December 2008

Judges Retirement Fund

Actuarial Valuation Report as of July 1, 2008

MERCER

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Contents

Highlights

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

- Present the results of a valuation of the Judges Retirement Fund as of July 1, 2008.
- Review experience under the Plan for the year ended June 30, 2008.
- Provide reporting and disclosure information for governmental agencies and other interested parties.

Contributions

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

	Plan Year Ending	
Contributions	**June 30, 2009**	**June 30, 2008***
Statutory Contributions – Chapter 490 (% of Payroll)	27.93%	28.07%
Required Contributions – Chapter 356 (% of Payroll)	28.15%	33.70%
Sufficiency / (Deficiency)	(0.22%)	(5.63%)

The "Plan Assets" section provides detail on the plan assets used for the valuation including a development of the actuarial value of assets. The market value of assets earned (5.2%) for the plan year ending June 30, 2008 as compared to the assumed rate of 8.5%. Only 20% of the non-MPRIF asset loss will be recognized in the actuarial value of assets. The remainder will be recognized over the next four years. The actuarial value of assets earned (1.1%) for the plan year ending June 30, 2008 as compared to the assumed rate of 8.5%.

Participant reconciliation and statistics are detailed in the "Participant 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 actuarial assumptions, methods and plan provisions since the July 1, 2007 valuation are reflected in this report and summarized in the Actuarial Basis section.

* *Provided by The Segal Company.*

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, 2008	**July 1, 2007***
Contributions *(% of Payroll)*		
Statutory – Chapter 490**	27.93%	28.07%
Required – Chapter 356	28.15%	33.70%
Sufficiency / (Deficiency)	(0.22%)	(5.63%)
Funding Ratios *(dollars in thousands)*		
Accrued Benefit Funding Ratio		
– Current assets (AVA)	$ 147,542	$ 153,562
– Current benefit obligation	222,380	204,108
– Funding ratio	66.35%	75.24%
Accrued Liability Funding Ratio		
– Current assets (AVA)	$ 147,542	$ 153,562
– Actuarial accrued liability	231,623	214,297
– Funding ratio	63.70%	71.66%
Projected Benefit Funding Ratio		
– Current and expected future assets	$ 200,892	$ 244,237
– Current and expected future benefit obligations	280,007	266,262
– Funding ratio	71.75%	91.73%
Participant Data		
Active members		
– Number	308	308
– Projected annual earnings *(000s)*	$ 42,911	$ 37,974
– Average annual earnings *(projected)*	$ 139,322	$ 123,294
– Average age	56.4	56.4
– Average service	10.9	11.1
Service retirements	181	171
Survivors	89	83
Disability retirements	9	9
Deferred retirements	19	18
Terminated other non-vested	0	0
Total	**606**	**589**

* *Provided by The Segal Company.*

** *Statutory contributions reflect the fact that employee contributions for Judges at the maximum benefit level are directed to the Unclassified Plan.*

Effects of Changes

The following assumption changes or methods were recognized as of July 1, 2008:

- The full funding date is reset to June 30, 2038.
- Lower salary increase rates from 5.0% to 4.0% per annum at all ages.
- Change payroll growth assumption from 5.0% to 4.0%.
- Reduce retirement rate at age 64 from 10% to 5%, and increase retirement rate at age 70 from 30% to 100%.
- For healthy retirees and beneficiaries, the Post Retirement Mortality table assumption changed to the RP-2000 Combined Annuity Mortality table, projected 8 years, with no collar adjustment. Previously, the 1983 Group Annuity Mortality table was used.

These changes had the combined impact on the valuation results:

- $2.5 million increase in actuarial accrued liability
- A decrease in the required contribution of 11.3% of pay.

The basis for determining benefit increases for benefit recipients was revised since the last valuation as of July 1, 2007. See the Summary of Plan Provisions for detail. This change in plan provisions had no impact on the results in this valuation.

Certification

We have prepared an actuarial valuation of the Judges Retirement Fund as of July 1, 2008 for the plan year ending June 30, 2009. This report reflects the provisions of the Plan effective July 1, 2008. To the best of our knowledge, this actuarial valuation was performed in accordance with the requirements of Minnesota Statutes, Section 356.215 and the requirements of the Standards of Actuarial Work established by the Minnesota Legislative Commission on Pensions and Retirement.

This report has been prepared exclusively for the Minnesota State Retirement System and the Legislative Commission on Pensions and Retirement to determine the annual required contribution and present accounting results required under GASB Nos. 25 (as amended by GASB 50) and 27. Mercer is not responsible for consequences arising from the use of any elements of this report for any other than their intended purpose. Determinations for other purposes may be significantly different from the results shown in this report.

A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it is neither a prediction of a pension plan's future financial condition nor a prediction of a pension plan's ability to pay benefits in the future.

Over time, a plan's total cost will depend on a number of factors, including the amount of benefits it pays, the number of people to whom it pays them, and the amount earned on any assets invested to pay the benefits. These amounts and others are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities. To prepare this report, *actuarial assumptions*, as described within, are used to select a single scenario from the range of possibilities. The results of that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from valuation to valuation based on experience, changes in expectations about the future, and other factors.

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

Data

We used and relied on financial data submitted by the Fund without further audit. We have also used and relied on participant data supplied by the Fund; this data would customarily not be verified by the Fund's actuary. We have reviewed the participant data for internal consistency and have no reason to doubt its substantial accuracy. The Fund is solely responsible for the validity and completeness of this information.

Contributions

All costs, liabilities and other factors for the Fund were determined in accordance with generally accepted actuarial principles and procedures, in accordance with the provisions of current federal and state statutes and regulations issued thereunder. The economic assumptions are set in Minnesota Statutes, and the remaining assumptions are adopted by the Legislative Commission on Pensions and Retirement. We believe that these assumptions are reasonable. This report fully and fairly discloses the actuarial position of the Fund on an ongoing basis.

Certification

Professional Qualifications

We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

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

Stephen T. McElhaney — 12/5/2008

Stephen T. McElhaney, FSA, EA, MAAA — **Date**
Principal

Bonita J. Wurst — 12/5/2008

Bonita J. Wurst, ASA, EA, MAAA — **Date**
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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, 2008 *(Dollars in Thousands)*

	Market Value	Cost Value
Assets in Trust		
▪ Cash, equivalents, short term securities	$ 782	$ 782
▪ Fixed income	11,187	11,914
▪ Equity	36,106	37,885
▪ Real estate	0	0
▪ Equity in MPRIF	100,097	124,153
▪ Other	14,923	14,923
Total assets in trust	**$ 163,095**	**$ 189,657**
Assets Receivable	258	258
Total Assets	**$ 163,353**	**$ 189,915**
Amounts Payable	(14,980)	(14,980)
Due to MPRIF (for mortality losses)	(2,285)	(2,285)
Net Assets	**$ 146,088**	**$ 172,650**
Net assets held in trust for pension benefits		
▪ MPRIF reserves	100,097	124,153
▪ Member reserves	25,450	25,450
▪ Other non-MPRIF reserves	20,541	23,047
Total assets available for benefits	**$ 146,088**	**$ 172,650**

Plan Assets

Reconciliation of Plan Assets

The following exhibit shows the revenue, expenses and resulting assets of the Fund as reported by Minnesota State Retirement System and the Minnesota State Board of Investment, for the Plan's Fiscal Year July 1, 2007 to June 30, 2008.

Change in Assets *(dollars in thousands)*	**Non-MPRIF Assets**	**MPRIF Reserve**	**Market Value**
1. Fund balance at market value at July 1, 2007	$ 53,546	$ 105,818	$ 159,364
2. Contributions			
a. Member	2,860	0	2,860
b. Employer	7,935	0	7,935
c. Other sources	0	0	0
d. Total contributions	$ 10,795	$ 0	$ 10,795
3. Investment income			
a. Interest income	$ (2,227)	$ (6,423)	$ (8,650)
b. Investment expenses	(76)	(150)	(226)
c. Net subtotal	$ (2,303)	$ (6,573)	$ (8,876)
4. Other	(24)	0	(24)
5. Total income *(2.d. + 3.c. + 4)*	**$ 8,468**	**$ (6,573)**	**$ 1,895**
6. Benefits Paid			
a. Annuity benefits	$ (1,225)	$ (13,892)	$ (15,117)
b. Refunds	0	0	0
c. Total benefits paid	$ (1,225)	(13,892)	(15,117)
7. Expenses			
a. Other	$ 0	$ 0	$ 0
b. Administrative	(54)	0	(54)
c. Total expenses	$ (54)	$ 0	$ (54)
8. Total disbursements *(6.c. + 7.c.)*	**$ (1,279)**	**$ (13,892)**	**$ (15,171)**
9. Other changes in reserves			
a. Annuities awarded	$ (12,459)	$ 12,459	$ 0
b. MPRIF mortality loss	(2,285)	2,285	0
c. Change in assumptions	0	0	0
d. Total other changes	$ (14,744)	$ 14,744	$ 0
10. Fund balance at market value at June 30, 2008 *(1. + 5. + 8. + 9.d.)*	**$ 45,991**	**$ 100,097**	**$ 146,088**

Plan Assets

Actuarial Asset Value *(Dollars in Thousands)*

					June 30, 2008
1. Market value of assets available for benefits				$	146,088
2. Determination of average balance					
a. Non-MPRIF assets available at July 1, 2007					53,546
b. Non-MPRIF assets available at June 30, 2008 (before MPRIF mortality adjustment)					48,276
c. Net investment income for fiscal year ending June 30, 2008					(2,327)
d. Average balance *[a. + b. – c.] / 2*					52,075
3. Expected return *[8.5% * 2.d.]*					4,426
4. Actual return					(2,327)
5. Current year unrecognized asset return					(6,753)
6. Unrecognized asset returns					
		Original Amount	**% Not Recognized**		
a. Year ended June 30, 2008	$	(6,753)	80%	$	(5,403)
b. Year ended June 30, 2007		4,970	60%		2,982
c. Year ended June 30, 2006		2,105	40%		842
d. Year ended June 30, 2005		626	20%		125
e. Total unrecognized return				$	(1,454)
7. Actuarial value at June 30, 2008 *(1. – 6.e.)*				**$**	**147,542**

Membership Data

Distribution of Active Participants

	Years of Service as of June 30, 2008									
Age	**<1**	**1- 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 +**	**Total**
Under 20										**0**
Avg. Earnings										**N/A**
20 – 24										**0**
Avg. Earnings										**N/A**
25 – 29										**0**
Avg. Earnings										**N/A**
30 – 34										**0**
Avg. Earnings										**N/A**
35 – 39	1									**1**
Avg. Earnings	125,363									**125,363**
40 – 44	15	3								**18**
Avg. Earnings	122,470	128,091								**123,407**
45 – 49	24	13	6							**43**
Avg. Earnings	123,235	125,678	126,727							**124,461**
50 – 54	19	22	11	5						**57**
Avg. Earnings	119,190	127,508	125,785	128,253						**124,468**
55 – 59	12	20	19	17	10					**78**
Avg. Earnings	122,533	125,772	121,880	126,469	124,591					**124,326**
60 – 64	8	17	14	19	29					**87**
Avg. Earnings	126,760	125,363	126,706	126,655	117,501					**123,369**
65+		2	8	5	9					**24**
Avg. Earnings		129,454	126,392	131,608	127,128					**128,010**
Total	**79**	**77**	**58**	**46**	**48**	**0**	**0**	**0**	**0**	**308***
Avg. Earnings	**122,394**	**126,348**	**124,909**	**127,298**	**120,783**	**N/A**	**N/A**	**N/A**	**N/A**	**124,338**

* *Includes 21 active Judges at the service cap.*

Membership Data

Distribution of Service Retirements

	Years Retired as of June 30, 2008							
Age	**<1**	**1 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25 +**	**Total**
<50								**0**
50 – 54								**0**
Avg. Benefit								**N/A**
55 – 59		2						**2**
Avg. Benefit		48,247						**48,247**
60 – 64	4	8						**12**
Avg. Benefit	64,813	49,129						**54,357**
65 – 69	10	21	8					**39**
Avg. Benefit	60,642	57,354	47,784					**56,234**
70 – 74	3	9	24	4				**40**
Avg. Benefit	53,177	56,906	58,079	80,090				**59,649**
75 – 79			14	17	4			**35**
Avg. Benefit			44,081	73,074	62,690			**60,290**
80 – 84			1	16	15	2		**34**
Avg. Benefit			79,628	69,655	77,302	60,067		**72,758**
85+				1	4	11	3	**19**
Avg. Benefit				38,317	80,453	73,227	102,237	**77,491**
Total	**17**	**40**	**47**	**38**	**23**	**13**	**3**	**181**
Avg. Benefit	**60,306**	**55,153**	**52,616**	**71,458**	**75,309**	**71,202**	**102,237**	**62,896**

Membership Data

Distribution of Disability Retirements

	Years Since Retirement as of June 30, 2008								
Age	**0 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 +**	**Total**
<50									**0**
Avg. Benefit									**N/A**
50 – 54	1								**1**
Avg. Benefit	46,817								**46,817**
55 – 59									**0**
Avg. Benefit									**N/A**
60 – 64	1	1							**2**
Avg. Benefit	75,186	36,768							**55,977**
65 – 69	1								**1**
Avg. Benefit	51,855								**51,855**
70 – 74		1							**1**
Avg. Benefit		80,289							**80,289**
75 – 79									**0**
Avg. Benefit									**N/A**
80 – 84				1	1	1			**3**
Avg. Benefit				74,884	91,668	63,902			**76,818**
85+					1				**1**
Avg. Benefit					124,215				**124,215**
Total	**3**	**2**	**0**	**1**	**2**	**1**	**0**	**0**	**9**
Avg. Benefit	**57,953**	**58,529**	**N/A**	**74,884**	**107,942**	**63,902**	**N/A**	**N/A**	**71,732**

Membership Data

Distribution of Survivors

	Years Retired as of June 30, 2008							
Age	**<1**	**1 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25 +**	**Total**
<50								**0**
Avg. Benefits								**N/A**
50 – 54		1	1					**2**
Avg. Benefit		38,441	26,341					**32,391**
55 – 59	2	2		2		2		**8**
Avg. Benefit	26,663	37,436		43,180		52,112		**39,848**
60 – 64	1	2	2		1	1		**7**
Avg. Benefit	22,152	48,369	41,403		44,899	77,484		**46,297**
65 – 69		2		2	1			**5**
Avg. Benefit		21,645		46,437	44,536			**36,140**
70 – 74				1		1		**2**
Avg. Benefit				70,718		42,080		**56,399**
75 – 79	2	2	3	5	2			**14**
Avg. Benefit	53,226	50,986	40,034	36,430	32,535			**41,125**
80 – 84		3	8	7	1	2	6	**27**
Avg. Benefit		46,864	33,328	51,044	53,740	40,338	37,212	**41,564**
85+	2	4	2	5	3	1	7	**24**
Avg. Benefit	37,536	48,224	62,594	48,961	36,041	64,778	34,694	**43,905**
Total	**7**	**16**	**16**	**22**	**8**	**7**	**13**	**89**
Avg. Benefit	**36,714**	**43,050**	**38,816**	**47,010**	**39,546**	**52,749**	**35,856**	**42,167**

Membership Data

Reconciliation of Members*

		Terminated		Recipients			
	Actives	Deferred Retirement	Other Non-vested	Service Retirements	Disability Retirements	Survivors	Total
Members on 7/1/2007	**291**	**35**	**0**	**171**	**9**	**83**	**589**
New entrants	19	0	0	0	0	0	**19**
Return to active	0	0	0	0	0	0	**0**
Terminated non-vested	0	0	0	0	0	0	**0**
Service retirements	(12)	(5)	0	17	0	0	**0**
Terminated deferred	(10)	10	0	0	0	0	**0**
Terminated refund	0	0	0	0	0	0	**0**
Deaths	(1)	0	0	(6)	0	(2)	**(9)**
New beneficiary	0	0	0	0	0	7	**7**
Disabled	0	0	0	0	0	0	**0**
Benefits expired	0	0	0	0	0	0	**0**
Data correction	0	0	0	(1)	0	1	**0**
Net change	(4)	5	0	10	0	6	**17**
Members on 6/30/2008	**287**	**40**	**0**	**181**	**9**	**89**	**606**

* *Provided by MSRS. Twenty-one active Judges at the service cap are included in the Deferred Retirement category.*

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.

						June 30, 2008
A. Actuarial Value of Assets					$	147,542
B. Expected future assets						
1. Present value of expected future statutory supplemental contributions					$	4,966
2. Present value of future normal costs						48,384
3. Total expected future assets *(1. + 2.)*					$	53,350
C. Total current and expected future assets					$	200,892
		Non-Vested		Vested		Total
D. Current benefit obligations						
1. Benefit recipients						
a. Service requirements	$	0	$	99,564	$	99,564
b. Disability		0		5,058		5,058
c. Survivors		0		26,976		26,976
2. Deferred retirements with augmentation		0		4,372		4,372
3. Former members without vested rights		0		0		0
4. Active Members		3,260		83,150		86,410
5. Total Current Benefit Obligations	$	3,260	$	219,120	$	222,380
E. Expected Future Benefit Obligations					$	57,627
F. Total Current and Expected Future Benefit Obligations					$	280,007
G. Unfunded Current Benefit Obligations *(D.5. – A.)*					$	74,838
H. Unfunded Current and Future Benefit Obligations *(F. – C.)*					$	79,115

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	$ 130,737	$ 41,766	$ 88,971
b. Disability benefits	5,968	3,085	2,883
c. Survivor's benefits	7,079	3,484	3,595
d. Deferred retirements	0	0	0
e. Refunds due to death or withdrawal	253	49	204
f. Total	$ 144,037	$ 48,384	$ 95,653
2. Deferred retirements with future augmentation	4,372	0	4,372
3. Former members without vested rights	0	0	0
4. Annuitants in MPRIF	124,780	0	124,780
5. Recipients not in MPRIF	6,818	0	6,818
6. Total	$ 280,007	$ 48,384	$ 231,623

B. Determination of Unfunded Actuarial Accrued Liability (UAAL)	
1. Actuarial accrued liability	$ 231,623
2. Current assets	147,542
3. Unfunded actuarial accrued liability	$ 84,081
C. Determination of Supplemental Contribution Rate	
1. Present value of future payrolls through the amortization date of July 1, 2038	$ 712,299
2. Supplemental Contribution Rate *(B.3. / C.1.)*	11.81%

Development of Costs

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

		Year Ending June 30, 2008
A. Unfunded actuarial accrued liability at beginning of year	$	60,735
B. Changes due to interest requirements and current rate of funding		
1. Normal cost and actual administrative expenses	$	6,903
2. Contributions		(10,797)
3. Interest on A., B.1. and B.2.		4,997
4. Total *(B.1. + B.2. + B.3.)*	$	1,103
C. Expected unfunded actuarial accrued liability at end of year *(A. + B.4.)*	$	61,838
D. Increase (decrease) due to actuarial losses (gains) because of experience deviations from expected		
1. Salary increases	$	(2,359)
2. Investment return		14,568
3. MPRIF Mortality		2,285
4. Mortality of other benefit recipients		525
5. Other items*		4,742
6. Total	$	19,761
E. Unfunded actuarial accrued liability at end of year before plan amendments and changes in actuarial assumptions *(C. + D.6.)*	$	81,599
F. Change in unfunded actuarial accrued liability due to changes in plan provisions	$	0
G. Change in unfunded actuarial accrued liability due to changes in actuarial assumptions	$	2,482
H. Unfunded actuarial accrued liability at end of year *(E. + F. + G.)*	$	84,081

* *Approximately $4.6 million of the liability loss is due to differences in the way The Segal Company's and Mercer's valuation systems apply the actuarial cost method.*

Development of Costs

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

	Percent of Payroll		Dollar Amount
A. Statutory contributions – Chapter 490			
1. Employee contributions*	7.43%	$	3,186
2. Employer contributions	20.50%		8,797
3. Total	27.93%	$	11,983
B. Required contributions – Chapter 356			
1. Normal cost			
a. Retirement benefits	14.00%	$	6,008
b. Disability benefits	1.03%		442
c. Survivors	1.17%		501
d. Deferred retirement benefits	0.00%		0
e. Refunds due to death or withdrawal	0.01%		6
f. Total	16.21%	$	6,957
2. Supplemental contribution amortization by July 1, 2038 of Unfunded Actuarial Accrued Liability			
a. Due to unfunded MPRIF liability	3.47%	$	1,489
b. Due to unfunded non-MPRIF liability	8.33%		3,574
c. Total supplemental contribution amortization	11.80%	$	5,063
3. Allowance for expenses	0.14%	$	60
4. Total	28.15%	$	12,080
C. Contribution Sufficiency/(Deficiency) *(A.3. – B.4.)*	(0.22%)	$	(97)

Note: Projected annual payroll for fiscal year beginning on the valuation date: $42,911.

* *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 shown is based on a total payroll of $39,828, 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 participants' 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 retirement termination, disability or death.

At the time the funding method is introduced, there will be a liability which represents the contributions which would have been accumulated if this method of funding had always been used. The difference between this liability and the assets (if any) which are held in the fund is the unfunded liability which is typically funded over a chosen period in accordance with the amortization schedule.

A detailed description of the calculation follows:

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

- The present value of present value of future normal costs is the total of the discounted values of all active participants' 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 participants, 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 cost.
- 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.

Actuarial Basis

Actuarial Valuation Method

MPRIF Reserve: Market Value

Non-MPRIF Assets: 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 expected asset value plus the scheduled recognition of investment gains or (losses) during the current and the preceding four plan years.

Payment on the Unfunded Actuarial Accrued Liability

A level percentage of payroll each year to the statutory amortization date of July 1, 2038 (July 1, 2020 last year) assuming payroll increases of 4.00% per annum (5.00% last year). If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years as a level percentage of payroll.

Actuarial Basis

Summary of Actuarial Assumptions

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

Investment return:	6.0% compounded annually post-retirement. 8.5% compounded annually pre-retirement.
Benefit increases after retirement	Payment of benefit increases after retirement accounted for by using a 6.00% post-retirement assumption.
Salary increases	4.00% annually.
Mortality rates	
Healthy Pre-retirement	1983 Group Annuity Mortality for males set back four years 1983 Group Annuity Mortality for females set back two years
Healthy Post-retirement	RP-2000 Combined Annuity Mortality, projected 8 years, with no collar adjustment
Disabled	Combined Annuity Mortality.
Retirement	Age related table as follows: Ages: 62-63 10% 64 5% 65-67 20% 68-69 30% 70 & over 100%
Withdrawal	None.
Disability	Rates based on actual experience, as shown in rate table.
Allowance for Combined Service Annuity	Liabilities for former members are increased by 30.00% to account for the effect of some participants having eligibility for a Combined Service Annuity.
Administrative expenses	Prior year administrative expenses expressed as percentage of prior year payroll.
Percentage married	Marital status as indicated by data.
Age of spouse	Female are assumed to be three years younger than males.
Changes in actuarial assumptions	The following changes were recognized as of July 1, 2008: ▪ The full funding date is reset to June 30, 2038. ▪ Lower salary increase rates from 5.0% to 4.0% per annum at all ages. ▪ Change payroll growth assumption from 5.0% to 4.0%. ▪ Reduce retirement rate at age 64 from 10% to 5%, and increase retirement rate at age 70 from 30% to 100%. ▪ For healthy retirees and beneficiaries, the Post Retirement Mortality table assumption changed to the RP-2000 Combined Annuity Mortality table, projected 8 years, with no collar adjustment. Previously, the 1983 Group Annuity Mortality table was used.

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Summary of Rates

	Rate (%)					
	Pre-retirement Mortality		Post-retirement Mortality		Disability	
Age	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.

Plan year	July 1 through June 30
Eligibility	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.
Contributions	
Member	8.00% of salary (8.15% if Basic Member). Basic Members who were active prior to January 1, 1974 may contribute 4.00% to a special survivor retirement account. Contributions after maximum benefit is reached are redirected to the Unclassified Plan.
Employer:	20.50% of salary.
Allowable service	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.
Salary	Salary set by law.
Average salary	Average of the five highest years of salary of the last 10 years prior to retirement.
Retirement	
Normal retirement benefit	
Age/Service requirements	(a.) Age 65 and five years of Allowable Service. (b.) Age 70.
Amount	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.
Early retirement benefit	
Age/Service requirements	Age 62 and five years of Allowable Service.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Retirement *(continued)*	
Early retirement benefit (continued)	
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% or 100% joint and survivor (b.) 50% or 100% bounce back feature (c.) 10 or 15-year certain and life thereafter
Benefit increases	The inflation-based benefit increase provided by the Minnesota Post Retirement Investment Fund (Post Fund) to benefit recipients is equal to 100 percent of CPI-W, but not to exceed 2.5 percent. An additional benefit increase may be provided to any individuals who have lost purchasing power compared to the value of the benefit they initially received when their benefit first commenced. This additional benefit increase can only be paid if the Post Fund composite funding ratio is at least 90 percent, if the rate of return earned on Post Fund assets exceeds 8.5 percent for the year, and if the inflation rate certified for the year is less than 2.5 percent. If the Post Fund has a funding ratio of 100 percent or more, an additional inflation component will be paid when CPI-W inflation exceeds 2.5 percent. An overall cap of 5.0 percent annually on benefit recipient adjustments is effective June 30, 2010.
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.
Retirement after disability	
Age/service requirement	Member is still disabled after salary payments cease after one year or at age 70, if earlier.
Amount	Larger of 25.00% of Average Salary or the Normal Retirement Benefit, without reduction.
Benefit increases	Same as for retirement.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Death	
<u>*Survivor's benefit*</u>	
Age/service requirement	Active or disabled member dies before retirement or a former member eligible for a deferred annuity dies.
Amount	Larger of 25% of Average Salary or 60% of Normal Retirement Benefit had the member retired at date of death. If a member becomes deceased prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefit as of July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%. Benefit 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).
Benefit increases	Same as for retirement.
<u>*Prior survivor's benefit*</u>	
Age/service requirement	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.
Amount	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. If a member becomes deceased prior to July 1, 1997 and the beneficiary was not eligible to commence their survivor benefit as of July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%.
Benefit Increases	Adjusted by MSRS to provide same increase as MPRIF.
<u>*Refund of contributions*</u>	
Age/service requirement	Member dies prior to retirement or former member eligible for a deferred annuity dies and survivors' benefits are not payable.
Amount	Member's contributions with 5.00% interest.

Actuarial Basis

Summary of Plan Provisions *(continued)*

Termination	
Refund of contributions	
Age/service requirement	Termination of service as a judge.
Amount	Member's contributions with 5.00% interest. A deferred annuity may be elected in lieu of a refund.
Deferred benefit	
Age/service requirement	Five years of Allowable Service.
Amount	Benefit computed under law in effect at termination. Amount is payable as a normal or early retirement annuity. 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%.
Changes in plan provisions	Revised Minnesota Post Retirement Investment Fund Benefit Increase The inflation-based benefit increase provided by the Minnesota Post Retirement Investment Fund (Post Fund) to benefit recipients is equal to 100 percent of CPI-W, but not to exceed 2.5 percent. An additional benefit increase may be provided to any individuals who have lost purchasing power compared to the value of the benefit they initially received when their benefit first commenced. This additional benefit increase can only be paid if the Post Fund composite funding ratio is at least 90 percent, if the rate of return earned on Post Fund assets exceeds 8.5 percent for the year, and if the inflation rate certified for the year is less than 2.5 percent. If the Post Fund has a funding ratio of 100 percent or more, an additional inflation component will be paid when CPI-W inflation exceeds 2.5 percent. An overall cap of 5.0 percent annually on benefit recipient adjustments is effective June 30, 2010. Potential Dissolution of Minnesota Post Fund If the Post Fund composite funding ratio is less than 80 percent in any one year, or less than 85 percent in two consecutive years, the Post Fund must be dissolved, and assets will be transferred back to the applicable plan and be merged with the active member assets for that plan. If the Post Fund is dissolved, not withstanding any other law, the benefit recipients will receive an annual 2.5 percent increase in lieu of any other benefit increase.

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	$ 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%

[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) = (d)	Actual Employer Contributions[2] (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[3]	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[4]	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[5]	33.70%	38,296	2,861	10,045	7,936	79.00%
2009[6]	28.15%					

[1] *Information prior to 2008 provided by The Segal Company.*
[2] *Includes contributions from other sources (if applicable).*
[3] *Actuarially Required Contribution Rate prior to change in plan provisions and Asset Valuation Method is 26.81%.*
[4] *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 26.75%.*
[5] *Actuarially Required Contribution Rate prior to change in Asset Valuation Method is 31.61%.*
[6] *Actuarially Required Contribution Rate prior to change in Actuarial Assumptions is 38.78%..*

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.

FSA. Fellow of the Society 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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