December 2010

State Patrol 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
State Patrol Retirement Fund
St. Paul MN

Dear Board of Directors:

Submitted in this report are the July 1, 2010 actuarial valuation results for the State Patrol 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, including one modification regarding decrement timing. The LCPR approved this exception prior to the preparation of this report in order to ensure consistency and comparability. For more information about the decrement timing methodology, please refer to the *Actuarial Basis* section.

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

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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 352B (% of Payroll)	26.00%	26.00%
Required Contributions – Chapter 356 (% of Payroll)	33.84%	38.16%
Sufficiency / (Deficiency)	(7.84%)	(12.16%)

The contribution deficiency decreased from (12.16%) of payroll to (7.84%) of payroll. The primary reasons for the improved funded status are the changes in plan provisions. A significant contribution deficiency remains, which will only be partially addressed by the 5% of payroll increase in statutory contributions effective July 1, 2011. Without further changes or favorable actuarial experience, the funded status will deteriorate in the future.

The *Plan Assets* section provides detail on the plan assets used for the valuation including a development of the actuarial value of assets (AVA). The market value of assets (MVA) earned 15.7% for the plan year ending June 30, 2010. The AVA earned 2.1% for the plan year ending June 30, 2010 as compared to the assumed rate of 8.50%. Due to the asset smoothing method used, the AVA used to determine the contributions in this valuation exceeds the MVA by 16%. Absent future investment gains to offset the investment losses being smoothed, future required contributions will increase as past investment losses become recognized. If asset smoothing methods were not used for this valuation, the required contribution rate, based on the market value of assets, would have been 41.05% of pay instead of 33.84% of pay.

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* sections detail the required accounting information for the Plan under GASB Statement No. 25 (as amended by GASB 50).

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

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 *(% of Payroll)*		
Statutory – Chapter 352B	26.00%	26.00%
Required – Chapter 356	33.84%	38.16%
Sufficiency / (Deficiency)	(7.84%)	(12.16%)
Funding Ratios *(dollars in thousands)*		
Accrued Benefit Funding Ratio		
– Current assets (AVA)	$ 567,211	$ 584,501
– Current benefit obligations	671,839	711,652
– Funding ratio	84.43%	82.13%
Accrued Liability Funding Ratio		
– Current assets (AVA)	$ 567,211	$ 584,501
– Current assets (MVA)	488,870	450,060
– Actuarial accrued liability	683,360	725,334
– Funding ratio (AVA)	83.00%	80.58%
– Funding ratio (MVA)	71.54%	62.05%
Projected Benefit Funding Ratio		
– Current and expected future assets	$ 741,304	$ 753,476
– Current and expected future benefit obligations	826,527	889,030
– Funding ratio	89.69%	84.75%
Participant Data		
Active members		
– Number	848	876
– Projected annual earnings *(000s)*	$ 67,187	$ 67,421
– Average annual earnings *(projected)*	$ 79,230	$ 76,965
– Average age	41.8	41.1
– Average service	12.7	12.0
Service retirements	684	673
Survivors	192	191
Disability retirements	48	44
Deferred retirements	39	41
Terminated other non-vested	14	11
Total	**1,825**	**1,836**

Effects of Changes

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 1.5% beginning January 1, 2011. If the accrued liability funding ratio of the plan 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 7.0% to reflect the change in post-retirement benefit increases. This plan provision change decreased the accrued liability by approximately $61.8 million.

- The requirement for benefit recipients to receive a full increase in benefits changes 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.

- Vesting was changed from three years to five years for members first hired after June 30, 2010.

- The reduction applied for early commencement of retirement benefits was changed to 1/5% per month for members first hired after June 30, 2010.

- The increase on deferred benefits changes from 3% (2.5% if hired after June 30, 2006) to 2% after December 31, 2011.This plan provision change decreased the accrued liability by approximately $0.6 million.

- The interest earned on member contributions changes from 6.0% to 4.0% as of July 1, 2011. This plan provision change decreased by an immaterial amount.

- Member contributions will increase from 10.4% to 12.4% of pay and employer contributions will increase from 15.6% to 18.6% of pay beginning July 1, 2011.

The combined impact of the above changes was to decrease the accrued liability by approximately $62.5 million and decrease the required contribution by 8.4% of pay, as follows:

	Before Plan and Assumption Changes	Reflecting Plan and Assumption Changes	Impact of Changes
Normal Cost Rate (% of pay)	$ 25.5%	$ 23.0%	(2.5%)
Amortization of Unfunded Accrued Liability (% of pay)	16.5%	10.6%	(5.9%)
Expenses	0.2%	0.2%	0.0%
Total Required Contribution (% of pay)	42.2%	33.8%	(8.4%)
Accrued Liability Funding Ratio (AVA)	76.0%	83.0%	7.0%
Projected Benefit Funding Ratio	81.9%	89.7%	7.8%
Unfunded Accrued Liability (AVA) (000s)	$ 178,000	$ 116,000	$ (62,000)

Prospective plan changes (vesting and early commencement reduction) did not have an impact on the 2010 valuation results.

Effects of Changes *(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 plan's accrued liability funding ratio (on a market value of assets basis and assuming 1.5% benefit increases) is currently 71.5%. If the plan reaches a funding ratio of 90% (on a market value of assets basis) in the future, post-retirement increases 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 (other than those effective July 1, 2011), changes in benefits or assumptions, or favorable experience, the funded status of this plan is expected to decline from the current level of 71.5%

The liabilities in this report are based on the assumption that the post-retirement benefit increase will remain at the reduced level of 1.5% 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 1.5%, the liability would be $746 million instead of $683 million, resulting in a funded ratio of 65.6% (on a market value basis).

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 to 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 *(Dollars in Thousands)*

		Market Value		Cost Value
Assets in Trust				
▪ Cash, equivalents, short term securities	$	10,627	$	10,627
▪ Fixed income		120,058		107,572
▪ Equity		357,389		319,796
▪ Other		0		0
Total assets in trust	**$**	**488,074**	**$**	**437,995**
Assets Receivable		1,055		1,055
Total Assets	**$**	**489,129**	**$**	**439,050**
Amounts Payable		(259)		(259)
Net Assets held in trust for pension benefits	**$**	**488,870**	**$**	**438,791**

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 *(dollars in thousands)*		**Market Value**
1. Fund balance at market value at July 1, 2009	$	450,060
2. Contributions		
a. Member	$	6,726
b. Employer		10,104
c. Other sources		0
d. Total contributions	$	16,830
3. Investment income		
a. Investment income/(loss)	$	68,893
b. Investment expenses		(711)
c. Net investment income/(loss)	$	68,182
4. Other		42
5. Total income *(2.d. + 3.c. + 4.)*	**$**	**85,054**
6. Benefits Paid		
a. Annuity benefits	$	(46,119)
b. Refunds		(2)
c. Total benefits paid	$	(46,121)
7. Expenses		
a. Other	$	0
b. Administrative		(123)
c. Total Expenses		(123)
8. Total disbursements *(6.c. + 7.c.)*	**$**	**(46,244)**
9. Fund balance at market value at June 30, 2010 *(1. + 5. + 8.)*	**$**	**488,870**

Plan Assets

Actuarial Asset Value *(Dollars in Thousands)*

				June 30, 2010
1. Market value of assets available for benefits			$	488,870
2. Determination of average balance				
a. Total assets available at July 1, 2009				450,060
b. Total assets available at June 30, 2010				488,870
c. Net investment income for fiscal year ending June 30, 2010				68,182
d. Average balance *[a. + b. – c.] / 2*				435,374
3. Expected return *[8.5% * 2.d.]*				37,007
4. Actual return				68,182
5. Current year asset gain/(loss) *[4. – 3.]*				31,175
6. Unrecognized asset returns*				
	Original Amount	**% Not Recognized**		
a. Year ended June 30, 2010	$ 31,175	80%	$	24,940
b. Year ended June 30, 2009	(158,914)	60%		(95,348)
c. Year ended June 30, 2008	(32,301)	40%		(12,920)
d. Year ended June 30, 2007	24,934	20%		4,987
e. Total unrecognized return			$	(78,341)
7. Actuarial value at June 30, 2010 *(1. – 6.e.)*			**$**	**567,211**

* *Prior to the year ending June 30, 2009, unrecognized asset returns do not include MPRIF gains or losses.*

Membership Data

Distribution of Active Members

	Years of Service as of June 30, 2010										
Age	**<3***	**3 - 4**	**5 - 9**	**10 - 14**	**15 -19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40+**	**Total**
< 25	15										**15**
Avg. Earnings	55,104										**55,104**
25 – 29	37	5	17								**59**
Avg. Earnings	56,329	63,947	65,910								**59,735**
30 – 34	18	15	71	21							**125**
Avg. Earnings	54,577	61,262	69,755	76,961							**67,761**
35 – 39	16	27	44	74	6						**167**
Avg. Earnings	59,121	68,555	70,711	76,060	78,421						**71,899**
40 – 44	11	7	24	61	26	15					**144**
Avg. Earnings	60,772	71,465	71,527	75,583	75,786	78,348					**73,900**
45 – 49		4	21	37	28	62	17				**169**
Avg. Earnings		75,407	74,664	80,514	77,763	82,270	86,107				**80,417**
50 – 54	3	6	4	16	15	31	44	23			**142**
Avg. Earnings	73,031	79,231	89,088	80,415	75,474	84,359	88,107	87,666			**84,350**
55 – 59	1	3	2	1	3	6	7	3	1		**27**
Avg. Earnings	58,406	60,249	78,719	91,035	86,133	85,796	89,715	75,079	97,683		**81,916**
60 – 64											**0**
Avg. Earnings											**N/A**
65 – 69											**0**
Avg. Earnings											**N/A**
70+											**0**
Avg. Earnings											**N/A**
Total	**101**	**67**	**183**	**210**	**78**	**114**	**68**	**26**	**1**	**0**	**848**
Avg. Earnings	**57,278**	**67,876**	**70,944**	**77,199**	**77,036**	**82,508**	**87,773**	**86,214**	**97,683**	**N/A**	**74,587**

* *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 annual earnings.

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**
<50								**0**
Avg. Benefit								**N/A**
50 – 54	8	16						**24**
Avg. Benefit	38,654	45,191						**43,012**
55 – 59	15	82	27					**124**
Avg. Benefit	57,022	53,816	43,086					**51,868**
60 – 64		19	105	24				**148**
Avg. Benefit		42,170	53,933	53,031				**52,276**
65 – 69		5	17	115	4			**141**
Avg. Benefit		52,063	52,575	59,638	47,897			**58,185**
70 – 74			1	28	55			**84**
Avg. Benefit			11,648	71,975	59,469			**63,068**
75 – 79				1	17	44		**62**
Avg. Benefit				74,049	73,943	62,487		**62,815**
80 – 84				2	4	29	25	**60**
Avg. Benefit				72,265	58,951	67,556	64,195	**65,739**
85 – 90						3	27	**30**
Avg. Benefit						72,651	59,343	**60,674**
90+							11	**11**
Avg. Benefit							51,205	**51,205**
Total	**23**	**122**	**150**	**170**	**80**	**76**	**63**	**684**
Avg. Benefit	**50,633**	**50,800**	**51,545**	**60,970**	**61,940**	**64,822**	**59,847**	**57,180**

In each cell, the top number is the count of retired participants for the age/service 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**
<45		3	8	4				**15**
Avg. Benefit		15,712	12,464	8,092				**11,948**
45 – 49	1		2	1				**4**
Avg. Benefit	2,232		22,616	57,874				**26,335**
50 – 54	2		1	2				**5**
Avg. Benefit	7,156		13,240	25,704				**15,792**
55 – 59		6	3				1	**10**
Avg. Benefit		24,409	31,697				11,869	**25,341**
60 – 64		6	9	4				**19**
Avg. Benefit		26,472	20,864	40,867				**26,846**
65 – 69	1	5	5	5		1		**17**
Avg. Benefit	18,164	38,966	44,618	27,005		30,408		**35,383**
70 – 74		1	4	5	2	2		**14**
Avg. Benefit		47,721	33,086	38,099	16,425	26,836		**32,649**
75 – 79		6	5	5	4		6	**26**
Avg. Benefit		34,393	35,381	43,954	25,732		30,148	**34,110**
80 – 84	2	6	8	5	6	3	6	**36**
Avg. Benefit	23,747	45,431	35,015	40,147	26,410	37,127	44,949	**37,235**
85 – 90	3	9	4	4	3	1	5	**29**
Avg. Benefit	25,729	35,091	24,442	27,810	24,156	47,161	37,080	**31,277**
90+		1	4	3	1	2	6	**17**
Avg. Benefit		26,193	19,093	21,059	35,352	33,781	25,413	**24,773**
Total	**9**	**43**	**53**	**38**	**16**	**9**	**24**	**192**
Avg. Benefit	**17,710**	**32,929**	**26,937**	**32,252**	**25,128**	**34,465**	**33,347**	**29,902**

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

Distribution of Disability Retirements

	Years Disabled as of June 30, 2010							
Age	**<1**	**1 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25+**	**Total**
<45		3						**3**
Avg. Benefit		30,784						**30,784**
45 – 49	3	5		1				**9**
Avg. Benefit	44,291	46,174		28,742				**43,609**
50 – 54	1	1	2	1				**5**
Avg. Benefit	50,008	56,005	33,237	26,067				**39,711**
55 – 59		2	4	3	2			**11**
Avg. Benefit		42,909	39,315	35,480	42,432			**39,489**
60 – 64			7	1				**8**
Avg. Benefit			41,806	57,938				**43,823**
65 – 69			1		3	1	1	**6**
Avg. Benefit			31,652		55,795	23,413	42,924	**44,229**
70 – 74					1	1	1	**3**
Avg. Benefit					65,159	53,418	40,980	**53,186**
75 – 79							2	**2**
Avg. Benefit							42,906	**42,906**
80 – 84							1	**1**
Avg. Benefit							48,389	**48,389**
85 +								**0**
Avg. Benefit								**N/A**
Total	**4**	**11**	**14**	**6**	**6**	**2**	**5**	**48**
Avg. Benefit	**45,720**	**42,277**	**39,145**	**36,531**	**52,901**	**38,416**	**43,621**	**42,239**

In each cell, the top number is the count of disabled participants for the age/years since disability 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 Retirement	Disability Retirement	Survivor	Total
Members on 7/1/2009	**876**	**41**	**11**	**673**	**44**	**191**	**1,836**
New members	3	0	0	0	0	0	**3**
Return to active	1	0	0	(1)	0	0	**0**
Terminated non-vested	(5)	0	5	0	0	0	**0**
Service retirements	(19)	(4)	0	23	0	0	**0**
Terminated deferred	(2)	2	0	0	0	0	**0**
Terminated refund/transfer	(2)	(1)	(1)	0	0	0	**(4)**
Deaths	0	0	0	(11)	(1)	(8)	**(20)**
New beneficiary	0	0	0	0	0	9	**9**
Disabled	(4)	0	0	0	4	0	**0**
Data correction	0	1	(1)	0	1	0	**1**
Net change	(28)	(2)	3	11	4	1	**(11)**
Members on 6/30/2010	**848**	**39**	**14**	**684**	**48**	**192**	**1,825**

Terminated Member Statistics	Deferred Retirement	Other Non-Vested	Total
Number	39	14	53
Average Age	43.8	39.9	42.8
Average Service	8.2	0.6	6.2
Average annual benefits, with augmentation to Normal Retirement Date and 30% CSA load*	$29,436	N/A	$29,436
Average refund value, with 30% CSA load	$87,986	$3,781	$65,743

* *Includes estimated benefits for 5 participants who were reported without a benefit amount*

Development of Costs

Actuarial Valuation Balance Sheet *(Dollars in Thousands)*

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

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

							June 30, 2010
A. Actuarial Value of Assets						$	567,211
B. Expected future assets							
1. Present value of fund's future statutory supplemental contributions						$	30,926
2. Present value of fund's future normal cost contributions							143,167
3. Total expected future assets *(1. + 2.)*						$	174,093
C. Total current and expected future assets						$	741,304*
		Non-Vested		Vested			Total
D. Current benefit obligations							
1. Benefit recipients							
a. Service retirements	$	0	$	377,319		$	377,319
b. Disability		0		18,876			18,876
c. Survivors		0		45,706			45,706
2. Deferred retirements with augmentation		0		5,953			5,953
3. Former members without vested rights**		53		0			53
4. Active members		2,224		221,708			223,932
5. Total Current Benefit Obligations	$	2,277	$	669,562		$	671,839
E. Expected Future Benefit Obligations						$	154,688
F. Total Current and Expected Future Benefit Obligations						$	826,527
G. Unfunded Current Benefit Obligations *(D.5. − A.)*						$	104,628
H. Unfunded Current and Future Benefit Obligations *(F. − C.)*						$	85,223

**Does not reflect deferred investment losses in the asset smoothing method. Total expected future assets on a market value basis are $662,963.*
*** Former members with less than three years of service that have not collected a refund of member contributions as of the valuation date.*

Development of Costs

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

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
A. Determination of Actuarial Accrued Liability (AAL)			
1. Active members			
a. Retirement annuities	$ 344,124	$ 122,100	$ 222,024
b. Disability benefits	21,187	11,892	9,295
c. Survivor's benefits	9,544	5,974	3,570
d. Deferred retirements	3,425	2,583	842
e. Refunds	340	618	(278)
f. Total	$ 378,620	$ 143,167	$ 235,453
2. Deferred retirements with future augmentation	5,953	0	5,953
3. Former members without vested rights	53	0	53
4. Benefit recipients	441,901	0	441,901
5. Total	$ 826,527	$ 143,167	$ 683,360
B. Determination of Unfunded Actuarial Accrued Liability (UAAL)			
1. Actuarial accrued liability			$ 683,360
2. Current assets (AVA)			567,211
3. Unfunded actuarial accrued liability			$ 116,149
C. Determination of Supplemental Contribution Rate*			
1. Present value of future payrolls through the amortization date of July 1, 2036			$ 1,087,310
2. Supplemental contribution rate *(B.3. / C.1.)*			10.68%**

* *The amortization of the unfunded actuarial accrued liability (UAAL) using the current amortization method results in initial payments less than the "interest only" payment on the UAAL. Payments less than the interest only amount will result in the UAAL increasing for an initial period of time.*

** *The amortization factor as of July 1, 2010 is 16.1858.*

Development of Costs

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

		Year Ending June 30, 2010
A. Unfunded actuarial accrued liability at beginning of year	$	140,833
B. Changes due to interest requirements and current rate of funding		
1. Normal cost and administrative expenses	$	17,225
2. Contributions		(16,830)
3. Interest on A., B.1. and B.2.		11,988
4. Total *(B.1. + B.2. + B.3.)*	$	12,383
C. Expected unfunded actuarial accrued liability at end of year *(A. + B.4.)*	$	153,216
D. Increase (decrease) due to actuarial losses (gains) because of experience deviations from expected		
1. Salary increases	$	(10,626)
2. Investment return		36,437
3. Benefit recipient mortality		(3,672)
4. Other items		3,266
5. Total	$	25,405
E. Unfunded actuarial accrued liability at end of year before plan amendments and changes in actuarial assumptions *(C. + D.5.)*	$	178,621
F. Change in unfunded actuarial accrued liability due to changes in plan provisions	$	(62,472)
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 actuarial asset method	$	0
I. Unfunded actuarial accrued liability at end of year *(E. + F. + G + H..)*	$	116,149

** 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) *(Dollars in Thousands)*

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

	July 1, 2010	
	Percent of Payroll	**Dollar Amount**
A. Statutory contributions – Chapter 352B		
1. Employee contributions	10.40%	$ 6,988
2. Employer contributions	15.60%	10,481
3. Total	26.00%	$ 17,469
B. Required contributions – Chapter 356		
1. Normal cost		
a. Retirement benefits	19.54%	$ 13,124
b. Disability benefits	1.96%	1,319
c. Survivors	.99%	665
d. Deferred retirement benefits	.41%	274
e. Refunds	.08%	55
f. Total	22.98%	$ 15,437
2. Supplemental contribution amortization by July 1, 2036 of Unfunded Actuarial Accrued Liability	10.68%	7,176
3. Allowance for expenses	.18%	$ 123
4. Total	33.84%	$ 22,736
C. Contribution Sufficiency/(Deficiency) *(A.3. – B.4.)*	(7.84%)	$ (5,267)

Note: Projected annual payroll for fiscal year beginning on the valuation date: $67,187.

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 entry age, 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.

Decrement Timing

All decrements are assumed to occur on the anniversary of the valuation date, beginning on the valuation date. Decrement timing is a fundamental part of the computer programming underlying actuarial calculations. Mercer's valuation systems use beginning of year decrements, a generally accepted actuarial practice. The LCPR approved this modification to the Standards for Actuarial Work prior to the preparation of this report in order to ensure consistency and comparability.

Actuarial Basis

Asset Valuation Method

The assets are valued based on a five-year moving average of expected and market values (five-year average actuarial value) determined as follows:

- At the end of each plan year, an average asset value is calculated as the average of the market asset value at the beginning and end of the fiscal year net of investment income for the fiscal year;
- The investment gain or (loss) is taken as the excess of actual investment income over the expected investment income based on the average asset value as calculated above;
- The investment gain or (loss) so determined is recognized over five years at 20% per year;
- The asset value is the sum of the market asset value plus the scheduled recognition of investment gains or (losses) during the current and the preceding four fiscal years.

The Minnesota Post Retirement Investment Fund (MPRIF) was dissolved on June 30, 2009. For the purpose of determining the actuarial value of assets, the MPRIF asset loss for the fiscal year ending June 30, 2009 is recognized incrementally over five years at 20% per year, similar to the smoothing described above. Prior to June 30, 2009, MPRIF asset gains and losses were not smoothed.

Payment on the Unfunded Actuarial Accrued Liability

A level percentage of payroll each year to the statutory amortization date of July 1, 2036 assuming payroll increases of 4.50% per annum. If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll.

Funding Objective

The fundamental financing objective of the fund is to establish contribution rates which, when expressed as a percentage of active member payroll, will remain approximately level from generation to generation and meet the required deadline for full funding.

Benefits included or excluded

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

IRC Section 415(b): The limitations of Internal Revenue Code Section 415(b) have been incorporated into our calculations. Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2010, the limit is $195,000.

IRC Section 401(a)17: The limitations of Internal Revenue Code Section 401(a)(17) have been incorporated into our calculations. Compensation for any 12-month period used to determine accrued benefits may not exceed the limits in IRC Section 401(a)(17) for the calendar year in which the 12-month period begins. This limit is indexed annually. For 2010, the limit is $245,000.

Actuarial Basis

Summary of Actuarial Assumptions

The following 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:	7.00% compounded annually post-retirement. 8.50% compounded annually pre-retirement.
Benefit increases after retirement	Payment of 1.5% annual benefit increases after retirement accounted for by using a 7.00% post-retirement assumption, as required by statute.
Salary increases	Reported salary at valuation date increased according to the rate table, to current fiscal year and annually for each future year. Prior fiscal year salary is annualized for new members.
Mortality rates	
Healthy Pre-retirement	1983 Group Annuity Mortality for males set back five years 1983 Group Annuity Mortality for females set back two years
Healthy Post-retirement	1983 Group Annuity Mortality for males set back two years 1983 Group Annuity Mortality for females set back one year
Disabled	Combined Annuity Mortality
Retirement	Members retiring from active status are assumed to retire according to the following age related rates: Ages: 50-54 7.0% 55 60.0% 56 40.0% 57-59 20.0% 60 & over 100.0%
Withdrawal	Select and ultimate rates are based on plan experience. Ultimate rates after the third year are shown in the rate table. Select rates are 2.5% for the first three years of employment.
Disability	Rates adopted by MSRS as shown in rate table. Benefits are calculated assuming all future disabilities are occupational disabilities.
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 expenses expressed as percentage of prior year payroll.
Return of contributions	All employees withdrawing after becoming eligible for a deferred benefit are assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit.
Commencement of deferred benefits	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 55.
Percentage married	100% of members are assumed to be married.
Age of spouse	Female members are assumed to be three years younger than males.
Eligible children	Each member is assumed to have two children whose ages are dependent upon the member's age. First child is assumed to be born at member's age 28 and second child is born at member's age 31.

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Form of payment	Married members retiring from active status are assumed to elect subsidized joint and survivor form of annuity as follows: Males: 25% elect 50% J&S option 0% elect 75% J&S option 25% elect 100% J&S option Females: 5% elect 50% J&S option 0% elect 75% J&S option 5% elect 100% J&S option Unmarried and remaining married members retiring from active status are assumed to receive life annuities. Members receiving deferred annuities (including current terminated deferred members) are assumed to elect a life annuity. Surviving spouses are assumed to receive a life annuity equal to 50% of pay if death occurred before age 55. If death occurred on or after age 55, surviving spouses are assumed to receive a life annuity equal to the survivor portion of the 100% joint and survivor annuity.
Changes in actuarial assumptions	The post-retirement investment return changed from 6.0% to 7.0% to reflect the change in post-retirement benefit increases from 2.5% to 1.5%.

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Summary of Rates

	Rate (%)				
	Pre-Retirement Mortality		Ultimate Withdrawal	Disability	Salary Increase
Age	**Male**	**Female**			
20	0.03%	0.02%	1.47%	0.04%	7.75%
25	0.04	0.02	1.13	0.06	7.00
30	0.05	0.03	0.80	0.08	7.00
35	0.06	0.04	0.47	0.11	7.00
40	0.09	0.06	0.40	0.18	6.50
45	0.12	0.08	0.40	0.29	5.75
50	0.22	0.14	0.00	0.50	5.50
55	0.39	0.21	0.00	0.88	5.25
60	0.61	0.34	0.00	1.41	5.25
65	0.92	0.58	0.00	0.00	5.25
70	1.56	0.97	0.00	0.00	5.25

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	State troopers, conservation officers and certain crime bureau officers.
Contributions	Shown as a percent of salary: **Effective Date** / **Employee** / **Employer** July 1, 2009: 10.40% / 15.60% July 1, 2011: 12.40% / 18.60% Employee contributions are "picked up" according to the provisions of Internal Revenue Code 414(h).
Allowable service	Service during which member contributions were deducted. Includes period receiving temporary Worker's Compensation.
Salary	Salaries excluding lump sum payments at separation.
Average salary	Average of the five highest years of Salary. Average Salary is based on all Allowable Service if less than five years.
Retirement	
Normal retirement benefit	
Age/service requirements	Age 55 and three years (five years if first hired after June 30, 2010) of Allowable Service.
Amount	3.00% of Average Salary for each year of Allowable Service.
Early retirement benefit	
Age/service requirements	Age 50 and three years (five years if first hired after June 30, 2010) of Allowable Service.
Amount	Normal Retirement Benefit based on Allowable Service and Average Salary at retirement reduced by 1/10% (1/5% for employees first hired after June 30, 2010) for each month that the member is under age 55.
Form of Payment	Life annuity. Actuarially equivalent options are: 50%, 75%, 100% Joint and Survivor with bounce back feature without additional reduction, or 15-year certain.
Benefit increases	Benefit recipients receive future annual 1.5% benefit increases. When the funding ratio 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. Members who retired under laws in effect before June 1, 1973 received an additional lump sum payment each year until 2002. Effective January 1, 2002 annual lump sum payment was divided by 12 and paid as a monthly life annuity in the annuity form elected.

Actuarial Basis

Summary of Plan Providers *(continued)*

Disability	
Occupational disability benefit	
Age/service requirement	Member who cannot perform his duties as a direct result of a disability relating to an act of duty.
Amount	60% of Average Salary plus 3.00% of Average Salary for each year in excess of 20 years of Allowable Service (pro rata for completed months). Payments cease at age 65 or earlier if disability ceases or death occurs. Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.
Non-duty disability benefit	
Age/service requirement	At least one year of Allowable Service and disability not related to covered employment.
Amount	Normal Retirement Benefit based on Allowable Service (minimum of 15 years) and Average Salary at disability without reduction for commencement before age 55. Payments cease at age 65 or earlier if disability ceases or death occurs. Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.
Retirement after disability	
Age/service requirement	Age 65 with continued disability.
Amount	Optional annuity continues. Otherwise, normal retirement benefit equal to the disability benefit paid, or an actuarially equivalent option.
Form of payment	Same as for retirement.
Benefit increases	Same as for retirement.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Death	
<u>*Surviving spouse benefit*</u>	
Age/service requirement	Member who is active or receiving a disability benefit.
Amount	50% of Annual Salary if member was active or occupational disability and either had less than three years (five years if first hired after June 30, 2010) of Allowable Service or was under age 55. Annuity is paid for life. Surviving spouse receives the 100% joint and survivor benefit commencing on the member's 55th birthday if member was active or a disability with three years (five years if first hired after June 30, 2010) of Allowable Service. A spouse who had been receiving the 50% benefit shall be entitled to the greater benefit.
Benefit increases	Same as for retirement.
<u>*Surviving dependent children's benefit*</u>	
Age/service requirement	Member who is active or receiving a disability benefit. Child must be unmarried, under age 18 (or 23 if full-time student) and dependent upon the member.
Amount	10% of Average Salary for each child and $20 per month prorated among all dependent children. Benefit must not be less than 50% nor exceed 70% of Average Salary.
Benefit increases	Same as for retirement.
<u>*Refund of contributions*</u>	
Age/service requirement	Member dies before receiving any retirement benefits and survivor benefits are not payable.
Amount	If death occurred before May 16, 1989: 5.00% interest until June 30, 2011 and 4.00% thereafter. If death occurred on or after May 16, 1989: 6.00% interest until June 30, 2011 and 4.00% thereafter.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Termination	
Refund of contributions	
Age/service requirement	Termination of state service.
Amount	Termination prior to May 16, 1989: Member contributions with 5.00% interest to June 30, 2011 and 4.00% thereafter. Termination on or after May 16, 1989: Member contributions with 6.00% interest to June 30, 2011 and 4.00% thereafter. If a member is vested, a deferred annuity may be elected in lieu of a refund.
Deferred benefit	
Age/service requirement	Three years (five years if first hired after June 30, 2010) of Allowable Service.
Amount	Benefit computed under law in effect at termination and increased by the following percentage: (a.) 0.00% before July 1, 1971; (b.) 5.00% from July 1, 1971 to January 1, 1981; (c.) 3.00% from January 1, 1981 until January 1, 2012 (2.50% if hired after June 30, 2006); (d.) 2.00% after December 31, 2011 until the annuity begins. Amount is payable at normal or early retirement. If a member terminated employment prior to July 1, 1997 but was not eligible to commence their pension before July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Changes in Plan Provisions	The following changes in plan provisions are reflected in this valuation: Post-retirement benefit increases changed from 2.5% to 1.5% beginning January 1, 2011. If the accrued liability funding ratio of the plan reaches 90% (on a Market Value of Assets basis), 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. Vesting was changed from three years to five years for members first hired after June 30, 2010. The reduction applied for early commencement of retirement benefits was changed to 1/5% per month for members first hired after June 30, 2010. The increase on deferred benefits changes to 2% after December 31, 2011. The annual interest earned on member contributions changes from 6.0% to 4.0% beginning July 1, 2011. Member contributions will increase to 12.4% and employer contributions will increase to 18.6% beginning 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] *(Dollars in Thousands)*

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a)/(b)	Actual Covered Payroll (Previous FY) (c)	UAAL as a Percentage of Covered Payroll (b) – (a) / (c)
07/01/1991	$ 200,068	$ 224,033	$ 23,965	89.30%	$ 32,365	74.05%
07/01/1992	222,314	233,656	11,342	95.15%	32,882	34.49%
07/01/1993	244,352	258,202	13,850	94.64%	35,765	38.73%
07/01/1994	262,570	275,377	12,807	95.35%	35,341	36.24%
07/01/1995	284,918	283,078	(1,840)	100.65%	37,518	(4.90%)
07/01/1996	323,868	303,941	(19,927)	106.56%	41,476	(48.04%)
07/01/1997	375,650	332,427	(43,223)	113.00%	41,996	(102.92%)
07/01/1998	430,011	371,369	(58,642)	115.79%	43,456	(134.95%)
07/01/1999	472,687	406,215	(66,472)	116.36%	45,333	(146.63%)
07/01/2000	528,573	458,384	(70,189)	115.31%	48,167	(145.72%)
07/01/2001	572,815	489,483	(83,332)	117.02%	48,935	(170.29%)
07/01/2002	591,383	510,344	(81,039)	115.88%	49,278	(164.45%)
07/01/2003	591,521	538,980	(52,541)	109.75%	54,175	(96.98%)
07/01/2004	594,785	545,244	(49,542)	109.09%	51,619	(95.98%)
07/01/2005	601,220	566,764	(34,456)	106.08%	55,142	(62.49%)
07/01/2006	618,990	641,479	22,489	96.49%	57,765	38.93%
07/01/2007	617,901	673,444	55,543	91.75%	61,498	90.32%
07/01/2008	595,082	693,686	98,604	85.79%	60,029	164.26%
07/01/2009	584,501	725,334	140,833	80.58%	61,511	228.96%
07/01/2010	567,211	683,360	116,149	83.00%	63,250	183.63%

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

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

Schedule of Contributions from the Employer and Other Contributing Entities[1] *(Dollars in Thousands)*

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 (a)	Actual Covered Payroll (b)	Actual Member Contributions (c)	Annual Required Contributions [(a)x(b)] – (c)	Actual Employer Contributions (e)[2]	Percentage Contributed (e)/(d)
1991	22.15%	$ 32,365	$ 2,751	$ 4,418	$ 4,825	109.21%
1992	22.58%	32,882	2,795	4,630	4,893	105.68%
1993	22.27%	35,765	3,040	4,925	5,288	107.37%
1994	21.94%	35,341	3,004	4,750	5,159	108.61%
1995	21.79%	37,518	3,189	4,986	5,583	111.97%
1996	21.34%	41,476	3,484	5,367	5,742	106.99%
1997	21.33%	41,996	3,746	5,212	6,151	118.02%
1998	15.67%	43,456	3,634	3,176	5,475	172.39%
1999	14.14%	45,333	3,850	2,560	5,712	223.13%
2000[3]	15.17%	48,167	4,044	3,263	6,069	185.99%
2001[4]	15.48%	48,935	4,145	3,430	6,166	179.77%
2002	14.00%	49,278	4,215	2,684	6,209	231.33%
2003[5]	14.34%	54,175	4,555	3,214	6,826	212.38%
2004	17.81%	51,619	4,493	4,700	6,504	138.39%
2005	18.15%	55,142	4,517	5,491	6,670	121.47%
2006	19.84%	57,765	4,719	6,741	7,055	104.66%
2007[6]	26.69%	61,498	4,987	11,427	7,461	65.30%
2008[7]	29.90%[8]	60,029	5,594	12,355	8,279	67.01%
2009[9]	34.49%	61,511	6,216	14,999	9,178	61.19%
2010[10]	38.16%	63,250	6,726	17,410	10,104	58.04%
2011[11]	33.84%					

1 *Information prior to 2008 provided by The Segal Company.*
2 *Includes contributions from other sources (if applicable)*
3 *Actuarially Required Contributions calculated according to parameters of GASB 25 using a 30-year amortization of the negative unfunded actuarial accrued liability.*
4 *Actuarially Required Contributions Rate prior to change in Asset Valuation Method is 15.15%.*
5 *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 14.20%.*
6 *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 21.76%.*
7 *Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 27.02%.*
8 *Actuarially Required Contribution Rate provided by The Segal Company.*
9 *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 34.97%.*
10 *Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 40.26%.*
11 *Actuarially Required Contribution Rate prior to change in plan provisions is 42.16%.*

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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