Minnesota State Retirement System
State Employees Retirement Fund

Actuarial Valuation and Review as of July 1, 2007

SEGAL

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November 30, 2007

Mr. Dave Bergstrom
Minnesota State Retirement System
State Employees Retirement Fund
60 Empire Drive, Suite 300
St. Paul, Minnesota 55103-3000

Dear Mr. Bergstrom:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2007. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2008 and analyzes the preceding year's experience.

The census and financial information on which our calculations were based was prepared by the Minnesota State Retirement System. 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.

Sincerely,

THE SEGAL COMPANY

By:

Thomas D. Levy, FSA, MAAA, EA	*Andre Latia, FSA, MAAA, EA*	*Brad E. Ramirez, FSA, MAAA, EA*
Senior Vice President and Chief Actuary	*Senior Vice President and Consulting Actuary*	*Consulting Actuary*

cc: *Legislative Commission on Pensions and Retirement (3 copies)*
Minnesota Legislative Reference Library (6 copies)
Minnesota Department of Finance (2 copies)

SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

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Purpose

This report has been prepared by The Segal Company to present a valuation of the Minnesota State Retirement System (State Employees Retirement Fund) as of July 1, 2007. 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:

- Applicable Minnesota Statutes;
- The benefit provisions of the Retirement Fund as administered by the MSRS;
- The data as provided and confirmed by the MSRS staff;
- The characteristics of covered active participants, inactive vested participants, pensioners and beneficiaries as of July 1, 2007, provided by the Fund;
- The assets of the Fund as of June 30, 2007, 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 statutory contribution rate under Chapter 352 is equal to 8.50% of payroll compared to the required contribution rate under Chapter 356 of 11.76% of payroll. Therefore, the contribution deficiency is 3.26% of payroll or $73,491,574. Each year there is a contribution deficiency leads to an increased deficiency in all future years. The FY2007 shortfall increased the required rate for FY2008 (and each succeeding year through FY 2020) by 0.15% of payroll.
- The employee and employer contribution rates (as a percentage of salary) will change as shown in the schedule below:

Date of Increase	Employee	Employer
Current	4.25	4.25
July 1, 2008	4.50	4.50
July 1, 2009	4.75	4.75
July 1, 2010	5.00	5.00

- In accordance with the passage of the contribution rate increase bill, projected employee contribution increases are valued in projected refunds.
- The actuarial accrued liability for the Unclassified Plan contingent liability increased to $64.8 million as of July 1, 2007, compared to $18.6 million as of July 1, 2006, due primarily to an increase in the number of affected participants.
- There were no changes in plan provisions or actuarial assumptions since the prior valuation.
- The only change in actuarial cost methods since the prior valuation was a modification to the asset valuation method, effective with the July 1, 2007 valuation. Assets allocated to the Minnesota Post Retirement Investment Fund (MPRIF) must equal the Market Value of Assets on the valuation date. This change resulted in a decrease to the Actuarial Value of Assets and increase to the Unfunded Actuarial Accrued Liability of $266,549,322. The Supplemental Contribution increased by $25,779,990, which directly impacted the Contribution Deficiency, resulting in total deficiency of 3.26% of payroll.

- The actuarial accrued liability funded ratio based on the actuarial value of assets under the new asset valuation method as of July 1, 2007 is 92.49% compared to 96.23% as of July 1, 2006. The funded ratio based on this calculation under the old asset valuation method would have decreased to 95.26% as of July 1, 2007; hence, the decrease in the funded ratio from 95.26% to 92.49% is entirely attributable to the asset valuation method change. This ratio is a measure of funding status, and its history is a measure of funding progress.

Summary of Key Valuation Results

	2007*	2006
Contributions (% of payroll) for plan year beginning July 1:		
Statutory – Chapter 352	8.50%	8.00%
Required – Chapter 356	11.76%	10.11%
Sufficiency/(Deficiency)	-3.26%	-2.11%
Funding elements for plan year beginning July 1:		
Normal cost	$188,716,922	$183,605,603
Market value of assets	9,507,005,127	8,767,249,551
Actuarial value of assets (AVA)	8,904,516,772	8,486,756,016
Actuarial accrued liability (AAL)	9,627,304,704	8,819,160,917
Unfunded/(Overfunded) actuarial accrued liability	722,787,932	332,404,901
Funded ratios:		
Accrued Benefit Funded Ratio	96.81%	100.57%
Current assets (AVA)	$8,904,516,772	$8,486,756,016
Current benefit obligations	9,198,263,197	8,438,970,186
Projected Benefit Funded Ratio	93.25%	95.12%
Current and expected future assets	$10,399,040,311	$9,839,501,949
Current and expected future benefit obligations (Present Value of Benefits)	11,151,833,997	10,343,916,940
GASB 25/27 for plan year beginning July 1:		
Annual required employer contributions	$122,598,554	$127,371,386
Accrued Liability Funded Ratio (AVA/AAL)	92.49%	96.23%
Covered actual payroll	$2,095,310,097	$2,016,588,023
Demographic data for plan year beginning July 1:		
Number of pensioners and beneficiaries	25,346	24,204
Number of vested terminated participants	14,751	14,217
Number of other non-vested terminated participants	7,007	6,828
Number of active participants	48,379	48,000
Total projected payroll	$2,241,738,286	$2,157,579,057
Average projected compensation	46,337	44,950

* *The 2007 results reflect a change in the Asset Valuation Method, with MPRIF Reserves equal to Market Value.*

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, vested terminated participants, pensioners and beneficiaries.

This section presents a summary of significant statistical data on these participant 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 participant population has changed over the past six valuations can be seen in this chart.

CHART 1

Participant Population: 2002 – 2007

Year Ended June 30	Active Participants	Vested Terminated Participants*	Pensioners and Beneficiaries	Ratio of Non-Actives to Actives
2002	49,099	11,939	20,805	0.67
2003	48,136	12,679	21,454	0.71
2004	46,899	13,784	22,654	0.78
2005	47,125	13,592	23,367	0.78
2006	48,000	14,217	24,204	0.80
2007	48,379	14,751	25,346	0.83

* *Excludes terminated participants due a refund of employee contributions.*

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 48,379 active participants with an average age of 46.2, average service of 12.4 years and average projected compensation of $46,337. The 48,000 active participants in the prior valuation had an average age of 46.2, average service of 12.5 years and average projected compensation of $44,950.

Inactive Participants

In this year's valuation, there were 14,751 participants with a vested right to a deferred or immediate vested benefit.

In addition, there were 7,007 other non-vested terminated participants entitled to a refund of their employee contributions.

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

CHART 2

Distribution of Active Participants by Age as of June 30, 2007

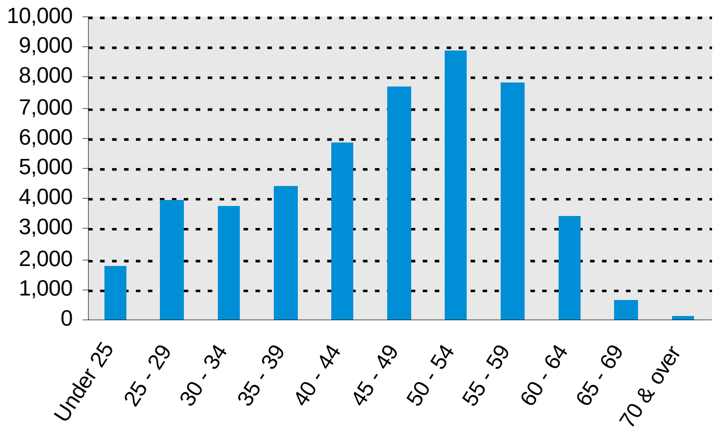
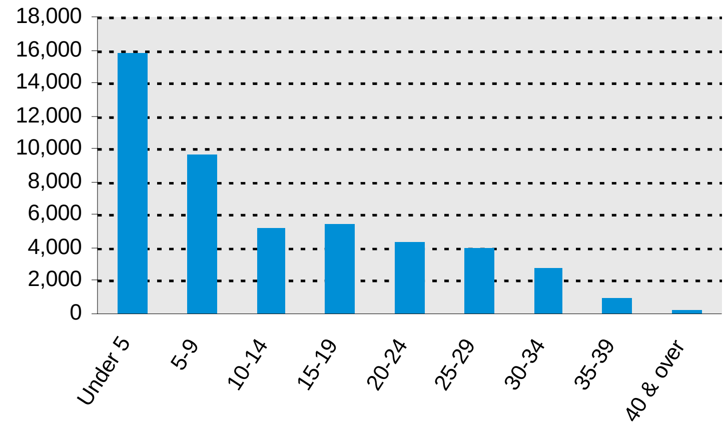


CHART 3

Distribution of Active Participants by Years of Service as of June 30, 2007



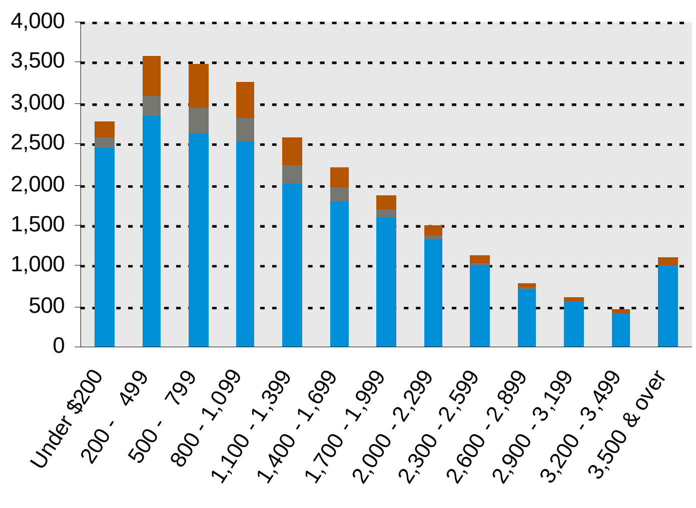
Pensioners and Beneficiaries

As of June 30, 2007, 22,427 pensioners (20,880 retired and 1,547 disabled participants) and 2,919 beneficiaries were receiving average monthly benefits of $1,312. For comparison, in the previous valuation, there were 21,411 pensioners (19,903 retired and 1,508 disabled participants) and 2,793 beneficiaries receiving average monthly benefits of $1,284.

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

CHART 4

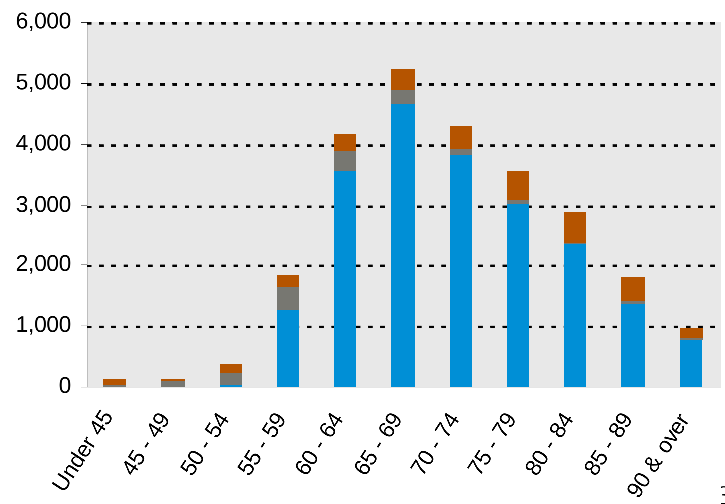
Distribution of Pensioners and Beneficiaries by Type and by Monthly Amount as of June 30, 2007



Beneficiary
Disability
Regular

CHART 5

Distribution of Pensioners and Beneficiaries by Type and by Age as of June 30, 2007



B. FINANCIAL INFORMATION

It is desirable to have level and predictable plan costs from one year to the next. For this reason, 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.

Effective with the July 1, 2007 valuation, the Asset Valuation Method was changed such that assets allocated to the Minnesota Post Retirement Investment Fund (MPRIF) must equal the Market Value of Assets on the valuation date. The next page summarizes the determination of the actuarial Value of Assets for the Year ended June 30, 2007, before and after this method change.

The chart shows the determination of the actuarial value of assets as of the valuation date, before the asset valuation method change.

CHART 6A

Determination of Actuarial Value of Assets for Year Ended June 30, 2007 – Before Asset Valuation Method Change

1.	Market value of assets available for benefits				$9,773,554,449
			Original Amount	% Not Recognized	
2.	Calculation of unrecognized return				
	(a)	Year ended June 30, 2007	$488,554,309	80%	$390,843,447
	(b)	Year ended June 30, 2006	189,877,852	60%	113,926,711
	(c)	Year ended June 30, 2005	94,936,702	40%	37,974,681
	(d)	Year ended June 30, 2004	298,717,581	20%	59,743,516
	(e)	Total unrecognized return			$602,488,355
3.	Actuarial value of assets ("Current Assets"): (1) – (2e)				$9,171,066,094
4.	Actuarial value as percent of market value				93.8%

The chart shows the determination of the actuarial value of assets as of the valuation date, after the asset valuation method change.

CHART 6B

Determination of Actuarial Value of Assets for Year Ended June 30, 2007 – After Asset Valuation Method Change

1.	Market value of assets available for benefits				$9,507,005,127
			Original Amount	% Not Recognized	
2.	Calculation of unrecognized return				
	(a)	Year ended June 30, 2007	$488,554,309	80%	$390,843,447
	(b)	Year ended June 30, 2006	189,877,852	60%	113,926,711
	(c)	Year ended June 30, 2005	94,936,702	40%	37,974,681
	(d)	Year ended June 30, 2004	298,717,581	20%	59,743,516
	(e)	Total unrecognized return			$602,488,355
3.	Actuarial value of assets ("Current Assets"): (1) – (2e)				$8,904,516,772
4.	Actuarial value as percent of market value				93.7%

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, 2007, the total loss is $97,785,779, including a gain of $187,380,854 from investments, a gain of $83,746,773 from salary increases, a loss of $4,817,209 from MPRIF mortality, a loss of $185,750,656 from non-MPRIF post-retirement mortality, and a loss of $178,345,541 from all other sources. The net experience variation from individual sources other than investments and salary increases was 1.85% of the actuarial accrued liability, which includes age/service retirements, disability, pre-retirement mortality and withdrawal.

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

CHART 7

Actuarial Experience for Year Ended June 30, 2007

1.	Net gain from investments	$187,380,854
2.	Net gain from salary increases	83,746,773
3.	Net (loss) from MPRIF mortality	-4,817,209
4.	Net (loss) from Non-MPRIF post-retirement mortality	-185,750,656
5.	Net (loss) from other experience*	-178,345,541
6.	Net experience (loss): (1) + (2) + (3) + (4) + (5)	-$97,785,779

**Includes (gain)/loss due to age/service retirements, disability, pre-retirement mortality and withdrawal.*

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 in accordance with the GASB actuarially required contributions. 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 factors.

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

EXHIBIT A
Table of Plan Coverage

	Year Ended June 30		
Category	**2007**	**2006**	**Change From Prior Year**
Active participants in valuation:			
Number	48,379	48,000	0.8%
Average age	46.2	46.2	N/A
Average service	12.4	12.5	N/A
Total projected payroll*	$2,241,738,286	$2,157,579,057	3.9%
Average projected compensation	46,337	44,950	3.1%
Total active vested participants	36,450	36,964	-1.4%
Vested terminated participants	14,751	14,217	3.8%
Retired participants:			
Number in pay status	20,880	19,903	4.9%
Average age	71.8	72.0	N/A
Average monthly benefit	$1,352	$1,323	2.2%
Disabled participants:			
Number in pay status	1,547	1,508	2.6%
Average age	61.6	61.3	N/A
Average monthly benefit	$994	$970	2.5%
Beneficiaries:			
Number in pay status	2,919	2,793	4.5%
Average age	72.8	72.7	N/A
Average monthly benefit	$1,194	$1,175	1.6%
Other non-vested terminated participants	7,007	6,828	2.6%

** Calculated as covered actual payroll, projected one year with salary scale.*

EXHIBIT B

Participants in Active Service as of June 30, 2007
By Age, Years of Service and Average Projected Compensation

		Years of Service								
Age	**Total**	**Under 5**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**
Under 25	1,786	1,773	13	- -	- -	- -	- -	- -	- -	- -
	$18,331	$18,222	$33,143	- -	- -	- -	- -	- -	- -	- -
25 - 29	3,919	3,281	634	4	- -	- -	- -	- -	- -	- -
	31,592	29,783	40,952	$31,829	- -	- -	- -	- -	- -	- -
30 - 34	3,762	2,186	1,370	203	3	- -	- -	- -	- -	- -
	38,821	33,569	45,789	48,189	$49,335	- -	- -	- -	- -	- -
35 - 39	4,399	1,884	1,471	813	213	18	- -	- -	- -	- -
	43,278	33,625	48,883	52,516	55,080	$38,739	- -	- -	- -	- -
40 - 44	5,860	1,857	1,573	917	958	485	70	- -	- -	- -
	46,975	34,870	49,099	54,599	55,955	54,285	$46,983	- -	- -	- -
45 - 49	7,726	1,751	1,524	1,029	1,259	1,227	862	72	1	1
	49,339	34,835	48,892	53,131	56,842	57,000	53,102	$50,362	$38,082	$74,969
50 - 54	8,870	1,455	1,420	957	1,281	1,214	1,437	1,025	80	1
	51,611	35,798	49,568	52,847	56,773	56,775	56,910	55,785	51,152	40,453
55 - 59	7,826	1,026	1,068	794	1,050	952	1,126	1,232	530	48
	53,462	36,059	49,764	52,862	55,994	55,583	58,691	60,859	58,092	56,519
60 - 64	3,403	421	489	354	502	414	454	348	304	117
	52,382	31,750	47,267	53,771	53,602	53,990	56,343	62,431	63,045	59,901
65 - 69	666	114	115	89	97	77	66	38	32	38
	47,799	22,202	45,183	51,954	55,022	52,028	55,206	56,225	65,324	59,718
70 & Over	162	41	38	14	20	7	15	10	6	11
	37,192	20,129	30,616	40,094	50,871	48,610	40,468	49,712	54,584	62,349
Total	48,379	15,789	9,715	5,174	5,383	4,394	4,030	2,725	953	216
	$46,337	$31,560	$47,945	$52,979	$56,071	$55,872	$56,268	$58,768	$59,289	$59,222

EXHIBIT C

Retired Participants as of June 30, 2007
By Age, Years Retired and Average Annual Benefit

		Years Retired								
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over
Under 45	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
45 - 49	1	- -	1	- -	- -	- -	- -	- -	- -	- -
	$1,570	- -	$1,570	- -	- -	- -	- -	- -	- -	- -
50 - 54	38	4	2	1	2	1	4	21	3	- -
	12,699	$1,052	3,404	$5,581	$6,090	$13,776	$12,155	$14,962	$25,723	- -
55 - 59	1,556	251	126	145	145	167	148	361	205	8
	14,328	1,218	3,658	6,123	8,707	11,836	15,354	25,276	28,127	$29,719
60 - 64	3,797	605	352	318	356	409	435	829	418	75
	15,609	1,488	4,023	6,980	10,138	14,077	19,398	26,025	30,447	34,996
65 - 69	4,585	638	469	554	556	569	541	647	438	173
	15,434	1,775	4,632	7,870	11,696	15,117	19,842	26,130	32,195	36,141
70 - 74	3,700	515	402	485	499	496	483	426	273	121
	16,378	1,751	5,117	8,647	12,561	16,461	21,620	30,940	37,771	41,962
75 - 79	2,941	349	287	460	418	470	388	320	182	67
	18,136	2,160	5,992	9,432	14,097	19,054	24,955	35,082	41,681	47,526
80 - 84	2,269	210	167	444	405	419	244	178	150	52
	17,791	2,041	5,676	8,678	14,291	18,877	24,892	34,174	44,478	50,247
85 - 89	1,311	89	80	284	248	219	130	151	72	38
	17,103	1,632	4,315	7,124	11,863	17,370	23,270	33,272	44,403	50,436
90 & Over	682	32	54	182	133	96	68	56	38	23
	13,567	1,471	4,279	6,544	10,753	14,640	19,944	26,708	32,285	37,781
Total	20,880	2,693	1,940	2,873	2,762	2,846	2,441	2,989	1,779	557
	$16,226	$1,716	$4,824	$8,031	$12,204	$16,370	$21,333	$28,414	$34,662	$40,888

EXHIBIT D

Disabled Participants as of June 30, 2007
By Age, Years Disabled and Average Annual Benefit

		Years Disabled								
Age	**Total**	**Under 5**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & Over**
Under 45	39	4	14	16	4	- -	1	- -	- -	- -
	$6,549	$2,180	$3,825	$8,531	$10,492	- -	$14,695	- -	- -	- -
45 - 49	104	15	25	24	16	16	8	- -	- -	- -
	8,081	1,748	4,213	8,569	10,888	$12,847	15,439	- -	- -	- -
50 - 54	222	20	41	47	48	31	30	5	- -	- -
	10,442	2,356	4,594	8,478	12,034	16,168	16,879	$19,787	- -	- -
55 - 59	368	34	42	54	66	66	64	40	2	- -
	13,312	1,760	5,367	8,752	12,407	16,193	18,608	24,931	$32,658	- -
60 - 64	312	30	47	49	61	53	44	22	3	3
	12,361	1,807	4,537	9,815	11,501	15,787	20,061	23,867	31,470	$22,579
65 - 69	234	19	30	44	54	42	26	16	3	- -
	12,752	2,456	4,882	8,323	13,460	15,389	21,115	25,445	31,778	- -
70 - 74	108	7	7	22	33	19	15	5	- -	- -
	13,447	2,404	4,205	7,775	13,176	18,389	21,799	24,758	- -	- -
75 - 79	74	2	12	20	20	16	2	1	1	- -
	11,935	3,993	4,808	9,987	12,095	17,874	15,113	18,815	40,816	- -
80 - 84	43	2	3	10	18	7	2	1	- -	- -
	11,177	783	3,931	8,359	11,391	16,370	16,734	30,576	- -	- -
85 - 89	30	- -	- -	9	9	8	2	1	1	- -
	12,995	- -	- -	7,815	9,128	15,955	20,043	31,143	38,487	- -
90 & Over	13	3	2	1	3	3	1	- -	- -	- -
	7,233	1,726	2,709	4,187	8,568	11,236	19,839	- -	- -	- -
Total	1,547	136	223	296	332	261	195	91	10	3
	$11,929	$2,017	$4,649	$8,748	$12,141	$15,977	$19,065	$24,535	$33,436	$22,579

EXHIBIT E

Beneficiaries as of June 30, 2007
By Age, Years Since Death and Average Annual Benefit

		Years Since Death								
Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over
Under 45	39	5	10	7	6	6	4	- -	1	- -
	$8,040	$1,761	$2,800	$6,162	$8,941	$15,730	$16,205	- -	$20,790	- -
45 - 49	51	2	10	12	6	12	7	2	- -	- -
	8,587	2,918	4,314	6,701	5,922	9,267	12,170	$38,312	- -	- -
50 - 54	134	8	20	20	25	24	15	11	8	3
	9,940	1,829	5,004	5,943	9,431	11,547	11,116	16,960	19,246	$26,083
55 - 59	215	13	18	36	28	32	31	32	23	2
	11,192	5,907	3,883	6,657	8,052	11,116	14,725	16,113	18,903	15,943
60 - 64	286	20	30	29	45	38	40	49	31	4
	12,295	2,074	5,391	6,444	9,216	13,181	14,587	18,516	21,130	16,213
65 - 69	322	28	35	33	34	60	48	47	29	8
	13,508	1,662	4,673	8,038	9,404	13,966	16,726	21,433	24,546	24,320
70 - 74	355	25	37	52	41	50	49	52	32	17
	15,904	3,249	6,203	8,524	11,113	13,303	19,959	23,886	31,666	31,644
75 - 79	466	21	32	66	70	70	65	72	54	16
	16,740	3,535	5,173	7,941	10,073	15,249	19,160	23,938	31,553	36,986
80 - 84	496	14	31	83	86	85	47	76	63	11
	16,739	5,416	6,970	7,452	11,384	13,892	19,197	25,211	31,387	39,702
85 - 89	361	13	24	74	64	48	36	63	31	8
	14,691	7,167	5,752	6,751	10,551	13,010	18,397	22,433	31,129	29,021
90 & Over	194	6	15	35	32	21	22	31	21	11
	12,459	1,308	3,396	6,149	8,597	12,570	15,349	19,546	21,210	19,546
Total	2,919	155	262	447	437	446	364	435	293	80
	$14,329	$3,396	$5,216	$7,237	$10,011	$13,406	$17,267	$22,056	$27,581	$29,790

EXHIBIT F

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Other Non-Vested Terminated Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of July 1, 2006	48,000	14,217	6,828	1,508	19,903	2,793	93,249
New participants	3,913	139	48	0	89	0	4,189
Terminations – with vested rights	-1,323	1,334	-11	0	0	0	0
Terminations – refund	-825	-275	-447	0	0	0	-1,547
Terminations – other non-vested	-2,057	-6	2,063	N/A	N/A	N/A	0
Retirements	-1,099	-422	-4	-1	1,526	N/A	0
New disabilities	-102	-4	0	106	N/A	N/A	0
Transferred to fund	0	-1	-1,307	0	0	N/A	-1,308
Died with beneficiary	0	-5	0	0	-243	248	0
Died without beneficiary	-85	-30	-4	-62	-516	-116	-813
Lump sum payoffs	0	0	0	0	0	0	0
Rehired	313	-192	-121	0	0	N/A	0
Data adjustments	1,644	-4	-38	-4	121	-6	1,713
Number as of July 1, 2007	48,379	14,751	7,007	1,547	20,880	2,919	95,483

EXHIBIT G

Summary Statement of Income and Expenses on a Market Value Basis for Year Ended June 30, 2007

					Non-MPRIF Assets	MPRIF Reserve	Market Value
A.	Assets available at beginning of year (BOY)				$5,077,806,966	$3,689,442,585	$8,767,249,551
B.	Operating revenues:						
	1.	Member contributions			$89,446,828	$0	$89,446,828
	2.	Employer contributions			86,492,491	0	86,492,491
	3.	Contributions from other sources			17,267,938	0	17,267,938
	4.	MPRIF income			0	311,370,048	311,370,048
	5.	Net investment income					
			(a)	Interest and dividends	$633,343,356	$0	$633,343,356
			(b)	Net appreciation/(depreciation)	285,510,353	0	285,510,353
			(c)	Investment expenses	-6,492,654	0	-6,492,654
			(d)	Net subtotal	$912,361,055	$0	$912,361,055
	6.	Other			340,724	0	340,724
	7.	Total additions			$1,105,909,036	$311,370,048	$1,417,279,084
C.	Operating expenses:						
	1.	Benefits			$0	$392,058,387	$392,058,387
	2.	Refunds			11,101,719	0	11,101,719
	3.	Administrative expenses			4,916,636	0	4,916,636
	4.	Other			2,897,444	0	2,897,444
	5.	Total operating expenses			$18,915,799	$392,058,387	$410,974,186
D.	Other changes in reserves:						
	1.	Annuities awarded			-$349,964,917	$349,964,917	$0
	2.	Mortality gain/(loss)			-4,817,209	4,817,209	0
	3.	Change in MPRIF asset valuation method			0	-266,549,322	-266,549,322
	4.	Total other changes			-$354,782,126	$88,232,804	-$266,549,322
E.	Assets available at end of year (EOY)				$5,810,018,077	$3,696,987,050	$9,507,005,127
F.	Determination of current year unrecognized asset return (UAR)						
	1.	Average Balance:					
			(a)	Non-MPRIF assets available at BOY: (A)			$5,077,806,966
			(b)	Non-MPRIF assets available at EOY*: (E) – (D.2)			5,814,835,286
			(c)	Average balance: [(F.1.a) + (F.1.b) – (B.5.d) – (B.6)]/2			4,989,970,236
	2.	Expected return: 8.50% x (F.1.c)					424,147,470
	3.	Actual return: (B.5.d) + (B.6)					912,701,779
	4.	Current year UAR: (F.3) – (F.2)					$488,554,309

**Before adjustment for MPRIF Mortality Gain/(Loss).*

EXHIBIT H

Table of Financial Information for Year Ended June 30, 2007

	Market Value	Cost Value
Assets in trust		
Cash, equivalents, short-term securities	$71,251,137	$71,251,137
Fixed income	1,288,157,231	1,335,443,175
Equity	4,444,597,062	3,955,373,326
Equity in MPRIF*	3,696,987,050	3,696,987,050
Other	5,400,601	5,400,601
Total assets in trust	$9,506,393,081	$9,064,455,289
Assets receivable	$13,491,861	$13,491,861
Total assets	$9,519,884,942	$9,077,947,150
Amounts currently payable	-$12,879,815	-$12,879,815
Assets available for benefits		
MPRIF reserves	$3,696,987,050	$3,696,987,050
Member reserves	1,001,316,455	1,001,316,455
Other non-MPRIF reserves	4,808,701,622	4,366,763,830
Total Assets Available for Benefits	$9,507,005,127	$9,065,067,335
Net Assets at Market/Cost Value	$9,507,005,127	$9,065,067,335

* *The Cost Value of the Equity in the MPRIF is stated as Market Value in the MPRIF. The actual liability of the MPRIF Reserve is $3,963,536,372.*

EXHIBIT I

Actuarial Value of Asset Calculation History Through June 30, 2007

Year Ended June 30	Employer Contributions	Employee Contributions	Net Investment Return*	Change in Asset Method	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2003	$80,399,000	$83,850,000	$243,874,000	- -	$4,191,000	$319,668,000	$7,757,292,000
2004	78,621,829	82,102,530	310,963,443	- -	4,673,250	339,322,524	7,884,984,028
2005	80,312,437	83,101,068	396,341,243	- -	4,336,052	358,666,350	8,081,736,374
2006	82,644,864	85,378,650	620,935,799	- -	4,588,318	379,351,353	8,486,756,016
2007	86,492,491	89,446,828	916,447,501	-$266,549,322	4,916,636	403,160,106	8,904,516,772

* *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, 2007

1.	Unfunded/(Overfunded) actuarial accrued liability at beginning of year		$332,404,901
2.	Normal cost at beginning of year		183,605,603
3.	Total contributions		193,207,257
4.	Interest		35,649,584
5.	Expected unfunded/(overfunded) actuarial accrued liability (1) + (2) – (3) + (4)		$358,452,831
6.	Changes due to (gain)/loss from:		
	(a) Salary increases	-$83,746,773	
	(b) Investments	-187,380,854	
	(c) MPRIF mortality	4,817,209	
	(d) Non-MPRIF post-retirement mortality	185,750,656	
	(e) Other demographics*	178,345,541	
	(f) Total changes due to (gain)/loss		97,785,779
7.	Changes due to change in asset valuation method		$266,549,322
8.	Unfunded/(Overfunded) actuarial accrued liability at end of year		$722,787,932

** Includes (gain)/loss due to age/service retirements, disability, pre-retirement mortality and withdrawal.*

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) Investment return — the rate of investment yield that the Fund will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — 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.

EXHIBIT L

Special Groups – Military Affairs Calculation

Section 352.85 of Chapter 352 of Minnesota Statutes provides that certain military affairs personnel may retire, with an unreduced benefit, at age 60. In addition, they may receive disability benefits upon being found disqualified for retention in active military duty. To fund these special benefits, employees and employer contribute an extra 1.60% of payroll.

To recognize the effect of the unreduced early retirement benefit available at age 60, we have assumed that all military affairs personnel will retire at age 60, or if over age 60, one year from the valuation date.

	For Year Ended June 30, 2007
1. Number of active participants	3
2. Projected annual earnings	$113,278
3. Normal cost	
(a) Dollar amount	$14,784
(b) Percent of payroll	13.05%

EXHIBIT L (continued)

Special Groups – Pilots Calculation

Section 352.86 of Chapter 352 of Minnesota Statutes provides that certain transportation department pilots may retire with an unreduced benefit at age 62. In addition, they may receive disability benefits upon being found disqualified for retention as pilots. To fund these special benefits, employees and employer contribute an extra 1.60% of payroll.

To recognize the effect of the unreduced early retirement benefit available at age 62, we have assumed that all pilots will retire at age 62, or if over age 62, one year from the valuation date.

	For Year Ended June 30, 2007
1. Number of active participants	4
2. Projected annual earnings	$326,957
3. Normal cost	
(a) Dollar amount	$41,860
(b) Percent of payroll	12.80%

EXHIBIT L (continued)

Special Groups – Fire Marshals Calculation

Section 352.87 of Chapter 352 of Minnesota Statutes provides that deputy state fire marshals may retire with an unreduced benefit (with respect to service after July 1, 1999) at age 55. Credited Service after July 1, 1999 accrues retirement benefits at a rate of 2.00% per year, and disability benefits are based on a minimum of 15 years of service (20 years if duty related.) To fund these special benefits, employees contribute an extra 2.78% of payroll and employers contribute an extra 4.20% of payroll.

To recognize the effect of the unreduced early retirement benefit available at age 55, we have assumed that all fire marshals will retire in accordance with the retirement assumptions which apply to the members of the Correctional Employees Retirement Fund.

	For Year Ended June 30, 2007
1. Number of active participants	11
2. Projected annual earnings	$662,207
3. Normal cost for post July 1, 1999 benefits	
(a) Dollar amount	$118,142
(b) Percent of payroll	17.84%

EXHIBIT L (continued)

Special Groups – Unclassified Plan Contingent Liability Calculation

Section 352D.02 of Chapter 352D of Minnesota Statutes provides that employees credited with employee shares in the unclassified program may elect to terminate participation in the unclassified plan and be covered by the regular plan prior to termination of covered employment.

To recognize the effect of the option to elect coverage under the regular plan, we have assumed that all eligible Unclassified Plan members will elect coverage under the regular plan if such election provides the member with a greater economic present value than the accumulated contribution balance under the Unclassified Plan. The liabilities were measured using the actuarial assumptions that are applied to the State Employees Retirement Fund.

	For Year Ended June 30, 2007
1. Number of active participants	1,726
2. Account balances for active participants	$235,034,961
3. Accrued liability for active participants	241,860,747
4. Number of inactive participants	1,606
5. Account balances for inactive participants	$140,383,965
6. Net assets held in trust for Unclassified Plan participants	317,400,267
7. Contingent liability: (3) + (5) – (6)	64,844,445
8. Projected annual earnings for active participants	108,761,644
9. Normal cost	
(a) Dollar amount	$9,688,232
(b) Percent of payroll	8.91%

EXHIBIT IA
Summary of Actuarial Valuation Data

The valuation was made with respect to the following data supplied to us:

1.	Pensioners as of the valuation date (including 2,919 beneficiaries in pay status)		25,346
2.	Participants inactive during year ended June 30, 2007 with vested rights		14,751
3.	Participants active during the year ended June 30, 2007		48,379
	Fully vested	36,450	
	Not vested	11,929	
4.	Other non-vested terminated participants as of June 30, 2007		7,007

EXHIBIT IB

Summary of Actuarial Valuation Results (Before Asset Valuation Method Change)

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
A. Determination of Actuarial Accrued Liability			
1. Active participants:			
(a) Death benefits	$155,730,994	$37,390,786	$118,340,208
(b) Disability benefits	231,136,342	79,802,251	151,334,091
(c) Withdrawal benefits	434,847,611	205,014,710	229,832,901
(d) Retirement benefits	5,194,729,235	1,087,671,661	4,107,057,574
(e) Refunds	39,477,429	114,649,885	-75,172,456
(f) Total	$6,055,921,611	$1,524,529,293	$4,531,392,318
2. Vested terminated participants	$1,058,265,890	$0	$1,058,265,890
3. Other non-vested terminated participants	9,265,679	0	9,265,679
4. Annuitants in MPRIF	3,963,536,372	0	3,963,536,372
5. Annuitants not in MPRIF	0	0	0
6. Contingent actuarial accrued liability - Unclassified	64,844,445	0	64,844,445
7. Total	$11,151,833,997	$1,524,529,293	$9,627,304,704
B. Determination of Unfunded Actuarial Accrued Liability			
1. Actuarial Accrued Liability			$9,627,304,704
2. Actuarial Value of Assets			9,171,066,094
3. Unfunded Actuarial Accrued Liability: (B.1) – (B.2)			$456,238,610
C. Determination of Supplemental Contribution Rate			
1. Present value of future payrolls through the amortization date of June 30, 2020			$23,081,349,146
2. Supplemental contribution rate: (B.3) / (C.1)			1.98%

EXHIBIT IC

Summary of Actuarial Valuation Results (After Asset Valuation Method Change)

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
A. Determination of Actuarial Accrued Liability			
1. Active participants:			
(a) Death benefits	$155,730,994	$37,390,786	$118,340,208
(b) Disability benefits	231,136,342	79,802,251	151,334,091
(c) Withdrawal benefits	434,847,611	205,014,710	229,832,901
(d) Retirement benefits	5,194,729,235	1,087,671,661	4,107,057,574
(e) Refunds	39,477,429	114,649,885	-75,172,456
(f) Total	$6,055,921,611	$1,524,529,293	$4,531,392,318
2. Vested terminated participants	$1,058,265,890	$0	$1,058,265,890
3. Other non-vested terminated participants	9,265,679	0	9,265,679
4. Annuitants in MPRIF	3,963,536,372	0	3,963,536,372
5. Annuitants not in MPRIF	0	0	0
6. Contingent actuarial accrued liability - Unclassified	64,844,445	0	64,844,445
7. Total	$11,151,833,997	$1,524,529,293	$9,627,304,704
B. Determination of Unfunded Actuarial Accrued Liability			
1. Actuarial Accrued Liability			$9,627,304,704
2. Actuarial Value of Assets			8,904,516,772
3. Unfunded Actuarial Accrued Liability: (B.1) – (B.2)			$722,787,932
C. Determination of Supplemental Contribution Rate			
1. Present value of future payrolls through the amortization date of June 30, 2020			$23,081,349,146
2. Supplemental contribution rate: (B.3) / (C.1)			3.13%

EXHIBIT II
Actuarial Balance Sheet

A.	Current Assets					$8,904,516,772
B.	Expected Future Assets					
	1.	Present Value of Expected Future Statutory Supplemental Contributions				-$30,005,754
	2.	Present Value of Future Normal Costs				1,524,529,293
	3.	Total Expected Future Assets				$1,494,523,539
C.	Total Current and Expected Future Assets					$10,399,040,311
D.	Current Benefit Obligations			**Non-Vested**	**Vested**	**Total**
	1.	Benefit recipients:				
		(a)	Retirement annuities	$0	$3,387,873,275	$3,387,873,275
		(b)	Disability benefits	0	205,905,952	205,905,952
		(c)	Beneficiaries	0	369,757,145	369,757,145
	2.	Vested terminated participants		0	1,058,265,890	1,058,265,890
	3.	Other non-vested terminated participants		0	9,265,679	9,265,679
	4.	Active participants		40,910,603	4,126,284,653	4,167,195,256
	5.	Total Current Benefit Obligations		$40,910,603	$9,157,352,594	$9,198,263,197
E.	Expected Future Benefit Obligations					1,953,570,800
F.	Total Current and Expected Future Benefit Obligations - Present Value of Benefits: (D.5 + E)					$11,151,833,997
G.	Current Unfunded / (Surplus) Actuarial Liability (D.5 - A)					$293,746,425
H.	Current and Future Unfunded Actuarial Liability (F - C)					$752,793,686

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Year Ended June 30	Actuarially Required Contribution Rate (a)	Actual Covered Payroll (b)	Actual Member Contributions (c)	Annual Required Employer Contributions [(a) x (b)] – (c) = (d)	Actual Employer Contributions[(1)] (e)	Percentage Contributed (e) / (d)
1991	8.17%	$1,370,964,000	$56,895,000	$55,113,000	$57,986,000	105.21%
1992	7.86%	1,409,108,000	58,478,000	52,278,000	59,244,000	113.33%
1993	8.27%	1,482,005,000	59,132,000	63,430,000	58,982,000	92.99%
1994	8.93%	1,536,978,000	62,555,000	74,697,000	60,741,000	81.32%
1995	9.15%	1,514,177,000	61,627,000	76,920,000	63,161,000	82.11%
1996	8.05%	1,560,369,000	63,507,000	62,103,000	65,557,000	105.56%
1997	7.21%	1,568,747,000	63,848,000	49,259,000	66,568,000	135.14%
1998	7.13%	1,557,880,000	62,901,000	48,176,000	62,315,000	129.35%
1999	6.48%	1,649,469,000	66,823,000	40,063,000	65,979,000	164.69%
2000	6.12%	1,733,054,000	70,378,000	35,685,000	69,322,000	194.26%
2001	7.12%[(2)]	1,834,042,000	74,364,000	56,220,000	73,362,000	130.49%
2002	6.79%	1,915,350,000	79,487,000	50,565,000	76,614,000	151.52%
2003	8.34%[(3)]	2,009,975,000	83,850,000	83,782,000	80,399,000	95.96%
2004	9.43%	1,965,546,000	82,102,530	103,248,458	78,621,829	76.15%
2005	9.33%	1,952,322,586	83,101,068	99,050,629	80,312,437	81.08%
2006	10.55%	2,016,588,023	85,378,650	127,371,386	82,644,864	64.88%
2007	10.11%[(4)]	2,095,310,097	89,446,828	122,389,023	86,492,491	70.67%
2008	11.76%[(5)]					

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

(2) *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions and Asset Valuation Method is 5.72%.*

(3) *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 7.22%.*

(4) *Actuarially Required Contribution Rate prior to change in employee contribution rates is approximately 10.06%.*

(5) *Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 10.61%.*

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 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	$2,304,311,000	$2,883,603,000	$579,292,000	79.91%	$1,370,964,000	42.25%
07/01/1992	2,613,472,000	3,125,299,000	511,827,000	83.62%	1,409,108,000	36.32%
07/01/1993	2,905,578,000	3,563,492,000	657,914,000	81.54%	1,482,005,000	44.39%
07/01/1994	3,158,068,000	3,876,584,000	718,516,000	81.47%	1,536,978,000	46.75%
07/01/1995	3,462,098,000	3,795,926,000	333,828,000	91.21%	1,514,177,000	22.05%
07/01/1996	3,975,832,000	4,087,273,000	111,441,000	97.27%	1,560,369,000	7.14%
07/01/1997	4,664,519,000	4,519,542,000	-144,977,000	103.21%	1,568,747,000	-9.24%
07/01/1998	5,390,526,000	5,005,165,000	-385,361,000	107.70%	1,557,880,000	-24.74%
07/01/1999	5,968,692,000	5,464,207,000	-504,485,000	109.23%	1,649,469,000	-30.58%
07/01/2000	6,744,165,000	6,105,703,000	-638,462,000	110.46%	1,733,054,000	-36.84%
07/01/2001	7,366,673,000	6,573,193,000	-793,480,000	112.07%	1,834,042,000	-43.26%
07/01/2002	7,673,028,000	7,340,397,000	-332,631,000	104.53%	1,915,350,000	-17.37%
07/01/2003	7,757,292,000	7,830,671,000	73,379,000	99.06%	2,009,975,000	3.65%
07/01/2004	7,884,984,028	7,878,362,792	-6,621,236	100.08%	1,965,546,000	-0.34%
07/01/2005	8,081,736,374	8,455,335,998	373,599,624	95.58%	1,952,322,586	19.14%
07/01/2006	8,486,756,016	8,819,160,917	332,404,901	96.23%	2,016,588,023	16.48%
07/01/2007	8,904,516,772	9,627,304,704	722,787,932	92.49%	2,095,310,097	34.50%

EXHIBIT VA

Determination of Contribution Sufficiency (Before Asset Valuation Method Change)

		July 1, 2007	
A.	**Statutory Contributions – Chapter 352**	**Percent of Payroll**	**Dollar Amount**
1.	Member Contributions	4.25%	$95,273,877
2.	Employer Contributions	4.25%	95,273,877
3.	Total	8.50%	$190,547,754
B.	**Required Contributions – Chapter 356**		
1.	Normal Cost		
	(a) Retirement Benefits	6.19%	$138,851,022
	(b) Disability Benefits	0.41%	9,264,286
	(c) Survivors	0.19%	4,337,493
	(d) Deferred Retirement Benefits	1.02%	22,959,245
	(e) Refunds	0.59%	13,304,876
	(f) Total	8.40%	$188,716,922
2.	Amortization of Supplemental Contribution UAAL	1.98%	44,386,418
3.	Allowance for Expenses	0.23%	5,155,998
4.	Total	10.61%	$238,259,338
C.	**Contribution Sufficiency (Deficiency) (A.3 – B.4)**	-2.11%	-$47,711,584
D.	**Projected annual payroll* for fiscal year beginning on the valuation date**		$2,241,738,286

** Calculated as covered actual payroll, projected one year with salary scale.*

EXHIBIT VB

Determination of Contribution Sufficiency (After Asset Valuation Method Change)

		July 1, 2007	
A.	**Statutory Contributions – Chapter 352**	**Percent of Payroll**	**Dollar Amount**
1.	Member Contributions	4.25%	$95,273,877
2.	Employer Contributions	4.25%	95,273,877
3.	Total	8.50%	$190,547,754
B.	**Required Contributions – Chapter 356**		
1.	Normal Cost		
	(a) Retirement Benefits	6.19%	$138,851,022
	(b) Disability Benefits	0.41%	9,264,286
	(c) Survivors	0.19%	4,337,493
	(d) Deferred Retirement Benefits	1.02%	22,959,245
	(e) Refunds	0.59%	13,304,876
	(f) Total	8.40%	$188,716,922
2.	Amortization of Supplemental Contribution UAAL		
	(a) Before change in Asset Valuation Method	1.98%	44,386,418
	(b) Cost Impact due to Asset Valuation Method change	1.15%	25,779,990
3.	Allowance for Expenses	0.23%	5,155,998
4.	Total	11.76%	$264,039,328
C.	**Contribution Sufficiency (Deficiency) (A.3 – B.4)**	-3.26%	-$73,491,574
D.	**Projected annual payroll* for fiscal year beginning on the valuation date**		$2,241,738,286

** Calculated as covered actual payroll, projected one year with salary scale.*

EXHIBIT VI
Supplementary Information Required by the GASB

Valuation date	July 1, 2007
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll, assuming payroll increases at 5.00% per annum
Remaining amortization period	13 years remaining as of July 1, 2007
Asset valuation method	MPRIF Reserve: Market Value
	Non-MPRIF Assets: 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 (payment on earnings on retired reserves in excess of 6.00% accounted for by 6.00% post-retirement assumption)
Plan membership:	
Pensioners and beneficiaries receiving benefits	25,346
Terminated participants entitled to, but not yet receiving benefits	14,751
Other non-vested terminated participants due a refund of contributions	67,007
Active participants	48,379
Total	95,483

EXHIBIT VII

Actuarial Assumptions and Actuarial Cost Method

Net Investment Return:		
Pre-Retirement:	8.50% per annum.	
Post-Retirement:	8.50% per annum.	
Benefit Increases After Retirement:	Payment of earnings on retired reserves in excess of 6.00% accounted for by 6.00% post-retirement assumption.	
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 rates in the rate table. During a 10-year select period, 0.30% x (10-T) where T is completed years of service is added to the ultimate rate.	
Mortality Rates:		
Healthy Pre-Retirement:	Male:	1983 Group Annuity Mortality Table for males set back five years.
	Female:	1983 Group Annuity Mortality Table for females set back two years.
Healthy Post-Retirement:	Male:	1983 Group Annuity Mortality Table for males set back two years.
	Female:	1983 Group Annuity Mortality Table for females set back one year.
Disabled:	Male:	1965 RRB rates through age 54. For ages 55 to 64, graded rates between 1965 RRB rates and the Healthy Post-Retirement Mortality Table. For ages 65 and later, the Healthy Post-Retirement Mortality Table.
	Female:	1965 RRB rates through age 54. For ages 55 to 64, graded rates between 1965 RRB rates and the Healthy Post-Retirement Mortality Table. For ages 65 and later, the Healthy Post-Retirement Mortality Table.

Retirement Rates:	Graded rates beginning at age 55 as shown in rate table. Members who have attained the highest assumed retirement age will retire in one year.
Withdrawal Rates:	Select and ultimate rates based on recent plan experience. Ultimate rates after the third year are shown in rate table. Select rates are as follows:

	First Year	Second Year	Third Year
Males	0.45	0.14	0.09
Females	0.48	0.15	0.10

Disability:	Rates as shown in rate table.
Allowance for Combined Service Annuity:	Liabilities for active members are increased by 1.20% and liabilities for former members are increased by 40.00% to account for the effect of some participants having eligibility for a Combined Service Annuity.
Expenses:	Prior year administration expenses expressed as percentage of prior year payroll.
Return of Contributions:	All employees withdrawing after becoming eligible for a deferred benefit take the larger of their contributions accumulated with interest or the actuarial value of their deferred benefit.
Percent Married:	85% of members are assumed to be married.
Age of Spouse:	Females are assumed to be three years younger than males.
Special Consideration:	Married members assumed to elect subsidized joint and survivor form of annuity as follows:

Males -	20% elect 50% J&S option
	50% elect 100% J&S option
Females -	10% elect 50% J&S option
	15% elect 100% J&S option

Actuarial Cost Method:	Entry Age Normal Actuarial 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.
Asset Valuation Method:	MPRIF Reserve: Market Value Non-MPRIF Assets: Market Value less a percentage of the Unrecognized Asset Return determined at the close of each of the four preceding fiscal years. Unrecognized Asset Return is the difference between actual net return on Market Value of Assets and the asset return expected during the fiscal year (based on the assumed interest rate employed in the July 1 Actuarial Valuation of the fiscal year).
Payment on the Unfunded Actuarial Accrued Liability:	A level percentage of payroll each year to the statutory amortization date assuming payroll increases of 5.00% per annum. If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll. The additional cost for 2006 and all future years due to the change in the plan and assumptions effective July 1, 2006 will be amortized over 30 years, as a level percentage of payroll each year assuming payroll increases of 5.00% per annum.

Rate Table

Summary of Rates: Shown below for selected ages:

Rates (%)

Age	Healthy Pre-Retirement Mortality Male	Healthy Pre-Retirement Mortality Female	Healthy Post-Retirement Mortality Male	Healthy Post-Retirement Mortality Female	Disabled Mortality Male	Disabled Mortality Female	Withdrawal Male	Withdrawal Female
20	0.03%	0.02%	0.04%	0.02%	4.39%	4.39%	6.90%	8.55%
25	0.04	0.02	0.04	0.02	4.40	4.40	5.90	7.80
30	0.05	0.03	0.05	0.03	4.40	4.40	4.90	7.05
35	0.06	0.04	0.07	0.04	4.41	4.41	3.90	6.30
40	0.09	0.06	0.10	0.06	4.41	4.41	3.20	5.55
45	0.12	0.08	0.17	0.09	4.48	4.48	2.70	4.80
50	0.22	0.14	0.31	0.15	4.86	4.86	2.20	3.90
55	0.39	0.21	0.52	0.23	5.43	5.41	0.00	0.00
60	0.61	0.34	0.77	0.38	3.72	3.51	0.00	0.00
65	0.92	0.58	1.24	0.64	1.24	0.64	0.00	0.00
70	1.56	0.97	2.22	1.09	2.22	1.09	0.00	0.00

Rate Table (continued)

Summary of Rates: (continued) Shown below for selected ages:

	Rates (%)				
	Disability		**Retirement**		**Salary Increases**
Age	**Male**	**Female**	**Rule of 90 Eligible**	**Other**	
20	0.01%	0.01%	0.00%	0.00%	6.75%
25	0.01	0.01	0.00	0.00	6.75
30	0.01	0.01	0.00	0.00	6.75
35	0.03	0.03	0.00	0.00	6.75
40	0.08	0.08	0.00	0.00	6.75
45	0.13	0.13	0.00	0.00	6.45
50	0.24	0.24	0.00	0.00	5.95
55	0.42	0.36	25.00	5.00	5.45
60	0.65	0.52	25.00	10.00	5.25
65	0.00	0.00	45.00	45.00	5.25
70	0.00	0.00	30.00	30.00	5.25

Changes in Actuarial Assumptions and Actuarial Cost Methods:

There have been no changes made to the actuarial assumptions since the prior valuation.

The only change in actuarial cost methods since the last valuation was a modification to the asset valuation method, effective with the July 1, 2007 valuation. Assets allocated to the Minnesota Post Retirement Investment Fund (MPRIF) must equal the Market Value of Assets as of the valuation date.

EXHIBIT VIII

Summary of Plan Provisions

This summary of provisions reflects the interpretation of applicable Statutes 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: State employees, non-academic staff of the University of Minnesota and employees of certain Metro level governmental units, unless excluded by law.

Contributions: **Shown as a percent of salary:**

Date of Increase	Employee	Employer
Current	4.25	4.25
July 1, 2008	4.50	4.50
July 1, 2009	4.75	4.75
July 1, 2010	5.00	5.00

Allowable Service: Service during which member contributions were made. May also include certain leaves of absence, military service and periods while temporary Worker's Compensation is paid. Excludes lump sum vacation pay at termination.

Salary: Includes wages, allowances and fees. Excludes lump sum payments at separation, employer contributions to deferred compensation and tax-sheltered annuity plans and benevolent vacation and sick leave donation programs.

Retirement:

Normal Retirement Benefit:

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 June 30, 1989:

(a) The greater of age 65 or the age eligible for full Social Security retirement benefits (but not higher than age 66) and three years of Allowable Service.

(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 Benefit:

Age/Service Requirement: First hired before July 1, 1989:

(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.

First hired after June 30, 1989:

Age 55 with three years of Allowable Service.

Amount: First hired before July 1, 1989:

The greater of (a) or (b):

(a) 1.20% of Average Salary for each of the first 10 years of Allowable Service and 1.70% of Average Salary for each subsequent year with reduction of 0.25% for each month the member is under age 65 at time of retirement or age 62 if 30 years of Allowable Service. No reduction if age plus years of Allowable Service totals 90.

(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 June 30, 1989:

1.70% of Average Salary for each year of Allowable Service assuming augmentation to the age eligible for full Social Security retirement benefit (but not higher than age 66) at 3.00% per year and actuarial reduction for each month the member is under the Social Security retirement age (but not higher than age 66).

Form of Payment:	Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are: 50% or 100% joint and survivor with bounce back feature without additional reduction. 15 year certain and life thereafter.
Benefit Increases:	Benefits may be increased each January 1 depending on the investment performance of the Minnesota Post Retirement Investment Fund (MPRIF). A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Benefit recipients receiving benefits for at least one full month but less than 12 full months will receive a partial increase. Members retired under laws in effect before July 1, 1973 receive an additional lump sum payment each year. In 1989, this lump sum payment is the greater of $25 times each full year of Allowable Service or $400 per full year of service less any Social Security benefits received or annuity from a Minnesota public employee pension plan. In each following year, the lump sum payment will increase by the same percentage increase that is applied to regular annuities paid from MPRIF. Effective January 1, 2002, annual lump sum payment is divided by 12 and paid as a monthly life annuity in the annuity form elected.

Disability:

Disability Benefit:

Age/Service Requirement:	Total and permanent disability before normal retirement age with three years of Allowable Service.
Amount:	Normal retirement benefit based on Allowable Service and Average Salary at disability without reduction for commencement before normal retirement age. If a member became disabled prior to July 1, 1997 but was not eligible to commence their benefit before July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00% Payments stop if disability ceases or death occurs. Payments revert to a retirement annuity at normal retirement age. Benefits may be reduced on resumption of partial employment.

Form of Payment:	Same as for retirement.
Benefit Increases:	Same as for retirement.
Retirement After Disability:	
Age/Service Requirement:	Normal retirement age with continued disability.
Amount:	Any optional annuity continues. Otherwise, a normal retirement benefit equal to the disability benefit paid before normal retirement age, or an actuarially equivalent optional annuity.
Benefit Increases:	Same as for retirement.

Death:

Surviving Spouse Optional Benefit:	
Age/Service Requirement:	Member or former member who dies before retirement or disability benefits commence with three years of Allowable Service. If a former member dies before age 55 and has less than 30 years of Allowable Service, benefits commence when the former member would have been age 55. If an active member dies, benefits may commence immediately, regardless of age.
Amount:	Surviving spouse receives the 100% joint and survivor benefit the member could have elected if terminated. If commencement is prior to age 55, the appropriate early retirement formula described above applies except that one-half the monthly reduction factor is used from age 55 to the commencement age and the Rule of 90 does not apply. In lieu of this benefit, the surviving spouse may elect a refund of contributions with interest or an actuarially equivalent term certain annuity. If a member became deceased prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefit as of July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Benefit Increases:	Same as for retirement.

<u>Surviving Dependent Children's Benefit</u>:

Age/Service Requirement:	If no surviving spouse, all dependent children (biological or adopted) below age 20 who are dependent for more than half of their support on deceased member.
Amount:	Actuarially equivalent to surviving spouse 100% joint and survivor annuity payable to the later of age 20 or five years. The amount is to be proportionally divided among surviving children. If a member became deceased prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefit as of July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.

<u>Refund of Contributions</u>:

Age/Service Requirement:	Active employee dies and survivor benefits are not payable, or a former employee dies before annuity begins, or a former employee who is not entitled to an annuity dies.
Amount:	The member's contributions with 5.00% interest if death occurred before May 16, 1989, and 6.00% interest if death occurred on or after May 16, 1989.
Age/Service Requirement:	Retired or disabled annuitant who did not select an optional annuity dies, or the remaining recipient of an option dies.
Amount:	The excess of the member's contributions over all benefits paid.

Termination:

<u>Refund of Contributions</u>:

Age/Service Requirement:	Termination of state service.
Amount:	Member's contributions with 5.00% interest compounded annually if termination occurred before May 16, 1989 and 6.00% interest compounded annually if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund.

Deferred Benefit:	
Age/Service Requirement:	Three years of Allowable Service.
Amount:	Benefit computed under law in effect at termination and increased by the following percentage: (a) 0.00% before July 1, 1971; (b) 5.00% from July 1, 1971 to January 1, 1981; (c) 3.00% thereafter until January 1 of the year following attainment of age 55; and (d) 5.00% hereafter until the annuity begins. Amount is payable as a normal or early retirement. If a member terminated employment prior to July 1, 1997 but was not eligible to commence their pension before July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Changes in Plan Provisions:	The only changes in plan provisions since the prior valuation are the increases in future employee and employer contribution rates previously stated.

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