

**Judges' Retirement System
of the
State of Montana**

**GASB 67 Report
as of
June 30, 2014**

Produced by [Cheiron](#)

November 2014

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**JUDGES' RETIREMENT SYSTEM
GASB 67 REPORTING FOR JUNE 30, 2014 MEASUREMENT DATE**

BOARD SUMMARY

The purpose of this report is to provide accounting and financial disclosure information under Government Accounting Standards Board Statement 67 for the Judges' Retirement System and the State of Montana. This information includes:

- Projection of the Total Pension Liability from the valuation date to the measurement date,
- Calculation of the Net Pension Liability at the discount rate as well as discount rates 1% higher and lower than the discount rate,
- Changes in the Net Pension Liability, and
- Schedule of Employer Contributions.

Highlights

This report is the first report under GASB 67. The reporting date for the State of Montana Judges' Retirement System (JRS) is June 30, 2014. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2014 and the Total Pension Liability as the valuation date of, June 30, 2013, updated to June 30, 2014. There were no significant events between the valuation date and the measurement date so the update procedures only included the addition of service cost and interest cost offset by actual benefit payments.

Beginning of year measurements are also based on the actuarial valuation as of June 30, 2013. Because the beginning and ending values are based on the same actuarial valuation and there were no significant events, no liability gains or losses due to experience are reported this year. In future years, liability gains and losses will be reported reflecting the liability gains and losses between actuarial valuation dates as well as any significant events during the update period.

The table below provides a summary of the key results during this reporting period.

	Table 1	
	Summary of Results	
	Measurement Date	
	6/30/14	6/30/2013
Total Pension Liability	\$ 51,631,895	\$ 49,236,164
Plan Fiduciary Net Position	<u>84,222,842</u>	<u>72,792,380</u>
Net Pension Liability	<u>\$ (32,590,947)</u>	<u>\$ (23,556,216)</u>
Discount Rate	7.75%	7.75%

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CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the State of Montana Judges' Retirement System (JRS). This report is for the use of JRS, the State of Montana and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report is not appropriate for other purposes, including the measurement of funding requirements for JRS.

In preparing our report, we relied on information (some oral and some written) supplied by JRS. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The membership data, actuarial assumptions and plan provisions are the same as were described in the June 30, 2013 Actuarial Valuation Report for JRS, except that it has been assumed that the rate of investment return is net only of investment expenses, rather than net of both investment and administrative expenses. The administrative expense rate is assumed to be 0.15% of active member payroll.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: Plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

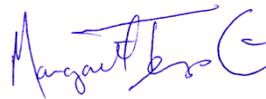
To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared for JRS for the purposes described herein and for the use by the Plan auditor in completing an audit related to the matters herein. This report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Sincerely,
Cheiron



Stephen T. McElhaney, FSA, FCA, EA, MAAA
Principal Consulting Actuary



Margaret Tempkin, FSA, EA, MAAA
Principal Consulting Actuary

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DETERMINATION OF DISCOUNT RATE

The discount rate as June 30, 2014 is 7.75% which is the assumed long-term expected rate of return on System investments. Projections of the System's fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current Plan members following the procedures described in paragraphs 39 - 45 of GASB Statement 67. The results of these projections are included within this report at Appendix B.

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PROJECTION OF TOTAL PENSION LIABILITY

The Total Pension Liability (TPL) at the beginning of the measurement year is measured as of a valuation date of June 30, 2013. The TPL at June 30, 2013 is the same as was reported for actuarial valuation purposes as of June 30, 2013. The TPL at the end of the measurement year, June 30, 2014, is measured as of a valuation date of June 30, 2013 and projected to June 30, 2014. In future years, both the beginning and end of year TPL will be measured as of a valuation date one year prior and projected to the appropriate date. There were no significant events during the projection period of which we are aware. The table below shows the projection of the TPL at discount rates equal to the rate used for disclosure and plus and minus one percent from the rate used for disclosure. TPL and Service Cost have been determined using the entry age actuarial cost method as described in paragraph 46 of GASB Statement 67.

Table 2			
Projection of Total Pension Liability			
Discount Rate	6.75%	7.75%	8.75%
Total Pension Liability, 6/30/2013			
Actives	\$ 19,593,368	\$ 17,527,513	\$ 15,745,157
Deferred Vested Retirees	-	-	-
	<u>34,456,380</u>	<u>31,708,651</u>	<u>29,330,047</u>
Total	\$ 54,049,748	\$ 49,236,164	\$ 45,075,204
Service Cost, Beginning of Year			
Service Cost Rate	29.06%	24.67%	21.05%
Expected Payroll During Year	6,460,697	6,460,697	6,460,697
Service Cost	\$ 1,877,479	\$ 1,593,854	\$ 1,359,977
Benefit Payments	\$ 3,022,512	\$ 3,022,512	\$ 3,022,512
Interest	\$ 3,674,744	\$ 3,824,389	\$ 3,933,616
Change in Benefits	0	0	0
Change in Assumptions	0	0	0
Other Significant Events	0	0	0
Total Pension Liability, 6/30/2014	\$ 56,579,458	\$ 51,631,895	\$ 47,346,285

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NOTE DISCLOSURES

The table below shows the changes in the Total Pension Liability, the Plan Fiduciary Net Position (i.e., fair value of System assets), and the Net Pension Liability during the Measurement Year.

Table 3			
Change in Net Pension Liability			
	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 6/30/2013	\$ 49,236,164	\$ 72,792,380	\$ (23,556,216)
Changes for the year:			
Service cost	1,593,854		1,593,854
Interest	3,824,389		3,824,389
Changes of benefits	0		0
Changes of assumptions	0		0
Differences between expected and actual experience	0		0
Contributions - employer		1,651,483	(1,651,483)
Contributions - non-employer		0	0
Contributions - member		481,461	(481,461)
Net investment income		12,420,597	(12,420,597)
Benefit payments	(3,022,512)	(3,022,512)	0
Administrative expense		(100,567)	100,567
Net changes	<u>2,395,731</u>	<u>11,430,462</u>	<u>(9,034,731)</u>
Balances at 6/30/2014	<u>\$ 51,631,895</u>	<u>\$ 84,222,842</u>	<u>\$ (32,590,947)</u>

There were no changes in benefits or changes in assumptions during the year. Because the beginning and end of year TPL are both based on the same actuarial valuation, there are no differences between expected and actual experience reported this year.

Total contributions and investment income exceeded the service cost, interest cost and administrative expenses, resulting in a decrease in the Net Pension Liability (NPL) of \$9,034,731. The NPL remaining as of June 30, 2014, is \$(32,590,947).

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NOTE DISCLOSURES

Changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a relatively small change in the discount rate. The table below shows the sensitivity of the NPL to the discount rate.

Table 4			
Sensitivity of Net Pension Liability to Changes in Discount Rate			
	1% Decrease 6.75%	Discount Rate 7.75%	1% Increase 8.75%
Total Pension Liability	\$ 56,579,458	\$ 51,631,895	\$ 47,346,285
Plan Fiduciary Net Position	<u>84,222,842</u>	<u>84,222,842</u>	<u>84,222,842</u>
Net Pension Liability	<u>\$ (27,643,384)</u>	<u>\$ (32,590,947)</u>	<u>\$ (36,876,557)</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	148.9%	163.1%	177.9%

A one percent decrease in the discount rate increases the TPL by approximately 9.6% and increases the NPL by approximately 15.2%. A one percent increase in the discount rate decreases the TPL by approximately 8.3% and decreases the NPL by approximately 13.1%.

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REQUIRED SUPPLEMENTARY INFORMATION

The schedules of Required Supplementary Information generally start with one year of information as of the implementation of GASB 67, but eventually will need to build up to 10 years of information. The schedule below shows the changes in NPL and related ratios required by GASB.

Table 5	
Schedule of Changes in Net Pension Liability and Related Ratios	
	FYE 2014
<u>Total Pension Liability</u>	
Service cost (BOY)	\$ 1,593,854
Interest (includes interest on service cost)	3,824,389
Changes of benefit terms	0
Differences between expected and actual experience	0
Changes of assumptions	0
Benefit payments, including refunds of member contributions	(3,022,512)
Net change in total pension liability	2,395,731
Total pension liability - beginning	49,236,164
Total pension liability - ending	\$ 51,631,895
<u>Plan fiduciary net position</u>	
Contributions - employer	\$ 1,651,483
Contributions - non-employer	0
Contributions - member	481,461
Net investment income	12,420,597
Benefit payments, including refunds of member contributions	(3,022,512)
Administrative expense	(100,567)
Net change in plan fiduciary net position	\$ 11,430,462
Plan fiduciary net position - beginning	72,792,380
Plan fiduciary net position - ending	\$ 84,222,842
Net pension liability - ending	\$ (32,590,947)
Plan fiduciary net position as a percentage of the total pension liability	163.12%
Covered employee payroll	\$ 6,354,763
Net pension liability as a percentage of covered employee payroll	-512.86%

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REQUIRED SUPPLEMENTARY INFORMATION

If an Actuarially Determined Contribution is calculated, the following schedule is required. An Actuarially Determined Contribution is a contribution amount determined in accordance with Actuarial Standards of Practice.

Table 6	
Schedule of Employer Contributions	
Last Fiscal Year	
Dollar Amounts in Thousands	
2014	
Actuarially Determined Contribution	\$ -
Contributions in Relation to the Actuarially Determined Contribution	
Employer Contributions	\$ 1,651
Non-Employer Contributions	<u>0</u>
Total Contributions	<u>\$ 1,651</u>
Contribution Deficiency/(Excess)	<u>\$ (1,651)</u>
Covered-Employee Payroll	\$ 6,355
Contributions as a Percentage of Covered-Employee Payroll	25.98%

**APPENDIX A
GLOSSARY OF TERMS**

1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

3. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 67 calculations. Under this method, the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total Pension Liability.

4. Measurement Date

The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the plan.

5. Net Pension Liability

The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Plan Fiduciary Net Position.

6. Plan Fiduciary Net Position

The fair or market value of assets.

7. Reporting Date

The last day of the plan or employer's fiscal year.

APPENDIX A
GLOSSARY OF TERMS

8. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 67 and 68. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

9. Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 67 and 68. The Total Pension Liability is the actuarial liability calculated under the entry age actuarial cost method.

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**APPENDIX B
DEVELOPMENT OF DISCOUNT RATE**

Table 1 - Projection of Contributions

Amounts in Thousands, Projections Commence June 30, 2013, Actual Amounts Shown for Year 1 (except Payroll)

* Total covered-employee payroll increases 4.00% per year

Year	Projected Covered Employee Payroll			Projected Contributions			
	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll * (c) = (a) + (b)	Contributions for Current Employees (d) = (a) x EE Rate	Employer Contributions for Current Employees (e) = (a) x ER Rate	Contributions Related to Payroll of Future Employees (f) = (b) x AL Rate	Total Contributions (g) = (d) + (e) + (f)
1	\$ 6,461	\$ 0	\$ 6,461	\$ 469	\$ 1,664	\$ 0	\$ 2,133
2	6,068	651	6,719	425	1,566	53	2,044
3	5,933	1,055	6,988	415	1,531	86	2,032
4	5,937	1,330	7,267	416	1,532	108	2,056
5	5,495	2,063	7,558	385	1,418	168	1,971
6	5,065	2,795	7,860	355	1,307	228	1,889
7	5,004	3,171	8,175	350	1,292	258	1,900
8	4,724	3,778	8,502	331	1,219	308	1,857
9	4,078	4,764	8,842	285	1,052	388	1,726
10	3,859	5,337	9,196	270	996	434	1,701
11	3,640	5,923	9,563	255	940	482	1,676
12	3,311	6,635	9,946	232	855	540	1,626
13	3,217	7,127	10,344	225	830	580	1,636
14	2,932	7,826	10,758	205	757	637	1,599
15	2,669	8,518	11,188	187	689	693	1,569
16	2,426	9,209	11,635	170	626	750	1,546
17	1,989	10,112	12,101	139	513	823	1,476
18	1,757	10,828	12,585	123	453	881	1,458
19	1,254	11,834	13,088	88	324	963	1,375
20	844	12,768	13,612	59	218	1,039	1,316
21	820	13,337	14,156	57	212	1,086	1,354
22	494	14,228	14,722	35	128	1,158	1,320
23	349	14,962	15,311	24	90	1,218	1,332
24	342	15,582	15,924	24	88	1,268	1,380
25	334	16,227	16,561	23	86	1,321	1,430
26	208	17,015	17,223	15	54	1,385	1,453
27	203	17,709	17,912	14	53	1,441	1,508
28	178	18,451	18,629	12	46	1,502	1,560
29	173	19,200	19,374	12	45	1,563	1,620
30	169	19,980	20,149	12	44	1,626	1,682
31	164	20,790	20,955	12	42	1,692	1,746
32	160	21,633	21,793	11	41	1,761	1,813
33	0	22,665	22,665	0	0	1,845	1,845
34	0	23,571	23,571	0	0	1,919	1,919
35	0	24,514	24,514	0	0	1,995	1,995
36	0	25,494	25,494	0	0	2,075	2,075
37	0	26,514	26,514	0	0	2,158	2,158
38	0	27,575	27,575	0	0	2,245	2,245
39	0	28,678	28,678	0	0	2,334	2,334
40	0	29,825	29,825	0	0	2,428	2,428
41	0	31,018	31,018	0	0	2,525	2,525
42	0	32,259	32,259	0	0	2,626	2,626
43	0	33,549	33,549	0	0	2,731	2,731
44	0	34,891	34,891	0	0	2,840	2,840
45	0	36,287	36,287	0	0	2,954	2,954
46	0	37,738	37,738	0	0	3,072	3,072
47	0	39,248	39,248	0	0	3,195	3,195
48	0	40,817	40,817	0	0	3,323	3,323
49	0	42,450	42,450	0	0	3,455	3,455
50	0	44,148	44,148	0	0	3,594	3,594
51	0	45,914	45,914	0	0	3,737	3,737
52	0	47,751	47,751	0	0	3,887	3,887
53	0	49,661	49,661	0	0	4,042	4,042
54	0	51,647	51,647	0	0	4,204	4,204
55	0	53,713	53,713	0	0	4,372	4,372
56	0	55,862	55,862	0	0	4,547	4,547
57	0	58,096	58,096	0	0	4,729	4,729
58	0	60,420	60,420	0	0	4,918	4,918
59	0	62,837	62,837	0	0	5,115	5,115

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**APPENDIX B
DEVELOPMENT OF DISCOUNT RATE**

Table 1 - Projection of Contributions Continued

Amounts in Thousands, Projections Commence June 30, 2013, Actual Amounts Shown for Year 1 (except Payroll)

* Total covered-employee payroll increases 4.00% per year

Year	Projected Covered Employee Payroll			Projected Contributions			
	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll * (c) = (a) + (b)	Contributions for Current Employees (d) = (a) x EE Rate	Employer Contributions for Current Employees (e) = (a) x ER Rate	Contributions Related to Payroll of Future Employees (f) = (b) x AL Rate	Total Contributions (g) = (d) + (e) + (f)
60	0	65,350	65,350	0	0	5,320	5,320
61	0	67,964	67,964	0	0	5,532	5,532
62	0	70,683	70,683	0	0	5,754	5,754
63	0	73,510	73,510	0	0	5,984	5,984
64	0	76,450	76,450	0	0	6,223	6,223
65	0	79,508	79,508	0	0	6,472	6,472
66	0	82,689	82,689	0	0	6,731	6,731
67	0	85,996	85,996	0	0	7,000	7,000
68	0	89,436	89,436	0	0	7,280	7,280
69	0	93,014	93,014	0	0	7,571	7,571
70	0	96,734	96,734	0	0	7,874	7,874
71	0	100,604	100,604	0	0	8,189	8,189
72	0	104,628	104,628	0	0	8,517	8,517
73	0	108,813	108,813	0	0	8,857	8,857
74	0	113,165	113,165	0	0	9,212	9,212
75	0	117,692	117,692	0	0	9,580	9,580
76	0	122,400	122,400	0	0	9,963	9,963
77	0	127,296	127,296	0	0	10,362	10,362
78	0	132,387	132,387	0	0	10,776	10,776
79	0	137,683	137,683	0	0	11,207	11,207
80	0	143,190	143,190	0	0	11,656	11,656
81	0	148,918	148,918	0	0	12,122	12,122
82	0	154,874	154,874	0	0	12,607	12,607
83	0	161,069	161,069	0	0	13,111	13,111
84	0	167,512	167,512	0	0	13,635	13,635
85	0	174,213	174,213	0	0	14,181	14,181
86	0	181,181	181,181	0	0	14,748	14,748
87	0	188,428	188,428	0	0	15,338	15,338
88	0	195,966	195,966	0	0	15,952	15,952
89	0	203,804	203,804	0	0	16,590	16,590
90	0	211,956	211,956	0	0	17,253	17,253
91	0	220,435	220,435	0	0	17,943	17,943
92	0	229,252	229,252	0	0	18,661	18,661
93	0	238,422	238,422	0	0	19,408	19,408
94	0	247,959	247,959	0	0	20,184	20,184
95	0	257,877	257,877	0	0	20,991	20,991
96	0	268,193	268,193	0	0	21,831	21,831
97	0	278,920	278,920	0	0	22,704	22,704
98	0	290,077	290,077	0	0	23,612	23,612
99	0	301,680	301,680	0	0	24,557	24,557
100	0	313,747	313,747	0	0	25,539	25,539
101	0	326,297	326,297	0	0	26,561	26,561
102	0	339,349	339,349	0	0	27,623	27,623
103	0	352,923	352,923	0	0	28,728	28,728
104	0	367,040	367,040	0	0	29,877	29,877
105	0	381,722	381,722	0	0	31,072	31,072
106	0	396,990	396,990	0	0	32,315	32,315
107	0	412,870	412,870	0	0	33,608	33,608
108	0	429,385	429,385	0	0	34,952	34,952
109	0	446,560	446,560	0	0	36,350	36,350

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APPENDIX B
DEVELOPMENT OF DISCOUNT RATE

Table 2 - Projection of the Pension Plan's Fiduciary Net Position

Amounts in Thousands, Projections Commence June 30, 2013, Actual Amounts Shown for Year 1

* From Table 1 - Projection of Contributions, column (g)

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments (c)	Projected Administrative Expense (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
1	\$ 72,792	\$ 2,133	\$ 3,023	\$ 101	\$ 12,421	\$ 84,223
2	84,223	2,044	3,410	10	6,475	89,322
3	89,322	2,032	3,535	10	6,865	94,674
4	94,674	2,056	3,837	11	7,269	100,151
5	100,151	1,971	4,093	11	7,681	105,699
6	105,699	1,889	4,188	12	8,104	111,492
7	111,492	1,900	4,337	12	8,548	117,591
8	117,591	1,857	4,761	12	9,002	123,677
9	123,677	1,726	4,901	13	9,464	129,953
10	129,953	1,701	5,105	13	9,941	136,477
11	136,477	1,676	5,293	14	10,439	143,286
12	143,286	1,626	5,352	14	10,962	150,509
13	150,509	1,636	5,537	14	11,516	158,109
14	158,109	1,599	5,686	15	12,097	166,104
15	166,104	1,569	5,825	15	12,711	174,544
16	174,544	1,546	6,034	16	13,356	183,396
17	183,396	1,476	6,131	16	14,036	192,760
18	192,760	1,458	6,428	17	14,749	202,522
19	202,522	1,375	6,602	17	15,496	212,774
20	212,774	1,316	6,486	17	16,293	223,880
21	223,880	1,354	6,542	17	17,153	235,828
22	235,828	1,320	6,425	17	18,082	248,789
23	248,789	1,332	6,221	16	19,095	262,979
24	262,979	1,380	6,005	16	20,204	278,544
25	278,544	1,430	5,848	15	21,419	295,530
26	295,530	1,453	5,581	14	22,746	314,134
27	314,134	1,508	5,310	14	24,200	334,518
28	334,518	1,560	5,029	13	25,793	356,829
29	356,829	1,620	4,723	12	27,536	381,249
30	381,249	1,682	4,421	11	29,442	407,940
31	407,940	1,746	4,118	11	31,525	437,082
32	437,082	1,813	3,931	10	33,793	468,747
33	468,747	1,845	3,630	9	36,260	503,213
34	503,213	1,919	3,334	9	38,945	540,733
35	540,733	1,995	3,047	8	41,867	581,540
36	581,540	2,075	2,756	7	45,043	625,896
37	625,896	2,158	2,484	6	48,494	674,058
38	674,058	2,245	2,223	6	52,240	726,314
39	726,314	2,334	1,975	5	56,303	782,972
40	782,972	2,428	1,741	5	60,706	844,361
41	844,361	2,525	1,523	4	65,476	910,834
42	910,834	2,626	1,322	3	70,639	982,773
43	982,773	2,731	1,140	3	76,225	1,060,587
44	1,060,587	2,840	975	3	82,266	1,144,715
45	1,144,715	2,954	829	2	88,796	1,235,634
46	1,235,634	3,072	700	2	95,852	1,333,856
47	1,333,856	3,195	588	2	103,473	1,439,935
48	1,439,935	3,323	491	1	111,703	1,554,468
49	1,554,468	3,455	408	1	120,587	1,678,102
50	1,678,102	3,594	337	1	130,177	1,811,534
51	1,811,534	3,737	276	1	140,526	1,955,521
52	1,955,521	3,887	224	1	151,692	2,110,876
53	2,110,876	4,042	180	0	163,740	2,278,477
54	2,278,477	4,204	143	0	176,736	2,459,274
55	2,459,274	4,372	113	0	190,756	2,654,288
56	2,654,288	4,547	88	0	205,877	2,864,624
57	2,864,624	4,729	67	0	222,186	3,091,471
58	3,091,471	4,918	51	0	239,774	3,336,112
59	3,336,112	5,115	38	0	258,742	3,599,931

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APPENDIX B
DEVELOPMENT OF DISCOUNT RATE

Table 2 - Projection of the Pension Plan's Fiduciary Net Position Continued
Amounts in Thousands, Projections Commence June 30, 2013, Actual Amounts Shown for Year 1
** From Table 1 - Projection of Contributions, column (g)*

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments (c)	Projected Administrative Expense (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
60	3,599,931	5,320	28	0	279,196	3,884,418
61	3,884,418	5,532	21	0	301,252	4,191,181
62	4,191,181	5,754	15	0	325,035	4,521,954
63	4,521,954	5,984	11	0	350,679	4,878,605
64	4,878,605	6,223	8	0	378,328	5,263,149
65	5,263,149	6,472	6	0	408,140	5,677,755
66	5,677,755	6,731	4	0	440,282	6,124,764
67	6,124,764	7,000	3	0	474,935	6,606,696
68	6,606,696	7,280	2	0	512,296	7,126,270
69	7,126,270	7,571	1	0	552,574	7,686,414
70	7,686,414	7,874	1	0	595,996	8,290,284
71	8,290,284	8,189	1	0	642,808	8,941,280
72	8,941,280	8,517	0	0	693,273	9,643,070
73	9,643,070	8,857	0	0	747,675	10,399,601
74	10,399,601	9,212	0	0	806,319	11,215,132
75	11,215,132	9,580	0	0	869,537	12,094,249
76	12,094,249	9,963	0	0	937,683	13,041,895
77	13,041,895	10,362	0	0	1,011,141	14,063,398
78	14,063,398	10,776	0	0	1,090,323	15,164,498
79	15,164,498	11,207	0	0	1,175,675	16,351,380
80	16,351,380	11,656	0	0	1,267,675	17,630,711
81	17,630,711	12,122	0	0	1,366,841	19,009,674
82	19,009,674	12,607	0	0	1,473,729	20,496,009
83	20,496,009	13,111	0	0	1,588,939	22,098,060
84	22,098,060	13,635	0	0	1,713,118	23,824,813
85	23,824,813	14,181	0	0	1,846,962	25,685,957
86	25,685,957	14,748	0	0	1,991,222	27,691,927
87	27,691,927	15,338	0	0	2,146,708	29,853,973
88	29,853,973	15,952	0	0	2,314,289	32,184,214
89	32,184,214	16,590	0	0	2,494,907	34,695,711
90	34,695,711	17,253	0	0	2,689,574	37,402,538
91	37,402,538	17,943	0	0	2,899,379	40,319,860
92	40,319,860	18,661	0	0	3,125,499	43,464,020
93	43,464,020	19,408	0	0	3,369,200	46,852,628
94	46,852,628	20,184	0	0	3,631,846	50,504,658
95	50,504,658	20,991	0	0	3,914,909	54,440,558
96	54,440,558	21,831	0	0	4,219,973	58,682,362
97	58,682,362	22,704	0	0	4,548,746	63,253,813
98	63,253,813	23,612	0	0	4,903,068	68,180,493
99	68,180,493	24,557	0	0	5,284,922	73,489,972
100	73,489,972	25,539	0	0	5,696,444	79,211,955
101	79,211,955	26,561	0	0	6,139,937	85,378,453
102	85,378,453	27,623	0	0	6,617,880	92,023,956
103	92,023,956	28,728	0	0	7,132,949	99,185,633
104	99,185,633	29,877	0	0	7,688,023	106,903,533
105	106,903,533	31,072	0	0	8,286,205	115,220,810
106	115,220,810	32,315	0	0	8,930,842	124,183,967
107	124,183,967	33,608	0	0	9,625,535	133,843,110
108	133,843,110	34,952	0	0	10,374,170	144,252,232
109	144,252,232	36,350	0	0	11,180,930	155,469,512

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**APPENDIX B
DEVELOPMENT OF DISCOUNT RATE**

Table 3 - Actuarial Present Values of Projected Benefit Payments

Amounts in Thousands, Projections Commence June 30, 2013, Actual Amounts Shown for Year 1

* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

** From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (c)

Year (a)	Projected Beginning Fiduciary Net Position * (b)	Projected Benefit Payments for current plan participants ** (c)	"Funded" Portion of Benefit Payments (d) = (c) if (b) >= (c)	"Unfunded" Portion of Benefit Payments (e) = (c) - (d)	Present Value of "Funded" Benefit Payments (f) = (d) / (1+ 7.75%)^(a)	Present Value of "Unfunded" Benefit Payments (g) = (e) /(1+4.29%)^(a)	Present Value of Benefit Payments Using the Single Discount Rate (h) = (c)/(1+
1	\$ 72,792	\$ 3,023	\$ 3,023	\$ 0	\$ 2,805	\$ 0	\$ 2,805
2	84,223	3,410	3,410	0	2,937	0	2,937
3	89,322	3,535	3,535	0	2,826	0	2,826
4	94,674	3,837	3,837	0	2,846	0	2,846
5	100,151	4,093	4,093	0	2,818	0	2,818
6	105,699	4,188	4,188	0	2,676	0	2,676
7	111,492	4,337	4,337	0	2,572	0	2,572
8	117,591	4,761	4,761	0	2,620	0	2,620
9	123,677	4,901	4,901	0	2,503	0	2,503
10	129,953	5,105	5,105	0	2,420	0	2,420
11	136,477	5,293	5,293	0	2,329	0	2,329
12	143,286	5,352	5,352	0	2,185	0	2,185
13	150,509	5,537	5,537	0	2,098	0	2,098
14	158,109	5,686	5,686	0	2,000	0	2,000
15	166,104	5,825	5,825	0	1,901	0	1,901
16	174,544	6,034	6,034	0	1,828	0	1,828
17	183,396	6,131	6,131	0	1,724	0	1,724
18	192,760	6,428	6,428	0	1,677	0	1,677
19	202,522	6,602	6,602	0	1,599	0	1,599
20	212,774	6,486	6,486	0	1,458	0	1,458
21	223,880	6,542	6,542	0	1,364	0	1,364
22	235,828	6,425	6,425	0	1,244	0	1,244
23	248,789	6,221	6,221	0	1,117	0	1,117
24	262,979	6,005	6,005	0	1,001	0	1,001
25	278,544	5,848	5,848	0	905	0	905
26	295,530	5,581	5,581	0	801	0	801
27	314,134	5,310	5,310	0	708	0	708
28	334,518	5,029	5,029	0	622	0	622
29	356,829	4,723	4,723	0	542	0	542
30	381,249	4,421	4,421	0	471	0	471
31	407,940	4,118	4,118	0	407	0	407
32	437,082	3,931	3,931	0	361	0	361
33	468,747	3,630	3,630	0	309	0	309
34	503,213	3,334	3,334	0	264	0	264
35	540,733	3,047	3,047	0	223	0	223
36	581,540	2,756	2,756	0	188	0	188
37	625,896	2,484	2,484	0	157	0	157
38	674,058	2,223	2,223	0	130	0	130
39	726,314	1,975	1,975	0	107	0	107
40	782,972	1,741	1,741	0	88	0	88
41	844,361	1,523	1,523	0	71	0	71
42	910,834	1,322	1,322	0	58	0	58
43	982,773	1,140	1,140	0	46	0	46
44	1,060,587	975	975	0	37	0	37
45	1,144,715	829	829	0	29	0	29
46	1,235,634	700	700	0	23	0	23
47	1,333,856	588	588	0	18	0	18
48	1,439,935	491	491	0	14	0	14
49	1,554,468	408	408	0	11	0	11
50	1,678,102	337	337	0	8	0	8
51	1,811,534	276	276	0	6	0	6
52	1,955,521	224	224	0	5	0	5
53	2,110,876	180	180	0	3	0	3
54	2,278,477	143	143	0	3	0	3
55	2,459,274	113	113	0	2	0	2
56	2,654,288	88	88	0	1	0	1
57	2,864,624	67	67	0	1	0	1
58	3,091,471	51	51	0	1	0	1
59	3,336,112	38	38	0	0	0	0

**JUDGES' RETIREMENT SYSTEM
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**APPENDIX B
DEVELOPMENT OF DISCOUNT RATE**

Table 3 - Actuarial Present Values of Projected Benefit Payments Continued

Amounts in Thousands, Projections Commence June 30, 2013, Actual Amounts Shown for Year 1

* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

** From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (c)

Year (a)	Projected Beginning Fiduciary Net Position * (b)	Projected Benefit Payments for current plan participants ** (c)	"Funded" Portion of Benefit Payments (d) = (c) if (b) >= (c)	"Unfunded" Portion of Benefit Payments (e) = (c) - (d)	Present Value of "Funded" Benefit Payments (f) = (d) / (1+ 7.75%)^(a)	Present Value of "Unfunded" Benefit Payments (g) = (e) /(1+4.29%)^(a)	Present Value of Benefit Payments Using the Single Discount Rate (h) = (c) / (1+
60	3,599,931	28	28	0	0	0	0
61	3,884,418	21	21	0	0	0	0
62	4,191,181	15	15	0	0	0	0
63	4,521,954	11	11	0	0	0	0
64	4,878,605	8	8	0	0	0	0
65	5,263,149	6	6	0	0	0	0
66	5,677,755	4	4	0	0	0	0
67	6,124,764	3	3	0	0	0	0
68	6,606,696	2	2	0	0	0	0
69	7,126,270	1	1	0	0	0	0
70	7,686,414	1	1	0	0	0	0
71	8,290,284	1	1	0	0	0	0
72	8,941,280	0	0	0	0	0	0
73	9,643,070	0	0	0	0	0	0
74	10,399,601	0	0	0	0	0	0
75	11,215,132	0	0	0	0	0	0
76	12,094,249	0	0	0	0	0	0
77	13,041,895	0	0	0	0	0	0
78	14,063,398	0	0	0	0	0	0
79	15,164,498	0	0	0	0	0	0
80	16,351,380	0	0	0	0	0	0
81	17,630,711	0	0	0	0	0	0
82	19,009,674	0	0	0	0	0	0
83	20,496,009	0	0	0	0	0	0
84	22,098,060	0	0	0	0	0	0
85	23,824,813	0	0	0	0	0	0
86	25,685,957	0	0	0	0	0	0
87	27,691,927	0	0	0	0	0	0
88	29,853,973	0	0	0	0	0	0
89	32,184,214	0	0	0	0	0	0
90	34,695,711	0	0	0	0	0	0
91	37,402,538	0	0	0	0	0	0
92	40,319,860	0	0	0	0	0	0
93	43,464,020	0	0	0	0	0	0
94	46,852,628	0	0	0	0	0	0
95	50,504,658	0	0	0	0	0	0
96	54,440,558	0	0	0	0	0	0
97	58,682,362	0	0	0	0	0	0
98	63,253,813	0	0	0	0	0	0
99	68,180,493	0	0	0	0	0	0
100	73,489,972	0	0	0	0	0	0
101	79,211,955	0	0	0	0	0	0
102	85,378,453	0	0	0	0	0	0
103	92,023,956	0	0	0	0	0	0
104	99,185,633	0	0	0	0	0	0
105	106,903,533	0	0	0	0	0	0
106	115,220,810	0	0	0	0	0	0
107	124,183,967	0	0	0	0	0	0
108	133,843,110	0	0	0	0	0	0
109	144,252,232	0	0	0	0	0	0
					\$ 57,167	+ \$ 0	= \$ 57,167