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November 9, 2022

Board of Trustees
Oklahoma Public Employees Retirement System
5400 N Grand Boulevard, Suite 400
P.O. Box 53007
Oklahoma City, OK 73112-5625

Members of the Board:

In this report are submitted the results of the annual valuation of the assets and liabilities of the Uniform Retirement System for Justices and Judges ("URSJJ" of "System"), prepared as of July 1, 2022.

The purpose of this report is to provide a summary of the funded status of the System as of July 1, 2022 and to provide the actuarially determined rate. While not verifying the data at the source, the actuary performed tests for consistency and reasonability. There have been no changes to the actuarial assumptions since the last valuation. However, the Board adopted a new amortization policy that is first reflected in the July 1, 2022 valuation.

The promised benefits of the System are included in the actuarially calculated contribution rates which are developed using the Entry Age Normal cost method. A five-year market-related value of assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded actuarial accrued liability (UAAL) that is being amortized by regular annual contributions as a level percentage of payroll, on the assumption that payroll will increase by 3.25% annually.

As in recent valuations, liabilities have been calculated without considering future cost of living adjustments (COLAs) and/or stipends in keeping with House Bill 2132 (2011). Should funding of future COLAs and/or stipends be provided by the System, the COLAs and/or stipends should be included in the actuarial valuation.

We have prepared the Schedule of Funding Progress and Trend Information shown in the financial section of the Annual Comprehensive Financial Report.

This is to certify that the independent consulting actuaries are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems, that the valuation was prepared for funding purposes with assumptions and methods that meet the parameters of the Actuarial Standards of Practice, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and develop actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the needed results. Future actuarial results may differ significantly from the current results presented in this report due to factors such 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. Because the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The Annual Comprehensive Financial Report (ACFR) contains several exhibits that disclose the actuarial position of the System. We have also reviewed the supplemental medical benefits provided by the System under Section 401(h) of the Internal Revenue Code and have determined that these benefits are subordinate to the retirement benefits as required. This annual report, prepared as of July 1, 2022, provides data and tables that we prepared for use in the following sections of the ACFR:

Actuarial Section:

- Analysis of Financial Experience
- Solvency Test
- Schedule of Active Member Valuation Data
- Schedule of Retirants, Disabled Retirants, and Beneficiaries Added to and Removed from Rolls

Statistical Section:

- Member Statistics
- Distribution of Retirees and Beneficiaries
- Summary of Active Members

In our opinion, in order for the System to meet all the benefit obligations of the plan for current active and retired members, contributions equal to at least the actuarially determined rate are necessary for future fiscal years. Assuming these contributions are made to the System, from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated. Because the statutory contribution exceeds the actuarially determined rate in this valuation, we recommend the statutory contribution be used to protect against future investment and experience losses.

Respectfully submitted,

Alisa Bennett, FSA, EA, FCA, MAAA
President

Brent Banister, PhD, FSA, EA, FCA, MAAA
Chief Actuary

Summary of Results

		7/1/2022 Valuation	7/1/2021 Valuation	% Change
1.	**PARTICIPANT DATA**			
	Number of:			
	Active Members	264	264	0.0
	Retired and Disabled Members and Beneficiaries	312	306	2.0
	Inactive Members	16	17	(5.9)
	Total members	592	587	0.9
	Projected Annual Salaries of Active Members	$ 36,392,126	$ 36,298,820	0.3
	Annual Retirement Payments for Retired Members and Beneficiaries	$ 23,764,769	$ 23,137,268	2.7
2.	**ASSETS AND LIABILITIES**			
	Total Actuarial Accrued Liability	$ 351,765,270	$ 341,936,156	2.9
	Market Value of Assets	$ 357,562,582	$ 433,451,402	(17.5)
	Actuarial Value of Assets	$ 390,044,528	$ 380,404,742	2.5
	Unfunded Actuarial Accrued Liability	$ (38,279,258)	$ (38,468,586)	(0.5)
	Funded Ratio	110.9%	111.3%	(0.4)
3.	**EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL**			
	Normal Cost Rate	26.20%	25.85%	
	Amortization of Unfunded Actuarial Accrued Liability	(21.34%)	(19.67%)	
	Budgeted Expenses	0.74%	0.66%	
	Total Actuarial Required Contribution Rate	5.60%	6.84%	
	Less Member Contribution Rate	8.00%	8.00%	
	Employer Actuarial Required Contribution Rate	(2.40%)	(1.16%)	
	Less Statutory State Employer Contribution Rate	22.00%	22.00%	
	Contribution Shortfall/(Surplus)	(24.40%)	(23.16%)	

Analysis of Financial Experience

Gains & Losses in Actuarial Accrued Liability During the Year Ended June 30, 2022
Resulting from Differences Between Assumed Experience & Actual Experience

	Type of Activity	(Gain) or Loss for Year End 2022
1.	**Age & Service Retirements.** If members retire at older ages or with smaller benefits than assumed, there is a gain. If they retire at younger ages or have higher average pays, a loss occurs.	$ (890,000)
2.	**Disability Retirements.** If disability claims are less than assumed, then there is a gain. If more claims, a loss.	0
3.	**Death Benefits.** If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	2,580,000
4.	**Withdrawal from Employment.** If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(480,000)
5.	**Pay Increases.** If there are smaller pay increase than assumed, there is a gain. If greater increases, a loss.	(3,450,000)
6.	**New Entrants.** All new entrants to the System create a loss.	210,000
7.	**Other/Data Changes.** Miscellaneous gains and losses resulting from data adjustments, employee transfers, valuation methods, etc.	4,160,000
8.	**(Gain) or Loss During Year From Financial Experience.**	1,440,000
9.	**Composite (Gain) or Loss During Year.**	$ 3,570,000

Solvency Test

The Judges funding objective is to be able to pay long-term benefit promises through contributions that remain approximately level from year to year as a percent of salaries earned by members. In this way, members and employers in each year pay their fair share for retirement service accrued in that year by URSJJ members.

If the retirement system follows level contribution rate financing principles, the system will pay all promised benefits when due – the ultimate test of financial soundness.

A short-term solvency test is one means of monitoring URSJJ funding progress. In a short-term solvency test, the retirement System's present valuation assets are compared with: 1) active member contributions on deposit, 2) the liabilities for future benefits to persons who have retired and the liabilities for terminated employees with vested benefits, and 3) the liabilities for service already rendered by active members. In a system that has been following the discipline of level contribution rate financing, the liabilities for member contributions on deposit (liability 1), the liabilities for future benefits to present retirees and the liabilities for future benefits for terminated employees (liability 2) will be fully covered by present assets, except in rare circumstances.

In addition, the liabilities for service already rendered by members (liability 3) will be partially covered by the remainder of present assets. Generally, if the system has been using level contribution rate financing, the funded portion of liability 3 will increase over time; however, a decrease generally occurs in those years when substantial benefit improvements are granted by the Legislature. It is unusual for liability 3 to be fully funded. The funded ratio of the System based on total actuarial accrued liabilities (1 + 2 + 3) provides an indication of how well the System is funded.

The schedule below illustrates the progress of funding the actuarial accrued liabilities of URSJJ.

	Actuarial Accrued Liabilities[1] and Valuation Assets					Portion of Actuarial Accrued Liabilities Covered by Reported Assets			
Date	Active Member Contributions (Liability 1)	Retirees, Beneficiaries and Terminated Vested Members (Liability 2)	Employer Financed Portion of Active Members (Liability 3)	Total Liability (1 + 2 + 3)	Reported Assets[1]	(1)	(2)	(3)	Funded Ratio of Total Accrued Actuarial Liabilities
July 1, 2013	$23,130,164	$136,834,202	$94,444,597	$254,408,963	$247,531,035	100	100	92.7	97.3
July 1, 2014	24,434,587	140,084,348	94,268,742	258,787,677	274,070,696	100	100	100.0	105.9
July 1, 2015	23,390,700	158,199,138	84,810,188	266,400,026	295,355,061	100	100	100.0	110.9
July 1, 2016	25,199,268	159,092,241	92,142,032	276,433,541	306,256,213	100	100	100.0	110.8
July 1, 2017	25,438,215	172,934,885	87,163,806	285,536,906	321,405,873	100	100	100.0	112.6
July 1, 2018	26,453,365	177,660,433	88,989,691	293,103,489	336,354,636	100	100	100.0	114.8
July 1, 2019	22,988,211	209,998,302	75,628,672	308,615,185	345,235,761	100	100	100.0	111.9
July 1, 2020	23,802,541	225,749,579	83,470,606	333,022,726	354,486,299	100	100	100.0	106.4
July 1, 2021	24,706,873	227,116,243	90,113,040	341,936,156	380,404,742	100	100	100.0	111.3
July 1, 2022	25,855,380	233,192,123	92,717,767	351,765,270	390,044,528	100	100	100.0	110.9

[1] Actuarial value of assets based on the smoothing technique adopted by the Board.

Schedule of Active Member Valuation Data

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
July 1, 2022	264	$36,392,126	$137,849	0.26%
July 1, 2021	264	36,298,820	137,496	2.22
July 1, 2020	263	35,377,422	134,515	3.05
July 1, 2019	269	35,112,886	130,531	2.22
July 1, 2018	265	33,838,528	127,693	0.29
July 1, 2017	262	33,359,101	127,325	(1.61)
July 1, 2016	269	34,810,851	129,408	1.54
July 1, 2015	271	34,537,376	127,444	1.86
July 1, 2014	274	34,281,695	125,116	(0.49)
July 1, 2013	273	34,325,368	125,734	0.33

Schedule of Retirants, Disabled Retirants, and Beneficiaries Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		Rolls – End of Year			
Year Ended	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
June 30, 2022	12	$928,680	6	$191,295	312	$23,764,769	2.71%	$76,169
June 30, 2021	10	904,719	8	525,788	306	23,137,268	1.16	75,612
June 30, 2020	14	1,233,210	10	513,986	304	22,872,164	6.04	75,237
June 30, 2019	35	3,235,367	7	200,255	300	21,569,313	16.38	71,898
June 30, 2018	11	1,003,518	4	314,465	272	18,534,201	3.86	68,140
June 30, 2017	16	1,470,169	11	581,210	265	17,845,148	5.24	67,340
June 30, 2016	5	409,553	5	412,096	260	16,956,189	0.01	65,216
June 30, 2015	30	2,395,473	5	298,613	260	16,958,732	14.11	65,226
June 30, 2014	19	1,330,374	14	838,912	235	14,861,872	3.42	63,242
June 30, 2013	7	439,982	10	576,225	230	14,370,410	(0.94)	62,480

Supplementary Information

The schedule of changes in the net pension and OPEB liabilities present a schedule of funding progress for each of the ten most recent years based on the actuarial methods and assumptions used for funding purposes. These schedules are intended to show a 10-year trend and additional years will be reported as they become available. 2017 was the first year to exclude the Medical Supplement.

GASB 67 Paragraph 36.b.
Schedule of Changes in the Net Pension Liability/(Asset)

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Pension Liability	$348,773,008	$339,028,732	$330,152,206	$305,801,494	$290,379,164	$282,837,412	$276,433,541	$266,400,026	$258,787,677	
Plan Fiduciary Net Position	353,788,100	429,150,928	347,508,299	344,205,778	334,896,669	318,262,645	293,726,797	301,296,105	301,469,209	
Net Pension Liability/(Asset)	($5,015,092)	($90,122,196)	($17,356,093)	($38,404,284)	($44,517,505)	($35,425,233)	($17,293,256)	($34,896,079)	($42,681,532)	
Ratio of Plan Fiduciary Net Position to Total Pension Liability	101.44%	126.58%	105.26%	112.56%	115.33%	112.52%	106.26%	113.10%	116.49%	
Covered Payroll	$36,298,820	$35,377,422	$35,112,886	$33,838,528	$33,359,101	$34,810,851	$34,537,376	$34,281,695	$34,325,368	
Net Pension Liability as a Percentage of Covered Payroll	-13.82%	-254.74%	-49.43%	-113.49%	-133.45%	-101.76%	-50.07%	-101.79%	-124.34%	

GASB 74 Paragraph 36.b.
Schedule of Changes in the Net OPEB Liability/(Asset)

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total OPEB Liability	$2,992,262	$2,907,424	$2,870,520	$2,813,691	$2,724,325	$2,699,494				
Plan Fiduciary Net Position	3,774,482	4,300,474	3,453,996	3,317,718	3,138,717	2,891,232				
Net OPEB Liability/(Asset)	($782,220)	($1,393,050)	($583,476)	($504,027)	($414,392)	($191,738)				
Ratio of Plan Fiduciary Net Position to Total OPEB Liability	126.14%	147.91%	120.33%	117.91%	115.21%	107.10%				
Covered payroll	N/A	N/A	N/A	N/A	N/A	N/A				
Net OPEB Liability as a percentage of covered payroll	N/A	N/A	N/A	N/A	N/A	N/A				

Summary of System Provisions

Employees Included:	All Justices and Judges of the Supreme Court, Court of Criminal Appeals, Workers Compensation Court, Courts of Appeals or District Court who serve in the State of Oklahoma participate in the Uniform Retirement System for Justices and Judges.
System Contributions:	The contributions are received from the employer agencies based on a percentage of salary of covered members. Effective for the fiscal year ending June 30, 2006, employer contributions increased to 3.0% of the member's salary and increased annually up to 22.0% of member payroll for fiscal years ending June 30, 2019, and thereafter.
Member Contributions:	Before September 1, 2005, basic member contributions equal 5% of salary, while married members could have elected an 8% contribution rate in order to provide survivor coverage. After September 1, 2005, the member contribution rate for all members is 8% of salary.
Final Average Salary:	The average monthly salary received during the highest three (3) years of active service as a Justice or Judge in a court of record.
Retirement Date:	A member who completes eight (8) years of service and attains age sixty-five (65), or completes ten (10) years of service and attains age sixty (60), or completes eight (8) years of service and whose sum of years of service and age equals or exceeds eighty (80), may begin receiving retirement benefits at his/her request. For Justices or Judges taking office after January 1, 2012, retirement age is sixty-seven (67) with eight (8) years of service or age sixty-two (62) with ten (10) years of service.
Normal Retirement Benefit:	General formula is 4% of average monthly salary multiplied by service, up to a maximum benefit of 100% of final average salary.
Disability Benefit:	After fifteen (15) years of service and age fifty-five (55), provided the member is ordered to retire by reason of disability and is eligible for disability retirement benefits. This benefit, payable for life, is calculated in the same manner as a normal retirement benefit but cannot exceed 100% of final average salary.

Summary of System Provisions (continued)

Survivor Benefit:	The spouse of a deceased active member who had met normal or vested retirement provisions may elect a spouse's benefit. The spouse's benefit is the benefit that would have been paid if the member had retired and elected the joint and 100% survivor option (Option B), or a 50% unreduced benefit for certain married participants making 8% of pay contributions prior to September 1, 2005. If the member has ten (10) years of service and the death is determined to be employment related, this benefit is payable immediately to the spouse. In order to be eligible for this survivor coverage, members must be married to their spouse for three (3) years preceding death and they must be married ninety (90) days prior to the member's termination of employment as a Justice or Judge. Effective October 1, 2004, the benefit for surviving spouses may be higher than 50% of the member's benefit, up to 65% for certain members who made additional voluntary survivor benefit contributions of 3% of salary prior to July 1, 1999, and who die or retire after July 1, 1999.
Optional Forms of Retirement Benefits:	The normal form of benefit for a single member is a single life monthly annuity with a guaranteed refund of the contribution accumulation. The normal form for a married member is a 50% joint and survivor annuity benefit. Optional forms of payment with actuarial reduction (if applicable) are available to all members retiring under the normal retirement or vested retirement provisions. After September 1, 2005, the options providing post-retirement death benefits are: Option A -- Joint and 50% survivor annuity with a return to the unreduced amount if the joint annuitant dies. Option B -- Joint and 100% survivor annuity with a return to the unreduced amount if the joint annuitant dies. For married members, spousal consent is required for any option other than Option A.
Participant Death Benefit:	$5,000 lump sum.
Supplemental Medical Insurance Premium:	The System contributes the lesser of $105 per month or the Medicare Supplement Premium to the Oklahoma State and Education Employee's Group Health Insurance Program for members receiving retirement benefits.

Summary of Actuarial Assumptions and Methods

1. The investment return rate used in the valuation was 6.50 percent per year, net of investment expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of return in excess of the inflation rate. Considering other financial assumptions, the 6.50 percent investment return rate translates to an assumed real rate of return of 4.00 percent.

2. Pub-2010 Below Median, General Membership Active/Retiree Healthy Mortality Table with base rates projected to 2030 using Scale MP-2019. Male rates are set back one year, and female rates are set forward one year.

3. The probability of withdrawal from service is 2% for all years of service.

4. The individual pay increase assumption is 3.50% per year.

5. The probabilities of retirement are shown in Schedule 1.

6. Because of the passage of House Bill 2132, benefits are not assumed to increase due to future ad hoc cost-of-living increases.

7. The individual entry-age normal actuarial cost method of valuation was used in determining actuarial accrued liability and normal cost. The unfunded actuarial accrued liability as of July 1, 2021 is amortized as a level percent of payroll over a 20-year closed period commencing July 1, 2007. New experience bases due to assumption changes or actual experience gains/losses will be established each year and amortized over closed 15-year periods.

8. The actuarial value of assets is based on a five-year moving average of expected actuarial values and market values. A preliminary expected value is determined equal to the prior year's actuarial value of assets plus net cash flow for the year ending on the valuation date, assuming the valuation investment return. The expected actuarial asset value is equal to the preliminary expected actuarial value plus the unrecognized investment gains and losses as of the beginning of the previous fiscal year. Twenty percent (20%) of the gain/loss as measured by the difference between the expected actuarial value and the market value at the valuation date is added to the preliminary expected actuarial value plus twenty percent (20%) of the unrecognized gains or losses for the four preceding fiscal years. The final result is constrained to a value no less than 80% and no more than 120% of the market value at the valuation date.

9. The actuarial assumptions and methods used in the valuation were adopted by the Board on based on System experience from July 1, 2016 through June 30, 2019.

Summary of Actuarial Assumptions and Methods (continued)

Schedule 1

Percent of Eligible Active Members Retiring Within Next Year

Retirement Ages	Percent	Retirement Ages	Percent
Below 59	5%	67	20%
59	10%	68	20%
60	10%	69	25%
61	10%	70	25%
62	15%	71	25%
63	15%	72	25%
64	15%	73	25%
65	15%	74	25%
66	15%	75	100%