December 2010

Elective State Officers Retirement Fund

Actuarial Valuation Report as of July 1, 2010

MERCER

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Contents

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December 2010

Minnesota State Retirement System
Elective State Officers Retirement Fund
St. Paul MN

Dear Board of Directors:

Submitted in this report are the July 1, 2010 actuarial valuation results for the Elective State Officers Retirement Fund. The purposes of this report are to:

- Present Mercer's actuarial estimates of the Plan's liabilities and expenses as required by Minnesota Statutes, Section 356.215 and the Standards for Actuarial Work established by the State of Minnesota Legislative Commission on Pensions and Retirement (LCPR) for the Minnesota State Retirement System (MSRS) to incorporate, as MSRS deems appropriate, in its financial statements; and

- provide the actuarial required contribution rate for the period beginning July 1, 2010.

To the best of our knowledge and belief, the valuation 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.

We are available to answer any questions on the material in this report or to provide explanations or further details as appropriate. Moreover, this report contains a Glossary of certain terms referenced in the report, which you may wish to consult before reviewing the report. 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.

Respectfully submitted,

Gary D. Dickson

Gary D. Dickson, FSA, EA, MAAA

Bonita J. Wurst

Bonita J. Wurst, ASA, EA, MAAA

Highlights

Contributions

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

	Actuarial Valuation as of	
Contributions	**July 1, 2010**	**July 1, 2009**
Statutory Contributions – Chapter 352C	$ 0	$ 0
Required Contributions – Chapter 356	643,501	601,274
Sufficiency / (Deficiency)	(643,501)	(601,274)

This plan has a funding ratio of only 5.7%. The Chapter 356 Required Contribution shown above represents the estimated annual contribution amount that would be needed in order for this plan to attain 100% funding by July 1, 2017, based upon the prescribed assumptions. Actual contributions have been less than the required amount since 1998. Without a change in contribution policy, the funding target identified by Chapter 356 will not be met.

Changes in plan provisions and assumptions are reflected in this report and summarized in the *Actuarial Basis* and *Effects of Changes* sections.

This plan is currently funded on a pay-as-you go basis by annual appropriations from the General Fund approximately equal to the amount of annual benefit payments. The expected benefit payments for the next 10 years are:

Fiscal Year Ending	Expected Annual Benefit Payments
2011	$ 469,000
2012	454,000
2013	438,000
2014	421,000
2015	404,000
2016	386,000
2017	367,000
2018	348,000
2019	329,000
2020	309,000

Highlights

The estimated benefit payments, actuarial accrued liability, and required contribution are based on prescribed assumptions. The economic assumptions are prescribed by Statute, and the remaining assumptions are adopted by the MSRS Board of Directors and the Legislative Commission on Pensions and Retirement. We have a number of concerns about the prescribed assumptions. First, the current contribution and investment policy of this plan does not seem to support an investment return assumption of 8.5%. For contribution calculations, a significantly lower discount rate, perhaps even 0%, would be more consistent with the recent experience of the plan and lack of any expected future investment earnings due to the current pay-as-you-go contribution policy. Second, the prescribed mortality table is not a modern table and has been producing a consistent pattern of mortality losses. We recommend that all assumptions be reviewed and updated, if possible, before the next actuarial valuation. Lowering the discount rate and the mortality table will increase the actuarial accrued liability. Finally, please note that the current assumptions may not comply with GASB standards for financial reporting.

The *Plan Assets* section provides detail on the plan assets used for the valuation. The plan assets did not earn any investment income for the plan year ending June 30, 2010 as compared to the prescribed 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).

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, 2010	**July 1, 2009**
Contributions		
Statutory – Chapter 352C	$ 0	$ 0
Required – Chapter 356	643,501	601,274
Sufficiency / (Deficiency)	(643,501)	(601,274)
Funding Ratios		
Accrued Benefit Funding Ratio		
– Current assets (AVA)	$ 214,002	$ 213,165
– Current benefit obligations	3,782,189	3,885,951
– Funding ratio	5.66%	5.49%
Accrued Liability Funding Ratio		
– Current assets (AVA)	$ 214,002	$ 213,165
– Actuarial accrued liability	3,782,189	3,885,951
– Funding ratio	5.66%	5.49%
Projected Benefit Funding Ratio		
– Current and expected future assets	$ 214,002	$ 213,165
– Current and expected future benefit obligations	3,782,189	3,885,951
– Funding ratio	5.66%	5.49%
Participant Data		
Active members	0	0
Service retirements	11	11
Survivors	4	4
Disability retirements	0	0
Deferred retirements	1	1
Terminated other non-vested	0	0
Total	**16**	**16**

Effects of Change

The following changes in plan provisions and actuarial assumptions were recognized as of July 1, 2010:

- Post-retirement benefit increases change from 2.5% to 2.0% beginning January 1, 2011. If the accrued liability funding ratio of the State Employees Retirement Fund reaches 90% (on a market value of assets basis), the benefit increase reverts to 2.5%. The post-retirement investment return changed from 6.0% to 6.5% to reflect the change in post-retirement benefit increases.
- The requirement for benefit recipients to receive a full increase in benefits changed from 12 full months receiving as of December 31 to 18 full months and the requirement to receive a partial increase in benefits changed from 0 months receiving as of December 31 to 6 months.
- The interest earned on member contributions changes from 6.0% to 4.0% effective as of July 1, 2011.
- The increase on deferred benefits changes to 2% after December 31, 2011.

The combined impact of the above changes was to decrease the accrued liability by $70,000 and decrease the required contribution by $12,000, as follows:

	Before Plan and Assumption Changes	Reflecting Plan and Assumption Changes	Impact of Changes
Amortization of Unfunded Accrued Liability	$ 655,000	$ 643,000	$ (12,000)
Expenses	1,000	1,000	0
Total Required Contribution	656,000	644,000	(12,000)
Accrued Liability Funding Ratio	5.6%	5.7%	0.1%
Projected Benefit Funding Ratio	5.6%	5.7%	0.1%
Unfunded Accrued Liability	$ 3,638,000	$ 3,568,000	$ (70,000)

Effects of Change *(continued)*

Valuation of Future Post-Retirement Benefit Increases

A very important assumption affecting the valuation results is the expectation of future post-retirement benefit increases. The accrued liability funding ratio of the State Employees Retirement Fund (on a market value of assets basis and assuming 2.0% benefit increases) is currently 74.9%. 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 Elective State Officers Retirement Fund will revert to the 2.5% level.

We performed a projection of liabilities and assets, using the 2010 valuation results as a baseline and assuming future experience follows the valuation assumptions. The projection indicates that, without contribution increases, changes in benefits or assumptions, or favorable experience, the funded status of the State Employees Retirement Fund is expected to decline from the current level of 74.9%.

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. We relied on direction from MSRS, including MSRS’ interpretation of applicable Minnesota Statutes, on this issue. If we assumed future post-retirement benefit increases of 2.5% instead of 2.0%, the liability would be $3.852 million instead of $3.782 million, resulting in a funded ratio of 5.6%.

Important Notices

Mercer has prepared this report exclusively for the Board of Directors of the Minnesota State Retirement System (MSRS) and the Legislative Commission on Pensions and Retirement (LCPR); Mercer is not responsible for reliance upon this report by any other party. Subject to this limitation, MSRS may direct that this report be provided to its auditors in connection with audits of the Plan or its sponsoring entities.

The only purposes of this report are to:

- Present Mercer's actuarial estimates of the Plan's liabilities and expenses as required by Minnesota Statutes, Section 356.215 and the Standards for Actuarial Work established by the State of Minnesota LCPR for MSRS to incorporate, as MSRS deems appropriate, in its financial statements; and
- provide the actuarial required contribution rate for the period beginning July 1, 2010.

This report may not be used for any other purpose; Mercer is not responsible for the consequences of any unauthorized use.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security and/or benefit-related issues should not be made on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic and societal factors, including financial scenarios that assume future sustained investment losses.

The State Board of Investment (SBI) is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Mercer's actuaries have not provided any investment advice to the Board of Directors or the SBI.

A valuation report is only a snapshot of a Plan's estimated financial condition at a particular point in time; it does not predict the Plan's future financial condition or its ability to pay benefits in the future and does not provide any guarantee of future financial soundness of the Plan. 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, the period of time over which benefits are paid, plan expenses and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

To prepare the valuation report, actuarial assumptions, as described in the *Actuarial Basis* section of this report, are used in a forward looking financial and demographic model to present a single scenario from a wide range of possibilities; the results based on that single scenario are included in the valuation. The future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward looking projection over a very long period of time, no one projection is uniquely "correct" and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future. A "sensitivity analysis" shows the degree to which results would be different if you substitute alternative assumptions within the range of possibilities for those utilized in this report. We have not been engaged to perform such a sensitivity analysis and thus the results of

Important Notices

such an analysis are not included in this report. At MSRS's request, Mercer is available to perform such a sensitivity analysis.

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. A change in assumptions is not an indication that prior assumptions were unreasonable when made.

Because valuations are a snapshot in time and are based on estimates and assumptions that are not precise and will differ from actual experience, contribution calculations are inherently imprecise. There is no uniquely "correct" level of contributions for the coming plan year.

Valuations do not affect the ultimate cost of the Plan, only the timing of contributions into the Plan. Plan funding occurs over time. Contributions not made this year, for whatever reason, including errors, remain the responsibility of the Plan sponsor and can be made in later years. If the contribution levels over a period of years are lower or higher than necessary, it is normal and expected practice for adjustments to be made to future contribution levels to take account of this with a view to funding the plan over time.

Data, computer coding and mathematical errors are possible in the preparation of a valuation involving complex computer programming and thousands of calculations and data inputs. Errors in a valuation discovered after its preparation may be corrected by amendment to the valuation or in a subsequent year's valuation.

Actuarial assumptions, including discount rates, mortality tables and others identified in this report, are prescribed by Minnesota Statutes Section 356.215, the 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* section of this report. MSRS is solely responsible for communicating to Mercer any changes required thereto.

To prepare this report Mercer has used and relied on financial data and participant data supplied by MSRS and summarized in the *Plan Assets* and *Membership Data* sections of this report. MSRS is responsible for ensuring that such participant data provides an accurate description of all persons who are participants under the terms of the plan or otherwise entitled to benefits as of the valuation date that is sufficiently comprehensive and accurate for the purposes of this report. Although Mercer has reviewed the data in accordance with Actuarial Standards of Practice No. 23, Mercer has not verified or audited any of the data or information provided.

Mercer has also used and relied on the summary of plan provisions, including amendments, and interpretations of plan provisions, supplied by MSRS as summarized in the *Actuarial Basis* section of this report and on plan provisions stipulated by statute. We have assumed for purposes of this valuation that copies of any official plan document including all amendments and collective bargaining agreements as well as any interpretations of any such document have been provided to Mercer along with a written summary of any other substantive commitments. The Board of Directors is solely responsible for the validity, accuracy and comprehensiveness of this information. If any 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. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and that the different interpretations could lead to different valuation results.

Important Notices

MSRS should notify Mercer promptly after receipt of the valuation report if MSRS disagrees with anything contained in the valuation report or is aware of any information that would affect the results of the valuation report that has not been communicated to Mercer or incorporated therein. The valuation report will be deemed final and acceptable to MSRS unless MSRS promptly provides such notice to Mercer.

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.

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, 2010

		Market Value
Assets in Trust		
▪ Cash, equivalents, short term securities	$	0
▪ Fixed income		0
▪ Equity		0
▪ Other		0
Total assets in trust	**$**	**0**
Assets Receivable		214,923
Total Assets	**$**	**214,923**
Amounts Payable		(921)
Net Assets held in trust for pension benefits	**$**	**214,002**

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 Retirement System for the Plan's Fiscal Year July 1, 2009 to June 30, 2010.

Change in Assets		Market Value
1. Fund balance at market value at July 1, 2009	$	213,165
2. Contributions		
a. Member		0
b. Employer		0
c. Other sources		453,201
d. Total contributions	$	453,201
3. Investment income		
a. Investment income/(loss)	$	0
b. Investment expenses		0
c. Total investment income/(loss)	$	0
4. Other		0
5. Total income *(2.d. + 3.c. + 4.)*	**$**	**453,201**
6. Benefits paid		
a. Annuity benefits	$	(451,443)
b. Refunds		0
c. Total benefits paid	$	(451,443)
7. Expenses		
a. Other	$	0
b. Administrative		(921)
c. Total expenses	$	(921)
8. Total disbursements *(6.c. + 7.c.)*	**$**	**(452,364)**
9. Fund balance at market value at June 30, 2010 *(1 + 5. + 8.)*	**$**	**214,002**

Plan Assets

Actuarial Asset Value

Actuarial Asset Value is equal to Market Value, including receivable contributions and reduced by amounts payable at the valuation date.

Membership Data

Distribution of Service Retirements

	Years Retired as of June 30, 2010							
Age	**<1**	**1 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25+**	**Total**
<55								**0**
Avg. Benefit								**N/A**
55 – 59								**0**
Avg. Benefit								**N/A**
60 – 64								**0**
Avg. Benefit								**N/A**
65 – 69			3					**3**
Avg. Benefit			23,693					**23,693**
70 – 74				1				**1**
Avg. Benefit				58,911				**58,911**
75 – 79				2	3			**5**
Avg. Benefit				46,536	28,984			**36,005**
80 – 84				2				**2**
Avg. Benefit				25,871				**25,871**
85 – 89								**0**
Avg. Benefit								**N/A**
90+								**0**
Avg. Benefit								**N/A**
Total	**0**	**0**	**3**	**5**	**3**	**0**	**0**	**11**
Avg. Benefit	**N/A**	**N/A**	**23,693**	**40,745**	**28,984**	**N/A**	**N/A**	**32,887**

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

	Years Since Death as of June 30, 2010							
Age	**<1**	**1 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25+**	**Total**
<55								**0**
Avg. Benefit								**N/A**
55 – 59								**0**
Avg. Benefit								**N/A**
60 – 64								**0**
Avg. Benefit								**N/A**
65 – 69								**0**
Avg. Benefit								**N/A**
70 – 74					1			**1**
Avg. Benefit					8,889			**8,889**
75 – 79				1				**1**
Avg. Benefit				51,232				**51,232**
80 – 84								**0**
Avg. Benefit								**N/A**
85 – 89								**0**
Avg. Benefit								**N/A**
90+					1		1	**2**
Avg. Benefit					23,999		11,142	**17,571**
Total	**0**	**0**	**0**	**1**	**2**	**0**	**1**	**4**
Avg. Benefit	**N/A**	**N/A**	**N/A**	**51,232**	**16,444**	**N/A**	**11,142**	**23,816**

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

		Terminated		Recipients			
	Actives	Deferred Retirement	Other Non-vested	Service Retirements	Disability Retirements	Survivors	Total
Members on 7/1/2009	**0**	**1**	**0**	**11**	**0**	**4**	**16**
New entrants	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	0	0	0	0	0	0
Terminated deferred	0	0	0	0	0	0	0
Terminated refund	0	0	0	0	0	0	0
Deaths	0	0	0	0	0	0	0
New beneficiary	0	0	0	0	0	0	0
Disabled	0	0	0	0	0	0	0
Benefits expired	0	0	0	0	0	0	0
Data correction	0	0	0	0	0	0	0
Net change	0	0	0	0	0	0	0
Members on 6/30/2010	**0**	**1**	**0**	**11**	**0**	**4**	**16**

Terminated Member Statistics	Deferred Retirement	Other Non-Vested	Total
Number	1	0	1
Average Age	64.4	N/A	64.4
Average Service	8.1	N/A	8.1
Average annual benefit, with augmentation to Normal Retirement Date and 30% CSA load	$22,511	N/A	$22,511
Average refund value, with 30% CSA load	$184,633	N/A	$184,633

Development of Costs

Actuarial Valuation Balance Sheet

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. Because this plan is funded on a pay-as-you-go basis, the present value of future member and employer contributions is zero, and the present value of benefits is not equal to the assets on hand, as shown in the exhibit below.

		Non-Vested	Vested	June 30, 2010
A.	Actuarial Value of Assets			$ 214,002
B.	Expected future assets			
	1. Present value of expected future statutory supplemental contributions			$ 0
	2. Present value of future normal cost contributions			0
	3. Total present value of future contributions *(1. + 2.)*			$ 0
C.	Total current and expected future assets *(A. + B.3.)*			$ 214,002
D.	Current benefit obligations	Non-Vested	Vested	Total
	1. Benefit recipients			
	a. Service retirements	$ 0	$ 2,901,554	$ 2,901,554
	b. Disability	0	0	0
	c. Survivors	0	574,570	574,570
	2. Deferred retirements with augmentation	0	306,065	306,065
	3. Former members without vested rights	0	0	0
	4. Active members	0	0	0
	5. Total Current Benefit Obligations	$ 0	$ 3,782,189	$ 3,782,189
E.	Expected Future Benefit Obligations			$ 0
F.	Total Current and Expected Future Benefit Obligations			$ 3,782,189
G.	Unfunded Current Benefit Obligations *(D.5. − A.)*			$ 3,568,187
H.	Unfunded Current and Future Benefit Obligations *(F. − C.)*			$ 3,568,187

Development of Costs

Determination of Unfunded Actuarial Accrued Liability and Supplemental Contribution Amount

	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	$ 0	$ 0	$ 0
2. Deferred retirements with future augmentation	306,065	0	306,065
3. Former members without vested rights	0	0	0
4. Benefit recipients	3,476,124	0	3,476,124
5. Total	$ 3,782,189	$ 0	$ 3,782,189
B. Determination of Unfunded Actuarial Accrued Liability (UAAL)			
1. Actuarial accrued liability			$ 3,782,189
2. Current assets (AVA)			214,002
3. Unfunded actuarial accrued liability			$ 3,568,187
C. Determination of Supplemental Contribution Amount			
1. Current unfunded actuarial accrued liability to be amortized by July 1, 2017			$ 3,568,187
2. Supplemental contribution amount			$ 642,501*

* *The amortization factor as of July 1, 2010 is 5.5536.*

Development of Costs

Changes in Unfunded Actuarial Accrued Liability (UAAL)

		Year Ending June 30, 2010
A. Unfunded actuarial accrued liability at beginning of year	$	3,672,786
B. Changes due to interest requirements and current rate of funding		
1. Normal cost and actual administrative expenses	$	921
2. Contributions		(453,201)
3. Interest on A., B.1. and B.2.		292,965
4. Total *(B.1. + B.2. + B.3.)*	$	(159,315)
C. Expected unfunded actuarial accrued liability at end of year *(A. + B.4.)*	$	3,513,471
D. Increase (decrease) due to actuarial losses (gains) because of experience deviations from expected		
1. Salary increases	$	0
2. Investment return		19,115
3. Mortality of benefit recipients		130,927
4. Other items		(25,695)
5. Total	$	124,347
E. Unfunded actuarial accrued liability at end of year before plan amendments and changes in actuarial assumptions *(C. + D.5.)*	$	3,637,818
F. Change in unfunded actuarial accrued liability due to changes in plan provisions	$	(69,631)
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 methods	$	0
I. Unfunded actuarial accrued liability at end of year *(E. + F. + G. + H.)*	$	3,568,187

** The change in the post-retirement investment return assumption required to reflect the change in the post-retirement benefit increases was reflected in item F.*

Development of Costs

Determination of Contribution Sufficiency/(Deficiency)*

The annual required contribution (ARC) is the sum of normal cost, a supplemental contributions to amortize the Unfunded Actuarial Accrued Liability, and an allowance for expenses.

		Dollar Amount
A. Statutory contributions – Chapter 352C		
1. Employee contributions	$	0
2. Employer contributions		0
3. Total	$	0
B. Required contributions – Chapter 356		
1. Normal cost	$	0
2. Supplemental contribution amortization by July 1, 2017 of Unfunded Actuarial Accrued Liability	$	642,501
3. Allowance for expenses	$	1,000
4. Total	$	643,501
C. Contribution Sufficiency/(Deficiency) *(A.3. – B.4.)*	$	(643,501)

*Plan is funded by annual appropriations from the General Fund. Estimated benefit payments of $469,000 are expected to be paid during the upcoming fiscal year.

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. For valuation purposes, entry age for each member is determined as the age at valuation minus years of service as of the valuation date.

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 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.

- Since this is a closed plan with no active members, normal cost and present value of future normal costs is $0.

Asset Method

Market Value.

Payment on the Unfunded Actuarial Accrued Liability

A level dollar amount each year to the statutory amortization date of July 1, 2017. If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years.

Actuarial Basis

Summary of Actuarial Assumptions

The following economic assumptions were used in valuing the liabilities and benefits under the plan. All assumptions are prescribed by Statutes, the LCPR, or the Board of Directors.

Investment return:	6.50% compounded annually post-retirement. 8.50% compounded annually pre-retirement.
Benefit increases after retirement	Payment of 2.0% annual benefit increases after retirement accounted for by using a 6.50% post-retirement assumption, as required by statute.
Mortality	
Healthy Pre-retirement	1983 Group Annuity Mortality for males set back four years. 1983 Group Annuity Mortality for females set back two years.
Healthy Post-retirement	1983 Group Annuity Mortality for males. 1983 Group Annuity Mortality for females.
Disabled	Male: N/A Female: N/A
Allowances for combined service annuity	Liabilities for former members not in pay status are increased by 30% to account for the effect of some participants having eligibility for a Combined Service Annuity.
Administrative expenses	$1,000 per year.
Refund of contributions	All employees withdrawing after eight years of service were assumed to leave their contributions on deposit and receive a deferred annuitant benefit.
Percentage married	85.00% of members are assumed to be married.
Age of spouse	Females are assumed to be three years younger than males.
Eligible children	Members are assumed to 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.
Commencement of deferred benefits	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 62.
Form of payment	Members are assumed to elect a life annuity.
Changes in actuarial assumptions	The post-retirement investment return changed from 6.0% to 6.5% to reflect the change in post-retirement benefit increases from 2.5% to 2.0%.

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.

Plan year	July 1 through June 30
Eligibility	Must be employed as a "Constitutional Officer" elected prior to July 1, 1997 AND must elect to retain coverage under this plan (i.e., does not elect Social Security coverage). Plan is closed to new members.
Contributions	Plan is funded by annual appropriations from the General Fund.
Allowable service	Service while in an eligible position.
Salary	Salary upon which Elective State Officers Retirement Fund contributions have been made.
Average salary	Average of the five highest consecutive years of salary.
Retirement	
Normal retirement benefit	
Age/service requirements	Age 62 and eight years of Allowable Service.
Amount	2.50% of Average Salary for each year of Allowable Service. For members who were employed as of June 30, 1997 and are still employed on July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Early retirement benefit	
Age/Service requirements	Age 60 and eight years of Allowable Service.
Form of payment	Normal retirement benefit based on Allowable Service and Average Salary at retirement date with reduction of 0.50% for each month the member is under age 62 at the time of retirement.
Form of payment	Life annuity.
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 18 full months as of December 31 will receive a full increase. Members receiving benefits for at least six full months but less than 18 full months will receive a pro rata increase.
Disability	No additional benefits provided beyond standard plan. Treated as retirement or termination, depending on age and Allowable Service as of disablement.

Actuarial Basis

Summary of Plan Providers *(continued)*

Death	
<u>*Surviving spouse benefit*</u>	
Age/service requirement	Death while active, or after retirement, or after termination but prior to retirement with at least eight years of Allowable Service.
Amount	Survivor payments of 50% of the retirement benefit of the member assuming the member had attained age 62 and had a minimum of eight years of Allowable Service. A former member's benefit is augmented as a Deferred Annuity to date of death before determining the portion payable to the spouse. If a member dies prior to July 1, 1997 and the beneficiary was not eligible to commence a survivor benefit as of July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Benefit increases	Same as for retirement.
<u>*Surviving dependent children's benefit*</u>	
Age/service requirement	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 eligible 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 for retirement.
Termination	
<u>*Refund of contributions*</u>	
Age/service requirement	Termination of service.
Amount	Member's contributions with 5.00% interest compounded annually until July 1, 2011 and 4.00% thereafter if termination occurred before May 16, 1989 and 6.00% interest to July 1, 2011 and 4.00% thereafter if termination occurred on or after May 16, 1989. If a member is vested, a deferred annuity may be elected in lieu of a refund.
<u>*Deferred benefit*</u>	
Age/service requirement	Eight years of Allowable Service.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Termination *(continued)*	
<u>*Deferred benefit*</u>	
Amount	Benefit computed under law in effect at termination and increased by the following annual percentage: (a) 0.00% before July 1, 1979; (b) 5.00% from July 1, 1979 to January 1, 1981; (c) 3.00% until age 55, or until January 1, 2012, whichever is earlier; (d) 5.00% thereafter until the annuity begins but prior to January 1, 2012; and (e) 2.00% from January 1, 2012 thereafter. Amount is payable at normal or early retirement. If a member terminated prior to July 1, 1997 but was not eligible to commence his or her pension before July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Changes in plan provisions	The following changes in plan provisions are reflected in this valuation: Post-retirement benefit increases changed from 2.5% to 2.0% beginning January 1, 2011. If the accrued liability funding ratio of the State Employees Retirement Fund reaches 90%, the benefit increase reverts to 2.5%. The requirement for benefit recipients to receive a full increase in benefits changed from 12 full months receiving as of December 31 to 18 full months and the requirement to receive a partial increase in benefits changed from 0 months receiving as of December 31 to 6 months. The increase on deferred benefits changes to 2% after December 31, 2011. The interest earned on member contributions changes from 6.0% to 4.0% as of July 1, 2011.

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[1]

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	$ 308,000	$ 2,249,000	$ 1,941,000	13.69%	$ 422,000	459.95%
07/01/1992	334,000	2,380,000	2,046,000	14.03%	378,000	541.27%
07/01/1993	322,000	2,689,000	2,367,000	11.97%	500,000	473.40%
07/01/1994	361,000	2,848,000	2,487,000	12.68%	411,000	605.11%
07/01/1995	378,000	2,948,000	2,570,000	12.82%	422,000	609.00%
07/01/1996	412,000	2,983,000	2,571,000	13.81%	456,000	563.82%
07/01/1997	456,000	3,214,000	2,758,000	14.19%	467,000	590.58%
07/01/1998	500,000	3,369,000	2,869,000	14.84%	461,000	622.34%
07/01/1999	198,000	3,373,000	3,175,000	5.87%	291,000	1,091.07%
07/01/2000	199,000	3,535,000	3,336,000	5.63%	0	N/A
07/01/2001	201,000	3,775,000	3,574,000	5.32%	0	N/A
07/01/2002	201,000	4,075,000	3,874,000	4.93%	0	N/A
07/01/2003[2]	--	--	--	--	--	--
07/01/2004	203,566	4,001,787	3,798,221	5.09%	0	N/A
07/01/2005	204,297	4,065,308	3,861,011	5.03%	0	N/A
07/01/2006	207,099	3,969,766	3,762,667	5.22%	0	N/A
07/01/2007	211,540	3,969,250	3,757,710	5.33%	0	N/A
07/01/2008	212,336	3,907,991	3,695,655	5.43%	0	N/A
07/01/2009	213,165	3,885,951	3,672,786	5.49%	0	N/A
07/01/2010	214,002	3,782,189	3,568,187	5.66%	0	N/A

[1] *Information prior to 2008 provided by The Segal Company.*
[2] *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[1]

The GASB Statement No. 25 (as amended by GASB 50) required and actual contributions are as follows:

Plan Year Ended June 30	Actuarially Required Contribution Rate/Amount[2] (a)	Actual Covered Payroll (b)	Actual Member Contributions (c)	Annual Required Contributions[3] [(a)x(b)] – (c) = (d)	Actual Employer Contributions[4] (e)	Percentage Contributed (e) / (d)
1991	34.84%	$ 422,000	$ 38,000	$ 109,000	$ 40,000	36.70%
1992	33.28%	378,000	34,000	92,000	111,000	120.65%
1993	36.23%	500,000	45,000	136,000	88,000	64.71%
1994	38.64%	411,000	37,000	122,000	164,000	134.43%
1995	42.00%	422,000	38,000	139,000	165,000	118.71%
1996	43.58%	456,000	41,000	158,000	151,000	95.57%
1997	43.49%	467,000	42,000	161,000	167,000	103.73%
1998	51.07%	461,000	42,000	193,000	175,000	90.67%
1999	51.66%	291,000	26,000	124,000	40,000	32.26%
2000	$ 321,000	0	0	321,000	306,000	95.33%
2001	340,000	0	0	340,000	330,000	97.06%
2002	371,000	0	0	371,000	354,000	95.42%
2003[5]	412,000	0	0	412,000	371,000	90.12%
2004[6]	412,000	0	0	412,000	382,679	92.88%
2005	436,594	0	0	436,594	394,561	90.37%
2006	464,671	0	0	464,671	416,638	89.66%
2007	477,221	0	0	477,221	427,468	89.57%
2008	506,141	0	0	506,141	434,894	85.92%
2009	557,643	0	0	557,643	442,099	79.28%
2010	601,274	0	0	601,274	453,201	75.37%
2011	643,501[7]					

[1] *Information prior to 2008 provided by The Segal Company.*
[2] *Shown as a percent of payroll for years before 2000.*
[3] *For years after 1999, the Annual Required Contribution is the dollar amount shown in (a).*
[4] *Includes contributions from other sources (if applicable).*
[5] *Actuarially Required Contribution Rate/Amount prior to change in Actuarial Assumptions was $389,000.*
[6] *Actuarially Required Contribution Rate/Amount is equal to prior year's amount since an actuarial valuation was not completed as of July 1, 2003.*
[7] *The Actuarially Required Contribution Amount before changes in plan provisions was $656,039.*

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.

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