

December 2010

# Judges Retirement Fund

Actuarial Valuation Report as of July 1, 2010

## MERCER



MARSH MERCER KROLL  
GUY CARPENTER OLIVER WYMAN

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# MERCER



December 2010

Minnesota State Retirement System  
Judges Retirement Fund  
St. Paul MN

Dear Board of Directors:

Submitted in this report are the July 1, 2010 actuarial valuation results for the Judges 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,

A handwritten signature in black ink that reads "Gary D. Dickson".

Gary D. Dickson, FSA, EA, MAAA

A handwritten signature in black ink that reads "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.

Contributions	Actuarial Valuation as of	
	July 1, 2010	July 1, 2009
Statutory Contributions – Chapter 490 (% of Payroll)	28.04%*	27.80%
Required Contributions – Chapter 356 (% of Payroll)	31.66%	31.53%
Sufficiency / (Deficiency)	(3.62%)	(3.73%)

The contribution deficiency decreased from (3.73%) of payroll to (3.62%) of payroll. The primary reasons for the improved contribution deficiency are the changes in plan provisions. A significant contribution deficiency remains. 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 15.5% for the plan year ending June 30, 2010. The AVA earned 2.4% for the plan year ending June 30, 2010 as compared to the assumed rate of 8.5%, which is mandated in statutes. Due to the asset smoothing method used, the AVA used to determine the contributions in this valuation exceeds the MVA by 15%. 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 34.45% of pay instead of 31.66% 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.

\* Statutory contributions reflect the fact that employee contributions for Judges at the maximum benefit level are directed to the Unclassified Plan. If these contributions were not directed to the Unclassified Plan, the statutory contribution rate would be 28.50% instead of 28.04%.

## 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
<b>Contributions (% of Payroll)</b>		
Statutory – Chapter 490*	28.04%	27.80%
Required – Chapter 356	31.66%	31.53%
Sufficiency / (Deficiency)	(3.62%)	(3.73%)
<b>Funding Ratios (dollars in thousands)</b>		
Accrued Benefit Funding Ratio		
– Current assets (AVA)	\$ 144,728	\$ 147,120
– Current benefit obligation	231,857	232,413
– Funding ratio	62.42%	63.30%
Accrued Liability Funding Ratio		
– Current assets (AVA)	\$ 144,728	\$ 147,120
– Current assets (MVA)	126,201	114,690
– Actuarial accrued liability	240,579	241,815
– Funding ratio (AVA)	60.16%	60.84%
– Funding ratio (MVA)	52.46%	47.43%
Projected Benefit Funding Ratio		
– Current and expected future assets (AVA)	\$ 262,256	\$ 265,193
– Current and expected future benefit obligations	286,233	290,586
– Funding ratio (AVA)	91.62%	91.26%
– Funding ratio (MVA)	85.15%	80.10%
<b>Participant Data</b>		
Active members		
– Number	312	312
– Projected annual earnings (000s)	\$ 41,366	\$ 41,644
– Average annual earnings (projected)	\$ 132,582	\$ 133,474
– Average age	57.1	56.9
– Average service	11.1	11.1
Service retirements	170	162
Survivors	94	96
Disability retirements	27	27
Deferred retirements	18	20
Terminated other non-vested	0	0
<b>Total</b>	<b>621</b>	<b>617</b>

\* Statutory contributions reflect the fact that employee contributions for Judges at the maximum benefit level are directed to the Unclassified Plan. If these contributions were not directed to the Unclassified Plan, the statutory contribution rate would be 28.50%.

## 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 2.0% beginning January 1, 2011. If the accrued liability funding ratio of the plan reaches 90% (on a market value of assets basis) in the future, the benefit increase will revert to 2.5%. The mandated post-retirement investment return changed from 6.0% to 6.5% to reflect the change in post-retirement benefit increases. This change in plan provisions decreased the accrued liability by approximately \$8.4 million.
- The interest earned on member contributions changes from 6.0% to 4.0% as of July 1, 2011. This change in plan provisions decreased the accrued liability by approximately \$0.1 million.
- 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 combined impact of the above changes was to decrease the accrued liability by approximately \$8.5 million and decrease the required contribution by 1.9% of pay, as follows:

	<b>Before Plan and Assumption Changes</b>	<b>Reflecting Plan and Assumption Changes</b>	<b>Impact of Changes</b>
Normal Cost Rate (% of pay)	17.7%	17.1%	(0.6%)
Amortization of Unfunded Accrued Liability (% of pay)	15.8%	14.5%	(1.3%)
Expenses (% of pay)	0.1%	0.1%	0.0%
Total Required Contribution (% of Pay)	33.6%	31.7%	(1.9%)
Accrued Liability Funding Ratio (AVA)	58.1%	60.2%	2.1%
Projected Benefit Funding Ratio (AVA)	88.6%	91.6%	3.0%
Unfunded Accrued Liability (AVA) (000s)	\$ 104,400	\$ 95,900	\$ (8,500)

## Effects of Changes

### 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 2.0% benefit increases) is currently 52.5%. 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, changes in benefits or assumptions, or favorable experience, the funded status of this plan is expected to decline from the current level of 52.5%.

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 \$249 million instead of \$241 million, resulting in a funded ratio of 50.7% (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 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 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)*

	<b>Market Value</b>	<b>Cost Value</b>
<b>Assets in Trust</b>		
▪ Cash, equivalents, short term securities	\$ 3,361	\$ 3,361
▪ Fixed income	30,820	27,522
▪ Equity	91,745	81,055
▪ Other	0	0
<b>Total assets in trust</b>	<b>\$ 125,926</b>	<b>\$ 111,938</b>
Assets Receivable	352	352
<b>Total Assets</b>	<b>\$ 126,278</b>	<b>\$ 112,290</b>
Amounts Payable	(77)	(77)
<b>Net assets held in trust for pension benefits</b>	<b>\$ 126,201</b>	<b>\$ 112,213</b>

## Plan Assets

### Reconciliation of Plan Assets

The following exhibit shows the revenue, expenses and resulting assets of the Fund as reported by the Minnesota State Retirement System for the Plan's Fiscal Year July 1, 2009 to June 30, 2010.

<b>Change in Assets</b> ( <i>dollars in thousands</i> )	<b>Market Value</b>
1. Fund balance at market value at July 1, 2009	\$ 114,690
2. Contributions	
a. Member	2,988
b. Employer	8,282
c. Other sources	0
d. Total contributions	\$ 11,270
3. Investment income	
a. Investment income/(loss)	\$ 17,516
b. Investment expenses	(177)
c. Total investment income/(loss)	\$ 17,339
4. Other	1
<b>5. Total income</b> (2.d. + 3.c. + 4)	<b>\$ 28,610</b>
6. Benefits Paid	
a. Annuity benefits	\$ (17,057)
b. Refunds	0
c. Total benefits paid	\$ (17,057)
7. Expenses	
a. Other	\$ 0
b. Administrative	(42)
c. Total expenses	\$ (42)
<b>8. Total disbursements</b> (6.c. + 7.c.)	<b>\$ (17,099)</b>
<b>9. Fund balance at market value at June 30, 2010</b> (1. + 5. + 8.)	<b>\$ 126,201</b>

## Plan Assets

### Actuarial Asset Value (*Dollars in Thousands*)

	<b>June 30, 2010</b>		
1. Market value of assets available for benefits			\$ 126,201
2. Determination of average balance			
a. Assets available at July 1, 2009			114,690
b. Assets available at June 30, 2010			126,201
c. Net investment income for fiscal year ending June 30, 2010			17,339
d. Average balance $[a. + b. - c.] / 2$			111,776
3. Expected return $[8.5\% * 2.d.]$			9,501
4. Actual return			17,339
5. Current year unrecognized asset return			7,838
6. Unrecognized asset returns*			
	<b>Original Amount</b>	<b>% Not Recognized</b>	
a. Year ended June 30, 2010	\$ 7,838	80%	\$ 6,270
b. Year ended June 30, 2009	(38,483)	60%	(23,090)
c. Year ended June 30, 2008	(6,753)	40%	(2,701)
d. Year ended June 30, 2007	4,970	20%	994
e. Total unrecognized return			\$ (18,527)
<b>7. Actuarial value at June 30, 2010 (1. - 6.e.)</b>			<b>\$ 144,728</b>

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

## Membership Data

### Distribution of Active Members\*

Age	Years of Service as of June 30, 2010										Total
	< 1**	1 - 4**	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
< 25											0
Avg. Earnings											N/A
25 - 29											0
Avg. Earnings											N/A
30 - 34											0
Avg. Earnings											N/A
35 - 39		2									2
Avg. Earnings		129,124									129,124
40 - 44	7	12	1	1							21
Avg. Earnings	33,304	129,889	129,124	129,124							97,621
45 - 49	1	19	10	1	1						32
Avg. Earnings	73,713	130,898	128,491	64,808	129,124						126,238
50 - 54	4	12	21	10	6						53
Avg. Earnings	58,995	129,124	129,927	131,455	129,291						124,608
55 - 59		18	19	19	15	8					79
Avg. Earnings		129,799	130,014	130,455	130,116	129,124					130,000
60 - 64		12	12	23	16	31					94
Avg. Earnings		129,413	130,529	127,701	130,584	126,173					128,267
65 - 69		2	5	5	6	13					31
Avg. Earnings		129,124	130,810	129,124	134,484	126,649					129,396
70+											0
Avg. Earnings											N/A
<b>Total</b>	<b>12</b>	<b>77</b>	<b>68</b>	<b>59</b>	<b>44</b>	<b>52</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>312</b>
<b>Avg. Earnings</b>	<b>45,235</b>	<b>129,884</b>	<b>129,899</b>	<b>128,303</b>	<b>130,747</b>	<b>126,746</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>125,931</b>

\* Includes 21 judges who have reached the maximum benefit formula (employee contributions are directed to the Unclassified Plan).

\*\* 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 the amount of average annual earnings.

# Membership Data

## Distribution of Service Retirements

Age	Years Retired as of June 30, 2010							Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 +	
<50								0
Avg. Benefit								N/A
50 – 54								0
Avg. Benefit								N/A
55 – 59								0
Avg. Benefit								N/A
60 – 64	5	2						7
Avg. Benefit	72,257	51,191						66,238
65 – 69	7	21	5					33
Avg. Benefit	67,203	65,026	47,129					62,776
70 – 74	3	18	18	4				43
Avg. Benefit	61,126	58,437	58,165	60,366				58,691
75 – 79			12	13				25
Avg. Benefit			55,680	73,734				65,068
80 – 84			1	14	13	5		33
Avg. Benefit			31,951	58,852	75,453	55,137		64,014
85 – 89					12	8	3	23
Avg. Benefit					80,858	76,453	61,898	76,852
90+						3	3	6
Avg. Benefit						100,076	111,958	106,017
<b>Total</b>	<b>15</b>	<b>41</b>	<b>36</b>	<b>31</b>	<b>25</b>	<b>16</b>	<b>6</b>	<b>170</b>
<b>Avg. Benefit</b>	<b>67,673</b>	<b>61,459</b>	<b>55,076</b>	<b>65,288</b>	<b>78,047</b>	<b>74,221</b>	<b>86,928</b>	<b>65,893</b>

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

# Membership Data

## Distribution of Disability Retirements

Age	Years Retired as of June 30, 2010							Total
	< 1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
<55								<b>0</b>
Avg. Benefit								<b>N/A</b>
55 - 59		1	1					<b>2</b>
Avg. Benefit		49,188	44,024					<b>46,606</b>
60 - 64		4	2					<b>6</b>
Avg. Benefit		65,707	58,733					<b>63,382</b>
65 - 69		2	2					<b>4</b>
Avg. Benefit		58,584	57,630					<b>58,107</b>
70 - 74			3	3				<b>6</b>
Avg. Benefit			55,478	79,248				<b>67,363</b>
75 - 79				2	1			<b>3</b>
Avg. Benefit				101,130	53,794			<b>85,351</b>
80 - 84						1	1	<b>2</b>
Avg. Benefit						109,730	67,137	<b>88,433</b>
85 - 89						3		<b>3</b>
Avg. Benefit						83,067		<b>83,067</b>
90+							1	<b>1</b>
Avg. Benefit							130,503	<b>130,503</b>
<b>Total</b>	<b>0</b>	<b>7</b>	<b>8</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>27</b>
<b>Avg. Benefit</b>	<b>N/A</b>	<b>61,312</b>	<b>55,398</b>	<b>88,001</b>	<b>53,794</b>	<b>89,732</b>	<b>98,820</b>	<b>71,212</b>

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

### Distribution of Survivors

Age	Years Since Death of Member as of June 30, 2010							Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 +	
<55								<b>0</b>
Avg. Benefits								<b>N/A</b>
55 – 59		3	2	2		1		<b>8</b>
Avg. Benefit		48,567	34,031	45,366		52,729		<b>44,653</b>
60 – 64		6	3			2		<b>11</b>
Avg. Benefit		36,561	29,552			69,090		<b>40,564</b>
65 – 69	1	2		2		1		<b>6</b>
Avg. Benefit	58,937	35,772		57,672		47,172		<b>48,833</b>
70 – 74		5		1		2		<b>8</b>
Avg. Benefit		34,869		52,598		45,501		<b>39,743</b>
75 – 79	1	2	3	2	2			<b>10</b>
Avg. Benefit	27,565	63,142	49,493	43,329	50,207			<b>48,740</b>
80 – 84	2	3	5	5	4	2	4	<b>25</b>
Avg. Benefit	60,928	40,800	32,473	45,264	49,004	37,908	35,859	<b>41,928</b>
85 – 89	1	2	2	2	3		2	<b>12</b>
Avg. Benefit	69,180	55,077	39,917	47,683	51,664		36,538	<b>48,550</b>
90+			4	2	3	1	4	<b>14</b>
Avg. Benefit			53,831	65,786	35,631	59,635	51,683	<b>51,440</b>
<b>Total</b>	<b>5</b>	<b>23</b>	<b>19</b>	<b>16</b>	<b>12</b>	<b>9</b>	<b>10</b>	<b>94</b>
<b>Avg. Benefit</b>	<b>55,507</b>	<b>42,165</b>	<b>40,143</b>	<b>49,787</b>	<b>46,526</b>	<b>51,615</b>	<b>42,325</b>	<b>45,242</b>

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

## Membership Data

### Reconciliation of Members

	Actives	Terminated		Recipients			Total
		Deferred Retirement	Other Non-Vested	Service Retirement	Disability Retirement	Survivor	
<b>Members on 7/1/2009</b>	<b>287</b>	<b>45</b>	<b>0</b>	<b>162</b>	<b>27</b>	<b>96</b>	<b>617</b>
Reclassification*	25	(25)	0	0	0	0	0
New members	13	0	0	0	0	0	13
Return to active	0	0	0	0	0	0	0
Terminated non-vested	0	0	0	0	0	0	0
Service retirements	(13)	(2)	0	15	0	0	0
Terminated deferred	0	0	0	0	0	0	0
Terminated refund/transfer	0	0	0	0	0	0	0
Deaths	0	0	0	(7)	0	(7)	(14)
New beneficiary	0	0	0	0	0	5	5
Disabled	0	0	0	0	0	0	0
Data correction	0	0	0	0	0	0	0
Net change	25	(27)	0	8	0	(2)	4
<b>Members on 6/30/2010</b>	<b>312</b>	<b>18</b>	<b>0</b>	<b>170</b>	<b>27</b>	<b>94</b>	<b>621</b>

<b>Terminated Member Statistics</b>	<b>Deferred Retirement</b>	<b>Other Non-Vested</b>	<b>Total</b>
Number	18	0	18
Average Age	58.3	N/A	58.3
Average Service	9.5	N/A	9.5
Average annual benefits, with 30% CSA load**	\$36,043	N/A	\$36,043
Average refund value, with 30% CSA load	\$112,794	N/A	\$112,794

\* Active Judges who have reached the maximum benefit formula (employee contributions are directed to the Unclassified Plan)

\*\* Includes estimated benefits for 4 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 from this fundamental equation; it 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.

				<b>June 30, 2010</b>
A. Actuarial Value of Assets				\$ 144,728
B. Expected future assets				
1. Present value of expected future statutory supplemental contributions				\$ 71,874
2. Present value of future normal costs				45,654
3. Total expected future assets (1. + 2.)				<u>\$ 117,528</u>
C. Total current and expected future assets				\$ 262,256*
D. Current benefit obligations				
1. Benefit recipients				
a. Service retirements	\$ 0	\$ 89,420		\$ 89,420
b. Disability	0	15,082		15,082
c. Survivors	0	30,682		30,682
2. Deferred retirements	0	4,053		4,053
3. Former members without vested rights	0	0		0
4. Active members	<u>16,336</u>	<u>76,284</u>		<u>92,620</u>
5. Total Current Benefit Obligations	<u>\$ 16,336</u>	<u>\$ 215,521</u>		<u>\$ 231,857</u>
E. Expected Future Benefit Obligations				\$ 54,376
F. Total Current and Expected Future Benefit Obligations				\$ 286,233
G. Unfunded Current Benefit Obligations (D.5. – A.)				\$ 87,129
H. Unfunded Current and Future Benefit Obligations (F. – C.)				\$ 23,977

\* Does not reflect deferred investment losses due to the asset smoothing method. Total expected future assets on a market value basis are \$243,729.

## Development of Costs

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

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
<b>A. Determination of Actuarial Accrued Liability (AAL)</b>			
1. Active members			
a. Retirement annuities	\$ 136,232	\$ 39,962	\$ 96,270
b. Disability benefits	5,361	2,826	2,535
c. Survivor's benefits	5,065	2,721	2,344
d. Deferred retirements	0	0	0
e. Refunds	338	145	193
f. Total	\$ 146,996	\$ 45,654	\$ 101,342
2. Deferred retirements	4,053	0	4,053
3. Former members without vested rights	0	0	0
4. Benefit recipients	135,184	0	135,184
5. Total	\$ 286,233	\$ 45,654	\$ 240,579
<b>B. Determination of Unfunded Actuarial Accrued Liability (UAAL)</b>			
1. Actuarial accrued liability			\$ 240,579
2. Current assets (AVA)			144,728
3. Unfunded actuarial accrued liability			\$ 95,851
<b>C. Determination of Supplemental Contribution Rate*</b>			
1. Present value of future payrolls through the amortization date of June 30, 2038			\$ 662,965
2. Supplemental Contribution Rate (B.3. / C.1.)			14.46%**

\* *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 16.0232*

## Development of Costs

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

	<b>Year Ending June 30, 2010</b>
A. Unfunded actuarial accrued liability at beginning of year	\$ 94,695
B. Changes due to interest requirements and current rate of funding	
1. Normal cost and actual administrative expenses	\$ 7,336
2. Contributions	(11,270)
3. Interest on A., B.1. and B.2.	7,882
4. Total <i>(B.1. + B.2. + B.3.)</i>	<u>\$ 3,948</u>
C. Expected unfunded actuarial accrued liability at end of year <i>(A. + B.4.)</i>	\$ 98,643
D. Increase (decrease) due to actuarial losses (gains) because of experience deviations from expected	
1. Salary increases	\$ (3,495)
2. Investment return (AVA)	8,864
3. Mortality of benefit recipients	1,016
4. Other items	(678)
5. Total	<u>\$ 5,707</u>
E. Unfunded actuarial accrued liability at end of year before plan amendments and changes in actuarial assumptions <i>(C. + D.5.)</i>	\$ 104,350
F. Change in unfunded actuarial accrued liability due to changes in plan provisions	\$ (8,499)
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 asset methods	\$ 0
I. Unfunded actuarial accrued liability at end of year <i>(E. + F. + G.+ H.)</i>	\$ 95,851

*\*Changes in the post-retirement investment return assumption required to value the change in the post-retirement benefit increase were included 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 UAAL, and an allowance for expenses.

	<b>Percent of Payroll</b>		<b>Dollar Amount</b>
<b>A. Statutory contributions – Chapter 490</b>			
1. Employee contributions*	7.54%	\$	3,119
2. Employer contributions	20.50%		8,480
3. Total	28.04%	\$	11,599
<b>B. Required contributions – Chapter 356</b>			
1. Normal cost			
a. Retirement benefits	14.92%	\$	6,172
b. Disability benefits	1.05%		433
c. Survivors	1.07%		442
d. Deferred retirement benefits	0.00%		0
e. Refunds due to death or withdrawal	0.06%		25
f. Total	17.10%	\$	7,072
2. Supplemental contribution amortization by July 1, 2038 of Unfunded Actuarial Accrued Liability	14.46%		5,982
3. Allowance for expenses	0.10%	\$	42
4. Total	31.66%	\$	13,096
<b>C. Contribution Sufficiency/(Deficiency) (A.3. – B.4.)</b>	<b>(3.62%)</b>	<b>\$</b>	<b>(1,497)</b>

Note: Projected annual payroll for fiscal year beginning on the valuation date: \$41,366.

\* For Judges who have reached the maximum benefit amount, employee contributions equal to 8% of pay are directed to the Unclassified Plan. The employee contribution amount of \$3,119 shown above is equal to 8% of a payroll amount of \$38,994, which excludes the payroll for Judges at the maximum level.

## 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 discount rate assumptions used in this calculation are 8.5% pre-retirement and 6.5% post-retirement, as described in the *Summary of Actuarial Assumptions*.
- 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 plan 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, 2010 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 June 30, 2038 assuming payroll increases of 4.00% per annum. If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll.

### 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.

<i>Investment return:</i>	6.50% compounded annually post-retirement. 8.50% compounded annually pre-retirement.															
<i>Benefit increases after retirement</i>	Payment of 2.0% annual benefit increases after retirement accounted for by using a 6.5% post-retirement assumption, as required by statute.															
<i>Salary increases</i>	4.00% annually.															
<i>Mortality rates</i>																
<i>Healthy Pre-retirement</i>	1983 Group Annuity Mortality for males set back four years 1983 Group Annuity Mortality for females set back two years															
<i>Healthy Post-retirement</i>	RP-2000 Combined Annuity Mortality, projected 8 years, with no collar adjustment															
<i>Disabled</i>	Combined Annuity Mortality.															
<i>Retirement</i>	Members retiring from active status are assumed to retire according to the following age related rates:															
	<table> <tr> <td>Ages:</td> <td>62-63</td> <td>10%</td> </tr> <tr> <td></td> <td>64</td> <td>5%</td> </tr> <tr> <td></td> <td>65-67</td> <td>20%</td> </tr> <tr> <td></td> <td>68-69</td> <td>30%</td> </tr> <tr> <td></td> <td>70</td> <td>100%</td> </tr> </table>	Ages:	62-63	10%		64	5%		65-67	20%		68-69	30%		70	100%
Ages:	62-63	10%														
	64	5%														
	65-67	20%														
	68-69	30%														
	70	100%														
<i>Withdrawal</i>	None.															
<i>Disability</i>	Rates based on actual experience, as shown in rate table.															
<i>Commencement of deferred benefits</i>	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 65.															
<i>Allowance for Combined Service Annuity</i>	Liabilities for former members are increased by 30.00% to account for the effect of some participants having eligibility for a Combined Service Annuity.															
<i>Administrative expenses</i>	Prior year administrative expenses expressed as percentage of prior year payroll.															
<i>Form of payment</i>	Members are assumed to elect a life annuity.															
<i>Percentage married</i>	Marital status as indicated by data.															
<i>Age of spouse</i>	Female are assumed to be three years younger than males.															
<i>Changes in actuarial assumptions</i>	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 Actuarial Assumptions *(continued)*

#### Summary of Rates

Age	Rate (%)					
	Pre-retirement Mortality		Post-retirement Mortality		Disability	
	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.03%	0.02%	0.00%	0.00%
25	0.04	0.02	0.03	0.02	0.00	0.00
30	0.05	0.03	0.04	0.02	0.02	0.00
35	0.06	0.04	0.07	0.04	0.02	0.01
40	0.09	0.06	0.10	0.06	0.02	0.02
45	0.14	0.08	0.14	0.10	0.03	0.05
50	0.25	0.14	0.18	0.15	0.14	0.10
55	0.43	0.21	0.31	0.25	0.34	0.24
60	0.66	0.34	0.59	0.49	0.76	0.62
65	1.01	0.58	1.14	0.93	0.00	0.00
70	1.76	0.97	1.97	1.61	0.00	0.00

## Actuarial Basis

### Summary of Plan Provisions

This summary of provisions reflects the interpretation of applicable Statutes for purposes of preparing this valuation. This interpretation is not intended to create or rescind any benefit rights in conflict with any Minnesota Statutes.

<i>Plan year</i>	July 1 through June 30
<i>Eligibility</i>	A judge or justice of any court. If the member was active prior to January 1, 1974, benefits may be computed according to provisions of the prior plan.
<b>Contributions</b>	
<i>Member</i>	8.00% of salary (8.15% if Basic Member). Contributions after maximum benefit is reached are redirected to the Unclassified Plan.
<i>Employer</i>	20.50% of salary. Employee contributions are “picked up” according to the provisions of Internal Revenue Code 414(h).
<i>Allowable service</i>	Service as a judge. Half credit is received for service not compensated at an annual salary or for service while entitled to practice law. Credit may also be earned for uncredited judicial service if the appropriate employee contributions, with interest, are made.
<i>Salary</i>	Salary set by law.
<i>Average salary</i>	Average of the five highest years of salary of the last 10 years prior to retirement.
<b>Retirement</b>	
<i>Normal retirement benefit</i>	
<i>Age/Service requirements</i>	(a.) Age 65 and five years of Allowable Service. (b.) Age 70 (mandatory retirement age)
<i>Amount</i>	2.70% of Average Salary for each year of Allowable Service prior to July 1, 1980 and 3.20% of Average Salary for each year of Allowable Service after June 30, 1980. Maximum benefit of 76.80% of Average Salary.

## Actuarial Basis

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

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#### **Retirement** (*continued*)

##### Early retirement benefit

*Age/Service requirements*

Age 60 and five years of Allowable Service.

*Amount*

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 65 at time of retirement.

##### Form of payment

Life annuity. Actuarially equivalent options are:

- (a.) 50%, 75% or 100% joint and survivor with no bounce back feature
- (b.) 50%, 75% or 100% bounce back feature
- (c.) 10 or 15-year certain and life thereafter

##### Benefit increases

Benefit recipients receive future annual 2.0% benefit increases. If the accrued liability 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.

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#### **Disability**

##### Disability benefit

*Age/service requirement*

Permanent inability to perform the function of judge.

*Amount*

No benefit is paid by the Fund. Instead salary is continued for one year but not beyond age 70. Employee contributions continue and Allowable Service is earned. If disability continues after the first year (or at age 70 if earlier), the larger of 25.00% of Average Salary or the Normal Retirement Benefit, without reduction.

##### Retirement after disability

*Age/service requirement*

Member is still disabled after salary payments cease after one year or at age 70, if earlier.

*Amount*

No change in disability benefit amount from pre-retirement computed benefit amount.

##### Form of payment

Same as for retirement.

##### Benefit increases

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Same as for retirement.

## Actuarial Basis

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

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#### **Death**

##### Survivor's benefit

<i>Age/service requirement</i>	Active or disabled member dies before retirement or a former member eligible for a deferred annuity dies.
<i>Amount</i>	Larger of 25% of Average Salary or 60% of Normal Retirement Benefit had the member retired at date of death.  Benefit paid to spouse for life. If no spouse, benefit is paid to surviving dependent children until child marries, dies, or attains age 18 (age 22 if full-time student).
<i>Benefit increases</i>	Same as for retirement.

##### Prior survivor's benefit

<i>Age/service requirement</i>	Retired member dies who did not elect an optional annuity and such member retired prior to January 1, 1974 and continued contributing 4.00% of pay to provide this post-retirement death benefit.
<i>Amount</i>	50% of retired member's benefit continues to the surviving spouse if married three years. Benefit begins immediately unless spouse is not yet age 40 and continues to death.
<i>Benefit Increases</i>	Same as for retirement.

##### Refund of contributions

<i>Age/service requirement</i>	Member dies prior to retirement or former member eligible for a deferred annuity dies and survivors' benefits are not payable.
<i>Amount</i>	Member's contributions with 6.00% interest until June 30, 2011 and 4.00% thereafter.

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## Actuarial Basis

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

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<b><i>Termination</i></b>	
<u><i>Refund of contributions</i></u>	
<i>Age/service requirement</i>	Termination of service as a judge.
<i>Amount</i>	Member's contributions with 6.00% interest until June 30, 2011, 4.00% thereafter. If a member is vested, a deferred annuity may be elected in lieu of a refund.
<u><i>Deferred benefit</i></u>	
<i>Age/service requirement</i>	Five years of Allowable Service.
<i>Amount</i>	Benefit computed under law in effect at termination. 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%.
<i>Form of Payment</i>	Same as for retirement.
<hr/>	
<i>Changes in plan provisions</i>	The following changes in plan provisions are reflected in this valuation:  Post-retirement benefit increases change from 2.5% to 2.0% 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 interest earned on member contributions was changed from 6.0% to 4.0% as of July 1, 2011.  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.

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

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

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

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a)/(b)	Actual Covered Payroll (Previous FY) (c)	UAAL as a Percentage of Covered Payroll $\frac{(b) - (a)}{(c)}$
07/01/1991	\$ 33,559	\$ 78,429	\$ 44,870	42.79%	\$ 18,410	243.73%
07/01/1992	37,768	83,969	46,201	44.98%	22,765	202.95%
07/01/1993	44,156	90,509	46,353	48.79%	22,084	209.89%
07/01/1994	50,428	98,313	47,885	51.29%	22,264	215.08%
07/01/1995	56,813	102,238	45,425	55.57%	22,877	198.56%
07/01/1996	64,851	108,150	43,299	59.96%	22,421	193.12%
07/01/1997	74,681	117,714	43,033	63.44%	22,909	187.84%
07/01/1998	86,578	130,727	44,149	66.23%	24,965	176.84%
07/01/1999	97,692	139,649	41,957	69.96%	32,940	127.37%
07/01/2000	111,113	153,660	42,547	72.31%	26,315	161.68%
07/01/2001	123,589	165,244	41,655	74.79%	28,246	147.47%
07/01/2002	131,379	171,921	40,542	76.42%	31,078	130.45%
07/01/2003	134,142	176,291	42,149	76.09%	33,771	124.81%
07/01/2004	138,948	190,338	51,390	73.00%	34,683	148.17%
07/01/2005	144,465	191,414	46,949	75.47%	35,941	130.63%
07/01/2006	151,850	202,301	50,451	75.06%	36,529	138.11%
07/01/2007	153,562	214,297	60,735	71.66%	36,195	167.80%
07/01/2008	147,542	231,623	84,081	63.70%	38,296	219.56%
07/01/2009	147,120	241,815	94,695	60.84%	39,444	240.07%
07/01/2010	144,728	240,579	95,851	60.16%	39,291	243.95%

<sup>1</sup> 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<sup>1</sup> (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) = (d)	Actual Employer Contributions <sup>2</sup> (e)	Percentage Contributed (e)/(d)
1991	23.59%	\$ 18,410	\$ 799	\$ 3,544	\$ 0	0.00%
1992	25.10%	22,765	988	4,726	4,722	99.92%
1993	26.59%	22,084	1,409	4,463	4,845	108.56%
1994	26.29%	22,264	1,416	4,437	4,912	110.71%
1995	28.27%	22,877	1,455	5,012	5,162	102.99%
1996	27.32%	22,421	1,426	4,699	4,972	105.81%
1997	27.01%	22,909	1,457	4,731	6,632	140.18%
1998	27.60%	24,965	1,570	5,320	7,129	134.00%
1999	27.32%	32,940	2,069	6,930	7,051	101.75%
2000	26.75%	26,315	2,107	4,932	7,298	147.97%
2001 <sup>3</sup>	24.58%	28,246	2,162	4,781	7,793	163.00%
2002	26.72%	31,078	2,345	5,959	8,369	140.44%
2003 <sup>4</sup>	26.82%	33,771	2,574	6,483	6,923	106.79%
2004	26.73%	34,683	2,643	6,628	7,110	107.27%
2005	29.42%	35,941	2,662	7,912	7,225	91.32%
2006	29.14%	36,529	2,866	7,779	7,336	94.30%
2007	30.73%	36,195	2,792	8,331	7,572	90.88%
2008 <sup>5</sup>	33.70%	38,296	2,861	10,045	7,936	79.00%
2009 <sup>6, 7</sup>	30.33%	39,444	2,978	8,985	8,219	91.47%
2010 <sup>8</sup>	31.53%	39,291	2,988	9,400	8,282	88.11%
2011 <sup>9</sup>	31.66%					

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

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

<sup>3</sup> Actuarially Required Contribution Rate prior to change in plan provisions and Asset Valuation Method is 26.81%.

<sup>4</sup> Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 26.75%.

<sup>5</sup> Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 31.61%.

<sup>6</sup> Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 38.78%.

<sup>7</sup> 2008 results revised as per our December 9, 2009 letter to MSRS' Executive Director.

<sup>8</sup> Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 32.46%.

<sup>9</sup> Actuarially Required Contribution Rate prior to changes in Assumptions and Plan Provisions is 33.56%.

## Glossary

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

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

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

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

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

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

**EA.** Enrolled Actuary.

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

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

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

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

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

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

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

# MERCER



MARSH MERCER KROLL  
GUY CARPENTER OLIVER WYMAN

Mercer (US) Inc.  
333 South 7th Street, Suite 1600  
Minneapolis, MN 55402-2427  
612 642 8600