on the assumed interest rate employed in the arial Valuation of the fiscal year).		

SECTION 4: Reporting Information for the Minneapolis Teachers' Retirement Fund Association

Actuarial Cost Method:	Entry Age Normal Cost Method. Entry age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are expressed as a level percentage of payroll, with Normal Cost determined as if the current benefit accrual rate had always been in effect.
Payment on the Unfunded Actuarial Accrued Liability:	The Unfunded Actuarial Accrued Liability is amortized as level percentage of payroll each year to the statutory amortization date assuming payroll increases of 5.00% per annum.
Supplemental Contributions:	The City of Minneapolis, the Minneapolis School District, and the State of Minnesota are scheduled to make the following supplemental contributions to the Fund:
1993 Legislation:	Supplemental contributions of \$5,000,000 annually are assumed to be made until the amortization date of June 30, 2020.
1996 Legislation:	Supplemental contributions of \$2,000,000 annually are assumed to be made until the amortization date of June 30, 2020.
1997 Legislation:	Supplemental contributions of \$13,314,000 annually are assumed to be made until the amortization date of June 30, 2020.
Changes in Actuarial Assumptions and Cost Methods:	There have been no changes made to the actuarial assumptions and cost methods since the prior valuation.

EXHIBIT X

Summary of Plan Provisions - Basic

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

Plan Year:	July 1 through June 30			
Eligibility:	A teacher who is employed by the Board of Education of Special School District No. 1, other than a charter school, and who is not covered by the Social Security Act. Certain part-time licensed employees are covered as well as employees of the Minneapolis Teachers Retirement Fund.			
Contributions:	Member: 8.50% of Salary. Employer: 12.14% of Salary.			
Teaching Service:	A year is earned during a calendar year if the member is employed in a covered position and employee contributions are deducted. Certain part-time service and military service is also included.			
Salary:	Total compensation. Excludes lump sum payments for unused vacation leave or unused sick leave at separation.			
Average Salary:	Average of the five highest consecutive years of Salary.			

Retirement:

Normal Retirement:

Age/Service Requirement:

Age 60, or any age with 30 years of Teaching Service.

Amount:

2.50% of Average Salary for each year of Teaching Service.

Early Retirement:

Age/Service Requirement:

Age 55 with less than 30 years of Teaching Service.

Amount:

The greater of (a) or (b):

- (a) 2.25% of Average Salary for each year of Teaching Service with reduction of 0.25% for each month the Member is under age first eligible for a normal retirement benefit.
- (b) 2.50% of Average Salary for each year of Teaching Service assuming augmentation to the age first eligible for a normal retirement benefit at 3.00% per year and actuarial reduction for each month the member is under the age first eligible for a normal retirement benefit.

An alternative benefit is available to members who are at least age 50 and have seven years of Teaching Service. The benefit is based on the accumulation of the 6.50% "city deposits" to the Retirement Fund. Other benefits are also provided under this alternative depending on the member's age and Teaching Service.

Form of Payment:

Life annuity. Actuarially equivalent options are:

- (a) 10 or 15-year Certain and Life.
- (b) 50%, 75%, or 100% Joint and Survivor with bounce back feature without additional reduction (option is canceled if member is predeceased by beneficiary).

Benefit Increases:

Benefits are increased 2.00% annually beginning on the January 1 or July 1 if the member has been receiving benefits for at least 12 months. Beneficiaries are entitled to the same increase the member would have received.

In addition, if the time weighted rate of return over the last five years exceeds 8.50%, the Board of Trustees will increase benefits by the excess rate of return multiplied by the quantity of one minus the rate of contribution deficiency.

Members retired under laws in effect before May 1, 1974 and before any adjustment under Laws 1987, Chapter 372, receive an additional lump sum payment each year. In 1989, this lump sum payment is the greater of \$25 times each full year of Teaching Service and the sum of the benefits paid from any Minnesota public pension plan plus cash payments from the Social Security Administration for the preceding fiscal year July 1, 1988 through June 30, 1989. In each following year the lump sum will increase by the same increase that is applied to regular annuities. Effective January 1, 2002, annual lump sum payment is divided by 12 and paid as monthly life annuity in the annuity form elected.

Disability:

Age/Service Requirement:

Total and permanent disability with three years of Teaching Service.

Amount:

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

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

Form of Payment: Same as for retirement.

Benefit Increases: Same as for retirement.

Death:

Choice of Benefit A, Benefit B or Benefit C.

Benefit A:

Age/Service Requirement:

Death before retirement.

Amount:

The accumulation of member and city contributions plus 5.00% interest if death occurred before May 16, 1989, or 6.00% interest if death occurred on or after May 16, 1989. Paid as a life annuity, 15-year Certain and Life, or lump sum. If an annuity is chosen the beneficiary also receives additional benefits.

Benefit B:

Age/Service Requirement: An active member with seven years of Teaching Service. A former member age 60

with seven years of Teaching Service who dies before retirement or disability benefits

begin.

Amount: The actuarial equivalent of any benefits the member could have received if he had

resigned on the date of death. Paid to the beneficiary in the form of a life annuity or a

15-year Certain and Life annuity.

Benefit C:

Age/Service Requirement: An active member who dies and leaves surviving children.

Amount: A monthly benefit of \$248.30 to the surviving widow while caring for a child and an

additional \$248.30 per month for each surviving dependent child. The maximum family benefit is \$579.30 per month. These benefits may be increased by the Board of

Trustees.

Benefits to the widow cease upon death or when no longer caring for an eligible child.

Benefits for dependent children cease upon marriage or age 18 (age 22 if a full time

student).

Benefit Increases: Same as retirement.

Withdrawal:

Deferred Annuity:

Age/Service Requirement:

Seven years of Teaching Service.

Amount:

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

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

(b) 5.00% thereafter until the annuity begins.

In addition, the interest earned on the member and city contributions between termination and age 60 can be applied to provide an additional annuity.

Refund of Contributions:

Age/Service Requirement: Termination of Teaching Service.

Amount: Member's contributions with 6.00% interest. A deferred annuity may be elected in

lieu of a refund.

EXHIBIT XI

Summary of Plan Provisions – Coordinated

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

Plan Year:	July 1 through June 30
Eligibility:	A teacher who is employed by the Board of Education of Special School District No. 1, other than a charter school, and who is not covered by the Social Security Act. Certain part-time licensed employees are covered as well as employees of the Minneapolis Teachers Retirement Fund (unless they belong to the Minneapolis Employees Retirement Fund).
Contributions:	Member: 5.50% of Salary. Employer: 8.14% of Salary.
Allowable Service:	A year is earned during a school year if the member is employed in a covered position and employee contributions are deducted. May also include certain part-time service, extended leaves of absence, sabbatical leaves, and military service.
Salary:	Total compensation. Excludes lump sum payments for unused vacation leave or unused sick leave at separation.
Average Salary:	Average of the five highest consecutive years of Salary. Average Salary is based on all Allowable Service if less than five years.

Retirement:

Normal Retirement:

Age/Service Requirement:

First hired before July 1, 1989:

- (a) Age 65 and three years of Allowable Service.
- (b) Proportionate Retirement Annuity is available at age 65 and one year of Allowable Service.

First hired after July 1, 1989:

- (a) The greater of age 65 or the age eligible for full Social Security retirement benefits (but not later than age 66) and three years of Allowable Service.
- (b) Proportionate Retirement Annuity is available at Normal Retirement Age and one year of Allowable Service.

Amount:

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

Early Retirement:

Age/Service Requirement:

- (a) Age 55 and three years of Allowable Service.
- (b) Any age with 30 years of Allowable Service.
- (c) Rule of 90: Age plus Allowable Service totals 90.

Amount:

First hired before July 1, 1989:

The greater of (a) or (b):

- (a) 1.20% of Average Salary for each of the first ten 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.
- (b) 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 the age eligible for Normal Retirement benefits at 3.00% per year and actuarial reduction for each month the member is under the Normal Retirement Age.

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

(a) Guaranteed refund

(b) 10 or 15-year Certain and Life.

(c) 50%, 75% or 100% Joint and Survivor with bounce back feature without additional reduction (option is canceled if member is predeceased by

beneficiary).

Benefit Increases: Benefits are increased 2.00% annually beginning on the January 1 or July 1 if the

member has been receiving benefits for at least 12 months. Beneficiaries are entitled

to the increase the member would have received.

In addition, if the time weighted rate of return over the last five years exceeds 8.50%, 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:

Age/Service Requirement: Total and permanent disability before the 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 for commencement before the Normal Retirement Age.

Benefit is reduced by Workers' Compensation.

Payments are recomputed as a retirement at the Normal Retirement Age. Payments stop if disability ceases or death occurs. Benefits may be reduced on resumption of

partial employment.

Form of Payment: Same as for retirement.

Benefit Increases: Same as for retirement.

Retirement After Disability:

Age/Service Requirement: Normal Retirement Age with continued disability.

Amount: Any optional annuity continues, otherwise the larger of the disability benefit paid

before Normal Retirement Age or the normal retirement benefit available at the

Normal Retirement Age, or an actuarially equivalent optional annuity.

Benefit Increases: Same as for retirement.

Death:

Surviving Spouse Optional Annuity:

Age/Service Requirement: Any active member who dies with three years of Allowable Service prior to retirement

or disability benefits commence.

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

Amount: Survivor's payment of the 100% Joint and Survivor benefit the member could have

elected if terminated.

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

member's benefit commencement age.

Benefit Increases: Same as for retirement.

<u>Refund of Contributions</u>:

Age/Service Requirement: Member or former member dies before receiving any retirement benefits and

survivor's benefits are not payable.

Amount: Member's contributions with 6.00% interest.

Withdrawal:	
<u>Deferred Annuity</u> :	
Age/Service Requirement:	Three years of Allowable Service.
Amount:	Benefit computed under law in effect at termination and increased by the following annual percentage:
	(a) 3.00% until January 1 of the year following the attainment of age 55, and,
	(b) 5.00% thereafter until the annuity begins.
	Amount is payable as a normal or early retirement benefit.
Refund of Contributions:	
Age/Service Requirement:	Termination of Teaching Service.
Amount:	Member's contributions with 6.00% interest. A deferred annuity may be elected in lieu of a refund.
Changes in Plan Provisions:	There have been no changes made to the plan provisions since the prior valuation.