

December 2009

# **Legislators Retirement Fund**

Actuarial Valuation Report as of July 1, 2009

## **MERCER**



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## Highlights

This report has been prepared by Mercer for the Minnesota State Retirement System to:

- Present the results of a valuation of the Legislators Retirement Fund as of July 1, 2009.
- Review experience under the Plan for the year ended June 30, 2009.
- Provide reporting and disclosure information for governmental agencies and other interested parties.

## Contributions

The following table summarizes important contribution information as described in the “Development of Costs” section.

Contributions	Actuarial Valuation as of	
	July 1, 2009	July 1, 2008
Statutory Contributions – Chapter 3A (% of Payroll)	9.00%	9.00%
Required Contributions – Chapter 356 (% of Payroll)	338.22%	243.21%
Sufficiency / (Deficiency)	(329.22%)	(234.21%)

This plan has a funding ratio of 31.7%. The required contribution shown above represents the annual contribution amount, as a percent of payroll, assuming future payroll increases of 4.5% per year, that would be needed in order for this plan to attain 100% funding by July 1, 2021, based upon the prescribed assumptions. Actual contributions have been less than the required amount since 2003. **Without a change in contribution policy, or extremely favorable actuarial experience, the fund’s assets will be depleted over the next 5-10 years, or earlier.**

This plan is partially funded on a pay-as-you go basis, by member contributions and annual appropriations from the General Fund. The expected benefit payments for the next 10 years are:

Fiscal Year Ending	Expected Annual Benefit Payments
2010	\$ 7,504,000
2011	8,253,000
2012	8,410,000
2013	8,534,000
2014	8,626,000
2015	8,642,000
2016	8,595,000
2017	8,498,000
2018	8,398,000
2019	8,337,000

Note that the current contribution levels are not sufficient to cover annual benefit payments. For the fiscal year ending June 30, 2009, total contributions were \$1.5 million and total benefit payments were \$7.0 million.

## Highlights

The estimated benefit payments, actuarial accrued liability, and required contribution are based on prescribed assumptions. The economic assumptions are set in Statute, and the remaining assumptions are adopted by the MSRS Board of Directors and the Legislative Commission on Pensions and Retirement. These assumptions include an older mortality table that has been producing a historical pattern of annual mortality losses, and a retirement age assumption that has predicted more retirements than the plan has experienced. In addition, assumed payroll growth, for purpose of amortizing the unfunded liability, is 4.5%. This assumption when used for a closed plan with decreasing payroll produces an increasing amortization payment as a percent of pay. For GASB purposes, we have assumed no payroll growth for amortization purposes, resulting in a level dollar amortization payment. **We recommend that all assumptions be reviewed and updated, if possible, before the next actuarial valuation.**

The "Plan Assets" section provides detail on the plan assets used for the valuation. The plan assets earned (13.9%) for the plan year ending June 30, 2009 as compared to the assumed rate of 8.5%.

Participant reconciliation and statistics are detailed in the "Membership Data" section. The "Actuarial Basis" section includes a summary of plan provisions and actuarial methods and assumptions used for the calculations in this report. The "Plan Accounting" section details the required accounting information for the Plan under GASB Statement No. 25 (as amended by GASB 50).

There were no changes in actuarial assumptions since the July 1, 2008 valuation. Changes in plan provisions and methods are reflected in this report and summarized in the Actuarial Basis section.

## Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in plan provisions, actuarial assumptions or valuation methods and procedures between the two valuations are described after the summary.

	Actuarial Valuation as of	
	July 1, 2009	July 1, 2008
<b>Contributions (% of Payroll)</b>		
Statutory – Chapter 3A	9.00%	9.00%
Required – Chapter 356	338.22%	243.21%
Sufficiency / (Deficiency)	(329.22%)	(234.21%)
<b>Funding Ratios (dollars in thousands)</b>		
Accrued Benefit Funding Ratio		
– Current assets (AVA)	\$ 28,663	\$ 39,209
– Current benefit obligations	90,061	85,598
– Funding ratio	31.83%	45.81%
Accrued Liability Funding Ratio		
– Current assets (AVA)	\$ 28,663	\$ 39,209
– Actuarial accrued liability	90,431	86,131
– Funding ratio	31.70%	45.52%
Projected Benefit Funding Ratio		
– Current and expected future assets	\$ 29,987	\$ 40,594
– Current and expected future benefit obligations	91,755	87,516
– Funding ratio	32.68%	46.38%
<b>Participant Data</b>		
Active members		
– Number	48	52
– Projected annual earnings (000s)	2,061	2,093
– Average projected annual earnings	42,945	40,242
– Average age	62.9	61.6
– Average service	20.0	19.7
Service retirements	284	277
Survivors	74	69
Disability retirements	0	0
Deferred retirements	95	106
Terminated other non-vested	2	2
<b>Total</b>	<b>503</b>	<b>506</b>

## Effects of Changes

The following changes in plan provisions and methods were recognized as of July 1, 2009:

### **Dissolution of Minnesota Post Retirement Investment Fund (MPRIF)**

Because the MPRIF composite funding ratio was less than 80 percent as of June 30, 2008, the MPRIF was dissolved, and assets were transferred back to MSRS and merged with the respective active member fund. The transfer of assets and liabilities occurred on June 30, 2009.

In conjunction with the dissolution, benefit recipients will receive future annual 2.5% cost-of-living adjustments (COLA).

The waiting period and proration schedule for the COLA paid in the first year of retirement were also revised.

The MPRIF dissolution and COLA changes did not affect the valuation results.

### **Method Change - Automatic Survivor Benefits**

The normal form of benefit is the 50% joint and survivor annuity. These automatic survivor benefits are funded through annual appropriations from the General Fund. In 2005, valuation methods were revised so that the value of automatic survivor benefits for members in payment status was excluded from the actuarial accrued liability. The Minnesota State Retirement System directed us to include the value of automatic survivor benefits in the actuarial accrued liability beginning in 2009.

This change in method increased the required contribution by 23.6% of pay.

## Certification

Mercer has prepared this report exclusively for the Board of Directors of the Minnesota State Retirement System and the Legislative Commission on Pensions and Retirement (LCPR) for the following purposes:

- Present the results of a valuation of the Legislators Retirement Fund as of July 1, 2009 as required by Minnesota Statutes, Section 356.215 and the Standards of Actuarial Work established by the State of Minnesota Legislative Commission on Pensions and Retirement
- Review plan experience for the year ended June 30, 2009
- Provide the annual required contribution for the period beginning July 1, 2009
- Provide reporting and disclosure information for financial statements for governmental agencies pursuant to GASB Statements Number 25 (as amended by GASB Number 50) and 27.

This valuation report may not be relied upon for any other purpose or by any party other than the Board of Directors, the LCPR, or the Plan's auditors solely for the purpose of completing an audit related to the matters herein. Mercer is not responsible for the consequences of any unauthorized use.

A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a plan's future financial condition or its ability to pay benefits in the future.

Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, plan expenses and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, *Actuarial Assumptions*, as described in the Actuarial Basis section, are used to select a single scenario from a range of possibilities. The results of that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future and other factors. Due to the limited scope of our assignment, we did not perform, nor do we present, an analysis of the potential range of future possibilities and scenarios.

Because actual plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a valuation report or reports.

### Data and plan provisions

To prepare this report, Mercer has used and relied on financial data submitted by the Minnesota State Retirement System as of June 30, 2009, as well as participant data supplied by the Minnesota State Retirement System as of June 30, 2009. We have reviewed the financial and participant data for internal consistency and general reasonableness, but we have not verified or audited any of the data or information provided. We have also used and relied on the Statutes and summary of plan provisions supplied by the Minnesota State Retirement System. A summary of the plan provisions valued is presented in our report. The Board of Directors are solely responsible for the accuracy, validity and comprehensiveness of this information. If the data or plan provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report.

# Certification

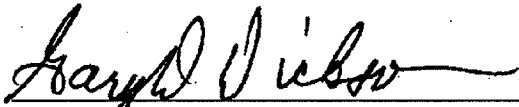

## Actuarial Calculations, Methods and Assumptions

To the best of our knowledge and belief, this report is complete and accurate and all costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures, in accordance with the requirements of Minnesota Statutes Section 356.215 and the requirements of the Standards of Actuarial Work established by the LCPR. The economic assumptions, including discount rates, are set in Minnesota Statutes, and the remaining assumptions are adopted by the Board of Directors and the LCPR. This valuation is based on assumptions, plan provisions, methods and other parameters as summarized in this report. If this information is inaccurate or incomplete or does not reflect current statutes, regulations or Board directives, the reader of this report should not rely on the valuation results and should notify Mercer promptly. In our opinion, this report fully and fairly discloses the actuarial position of the plan on this mandated basis. Note that other assumptions may be more appropriate for GASB disclosures and funding purposes, as discussed elsewhere in this report.

## Professional qualifications

We are available to answer any questions on the material in this report or to provide explanations or further details as appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. In addition, Mr. Dickson meets the requirements of "approved actuary" under Minnesota Statutes, Section 356.215, Subdivision 1, Paragraph (c). We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

	<u>12/10/2009</u>
Gary Dickson, FSA, EA, MAAA Principal	Date
	<u>12/10/2009</u>
Bonita J. Wurst, ASA, EA, MAAA Principal	Date
Mercer 333 South 7th Street, Suite 1600 Minneapolis, MN 55402-2427 612 642 8600	



## Supplemental Information

The remainder of the report includes information supporting the results presented in the previous sections.

- **Plan assets** presents information about the plan's assets as reported by the Minnesota State Retirement System and the Minnesota State Board of Investments. The assets represent the portion of total fund liabilities that has been funded.
- **Membership data** presents and describes the membership data used in the valuation.
- **Development of costs** shows the liabilities for plan benefits and the derivation of the contribution amount.
- **Actuarial basis** describes the plan provisions, as well as the methods and assumptions used to value the plan. The valuation is based on the premise that the plan is ongoing.
- **Plan accounting under GASB 25 (as amended by GASB 50)** shows the disclosures required by GASB Statement No. 25 as amended by GASB Statement No. 50.
- **Glossary** defines the terms used in this report.

## Plan Assets

### Statement of Plan Net Assets for Year Ended June 30, 2009 *(Dollars in Thousands)*

	Market Value	Cost Value
<b>Assets in Trust</b>		
▪ Cash, equivalents, short term securities	\$ 666	\$ 666
▪ Fixed income	5,346	5,348
▪ Equity	18,914	19,004
▪ Other	0	0
<b>Total assets in trust</b>	<b>\$ 24,926</b>	<b>\$ 25,018</b>
Assets Receivable	7,360	7,360
<b>Total Assets</b>	<b>\$ 32,286</b>	<b>\$ 32,378</b>
Accounts Payable	(3,623)	(3,623)
<b>Net Assets held in trust for pension benefits</b>	<b>\$ 28,663</b>	<b>\$ 28,755</b>

## Plan Assets

### Reconciliation of Plan Assets

The following exhibit shows the revenue, expenses and resulting assets of the Fund as reported by the Minnesota State Board of Investment, for the Plan's Fiscal Year July 1, 2008 to June 30, 2009.

Change in Assets (dollars in thousands)	Non-MPRIF Assets	MPRIF Reserve	Market Value
1. Fund balance at market value at July 1, 2008	\$ 6,643	\$ 32,566	\$ 39,209
2. Contributions			
a. Member	\$ 248	\$ 0	\$ 248
b. Employer	0	0	0
c. Other sources	1,269	0	1,269
d. Total contributions	\$ 1,517	\$ 0	\$ 1,517
3. Investment income*			
a. Investment income/(loss)	\$ (4,989)	\$ 0	\$ (4,989)
b. Investment expenses	(32)	0	(32)
c. Net subtotal	\$ (5,021)	\$ 0	\$ (5,021)
4. Other	0	0	0
<b>5. Total income (2.d. + 3.c. + 4.)</b>	<b>\$ (3,504)</b>	<b>\$ 0</b>	<b>\$ (3,504)</b>
6. Benefits Paid			
a. Annuity benefits	\$ (1,841)	\$ (5,175)	\$ (7,016)
b. Refunds	0	0	0
c. Total benefits paid	\$ (1,841)	\$ (5,175)	\$ (7,016)
7. Expenses			
a. Other	\$ 0	\$ 0	\$ 0
b. Administrative	(26)	0	(26)
c. Total expenses	\$ (26)	\$ 0	\$ (26)
<b>8. Total disbursements (6.c. + 7.c.)</b>	<b>\$ (1,867)</b>	<b>\$ (5,175)</b>	<b>\$ (7,042)</b>
9. Other changes in reserves			
a. Annuities awarded	\$ 0	\$ 0	\$ 0
b. Transfer between reserves	26,351	(26,351)	0
c. Mortality gain/(loss) not transferred	1,040	(1,040)	0
d. Total other changes	\$ 27,391	\$ (27,391)	\$ 0
<b>10. Fund balance at market value at June 30, 2009</b> (1. + 5. + 8. + 9.d.)	<b>\$ 28,663</b>	<b>\$ 0</b>	<b>\$ 28,663</b>

\* MPRIF investment income allocated to non-MPRIF assets by the Minnesota State Retirement System.

**Plan Assets**

**Actuarial Asset Value**

The Actuarial Value of Assets (AVA) is equal to the Market Value of Assets.

## Membership Data

### Distribution of Active Members

Age	Years of Service as of June 30, 2009										Total
	< 3	3 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
< 25											0
Avg. Earnings											N/A
25 – 29											0
Avg. Earnings											N/A
30 – 34											0
Avg. Earnings											N/A
35 – 39											0
Avg. Earnings											N/A
40 – 44				2							2
Avg. Earnings				41,622							41,622
45 – 49			1		1						2
Avg. Earnings			39,765		41,929						40,847
50 – 54				1	3	2					6
Avg. Earnings				41,814	36,025	38,920					37,955
55 – 59				4	1	2	2				9
Avg. Earnings				41,309	41,382	41,382	40,582				41,172
60 – 64					1	2	1		1		5
Avg. Earnings					41,382	41,758	41,382		41,314		41,447
65 – 69				4		4	3	2	1		14
Avg. Earnings				41,365		41,343	41,542	41,516	41,363		41,418
70+				2	2	3	1	1	1		10
Avg. Earnings				41,348	41,156	41,324	41,314	41,764	40,843		41,290
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>8</b>	<b>13</b>	<b>7</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>48</b>
<b>Avg. Earnings</b>	<b>N/A</b>	<b>N/A</b>	<b>39,765</b>	<b>41,419</b>	<b>39,385</b>	<b>41,008</b>	<b>41,212</b>	<b>41,599</b>	<b>41,173</b>	<b>N/A</b>	<b>40,900</b>

In each cell, the top number is the count of active participants for the age/service combination and the bottom number is average annual earnings.

## Membership Data

### Distribution of Service Retirements

Age	Years Retired as of June 30, 2009							Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
55 – 59	1	3						4
Avg. Benefit	8,547	17,478						15,245
60 – 64	8	16	12					36
Avg. Benefit	12,704	17,329	12,601					14,725
65 – 69	5	18	35					58
Avg. Benefit	27,639	15,058	15,667					16,510
70 – 74		6	18	25				49
Avg. Benefit		18,631	20,622	22,068				21,116
75 – 79	1	3	7	24	29			64
Avg. Benefit	18,548	20,038	29,942	23,049	23,415			23,758
80 – 84		1	2	11	11	16		41
Avg. Benefit		28,570	24,680	31,335	24,262	18,677		24,106
85 – 89				1	1	4	19	25
Avg. Benefit				30,772	13,766	23,850	27,685	26,638
90+							7	7
Avg. Benefit							31,084	31,084
<b>Total</b>	<b>15</b>	<b>47</b>	<b>74</b>	<b>61</b>	<b>41</b>	<b>20</b>	<b>26</b>	<b>284</b>
<b>Avg. Benefit</b>	<b>17,795</b>	<b>17,047</b>	<b>17,969</b>	<b>24,268</b>	<b>23,407</b>	<b>19,712</b>	<b>28,600</b>	<b>21,041</b>

In each cell, the top number is the count of retired participants for the age/years retired combination and the bottom number is the average annual benefit amount.

## Membership Data

### Distribution of Survivors

Age	Years Since Death as of June 30, 2009							Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
50 – 54		1						1
Avg. Benefit		11,680						11,680
55 – 59				1				1
Avg. Benefit				6,373				6,373
60 – 64	1		2					3
Avg. Benefit	33,297		21,897					25,697
65 – 69		3	1	2	1	1	2	10
Avg. Benefit		16,677	18,343	13,517	27,096	52,275	21,159	21,710
70 – 74	1	4	1	1	1	1		9
Avg. Benefit	16,562	15,026	6,981	2,104	8,867	12,396		11,891
75 – 79	2		2	2	4		1	11
Avg. Benefit	29,960		34,497	28,135	10,181		6,569	21,134
80 – 84	1	3	2	2	4		3	15
Avg. Benefit	16,012	21,111	7,684	28,625	8,021		10,732	14,416
85 – 89	2	4		1	2	3	3	15
Avg. Benefit	22,832	13,525		16,020	6,533	8,179	7,339	11,694
90+		1	1	3	2	1	1	9
Avg. Benefit		5,835	1,886	11,158	18,709	24,389	14,382	13,043
<b>Total</b>	<b>7</b>	<b>16</b>	<b>9</b>	<b>12</b>	<b>14</b>	<b>6</b>	<b>10</b>	<b>74</b>
<b>Avg. Benefit</b>	<b>24,494</b>	<b>15,318</b>	<b>17,263</b>	<b>16,544</b>	<b>11,375</b>	<b>18,933</b>	<b>11,748</b>	<b>15,686</b>

In each cell, the top number is the count of survivor participants for the age/years since death combination and the bottom number is the average annual benefit amount.

## Membership Data

### Reconciliation of Members\*

	Actives	Terminated		Recipients			Total
		Deferred Retirement	Other Non-vested	Service Retirements	Disability Retirements	Survivors	
<b>Members on 7/1/2008</b>	<b>52</b>	<b>106</b>	<b>2</b>	<b>277</b>	<b>0</b>	<b>69</b>	<b>506</b>
Return to active	1	(1)	0	0	0	0	0
Terminated-nonvested	0	0	0	0	0	0	0
Service retirements	(3)	(12)	0	15	0	0	0
Terminated deferred	(2)	3	0	0	0	0	1
Terminated refund	0	0	0	0	0	0	0
Deaths	0	0	0	(8)	0	(2)	(10)
New beneficiary	0	0	0	0	0	7	7
Disabled	0	0	0	0	0	0	0
Benefits expired	0	0	0	0	0	0	0
Data correction	0	(1)	0	0	0	0	(2)
Net Change	(4)	(11)	0	7	0	5	(3)
<b>Members on 6/30/2009</b>	<b>48</b>	<b>95</b>	<b>2</b>	<b>284</b>	<b>0</b>	<b>74</b>	<b>503</b>

\* Provided by the Minnesota State Retirement System and checked for reasonableness.

#### Terminated deferred retirement statistics

- Average age 56.7 years
- Average service 11.0 years
- Average monthly benefit, with augmentation \$1,634  
(benefits were estimated for 39 members who were reported without a monthly benefit amount)



## Development of Costs

### Actuarial Valuation Balance Sheet (Dollars in Thousands)

The actuarial balance sheet is based on the fundamental equation that at any given time the present value of benefits to be paid in the future must be equal to the assets on hand plus the present value of future contributions to be received. The total rate of contribution is determined as that amount which will make the total present and potential assets balance with the total present value of future benefits. The members' rate of contribution is fixed at the current schedule of compensation. The employer's rate of contribution is the balance required to cover the total rate of contribution.

The contributions made in excess of amounts required for current benefit payments are accumulated as a reserve to help meet benefit payments in later years. It is this reserve system which permits the establishment of a level rate of contribution each year.

				June 30, 2009
A.	Actuarial value of assets			\$ 28,663
B.	Expected future assets			
1.	Present value of expected future statutory supplemental contributions			\$ 0
2.	Present value of future normal costs			1,324
3.	Total expected future assets (1. + 2.)			\$ 1,324
C.	Total current and expected future assets			\$ 29,987
D.	Current benefit obligations	<u>Non-Vested</u>	<u>Vested</u>	<u>Total</u>
1.	Benefit recipients			
a.	Service retirements	\$ 0	\$ 52,281	\$ 52,281
b.	Disability	0	0	0
c.	Survivors	0	9,046	9,046
2.	Deferred retirements with augmentation	0	18,383	18,383
3.	Former members without vested rights*	25	0	25
4.	Active members	0	10,326	10,326
5.	Total Current Benefit Obligations	\$ 25	\$ 90,036	\$ 90,061
E.	Expected Future Benefit Obligations			\$ 1,694
F.	Total Current and Expected Future Benefit Obligations			\$ 91,755
G.	Unfunded Current Benefit Obligations (D.5. - A.)			\$ 61,398
H.	Unfunded Current and Future Benefit Obligations (F. - C.)			\$ 61,768

\* Former members with less than 3 years of service that have not collected a refund of member contributions as of the valuation date.

## Development of Costs

### Determination of Unfunded Actuarial Accrued Liability and Supplemental Contribution Rate *(Dollars in Thousands)*

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
<b>A. Determination of Actuarial Accrued Liability (AAL)</b>			
1. Active Members			
a. Retirement annuities	\$ 11,875	\$ 1,272	\$ 10,603
b. Disability benefits	0	0	0
c. Survivor's benefits	136	49	87
d. Deferred retirements	0	0	0
e. Refunds	9	3	6
f. Total	\$ 12,020	\$ 1,324	\$ 10,696
2. Deferred retirements with future augmentation	18,383	0	18,383
3. Former members without vested rights*	25	0	25
4. Benefit recipients	61,327	0	61,327
5. Total	\$ 91,755	\$ 1,324	\$ 90,431
<b>B. Determination of Unfunded Actuarial Accrued Liability (UAAL)</b>			
1. Actuarial accrued liability			\$ 90,431
2. Current assets (AVA)			28,663
3. Unfunded actuarial accrued liability			\$ 61,768
<b>C. Determination of Supplemental Contribution Rate</b>			
1. Present value of future payrolls through the amortization date of July 1, 2021 assuming payroll increases of 4.5% per year.			\$ 19,416
2. Supplemental Contribution Rate (B.3. / C.1.)			318.13%
3. Present value of future payrolls through the amortization date of July 1, 2021 assuming no payroll increases.			\$ 15,721
4. Supplemental Contribution Rate (B.3. / C.3.)			392.91%

\* Former members with less than 3 years of service that have not collected a refund of member contributions as of the valuation date.

## Development of Costs

### Changes in Unfunded Actuarial Accrued Liability (UAAL) (Dollars in Thousands)

	Year Ending June 30, 2009
A. Unfunded actuarial accrued liability at beginning of year	\$ 46,922
B. Changes due to interest requirements and current rate of funding	
1. Normal cost and actual administrative expenses	\$ 408
2. Contributions	(1,517)
3. Interest on A., B.1. and B.2.	3,941
4. Total (B.1. + B.2. + B.3.)	\$ 2,832
C. Expected unfunded actuarial accrued liability at end of year (A. + B.4.)	\$ 49,754
D. Increase (decrease) due to actuarial losses (gains) because of experience deviations from expected	
1. Salary increases	\$ 60
2. Investment return	8,146
3. Mortality of benefit recipients	722
4. Other items	(1,405)
5. Total	\$ 7,523
E. Unfunded actuarial accrued liability at end of year before plan amendments and changes in actuarial assumptions (C. + D.5.)	\$ 57,277
F. Change in unfunded actuarial accrued liability due to changes in plan provisions	0
G. Change in unfunded actuarial accrued liability due to changes in actuarial assumptions	0
H. Change in unfunded actuarial accrued liability due to changes in method for automatic survivor benefits	4,491
I. Unfunded actuarial accrued liability at end of year (E. + F. + G. + H.)	\$ 61,768

## Development of Costs

### Determination of Contribution Sufficiency/(Deficiency) (Dollars in Thousands)

	Percent of Payroll	Dollar Amount
A. Statutory contributions – Chapter 3A		
1. Employee contributions	9.00%	\$ 185
2. Employer contributions	0.00%	0
3. Total	9.00%	\$ 185
B. Required contributions – Chapter 356		
1. Normal cost		
a. Retirement benefits	17.95%	\$ 370
b. Disability benefits	0.00%	0
c. Survivors	0.87%	18
d. Deferred retirement benefits	0.00%	0
e. Refunds	0.05%	1
f. Total	18.87%	\$ 389
2. Supplemental contribution amortization by July 1, 2021 of Unfunded Actuarial Accrued Liability*	318.13%	6,557
3. Allowance for expenses	1.22%	\$ 25
4. Total	338.22%	\$ 6,971
C. Contribution Sufficiency/(Deficiency) (A.3. – B.4.)**	(329.22%)	\$ (6,786)

Note: Projected annual payroll for fiscal year beginning on the valuation date: \$2,061.

\* Supplemental contribution amortization increases to 392.91% of payroll (\$8,097) if no payroll increases are assumed; resulting required contribution is 413.00% of payroll (\$8,512).

\*\* Plan is partially funded by annual appropriations from the General Fund.

## Actuarial Basis

### Actuarial Cost Method

Liabilities and contributions in this report are computed using the Individual Entry Age Normal Cost Method. This method is prescribed by Minnesota Statutes.

The objective under this method is to fund each member's benefits under the Plan as payments which are level as a percentage of salary, starting at original participation date (or employment date), and continuing until the assumed date of retirement termination, disability or death.

At any given date, a liability is calculated equal to the contributions which would have been accumulated if this method of funding had always been used, the current plan provisions had always been in place, and all assumptions had been precisely accurate. The difference between this liability and the assets (if any) which are held in the fund is the unfunded liability. The unfunded liability is typically funded over a chosen period in accordance with the amortization schedule.

A detailed description of the calculation follows:

The normal cost for each active member under the assumed retirement age is determined by applying to earnings the level percentage of salary which, if contributed each year from date of entry into the Plan until the assumed retirement (termination, disability or death) date, is sufficient to provide the full value of the benefits expected to be payable.

- The present value of present value of future normal costs is the total of the discounted values of all active members' normal cost, assuming these to be paid in each case from the valuation date until retirement (termination, disability or death) date.
- The present value of projected benefits is calculated as the value of all benefit payments expected to be paid to the Plan's current members, including active and retired members, beneficiaries, and terminated members with vested rights.
- The accrued liability is the excess of the present value of projected benefits over the present value of future normal costs.
- The unfunded liability is the excess of the accrued liability over the assets of the fund, and represents that part of the accrued liability which has not been funded by accumulated past contributions.

### Amortization Method

The unfunded liability is amortized as a level percentage of payroll each year to the statutory amortization date of July 1, 2021 assuming payroll increases of 4.5% per year. If the unfunded Actuarial Accrued Liability is negative, the surplus amount shall be amortized over 30 years as a level percentage of payroll.

## Actuarial Basis

### Asset Valuation Method

Market Value

### Valuation and Accounting Procedures

Financial and census data: We used financial data submitted by the Minnesota State Retirement System and the Minnesota State Retirement System's auditor and member data submitted by the Minnesota State Retirement System without further audit. This information would customarily not be verified by a plan's actuary. We have reviewed the information for internal consistency and we have no reason to doubt its substantial accuracy.

### Benefits included or excluded

To the best of our knowledge, all material benefits have been included in the liability.

**IRC Section 415(b):** The limitations of Internal Revenue Code Section 415(b) have been incorporated into our calculations. Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2009, the limit is \$195,000.

**IRC Section 401(a)17:** The limitations of Internal Revenue Code Section 401(a)(17) have been incorporated into our calculations. Compensation for any 12-month period used to determine accrued benefits may not exceed the limits in IRC Section 401(a)(17) for the calendar year in which the 12-month period begins. This limit is indexed annually. For 2009, the limit is \$245,000.

### Method Change

The normal form of benefit is the 50% joint and survivor annuity. These automatic survivor benefits are funded through annual appropriations from the General Fund. In 2005, valuation methods were revised so that the value of automatic survivor benefits for members in payment status was excluded from the actuarial accrued liability. The Minnesota State Retirement System directed us to include the value of automatic survivor benefits in the actuarial accrued liability beginning in 2009.

## Actuarial Basis

### Summary of Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan.

<i>Investment return:</i>	6.0% compounded annually post-retirement. 8.5% compounded annually pre-retirement.		
<i>Benefit increases after retirement</i>	Payment of 2.5% annual benefit increases after retirement accounted for by using a 6.00% post-retirement assumption, as required by statute. For those not yet in pay status, a 5.00% post-retirement interest rate is used to account for the one-time adjustment applicable at retirement, also as required by statute.		
<i>Salary increases</i>	5.00% annually.		
<i>Mortality</i>			
<i>Healthy Pre-retirement</i>	1983 Group Annuity Mortality for males set back four years 1983 Group Annuity Mortality for females set back two years		
<i>Healthy Post-retirement</i>	1983 Group Annuity Mortality for males 1983 Group Annuity Mortality for females		
<i>Disabled</i>	N/A		
<i>Retirement</i>	Age 62 or if over age 62, one year from valuation date.		
<i>Withdrawal</i>	Rates based on years of service.		
	<u>Year</u>	<u>House</u>	<u>Senate</u>
	1	0%	0%
	2	30	0
	3	0	0
	4	20	25
	5	0	0
	6	10	0
	7	0	0
	8	5	10
	9+	0	0
<i>Disability</i>	None.		
<i>Allowance for combined service annuity</i>	Liabilities for former members not in pay status are increased by 30.00% to account for the effect of some participants having eligibility for a Combined Service Annuity.		
<i>Administrative expenses</i>	Prior year administrative expenses expressed as percentage of prior year payroll.		
<i>Refund of contributions</i>	All employees withdrawing after becoming eligible for a deferred benefit were assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit.		
<i>Percentage married</i>	85.00% of members are assumed to be married.		
<i>Age of spouse</i>	Female are assumed to be three years younger than males.		
<i>Eligible children</i>	Each member may have two dependent children depending upon member's age. Assumed first child born at member's age 28 and second child is born at member's age 31.		

## Actuarial Basis

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*Changes in actuarial assumptions*

There have been no changes in actuarial assumptions since the previous valuation.

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## Actuarial Basis

### 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.

<i>Plan year</i>	July 1 through June 30
<i>Eligibility</i>	Members of the State Legislature elected to office before July 1, 1997 and who elect to retain coverage under this plan (i.e., do not elect Social Security coverage). A member of PERA who is elected to the Legislature may elect to remain a member of PERA and receive credit under PERA for service as a legislator.
<i>Contributions</i>	
<i>Member</i>	9.00% of salary.
<i>Employer:</i>	Plan is funded by annual appropriations from the General Fund. Employee contributions are "picked up" according to the provisions of Internal Revenue Code 414(h).
<i>Allowable service</i>	Granted for the full term unless termination occurs before the end of the term. Service during all or part of four regular legislative sessions is deemed to be eight years of service.
<i>Salary</i>	Compensation received for service as a member of the legislature. Salary includes the monthly compensation paid to a legislator and the per diem payments paid during a regular or special session. Salary does not include additional compensation attributable to a leadership position.
<i>Average salary</i>	Average of the five highest successive years of salary.
<b><i>Retirement</i></b>	
<u><i>Normal retirement benefit</i></u>	
<i>Age/service requirements</i>	Age 62 and either six full years of service or service during all or part of four regular legislative sessions. For eligibility purposes, service does not include credit for time not served when a member does not serve a full term of office.
<i>Amount</i>	A percentage of Average Salary for each year of service as follows: First elected prior to January 1, 1979 (a) 5.00% for the first eight years; and (b) 2.50% for subsequent years Elected after December 31, 1978 (a) 2.50%

## Actuarial Basis

### Summary of Plan Provisions *(continued)*

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<b>Retirement</b> <i>(continued)</i>	
<u>Early retirement benefit</u>	
<i>Age/service requirements</i>	Age 60 and either six full years of Service or Service during all or part of four regular legislative sessions.
<i>Form of payment</i>	Normal retirement benefit based on service and Average Salary at retirement date and actuarially reduced for each month the member is under age 62 assuming augmentation to age 62 at 3.00% per year.
<u>Form of payment</u>	Paid as a 50% joint and survivor annuity to member, spouse and dependent children. Combined service annuitants with less than six years of Legislator service may elect 100% joint and survivor bounce back annuity, life annuity, or a term certain and life annuity on an actuarially equivalent basis.
<u>Benefit increases</u>	Benefit recipients will receive future annual 2.5% cost-of-living adjustments. A benefit recipient who has been receiving a benefit for at least 12 full months as of December 31 will receive a full increase. Members receiving benefits for at least one full month but less than 12 full months will receive a pro-rata increase.
<hr/>	
<b>Disability</b>	None.
<hr/>	
<b>Death</b>	
<u>Surviving spouse benefit</u>	
<i>Age/service requirement</i>	Death while active, or after termination if service requirements for a normal retirement benefit is met but payments have not begun.
<i>Amount</i>	Survivor payments of 50% of the retirement benefit of the member assuming the member had attained normal retirement age and had a minimum of eight years of service. Benefit is paid for life. A former member's benefit is augmented as a Deferred Annuity to date of death before determining the portion payable to the spouse. If the legislator was at least age 55 at death, the surviving spouse may elect an optional joint and survivor annuity. If a deferred benefit was not eligible to be in pay status 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%.
<i>Benefit increases</i>	Same as for retirement.

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## Actuarial Basis

### Summary of Plan Provisions *(continued)*

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#### Death

##### Surviving dependent children's benefit

<i>Age/service requirement</i>	Same as spouse's benefit.
<i>Amount</i>	Benefit for first child is 25.00% of the retirement benefit (computed as for surviving spouse) with 12.50% for each additional child. Maximum payable (including spouse) is 100.00% of the retirement benefit. Benefits cease when a child marries or attains age 18 (22 if a full-time student).
<i>Benefit Increases</i>	Same as retirement.

##### Refund of contributions

<i>Age/service requirement</i>	Member dies before receiving any retirement benefits and survivor benefits are not payable.
<i>Amount</i>	Member's contributions without interest.

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#### Termination

##### Refund of contributions

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

##### Deferred benefit

<i>Age/service requirement</i>	Same service requirements as for normal retirement.
<i>Amount</i>	Benefit computed under law in effect at termination and increased by the following annual percentage: <ul style="list-style-type: none"> <li>(a) 0.00% before July 1, 1973,</li> <li>(b) 5.00% from July 1, 1973 to January 1, 1981; and</li> <li>(c) 5.00% thereafter until the annuity begins.</li> </ul> Amount is payable as a normal or early retirement. For members who terminated prior to July 1, 1997 but were not eligible to commence their pensions before July 1, 1997, the benefit shall be increased to reflect the actuarial equivalent change in post-retirement interest rate from 5.00% to 6.00%.

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## Actuarial Basis

### Summary of Plan Provisions *(continued)*

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*Changes in plan provisions*Dissolution of Minnesota Post Retirement Investment Fund (MPRIF)

Since the MPRIF composite funding ratio was less than 80 percent as of June 30, 2008, the MPRIF was dissolved, and assets were transferred back to MSRS and merged with the respective active member fund. The transfer of assets and liabilities occurred on June 30, 2009.

In conjunction with the dissolution, benefit recipients will receive future annual 2.5% cost-of-living adjustments (COLA). The waiting period and proration schedule for the COLA paid in the first year of retirement were also revised.

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## Plan Accounting Under GASB 25 (as amended by GASB 50)

Provided below is information required under GASB Statement No. 25 as amended by GASB Statement No. 50 – Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans as amended by GASB Statement No. 50.

### Schedule of Funding Progress<sup>1</sup> (Dollars in Thousands)

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	\$ 14,694	\$ 30,403	\$ 15,709	48.33%	\$ 7,078	221.94%
07/01/1992	15,160	33,224	18,064	45.63%	6,556	275.53%
07/01/1993	17,169	36,801	19,632	46.65%	7,322	268.12%
07/01/1994	18,738	45,448	26,710	41.23%	6,589	405.37%
07/01/1995	21,213	50,255	29,042	42.21%	7,056	411.59%
07/01/1996	22,532	54,225	31,693	41.55%	6,267	505.71%
07/01/1997	25,678	60,055	34,377	42.76%	7,767	442.60%
07/01/1998	31,212	62,928	31,716	49.60%	6,802	466.27%
07/01/1999	33,474	66,418	32,944	50.40%	7,490	439.84%
07/01/2000	37,265	69,364	32,099	53.72%	5,808	552.67%
07/01/2001	42,608	75,072	32,464	56.76%	5,858	554.18%
07/01/2002	45,501	78,070	32,569	58.28%	5,089	639.99%
07/01/2003 <sup>2</sup>	–	–	–	–	–	–
07/01/2004	46,155	83,197	37,042	55.48%	3,815	970.89%
07/01/2005	45,523	81,836	36,314	55.63%	3,014	1,204.84%
07/01/2006	48,504	81,361	32,858	59.62%	2,894	1,135.45%
07/01/2007	44,869	86,449	41,580	51.90%	2,380	1,747.42%
07/01/2008	39,209	86,131	46,922	45.52%	1,993	2,354.34%
07/01/2009	28,663	90,431	61,768	31.70%	1,963	3,146.61%

<sup>1</sup> Information prior to 2008 provided by The Segal Company.

<sup>2</sup> An actuarial valuation was not completed as of July 1, 2003.

## Plan Accounting Under GASB 25 (as amended by GASB 50)

### Schedule of Contributions from the Employer and Other Contributing Entities<sup>1</sup> (Dollars in Thousands)

The GASB Statement No. 25 required and actual contributions are as follows:

Plan Year Ended June 30	Actuarially Required Contribution Rate (a)	Actual Covered Payroll (b)	Actual Member Contributions (c)	Annual Required Contributions [(a)x(b)] - (c) = (d)	Actual Employer Contributions <sup>2</sup> (e)	Percentage Contributed (e) / (d)
1991	32.62%	\$ 7,078	\$ 637	\$ 1,672	\$ 1,889	112.98%
1992	27.67%	6,556	590	1,224	601	49.10%
1993	30.49%	7,322	659	1,573	2,284	145.20%
1994	31.12%	6,589	593	1,457	1,618	111.05%
1995	38.34%	7,056	635	2,070	2,938	141.93%
1996	41.54%	6,267	564	2,039	1,511	74.10%
1997	43.96%	7,767	699	2,715	3,176	116.98%
1998	48.03%	6,802	612	2,655	5,199	195.82%
1999	47.19%	7,490	674	2,861	2,091	73.09%
2000	52.72%	5,808	523	2,539	3,192	125.72%
2001	47.26%	5,858	527	2,241	5,039	224.85%
2002	60.14%	5,089	458	2,603	4,135	158.86%
2003 <sup>3</sup>	63.12%	-	-	-	-	-
2004 <sup>4</sup>	63.12%	3,815	343	2,065	-	-
2005	104.72%	3,014	384	2,773	-	-
2006	112.64%	2,894	264	2,995	-	-
2007	111.24%	2,380	239	2,408	-	-
2008 <sup>5,6</sup>	171.10%	1,993	180	3,230	- <sup>9</sup>	-
2009 <sup>7</sup>	243.21% <sup>8</sup>	1,963	248	4,526	- <sup>9</sup>	-
2010	413.00% <sup>10</sup>					

<sup>1</sup> Information prior to 2008 provided by The Segal Company.

<sup>2</sup> Includes contributions from other sources (if applicable).

<sup>3</sup> Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 61.36%.

<sup>4</sup> Actuarially Required Contribution Rate is equal to prior year's rate since an actuarial valuation was not completed as of July 1, 2003.

<sup>5</sup> Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 161.95%.

<sup>6</sup> Actuarially Required Contribution Rate was provided by The Segal Company.

<sup>7</sup> Actuarially Required Contribution Rate prior to change in actuarial method is 237.40%.

<sup>8</sup> Actuarially Required Contribution Rate is based on assumed payroll growth of 4.5%, which is not appropriate for a closed group.

<sup>9</sup> Excludes contributions from other sources, as directed by Minnesota State Retirement System.

<sup>10</sup> Actuarially Required Contribution Rate is based on assumed level payroll.

## Glossary

**Actuarial Asset Value.** The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method. The goal of an asset valuation method is to produce a relatively stable asset value thereby reducing year-to-year volatility in contribution requirements.

**Actuarial Cost Method.** Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

**Annual Pension Cost.** A measure of the periodic cost of an employer’s participation in a defined benefit pension plan.

**Annual Required Contributions (ARC).** The employer’s periodic required contributions to a defined benefit pension plan, calculated in accordance with the parameters of GASB 25 (as amended by GASB 50) or GASB 27.

**ASA.** Associate of the Society of Actuaries.

**Current Benefit Obligations.** The present value of benefits earned to the valuation date, based on current service and including future salary increases to retirement.

**EA.** Enrolled Actuary

**FSA.** Fellow of the Society of Actuaries.

**MAAA.** Member of the American Academy of Actuaries.

**Normal Cost.** The annual cost assigned to the current year, under the actuarial cost method in use.

**Present Value.** Sometimes called “actuarial present value,” the current worth (on the valuation date) of an amount or series of amounts payable or receivable in the future. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Statement No. 25 of the Governmental Accounting Standards Board (GASB 25).** The accounting standard governing the financial reporting for defined benefit pension plans and note disclosures for defined contribution plans.

**Statement No. 27 of the Governmental Accounting Standards Board (GASB 27).** The accounting standard governing a state or local governmental employer’s accounting for pensions.

**Statement No. 50 of the Governmental Accounting Standards Board (GASB 50).** The accounting standard amending both GASB 25 and GASB 27 to require a schedule of funding progress under the Entry Age Normal method for plans that use the aggregate funding method to determine the Annual Required Contribution.

# MERCER



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