Cavanaugh Macdonald
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Indiana Public Retirement System

Judges' Retirement System

Actuarial Valuation as of
June 30, 2023

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

November 7, 2023

Board of Trustees
Indiana Public Retirement System
1 North Capitol, Suite 001
Indianapolis, IN 46204

Dear Members of the Board:

At your request, we performed an actuarial valuation of the Judges' Retirement System (JRS) as of June 30, 2023, for the purpose of estimating the actuarially determined contribution for the plan year ending June 30, 2025. Actuarial valuations are performed annually. The major findings of the valuation are contained in this report, which reflects the benefit and funding provisions in place on June 30, 2023. There were no changes to the ongoing benefit provisions, actuarial assumptions, or actuarial methods from last year.

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by the Indiana Public Retirement System (INPRS) staff. This information includes, but is not limited to, statutory provisions, member data and financial information. We did review the data to be sure that it was reasonably consistent and comparable with data from prior years. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

We certify that all costs and liabilities for JRS have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the plan and reasonable expectations); and which, in combination, offer the best estimate of anticipated experience affecting the plan. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions.

We believe the actuarial assumptions used herein are reasonable. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C. Specifically, we presented the proposed assumptions for the 2023 valuations to the Board on February 24, 2023, and the Board subsequently adopted their use at its May 5, 2023 meeting. These assumptions are applicable to both the funding and Governmental Accounting Standards Board (GASB) Statement Number 67 valuation calculations, unless otherwise noted.

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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 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. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

We prepared a Risk Report for the INPRS Board in August 2019 that contains information which is relevant to JRS and should be considered part of this valuation report. Although the report was prepared using the data, methods, and assumptions of the June 30, 2018 valuation report, it is our professional opinion that the general results of the risk report are applicable to the June 30, 2023 valuation report as well.

Actuarial computations presented in this report are for purposes of determining the funding rates for the Plan. The calculations in the enclosed report have been made on a basis consistent with our understanding of the Plan's funding requirements and goals as adopted by the Board. Additionally, we have included actuarial computations for use in preparing certain reporting and disclosure requirements under Governmental Accounting Standards Board Statements Number 67 and Number 68. Determinations for purposes other than meeting these funding and disclosure requirements may be significantly different from the results contained in this report and require additional analysis.

The Annual Comprehensive Financial Report (ACFR) for INPRS contains several exhibits that disclose the actuarial position of the System. This annual report, prepared as of June 30, 2023, provides data and tables that we prepared for use in the following sections of the ACFR:

Financial Section:
- Note 1 - Tables of Plan Membership
- Note 8 - Net Pension Liability and Actuarial Information - Defined Benefit Plans
- Schedule of Changes in Net Pension Liability and Plan Fiduciary Net Position
- Schedule of Contributions
- Schedule of Notes to Required Supplementary Information

Actuarial Section:
- Summary of INPRS Funded Status (Included in the Board Summary)
- Historical Summary of Actuarial Valuation Results by Retirement Plan
- Summary of Actuarial Assumptions, Methods and Plan Provisions
- Analysis of Financial Experience (Included in the Unfunded Actuarial Accrued Liability Reconciliation)
- Solvency Test
- Schedule of Active Member Valuation Data
- Schedule of Retirants and Beneficiaries

Statistical Section:

- Membership Data Summary
- Ratio of Active Members to Annuitants
- Schedule of Benefit Recipients by Type of Benefit Option
- Schedule of Average Benefit Payments

The consultants who worked on this assignment are pension actuaries. Cavanaugh Macdonald's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate, and the assumptions and methods used meet the guidance provided in the applicable Actuarial Standards of Practice. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

The calculations were completed in compliance with applicable law and the calculations for GASB disclosure, in our opinion, meet the requirements of GASB 67 and GASB 68. 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.

We respectfully submit the following report and look forward to discussing it with you.

Sincerely,

Brent A. Banister

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

Edward J. Koebel

Edward Koebel, FCA, EA, MAAA
Chief Executive Officer

Virginia Fritz

Virginia Fritz, FSA, EA, FCA, MAAA
Senior Actuary

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This report presents the results of the June 30, 2023 actuarial valuation of the Judges' Retirement System (JRS). The primary purposes of performing this actuarial valuation are to:

- Determine the contribution amount for the plan year ending June 30, 2025 that will be sufficient to meet the funding policy.
- Disclose asset and liability measurements as well as the plan's funded status on the valuation date.
- Compare actual and expected experience by the Fund during the plan year ending June 30, 2023.
- Analyze and report on trends in plan contributions, assets and liabilities over the past several years.

VALUATION RESULTS

The actuarial valuation results provide a "snapshot" view of the plan's financial condition on June 30, 2023. The plan's unfunded actuarial accrued liability (UAAL) increased from $25.4 million last year to $53.4 million this year and the funded ratio decreased from 96.2% to 92.7%. The primary factor behind the decrease in the funded ratio was an actuarial loss on liabilities, primarily due to a granted COLA which was greater than the COLA assumption. There were no changes to plan provisions, actuarial methods and assumptions, or funding policy between the June 30, 2022 and June 30, 2023 valuations.

A summary of the key results from the June 30, 2023 actuarial valuation compared to the June 30, 2022 valuation is shown in the following table.

Valuation Results	June 30, 2022	June 30, 2023
Unfunded Actuarial Accrued Liability	$ 25,444,000	$ 53,370,506
Funded Ratio (Actuarial Assets)	96.24%	92.67%
Normal Cost	32.56%	33.48%
UAAL Amortization	4.79%	7.86%
Total Recommended Contribution	37.35%	41.34%
Estimated Member Contributions	(6.00%)	(6.00%)
Actuarially Determined Contribution Amount	31.35%	35.34%

Further detail on the valuation results can be found in the following sections of this Board Summary, including discussion regarding the change in the plan's assets, liabilities, and actuarial determined contribution rate between June 30, 2022 and June 30, 2023.

ASSETS

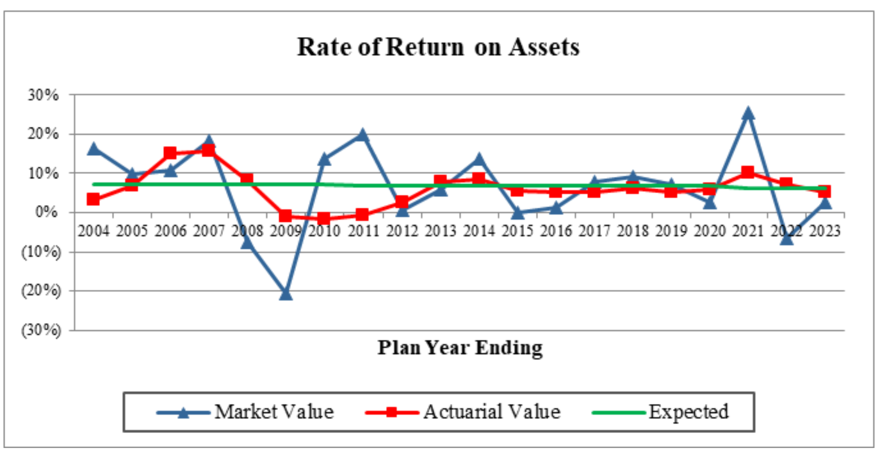
As of June 30, 2023, the plan had net assets of $640 million when measured on a market value basis. This was an increase of $5 million from the prior year.

The market value of assets is not used directly in the calculation of the unfunded actuarial accrued liability and the actuarially determined contribution. An asset valuation method, which smoothes the effect of market fluctuations, is applied to determine the value of assets used in the valuation. The resulting amount is called the actuarial value of assets. In this year's valuation, the actuarial value of assets is $675 million, an increase of $24 million from the prior year.

The components of change in the asset values are shown in the following table:

		Market Value		Actuarial Value
Net Assets, June 30, 2022	$	634,863,667	$	651,415,488
- Employer and Member Contributions	+	22,179,320	+	22,179,320
- Benefit Payments and Refunds	-	32,619,155	-	32,619,155
- Net Investment Income	+	15,782,708	+	33,790,436
Net Assets, June 30, 2023	$	640,206,540	$	674,766,089
Estimated Rate of Return, Net of Expenses		2.5%		5.3%

The estimated rate of return on the actuarial value of assets was 5.3%, which was lower than the 6.25% investment return assumption applicable for the year ended June 30, 2023. As a result, there was an experience loss on assets of $6.6 million. The estimated investment return on the market value of assets for FY 2023 of 2.5% increased the net deferred investment loss from $16.6 million in last year's valuation to $34.6 million in the current valuation. See Table 1 and Table 2 of this report for detailed information on the market and actuarial value of assets.



The rate of return of the actuarial value of assets has been less volatile than the market value return, illustrating the benefits of using an asset smoothing method. The smoothed actuarial value of plan assets has led to relatively steady actuarial valuation results over the last few years, even with a large gain followed by an offsetting loss.

LIABILITIES

The actuarial accrued liability is that portion of the present value of future benefits that is allocated to past service. The remaining portion will be paid by future normal costs. The difference between this liability and the actuarial value of assets as of the valuation date is called the unfunded actuarial accrued liability (UAAL). The dollar amount of unfunded actuarial accrued liability is reduced if the contributions to the plan exceed the normal cost for the year plus interest on the prior year's UAAL.

The unfunded actuarial accrued liability on both a market value and actuarial value of assets basis is shown as of June 30, 2023 in the following table:

	Market Value	Actuarial Value
Actuarial Accrued Liability	$ 728,136,595	$ 728,136,595
Value of Assets	640,206,540	674,766,089
Unfunded Actuarial Accrued Liability	$ 87,930,055	$ 53,370,506
Funded Ratio	87.92%	92.67%

See Table 3 of this report for the development of the unfunded actuarial accrued liability.

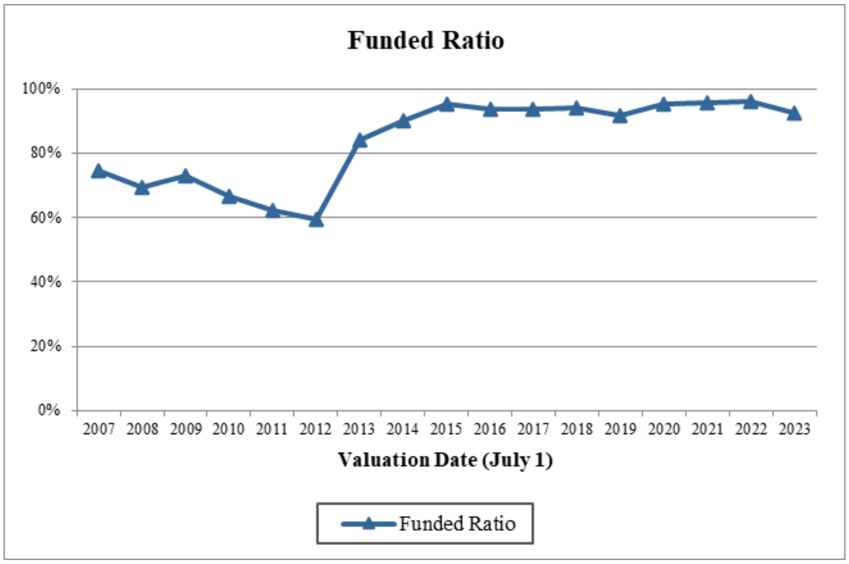
The UAAL (on an actuarial basis) as of June 30, 2023 was a $53.4 million deficit, an increase of $28.0 million from the $25.4 million deficit last year, primarily driven by an actuarial loss on liabilities due to a granted COLA which was greater than the COLA assumption. The change in UAAL also includes an actuarial loss on assets of $6.6 million. The components of the change in the UAAL are quantified in Table 5 of this report. See Table 6 and Table 7 of this report for a breakdown of the components of experience gains/losses for greater detail.

An evaluation of the UAAL on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both large numbers) is reflected. Another way to evaluate the UAAL and the progress made in its funding is to track the funded ratio, the ratio of the actuarial value of assets to the actuarial accrued liability. The funded status information, which is based on the actuarial value of assets, is shown below (in millions).

	6/30/2019	6/30/2020	6/30/2021	6/30/2022	6/30/2023
Funded Ratio	91.8%	95.3%	95.9%	96.2%	92.7%
UAAL (in millions)	$47.9	$27.8	$26.4	$25.4	$53.4

Note that the funded ratio does not indicate whether or not the plan assets are sufficient to settle benefits earned to date. The funded ratio, by itself, also may not be indicative of future funding requirements. In addition, if the funded ratios were shown using the market value of assets, the results would differ.

As the following graph of historical funded ratios shows, JRS has been reasonably well funded for the last several years.



ACTUARIALLY DETERMINED CONTRIBUTION RATE

The State's funding policy is to contribute an appropriated amount that is estimated at the start of each biennium. The specific amounts in the appropriation bill are guided by the funding requirements of the Plan from an actuarial perspective. A traditional funding strategy includes:

- A "normal cost" for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date.

- An "unfunded actuarial accrued liability contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets.

The UAAL contribution rate is determined by calculating the amortization payment on the UAAL as a level dollar amount over 20 years for each amortization base. Whenever the Plan funded ratio exceeds 100%, all prior amortization bases are eliminated and the negative UAAL (or "surplus") is amortized over an open 30-year period, as an offset to other Fund costs.

The actuarially determined contribution amount for the judges includes a normal cost which is theoretically based on all judges' payroll. However, member contributions are only made on payroll of judges with less than 22 years of service, while the employer contributions are based upon a direct legislative allocation determined from estimated total payroll. **Consequently, the actual funding requirements are adjusted to reflect only the pay upon which member contributions are made.** While this approach may make the presentation of results more complicated and not directly comparable to other plans, it nonetheless produces an amount that will, if contributed, systematically fund the Plan through time.

See Table 10 of this report for the detailed development of the contribution rates which are summarized in the following table:

		June 30, 2022		June 30, 2023
Normal Cost		32.56%		33.48%
UAAL Amortization		4.79%		7.86%
Total Recommended Contribution		37.35%		41.34%
Estimated Member Contributions		(6.00%)		(6.00%)
Actuarially Determined Contribution Amount		31.35%		35.34%
Estimated Payroll	$	67,328,376	$	72,728,750
Actuarially Determined Contribution *	$	21,107,446	$	25,702,340
Projected Covered Payroll for FY 2025			$	74,656,062
Estimated ADC Amount for FY 2025			$	26,383,452
Scheduled Appropriations and Court Fees for FY 2025			$	22,241,152

* Due to the biennial appropriations cycle, this will not directly impact the funding of the plan. Next year, this will be used to assist with the determination of the FY 2026 and FY 2027 approved funding amounts.

Because the funding of the plan is largely based on payroll, the Actuarially Determined Contribution for FY 2026 can be assumed to be 2.65% (payroll growth assumption) higher than the FY 2025 amount shown above in the June 30, 2023 valuation, or $27,082,613.

House Enrolled Act No. 1001 appropriated funds in the amount of $14,513,793 for the fiscal year ending June 30, 2024 and $15,087,963 for the fiscal year ending June 30, 2025. Additional funding is added from court and docket fees. The Board will recommend appropriation amounts to the Indiana Legislature for the next biennium (FY 2026 and FY 2027) based on the June 30, 2024 valuation. Therefore, the June 30, 2023 actuarial determined contribution is not directly used in the funding of the plan.

SUMMARY OF PRINCIPAL RESULTS

	June 30, 2021	June 30, 2022	June 30, 2023
MEMBERSHIP			
Active Members	465	469	480
Retired Members and Beneficiaries	392	419	424
Disabled Members	2	2	2
Inactive Members	58	67	68
Total Members	917	957	974
Projected Annual Salaries of Active Members	$ 62,714,587	$ 67,328,376	$ 72,728,750
Annual Retirement Payments for Retired Members, Disabled Members and Beneficiaries	$ 26,877,142	$ 30,024,093	$ 30,987,064
ASSETS AND LIABILITIES			
Net Assets			
Market Value of Assets (MVA)	$ 687,992,849	$ 634,863,667	$ 640,206,540
Actuarial Value of Assets (AVA)	615,754,553	651,415,488	674,766,089
Actuarial Accrued Liability (AAL)	642,171,761	676,859,488	728,136,595
Unfunded Actuarial Accrued Liability (UAAL): AAL - AVA	$ 26,417,208	$ 25,444,000	$ 53,370,506
Funded Ratios			
AVA / AAL	95.89%	96.24%	92.67%
MVA / AAL	107.14%	93.80%	87.92%
CONTRIBUTIONS			
Normal Cost Rate	33.23%	32.56%	33.48%
UAAL Rate	5.04%	4.79%	7.86%
Total Recommended Contribution Rate	38.27%	37.35%	41.34%
Expected Employee Contribution Rate [1]	(6.00%)	(6.00%)	(6.00%)
Actuarially Determined Contribution Rate	32.27%	31.35%	35.34%
Actuarially Determined Contribution Amount	$ 20,237,997	$ 21,107,446	$ 25,702,340

[1] Only active members with less than 22 years of service make contributions to the plan.

This report presents the actuarial valuation results of the Judges' Retirement System as of June 30, 2023. This valuation was prepared at the request of the Indiana Public Retirement System.

Please pay particular attention to our actuarial certification letter, where the guidelines employed in the preparation of this report are outlined. We also comment on the sources and reliability of both the data and the actuarial assumptions upon which our findings are based. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the findings which result from this valuation is presented in the previous section. Section 3 describes the assets and investment experience of the plan. Sections 4 and 5 describe how the obligations of the plan are to be met under the actuarial cost method in use. Section 6 provides information required by the Governmental Accounting Standards Board (GASB) for reporting and disclosure under GASB 67 and GASB 68.

This report includes several appendices:

- Appendix A — Schedules of valuation data classified by various categories of members.
- Appendix B — A summary of the current benefit structure, as determined by the provisions of governing law on June 30, 2023.
- Appendix C — A summary of the actuarial methods and assumptions used to estimate liabilities and determine contribution rates.
- Appendix D — A glossary of actuarial terms.

In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is June 30, 2023. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the plan, which are generally in excess of assets. The actuarial process then leads to a method of determining the contributions needed by members and the employer in the future to balance the plan assets and liabilities.

Market Value of Assets

The current market value represents the "snapshot" or "cash-out" value of plan assets as of the valuation date. In addition, the market value of assets provides a basis for measuring investment performance from time to time.

Table 1 summarizes the changes in the market value of assets for the last two years. Table 12 (in the GASB section) provides detail regarding the allocation of investments in the trust.

Actuarial Value of Assets

The market value of assets, representing a "cash-out" value of plan assets, may not be the best measure of the plan's ongoing ability to meet its obligations. To arrive at a suitable value of assets for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens swings in the market value while still indirectly recognizing market values. Under the asset smoothing methodology, the difference between the actual and assumed investment return on the market value of assets is recognized evenly over a five-year period.

Table 2 shows the development of the actuarial value of assets (AVA) as of the valuation date.

TABLE 1

DEVELOPMENT OF MARKET VALUE OF ASSETS

	June 30, 2022		June 30, 2023	
1. Market Value of Assets, Beginning of Year	$	687,992,849	$	634,863,667
2. Receipts				
a. Member (Includes Purchased Service) [1]	$	4,632,105	$	4,121,670
b. Employer		17,563,885		18,046,892
c. Member Reassignment Transfers		126,188		10,758
d. Miscellaneous		16,000		0
e. Total	$	22,338,178	$	22,179,320
3. Expenditures				
a. Benefit Payments	$	30,853,423	$	32,560,370
b. Refund of Contributions		123,167		58,785
c. Administrative Expense		103,928		124,026
d. Total	$	31,080,518	$	32,743,181
4. Investment Return				
a. Investment Income	$	(44,409,265)	$	15,862,734
b. Securities Lending Income		22,423		44,000
c. Total Investment Return	$	(44,386,842)	$	15,906,734
5. Market Value of Assets, End of Year: (1) + (2e) - (3d) + (4c)	$	634,863,667	$	640,206,540
6. Estimated Rate of Return, Net of Expenses [2]		(6.51%)		2.51%

[1] Includes $722,629 of member service purchases during fiscal year 2022 and $73,694 of member service purchases during fiscal year 2023.

[2] Based on individual fund experience. Assumes cash flows occur at mid-year.

TABLE 2

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

					For Plan Year Ending June 30, 2023
1. Market Value as of June 30, 2022				$	634,863,667
2. Receipts [1]				$	22,179,320
3. Expenditures, Net of Administrative Expenses				$	(32,619,155)
4. Expected Return on Assets [2]				$	39,352,734
5. Expected Market Value as of June 30, 2023: (1) + (2) + (3) + (4)				$	663,776,566
6. Actual Market Value as of June 30, 2023				$	640,206,540
7. Year End 2023 Asset Gain/(Loss): (6) - (5)				$	(23,570,026)
8. Deferred Investment Gains and Losses					
	Year Ended June 30:	Gain/(Loss)	Factor		Deferred Amount
	a. 2020	$ (22,725,648)	20%	$	(4,545,130)
	b. 2021	102,934,566	40%		41,173,826
	c. 2022	(87,220,373)	60%		(52,332,224)
	d. 2023	(23,570,026)	80%		(18,856,021)
	e. Total			$	(34,559,549)
9. Initial Actuarial Value as of June 30, 2023: (6) - (8e)				$	674,766,089
10. Constraining Values					
a. 80% of Market Value: (6) x 0.8				$	512,165,232
b. 120% of Market Value: (6) x 1.2				$	768,247,848
11. Actuarial Value as of June 30, 2023				$	674,766,089
12. Actuarial Rate of Return, Net of Expenses [3]					5.25%
13. Actuarial Value of Assets as a Percent of Market Value: (11) / (6)					105.4%

[1] Includes Contributions, Service Purchases, Member Reassignment Transfers, and Miscellaneous Receipts.
[2] Assumes cash flows occur at mid-year and a return assumption of 6.25%.
[3] Assumes cash flows occur at mid-year.

In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of assets of the Judges' Retirement System as of the valuation date, June 30, 2023. In this section, the discussion will focus on the commitments (future benefit payments) of the plan, which are referred to as its liabilities.

The liability calculations for the June 30, 2023 Judges' Retirement System valuation are based on census data collected as of June 30, 2022. Standard actuarial techniques are used to adjust these results from June 30, 2022 to June 30, 2023. While these roll-forward techniques are based on the expectation that all actuarial assumptions are met during the intervening year, there will, of course, be many of the assumptions that are not met exactly. In general, this does not materially affect the resulting calculations or conclusions in this report. Should there be a year in which events, such as plan changes, occur that would affect the results, adjustments in the roll-forward methods would be made to appropriately reflect the events.

All liabilities reflect the benefit provisions and actuarial assumptions in place as of June 30, 2023.

Actuarial Accrued Liability

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. An actuarial cost method is a mathematical technique that allocates the present value of future benefits into annual costs. In order to perform this allocation, it is necessary for the funding method to "breakdown" the present value of future benefits into two components:

(1) that which is attributable to the past and

(2) that which is attributable to the future.

Actuarial terminology calls the part attributable to the past the "past service liability" or the "actuarial accrued liability." The portion allocated to the future is known as the present value of future normal costs, with the specific piece of it allocated to the current year being called the "normal cost."

Table 3 contains the calculation of actuarial accrued liability for the plan. The Entry Age Normal actuarial cost method is used to develop the actuarial accrued liability.

Low-Default-Risk Obligation Measure

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we are required to include a low-default-risk obligation measure of the System's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of the plan. This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation, except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of June 30, 2023 and with the 30-year spot rate used for all durations beyond 30 because this provides an appropriate set of discount rates for this intended purpose. Using these assumptions, we calculate a liability of approximately $830,066,000. This amount approximates the termination liability if the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds.

If the plan were funded with the intent of being able to be terminated at any valuation date, contribution requirements may need to increase and would also be more volatile. This assurance of funded status and benefit security is typically more relevant for corporate plans than for governmental plans since governments rarely have the need or option to completely terminate a plan. However, this informational disclosure is required for all plans whether corporate or governmental and care should be taken to ensure the one size fits all metric is not misconstrued.

TABLE 3

ACTUARIAL ACCRUED LIABILITY

	As of June 30, 2023
1. Actuarial Accrued Liability	
a. Member Contribution Balances	$ 44,818,866
b. Active & Inactive Members	310,734,913
c. In-pay Members	372,582,816
d. Total	728,136,595
2. Actuarial Value of Assets	674,766,089
3. Unfunded Actuarial Accrued Liability: (1d) – (2)	53,370,506
4. Funded Ratio: (2) ⁄ (1d)	92.67%

TABLE 4

SOLVENCY TEST

	Actuarial Accrued Liabilities (AAL)					Portion of AAL Covered by Assets			
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2023	$44,819	$372,583	$310,735	$728,137	$674,766	100.0%	100.0%	82.8%	92.7%
2022	44,009	351,050	281,800	676,859	651,415	100.0	100.0	91.0	96.2
2021	41,003	308,070	293,099	642,172	615,755	100.0	100.0	91.0	95.9
2020	41,523	299,146	251,841	592,510	564,741	100.0	100.0	89.0	95.3
2019	38,165	269,886	278,448	586,499	538,600	100.0	100.0	82.8	91.8
2018	38,541	258,255	250,898	547,694	516,750	100.0	100.0	87.7	94.4
2017	36,385	245,177	242,173	523,735	492,013	100.0	100.0	86.9	93.9
2016	34,804	244,484	221,838	501,126	469,378	100.0	100.0	85.7	93.7
2015	32,383	210,020	226,542	468,945	447,514	100.0	100.0	90.5	95.4
2014	32,060	216,044	216,751	464,855	419,568	100.0	100.0	79.1	90.3

Note: All of the dollar amounts are in thousands of dollars.

TABLE 5

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

		For Year Ending June 30, 2023
1. Unfunded Actuarial Accrued Liability as of June 30, 2022	$	25,444,000
2. Normal Cost		21,921,983
3. Actuarially Determined Contribution		(25,145,714)
4. Interest		1,388,767
5. Expected Unfunded Actuarial Accrued Liability as of June 30, 2023	$	23,609,036
6. Actuarial Value of Asset Changes		
a. Investment Experience (Gain)/Loss	$	6,596,787
b. Contributions (Above)/Below the Actuarially Determined Contribution and Other (Gain)/Loss	$	3,931,972
7. Actuarial Accrued Liability Changes		
a. Actuarial Accrued Liability Experience (Gain)/Loss	$	19,232,711
b. Additional Liability Due to Benefit Changes		0
c. Additional Liability Due to Assumption Changes		0
8. Total Experience (Gain)/Loss	$	29,761,470
9. Unfunded Actuarial Accrued Liability as of June 30, 2023: (5) + (8)	$	53,370,506

TABLE 6

ACTUARIAL GAIN/(LOSS)

Liabilities		
1. Actuarial Accrued Liability as of June 30, 2022	$	676,859,488
2. Normal Cost for Plan Year Ending June 30, 2023		21,921,983
3. Benefit Payments During Plan Year[1]		(32,619,171)
4. Service Purchases (employee and employer)		73,694
5. Member Reassignment Transfers		10,758
6. Interest at 6.25%		42,657,132
7. Change Due to Benefit Changes		0
8. Change Due to Assumption Changes		0
9. Expected Actuarial Accrued Liability as of June 30, 2023	$	708,903,884
10. Actuarial Accrued Liability as of June 30, 2023	$	728,136,595
Assets		
11. Actuarial Value of Assets as of June 30, 2022	$	651,415,488
12. Receipts During Plan Year		22,179,320
13. Expenditures, Excluding Expenses, During Plan Year		(32,619,155)
14. Interest at 6.25%		40,387,223
15. Expected Actuarial Value of Assets as of June 30, 2023	$	681,362,876
16. Actuarial Value of Assets as of June 30, 2023	$	674,766,089
Experience Gain / (Loss)		
17. Liability Actuarial Experience Gain/(Loss): (9) - (10)	$	(19,232,711)
18. Asset Actuarial Experience Gain/(Loss): (16) - (15)		(6,596,787)
19. Total Actuarial Experience Gain/(Loss): (17) + (18)	$	(25,829,498)

[1] Does not include miscellaneous expenses or benefit overpayments.

TABLE 7

EXPERIENCE GAIN/(LOSS) ANALYSIS BY SOURCE

Liability Sources (in thousands)		**Gain/(Loss)***
Retirement	$	4,200
Termination		180
Disability		807
Mortality		(1,142)
Salary **		(3,652)
New Entrants/Rehires		(1,358)
COLA/Miscellaneous **		(18,268)
Total Liability Experience Gain/(Loss)	$	(19,233)
as a % of AAL		(2.6%)
Asset Experience Gain/(Loss)	$	(6,597)
Total Actuarial Experience Gain/(Loss)	$	(25,829)

*Numbers may not add due to rounding.

** Includes known COLA/pay increase of 7.80% after the data collection date.

TABLE 8

PROJECTED BENEFIT PAYMENTS

Plan Year Ending June 30	Benefit Amount
2024	$ 39,582,293
2025	42,066,285
2026	44,519,860
2027	46,563,618
2028	48,571,681
2029	50,531,838
2030	52,477,176
2031	54,288,082
2032	56,419,468
2033	58,395,542
2034	60,583,500
2035	62,512,285
2036	64,277,255
2037	66,178,311
2038	67,788,170
2039	68,935,607
2040	70,050,421
2041	70,769,954
2042	71,191,777
2043	71,441,439
2044	71,549,707
2045	71,453,874
2046	71,188,279
2047	70,873,847
2048	70,027,606
2049	69,047,753
2050	67,878,591
2051	66,617,869
2052	65,168,350
2053	63,577,155

Note: Payouts reflect nominal payouts for current members, assuming that all future assumptions are met.

The previous two sections were devoted to a discussion of the assets and liabilities of the plan. We now turn to considering how the benefits will be funded. The method used to determine the incidence of the contributions in various years is called the actuarial cost method. Under an actuarial cost method, the contributions required to meet the difference between current assets and current liabilities are allocated each year between two elements: (1) the normal cost rate and (2) the unfunded actuarial accrued liability contribution rate.

The term "fully funded" is often applied to a plan in which contributions at the normal cost rate are sufficient to pay for the benefits of existing employees as well as for those of new employees. More often than not, plans are not fully funded, either because of past benefit improvements that have not been completely funded or because of actuarial deficiencies that have occurred because experience has not been as favorable as anticipated by the actuarial assumptions. Under these circumstances, an unfunded actuarial accrued liability (UAAL) exists. Likewise, when the actuarial value of assets is greater than the actuarial accrued liability, a surplus exists.

Description of Contribution Components

The Entry Age Normal (EAN) actuarial cost method is used for the valuation. Under that method, the normal cost for each year from entry age to assumed exit age is a constant percentage of the member's year by year projected compensation. The portion of the present value of future benefits not provided by the present value of future normal costs is the actuarial accrued liability. The unfunded actuarial accrued liability/(surplus) represents the difference between the actuarial accrued liability and the actuarial value of assets as of the valuation date. The unfunded actuarial accrued liability is calculated each year and reflects experience gains and losses.

The INPRS Board of Trustees has established a funding policy of requesting appropriations from the State in an amount equal to the actuarially determined contribution. Based on the June 30, 2022 actuarial valuation, the Board requested appropriations from the State for fiscal years 2024 and 2025. This June 30, 2023 valuation will not be directly used for determining contributions. Due to the biennial cycle used to set appropriations, the contribution amount for the plan years ending June 30, 2026 and June 30, 2027 will rely on the most up-to-date plan status at that time, which is the June 30, 2024 valuation.

The methodology of developing the contribution rate is designed to fund the benefits over a reasonable period with a stable contribution pattern. The current UAAL will be funded over the next 20 years.

Contribution Summary

In Table 9, the amortization payment related to the unfunded actuarial accrued liability/(surplus), as of June 30, 2023, is developed. Table 10 develops the actuarial determined contribution rate for the Plan. The contribution rates shown in this report are based on the actuarial assumptions and cost methods described in Appendix C. Additionally, in Table 11 the contribution rates under alternative discount rates are provided to illustrate the sensitivity of the contribution requirements to the selection of the investment return assumption.

TABLE 9

SCHEDULE OF AMORTIZATION BASES

Amortization Bases	Original Amount [1]	June 30, 2023 Remaining Payments	Date of Last Payment	Outstanding Balance as of June 30, 2023	Annual Contribution
2009 UAAL Base	40,281,829	13	7/1/2036	27,725,936	2,990,893
2010 UAAL Base	15,151,518	17	7/1/2040	11,791,610	1,078,373
2011 UAAL Base	14,155,565	18	7/1/2041	11,359,690	1,006,046
2012 UAAL Base	12,754,451	19	7/1/2042	10,525,064	905,209
2013 UAAL Base	(6,981,734)	20	7/1/2043	(5,909,999)	(494,839)
2014 UAAL Base	(25,396,685)	21	7/1/2044	(22,004,783)	(1,797,671)
2015 UAAL Base	(22,870,686)	22	7/1/2045	(20,243,677)	(1,616,820)
2016 UAAL Base	11,116,546	13	7/1/2036	8,694,231	937,877
2017 UAAL Base	1,104,859	14	7/1/2037	905,038	93,065
2018 UAAL Base	458,415	15	7/1/2038	391,419	38,553
2019 UAAL Base	18,284,577	16	7/1/2039	16,207,107	1,535,411
2020 UAAL Base	(18,251,291)	17	7/1/2040	(16,733,889)	(1,530,356)
2021 UAAL Base	195,949	18	7/1/2041	185,253	16,407
2022 UAAL Base	735,499	19	7/1/2042	716,036	61,583
2023 UAAL Base	29,761,470	20	7/1/2043	29,761,470	2,491,904
Total				$ 53,370,506	$ 5,715,635

1. Total UAAL Amortization Payments	$ 5,715,635
2. Projected Payroll for FY 2024, Under 22 Years of Service	$ 72,728,750
3. UAAL Amortization Payment Rate	7.86%

[1] The original amounts from 2017 to 2013 were provided by the prior actuary. Amounts prior to that were estimated by INPRS.

TABLE 10

ACTUARIALLY DETERMINED CONTRIBUTION RATE

1. Projected Covered Payroll for FY 2024	$	72,728,750
2. Normal Cost as of June 30, 2022		
a. Dollar Amount	$	24,350,111
b. Percent of Total Pay		30.11%
c. Percent of Covered Pay [1]		33.48%
3. Amortization of UAAL as of June 30, 2022		
a. Dollar Amount	$	5,715,635
b. Percent of Covered Pay [1]		7.86%
4. Total Recommended Contribution Rate: (2c) + (3b)		41.34%
5. Expected Employee Contributions		
a. Dollar Amount	$	4,363,725
b. Percent of Covered Pay [1]		6.00%
6. Actuarially Determined Contribution Rate: (4) - (5)		35.34%
7. Estimated Actuarially Determined Contribution Amount [2]: (1) x (6)	$	25,702,340
8. Expected Appropriations and Court Fees for FY 2024	$	21,666,982
9. Expected Percentage of Actuarially Determined Contribution Contributed		84.30%
Biennial Appropriations Cycle		
10. Projected Covered Payroll for FY 2025	$	74,656,062
11. Estimated Actuarially Determined Contribution Amount for FY 2025: (10) x (6)	$	26,383,452
12. Scheduled Appropriations and Court Fees for FY 2025	$	22,241,152

[1] Active members with less than 22 years of service make 6% contributions.

[2] Due to the biennial appropriations cycle, this will not directly impact the funding of the plan. Next year, this will be used to assist with the determination of the FY 2026 and FY 2027 approved funding amounts.

TABLE 11

INVESTMENT RETURN SENSITIVITY

	1.00% Decrease: (5.25%)	0.75% Decrease: (5.50%)	0.50% Decrease: (5.75%)	0.25% Decrease: (6.00%)	Current Assumption: (6.25%)
Funded Status					
Actuarial Accrued Liability	$813,626,391	$790,798,310	$768,976,875	$748,106,874	$728,136,595
Actuarial Value of Assets	674,766,089	674,766,089	674,766,089	674,766,089	674,766,089
Unfunded Actuarial Accrued Liability	$138,860,302	$116,032,221	$94,210,786	$73,340,785	$53,370,506
Funded Ratio	82.9%	85.3%	87.7%	90.2%	92.7%
Actuarially Determined Contribution Amount					
Normal Cost	$30,142,790	$28,552,975	$27,062,110	$25,663,283	$24,350,111
UAAL Amortization	12,096,970	10,478,926	8,876,513	7,288,984	5,715,635
Expected Member Contributions	(4,363,725)	(4,363,725)	(4,363,725)	(4,363,725)	(4,363,725)
Actuarially Determined Contribution Amount	$37,876,035	$34,668,176	$31,574,898	$28,588,542	$25,702,021
Actuarially Determined Contribution Rate	52.08%	47.67%	43.41%	39.31%	35.34%

	0.25% Increase: (6.50%)	0.50% Increase: (6.75%)	0.75% Increase: (7.00%)	1.00% Increase: (7.25%)	1.25% Increase: (7.50%)
Funded Status					
Actuarial Accrued Liability	$709,017,588	$690,704,433	$673,154,525	$656,327,879	$640,186,954
Actuarial Value of Assets	674,766,089	674,766,089	674,766,089	674,766,089	674,766,089
Unfunded Actuarial Accrued Liability	$34,251,499	$15,938,344	($1,611,564)	($18,438,210)	($34,579,135)
Funded Ratio	95.2%	97.7%	100.2%	102.8%	105.4%
Actuarially Determined Contribution Amount					
Normal Cost	$23,116,696	$21,957,585	$20,867,734	$19,842,475	$18,877,486
UAAL Amortization	4,155,803	2,608,874	(121,374)	(1,420,380)	(2,723,589)
Expected Member Contributions	(4,363,725)	(4,363,725)	(4,363,725)	(4,363,725)	(4,363,725)
Actuarially Determined Contribution Amount	$22,908,774	$20,202,734	$16,382,635	$14,058,370	$11,790,172
Actuarially Determined Contribution Rate	31.50%	27.78%	22.53%	19.33%	16.21%

GASB NO. 67 AND GASB NO. 68

The Governmental Accounting Standards Board issued Statement No. 67 (GASB 67), "Financial Reporting for Pension Plans" and Statement No. 68 (GASB 68), "Accounting and Financial Reporting for Pensions" in June 2012. The effective date for reporting under GASB 67 for the INPRS Plans was the fiscal year ending June 30, 2014. GASB 68's effective date for employers is the first fiscal year beginning after June 15, 2014.

The sections that follow provide the results of the required actuarial calculations set out in GASB 67 and GASB 68 for note disclosure and Required Supplementary Information (RSI). Some of this information was provided by the INPRS for use in this report.

The discount rate used for these disclosures is the assumed return on assets of 6.25%. We have verified that the current assets in conjunction with future contributions made on behalf of current members (including all contributions to fund any past service liability) will be sufficient to make the anticipated benefit payments to be provided to the current members.

To the best of our knowledge, the information contained in this report is complete and accurate. The calculations were performed by qualified actuaries according to generally accepted actuarial principles and practices, as well as in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board. The calculations are based on the current provisions of the plan, and on actuarial assumptions that are internally consistent and individually reasonable based on the actual experience of the plan. In addition, the calculations were completed in compliance with applicable law and, in our opinion, meet the requirements of GASB 67 and GASB 68.

TABLE 12

STATEMENT OF FIDUCIARY NET POSITION

			June 30, 2023
1. Assets			
a. Cash		$	307
b. Receivables			
i.	Contributions and Miscellaneous Receivables	$	3,627,738
ii.	Investments Receivable		5,234,436
iii.	Foreign Exchange Contracts Receivable		110,917,946
iv.	Interest and Dividends		1,665,398
v.	Receivables Due From Other Funds		0
vi.	Total Receivables	$	121,445,518
c. Investments			
i.	Short-Term Investments	$	0
ii.	Pooled Repurchase Agreements		289,430
iii.	Pooled Short-Term Investments		57,317,454
iv.	Pooled Fixed Income		174,883,320
v.	Pooled Equity		88,828,785
vi.	Pooled Alternative Investments		335,075,362
vii.	Pooled Derivatives		(211,551)
viii.	Pooled Investments		0
ix.	Securities Lending Collateral		2,549,689
x.	Total Investments	$	658,732,489
d. Net Capital Assets			0
e. Other Assets			0
f. Total Assets: a + b(vi) + c(x) + d + e		$	780,178,314
2. Liabilities			
a. Administrative Payable		$	11,359
b. Retirement Benefits Payable			0
c. Investments Payable			22,221,443
d. Foreign Exchange Contracts Payable			111,304,034
e. Securities Lending Obligations			2,549,689
f. Securities Sold Under Agreement to Repurchase			3,869,712
g. Due To Other Funds			15,537
h. Due to Other Governments			0
i. Total Liabilities: a + b + c + d + e + f + g + h		$	139,971,774
3. Fiduciary Net Position Restricted for Pensions: (1)(f) - (2)(i)		**$**	**640,206,540**

TABLE 13

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

			For Fiscal Year Ending June 30, 2023
1. Fiduciary Net Position as of June 30, 2022		**$**	**634,863,667**
2. Additions			
a. Contributions			
i.	Member Contributions	$	4,047,976
ii.	Employer Contributions		18,046,892
iii.	Service Purchases (Employer and Member) [1]		73,694
iv.	Non-Employer Contributing Entity Contributions		0
v.	Total Contributions	$	22,168,562
b. Investment Income/(Loss)			
i.	Net Appreciation/(Depreciation)	$	11,044,096
ii.	Net Interest and Dividend Income		8,387,106
iii.	Securities Lending Income		48,980
iv.	Other Net Investment Income		19,478
v.	Investment Management Expenses		(3,512,879)
vi.	Direct Investment Expenses		(75,067)
vii.	Securities Lending Expenses		(4,980)
viii.	Total Investment Income/(Loss)	$	15,906,734
c. Other Additions			
i.	Member Reassignments		10,758
ii.	Miscellaneous Receipts		0
iii.	Total Other Additions	$	10,758
d. Total Revenue (Additions): a(v) + b(viii) + c(iii)		$	38,086,054
3. Deductions			
a. Pension, Survivor and Disability Benefits		$	32,560,370
b. Death and Funeral Benefits			0
c. Distributions of Contributions and Interest			58,785
d. Administrative Expenses			124,026
e. Member Reassignments			0
f. Miscellaneous Expenses			0
g. Total Expenses (Deductions)		$	32,743,181
4. Net Increase (Decrease) in Fiduciary Net Position: (2)(d) - (3)(g)		**$**	**5,342,873**
5. Fiduciary Net Position as of June 30, 2023: (1) + (4)		**$**	**640,206,540**

[1] Service purchases paid by employer of $0 and employee of $73,694.

TABLE 14

SCHEDULE OF CHANGES IN NET PENSION LIABILITY

	For Fiscal Year Ending June 30, 2023		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) – (b)
1. Balance at June 30, 2022	$ 676,859,488	$ 634,863,667	$ 41,995,821
2. Changes for the Year:			
Service Cost (SC) [1]	21,921,983		21,921,983
Interest Cost	42,657,132		42,657,132
Experience (Gains)/Losses	19,232,695		19,232,695
Assumption Changes	0		0
Plan Amendments	0		0
Benefit Payments [2]	(32,619,155)	(32,619,155)	0
Service Purchases			
Employer Contributions	0	0	0
Employee Contributions	73,694	73,694	0
Member Reassignments [3]	10,758	10,758	0
Employer Contributions [4]		18,046,892	(18,046,892)
Non-employer Contributions		0	0
Employee Contributions		4,047,976	(4,047,976)
Net Investment Income		15,906,734	(15,906,734)
Administrative Expenses		(124,026)	124,026
Other		0	0
Net Changes	$ 51,277,107	$ 5,342,873	$ 45,934,234
3. Balance at June 30, 2023	$ 728,136,595	$ 640,206,540	$ 87,930,055

[1] Service cost provided as of beginning of year. Interest to end of year is included in the interest cost.

[2] Includes refund of member contributions of $58,785.

[3] Includes net interfund transfers of employer contributed amounts.

[4] Includes $10,893,703 of state appropriations to the fund.

TABLE 15

DEFERRED OUTFLOWS OF RESOURCES

	June 30, 2022	Remaining Period	Recognition	June 30, 2023
1. Liability Experience				
June 30, 2023 Loss	$ 19,232,695	4.27	$ 4,504,145	$ 14,728,550
June 30, 2022 Loss	2,675,361	3.32	805,832	1,869,529
June 30, 2021 Loss	0	2.17	0	0
June 30, 2020 Loss	0	1.27	0	0
June 30, 2019 Loss	0	0.00	0	0
June 30, 2018 Loss	0	0.00	0	0
June 30, 2017 Loss	0	0.00	0	0
June 30, 2016 Loss	0	0.00	0	0
June 30, 2015 Loss	0	0.00	0	0
June 30, 2014 Loss	0	0.00	0	0
2. Assumption Changes				
June 30, 2023 Loss	$ 0	4.27	$ 0	$ 0
June 30, 2022 Loss	0	3.32	0	0
June 30, 2021 Loss	13,642,880	2.17	6,287,042	7,355,838
June 30, 2020 Loss	0	1.27	0	0
June 30, 2019 Loss	0	0.00	0	0
June 30, 2018 Loss	0	0.00	0	0
June 30, 2017 Loss	0	0.00	0	0
June 30, 2016 Loss	0	0.00	0	0
June 30, 2015 Loss	0	0.00	0	0
3. Investment Experience				
June 30, 2023 Loss	$ 23,442,125	5.00	$ 4,688,425	$ 18,753,700
June 30, 2022 Loss	69,690,557	4.00	17,422,640	52,267,917
June 30, 2021 Loss	0	3.00	0	0
June 30, 2020 Loss	9,045,144	2.00	4,522,572	4,522,572
June 30, 2019 Loss	0	1.00	0	0
Total Outflows: (1)+(2)+(3)	**$ 137,728,762**		**$ 38,230,656**	**$ 99,498,106**

Results prior to 2018 were produced by the prior actuary.

In accordance with GASB, the original amortization period for liability experience and assumption changes are amortized over the expected future working lifetime of all members, whereas the investment experience is amortized over five years.

TABLE 16

DEFERRED INFLOWS OF RESOURCES

	June 30, 2022	Remaining Period	Recognition	June 30, 2023
1. Liability Experience				
June 30, 2023 Gain	$ 0	4.27	$ 0	$ 0
June 30, 2022 Gain	0	3.32	0	0
June 30, 2021 Gain	3,236,063	2.17	1,491,275	1,744,788
June 30, 2020 Gain	585,339	1.27	460,900	124,439
June 30, 2019 Gain	0	0.00	0	0
June 30, 2018 Gain	0	0.00	0	0
June 30, 2017 Gain	0	0.00	0	0
June 30, 2016 Gain	0	0.00	0	0
June 30, 2015 Gain	0	0.00	0	0
June 30, 2014 Gain	0	0.00	0	0
2. Assumption Changes				
June 30, 2023 Gain	$ 0	4.27	$ 0	$ 0
June 30, 2022 Gain	0	3.32	0	0
June 30, 2021 Gain	0	2.17	0	0
June 30, 2020 Gain	7,380,358	1.27	5,811,308	1,569,050
June 30, 2019 Gain	0	0.00	0	0
June 30, 2018 Gain	0	0.00	0	0
June 30, 2017 Gain	0	0.00	0	0
June 30, 2016 Gain	0	0.00	0	0
June 30, 2015 Gain	0	0.00	0	0
3. Investment Experience				
June 30, 2023 Gain	$ 0	5.00	$ 0	$ 0
June 30, 2022 Gain	0	4.00	0	0
June 30, 2021 Gain	61,823,352	3.00	20,607,785	41,215,567
June 30, 2020 Gain	0	2.00	0	0
June 30, 2019 Gain	576,282	1.00	576,282	0
Total Inflows: (1)+(2)+(3)	**$ 73,601,394**		**$ 28,947,550**	**$ 44,653,844**

Results prior to 2018 were produced by the prior actuary.

In accordance with GASB, the original amortization period for liability experience and assumption changes are amortized over the expected future working lifetime of all members, whereas the investment experience is amortized over five years.

TABLE 17

DEFERRED INFLOWS / OUTFLOWS TO BE RECOGNIZED IN PENSION EXPENSE

Fiscal Year Ending June 30	Deferred Outflows	Deferred Inflows	Net Deferred Outflows/(Inflows)
Current Year:			
2023	$ 38,230,656	$ 28,947,550	$ 9,283,106
Future Years:			
2024	$ 38,230,656	$ 23,792,549	$ 14,438,107
2025	28,489,838	20,861,295	7,628,543
2026	26,873,072	0	26,873,072
2027	5,904,540	0	5,904,540
2028	0	0	0
Thereafter	0	0	0

TABLE 18

PENSION EXPENSE UNDER GASB NO. 68

		For Fiscal Year Ending June 30, 2023	
1. Service Cost, beginning of year		$	21,921,983
2. Interest Cost, including interest on service cost			42,657,132
3. Member Contributions [1]			(4,047,976)
4. Administrative Expenses			124,026
5. Expected Return on Assets [2]			(39,348,859)
6. Plan Amendments			0
7. Recognition of Deferred Inflows / Outflows of Resources Related to:			
a. Liability Experience (Gains) / Losses	3,357,802		
b. Assumption Change (Gains) / Losses	475,734		
c. Investment Experience (Gains) / Losses	5,449,570		
d. Total: (7a)+(7b)+(7c)			9,283,106
8. Miscellaneous (Income) / Expense			0
9. Total Collective Pension Expense: (1)+(2)+(3)+(4)+(5)+(6)+(7d)+(8)			30,589,412
10. Employer Service Purchases			0
Pension Expense / (Income): (9) + (10)		**$**	**30,589,412**

[1] Excludes member paid service purchases of $73,694.
[2] Cash flows assumed to occur mid-year.

GASB NO. 67 and GASB NO. 68
NOTES TO THE FINANCIAL STATEMENTS

The material presented herein is a subset of the information requested as Notes to the Financial Statements. Required information not provided herein is to be supplied by the plan.

Actuarial Assumptions and Inputs

Significant actuarial assumptions and other inputs used to measure the total pension liability:

Type of Plan	The Judges' Retirement System is a single-employer plan for GASB accounting purposes.
Measurement Date	June 30, 2023
Valuation Date	
Assets:	June 30, 2023
Liabilities:	June 30, 2022 – The TPL as of June 30, 2023 was determined based on an actuarial valuation prepared as of June 30, 2022 rolled forward one year to June 30, 2023, using the following key actuarial assumptions and other inputs, such as benefit accruals and actual benefit payments during that time period.
Inflation	2.00%
Future Salary Increases	2.65% per year beginning July 1, 2024. Actual salary increases on July 1, 2022 (3.33%) and July 1, 2023 (7.80%) are reflected in the in the liability valuation at June 30, 2023.
Cost-of-Living Increases	As of June 30, 2023: 2.65% compounded annually, beginning July 1, 2024. Actual COLA increases at July 1, 2022 (3.33%) and July 1, 2023 (7.80%) are reflected in the valuation. As of June 30, 2022: 2.65% compounded annually, beginning July 1, 2023. Actual COLA increases at July 1, 2021 (2.45%) and July 1, 2022 (3.33%) are reflected in the valuation.

Mortality Assumption	Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019. *Healthy Employees* – General Employee table with a 1 year setback for males and a 1 year setback for females. *Retirees* – General Retiree table with a 1 year setback for males and a 1 year setback for females. *Beneficiaries* – Contingent Survivor table with no set forward for males and a 2 year set forward for females. *Disableds* – General Disabled table with a 140% load.
Experience Study	The most recent comprehensive experience study, based on member experience between June 30, 2014 and June 30, 2019, was completed in February 2020. The demographic assumptions were approved by the Board in June 2020 and were used beginning with the June 30, 2020 actuarial valuation. Economic assumptions were updated and approved by the Board in May 2021 following the completion of an Asset-Liability study and first used in the June 30, 2021 actuarial valuation.
Discount Rate	6.25%, net of investment expenses The discount rate is equal to the expected long-term rate of return on plan investments, net of investment expense and including price inflation. There was no change in the discount rate from the prior measurement date. The INPRS Board of Trustees has established a funding policy of requesting appropriations from the State in an amount equal to the actuarially determined contribution, which is based on the assumptions and methods selected by the Board for the annual actuarial valuations and projected covered member payroll. The June 30, 2023 actuarial valuation assumes a long-term rate of return on assets of 6.25%, a 20-year level dollar closed method for amortizing the future layers of unfunded actuarial accrued liability (30 years for amortization layers established prior to June 30, 2016), and a 5-year smoothing method for recognizing investment gains and losses in the actuarial value of assets.

Discount Rate Sensitivity

	1% Decrease 5.25%	Current Rate 6.25%	1% Increase 7.25%
Net Pension Liability	$173,419,851	$87,930,055	$16,121,339

Classes of Plan Members Covered

The June 30, 2023 valuation was performed using census data provided by INPRS as of June 30, 2022. Standard actuarial techniques were used to roll forward the total pension liability computed as of June 30, 2022 to the June 30, 2023 measurement date using actual benefit payments during that period of time.

Number as of June 30, 2022	
1. Currently Receiving Benefits:	
Retired Members, Disabled Members, and Beneficiaries	426
2. Inactive Members Entitled To But Not Yet Receiving Benefits	30
3. Inactive Non-vested Members Entitled to a Refund of Member Contributions	38
4. Active Members	480
Total Covered Plan Members: (1)+(2)+(3)+(4)	974

Money-Weighted Rate of Return

The money-weighted rate of return equals investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. For the fiscal year ending June 30, 2023, the money-weighted return on the plan assets is 2.5%.

Components of Net Pension Liability

As of June 30, 2023		
Total Pension Liability	$	728,136,595
Fiduciary Net Position		640,206,540
Net Pension Liability	$	87,930,055
Ratio of Fiduciary Net Position to Total Pension Liability		87.92%

GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION

SCHEDULE OF CHANGES IN THE TOTAL PENSION LIABILITY AND PLAN FIDUCIARY NET POSITION

Fiscal Year Ending June 30	2019	2020	2021	2022	2023
Total Pension Liability					
Total Pension Liability - beginning	$547,694,452	$586,499,053	$592,510,151	$642,171,761	$676,859,488
Service Cost (SC), beginning-of-year	18,229,583	19,566,868	17,969,443	20,837,708	21,921,983
Interest Cost, including interest on SC	37,346,053	40,005,655	40,243,810	40,496,599	42,657,132
Experience (Gains)/Losses	8,527,309	(1,968,039)	(6,218,613)	3,481,193	19,232,695
Assumption Changes	0	(24,814,282)	26,216,964	0	0
Plan Amendments	0	0	0	0	0
Actual Benefit Payments	(25,391,127)	(26,836,475)	(28,916,344)	(30,976,590)	(32,619,155)
Member Reassignments	0	0	0	126,188	10,758
Service Purchases	92,783	57,371	366,350	722,629	73,694
Net Change in Total Pension Liability	38,804,601	6,011,098	49,661,610	34,687,727	51,277,107
(a) Total Pension Liability - ending	$586,499,053	$592,510,151	$642,171,761	$676,859,488	$728,136,595
Plan Fiduciary Net Position					
Plan Fiduciary Net Position – beginning	$513,952,408	$545,330,816	$554,121,143	$687,992,849	$634,863,667
Contributions – employer	16,030,805	18,166,479	18,620,626	17,563,885	18,046,892
Contributions – non-employer	0	0	0	0	0
Contributions – member	3,475,575	3,548,975	4,040,801	4,632,105	4,121,670
Net investment income	37,370,961	14,020,453	140,227,588	(44,386,842)	15,906,734
Actual benefit payments	(25,391,127)	(26,836,475)	(28,916,344)	(30,976,590)	(32,619,155)
Net member reassignments	0	0	0	126,188	10,758
Administrative expense	(107,806)	(109,105)	(100,949)	(103,928)	(124,026)
Other	0	0	(16)	16,000	0
Net change in Plan Fiduciary Net Position	31,378,408	8,790,327	133,871,706	(53,129,182)	5,342,873
(b) Plan Fiduciary Net Position - ending	$545,330,816	$554,121,143	$687,992,849	$634,863,667	$640,206,540
Net Pension Liability - ending, (a) - (b)	$41,168,237	$38,389,008	($45,821,088)	$41,995,821	$87,930,055

Results prior to 2018 were produced by the prior actuary.

GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION

SCHEDULE OF CHANGES IN THE TOTAL PENSION LIABILITY AND PLAN FIDUCIARY NET POSITION

(continued)

Fiscal Year Ending June 30	2014	2015	2016	2017	2018
Total Pension Liability					
Total Pension Liability - beginning	$453,109,893	$464,854,573	$468,944,751	$501,125,713	$523,735,050
Service Cost (SC), beginning-of-year	15,301,638	15,283,088	13,869,891	14,762,102	14,885,621
Interest Cost, including interest on SC	30,992,602	31,753,468	31,889,331	34,082,760	35,567,044
Experience (Gains)/Losses	(16,025,822)	8,410,750	7,181,935	(3,106,524)	(3,090,250)
Assumption Changes	0	(31,925,306)	0	(1,212,930)	0
Plan Amendments	0	0	0	0	0
Actual Benefit Payments	(18,527,788)	(19,431,822)	(20,921,745)	(22,099,240)	(23,622,253)
Member Reassignments	4,050	0	0	0	0
Service Purchases	0	0	161,550	183,169	219,240
Net Change in Total Pension Liability	11,744,680	4,090,178	32,180,962	22,609,337	23,959,402
(a) Total Pension Liability - ending	$464,854,573	$468,944,751	$501,125,713	$523,735,050	$547,694,452
Plan Fiduciary Net Position					
Plan Fiduciary Net Position – beginning	$375,752,562	$432,729,729	$437,352,498	$441,790,144	$475,054,556
Contributions – employer	20,894,700	21,020,000	16,946,301	16,823,600	15,117,494
Contributions – non-employer	0	0	0	0	0
Contributions – member	2,855,956	3,292,222	3,239,092	3,467,843	3,417,904
Net investment income	51,896,235	(93,406)	5,322,425	35,195,878	44,103,829
Actual benefit payments	(18,527,788)	(19,431,822)	(20,921,745)	(22,099,240)	(23,622,253)
Net member reassignments	4,050	0	0	0	0
Administrative expense	(145,986)	(164,225)	(148,427)	(123,669)	(119,122)
Other	0	0	0	0	0
Net change in Plan Fiduciary Net Position	56,977,167	4,622,769	4,437,646	33,264,412	38,897,852
(b) Plan Fiduciary Net Position - ending	$432,729,729	$437,352,498	$441,790,144	$475,054,556	$513,952,408
Net Pension Liability - ending, (a) - (b)	$32,124,844	$31,592,253	$59,335,569	$48,680,494	$33,742,044

Results prior to 2018 were produced by the prior actuary.

GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION

SCHEDULE OF THE NET PENSION LIABILITY

Fiscal Year Ending June 30	2019	2020	2021	2022	2023
Total Pension Liability	$586,499,053	$592,510,151	$642,171,761	$676,859,488	$728,136,595
Plan Fiduciary Net Position	545,330,816	554,121,143	687,992,849	634,863,667	640,206,540
Net Pension Liability	$41,168,237	$38,389,008	($45,821,088)	$41,995,821	$87,930,055
Ratio of Plan Fiduciary Net Position to Total Pension Liability	92.98%	93.52%	107.14%	93.80%	87.92%
Covered-employee payroll [1]	$56,379,905	$58,188,887	$61,214,824	$65,158,595	$67,466,373
Net Pension Liability as a percentage of covered-employee payroll	73.02%	65.97%	-74.85%	64.45%	130.33%

Fiscal Year Ending June 30	2014	2015	2016	2017	2018
Total Pension Liability	$464,854,573	$468,944,751	$501,125,713	$523,735,050	$547,694,452
Plan Fiduciary Net Position	432,729,729	437,352,498	441,790,144	475,054,556	513,952,408
Net Pension Liability	$32,124,844	$31,592,253	$59,335,569	$48,680,494	$33,742,044
Ratio of Plan Fiduciary Net Position to Total Pension Liability	93.09%	93.26%	88.16%	90.71%	93.84%
Covered-employee payroll [1]	$46,041,085	$48,582,165	$51,381,964	$54,755,206	$53,350,037
Net Pension Liability as a percentage of covered-employee payroll	69.77%	65.03%	115.48%	88.91%	63.25%

[1] As provided by INPRS.

Results prior to 2018 were produced by the prior actuary.

GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ending June 30	2019	2020	2021	2022	2023
Actuarially Determined Contribution [1]	$14,861,743	$19,405,994	$22,074,066	$19,039,341	$21,771,398
Actual employer contributions	$16,030,805	$18,166,479	$18,620,626	$17,563,885	$18,046,892
Annual contribution (deficiency) / excess	$1,169,062	($1,239,515)	($3,453,440)	($1,475,456)	($3,724,506)
Covered-employee payroll [2]	$56,379,905	$58,188,887	$61,214,824	$65,158,595	$67,466,373
Actual contributions as a percentage of covered-employee payroll	28.43%	31.22%	30.42%	26.96%	26.75%

Fiscal Year Ending June 30	2014	2015	2016	2017	2018
Actuarially Determined Contribution [1]	$27,647,672	$18,864,455	$17,485,282	$14,334,913	$14,852,650
Actual employer contributions	$20,894,700	$21,020,000	$16,946,301	$16,823,600	$15,117,494
Annual contribution (deficiency) / excess	($6,752,972)	$2,155,545	($538,981)	$2,488,687	$264,844
Covered-employee payroll [2]	$46,041,085	$48,582,165	$51,381,964	$54,755,206	$53,350,037
Actual contributions as a percentage of covered-employee payroll	45.38%	43.27%	32.98%	30.73%	28.34%

[1] Actuarially determined contribution rate was developed in the actuarial funding valuation completed one year prior to the fiscal year. This rate was applied to the actual covered employee payroll for the fiscal year to determine the contribution amount.
[2] As provided by INPRS.

Results prior to 2018 were produced by the prior actuary.

GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION

SCHEDULE OF MONEY-WEIGHTED RETURNS

For Fiscal Year Ending June 30	Money-Weighted Return
2023	2.5%
2022	(6.5%)
2021	25.5%
2020	2.6%
2019	7.3%
2018	9.3%
2017	8.0%
2016	1.2%
2015	(0.1%)
2014	13.7%

Results were provided by INPRS.

MEMBER DATA RECONCILIATION
For June 30, 2022 Data used in the June 30, 2023 Valuation

	Active Members	Inactive Vested	Inactive Nonvested	Disabled	Retired	Beneficiary	Total
1. As of June 30, 2021	**469**	**28**	**39**	**2**	**316**	**103**	**957**
2. Data Adjustments							
New Participants	31	0	0	0	0	0	31
Rehires	0	0	0	0	0	0	0
Terminations:							
Not Vested	(5)	0	5	0	0	0	0
Deferred Vested	(4)	4	0	0	0	0	0
Disability	0	0	0	0	0	0	0
Retirements	(9)	(3)	0	0	12	0	0
Refund / Benefits Ended	(1)	0	(5)	0	0	0	(6)
Deaths:							
With Beneficiary	0	0	0	0	(10)	10	0
Without Beneficiary	0	0	(1)	0	(1)	(7)	(9)
Entitled to Future Benefit	(1)	1	0	0	0	0	0
Data Corrections	0	0	0	0	1	0	1
Net Change	11	2	(1)	0	2	3	17
3. As of June 30, 2022 [1]	**480**	**30**	**38**	**2**	**318**	**106**	**974**

[1] The valuation results were calculated using the prior year's census data and were adjusted for certain activity during fiscal year. Includes 3 Inactive Nonvested Deceased members in the Inactive Nonvested count and 1 Inactive Vested Deceased member in the Inactive Vested count.

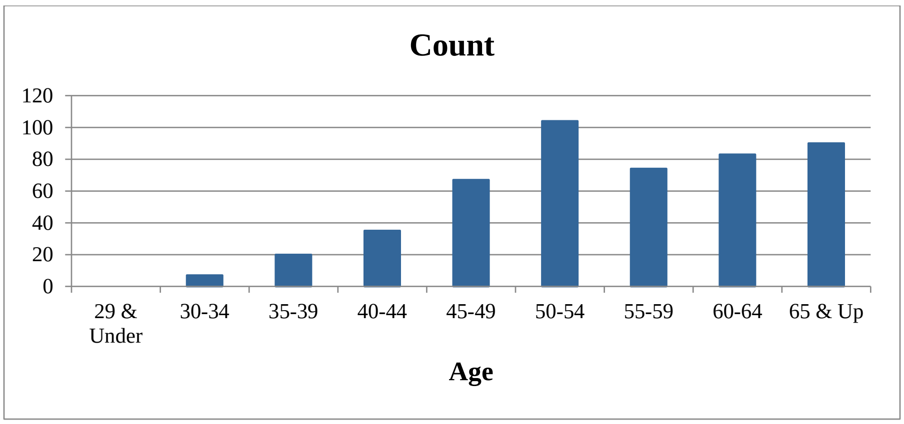
SUMMARY OF MEMBERSHIP DATA

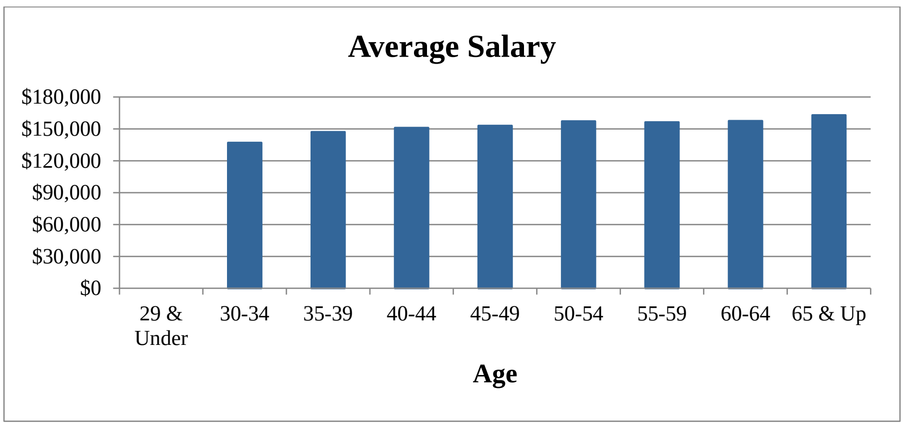
Valuation Date		June 30, 2022		June 30, 2023	% Change
Date of Membership Data [1]		July 1, 2021		July 1, 2022	
ACTIVE MEMBERS					
Number of Active Members		469		480	2.3%
Annual Membership Data Salary [2]	$	71,303,085	$	75,098,740	5.3%
Anticipated Covered Pay for Next Fiscal Year [3]	$	67,328,376	$	72,728,750	8.0%
Active Member Averages					
Age		55.1		55.3	0.4%
Service		9.2		9.4	2.2%
Annual Membership Data Salary	$	152,032	$	156,456	2.9%
INACTIVE MEMBERS					
Number of Members					
Inactive Vested		28		30	7.1%
Inactive Non-Vested		39		38	(2.6%)
Total		67		68	1.5%
Inactive Vested Member Averages					
Age		58.8		60.0	2.0%
Service		13.1		13.5	3.1%
RETIREES, DISABLEDS, AND BENEFICIARIES					
Number of Members					
Retired		316		318	0.6%
Disabled		2		2	0.0%
Beneficiaries		103		106	2.9%
Total		421		426	1.2%
Annual Benefits					
Retired	$	26,558,053	$	27,196,256	2.4%
Disabled		146,719		150,314	2.5%
Beneficiaries		3,319,321		3,640,494	9.7%
Total	$	30,024,093	$	30,987,064	3.2%

[1]The valuation results were calculated using the prior year's census data and were adjusted for certain activity during fiscal year.
[2] Annualized for actives with less than a year of service. Actives with no salary provided are defaulted to the state provided salary for their job title.
[3] Actual pay for contributing members with less than 22 years of service for the fiscal year ending on the valuation date, rolled forward at the known pay increase of 7.80%.

ACTIVE MEMBERS
As of June 30, 2022 for the June 30, 2023 Valuation

	Count of Members			FY 2022 Annual Membership Data Salary		
Age	Male	Female	Total	Male	Female	Total
29 & Under	0	0	0	0	0	0
30-34	4	3	7	561,939	396,663	958,602
35-39	11	9	20	1,619,706	1,322,209	2,941,915
40-44	22	13	35	3,399,857	1,884,148	5,284,005
45-49	33	34	67	5,123,558	5,123,559	10,247,117
50-54	64	40	104	10,209,957	6,143,440	16,353,397
55-59	48	26	74	7,569,643	3,999,681	11,569,324
60-64	55	28	83	8,850,591	4,226,966	13,077,557
65 & Up	72	18	90	11,654,725	3,012,098	14,666,823
Total	309	171	480	$ 48,989,976	$ 26,108,764	$ 75,098,740



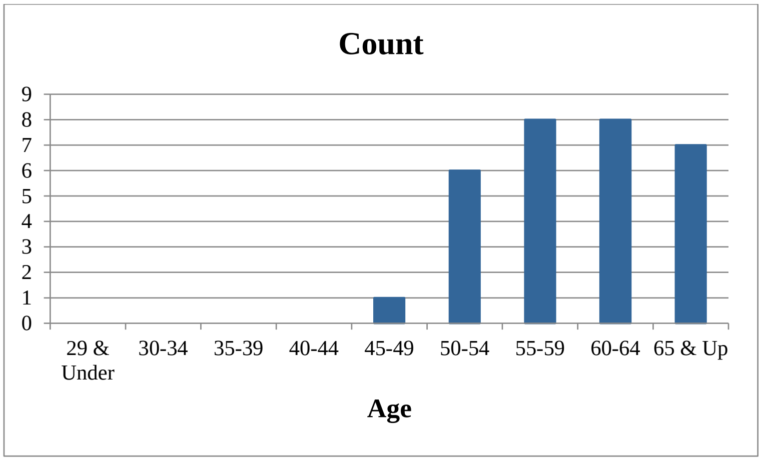


AGE AND SERVICE DISTRIBUTION
As of June 30, 2022 for the June 30, 2023 Valuation

Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
29 & Under	Number	0	0	0	0	0	0	0	0	0
	Total Salary	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
	Average Sal.	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
30-34	Number	7	0	0	0	0	0	0	0	7
	Total Salary	$ 958,602	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 958,602
	Average Sal.	$ 136,943	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 136,943
35-39	Number	18	2	0	0	0	0	0	0	20
	Total Salary	$ 2,644,418	$ 297,497	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 2,941,915
	Average Sal.	$ 146,912	$ 148,749	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 147,096
40-44	Number	26	8	0	1	0	0	0	0	35
	Total Salary	$ 3,961,796	$ 1,189,988	$ 0	$ 132,221	$ 0	$ 0	$ 0	$ 0	$ 5,284,005
	Average Sal.	$ 152,377	$ 148,749	$ 0	$ 132,221	$ 0	$ 0	$ 0	$ 0	$ 150,972
45-49	Number	28	25	10	4	0	0	0	0	67
	Total Salary	$ 4,198,013	$ 3,900,515	$ 1,487,485	$ 661,104	$ 0	$ 0	$ 0	$ 0	$ 10,247,117
	Average Sal.	$ 149,929	$ 156,021	$ 148,749	$ 165,276	$ 0	$ 0	$ 0	$ 0	$ 152,942
50-54	Number	42	31	23	7	1	0	0	0	104
	Total Salary	$ 6,507,047	$ 4,826,061	$ 3,697,353	$ 1,157,660	$ 165,276	$ 0	$ 0	$ 0	$ 16,353,397
	Average Sal.	$ 154,930	$ 155,679	$ 160,754	$ 165,380	$ 165,276	$ 0	$ 0	$ 0	$ 157,244
55-59	Number	13	23	14	16	8	0	0	0	74
	Total Salary	$ 2,016,368	$ 3,536,908	$ 2,148,589	$ 2,545,251	$ 1,322,208	$ 0	$ 0	$ 0	$ 11,569,324
	Average Sal.	$ 155,105	$ 153,779	$ 153,471	$ 159,078	$ 165,276	$ 0	$ 0	$ 0	$ 156,342
60-64	Number	19	16	21	14	13	0	0	0	83
	Total Salary	$ 2,809,694	$ 2,579,034	$ 3,174,029	$ 2,275,979	$ 2,238,821	$ 0	$ 0	$ 0	$ 13,077,557
	Average Sal.	$ 147,879	$ 161,190	$ 151,144	$ 162,570	$ 172,217	$ 0	$ 0	$ 0	$ 157,561
65 & Up	Number	4	22	16	10	38	0	0	0	90
	Total Salary	$ 561,939	$ 3,371,632	$ 2,573,476	$ 1,652,760	$ 6,507,016	$ 0	$ 0	$ 0	$ 14,666,823
	Average Sal.	$ 140,485	$ 153,256	$ 160,842	$ 165,276	$ 171,237	$ 0	$ 0	$ 0	$ 162,965
Total	Number	157	127	84	52	60	0	0	0	480
	Total Salary	$ 23,657,877	$ 19,701,635	$ 13,080,932	$ 8,424,975	$ 10,233,321	$ 0	$ 0	$ 0	$ 75,098,740
	Average Sal.	$ 150,687	$ 155,131	$ 155,725	$ 162,019	$ 170,555	$ 0	$ 0	$ 0	$ 156,456

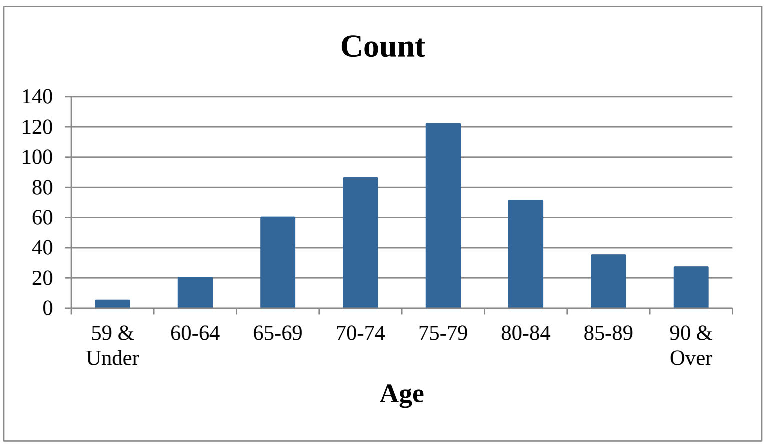
INACTIVE VESTED MEMBERS
As of June 30, 2022 for the June 30, 2023 Valuation

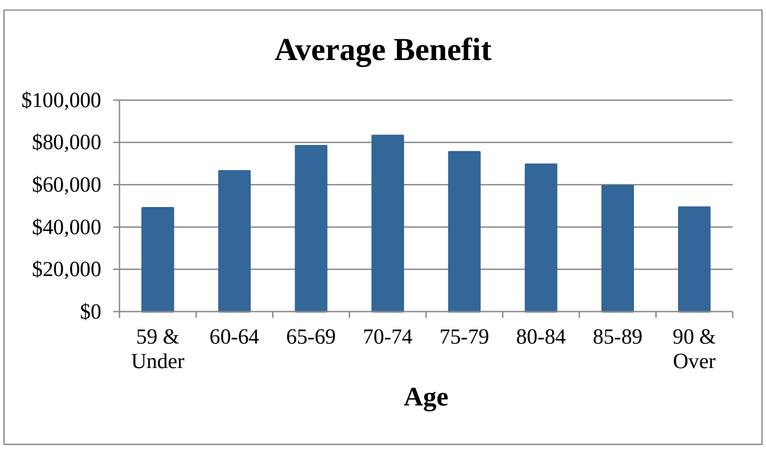
	Count of Members		
Age	Male	Female	Total
29 & Under	0	0	0
30-34	0	0	0
35-39	0	0	0
40-44	0	0	0
45-49	1	0	1
50-54	4	2	6
55-59	4	4	8
60-64	3	5	8
65 & Up	4	3	7
Total	16	14	30



MEMBERS AND BENEFICIARIES RECEIVING BENEFITS
As of June 30, 2022 for the June 30, 2023 Valuation

	Count of Members			Annual Benefits		
Age	Male	Female	Total	Male	Female	Total
59 & Under	1	4	5	$ 95,970	$ 148,742	$ 244,712
60-64	9	11	20	672,870	656,827	1,329,697
65-69	39	21	60	3,262,890	1,435,038	4,697,928
70-74	66	20	86	5,856,598	1,297,556	7,154,154
75-79	87	35	122	7,478,256	1,729,978	9,208,234
80-84	40	31	71	3,580,340	1,360,581	4,940,921
85-89	17	18	35	1,430,001	650,461	2,080,462
90 & Over	10	17	27	837,814	493,142	1,330,956
Total	269	157	426	$ 23,214,739	$ 7,772,325	$ 30,987,064





MEMBERS AND BENEFICIARIES RECEIVING BENEFITS
As of June 30, 2022 for the June 30, 2023 Valuation

Schedule of Average Benefit Payments [1]

	Years of Credited Service						
For the Year Ended June 30, 2023	< 10	10 - 14	15 - 19	20 - 24	25 - 29	30 +	Total
Average Monthly Defined Benefit	$2,302	$5,256	$6,273	$7,211	$6,860	$7,068	$6,062
Average Final Average Salary [2]	$116,010	$131,135	$131,946	$137,763	$117,330	$129,682	$131,038
Number of Benefit Recipients	35	107	96	115	39	34	426

Schedule of Benefit Recipients by Type of Benefit Option [1]

	Number of Recipients by Benefit Option			
Amount of Monthly Benefit (in dollars)	Joint with 50% Survivor Benefits	Survivors	Disability	Total Benefit Recipients
1 - 500	0	0	0	0
501 - 1,000	0	0	0	0
1,001 - 1,500	0	16	0	16
1,501 - 2,000	0	9	0	9
2,001 - 2,500	1	8	0	9
2,501 - 3,000	4	16	0	20
Over 3,000	313	57	2	372
Total	318	106	2	426

[1] Calculated using the prior year census data, adjusted for certain activity during the fiscal year.
[2] Excludes the 91 in-pay members who are missing a final average salary in the data.

MEMBERS AND BENEFICIARIES RECEIVING BENEFITS
As of June 30, 2022 for the June 30, 2023 Valuation

Schedule of Retirants and Beneficiaries

	Added to Rolls		Removed from Rolls		Rolls - End of Year				
	Number	Annual Benefits [1]	Number	Annual Benefits [1]	Number	Total Annual Benefits [1, 2]	Percent Change In Total Annual Benefits	Average Annual Benefit	Percent Change In Average Annual Benefit
2023 [3]	13	$918	8	$299	426	$30,987	3.2%	$72,740	2.0%
2022 [3]	40	3,199	13	405	421	30,024	11.7	71,316	4.5
2021 [3]	10	729	12	492	394	26,877	2.2	68,216	2.8
2020 [3]	31	2,498	10	261	396	26,289	10.5	66,387	4.6
2019 [3]	18	1,340	8	191	375	23,794	5.1	63,450	2.3
2018 [3]	22	1,723	7	309	365	22,637	5.5	62,019	1.1
2017 [3]	9	696	10	509	350	21,465	2.4	61,329	2.7
2016 [3]	34	2,520	9	340	351	20,959	12.8	59,714	4.8
2015 [3]	10	494	5	195	326	18,578	0.6	56,987	(1.0)
2014 [3]	0	0	0	0	321	18,474	0.0	57,551	0.0

[1] Dollar amounts are in thousands except for the average annual benefit.
[2] End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.
[3] The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.

Definitions

Fiscal year	Twelve month period ending June 30.
Participation	All individuals serving as a judge or justice in Indiana as defined in IC 33-38-6-7. A judge who begins service before September 1, 1985 shall be a participant of the 1977 Plan (IC 33-38-7) and a judge who begins service after August 31, 1985 shall be a participant of the 1985 Plan (IC 33-38-8).
Member contributions	Each participant contributes 6% of his total salary until completion of 22 years of service. Beginning in 2013, the employee contributions are picked up by the employer as pre-tax money which are also included in annual salary. This interest crediting rate is established annually by the board. It is based on the 10-Year Treasury Yield, an average of January through March month-end 10-year US Treasury Note yields in the current year.
Earnings	Earnings is the annual salary being paid for the office which the participant held at the time of separation from service effective January 1, 2010.

Eligibility for Benefits

Deferred vested	8 or more years of creditable service and no longer active.
Disability retirement	A participant is considered disabled if two (2) physicians certify that the participant is totally incapacitated from earning a livelihood and that the condition is likely to be permanent.
Early retirement	Age 62 with 8 or more years of creditable service.
Normal retirement	Earliest of: - Age 65 with 8 or more years of creditable service - Age 55 with sum of age and creditable service equal to 85 or more
Pre-retirement death	8 or more years of creditable service entitled to a future benefit.

Monthly Benefits Payable

Normal retirement

The normal retirement benefit is a monthly annuity payable for life with a 50% continuation (or $12,000 annually, if greater) to a surviving spouse or surviving dependent children. The benefit is equal to a percentage of earnings in accordance with the following table:

Years of Service	Percentage
7 or less	0%
8	24%
9	27%
10	30%
11	33%
12	50%
13	51%
14	52%
15	53%
16	54%
17	55%
18	56%
19	57%
20	58%
21	59%
22 or more	60%

An additional percentage shall be calculated by prorating between applicable percentages, based on the number of months in a partial year of service.

Early retirement

The early retirement benefit is the accrued retirement benefit determined as of the early retirement date and payable commencing at the normal retirement date. A participant may elect to have the benefit commence prior to age 65 provided the benefit is reduced by 0.1% for each month that the benefit commencement date precedes age 65.

Deferred retirement

The termination benefit is the accrued retirement benefit determined as of the termination date and payable commencing as of the normal retirement date. The participant may elect to receive a reduced early retirement benefit.

Disability	The disability retirement benefit is payable for the duration of the disability commencing the month following disability date. The amount of monthly benefit shall be equal to a percentage of: (1) for the 1977 JRS Plan – the salary paid for the office the member held at the time of separation; (2) for the 1985 Plan - salary paid to the member at the time of separation. The percentages are in accordance with the following table:

Years of Service	Percentage
12 or less	50%
13	51%
14	52%
15	53%
16	54%
17	55%
18	56%
19	57%
20	58%
21	59%
22 or more	60%

	An additional percentage shall be calculated by prorating between applicable percentages, based on the number of months in a partial year of service.
Pre-retirement death	If death occurs (a) while receiving benefits, (b) while in service as a judge with 8 or more years of service, or (c) while permanently disabled, the spouse or family of dependent children shall be eligible for a benefit equal to the greater of $12,000 (effective July 1, 1977) annually or 50% of the benefit the participant was receiving or was entitled to receive at the time of death. Spousal benefits are payable as a lifetime monthly pension.
Post-retirement benefit increases	Participant benefits in the Judges' 1977 Retirement, Disability, and Death Plan increase in the same ratio as the salary being paid for the office a participant held at the time of separation from service increases. Effective January 1, 2010, the Judges' 1985 Retirement, Disability, and Death Plan will also have benefits increase in the same manner, on a prospective basis only.

Cost-of-Living-Adjustments	Benefits for retired members (does not include disabled members or surviving spouses) increase based on the annual pay increase granted for the position the member held at the time of retirement. The annual cost-of-living assumption for the valuation is 2.65%, which is the same as the salary increase assumption for active members.
Forms of payment	
a. Single life annuity	Member will receive a monthly benefit for life, but there are no monthly payments to anyone after death.
b. Joint with one-half survivor benefits	Member will be paid a monthly benefit for life. After death, one-half (1/2) of the benefit will be paid to the spouse for their lifetime or the dependent until age 18 unless disabled. If the dependent child was named the beneficiary, once they are no longer entitled to the benefit, the spouse would receive the benefit for life.

Changes in Plan Provisions since the Prior Year

None.

ACTUARIAL METHODS

1. **Actuarial Cost Method**

The actuarial cost method is Entry Age Normal - Level Percent of Payroll.

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 20-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 20-year period (gain or loss bases established prior to June 30, 2016 were amortized over 30 years and will continue to be amortized over 30 -year period). However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payments each year. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different from assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Member census data as of June 30, 2022 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2022 and June 30, 2023. The valuation results from June 30, 2022 were rolled-forward to June 30, 2023 to reflect benefit accruals during the year less benefits paid.

2. **Asset Valuation Method**

The Actuarial Value of Assets smoothes the recognition of gains and losses on the Market Value of Assets over five years, subject to a 20% corridor.

3. **State Appropriations**

Based on the assumptions and methods previously described, an actuarially determined contribution amount is computed. The Board considers this information when requesting funds from the State.

4. Anticipated Payroll

The anticipated payroll for the fiscal year following the valuation date is equal to the actual payroll during the year ending on the valuation date, increased with the actual pay adjustment as of the valuation date. The proportion of pay attributable to active members with more than 22 years of service is presumed constant.

Changes in Methods since the Prior Year

None.

ACTUARIAL ASSUMPTIONS

Valuation Date	June 30, 2023
Economic Assumptions	
1. Investment return	6.25% per year, compounded annually (net of administrative and investment expenses)
2. Inflation	2.00% per year
3. Salary increase	2.65% per year beginning July 1, 2024. Actual salary increases on July 1, 2022 (3.33%) and July 1, 2023 (7.80%) are reflected in the in the valuation.
4. Interest on member balances	3.30% per year
5. Cost-of-Living Adjustment (COLA)	2.65% compounded annually, beginning July 1, 2024. Actual COLA increases at July 1, 2022 (3.33%) and July 1, 2023 (7.80%) are reflected in the valuation.
Demographic Assumptions	
1. Mortality	Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019. *Healthy Employees* – General Employee table with a 1 year setback for males and a 1 year setback for females. *Retirees* – General Retiree table with a 1 year setback for males and a 1 year setback for females. *Beneficiaries* – Contingent Survivor table with no set forward for males and a 2 year set forward for females. *Disableds* – General Disabled table with a 140% load.

2. Disability

Age	Sample Rates
20	0.057%
25	0.081%
30	0.105%
35	0.140%
40	0.210%
44-64	0.300%
65+	0.000%

3. Retirement

Age	Eligible for Reduced Benefit	Eligible for Unreduced Benefit
55-61	N/A	20%
62-64	8%	20%
65-74	N/A	30%
75+	N/A	100%

Inactive vested members are assumed to commence their retirement benefit at their earliest eligible retirement date.

4. Termination

3% per year for all members prior to retirement eligibility.

Other Assumptions

1. Form of payment

Members are assumed to elect either a single life annuity or a 50% joint survivor benefit based on the marriage assumptions below.

2. Marital status

a. Percent married

90% of members are assumed to be married or to have a dependent beneficiary.

b. Spouse's age

Male members are assumed to be three (3) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

3. Decrement timing

Decrements are assumed to occur at the beginning of the year.

Changes in Assumptions since the Prior Year

None.

Data Adjustments

Active and retired member data is reported as of June 30. Member census data as of June 30, 2022 was used in the valuation and adjusted. Standard actuarial roll-forward techniques were then used to project the liability computed as of June 30, 2022 to the June 30, 2023 valuation date. The normal cost rate is assumed to remain unchanged between June 30, 2022 and June 30, 2023.

The member total payroll and the asset information for this valuation were furnished as of June 30, 2023. Total payroll in FYE 2024 is assumed to increase by the actual salary increase as of the valuation date over the total payroll observed for FYE 2023. We did not audit the information provided, but we did review it thoroughly for reasonableness and compared it with the prior year's submission for consistency.

Other Technical Valuation Procedures

Salary increases are assumed to apply to annual amounts.

Decrements are assumed to occur at the beginning of the year. Standard adjustments are made for multiple decrements.

No actuarial liability is included for participants who terminated without being vested prior to the valuation date, except those due a refund of contributions.

Accrued Service	Service credited under the plan that was rendered before the date of the actuarial valuation.
Actuarial Assumptions	Estimates of future experience with respect to demographic or economic events. Demographic assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement plan benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."
Actuarial Equivalent	A single amount or series of amounts of equal value to another single amount or series of amounts computed on the basis of a given set of actuarial assumptions.
Actuarial Accrued Liability	The difference between the actuarial present value of plan benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial liability."
Actuarial Present Value	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
Experience Gain (Loss)	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
Normal Cost	The actuarial present value of retirement plan benefits allocated to the current year by the actuarial cost method.
Unfunded Actuarial Accrued Liability	The difference between actuarial liability and the actuarial value of assets. Sometimes referred to as "unfunded accrued liability" or "unfunded liability." Most retirement plans have unfunded actuarial liability. They arise anytime new benefits are added and anytime an actuarial loss is realized.