



January 31, 2025

CONFIDENTIAL

Ms. Erin Leonard  
Executive Director  
Minnesota State Retirement System  
60 Empire Drive, Suite 300  
St. Paul, MN 55103

**Re: Projection of Contributions and Funding Status – Judges Retirement Fund**

Dear Ms. Leonard:

Attached are 30-year projections of estimated funded status, required contributions, and statutory contributions under three asset return scenarios for the Judges Retirement Fund. These projections, including the underlying investment return assumptions, are required by the Minnesota Standards for Actuarial Work. Unless noted otherwise, the estimates are based on participant data, assets, and plan provisions as outlined in the Judges Retirement Fund actuarial funding valuation as of July 1, 2024.

**Basis for Projections**

For all enclosed projections, liabilities are determined using the statutory investment return assumption of 7.0%. As required by the Minnesota Standards for Actuarial Work, the projections reflect three asset return scenarios (7.0%, 5.5% and 8.5%). Note that we believe the 8.5% rate of return assumption is outside of the range of reasonable expected returns for this plan.

The estimates are based on the market value of assets with no smoothing of investment gains or losses. Payroll is assumed to increase approximately 2.50% per year over the long term, consistent with the valuation assumption for total payroll growth.

The projection is an open group projection; meaning, active members projected to retire or otherwise terminate in the future are replaced with new active members so that the total active membership of the fund remains at 318 members. The profile of these new members is the same as new members hired between July 1, 2018 and June 30, 2023. Average salary at hire increases at the assumed payroll growth rate.

- Average age at hire is 47.4
- Average salary at hire is \$183,600
- Approximately 59% female, 41% male

If actuarial accrued liability exceeds assets, the unfunded actuarial accrued liability is amortized through June 30, 2048 per Minnesota Statute 356.215, Subdivision 11. Per Minnesota Statute 356.215, Subdivision 11 (l), a negative unfunded actuarial accrued liability (i.e., when assets exceed liability) is amortized over a rolling 30-year period.

The State of Minnesota provides supplemental contributions of \$6.0 million annually until the plan reaches 100% funding (on an Actuarial Value of Assets basis) for a minimum of three consecutive years, or July 1, 2048 if earlier. This supplemental contribution is projected to be eliminated in fiscal years ending 2040, 2047 and 2049 in the 8.5%, 7.0% and 5.5% investment return scenarios, respectively.

### **Comments**

The reader should keep the following in mind when reviewing these results:

- The enclosed projections are based on recommended assumption changes as outlined in the Minnesota Judges Retirement Fund Four-Year Experience Study for the period July 1, 2019 through June 30, 2023.
- Statutory contributions are defined in statutes as a fixed percentage of payroll plus any statutory supplemental contributions and represent the amount that is actually contributed to the plan. Required contributions are defined in statutes and the LCPR Standards for Actuarial Work and represent the amount needed to fully fund the plan by June 30, 2048 (normal cost, expenses and a payment to amortize the unfunded liability).
- Investment experience that has occurred since the measurement date is not reflected in this report.
- In the 7.0% and 8.5% investment return scenarios, surplus assets reduce the projected required contributions to amounts less than normal cost. We typically recommend the contribution be at least equal to the normal cost of the plan and suggest that plans with considerable surplus assets investigate the pros and cons of reducing the risk of the plan's investment allocation to preserve surplus assets.
- Note that as funding ratios decline, as they are expected to in one of the investment return scenarios shown in this letter, it will be increasingly difficult for the plan to attain the assumed scenario investment return. Each year, a larger proportion of assets is paid out in benefits, and less capital is available to invest.



**Disclosures**

The purpose of this report is to estimate the Fund's funding progress and required contribution rates over a 30-year period according to prescribed assumptions and the Minnesota Standards for Actuarial Work. To the best of our knowledge and belief, the calculations were completed in accordance with the requirements of Minnesota Statutes, Section 356.215, and the requirements of the Standards for Actuarial Work established by the Legislative Commission on Pensions and Retirement.

This report should not be relied upon for any purpose other than the purpose described herein. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results. GRS is not responsible for the consequences of any unauthorized use.

Actuarial assumptions, including discount rates, mortality tables and others identified in this report, are prescribed by Minnesota Statutes Section 356.215, the Legislative Commission on Pensions and Retirement (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 the valuation report, except as noted. MSRS is solely responsible for communicating to GRS any changes required thereto.

The combined effect of the assumptions is expected to have no significant bias (i.e., not significantly optimistic or pessimistic). All actuarial assumptions and methods used in this report follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions can be found in the Minnesota Judges Retirement Fund Four-Year Experience Study for the period July 1, 2019 through June 30, 2023.

The contribution rates shown in this report have been determined using the actuarial methods disclosed in the Actuarial Basis section of the July 1, 2024 valuation report and the recommended assumption changes as outlined in the Minnesota Judges Retirement Fund Four-Year Experience Study for the period July 1, 2019 through June 30, 2023. This valuation report includes risk metrics on pages 5-8, but does not include a robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

We have assessed that the contribution rate calculated under the 7.0% investment return scenario is a reasonable Actuarially Determined Employer Contribution (ADEC) and it is consistent with the plan accumulating adequate assets to make benefit payments when due.

The projections assume the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.



The valuation was based upon information furnished by the Minnesota State Retirement System (MSRS), concerning benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by MSRS.

This report was prepared using our proprietary valuation model and related software which, in our professional judgement, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Future actuarial measurements may differ significantly from the current measurements presented in this report 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; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

**Professional Qualifications**

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge and belief, the information contained in this report is accurate and fairly presents the actuarial position of the Judges Retirement Fund as of the valuation date and 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. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Bonita J. Wurst and Sheryl L. Christensen are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

Respectfully submitted,  
Gabriel, Roeder, Smith & Company

Bonita J. Wurst, ASA, EA, FCA, MAAA

Sheryl L. Christensen, FSA, EA, FCA, MAAA  
BJW/SLC:ah



## Other Observations

### General Implications of the Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the plan's contribution allocation procedure, if there are no changes in benefits, Chapter 356 required contributions are made, and all actuarial assumptions are met (including the assumption of the plan earning 7.00% on the actuarial value of assets, as prescribed by statutes), it is expected that:

- (1) The normal cost of the plan is expected to remain approximately level as a percent of pay;
- (2) The funded status of the plan is expected to gradually improve and is expected to be 100% funded within the next 24 years; and
- (3) The unfunded liability will decline as a dollar amount (based on the current 24-year amortization period and if contributions are equal to the required contribution amount).

### Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the market value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations; in other words, of transferring the obligations to an unrelated third party in an arm's length market value type transaction.
- (2) The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amounts of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon the actuarial assumptions. A funded status measurement in this report of 100% is not synonymous with no required future contributions. If the funded status were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).
- (3) The measurement would produce a different result if the actuarial value of assets were used instead of the market value of assets.

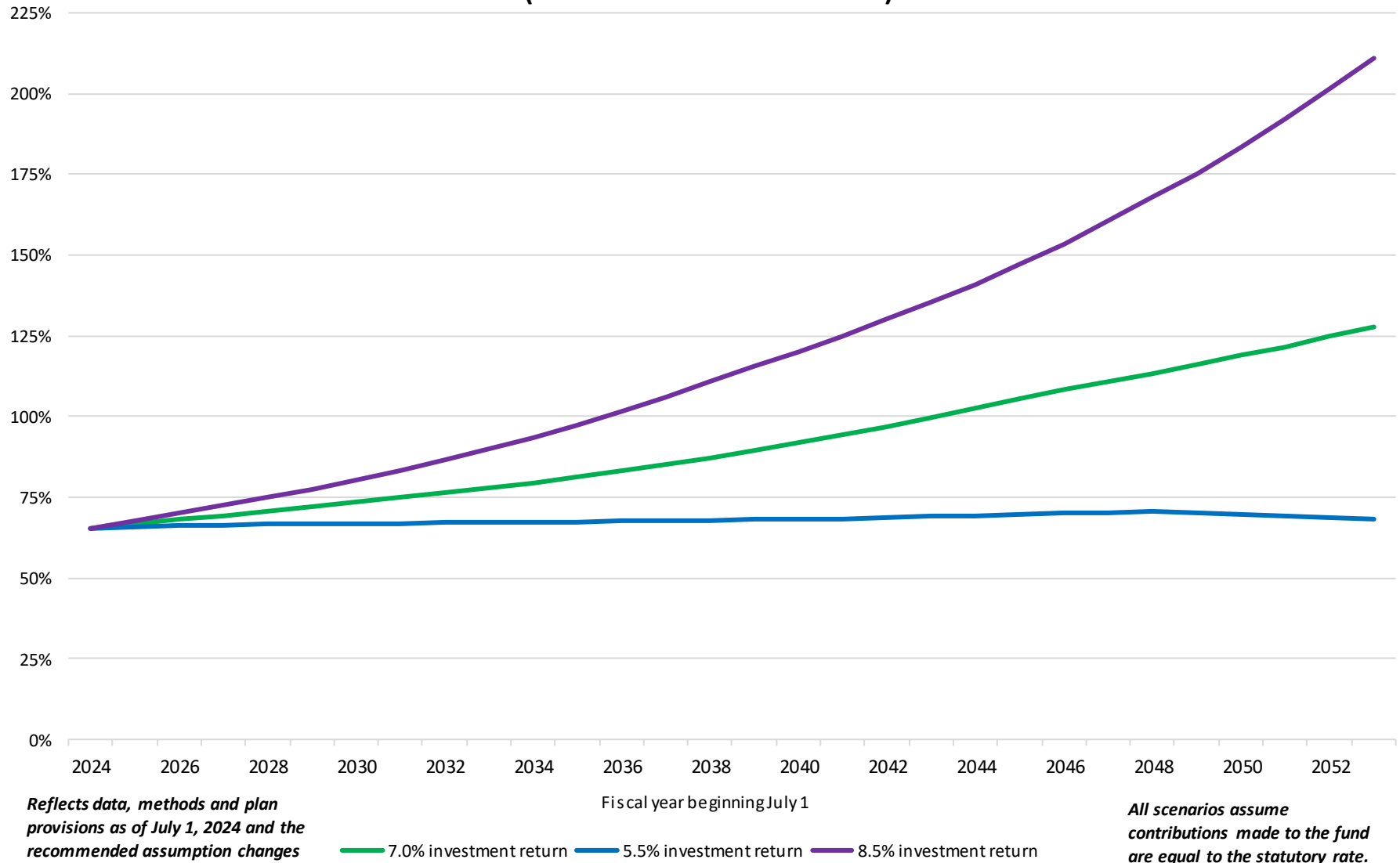
### Limitations of Project Scope

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

This exhibit should only be viewed in conjunction with GRS' January 31, 2025 letter to MSRS.

## MSRS Judges Retirement Fund Estimated Accrued Liability Funded Ratio (Market Value of Assets Basis)

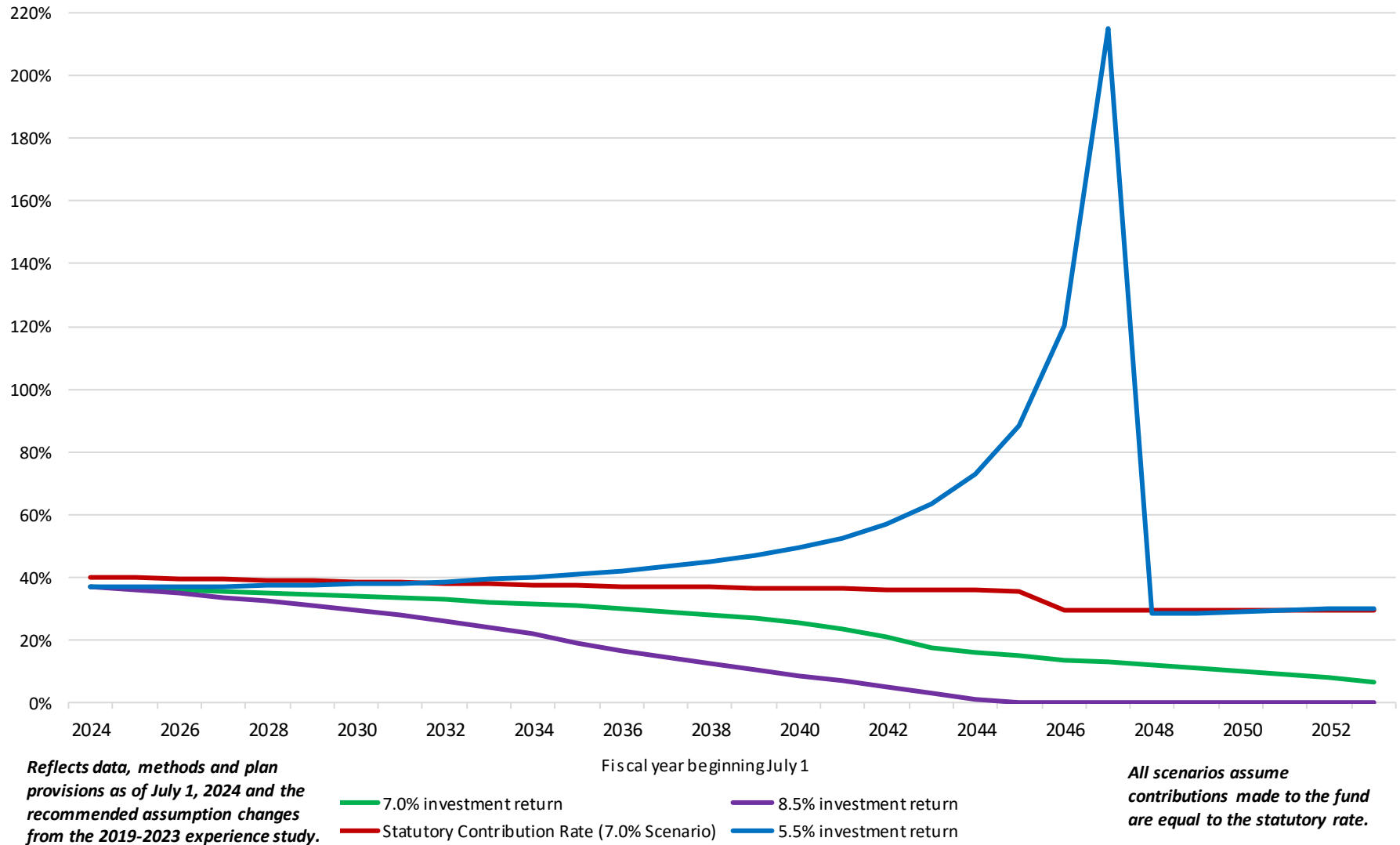
In all scenarios, the interest rate used to discount liabilities was 7.00%.



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## MSRS Judges Retirement Fund Estimated Required Contribution Rates (% of Pay, Market Value of Assets Basis)

In all scenarios, the interest rate used to discount liabilities was 7.00%.



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**Judges Retirement Fund**  
**Scenario: 7.0% Assumed Interest Rate**  
**Fiscal year beginning July 1**

<b>\$ in Thousands</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 490	40.12%	39.88%	39.54%	39.27%	39.01%	38.73%	38.47%	38.23%	38.00%	37.76%
Required - Chapter 356 (MVA)	36.67%	36.31%	35.74%	35.29%	34.83%	34.30%	33.77%	33.25%	32.69%	32.09%
Sufficiency / (Deficiency)	3.45%	3.57%	3.80%	3.98%	4.18%	4.43%	4.70%	4.98%	5.31%	5.67%
<b>Contributions</b>										
Statutory - Chapter 490	\$ 23,810	\$ 24,071	\$ 24,567	\$ 24,963	\$ 25,371	\$ 25,859	\$ 26,340	\$ 26,806	\$ 27,297	\$ 27,814
Required - Chapter 356 (MVA)	21,761	21,920	22,206	22,434	22,652	22,903	23,123	23,311	23,484	23,634
Sufficiency / (Deficiency)	2,049	2,151	2,361	2,529	2,719	2,956	3,217	3,495	3,813	4,180
<b>Funding Ratios</b>										
Current Assets (MVA)	\$294,703	\$307,669	\$320,708	\$333,864	\$347,172	\$360,638	\$374,162	\$388,012	\$402,174	\$416,814
Actuarial Accrued Liability (AAL)	450,288	461,086	471,664	481,809	491,648	501,153	510,116	518,784	527,130	535,265
Unfunded AAL	155,585	153,417	150,956	147,945	144,476	140,515	135,954	130,772	124,956	118,451
Funding Ratio	65.4%	66.7%	68.0%	69.3%	70.6%	72.0%	73.3%	74.8%	76.3%	77.9%
<b>Benefit Payments</b>										
Ratio of Assets to Benefit Payments	\$ 31,097	\$ 32,160	\$ 33,422	\$ 34,558	\$ 35,710	\$ 37,051	\$ 38,127	\$ 39,225	\$ 40,209	\$ 41,058
	9.48	9.57	9.60	9.66	9.72	9.73	9.81	9.89	10.00	10.15

*Numbers may not add due to rounding.*

*The interest rate used to discount liabilities was 7.0%.*





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**Judges Retirement Fund**  
**Scenario: 7.0% Assumed Interest Rate**  
**Fiscal year beginning July 1**

<b>\$ in Thousands</b>	<b>2034</b>	<b>2035</b>	<b>2036</b>	<b>2037</b>	<b>2038</b>	<b>2039</b>	<b>2040</b>	<b>2041</b>	<b>2042</b>	<b>2043</b>
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 490	37.54%	37.35%	37.14%	36.92%	36.74%	36.55%	36.38%	36.19%	36.04%	35.87%
Required - Chapter 356 (MVA)	31.44%	30.77%	29.99%	29.08%	28.06%	26.84%	25.36%	23.48%	21.03%	17.63%
Sufficiency / (Deficiency)	6.10%	6.58%	7.15%	7.84%	8.68%	9.71%	11.02%	12.71%	15.01%	18.24%
<b>Contributions</b>										
Statutory - Chapter 490	\$ 28,355	\$ 28,838	\$ 29,390	\$ 30,011	\$ 30,579	\$ 31,202	\$ 31,800	\$ 32,484	\$ 33,086	\$ 33,813
Required - Chapter 356 (MVA)	23,750	23,759	23,730	23,636	23,356	22,910	22,166	21,073	19,303	16,624
Sufficiency / (Deficiency)	4,605	5,079	5,660	6,375	7,223	8,292	9,634	11,411	13,783	17,189
<b>Funding Ratios</b>										
Current Assets (MVA)	\$432,132	\$448,302	\$465,325	\$483,241	\$502,333	\$522,729	\$544,577	\$568,008	\$593,228	\$620,286
Actuarial Accrued Liability (AAL)	543,330	551,442	559,616	567,780	576,105	584,717	593,654	603,013	612,848	623,222
Unfunded AAL	111,198	103,140	94,291	84,539	73,772	61,988	49,077	35,005	19,620	2,936
Funding Ratio	79.5%	81.3%	83.2%	85.1%	87.2%	89.4%	91.7%	94.2%	96.8%	99.5%
<b>Benefit Payments</b>										
Ratio of Assets to Benefit Payments	\$ 41,808	\$ 42,556	\$ 43,393	\$ 44,085	\$ 44,681	\$ 45,275	\$ 45,817	\$ 46,355	\$ 46,880	\$ 47,461
	10.34	10.53	10.72	10.96	11.24	11.55	11.89	12.25	12.65	13.07

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**Judges Retirement Fund**  
**Scenario: 7.0% Assumed Interest Rate**  
**Fiscal year beginning July 1**

<b>\$ in Thousands</b>	<b>2044</b>	<b>2045</b>	<b>2046</b>	<b>2047</b>	<b>2048</b>	<b>2049</b>	<b>2050</b>	<b>2051</b>	<b>2052</b>	<b>2053</b>
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 490	35.71%	35.56%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%
Required - Chapter 356 (MVA)	15.99%	14.84%	13.64%	12.77%	11.85%	10.90%	9.90%	8.85%	7.74%	6.61%
Sufficiency / (Deficiency)	19.72%	20.72%	15.86%	16.73%	17.65%	18.60%	19.60%	20.65%	21.76%	22.89%
<b>Contributions</b>										
Statutory - Chapter 490	\$ 34,492	\$ 35,219	\$ 29,958	\$ 30,797	\$ 31,544	\$ 32,407	\$ 33,270	\$ 34,163	\$ 34,991	\$ 35,959
Required - Chapter 356 (MVA)	15,445	14,694	13,854	13,335	12,666	11,975	11,166	10,252	9,176	8,056
Sufficiency / (Deficiency)	19,047	20,525	16,104	17,462	18,878	20,432	22,104	23,911	25,815	27,903
<b>Funding Ratios</b>										
Current Assets (MVA)	\$649,385	\$680,630	\$714,123	\$743,755	\$775,605	\$809,699	\$846,243	\$885,456	\$927,591	\$972,668
Actuarial Accrued Liability (AAL)	634,139	645,660	657,757	670,418	683,728	697,707	712,353	727,758	744,015	761,081
Unfunded AAL	(15,246)	(34,970)	(56,366)	(73,337)	(91,877)	(111,992)	(133,890)	(157,698)	(183,576)	(211,587)
Funding Ratio	102.4%	105.4%	108.6%	110.9%	113.4%	116.1%	118.8%	121.7%	124.7%	127.8%
<b>Benefit Payments</b>										
Ratio of Assets to Benefit Payments	\$ 48,032	\$ 48,693	\$ 49,423	\$ 50,118	\$ 50,845	\$ 51,641	\$ 52,391	\$ 53,107	\$ 53,936	\$ 54,839
	13.52	13.98	14.45	14.84	15.25	15.68	16.15	16.67	17.20	17.74

*Numbers may not add due to rounding.*

*The interest rate used to discount liabilities was 7.0%.*



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**Judges Retirement Fund**  
**Scenario: 5.5% Investment Return for All Years**  
**Fiscal year beginning July 1**

\$ in Thousands	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 490	40.12%	39.88%	39.54%	39.27%	39.01%	38.73%	38.47%	38.23%	38.00%	37.76%
Required - Chapter 356 (MVA)	36.67%	36.82%	36.79%	36.96%	37.18%	37.39%	37.69%	38.11%	38.60%	39.20%
Sufficiency / (Deficiency)	3.45%	3.06%	2.75%	2.31%	1.83%	1.34%	0.78%	0.12%	(0.60)%	(1.44)%
<b>Contributions</b>										
Statutory - Chapter 490	\$ 23,810	\$ 24,071	\$ 24,567	\$ 24,963	\$ 25,371	\$ 25,859	\$ 26,340	\$ 26,806	\$ 27,297	\$ 27,814
Required - Chapter 356 (MVA)	21,761	22,223	22,860	23,491	24,176	24,965	25,808	26,719	27,735	28,872
Sufficiency / (Deficiency)	2,049	1,848	1,707	1,472	1,195	894	532	87	(438)	(1,058)
<b>Funding Ratios</b>										
Current Assets (MVA)	\$294,703	\$303,304	\$311,549	\$319,459	\$327,040	\$334,269	\$341,018	\$347,522	\$353,731	\$359,772
Actuarial Accrued Liability (AAL)	450,288	461,086	471,664	481,809	491,648	501,153	510,116	518,784	527,130	535,265
Unfunded AAL	155,585	157,782	160,115	162,350	164,608	166,884	169,098	171,262	173,399	175,493
Funding Ratio	65.4%	65.8%	66.1%	66.3%	66.5%	66.7%	66.9%	67.0%	67.1%	67.2%
<b>Benefit Payments</b>										
Ratio of Assets to Benefit Payments	\$ 31,097	\$ 32,160	\$ 33,422	\$ 34,558	\$ 35,710	\$ 37,051	\$ 38,127	\$ 39,225	\$ 40,209	\$ 41,058
	9.48	9.43	9.32	9.24	9.16	9.02	8.94	8.86	8.80	8.76

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**Scenario: 5.5% Investment Return for All Years**  
**Fiscal year beginning July 1**

\$ in Thousands	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 490	37.54%	37.35%	37.14%	36.92%	36.74%	36.55%	36.38%	36.19%	36.04%	35.87%
Required - Chapter 356 (MVA)	39.91%	40.85%	41.92%	43.17%	44.78%	46.75%	49.31%	52.55%	57.06%	63.25%
Sufficiency / (Deficiency)	(2.37)%	(3.50)%	(4.78)%	(6.25)%	(8.04)%	(10.20)%	(12.93)%	(16.36)%	(21.02)%	(27.38)%
<b>Contributions</b>										
Statutory - Chapter 490	\$ 28,355	\$ 28,838	\$ 29,390	\$ 30,011	\$ 30,579	\$ 31,202	\$ 31,800	\$ 32,484	\$ 33,086	\$ 33,813
Required - Chapter 356 (MVA)	30,152	31,543	33,171	35,085	37,274	39,912	43,102	47,162	52,379	59,628
Sufficiency / (Deficiency)	(1,797)	(2,705)	(3,781)	(5,074)	(6,695)	(8,710)	(11,302)	(14,678)	(19,293)	(25,815)
<b>Funding Ratios</b>										
Current Assets (MVA)	\$365,800	\$371,942	\$378,145	\$384,393	\$390,907	\$397,745	\$404,986	\$412,677	\$420,939	\$429,728
Actuarial Accrued Liability (AAL)	543,330	551,442	559,616	567,780	576,105	584,717	593,654	603,013	612,848	623,222
Unfunded AAL	177,530	179,500	181,471	183,387	185,198	186,972	188,668	190,336	191,909	193,494
Funding Ratio	67.3%	67.4%	67.6%	67.7%	67.9%	68.0%	68.2%	68.4%	68.7%	69.0%
<b>Benefit Payments</b>										
Ratio of Assets to Benefit Payments	\$ 41,808	\$ 42,556	\$ 43,393	\$ 44,085	\$ 44,681	\$ 45,275	\$ 45,817	\$ 46,355	\$ 46,880	\$ 47,461
	8.75	8.74	8.71	8.72	8.75	8.79	8.84	8.90	8.98	9.05

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**Judges Retirement Fund**  
**Scenario: 5.5% Investment Return for All Years**  
**Fiscal year beginning July 1**

\$ in Thousands	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 490	35.71%	35.56%	35.41%	35.25%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%
Required - Chapter 356 (MVA)	72.72%	88.52%	120.24%	215.06%	28.32%	28.64%	28.98%	29.33%	29.74%	30.14%
Sufficiency / (Deficiency)	(37.01)%	(52.96)%	(84.83)%	(179.81)%	1.18%	0.86%	0.52%	0.17%	(0.24)%	(0.64)%
<b>Contributions</b>										
Statutory - Chapter 490	\$ 34,492	\$ 35,219	\$ 35,958	\$ 36,797	\$ 31,544	\$ 32,407	\$ 33,270	\$ 34,163	\$ 34,991	\$ 35,959
Required - Chapter 356 (MVA)	70,236	87,675	122,104	224,519	30,281	31,464	32,683	33,968	35,275	36,741
Sufficiency / (Deficiency)	(35,744)	(52,456)	(86,146)	(187,722)	1,263	943	587	195	(284)	(782)
<b>Funding Ratios</b>										
Current Assets (MVA)	\$439,146	\$449,189	\$459,846	\$471,094	\$483,102	\$489,621	\$496,561	\$503,993	\$512,009	\$520,460
Actuarial Accrued Liability (AAL)	634,139	645,660	657,757	670,418	683,728	697,707	712,353	727,758	744,015	761,081
Unfunded AAL	194,993	196,471	197,911	199,324	200,626	208,086	215,792	223,765	232,006	240,621
Funding Ratio	69.3%	69.6%	69.9%	70.3%	70.7%	70.2%	69.7%	69.3%	68.8%	68.4%
<b>Benefit Payments</b>										
Ratio of Assets to Benefit Payments	\$ 48,032	\$ 48,693	\$ 49,423	\$ 50,118	\$ 50,845	\$ 51,641	\$ 52,391	\$ 53,107	\$ 53,936	\$ 54,839
	9.14	9.22	9.30	9.40	9.50	9.48	9.48	9.49	9.49	9.49

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**Judges Retirement Fund**  
**Scenario: 8.5% Investment Return for All Years**  
**Fiscal year beginning July 1**

\$ in Thousands	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 490	40.12%	39.88%	39.54%	39.27%	39.01%	38.73%	38.47%	38.23%	38.00%	37.76%
Required - Chapter 356 (MVA)	36.67%	35.81%	34.67%	33.58%	32.39%	31.03%	29.56%	27.94%	26.13%	24.09%
Sufficiency / (Deficiency)	3.45%	4.07%	4.87%	5.69%	6.62%	7.70%	8.91%	10.29%	11.87%	13.67%
<b>Contributions</b>										
Statutory - Chapter 490	\$ 23,810	\$ 24,071	\$ 24,567	\$ 24,963	\$ 25,371	\$ 25,859	\$ 26,340	\$ 26,806	\$ 27,297	\$ 27,814
Required - Chapter 356 (MVA)	21,761	21,616	21,543	21,346	21,062	20,719	20,237	19,592	18,775	17,742
Sufficiency / (Deficiency)	2,049	2,455	3,024	3,617	4,309	5,140	6,103	7,214	8,522	10,072
<b>Funding Ratios</b>										
Current Assets (MVA)	\$294,703	\$312,034	\$329,997	\$348,686	\$368,190	\$388,571	\$409,794	\$432,195	\$455,839	\$480,975
Actuarial Accrued Liability (AAL)	450,288	461,086	471,664	481,809	491,648	501,153	510,116	518,784	527,130	535,265
Unfunded AAL	155,585	149,052	141,667	133,123	123,458	112,582	100,322	86,589	71,291	54,290
Funding Ratio	65.4%	67.7%	70.0%	72.4%	74.9%	77.5%	80.3%	83.3%	86.5%	89.9%
<b>Benefit Payments</b>										
Ratio of Assets to Benefit Payments	\$ 31,097	\$ 32,160	\$ 33,422	\$ 34,558	\$ 35,710	\$ 37,051	\$ 38,127	\$ 39,225	\$ 40,209	\$ 41,058
	9.48	9.70	9.87	10.09	10.31	10.49	10.75	11.02	11.34	11.71

*Numbers may not add due to rounding.*

*The interest rate used to discount liabilities was 7.0%.*



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**Judges Retirement Fund**  
**Scenario: 8.5% Investment Return for All Years**  
**Fiscal year beginning July 1**

\$ in Thousands	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 490	37.54%	37.35%	37.14%	36.92%	36.74%	29.52%	29.51%	29.51%	29.50%	29.50%
Required - Chapter 356 (MVA)	21.76%	19.07%	16.44%	14.53%	12.52%	10.43%	8.67%	6.84%	4.88%	2.87%
Sufficiency / (Deficiency)	15.78%	18.28%	20.70%	22.39%	24.22%	19.09%	20.84%	22.67%	24.62%	26.63%
<b>Contributions</b>										
Statutory - Chapter 490	\$ 28,355	\$ 28,838	\$ 29,390	\$ 30,011	\$ 30,579	\$ 25,202	\$ 25,800	\$ 26,484	\$ 27,086	\$ 27,813
Required - Chapter 356 (MVA)	16,437	14,728	13,011	11,807	10,421	8,907	7,577	6,143	4,482	2,709
Sufficiency / (Deficiency)	11,918	14,110	16,379	18,204	20,158	16,295	18,223	20,341	22,604	25,104
<b>Funding Ratios</b>										
Current Assets (MVA)	\$507,898	\$536,889	\$568,062	\$601,585	\$637,878	\$677,223	\$713,682	\$753,295	\$796,423	\$843,292
Actuarial Accrued Liability (AAL)	543,330	551,442	559,616	567,780	576,105	584,717	593,654	603,013	612,848	623,222
Unfunded AAL	35,432	14,553	(8,446)	(33,805)	(61,773)	(92,506)	(120,028)	(150,282)	(183,575)	(220,070)
Funding Ratio	93.5%	97.4%	101.5%	106.0%	110.7%	115.8%	120.2%	124.9%	130.0%	135.3%
<b>Benefit Payments</b>										
Ratio of Assets to Benefit Payments	\$ 41,808	\$ 42,556	\$ 43,393	\$ 44,085	\$ 44,681	\$ 45,275	\$ 45,817	\$ 46,355	\$ 46,880	\$ 47,461
	12.15	12.62	13.09	13.65	14.28	14.96	15.58	16.25	16.99	17.77

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**Judges Retirement Fund**  
**Scenario: 8.5% Investment Return for All Years**  
**Fiscal year beginning July 1**

\$ in Thousands	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
<b>Contributions (% of Payroll)</b>										
Statutory - Chapter 490	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%
Required - Chapter 356 (MVA)	0.72%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sufficiency / (Deficiency)	28.78%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%	29.50%
<b>Contributions</b>										
Statutory - Chapter 490	\$ 28,492	\$ 29,219	\$ 29,958	\$ 30,797	\$ 31,544	\$ 32,407	\$ 33,270	\$ 34,163	\$ 34,991	\$ 35,959
Required - Chapter 356 (MVA)	697	-	-	-	-	-	-	-	-	-
Sufficiency / (Deficiency)	27,795	29,219	29,958	30,797	31,544	32,407	33,270	34,163	34,991	35,959
<b>Funding Ratios</b>										
Current Assets (MVA)	\$894,292	\$949,736	\$1,009,955	\$1,075,298	\$1,146,338	\$1,223,432	\$1,307,143	\$1,398,081	\$1,496,927	\$1,604,168
Actuarial Accrued Liability (AAL)	634,139	645,660	657,757	670,418	683,728	697,707	712,353	727,758	744,015	761,081
Unfunded AAL	(260,153)	(304,076)	(352,198)	(404,880)	(462,610)	(525,725)	(594,790)	(670,323)	(752,912)	(843,087)
Funding Ratio	141.0%	147.1%	153.5%	160.4%	167.7%	175.4%	183.5%	192.1%	201.2%	210.8%
<b>Benefit Payments</b>										
Ratio of Assets to Benefit Payments	\$ 48,032	\$ 48,693	\$ 49,423	\$ 50,118	\$ 50,845	\$ 51,641	\$ 52,391	\$ 53,107	\$ 53,936	\$ 54,839
	18.62	19.50	20.43	21.46	22.55	23.69	24.95	26.33	27.75	29.25

Numbers may not add due to rounding.

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