

LEGISLATORS RETIREMENT FUND
MINNESOTA STATE RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2012

December 2012

Minnesota State Retirement System
Legislators Retirement Fund
St. Paul, Minnesota

Dear Board of Directors:

The results of the July 1, 2012 annual actuarial valuation of the Legislators Retirement Fund are presented in this report. This report was prepared at the request of the Board and is intended for use by the Retirement Fund and those designated or approved by the Board. This report may be provided to parties other than the Fund only in its entirety. GRS is not responsible for the consequences of any unauthorized use of this report.

The purpose of the valuation is to measure the Fund's funding progress, to determine the required contribution rate for the fiscal year beginning July 1, 2012, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 25. Note that we have not attempted to quantify the impact of GASB Statements No. 67 and 68 in this report.

The valuation was based upon information furnished by the Minnesota State Retirement System (MSRS), concerning benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by MSRS.

Actuarial assumptions, including discount rates, mortality tables and others identified in this report, are prescribed by Minnesota Statutes Section 356.215, the Legislative Commission on Pensions and Retirement (LCPR), and the Board of Directors. These parties are responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in the Actuarial Basis of this report. MSRS is solely responsible for communicating to GRS any changes required thereto.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report should not be relied on for any purpose other than the purpose described in the primary communication. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

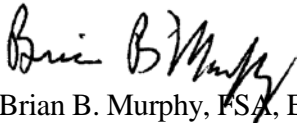
The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

The undersigned actuaries are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. In addition, Mr. Murphy meets the requirements of "approved actuary" under Minnesota Statutes Section 356.215, Subdivision 1, Paragraph (c).

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge and belief the information contained in this report is accurate and fairly presents the actuarial position of the Legislators Retirement Fund as of the valuation date and was performed in accordance with the requirements of Minnesota Statutes Section 356.215, and the requirements of the Standards for Actuarial Work established by the LCPR. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

We are available to answer any questions or provide further details.

Respectfully submitted,



Brian B. Murphy, FSA, EA, MAAA



Bonita J. Wurst, ASA, EA, MAAA

BBM/BJW:sc

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Summary of Valuation Results

Contributions

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

Contributions (<i>dollars in thousands</i>)	Actuarial Valuation as of	
	July 1, 2012	July 1, 2011
Statutory Contributions* - Chapter 3A	\$ 123	\$ 148
Required Contributions - Chapter 356	\$ 18,331	\$ 8,420
Sufficiency / (Deficiency)	\$ (18,208)	\$ (8,272)

* Member contributions equal to 9% of payroll.

The Chapter 356 Required Contribution shown above represents the estimated annual contribution amount that would be needed for this plan to attain 100% funding by July 1, 2026 (2021 for the 2011 results), based upon the prescribed assumptions. The Required Contribution includes not only the expected benefit payments for the year, but also amounts intended to pre-fund future benefit payments. Actual contributions have been less than the Required Contribution amount since 1999. Without a change in contribution policy, the funding target identified by Chapter 356 will not be met and the Fund will be depleted.

This plan is currently funded on a pay-as-you-go basis by annual appropriations from the state's General Fund. The current contribution levels (member contributions and annual appropriations) are not sufficient to cover annual benefit payments. For the fiscal year ending June 30, 2012, total contributions were \$4.1 million and total benefit payments were \$7.9 million. The expected benefit payments for the next 10 years, based on current data, methods, and assumptions, are:

Fiscal Year Ending	Expected Annual Benefit Payments
2013	\$ 8,303,000
2014	8,702,000
2015	9,073,000
2016	9,245,000
2017	9,294,000
2018	9,250,000
2019	9,208,000
2020	9,235,000
2021	9,233,000
2022	9,150,000

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 No. 25 (as amended by GASB No. 50).

Summary of 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, 2012	July 1, 2011	July 1, 2011
Assumptions*		Alternate	Prescribed
- Pre-retirement discount rate	0.0%	0.0%	8.5%
- Post-retirement discount rate	0.0%	0.0%	6.5%
- Post-retirement annual benefit increase	2.0%	2.0%	Implicitly valued
Contributions (dollars in thousands)			
Statutory - Chapter 3A	\$ 123	\$ 148	\$ 148
Required - Chapter 356	18,331	21,736	8,420
Sufficiency / (Deficiency)	(18,208)	(21,588)	(8,272)
Funding Ratios (dollars in thousands)			
Accrued Liability Funding Ratio			
- Current assets (AVA)	\$ 15,523	\$ 19,140	\$ 19,140
- Actuarial accrued liability	247,657	216,559	85,034
- Funding ratio	6.27%	8.84%	22.51%
Projected Benefit Funding Ratio			
- Current and expected future assets	\$ 25,324	N/A	\$ 19,847
- Current and expected future benefit obligations	257,458	N/A	85,741
- Projected benefit funding ratio	9.84%	N/A	23.15%
Participant Data			
Active members			
- Number	34	38	
- Projected annual earnings (000s)	1,368	1,646	
- Average projected annual earnings	40,235	43,303	
- Average age	64.3	63.1	
- Average service	23.5	22.8	
Service retirements	287	288	
Survivors	80	80	
Disability retirements	0	0	
Deferred retirements	74	78	
Terminated other non-vested	1	1	
Total	476	485	

* The alternate assumptions used by the prior actuary for 2011 were adopted by the LCPR or incorporated into Minnesota Statutes effective with the 2012 valuation. Further information regarding assumption changes are described on page 3.

Summary of Valuation Results

The 2011 valuation was prepared by Mercer. As part of the transition of actuarial work from Mercer to GRS, we replicated the 2011 valuation including a change from beginning of year decrement timing to mid-year decrement timing. The results of this replication are as follows:

	Valuation Results (000s)		
	As of July 1, 2011		
	Mercer	GRS	Ratio
Present Value of Projected Benefits	\$85,741	\$85,584	99.8%
Actuarial Accrued Liability	85,034	84,756	99.7%
Required Contributions	8,420	8,241	97.9%

Differences in valuation results due to differences in actuarial software are not unexpected. The replication results indicate a high degree of consistency.

Effects of Changes

The following changes in actuarial assumptions were recognized as of July 1, 2012. Note that many of the stated changes do not apply because all members are inactive and entitled to immediate benefits.

- The investment return assumption was changed from 8.5% pre-retirement and 6.5% post-retirement (the difference implicitly values a 2% post-retirement benefit increase) to 0% for pre- and post-retirement, with post-retirement benefit increases of 2% accounted for explicitly in the projected benefits. *The statutory pre-retirement investment return assumption is 0%, and the statutory post-retirement investment return assumption is -2.0% until June 30, 2040 and -2.5% after June 30, 2040. In order to comply with GASB, MSRS directed GRS to use a post-retirement investment return assumption of 0% instead of the negative statutory post-retirement investment return assumption. Because the 2% post-retirement benefit increases are accounted for explicitly in the benefit payments instead of through the use of a lower post-retirement interest assumption, the results are approximately equivalent to those that would be obtained by using a post-retirement investment return assumption of -2.0% for all years.*
- Healthy pre-retirement mortality was changed from 1983 Group Annuity Mortality set back four years for males and set back two years for females to RP-2000 employee generational mortality, white collar adjustment, set forward three years for males and set back one year for females.
- Healthy post-retirement mortality was changed from 1983 Group Annuity Mortality to RP-2000 annuitant generational mortality, white collar adjustment.
- All retired and deferred members were assumed to have a spouse eligible for the automatic survivor benefit. Previously, only members reported with a spouse benefit were assumed to be eligible for the automatic survivor benefit.
- The amortization method was changed from level percent of payroll to level dollar amortization.
- Retirement rates were adjusted to more closely reflect actual experience.
- As per MN Statutes 356.215 subdivision 11(c), a new amortization period is determined by amortizing the unfunded liability before the assumption changes over the original amortization period using original assumptions, amortizing the additional unfunded liability over 30 years using current assumptions, and then determining the equivalent amortization period in whole years. This resulted in a new amortization period of 14 years (previously nine years).

Summary of Valuation Results

Effects of Changes (Concluded)

The combined impact of the above changes was to increase the accrued liability by \$160 million and increase the required contribution by \$6.3 million, as follows:

	(000s)		
	Before Amortization Period and Assumption Changes	Reflecting Assumption Changes	Reflecting Assumption and Amortization Period Changes
Normal Cost	\$ 247	\$ 1,720	\$ 1,720
Amortization of UAAL*	11,750	25,793	16,581
Expenses	30	30	30
Total Required Contribution	12,027	27,543	18,331
Accrued Liability Funding Ratio	17.8%	6.3%	6.3%
Projected Benefit Funding Ratio	18.4%	9.8%	9.8%
Unfunded Actuarial Accrued Liability	\$ 71,898	\$ 232,134	\$ 232,134

* Unfunded Actuarial Accrued Liability

Refer to the Actuarial Basis section of this report for a complete description of these changes.

Summary of Valuation Results

Valuation of Future Post-Retirement Benefit Increases

A very important assumption affecting the valuation results is the expectation of future post-retirement benefit increases, which, by statute, depends on the accrued liability funding ratio of the State Employees Retirement Fund instead of this plan which has a 6% funding ratio. If the State Employees Retirement Fund reaches a funding ratio of 90% (on a market value of assets basis) in the future, post-retirement increases in the Legislators Retirement Fund will revert to the 2.5% level. The State Employees Retirement Fund's accrued liability funding ratio (on a market value of assets basis and assuming 2.0% post-retirement benefit increases in all future years) is currently 82.1%.

The liabilities in this report are based on the assumption that the post-retirement benefit increase will remain at the reduced level of 2.0% indefinitely. If we assumed future post-retirement benefit increases of 2.5% instead of 2.0%, the actuarial accrued liability would increase by \$17.1 million.

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. 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 No. 25 (as amended by GASB No. 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 as of June 30, 2012 *(Dollars in Thousands)*

Assets Held in Trust	<u>Market Value</u>
Cash, equivalents, short term securities	\$ 1,424
Fixed income	3,207
Equity	10,903
Other*	<u>1,307</u>
Total cash, investments, and other assets	\$ 16,841
Amounts Receivable	<u>57</u>
Total Assets	\$ 16,898
Amounts Payable*	<u>(1,375)</u>
Net Assets Held in Trust for Pension Benefits	\$ 15,523

* Includes \$1,307 in Securities Lending Collateral.

Plan Assets

Reconciliation of Plan Assets (*Dollars in Thousands*)

The following exhibit shows the revenue, expenses and resulting assets of the Fund as reported by the Minnesota State Retirement System for the Plan's Fiscal Year July 1, 2011 to June 30, 2012.

<u>Change in Assets</u>	<u>Market Value</u>
1. Fund balance at market value at July 1, 2011	\$ 19,140
2. Contributions	
a. Member	124
b. Employer	0
c. Other sources (annual appropriations from state's General Fund)	3,935
d. Total contributions	<u>\$ 4,059</u>
3. Investment income	
a. Investment income/(loss)	273
b. Investment expenses	<u>(20)</u>
c. Net investment income/(loss)	253
4. Other	<u>0</u>
5. Total income: (2.d.) + (3.c.) + (4.)	\$ 4,312
6. Benefits paid	
a. Annuity benefits	(7,721)
b. Refunds	<u>(172)</u>
c. Total benefits paid	(7,893)
7. Expenses	
a. Other	0
b. Administrative	<u>(36)</u>
c. Total expenses	(36)
8. Total disbursements: (6.c.) + (7.c.)	(7,929)
9. Fund balance at market value at July 1, 2012: (1.) + (5.) + (8.)	\$ 15,523

Plan Assets

Actuarial Asset Value

The Actuarial Value of Assets (AVA) is equal to the Market Value of Assets (consistent with valuations since July 1, 2000).

Membership Data

Distribution of Active Members

Age	Years of Service as of June 30, 2012									Total
	<3*	3 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	
< 25										
Avg. Earnings										
25 - 29										
Avg. Earnings										
30 - 34										
Avg. Earnings										
35 - 39										
Avg. Earnings										
40 - 44										
Avg. Earnings										
45 - 49					1					1
Avg. Earnings					40,429					40,429
50 - 54				1	1					2
Avg. Earnings				36,487	37,213					36,850
55 - 59					3	2	1			6
Avg. Earnings					40,838	38,821	38,121			39,713
60 - 64				1	3	1	4			9
Avg. Earnings				40,085	37,831	37,147	38,609			38,351
65 - 69					3			2	1	6
Avg. Earnings					37,213			38,942	37,474	37,833
70+					2	1	3		4	10
Avg. Earnings					37,213	37,213	39,271		37,283	37,859
Total				2	13	4	8	2	5	34
Avg. Earnings				38,286	38,440	38,000	38,796	38,942	37,321	38,328

* This exhibit does not reflect service earned in other MSRS or Combined Service Annuity benefits. It should not be relied upon as an indicator of non-vested status.

In each cell, the top number is the count of active participants for the age/service combination and the bottom number is average valuation earnings for the fiscal year ending on the valuation date.

Membership Data

Distribution of Service Retirements

Age	Years Retired as of June 30, 2012							Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
<50								
Avg. Benefit								
50 - 54								
Avg. Benefit								
55 - 59		2						2
Avg. Benefit		10,746						10,746
60 - 64	4	12	6					22
Avg. Benefit	21,730	26,903	16,510					23,128
65 - 69	3	25	14	10				52
Avg. Benefit	16,413	19,331	18,747	11,814				17,560
70 - 74		9	28	26				63
Avg. Benefit		22,869	16,032	19,114				18,281
75 - 79		2	9	16	24			51
Avg. Benefit		22,113	22,810	23,885	26,852			25,022
80 - 84		3	7	7	26	18		61
Avg. Benefit		17,982	27,131	25,825	27,109	23,532		25,460
85 - 89		1	1	1	7	3	13	26
Avg. Benefit		27,133	31,629	16,045	25,230	13,173	26,088	24,234
90+							10	10
Avg. Benefit							33,167	33,167
Total	7	54	65	60	57	21	23	287
Avg. Benefit	19,451	21,458	19,034	19,902	26,770	22,052	29,166	22,251

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, 2012							Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
<45								
Avg. Benefit								
45 - 49								
Avg. Benefit								
50 - 54	1							1
Avg. Benefit	6,177							6,177
55 - 59		2						2
Avg. Benefit		12,648						12,648
60 - 64				1				1
Avg. Benefit				6,796				6,796
65 - 69	1	2	2	2				7
Avg. Benefit	15,690	21,676	23,818	23,351				21,911
70 - 74	1	3	1	2	2	1	2	12
Avg. Benefit	15,080	11,150	5,719	18,617	20,026	9,456	36,505	17,833
75 - 79		5	5	2		1		13
Avg. Benefit		26,974	13,378	39,114		13,219		22,554
80 - 84	2	4	1	2	6	1	1	17
Avg. Benefit	12,768	14,434	20,920	5,005	15,225	20,697	7,006	13,721
85 - 89	2	5	3		3	1	3	17
Avg. Benefit	7,663	17,400	10,333		29,126	10,532	10,969	15,538
90+	1	1	1	1	1	2	3	10
Avg. Benefit	30,596	40,347	16,628	2,011	9,036	14,649	8,759	15,419
Total	8	22	13	10	12	6	9	80
Avg. Benefit	13,551	19,184	14,522	18,098	18,985	13,867	15,467	16,881

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

Membership Data

Reconciliation of Members

	Terminated			Recipients			Total
	Actives	Deferred Retirement	Other Non-Vested	Service Retirement	Disability Retirement	Survivor	
Members on 7/1/2011	38	78	1	288	0	80	485
Additions	0	0	0	0	0	0	0
Return to active	0	0	0	0	0	0	0
Terminated non-vested	0	0	0	0	0	0	0
Service retirements	0	(7)	0	7	0	0	0
Terminated deferred	(3)	3	0	0	0	0	0
Terminated refund/transfer	0	0	0	0	0	0	0
Deaths	(1)	0	0	(8)	0	(8)	(17)
New beneficiary	0	0	0	0	0	8	8
Disabled	0	0	0	0	0	0	0
Data correction	0	0	0	0	0	0	0
Net change	(4)	(4)	0	(1)	0	0	(9)
Members on 6/30/2012	34	74	1	287	0	80	476

Terminated Member Statistics	Deferred Retirement	Other Non-Vested	Total
Number	74	1	75
Average age	57.8	63.3	57.8
Average service	11.5	4.0	11.4
Average annual benefit, with augmentation to Normal Retirement Date and 30% CSA load	\$30,637	N/A	\$30,637
Average refund value, with 30% CSA load	\$75,438	\$37,238	\$74,929

Development of Costs

Actuarial Valuation Balance Sheet (*Dollars in Thousands*)

The actuarial balance sheet is based on the principle that the long-term projected benefit obligations of the plan should be ideally equal to the long-term resources available to fund those obligations. The resources available to meet projected obligations for current members consist of current fund assets plus the present value of anticipated future contributions intended to fund benefits for current members. In the exhibit below, B.2 is the estimated present value of contributions to fund the normal cost rate for current members until their respective termination dates. Item B.1 is the present value of the total 9.00% statutory contribution net of normal cost and anticipated plan expenses during the period from the valuation date to the statutory unfunded amortization date.

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.

	<u>June 30, 2012</u>		
A. Actuarial Value of Assets			\$ 15,523
B. Expected Future Assets			
1. Present value of expected future statutory supplemental contributions			0
2. Present value of future normal cost contributions			9,801
3. Total expected future assets: (1.) + (2.)			\$ 9,801
C. Total Current and Expected Future Assets			\$ 25,324
D. Current Benefit Obligations*			
1. Benefit recipients	<u>Non-Vested</u>	<u>Vested</u>	<u>Total</u>
a. Service retirements	\$ 0	\$ 127,499	\$ 127,499
b. Disability retirements	0	0	0
c. Survivors	0	19,083	19,083
2. Deferred retirements with augmentation	0	78,940	78,940
3. Former members without vested rights**	37	0	37
4. Active members	0	25,333	25,333
5. Total Current Benefit Obligations	\$ 37	\$ 250,855	\$ 250,892
E. Expected Future Benefit Obligations			\$ 6,566
F. Total Current and Expected Future Benefit Obligations***			\$ 257,458
G. Unfunded Current Benefit Obligations: (D.5.) - (A.)			\$ 235,369
H. Unfunded Current and Future Benefit Obligations: (F.) - (C.)			\$ 232,134
I. Accrued Benefit Funding Ratio: (A.)/(D.5.)			6.19%
J. Projected Benefit Funding Ratio: (C.)/(F.)			9.84%

* Present value of credited projected benefits (projected compensation, current service)

** Former members who have not satisfied vesting requirements and have not collected a refund of member contributions as of the valuation date

*** Present value of projected benefits (projected compensation, projected service)

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
A. Determination of Actuarial Accrued Liability (AAL)			
1. Active members			
a. Retirement annuities	\$ 31,099	\$ 9,214	\$ 21,885
b. Disability benefits	0	0	0
c. Survivor's benefits	800	330	470
d. Deferred retirements	0	224	(224)
e. Refunds*	<u>0</u>	<u>33</u>	<u>(33)</u>
f. Total	\$ 31,899	\$ 9,801	\$ 22,098
2. Deferred retirements with future augmentation	78,940	0	78,940
3. Former members without vested rights*	37	0	37
4. Benefit recipients	<u>146,582</u>	<u>0</u>	<u>146,582</u>
5. Total	\$ 257,458	\$ 9,801	\$ 247,657
B. Determination of Unfunded Actuarial Accrued Liability (UAAL)			
1. Actuarial accrued liability			\$ 247,657
2. Current assets (AVA)			<u>15,523</u>
3. Unfunded actuarial accrued liability			\$ 232,134
C. Determination of Supplemental Contribution Rate			
1. Current unfunded actuarial accrued liability to be amortized by June 30, 2026			\$ 232,134
2. Supplemental contribution amount			\$ 16,581 **

* Former members with either six full years of service or service during all or part of four regular legislative sessions that have not collected a refund of member contributions as of the valuation date.

** The amortization factor as of July 1, 2012 is 14.0000.

Development of Costs

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

	Year Ending June 30, 2012
A. Unfunded actuarial accrued liability at beginning of year	\$ 65,894
B. Changes due to interest requirements and current rate of funding	
1. Normal cost and expenses	329
2. Contributions	(4,059)
3. Interest on A., B.1. and B.2.	5,442
4. Total (B.1. + B.2. + B.3.)	<u>1,712</u>
C. Expected unfunded actuarial accrued liability at end of year (A. + B.4.)	67,606
D. Increase (decrease) due to actuarial losses (gains) because of experience deviations from expected	
1. Age and Service Retirements	0
2. Disability Retirements	0
3. Death-in-Service Benefits	6
4. Withdrawals	(14)
5. Salary increases	(623)
6. Investment income	1,247
7. Mortality of annuitants	714
8. Other items*	3,260
9. Total	<u>4,590</u>
E. Unfunded actuarial accrued liability at end of year before plan amendments and changes in actuarial assumptions (C. + D.9.)	72,196
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	160,236
H. Change in unfunded actuarial accrued liability due to changes in decrement timing and miscellaneous methodology	(298)
I. Unfunded actuarial accrued liability at end of year (E. + F. + G. + H.)	\$ 232,134

* Other items include actuarial losses due to a number of significant revisions in deferred vested member benefits provided by MSRS. In the prior valuation, many of these benefits were not available and were estimated. Actual benefits provided by MSRS for this valuation were larger for many members than the estimated benefits used in the 2011 valuation.

Development of Costs

Determination of Contribution Sufficiency/(Deficiency)*

The required contribution is defined in statutes as the sum of normal cost, a supplemental contribution to amortize the UAAL, and an allowance for expenses.

	<u>Percent of Payroll</u>	<u>Dollar Amount (000s)</u>
A. Statutory contributions - Chapter 352		
1. Employee contributions	9.00%	\$ 123
2. Employer contributions	0.00%	0
3. Total	<u>9.00%</u>	<u>\$ 123</u>
B. Required contributions - Chapter 356		
1. Normal cost		
a. Retirement benefits	116.96%	\$ 1,600
b. Disability benefits	0.00%	0
c. Survivors	4.56%	62
d. Deferred retirement benefits	3.56%	49
e. Refunds	0.65%	9
f. Total	<u>125.73%</u>	<u>\$ 1,720</u>
2. Supplemental contribution amortization of Unfunded Actuarial Accrued Liability by June 30, 2026	1,212.06%	\$ 16,581
3. Allowance for expenses	<u>2.21%</u>	<u>\$ 30</u>
4. Total	1,340.00% *	\$ 18,331
C. Contribution Sufficiency/(Deficiency) (A.3. - B.4.)	(1,331.00%)	\$ (18,208)

* Plan is funded by annual appropriations from the state's General Fund. Estimated benefit payments of \$8,303,000 are expected to be paid during the upcoming fiscal year.

Note: Projected annual payroll for fiscal year beginning on the valuation date: \$1,368.

Actuarial Basis

Actuarial Methods

All actuarial methods are prescribed by Minnesota Statutes, the Legislative Commission on Pensions and Retirement, or the MSRS Board of Directors. Different methodologies may also be reasonable and results based on other methodologies would be different.

Actuarial Cost Method

An actuarial cost method is a set of techniques used by the actuary to develop contribution levels under a retirement plan. The actuarial cost method used in this valuation for all purposes is the Entry Age Actuarial Cost Method. Under this method, a normal cost is developed by amortizing the actuarial value of benefits expected to be received by each active participant (as a level percentage of pay) over the total working lifetime of that participant, from hire to termination. Age as of the valuation date was calculated based on the dates of birth provided by the Fund. Entry age for valuation purposes was calculated as the age on the valuation date minus the provided years of service on the valuation date.

To the extent that current assets and future normal costs do not support participants' expected future benefits, an unfunded actuarial accrued liability ("UAAL") develops. The UAAL is amortized over the statutory amortization period using level dollar. The total contribution developed under this method is the sum of normal cost, expenses, and the payment toward the UAAL.

Decrement Timing

All decrements are assumed to occur mid-year.

Asset Valuation Method

Market Value (consistent with valuations since July 1, 2000).

Payment on the Unfunded Actuarial Accrued Liability

The unfunded liability is amortized as a level dollar each year to the statutory amortization date of June 30, 2026. If the Unfunded Actuarial Accrued Liability is negative, the surplus amount shall be amortized over 30 years as a level dollar amount. If the unfunded liability increases due to changes in benefits, assumptions, or methods, the statutory amortization date will be re-determined.

Funding Objective

This plan is primarily funded on a pay-as-you-go basis, offset by member contributions and annual appropriations from the state's General Fund.

Changes in Methods since Prior Valuation

Decrement timing was changed from beginning of year to mid-year, and the amortization method was changed from level percentage of payroll to level dollar amortization.

Actuarial Basis

Summary of Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan. All actuarial assumptions are prescribed by Minnesota Statutes, the Legislative Commission on Pensions and Retirement (LCPR), or the MSRS Board of Directors. These parties are responsible for selecting the assumptions used for this valuation. The assumptions prescribed are based on the last assumption review, dated January 2012, prepared by a former actuary, and are consistent with the *Alternate Assumptions* used in the 2011 valuation.

The Allowance for Combined Service Annuity was also based on a recommendation by a former actuary. We are unable to judge the reasonableness of this assumption without performing a substantial amount of additional work beyond the scope of the assignment.

Investment return	0.00% per annum post-retirement 0.00% per annum pre-retirement In order to comply with GASB, MSRS directed GRS to use a post-retirement investment return assumption of 0.0% instead of the statutory post-retirement investment return assumption of -2.0% until June 30, 2040 and -2.5% after June 30, 2040.
Benefit increases after retirement	Payment of 2.00% annual benefit increases after retirement are accounted for explicitly in the projected benefits.
Salary increases	5.00% annually.
Mortality rates	
Healthy Pre-retirement	RP-2000 employee generational mortality table, white collar adjustment, set forward three years for males and set back one year for females.
Healthy Post-retirement	RP-2000 annuitant generational mortality table, white collar adjustment. The RP-2000 employee mortality table as published by the Society of Actuaries (SOA) contains mortality rates for ages 15 to 70 and the annuitant mortality table contains mortality rates for ages 50 to 95. We have applied the annuitant mortality table for active members beyond age 70 until the assumed retirement age and the employee mortality table for annuitants younger than age 50.
Disabled	N/A
Retirement	Members retiring from active status are assumed to retire according to the age related rates shown in the rate table. Members who have attained the highest assumed retirement age are assumed to retire in one year.
Withdrawal	Ultimate rates based on actual experience. Rates are shown in rate table.

Actuarial Basis

Summary of Actuarial Assumptions (Continued)

Disability	None.
Allowance for combined service annuity	Liabilities for former members are increased by 30.00% to account for the effect of some participants having eligibility for a Combined Service Annuity.
Administrative expenses	Prior year administrative expenses expressed as percentage of prior year projected payroll.
Refund of contributions	All employees withdrawing after becoming eligible for a deferred benefit take the larger of their contributions accumulated with interest or the value of their deferred benefit. Account balances for deferred members accumulate interest until normal retirement date and are discounted back to the valuation date.
Commencement of deferred benefits	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 62.
Percentage married	85% of active members are assumed to be married.
Age of spouse	Females are assumed to be three years younger than their male spouses.
Eligible children	Each member may have two dependent children depending on member's age. Assumed first born child born at member's age 28 and second born child at member's age 31.
Form of payment	Active married members are assumed to elect 50% joint and survivor annuity. Active single members and deferred members are assumed to elect a life annuity. Unless reported with a joint & survivor option, retired members are assumed to have a spouse that is eligible for the automatic survivor benefit.
Eligibility testing	Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.
Decrement operation	Withdrawal decrements do not operate during retirement eligibility.
Service credit accruals	It is assumed that members accrue one year of service credit per year.

Actuarial Basis

Summary of Actuarial Assumptions (Continued)

Unknown data for certain members	<p>To prepare this report, GRS has used and relied on participant data supplied by the Fund. Although GRS has reviewed the data in accordance with Actuarial Standards of Practice No. 23, GRS has not verified or audited any of the data or information provided.</p> <p>There are no members reported with missing gender or birth dates. In cases where submitted data was missing or incomplete, the following assumptions were applied:</p> <p><u>Data for active members:</u> There were no members reported with missing salary or service.</p> <p><u>Data for terminated members:</u> There were 11 members reported without a benefit. If available, we calculated benefits for these members using the reported Average Salary and credited service. If Average Salary was also not reported (10 members), we assumed a value of \$30,000. If termination date was not reported (2 members), we assumed the member terminated at age 40 (or current age if older than 40). There were no members reported without credited service.</p> <p><u>Data for members receiving benefits:</u> There were no members reported without a benefit. Unless reported with a joint & survivor option, retired members were assumed to have a spouse that is eligible for the automatic survivor benefit. Of the 287 retired members, 107 were reported with a joint & survivor option. The remaining 180 members were reported as a life annuity but were valued as a 50% joint & survivor annuity per MSRS' direction.</p>
Changes in actuarial assumptions	<p>The investment return assumption was changed from 8.5% pre-retirement and 6.5% post-retirement to 0% for pre- and post-retirement. Post-retirement benefit increases are now accounted for explicitly in the projected benefits.</p> <p>Healthy pre-retirement mortality was changed from 1983 Group Annuity Mortality set back four years for males and set back two years for females to RP-2000 employee generational mortality, white collar adjustment, set forward three years for males and set back one year for females.</p> <p>Healthy post-retirement mortality was changed from 1983 Group Annuity Mortality to RP-2000 annuitant generational mortality, white collar adjustment.</p> <p>Retirement rates were adjusted to more closely reflect actual experience. Retirement rates were changed from age 62 or if over 62, one year from the valuation date to age related tables.</p> <p>All retired members were assumed to have a spouse eligible for the survivor benefit unless reported with a joint & survivor option. Previously, only members reported with a spouse benefit were assumed to be eligible for the automatic survivor benefit.</p>

Actuarial Basis

Summary of Actuarial Assumptions (Concluded)

Age	Rate (%)	
	Healthy	
	Pre-Retirement Mortality*	
	Male	Female
20	0.04%	0.02%
25	0.04	0.02
30	0.05	0.02
35	0.08	0.04
40	0.11	0.06
45	0.17	0.09
50	0.24	0.15
55	0.35	0.22
60	0.56	0.34
65	0.85	0.54
70	2.67	0.82

* These rates were adjusted for mortality improvements using projection scale AA.

Age	Percent Retiring	Service	Withdrawal	
			House	Senate
60	0.00%	1	0.0%	0.0%
61	0.00	2	30.0	0.0
62	40.00	3	0.0	0.0
63	30.00	4	20.0	25.0
64	30.00	5	0.0	0.0
65	40.00	6	10.0	0.0
66	30.00	7	0.0	0.0
67	25.00	8	5.0	10.0
68	25.00	9+	0.0	0.0
69	25.00			
70	30.00			
71+	100.00			

Actuarial Basis

Summary of Plan Provisions

Following is a summary of the major plan provisions used in the valuation of this report. MSRS is solely responsible for the validity, accuracy and comprehensiveness of this information. If any of the plan provisions shown below are not accurate and complete, the valuation results may differ significantly from those shown in this report and may require a revision of this report.

Plan year	July 1 through June 30.
Eligibility	Members of the State Legislature first elected to office before July 1, 1997 and who elect to retain coverage under this plan (i.e., do not elect Social Security coverage).
Contributions	
Member	9.00% of salary which must be paid to the state's General Fund.
Employer	Plan is funded by annual appropriations from the state's General Fund. Employee contributions are "picked up" according to the provisions of Internal Revenue Code 414(h).
Allowable service	Service while in an eligible position.
Salary	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.
Average salary	Average of the five highest successive years of salary.

Retirement

Normal retirement benefit

Age/Service requirements	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.
Amount	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 of service prior to January 1, 1979; and (b) 2.50% for subsequent years. Elected after December 31, 1978: (a) 2.50%.

Actuarial Basis

Summary of Plan Provisions (Continued)

Retirement (Continued)

Early retirement benefit

Age/service requirements Age 55 and either six full years of Service or Service during all or part of four regular legislative sessions.

Form of Payment 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.

Form of payment

Paid as a 50% joint and survivor annuity to member, spouse and dependent children. Annuitants may elect 100% joint and survivor bounce back annuity, life annuity, or a term certain and life annuity on an actuarially equivalent basis.

Benefit increases

Benefit recipients receive future annual 2.0% benefit increases. When the funding ratio of the State Employees Retirement Fund reaches 90% (on a Market Value of Assets basis), the benefit increase will revert to 2.5%. A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Members receiving benefits for at least one month but less than 12 full months as of June 30 will receive a pro rata increase.

Disability

No additional benefits provided beyond standard plan. Treated as retirement or termination, depending on age and service at termination.

Death

Surviving spouse benefit

Age/Service requirement Death while active, or after termination if service requirements for a normal retirement benefit is met but payments have not begun.

Amount 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%.

Benefit increases Same as for retirement.

Actuarial Basis

Summary of Plan Provisions (Continued)

Death (Continued)

Surviving dependent children's benefit

Age/Service requirement	Same as spouse's benefit.
Amount	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).
Benefit increases	Same as retirement.

Refund of contributions

Age/Service requirement	Member dies before receiving any retirement benefits and survivor benefits are not payable.
Amount	Member's contributions with 6.00% annual interest compounded daily until June 30, 2011, 4.00% thereafter.

Termination

Refund of contributions

Age/Service requirement	Termination of service.
Amount	Member's contributions with 6.00% annual interest compounded daily until June 30, 2011, 4.00% thereafter. If a member is vested, a deferred annuity may be elected in lieu of a refund.

Deferred benefit

Age/service requirement	Same service requirements as for normal retirement.
Amount	Benefit computed under law in effect at termination and increased by the following annual augmentation percentage: <ul style="list-style-type: none"> (a.) 0.00% before July 1, 1973; (b.) 5.00% from July 1, 1973 to January 1, 1981; (c.) 3.00% until the earlier of January 1 of the year following attainment of age 55 and January 1, 2012; (d.) 5.00% until the earlier of January 1, 2012 and when the annuity begins; and (e.) 2.00% from January 1, 2012 forward. <p>Amount is payable at normal or early retirement.</p> <p>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%.</p>

Adjustments for benefits not in pay status

Benefits are adjusted on an actuarial equivalent basis to reflect the 1997 change in post-retirement interest rate assumption from 5.0% to 6.0%.

Actuarial Basis

Summary of Plan Provisions (Concluded)

Optional form conversion factors	Actuarially equivalent factors based on the 1983 Group Annuity Mortality, blended 75% male and 25% female, and 6% interest.
Combined service annuity	<p>Members are eligible for combined service benefits if they:</p> <ul style="list-style-type: none"> (a.) Have sufficient allowable service in total that equals or exceeds the applicable service credit vesting requirement of the retirement plan with the longest applicable service credit vesting requirement; and (b.) Have at least six months of allowable service credit in each plan worked under; and (c.) Are not in receipt of a benefit from another plan, or have applied for benefits with an effective date within one year. <p>Members who meet the above requirements must have their benefit based on the following:</p> <ul style="list-style-type: none"> (a.) Allowable service in all covered plans are combined in order to determine eligibility for early retirement. (b.) Average salary is based on the high five consecutive years during their entire service in all covered plans.
Changes in plan provisions	None.

Plan Accounting Under GASB No. 25 (as amended by GASB No. 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 Progress¹ (Dollars in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial 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 ²	-	-	-	-	-	-
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
07/01/2010	26,821	86,236	59,415	31.10	1,877	3,165.42
07/01/2011 ³	19,140	216,559	197,419	8.84	1,774	11,128.47
07/01/2012	15,523	247,657	232,134	6.27	1,378 ⁴	16,845.72

¹ Information prior to 2012 provided by prior actuaries. See prior reports for additional detail.

² An actuarial valuation was not completed as of July 1, 2003.

³ Based on the alternate assumptions, including, an investment return assumption of 0%.

⁴ Assumed equal to actual member contributions divided by 9%.

Plan Accounting Under GASB No. 25 (as amended by GASB No. 50)

Schedule of Contributions from the Employer and Other Contributing Entities¹ (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 ² (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	32.12	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	63.12	-	-	-	-	-
2004	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	171.10	1,993	180	3,230	-	-
2009	243.21	1,963	248	4,526	-	-
2010	413.00	1,877	170	7,582	-	-
2011	432.92	1,774	160	7,520	-	-
2012 ³	1,320.95	1,378 ⁴	124	18,079	-	-
2013	1,340.00	N/A	N/A	N/A	-	-

¹ Information prior to 2012 provided by prior actuary. See prior reports for additional detail.

² Includes contributions from other sources (if applicable).

³ Based on the alternate assumptions, including, an investment return assumption of 0%.

⁴ Assumed equal to actual member contributions divided by 9%.

Glossary of Terms

<i>Accrued Benefit Funding Ratio</i>	The ratio of assets to Current Benefit Obligations.
<i>Accrued Liability Funding Ratio</i>	The ratio of assets to Actuarial Accrued Liability.
<i>Actuarial Accrued Liability (AAL)</i>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<i>Actuarial Assumptions</i>	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
<i>Actuarial Cost Method</i>	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of future Normal Costs and the Actuarial Accrued Liability.
<i>Actuarial Equivalent</i>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<i>Actuarial Present Value (APV)</i>	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
<i>Actuarial Present Value of Projected Benefits</i>	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
<i>Actuarial Valuation</i>	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 25, such as the Funded Ratio and the Annual Required Contribution (ARC).
<i>Actuarial Value of Assets</i>	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution (ARC).

Glossary of Terms (Continued)

<i>Amortization Method</i>	A method for determining the Amortization Payment. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. The stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
<i>Amortization Payment</i>	That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<i>Amortization Period</i>	The period used in calculating the Amortization Payment.
<i>Annual Required Contribution (ARC)</i>	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB No. 25. The ARC consists of the Employer Normal Cost and Amortization Payment.
<i>Augmentation</i>	Annual increases to deferred benefits.
<i>Closed Amortization Period</i>	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
<i>Current Benefit Obligations</i>	The present value of benefits earned to the valuation date, based on current service and including future salary increases to retirement.
<i>Employer Normal Cost</i>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<i>Expected Assets</i>	The present value of anticipated future contributions intended to fund benefits for current members.
<i>Experience Gain/Loss</i>	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

Glossary of Terms (Concluded)

<i>GASB</i>	Governmental Accounting Standards Board.
<i>GASB No. 25 and GASB No. 27</i>	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.
<i>GASB No. 50</i>	The accounting standard governing a state or local governmental employer's accounting for pensions.
<i>Normal Cost</i>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<i>Projected Benefit Funding Ratio</i>	The ratio of the sum of Actuarial Value of Assets and Expected Assets to the Actuarial Present Value of Projected Benefits.
<i>Unfunded Actuarial Accrued Liability</i>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<i>Valuation Date</i>	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.