INDIANA PUBLIC RETIREMENT SYSTEM

TEACHERS' RETIREMENT FUND 1996 ACCOUNT



ACTUARIAL VALUATION

PREPARED AS OF JUNE 30, 2024





November 7, 2024

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 Teachers' Retirement Fund 1996 Account (TRF '96) as of June 30, 2024, for the purpose of estimating the actuarially determined contribution for the plan year ending June 30, 2026. 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, 2024. HEA 1004-2024 was passed and calls for funding the Supplemental Retirement Account at a level that could provide for a combination of 13th checks and a COLA, even though such benefits have not yet been promised. These provisions are reflected in this valuation, along with needed assumptions and funding methods that are consistent with the requirements. All other methods and assumptions have remained unchanged.

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by 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 ensure 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 TRF '96 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 2024 valuations to the Board on February 16, 2024, and the Board subsequently adopted their use at its April 26, 2024 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 July 2024 that contains information which is relevant to TRF '96 and should be considered part of this valuation report. Although the report was prepared using the data, methods, and assumptions of the June 30, 2023 valuation report, it is our professional opinion that the general results of the risk report are applicable to the June 30, 2024 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, 2024, 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

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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, PhD, FSA, EA, FCA, MAAA

Chief Actuary

Edward Koebel, FCA, EA, MAAA

Edward J. Worbel

Chief Executive Officer

Virginia Fritz, FSA, EA, FCA, MAAA

Brent a Bande

Senior Actuary



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This report presents the results of the June 30, 2024 actuarial valuation of the Teachers' Retirement Fund 1996 Account (TRF '96). The primary purposes of performing this actuarial valuation are to:

- Determine the level of contributions for the plan year ending June 30, 2026, along with the actuarial surcharge rate for the 2025 calendar year, that will be sufficient to meet the funding policy set out by the Board to comply with Indiana statutes.
- Disclose asset and liability measurements as well as the plan's funded status on the valuation date.
- Compare actual and expected experience of the Fund during the plan year ending June 30, 2024.
- 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, 2024. The plan's UAAL increased from \$656 million last year to \$1.364 billion this year, and the funded ratio decreased from 92.6% last year to 86.4% this year. The primary factors behind the decrease in the funded ratio was an actuarial loss on liabilities due to overall pay increases higher than what was expected and an actuarial loss on assets.

A summary of the key results from the June 30, 2024 actuarial valuation compared to the June 30, 2023 valuation is shown in the following table.

Valuation Results	June 30, 2023_	 June 30, 2024_
Unfunded Actuarial Accrued Liability	\$ 655,708,629	\$ 1,364,178,810
Funded Ratio (Actuarial Assets)	92.58%	86.39%
Normal Cost	5.72%	5.72%
UAAL Amortization	 0.43%	 0.97%
Actuarially Determined Contribution Rate	6.15%	6.69%
Actuarially Determined Surcharge Rate	0.00%	2.14%
Surcharge Rate subject to Legal Constraints	0.00%	0.41%

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, 2023 and June 30, 2024.





ASSETS

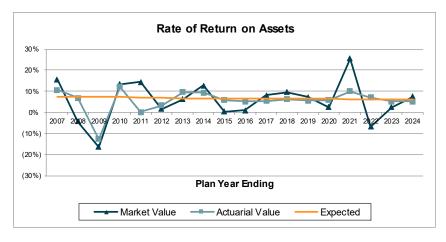
As of June 30, 2024, the plan had net assets of \$8.378 billion when measured on a market value basis. This was an increase of \$632 million from the prior year.

The market value of assets is not used directly in the calculation of the unfunded actuarial accrued liability and the actuarially determined contribution rate. 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 \$8.659 billion, an increase of \$482 million from the prior year.

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

		Market Value	Д	ctuarial Value
Net Assets, June 30, 2023	\$	7,746,475,590	\$	8,177,118,245
- Receipts	+	259,801,549	+	259,801,549
- Expenditures, Net of Administrative Expenses	-	200,307,078	-	200,307,078
- Net Investment Income	+	572,288,291	+	422,679,409
Net Assets, June 30, 2024	\$	8,378,258,352	\$	8,659,292,125
Estimated Rate of Return, Net of Expenses		7.4%		5.2%

The estimated rate of return on the actuarial value of assets was 5.2%, which was lower than the 6.25% investment return assumption applicable for the year ended June 30, 2024. As a result, there was an experience loss on assets of approximately \$90 million. The FY 2024 return on the market value of assets in excess of the 6.25% assumed return decreased the net deferred investment loss from \$431 million in last year's valuation to \$281 million in the current valuation. See Tables 1 through 4 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 gains and losses.





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, including expected future COLAs, on both a market value and actuarial value of assets basis is shown as of June 30, 2024 in the following table:

	Market Value	į	Actuarial Value
Actuarial Accrued Liability	\$ 10,023,470,935	\$	10,023,470,935
Value of Assets	 8,378,258,352		8,659,292,125
Unfunded Actuarial Accrued Liability	\$ 1,645,212,583	\$	1,364,178,810
Funded Ratio	83.59%		86.39%

See Table 5 of this report for the development of the unfunded actuarial accrued liability.

The total plan UAAL (on an actuarial basis) as of June 30, 2023 was \$1.364 billion, a \$708 million increase from the \$656 million UAAL last year. Factors in this increase included the actuarial loss of liabilities (\$223 million), primarily due to salaries increasing more than expected, the increase in future Supplemental Retirement Account Liabilities (\$335 million), and the actuarial loss on the smoothed assets (\$90 million). The components of the change in the base UAAL are quantified in Table 7 of this report. See Table 8 and Table 9 of this report for a breakdown of the components of experience gains/losses for greater detail on the base plan benefits.

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).

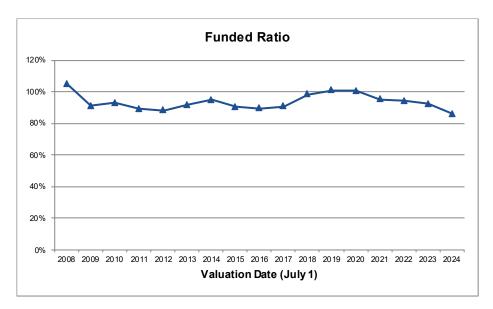
	6/30/2020	6/30/2021	6/30/2022	6/30/2023	6/30/2024
Funded Ratio	100.9%	95.3%	94.6%	92.6%	86.4%
UAAL (in millions)	(\$57)	\$355	\$439	\$656	\$1,364

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.





The funded ratio over a long period of time is shown in the following graph. The Plan's funded status had been gradually decreasing for a number of years.



Note: Funded ratios exclude DC account balances.

ACTUARIALLY DETERMINED CONTRIBUTION RATE

The Plan's actuarially determined contribution rate (ADC) consists of two components:

- 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 new amortization base. If the Fund's funded ratio exceeds 100% on a combined basis (base benefits plus SRA benefits), 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.

As a result of HEA 1004-2024, the SRA benefits outlined in the legislation must now be funded. Specifically, the new law calls for funding an indexed 13th check for those retiring before July 1, 2025 and a 1% COLA for those retiring after June 30, 2025. Since the method for funding is not prescribed, the Board has decided to use a funding method that parallels the base benefit funding method.

The total employer rate is the sum of the contributions to fund the base benefits plus the surcharge. The rate set for funding the benefits is equal to the greater of the current employer





contribution rate or the ADC calculated as described above. Once the plan reaches 95% funded, the employer contribution rate will be decreased by 25% of the difference between the existing rate and the ADC until the plan reaches 110% funded status. When the plan reaches 110% funded status, the employer contribution rate will be decreased to equal the ADC. The Board could decide, however, to set the rate higher in order to provide a sufficient surcharge for the COLA funding while preserving the base funding, subject to constraints in HEA 1004-2024.

See Table 13 of this report for the detailed development of the contribution rates which are summarized in the following table:

	June 30, 2023	June 30, 2024
Normal Cost	5.72%	5.72%
UAAL Amortization	0.43%	0.97%
Actuarially Determined Contribution Rate	6.15%	6.69%
Actuarially Determined Surcharge Rate	0.00%	2.14%
Surcharge Rate subject to Legal Constraints	0.00%	0.41%
Approved Employer Funding Rate	6.50%	7.10%

To maintain the funded level of the plan, the plan's funding policy increases the employer funding rate as necessary to ensure they are contributing a minimum of the combined actuarially determined contribution rates for the base and supplemental plans. The actuarially determined contribution, determined this year based on the snapshot of the plan taken on the valuation date of June 30, 2024, will change each year as the deferred investment experience is recognized and other experience (both investment and demographic) impacts the plan.

The June 30, 2024 actuarially determined contribution rate increased to 6.69% for the base benefits and to 0.41% for the supplemental benefits. This results in the employer funding rate increasing to a recommended rate of 7.10% starting January 1, 2026. The Board has approved the 7.10% employer funding rate for both base and supplemental benefits.





SUMMARY OF PRINCIPAL RESULTS

		June 30, 2022		June 30, 2023		June 30, 2024
MEMBERSHIP						
Active Members		59,567		60,057		61,188
Retired Members and Beneficiaries		9,035		10,127		10,848
Inactive Vested Members		7,496		8,029		8,467
Total Members		76,098		78,213		80,503
Projected Annual Salaries of Active Members	\$	3,956,756,111	\$	4,386,264,081	\$	4,665,519,477
Annual Retirement Payments for Retired Members, Disabled Members and	Φ.	457,000,504	Φ.	470 004 040	Φ.	404.070.440
Beneficiaries	\$	157,029,561	\$	179,664,013	\$	194,370,112
ASSETS AND LIABILITIES Net Assets						
Market Value of Assets (MVA)	\$	7,496,539,626	\$	7,746,475,590	\$	8,378,258,352
Actuarial Value of Assets (AVA)		7,716,351,537		8,177,118,245		8,659,292,125
Actuarial Accrued Liability (AAL)		8,154,991,450		8,832,826,874		10,023,470,935
Unfunded Actuarial Accrued Liability (UAAL): AAL - AVA	\$	438,639,913	\$	655,708,629	\$	1,364,178,810
Funded Ratios						
AVA / AAL		94.62%		92.58%		86.39%
MVA / AAL		91.93%		87.70%		83.59%
CONTRIBUTIONS						
Normal Cost		5.72%		5.72%		5.72%
Amortization of UAAL		0.07%		0.43%		0.97%
Actuarially Determined Contribution Rate		5.79%		6.15%		6.69%
Actuarially Determined Surcharge Rate		0.22%		0.00%		0.41%

Note: Liability and funded ratio results include both the base benefits and the supplemental benefits.





SECTION II - SCOPE OF THE REPORT

This report presents the actuarial valuation results of the Teachers' Retirement Fund 1996 Account as of June 30, 2024. 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, 2024.
- 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.





SECTION III - ASSETS

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, 2024. 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 for the base benefits, whereas Table 2 shows the changes for the supplemental benefit reserve account. Table 15 (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 3 shows the development of the actuarial value of assets (AVA) as of the valuation date for the base benefits and Table 4 shows the information for the supplemental benefits.





TABLE 1

DEVELOPMENT OF MARKET VALUE OF ASSETS

(Base Benefits)

	June 30, 2023	June 30, 2024
Market Value of Assets, Beginning of Year	\$ 7,472,374,625	\$ 7,714,513,293
2. Receipts		
a. Member (Includes Purchased Service)	\$ 379,364	\$ 202,201
b. Employer (Includes Purchased Service) ²	236,070,779	247,487,844
c. Member Reassignment Transfers	5,157,618	3,131,517
d. Miscellaneous Income	300	3,334
e. Total	\$ 241,608,061	\$ 250,824,896
3. Expenditures		
a. Benefit Payments	\$ 183,631,879	\$ 198,787,319
b. Refund of Contributions	0	0
c. Administrative Expense	6,319,264	6,508,587
d. Miscellaneous Expenditures	 0	 0
e. Total	\$ 189,951,143	\$ 205,295,906
4. Investment Return		
a. Investment Income	\$ 189,959,058	\$ 575,574,973
b. Securities Lending Income	 522,692	 416,047
c. Total	\$ 190,481,750	\$ 575,991,020
5. Market Value of Assets, End of Year: (1) + (2e) -		
(3e) + (4c)	\$ 7,714,513,293	\$ 8,336,033,303
6. Rate of Return on Market Value of Assets, Net of		
Expenses3	2.46%	7.36%

Includes \$379,364 of member service purchases during fiscal year 2023 and \$202,201 of member service purchases during fiscal year 2024.
² Includes \$175,702 of employer service purchases during fiscal year 2023 and \$57,362 of



employer service purchases during fiscal year 2024.

³ Based on individual fund experience. Assumes cash flows occur at mid-year.



TABLE 2

DEVELOPMENT OF MARKET VALUE OF ASSETS
(Supplemental Benefits)

	J	une 30, 2023	J	une 30, 2024
1. Market Value of Assets, Beginning of Year	\$	24,165,001	\$	31,962,297
Receipts a. Employer Surcharge b. Lottery Allocation c. Non-Employer Entity Contributions d. Miscellaneous e. Total	\$	8,528,716 0 0 0 0 8,528,716	\$	8,976,653 0 0 0 0 8,976,653
3. Expenditures a. Benefit Payments b. Administrative Expense c. Miscellaneous Expenditures d. Total	\$	1,534,899 0 0 1,534,899	\$	1,519,759 0 0 1,519,759
4. Investment Return a. Investment Income b. Securities Lending Income c. Total Investment Return	\$	801,537 1,942 803,479	\$	2,803,941 1,917 2,805,858
5. Market Value of Assets, End of Year: (1) + (2e) - (3d) + (4c)	\$	31,962,297	\$	42,225,049
6. Rate of Return on Market Value of Assets, Net of Expenses		2.90%		7.86%

¹ Based on individual fund experience. Assumes cash flows occur at mid-year.





TABLE 3 **DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS** (Base Benefits)

Fe	or Plan Year E	nding June 30, 2024
1. Market Value, as of June 30, 2023	\$	7,714,513,293
 Receipts ¹ Expenditures, Net of Administrative Expenses ² Expected Return on Assets ³ 	\$ \$ \$	250,824,896 (198,787,319) 483,783,255
5. Expected Market Value as of June 30, 2024: (1) + (2)) + (3) +	
(4)	\$	8,250,334,125
6. Actual Market Value as of June 30, 2024	\$	8,336,033,303
7. Year end 2024 asset gain/(loss): (6) - (5)	\$	85,699,178
8. Deferred Investment Gains and Losses Year Ended June		
	Factor	Deferred Amount
a. 2021 \$ 1,180,936,888	20% \$	236,187,378
b. 2022 (1,034,969,399)	40%	(413,987,760)
c. 2023 (284,672,684)	60%	(170,803,610)
d. 2024 85,699,178	80%	68,559,342
e. Total	\$	(280,044,650)
9. Initial Actuarial Value as of June 30, 2024: (6) - (8e)	\$	8,616,077,953
10. Constraining Values		
a. 80% of Market Value: (6) x 0.8	\$	6,668,826,642
b. 120% of Market Value: (6) x 1.2	\$	10,003,239,964
11. Actuarial Value as of June 30, 2024 12. Actuarial Rate of Return, Net of Expenses ⁴	\$	8,616,077,953 5.15%
13. Actuarial Value of Assets as a Percent of Market Value (11) / (6)	e:	103.4%
14. Actuarial Value of Assets		
a. Base Benefits	\$	8,616,077,953
b. Supplemental Benefits	\$	43,214,172
c. Total	\$	8,659,292,125

¹ Includes Employer Contributions, Service Purchases, Member Reassignment Transfers, and Miscellaneous Receipts.



Includes DB Benefit Payments.
 Assumes cash flows occur at mid-year and a return assumption of 6.25%.
 Assumes cash flows occur at mid-year.



TABLE 4 DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

(Supplemental Benefits)

	For Plan Year Ending	June 30, 2024
1. Market Value, as of June 30, 2023	\$	31,962,297
2. Receipts	\$	8,976,653
3. Expenditures, Net of Administrative Expenses	\$	(1,519,759)
4. Expected Return on Assets	\$	2,230,672
5. Expected Market Value as of June 30, 2024: (1) + (2) + (3)	
+ (4)	\$	41,649,863
6. Actual Market Value as of June 30, 2024	\$	42,225,049
7. Year end 2024 asset gain/(loss): (6) - (5)	\$	575,186

8. Deferred Investment Gains and Losses

_	Ye	ar Ended June 30:	G	ain/(Loss)	Factor		Deferred Amount
	a.	2021	\$	1,880,988	20%	\$	376,198
	b.	2022		(3,175,591)	40%		(1,270,236)
	C.	2023		(925,390)	60%		(555,234)
	d.	2024		575,186	80%		460,149
	e.	Total				\$	(989,123)
9. lr	nitial	Actuarial Value as of	June 30	0, 2024: (6) - (86	e)	\$	43,214,172
10.	Cons	straining Values					
		% of Market Value:	$(6) \times 0$.8		\$ \$	33,780,039
k). 12	0% of Market Value:	(6) x 1	.2		\$	50,670,059
11.	Actu	arial Value as of Jun	e 30, 20	24		\$	43,214,172
12.	Actu	arial Rate of Return,	Net of E	xpenses ²			4.93%
13.	Actu	arial Value of Assets	as a Pe	rcent of Market V	alue:		
(11)	/ (6))					102.3%

¹ Assumes cash flows occur at mid-year and a discount rate of 6.25%. ² 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 Teachers' Retirement Fund 1996 Account as of the valuation date, June 30, 2024. 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, 2024 Teachers' Retirement Fund 1996 Account valuation are based on census data collected as of June 30, 2023. Standard actuarial techniques are used to adjust these results from June 30, 2023 to June 30, 2024. While these roll-forward techniques are based on all actuarial assumptions being met during the intervening year, there will, of course, be many of the assumptions that will not be 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 a plan change, 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, 2024.

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 do 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 5 contains the calculation of actuarial accrued liability for the Plan under the Entry Age Normal actuarial cost. This amount is split between the base benefit and the supplemental COLA benefit. Granted supplemental benefits are the present value of legislated benefits, whereas future supplemental benefits represent those assumed to occur based on the Plan's COLA assumption.

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 (including the assumed COLA paid from the SRA), 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, 2024 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 \$7,806,740,000. 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 5

ACTUARIAL ACCRUED LIABILITY

(Base and Supplemental Benefits)

		Supplemental Benefits						
As of June 30, 2024		Base Benefits		Granted		Future		Total
Actuarial Accrued Liability								
a. Active & Inactive Members	\$	7,041,156,340	\$	500,790	\$	810,782,026	\$	7,852,439,156
b. In-pay Members		2,106,787,939		19,682,092		44,561,748		2,171,031,779
c. Total	\$	9,147,944,279	\$	20,182,882	\$	855,343,774	\$	10,023,470,935
2. Actuarial Value of Assets	\$	8,616,077,953	\$	20,182,882	\$	23,031,290	\$	8,659,292,125
3. Unfunded Actuarial Accrued Liability:	•	504 000 000	Φ.	0	Φ.	000 040 404	•	4 004 470 040
(1c) - (2)	\$	531,866,326	\$	0	\$	832,312,484	\$	1,364,178,810
4. Funded Ratio: (2) / (1c)		94.2%		100.0%		2.7%		86.4%





TABLE 6

SOLVENCY TEST

(Base and Supplemental Benefits)

		Actuarial Accrued L	iabilities (AAL)		Portion of AAL Covered by Assets				
			Active					Active	
			Member	Total				Member	Total
Actuarial	Active		(Employer	Actuarial	Actuarial	Active		(Employer	Actuarial
Valuation as	Member	Retirees and	Financed	Accrued	Value of	Member	Retirees and	Financed	Accrued
of June 30	Contributions	Beneficiaries	Portion)	Liabilities	Assets	Contributions	Beneficiaries	Portion)	Liabilities
2024	\$0	\$2,171,032	\$7,852,439	\$10,023,471	\$8,656,572	N/A	100.0%	82.6%	86.4%
2023	0	2,037,487	6,795,340	8,832,827	8,177,118	N/A	100.0	90.4	92.6
2022	0	1,795,341	6,359,650	8,154,991	7,716,352	N/A	100.0	93.1	94.6
2021	0	1,648,130	5,869,573	7,517,703	7,162,958	N/A	100.0	94.0	95.3
2020	0	1,454,955	4,948,297	6,403,252	6,460,070	N/A	100.0	101.1	100.9
2019	0	1,371,702	4,608,724	5,980,426	6,056,317	N/A	100.0	101.4	101.3
2018	0	1,232,059	4,331,205	5,563,264	5,478,482	N/A	100.0	98.0	98.5
2017	1,378,143	1,213,780	4,322,314	6,914,237	6,414,134	100.0	100.0	88.4	92.8
2016	1,204,885	1,091,802	4,095,063	6,391,750	5,865,729	100.0	100.0	87.2	91.8
2015	1,159,597	908,353	3,837,741	5,905,691	5,461,172	100.0	100.0	88.4	92.5

Note: Dollar amounts are in thousands of dollars. Amounts before 2018 reflect the inclusion of DC balances in both the active member contributions and the assets.





TABLE 7

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

(Base and Supplemental Benefits)

For Year Ending June 30, 2024

	 Base	 Base and Supplemental
 Unfunded Actuarial Accrued Liability as of June 30, 2023 Normal Cost Actuarially Determined Contribution Interest 	\$ 227,401,154 250,894,305 (269,966,374) 13,020,568	\$ 655,708,629 266,684,856 (269,966,374) 40,776,694
Expected Unfunded Actuarial Accrued Liability as of June 30, 2024	\$ 221,349,653	\$ 693,203,805
6. Actuarial Value of Asset Changes a. Investment Experience (Gain)/Loss b. Contributions (Above)/Below the Actuarially	\$ 89,754,254	\$ 90,249,684
Determined Contribution and Other (Gain)/Loss	\$ 31,820,141	\$ 22,562,967
7. Actuarial Accrued Liability Changes a. Actuarial Accrued Liability Experience (Gain)/Loss b. Additional Liability Due to Benefit Changes c. Additional Liability Due to Assumption Changes	\$ 188,942,278 0 0	\$ 222,592,417 335,569,937 0
8. Total Experience (Gain)/Loss	\$ 310,516,673	\$ 670,975,005
9. Unfunded Actuarial Accrued Liability as of June 30, 2024: (5) + (8)	\$ 531,866,326	\$ 1,364,178,810





TABLE 8

ACTUARIAL GAIN/(LOSS)

(Base and Supplemental Benefits)

Liabilities		Base	Base and Supplemental
 Actuarial Accrued Liability as of June 30, 2023 Normal Cost for Plan Year Ending June 30, 2024 	\$	8,370,618,524 250,894,305	\$ 8,832,826,874 266,684,856
 3. Benefit Payments During Plan Year 4. Service Purchases (employee and employer) 5. Member Reassignment Transfers 6. Interest at 6.25% 		(198,644,782) 259,563 3,131,517 532,742,874	(200,164,541) 259,563 3,131,517 562,570,312
7. Change Due to Benefit Changes8. Change Due to Assumption Changes		0	335,569,937 0
9. Expected Actuarial Accrued Liability as of June 30, 2024	\$	8,959,002,001	\$ 9,800,878,518
10. Actuarial Accrued Liability as of June 30, 2024	\$	9,147,944,279	\$ 10,023,470,935
Assets			
11. Actuarial Value of Assets as of June 30, 2023	\$	8,143,217,370	\$ 8,177,118,245
12. Receipts During Plan Year 13. Expenditures, Excluding Expenses, During Plan Year		250,824,896 (198,787,319)	259,801,549 (200,307,078)
14. Interest at 6.25%	_	510,577,260	 512,929,093
15. Expected Actuarial Value of Assets as of June 30, 2024	\$	8,705,832,207	\$ 8,749,541,809
16. Actuarial Value of Assets as of June 30, 2024	\$	8,616,077,953	\$ 8,659,292,125
Experience Gain / (Loss)			
17. Liability Actuarial Experience Gain/(Loss): (9) - (10)	\$	(188,942,278)	\$ (222,592,417)
18. Asset Actuarial Experience Gain/(Loss): (16) - (15)	_	(89,754,254)	 (90,249,684)
19. Total Actuarial Experience Gain/(Loss): (17) + (18)	\$	(278,696,532)	\$ (312,842,101)

Does not include miscellaneous expenses or benefit overpayments.





TABLE 9

EXPERIENCE GAIN/(LOSS) ANALYSIS BY SOURCE

(Base Benefits)

Liability Sources (in thousands)	(Gain/(Loss)*
Retirement	\$	(21,146)
Termination		43,801
Disability		(389)
Mortality		6,516
Salary		(182,486)
New Entrants/Rehires		(87,751)
Miscellaneous		52,513
Total Liability Experience Gain/(Loss)	\$	(188,942)
as a % of AAL		(2.1%)
Asset Experience Gain/(Loss)	\$	(89,754)
Net Actuarial Experience Gain/(Loss)	\$	(278,697)

^{*}Numbers may not add due to rounding.





TABLE 10

PROJECTED BENEFIT PAYMENTS

(Base and Supplemental Benefits)

Plan Year Ending June 30	Benefit Amount
2024	\$ 236,484,433
2025	256,968,661
2026	280,720,022
2027	307,669,966
2028	338,903,838
2029	373,875,015
2030	412,921,880
2031	456,066,280
2032	503,333,257
2033	553,857,422
2034	607,095,690
2035	663,459,410
2036	722,376,219
2037	783,324,122
2038	845,043,909
2039	907,693,122
2040	969,818,798
2041	1,031,426,938
2042	1,092,238,801
2043	1,151,657,034
2044	1,208,890,769
2045	1,264,040,786
2046	1,315,997,625
2047	1,365,014,754
2048	1,410,807,955
2049	1,453,035,136
2050	1,492,500,129
2051	1,527,953,106
2052	1,558,675,729
2053	1,585,110,337

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, contribution levels, 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 Rate 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. For TRF '96 purposes, this calculation excludes consideration of future COLAs. The unfunded actuarial accrued liability is calculated each year and reflects experience gains and losses. New amortization bases are funded over 20 years using a level dollar payment approach. If there is a surplus, all prior bases are eliminated, and a new 30-year open amortization base is established.

Funding for future COLAs is provided by using a surcharge. This rate is calculated using the same methodology as the base benefits, except that the rate must adhere to HEA 1004-2024, which limits the rate to a 0.1% increase over the prior year's surcharge rate and does not allow a decrease through December 31, 2029

The contribution rate based on the June 30, 2024 actuarial valuation will be used to calculate the actuarially determined employer contribution rate to the Teachers' Retirement Fund 1996 Account for the 2026 calendar year. In general, contributions are computed in accordance with a stable percent-of-payroll funding objective.

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 for the base benefits will be funded over the next 20 years, although the funding policy is likely to result in this being accomplished sooner. The COLA benefits are funded in a similar manner, beginning with this valuation, in keeping with HEA 1004-2024. The contribution rate shown in Table 14 under the current assumptions reflects a rate that could fund both the base benefits and COLAs in a reasonable manner.





Contribution Rate Summary

In Table 11 the amortization payment related to the unfunded actuarial accrued liability/(surplus), as of June 30, 2024, is developed. The surcharge needed to fund the assumed COLAs is developed in Table 12. Table 13 develops the actuarially 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 14 the contribution amounts under alternative discount rates are provided to illustrate the sensitivity of the contribution requirements relative to the selection of the investment return assumption.





TABLE 11

SCHEDULE OF AMORTIZATION BASES

(Base Benefits)

Amortization Bases	Original Amount	June 30, 2024 Remaining Payments	Date of Last Payment		Outstanding Balance as of June 30, 2024	Annual Contribution
2021 UAAL Base	(15,350,208)	17	7/1/2041		(14,053,854)	(1,285,260)
2022 UAAL Base	46,081,477	18	7/1/2042		43,566,423	3,858,365
2023 UAAL Base	197,051,515	19	7/1/2043		191,837,084	16,498,964
2024 UAAL Base	310,516,673	20	7/1/2044	_	310,516,673	 25,999,311
Total				\$	531,866,326	\$ 45,071,380
1. Total UAAL Amortization F	\$ 45,071,380					
2. Projected Payroll for FY 2	025					\$ 4,665,519,477
3. UAAL Amortization Payme	ent Rate					0.97%





SCHEDULE OF AMORTIZATION BASES

(Supplemental Benefits)

Amortization Bases	Original Amount	June 30, 2024 Remaining Payments	Date of Last Payment	į	Outstanding Balance as of June 30, 2024		Annual Contribution
2024 UAAL Base	832,312,484	20	7/1/2044	_	832,312,484	_	69,688,854
Total				\$	832,312,484	\$	69,688,854
1. Total UAAL Amortiza	ation Payments					\$	69,688,854
2. Projected Payroll for	FY 2025					\$	4,665,519,477
3. UAAL Amortization I	Payment Rate						1.49%



TABLE 13

ACTUARIALLY DETERMINED CONTRIBUTION RATE

(Base and Supplemental Benefits)

	 Base Benefits	Supplemental Benefits		Total
1. Projected Payroll for FY 2025	\$ 4,665,519,477	\$	4,665,519,477	
2. Normal Cost Rate as of June 30, 2023	5.72%		0.65%	6.37%
3. Amortization of UAAL as of June 30, 2024 a. Dollar Amount b. Percent of Projected Pay	\$ 45,071,380 0.97%	\$	69,688,854 1.49%	2.46%
 Preliminary Actuarially Determined Contribution Rate: (2) + (3b) 	6.69%		2.14%	8.83%
 Supplemental Benefit Surcharge Cap for 2026 Calendar Year (Not to exceed 0.1% over prior year through December 31, 2029) 			0.41%	
Actuarially Determined Contribution Rate Subject to Legal Constraints	6.69%		0.41%	7.10%
7. Board Policy Surcharge Rate (for 2026 calendar year)			0.41%	
8. Board Policy Contribution Rate				7.10%



TABLE 14

INVESTMENT RETURN SENSITIVITY

(Base and Supplemental Benefits)

	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	\$11,792,847,933	\$11,313,470,513	\$10,859,819,143	\$10,430,311,153	\$10,023,470,935
Actuarial Value of Assets	8,659,292,125	8,659,292,125	8,659,292,125	8,659,292,125	8,659,292,125
Unfunded Actuarial Accrued Liability	\$3,133,555,808	\$2,654,178,388	\$2,200,527,018	\$1,771,019,028	\$1,364,178,810
Funded Ratio	73.4%	76.5%	79.7%	83.0%	86.4%
Actuarially Determined Contribution Amount					
Normal Cost	\$400,630,537	\$371,584,212	\$344,781,120	\$320,039,683	\$297,193,591
UAAL Amortization	244,551,690	211,075,482	178,304,947	146,209,546	114,760,233
Actuarially Determined Contribution Amount	\$645,182,227	\$582,659,694	\$523,086,067	\$466,249,229	\$411,953,824
Actuarially Determined Contribution Rate	13.83%	12.49%	11.21%	9.99%	8.83%
	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	\$9,637,922,101	\$9,272,380,267	\$8,925,646,396	\$8,596,600,665	\$8,284,196,800
Actuarial Value of Assets	8,659,292,125	8,659,292,125	8,659,292,125	8,659,292,125	8,659,292,125
Unfunded Actuarial Accrued Liability	\$978,629,976	\$613,088,142	\$266,354,271	(\$62,691,460)	(\$375,095,325)
Funded Ratio	89.8%	93.4%	97.0%	100.7%	104.5%
Actuarially Determined Contribution Amount					
Normal Cost	\$276,090,476	\$256,590,704	\$238,566,268	\$221,899,792	\$206,483,615
UAAL Amortization	83,929,379	53,690,695	24,019,174	(4,829,412)	(29,543,986)
Actuarially Determined Contribution Amount	\$360,019,855	\$310,281,399	\$262,585,442	\$217,070,380	\$176,939,629
Actuarially Determined Contribution Rate	7.72%	6.65%	5.63%	4.65%	3.79%

Note: Comparisons are based on funding the COLA in the same method as the base benefit, rather than with a surcharge. Consequently, these results are for comparative purposes only and will not match the actual results under the funding policy.





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 15 STATEMENT OF FIDUCIARY NET POSITION

			June 30, 2024
1.	Assets		
	a. Cash	\$	436,892
	b. Receivables	•	,
	i. Contributions and Miscellaneous Receivables	\$	2,667,739
	ii. Investments Receivable		137,843,469
	iii. Foreign Exchange Contracts Receivable		1,337,051,821
	iv. Interest and Dividends		21,932,975
	v. Receivables Due From Other Funds		0
	vi. Total Receivables	\$	1,499,496,004
	c. Investments		
	i. Short-Term Investments	\$	0
	ii. Pooled Repurchase Agreements		1,902,317
	iii. Pooled Short-Term Investments		687,765,937
	iv. Pooled Fixed Income		2,294,192,133
	v. Pooled Equity		1,106,571,089
	vi. Pooled Alternative Investments		4,614,817,870
	vii. Pooled Derivatives		2,849,054
	viii. Pooled Investments		0
	ix. Securities Lending Collateral		26,960,718
	x. Total Investments	\$	8,735,059,118
	d. Net Capital Assets		0
	e. Other Assets		0
	f. Total Assets: $a + b(vi) + c(x) + d + e$	\$	10,234,992,014
2.	Liabilities		
	a. Administrative Payable	\$	100,091
	b. Retirement Benefits Payable		17,036,120
	c. Investments Payable		420,032,876
	d. Foreign Exchange Contracts Payable		1,332,176,744
	e. Securities Lending Obligations		26,960,718
	f. Securities Sold Under Agreement to Repurchase		59,461,974
	g. Due To Other Funds		965,139
	h. Due to Other Governments		0
	i. Total Liabilities: a + b + c + d + e + f + g + h	\$	1,856,733,662
3.	Fiduciary Net Position Restricted for Pensions: (1)(f) - (2)(i)	\$	8,378,258,352





TABLE 16

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For Fiscal Year Ending June 30, 2024								
1. Fiduciary Net Position as of June 30, 2023	1. Fiduciary Net Position as of June 30, 2023 \$ 7,746,475,590							
2. Additions								
a. Contributions								
i. Member Contributions	\$	0						
ii. Employer Contributions		256,407,135						
iii. Service Purchases (Employer and Member))	259,563						
iv. Non-Employer Contributing Entity Contribut	ions	0						
v. Total Contributions	\$	256,666,698						
b. Investment Income/(Loss)								
i. Net Appreciation/(Depreciation)	\$	507,467,433						
Net Interest and Dividend Income		120,024,936						
iii. Securities Lending Income		488,338						
iv. Other Net Investment Income		1,082,476						
v. Investment Management Expenses		(47,883,825)						
vi. Direct Investment Expenses		(2,312,106)						
vii. Securities Lending Expenses		(70,374)						
viii. Total Investment Income/(Loss)	\$	578,796,878						
c. Other Additions								
i. Member Reassignments		9,677,529						
ii. Miscellaneous Receipts		3,334						
iii. Total Other Additions	\$	9,680,863						
d. Total Revenue (Additions): a(v) + b(viii) + c(iii)	\$	845,144,439						
3. Deductions								
a. Pension, Survivor and Disability Benefits	\$	200,307,078						
b. Death and Funeral Benefits		0						
 c. Distributions of Contributions and Interest 		0						
d. Administrative Expenses ²		6,508,587						
e. Member Reassignments		6,546,012						
f. Miscellaneous Expenses		0						
g. Total Expenses (Deductions)	\$	213,361,677						
4. Net Increase (Decrease) in Fiduciary Net Position:	(2)(d) - (3)(g) \$	631,782,762						
5. Fiduciary Net Position as of June 30, 2024: (1) + (4)	\$	8,378,258,352						

¹ Service purchases paid by employer of \$57,362 and employee of \$202,201. ² Includes \$69,742 of hybrid plan contributions and \$0 of My Choice plan contributions made by INPRS.





TABLE 17
SCHEDULE OF CHANGES IN NET PENSION LIABILITY

For Fiscal Year Ending June 30, 2024

			For Fiscal Year Ending June 30, 2024					
		Total Pension Liability (a)		Plan Fiduciary Net Position (b)	Net Pension Liability (a) – (b)			
1. Balance at June 30, 2023	\$	8,832,826,874	\$	7,746,475,590	\$	1,086,351,284		
2. Changes for the Year:								
Service Cost (SC)		266,684,856				266,684,856		
Interest Cost		562,565,858				562,565,858		
Experience (Gains)/Losses		222,739,408				222,739,408		
Assumption Changes		0				0		
Plan Amendments		335,569,937				335,569,937		
Benefit Payments		(200,307,078)		(200,307,078)		0		
Service Purchases Employer Contributions Employee Contributions		57,362 202,201		57,362 202,201		0		
Member Reassignments ²		3,131,517		3,131,517		0		
Employer Contributions Non-employer		, ,		256,407,135		(256,407,135)		
Contributions				0		0		
Employee Contributions				0		0		
Net Investment Income				578,796,878		(578,796,878)		
Administrative Expenses ³				(6,508,587)		6,508,587		
Other				3,334		(3,334)		
Net Changes	\$	1,190,644,061	\$	631,782,762	\$	558,861,299		
3. Balance at June 30, 2024	\$	10,023,470,935	\$	8,378,258,352	\$	1,645,212,583		

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



² Includes net interfund transfers of employer contributed amounts.

³ Includes contributions made by INPRS for its employees of \$69,742 in the hybrid plan and \$0 in the My Choice plan.



TABLE 18

DEFERRED OUTFLOWS OF RESOURCES

	•	June 30, 2023	Remaining Period	Recognition		June 30, 2024	
1. Liability Experience							
June 30, 2024 Loss June 30, 2023 Loss June 30, 2022 Loss June 30, 2021 Loss June 30, 2020 Loss June 30, 2019 Loss June 30, 2018 Loss June 30, 2017 Loss June 30, 2016 Loss	\$	222,739,408 87,644,451 73,823,651 69,044,774 0 0 0 23,229,951 12,804,012	9.61 8.80 8.13 7.43 6.60 6.07 5.47 7.00 6.00	\$	23,177,879 9,959,597 9,080,401 9,292,703 0 0 3,318,564 2,134,001	\$	199,561,529 77,684,854 64,743,250 59,752,071 0 0 19,911,387 10,670,011
June 30, 2015 Loss June 30, 2014 Loss 2. Assumption Changes		0 116,327	5.00 3.00		0 38,775		0 77,552
June 30, 2024 Loss June 30, 2023 Loss June 30, 2022 Loss June 30, 2021 Loss June 30, 2020 Loss June 30, 2019 Loss June 30, 2018 Loss June 30, 2017 Loss June 30, 2016 Loss June 30, 2015 Loss June 30, 2015 Loss June 30, 2015 Loss	\$	0 0 0 381,960,653 0 0 0 0 94,282,514	9.61 8.80 8.13 7.43 6.60 6.07 5.47 7.00 6.00 5.00	\$	0 0 0 51,407,895 0 0 0 0 18,856,504	\$	0 0 0 330,552,758 0 0 0 0 0 75,426,010
June 30, 2024 Loss June 30, 2023 Loss June 30, 2022 Loss June 30, 2021 Loss June 30, 2020 Loss Total Outflows: (1)+(2)+(3)	\$ 	0 223,265,066 619,612,758 0 51,352,120 1,859,875,685	5.00 4.00 3.00 2.00 1.00	\$ 	0 55,816,267 206,537,586 0 51,352,120 440,972,292	\$ 	0 167,448,799 413,075,172 0 0 1,418,903,393

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 19
DEFERRED INFLOWS OF RESOURCES

	J	une 30, 2023	Remaining Period	Recognition		J	une 30, 2024
1. Liability Experience							
June 30, 2024 Gain June 30, 2023 Gain June 30, 2022 Gain June 30, 2021 Gain June 30, 2020 Gain June 30, 2019 Gain June 30, 2018 Gain June 30, 2017 Gain June 30, 2016 Gain June 30, 2015 Gain June 30, 2014 Gain June 30, 2014 Gain	\$	0 0 0 19,571,493 11,837,292 67,850,296 0 0 14,591,878	9.61 8.80 8.13 7.43 6.60 6.07 5.47 7.00 6.00 5.00 3.00	\$	0 0 0 2,965,379 1,950,131 12,404,078 0 0 2,918,375	\$	0 0 0 0 16,606,114 9,887,161 55,446,218 0 0 11,673,503
June 30, 2024 Gain June 30, 2023 Gain June 30, 2022 Gain June 30, 2021 Gain June 30, 2020 Gain June 30, 2019 Gain June 30, 2018 Gain June 30, 2017 Gain June 30, 2016 Gain June 30, 2015 Gain June 30, 2015 Gain June 30, 1	\$	0 0 0 70,757 0 136,126,447 57,752,825 0	9.61 8.80 8.13 7.43 6.60 6.07 5.47 7.00 6.00 5.00	\$	0 0 0 10,722 0 24,886,005 8,250,404 0	\$	0 0 0 0 60,035 0 111,240,442 49,502,421 0
June 30, 2024 Gain June 30, 2023 Gain June 30, 2022 Gain June 30, 2021 Gain June 30, 2020 Gain Total Inflows: (1)+(2)+(3)	\$ \$	92,986,345 0 0 475,180,720 0 875,968,053	5.00 4.00 3.00 2.00 1.00	\$ \$	18,597,269 0 0 237,590,362 0 309,572,725	\$ \$	74,389,076 0 0 237,590,358 0 566,395,328

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 20

DEFERRED INFLOWS / OUTFLOWS TO BE RECOGNIZED IN PENSION EXPENSE

Fiscal Year Ending June 30		Deferred Outflows Deferred Inflows					let Deferred flows/(Inflows)
Current Year:	ф	440.070.000	Φ	200 572 725	c	404 000 507	
2024	\$	440,972,292	\$	309,572,725	\$	131,399,567	
Future Years:							
2025	\$	389,620,172	\$	309,572,721	\$	80,047,451	
2026		389,620,172		71,982,363		317,637,809	
2027		183,043,811		71,982,363		111,061,448	
2028		127,227,538		71,982,363		55,245,175	
2029		108,371,040		30,702,967		77,668,073	
Thereafter		221,020,660		10,172,551		210,848,109	





TABLE 21

PENSION EXPENSE UNDER GASB NO. 68

	For Fiscal Year E	nding	June 30, 2024
Service Cost, beginning of year		\$	266,684,856
2. Interest Cost, including interest on service cost			562,565,858
3. Member Contributions ¹			0
4. Administrative Expenses ²			6,438,845
5. Expected Return on Assets ³			(485,810,533)
6. Plan Amendments			335,569,937
7. Recognition of Deferred Inflows / Outflows of Resources Related to: a. Liability Experience (Gains) / Losses b. Assumption Change (Gains) / Losses c. Investment Experience (Gains) / Losses d. Total: (7a)+(7b)+(7c)	36,763,957 37,117,268 57,518,342	_	131,399,567
8. Miscellaneous (Income) / Expense			(3,334)
9. Total Collective Pension Expense: (1)+(2)+(3)+(4)+(5)+(6)+(7d)+(8)			816,845,196
10. Employer Service Purchases ⁴		\$	57,362 816,902,558
Pension Expense / (Income): (9) + (10)		Ψ	010,302,330



¹ Excludes member paid service purchases of \$202,201.
² Excludes contributions made by INPRS for its employees of \$69,742 in the hybrid plan and \$0 in the My Choice plan.

³ Cash flows assumed to occur mid-year.

⁴ To be expensed by the employers who purchased the service.



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 Teachers' Retirement Fund 1996 Account is a cost-sharing

multiple-employer plan for GASB accounting purposes.

Measurement Date June 30, 2024

Valuation Date

Assets: June 30, 2024

Liabilities: June 30, 2023 – The TPL as of June 30, 2024 was determined based

on an actuarial valuation prepared as of June 30, 2023 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% - 11.90% based on years of service

Cost-of-Living

Increases

As of June 30, 2024:

A one-time 13th check was granted and payable by October 1, 2024. Thereafter, it is assumed participants who have commenced benefits prior to July 1, 2025 will receive an annual 13th check indexed with inflation. Participants commencing on or after July 1, 2025 are

assumed to receive a 1% COLA.

As of June 30, 2023:

No COLA was granted for the 2023-2025 biennium. Thereafter, the

following COLAs, compounded annually, were assumed:

0.4% beginning on January 1, 2026 0.5% beginning on January 1, 2034 0.6% beginning on January 1, 2039

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 - Teacher Employee table with a 1 year set

forward for males and a 1 year set forward for females.





Retirees – Teacher Retiree table with a 1 year set forward for males and a 1 year set forward 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 setting the employer contribution rate equal to the greater of the current contribution rate (currently 6.00% and increasing to 6.50% on January 1, 2025) and a rate equal to the actuarially determined contribution rate which is based on the assumptions and methods selected by the Board for the annual actuarial valuations and projected covered member payroll. Based on this policy, the employer contribution rate will increase to 7.10% for base and supplemental benefits. The June 30, 2024 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 (below 100% funded on an actuarial basis as of June 30, 2023), and a 5-year smoothing method for recognizing investment gains and losses in the actuarial value of assets.

For the past several years, the Board has followed its current funding policy and employers have made their contributions to the plan. Therefore, if past practice is continued, the appropriations will be sufficient to make the Fund fully funded. As a result, it is presumed that the projected plan assets will be sufficient to cover the future benefit payments for current members and a detailed projection of plan assets and cash flows has not been prepared.





Discount Rate Sensitivity

	1% Decrease	Current Rate	1% Increase
	5.25%	6.25%	7.25%
Net Pension Liability	\$3,414,589,581	\$1,645,212,583	\$218,342,313

Classes of Plan Members Covered

The June 30, 2024 valuation was performed using census data provided by INPRS as of June 30, 2023. Standard actuarial techniques were used to roll forward the total pension liability computed as of June 30, 2023 to the June 30, 2024 measurement date using actual benefit payments during that period of time.

Number as of June 30, 2023	
Currently Receiving Benefits: Retired Members, Disabled Members, and Beneficiaries Inactive Members Entitled To But Not Yet Receiving Benefits Inactive Non-vested Members Entitled to a Refund of Member	10,848 8,467
Contributions	0
4. Active Members	61,188
Total Covered Plan Members: (1)+(2)+(3)+(4)	80,503

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, 2024, the money-weighted return on the plan assets is 7.4%.

Components of Net Pension Liability

As of June 30, 2024	
Total Pension Liability Fiduciary Net Position	\$ 10,023,470,935 8,378,258,352
Net Pension Liability	\$ 1,645,212,583
Ratio of Fiduciary Net Position to Total Pension Liability	83.59%





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

Fiscal Year Ending June 30					
-	2020	2021	2022	2023	2024
Total Pension Liability					
Total Pension Liability - beginning	\$5,980,426,336	\$6,403,252,089	\$7,517,703,347	\$8,154,991,450	\$8,832,826,874
DC Account Balances - beginning 1	0	0	0	0	0
DB Pension Liability - beginning	\$5,980,426,336	\$6,403,252,089	\$7,517,703,347	\$8,154,991,450	\$8,832,826,874
Service Cost (SC), beginning-of-year	183,632,094	190,036,960	230,270,315	240,570,772	266,684,856
Interest Cost, including interest on SC	411,329,073	439,928,627	479,120,626	519,114,698	562,565,858
Experience (Gains)/Losses	(31,433,009)	96,922,883	91,984,453	97,604,048	222,739,408
Assumption Changes	(113,645)	536,184,338	0	0	0
Plan Amendments	0	3,034,254	0	0	335,569,937
DC Annuitizations	0	0	0	0	0
Actual Benefit Payments	(143,371,247)	(155,348,220)	(168,620,964)	(185,166,778)	(200,307,078)
Member Reassignments	2,678,802	3,091,717	4,037,179	5,157,618	3,131,517
Service Purchases	103,685	600,700	496,494	555,066_	259,563
Net Change in Total Pension Liability	422,825,753	1,114,451,259	637,288,103	677,835,424	1,190,644,061
DB Pension Liability - ending	\$6,403,252,089	\$7,517,703,347	\$8,154,991,450	\$8,832,826,874	\$10,023,470,935
DC Account Balances - ending ¹	0	0	0	0	0
(a) Total Pension Liability - ending	\$6,403,252,089	\$7,517,703,347	\$8,154,991,450	\$8,832,826,874	\$10,023,470,935
Plan Fiduciary Net Position					
Plan Fiduciary Net Position – beginning	\$6,124,085,498	\$6,325,311,322	\$7,987,495,378	\$7,496,539,626	\$7,746,475,590
DC Account Balances - beginning 1	0	0	0	0	0
DB Plan Fiduciary Net Position – beginning	\$6,124,085,498	\$6,325,311,322	\$7,987,495,378	\$7,496,539,626	\$7,746,475,590
Contributions – employer	188,789,351	202,488,745	210,665,282	244,599,495	256,464,497
Contributions – non-employer	0	0	0	0	0
Contributions – member	103,685	464,713	432,657	379,364	202,201
Net investment income	158,071,621	1,616,453,718	(532,181,174)	191,285,229	578,796,878
Actual benefit payments	(143,371,247)	(155,348,220)	(168,620,964)	(185,166,778)	(200,307,078)
Net member reassignments	2,678,802	3,091,717	4,037,179	5,157,618	3,131,517
DC Annuitizations	0	0	0	0	0
Administrative expense	(5,089,388)	(4,966,317)	(5,291,695)	(6,319,264)	(6,508,587)
Other	43,000	(300)	2,963	300_	3,334
Net change in Plan Fiduciary Net Position	201,225,824	1,662,184,056	(490,955,752)	249,935,964	631,782,762
DB Plan Fiduciary Net Position – ending	\$6,325,311,322	\$7,987,495,378	\$7,496,539,626	\$7,746,475,590	\$8,378,258,352
DC Account Balances - ending ¹	0	0	0	0	0
(b) Plan Fiduciary Net Position - ending	\$6,325,311,322	\$7,987,495,378	\$7,496,539,626	\$7,746,475,590	\$8,378,258,352
Net Pension Liability - ending, (a) - (b)	\$77,940,767	(\$469,792,031)	\$658,451,824	\$1,086,351,284	\$1,645,212,583

¹ Effective January 1, 2018, DC account balances are handled by a third party annuity provider and are treated as a separate defined contribution plan. 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

riscal fear Ending June 30					
	2015	2016	2017	2018	2019
Total Pension Liability					
Total Pension Liability - beginning	\$5,236,993,169	\$5,905,691,033	\$6,391,750,065	\$6,914,237,041	\$5,563,263,694
DC Account Balances - beginning 1	1,120,728,729	1,170,914,523	1,217,432,610	1,378,142,685	0
DB Pension Liability - beginning	\$4,116,264,440	\$4,734,776,510	\$5,174,317,455	\$5,536,094,356	\$5,563,263,694
Service Cost (SC), beginning-of-year	170,892,424	167,836,193	168,650,636	182,558,143	180,559,476
Interest Cost, including interest on SC	287,264,315	328,017,487	357,392,165	382,297,585	383,383,638
Experience (Gains)/Losses	(40,857,253)	29,876,020	46,459,899	(142,274,764)	(21,587,947)
Assumption Changes	263,991,050	0	(115,505,653)	(285,442,477)	Ó
Plan Amendments	0	0	1,352,763	Ó	2,938,618
DC Annuitizations	22,574,841	8,931,954	8,503,495	6,503,849	0
Actual Benefit Payments	(90,266,941)	(99,506,626)	(109,334,779)	(122,239,791)	(132,572,511)
Member Reassignments	4,889,464	4,370,023	4,258,375	5,602,016	4,293,211
Service Purchases	24,170	15,894	0	164,777	148,157
Net Change in Total Pension Liability	618,512,070	439,540,945	361,776,901	27,169,338	417,162,642
DB Pension Liability - ending	\$4,734,776,510	\$5,174,317,455	\$5,536,094,356	\$5,563,263,694	\$5,980,426,336
DC Account Balances - ending 1	1,170,914,523	1,217,432,610	1,378,142,685	0	0
(a) Total Pension Liability - ending	\$5,905,691,033	\$6,391,750,065	\$6,914,237,041	\$5,563,263,694	\$5,980,426,336
Plan Fiduciary Net Position					
Plan Fiduciary Net Position – beginning	\$5,189,442,330	\$5,379,113,041	\$5,611,229,693	\$6,252,040,308	\$5,452,351,707
DC Account Balances - beginning ¹	1,120,728,729	1,170,914,523	1,217,432,610	1,378,142,685	0
DB Plan Fiduciary Net Position – beginning	\$4,068,713,601	\$4,208,198,518	\$4,393,797,083	\$4,873,897,623	\$5,452,351,707
Contributions – employer	205,763,142	215,625,986	227,206,663	235,819,031	393,172,165
Contributions – non-employer	0	0	0	0	0
Contributions – member	0	43,175	57,709	129,780	127,304
Net investment income	2,684,489	61,722,129	354,926,957	457,707,449	411,146,841
Actual benefit payments	(90,266,941)	(99,506,625)	(109,334,779)	(122,239,791)	(132,572,511)
Net member reassignments	4,890,290	4,369,512	4,258,236	5,602,016	4,293,211
DC Annuitizations	22,575,000	8,931,800	8,504,000	6,503,849	0
Administrative expense	(6,185,233)	(5,603,306)	(5,552,446)	(5,208,400)	(5,037,962)
Other	24,170	15,894	34,200	140,150	604,743
Net change in Plan Fiduciary Net Position	139,484,917	185,598,565	480,100,540	578,454,084	671,733,791
DB Plan Fiduciary Net Position – ending	\$4,208,198,518	\$4,393,797,083	\$4,873,897,623	\$5,452,351,707	\$6,124,085,498
DC Account Balances - ending ¹	1,170,914,523	1,217,432,610	1,378,142,685	0	0
(b) Plan Fiduciary Net Position - ending	\$5,379,113,041	\$5,611,229,693	\$6,252,040,308	\$5,452,351,707	\$6,124,085,498
Net Pension Liability - ending, (a) - (b)	\$526,577,992	\$780,520,372	\$662,196,733	\$110,911,987	(\$143,659,162)

¹ Effective January 1, 2018, DC account balances are handled by a third party annuity provider and are treated as a separate defined contribution plan. 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	2020	2021	2022	2023	2024
Total Pension Liability	\$6,403,252,089	\$7,517,703,347	\$8,154,991,450	\$8,832,826,874	\$10,023,470,935
Plan Fiduciary Net Position	6,325,311,322	7,987,495,378	7,496,539,626	7,746,475,590	8,378,258,352
Net Pension Liability	\$77,940,767	(\$469,792,031)	\$658,451,824	\$1,086,351,284	\$1,645,212,583
Ratio of Plan Fiduciary Net Position to Total Pension Liability	98.78%	106.25%	91.93%	87.70%	83.59%
Covered payroll ¹	\$3,465,727,587	\$3,634,648,638	\$3,915,888,158	\$4,199,772,714	\$4,450,412,210
Net Pension Liability as a percentage of covered payroll	2.25%	-12.93%	16.81%	25.87%	36.97%
Fiscal Year Ending June 30	2015	2016	2017	2018	2019
Fiscal Year Ending June 30 Total Pension Liability	2015 \$5,905,691,033	2016 \$6,391,750,065	2017 \$6,914,237,041	2018 \$5,563,263,694	2019 \$5,980,426,336
-			-		
Total Pension Liability	\$5,905,691,033	\$6,391,750,065	\$6,914,237,041	\$5,563,263,694	\$5,980,426,336
Total Pension Liability Plan Fiduciary Net Position	\$5,905,691,033 5,379,113,041	\$6,391,750,065 5,611,229,693	\$6,914,237,041 6,252,040,308	\$5,563,263,694 5,452,351,707	\$5,980,426,336 6,124,085,498
Total Pension Liability Plan Fiduciary Net Position Net Pension Liability Ratio of Plan Fiduciary Net Position to Total Pension	\$5,905,691,033 5,379,113,041 \$526,577,992	\$6,391,750,065 5,611,229,693 \$780,520,372	\$6,914,237,041 6,252,040,308 \$662,196,733	\$5,563,263,694 5,452,351,707 \$110,911,987	\$5,980,426,336 6,124,085,498 (\$143,659,162)

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	2020	2021	2022	2023	2024
Actuarially Determined Contribution ¹ Actual employer contributions ² Annual contribution (deficiency) / excess	\$162,035,175	\$158,762,674	\$171,569,755	\$240,742,499	\$252,635,055
	<u>\$188,789,351</u>	<u>\$202,352,758</u>	<u>\$210,601,445</u>	<u>\$244,423,793</u>	<u>\$256,407,135</u>
	\$26,754,176	\$43,590,084	\$39,031,690	\$3,681,294	\$3,772,080
Covered payroll ³	\$3,465,727,587	\$3,634,648,638	\$3,915,888,158	\$4,199,772,714	\$4,450,412,210
Actual contributions as a percentage of covered payroll	5.45%	5.57%	5.38%	5.82%	5.76%
Figure I Wassa Freddings James 00	0045	0040	0047	0040	0040
Fiscal Year Ending June 30	2015	2016	2017	2018	2019
Actuarially Determined Contribution ¹ Actual employer contributions ² Annual contribution (deficiency) / excess	\$178,260,000	\$180,375,469	\$198,444,431	\$210,586,435	\$226,099,494
	<u>\$205,525,842</u>	<u>\$215,625,986</u>	<u>\$227,206,663</u>	<u>\$235,675,239</u>	<u>\$393,151,312</u>
	\$27,265,842	\$35,250,517	\$28,762,232	\$25,088,804	\$167,051,818
Covered payroll ³ Actual contributions as a percentage of covered payroll	\$2,742,186,608	\$2,881,397,273	\$3,020,463,178	\$3,129,070,354	\$3,257,917,777
	7.49%	7.48%	7.52%	7.53%	12.07%

¹ The employer rates were applied to the actual covered employee payroll for the fiscal year to determine the contribution amount. The actuarially determined amortization and normal cost rates were developed in the actuarial report completed one year prior to the fiscal year. The surcharge rate uses the valuation completed two years ago for July-December and one year ago for January-June.

Results prior to 2018 were produced by the prior actuary.



² Excludes service purchases paid for by the employer of \$57,362.

³ As provided by INPRS.



GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION SCHEDULE OF MONEY-WEIGHTED RETURNS

For Fiscal Year Ending June 30	Money-Weighted Return
2024	7.4%
2023	2.5%
2022	(6.6%)
2021	25.5%
2020	2.6%
2019	7.5%
2018	9.3%
2017	8.1%
2016	1.0%
2015	0.6%

Returns provided by INPRS.





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	- A glossary of actuarial terms used in the valuation report.	







MEMBER DATA RECONCILIATION For June 30, 2023 Data used in the June 30, 2024 Valuation

	Active	Inactive	Inactive	5		.	
	Members	Vested	Deceased	Disabled	Retired	Beneficiary	Total
1. As of June 30, 2022	60,057	8,019	10	179	9,439	509	78,213
2. Data Adjustments							
New Participants	5,548	0	0	0	0	0	5,548
Rehires	722	(722)	0	0	0	0	0
Terminations:		, ,					
Not Vested	(3,007)	0	0	0	0	0	(3,007)
Deferred Vested	(1,466)	1,466	0	0	0	0	Ò
Disability	` (7)	0	0	7	0	0	0
Retirements	(565)	(219)	0	0	784	0	0
Refund / Benefits Ended	Ú	(1)	(1)	0	0	(2)	(4)
Transfer	(58)	(87)	Ó	0	0	Ô	(145)
Deaths:	, ,	, ,					, ,
With Beneficiary	(17)	(5)	0	(3)	(54)	79	0
Without Beneficiary	(19)	(39)	0	(2)	(71)	(28)	(159)
Entitled to Future Pension	` ,	` ,		()	` ,	` ,	, ,
Benefit	0	0	0	0	0	0	0
Data Corrections 1	0	46	0	10	(1)	2	57
Net Change	1,131	439	(1)	12	658	51	2,290
3. As of June 30, 2023 ²	61,188	8,458	9	191	10,097	560	80,503

¹ Data corrections reflect the movement between Disabled and Retired status, along with other movements in the INPRS data.



² Valuation results as of June 30, 2024 were calculated using June 30, 2023 census data, adjusted for certain activity before the valuation date. Headcounts may include multiple records for individuals, such as members with multiple periods of service.



SUMMARY OF MEMBERSHIP DATA

Date of Membership Data June 30, 2022 June 30, 2023 June 30, 2023			Combine	ed TR	RF Plans	1996 Account		
ACTIVE MEMBERS Number of Active Members 66,344 66,712 61,11 Annual Membership Data Salary 2 Anticipated Payroll for Next Fiscal Year S4,846,166,464 \$ 4,435,692,927 \$ 3,974,862,99 \$ 3,974,862,99 Active Member Averages 4,846,166,464 \$ 5,056,598,156 \$ 4,665,519,41 Active Member Averages 43.3 43.5 42 Service 13.8 13.8 12 Annual Membership Data Salary \$ 63,238 \$ 66,490 \$ 64,90 INACTIVE MEMBERS Inactive Members 9,531 9,837 8,40 Inactive Member Averages 49 50.8 50.8 42 Service 13.9 13.9 13.9 13.9 RETIREES, DISABLEDS, AND BENEFICIARIES Number of Members Retired 56,824 56,940 10,00 Disabled 280 292 11 Beneficiaries 6,305 6,471 56 Total 63,409 63,703 10,80 Annual Benefits 99,391,654 103,306,955	Valuation Date		June 30, 2023		June 30, 2024	June 30, 2024		
Number of Active Members 66,344 66,712 61,13 Annual Membership Data Salary 2 \$ 4,195,444,737 \$ 4,435,692,927 \$ 3,974,862,9 Anticipated Payroll for Next Fiscal Year \$ 4,846,166,464 \$ 5,056,598,156 \$ 4,665,519,4 Active Member Averages Age 43.3 43.5 42 Service 13.8 13.8 12 Annual Membership Data Salary \$ 63,238 \$ 66,490 \$ 64,90 INACTIVE MEMBERS Inactive Members 9,531 9,837 8,44 Inactive Member Averages 4,95 50.8 50.8 49 Service 13.9 13.9 13.9 13.9 RETIREES, DISABLEDS, AND BENEFICIARIES Number of Members 256,824 56,940 10,00 Disabled 280 292 11 Disabled 63,005 6,471 55 Total 63,409 63,703 10,80 Annual Benefits 99,391,654 103,306,955 7,184,50 Total \$ 1,359,685,749	Date of Membership Data ¹		June 30, 2022		June 30, 2023	June 30, 2023		
Annual Membership Data Salary 2 \$ 4,195,444,737 \$ 4,435,692,927 \$ 3,974,862,9 Anticipated Payroll for Next Fiscal Year \$ 4,846,166,464 \$ 5,056,598,156 \$ 4,665,519,47 Active Member Averages Age	ACTIVE MEMBERS							
Anticipated Payroll for Next Fiscal Year \$ 4,846,166,464 \$ 5,056,598,156 \$ 4,665,519,4* Active Member Averages	Number of Active Members		66,344		66,712	61,188		
Age Service 43.3 43.5 42.5 Annual Membership Data Salary 63,238 66,490 64,99 INACTIVE MEMBERS INACTIVE MEMBERS Number of Inactive Members 9,531 9,837 8,49 Inactive Member Averages 50.8 50.8 49 Age Service 13.9 13.9 13.9 13 RETIREES, DISABLEDS, AND BENEFICIARIES Number of Members Retired 56,824 56,940 10,00 Disabled 280 292 11 Beneficiaries 6,305 6,471 55 Total 63,409 63,703 10,80 Annual Benefits 1,257,281,235 1,267,467,343 185,407,80 Disabled 3,012,860 3,106,576 1,777,78 Beneficiaries 99,391,654 103,306,955 7,184,55 Total \$1,359,685,749 \$1,373,880,874 \$194,370,1 Annual Benefits \$1,255,114,007 \$1,252,615,120 \$183,095,80						3,974,862,972 4,665,519,477		
Number of Inactive Members 9,531 9,837 8,44 Inactive Member Averages 30.8 50.8 49 Service 13.9 13.9 13.9 RETIREES, DISABLEDS, AND BENEFICIARIES Number of Members Retired 56,824 56,940 10,09 Disabled 280 292 19 Beneficiaries 6,305 6,471 50 Total 63,409 63,703 10,80 Annual Benefits 81,257,281,235 1,267,467,343 185,407,81 Disabled 3,012,860 3,106,576 1,777,7 Beneficiaries 99,391,654 103,306,955 7,184,55 Total \$1,359,685,749 \$1,373,880,874 \$194,370,1 Annual Benefits Pension \$1,235,114,007 \$1,252,615,120 \$183,095,88	Age Service	\$	13.8	\$	13.8	\$ 42.2 12.4 64,961		
Inactive Member Averages	INACTIVE MEMBERS							
Age Service 50.8 13.9 50.8 13.9 49.9 13.9 RETIREES, DISABLEDS, AND BENEFICIARIES Number of Members Retired 56,824 56,940 10,09 Disabled 280 292 19 Beneficiaries 6,305 6,471 56 Total 63,409 63,703 10,80 Annual Benefits 8 1,257,281,235 \$ 1,267,467,343 \$ 185,407,80 Disabled 3,012,860 3,106,576 1,7777,7 Beneficiaries 99,391,654 103,306,955 7,184,55 Total \$ 1,359,685,749 \$ 1,373,880,874 \$ 194,370,1 Annual Benefits Pension \$ 1,235,114,007 \$ 1,252,615,120 \$ 183,095,88	Number of Inactive Members		9,531		9,837	8,467		
Number of Members Retired 56,824 56,940 10,09 Disabled 280 292 19 Beneficiaries 6,305 6,471 56 Total 63,409 63,703 10,89 Annual Benefits 8 1,257,281,235 \$ 1,267,467,343 \$ 185,407,89 Disabled 3,012,860 3,106,576 1,777,79 Beneficiaries 99,391,654 103,306,955 7,184,55 Total \$ 1,359,685,749 \$ 1,373,880,874 \$ 194,370,1 Annual Benefits Pension \$ 1,235,114,007 \$ 1,252,615,120 \$ 183,095,88	Age					49.2 13.5		
Retired 56,824 56,940 10,09 Disabled 280 292 19 Beneficiaries 6,305 6,471 56 Total 63,409 63,703 10,84 Annual Benefits Retired \$ 1,257,281,235 \$ 1,267,467,343 \$ 185,407,86 Disabled 3,012,860 3,106,576 1,777,7 Beneficiaries 99,391,654 103,306,955 7,184,55 Total \$ 1,359,685,749 \$ 1,373,880,874 \$ 194,370,1 Annual Benefits Pension \$ 1,235,114,007 \$ 1,252,615,120 \$ 183,095,86	RETIREES, DISABLEDS, AND BENEFIC	IAR	IES					
Retired \$ 1,257,281,235 \$ 1,267,467,343 \$ 185,407,80 Disabled 3,012,860 3,106,576 1,777,7 Beneficiaries 99,391,654 103,306,955 7,184,55 Total \$ 1,359,685,749 \$ 1,373,880,874 \$ 194,370,1 Annual Benefits \$ 1,235,114,007 \$ 1,252,615,120 \$ 183,095,85	Retired Disabled Beneficiaries		280 6,305		292 6,471	 10,097 191 560 10,848		
Pension \$ 1,235,114,007 \$ 1,252,615,120 \$ 183,095,86	Retired Disabled Beneficiaries		3,012,860 99,391,654		3,106,576 103,306,955	 185,407,864 1,777,719 7,184,529 194,370,112		
	Pension DC Plan Annuities		124,571,742		121,265,754	 183,095,881 11,274,231 194,370,112		

¹ The valuation results were calculated using the prior year's census data and were adjusted for certain activity during fiscal year.

² The 2023 amounts include 24 records from the 1996 Account with less than a year of service who are missing a salary. Their salaries were defaulted to the average, \$61,503. The 2024 amounts include 64 records from the 1996 Account with less than a year of service who are missing a salary. Their salaries were defaulted to the average, \$64,961.





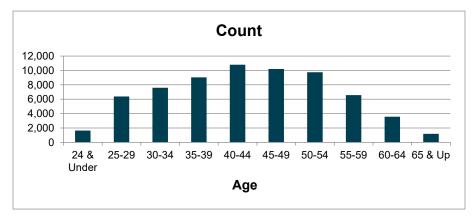
Count of Members

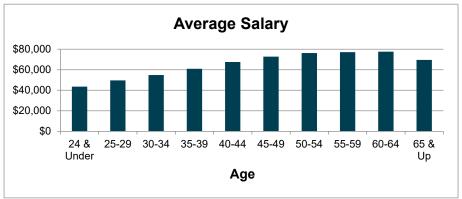
ACTIVE MEMBERS¹ As of June 30, 2023 for the June 30, 2024 Valuation Combined TRF Plans

Combined TRF Plans

FY 2023 Annual Membership Data Salary

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
24 & Under	282	1,357	1,639	\$ 12,366,015	\$ 58,958,830	\$ 71,324,845
25-29	1,298	5,078	6,376	66,507,818	249,966,012	316,473,830
30-34	1,896	5,693	7,589	110,041,863	306,211,051	416,252,914
35-39	2,345	6,689	9,034	154,237,446	396,194,794	550,432,240
40-44	2,804	7,995	10,799	207,438,812	522,170,050	729,608,862
45-49	2,664	7,540	10,204	213,685,223	528,894,166	742,579,389
50-54	2,592	7,161	9,753	217,349,685	525,991,650	743,341,335
55-59	1,758	4,808	6,566	147,490,166	359,070,087	506,560,253
60-64	942	2,623	3,565	79,328,790	197,196,137	276,524,927
65 & Up	<u>356</u>	<u>831</u>	<u>1,187</u>	<u>24,916,916</u>	<u>57,677,416</u>	82,594,332
Total	16,937	49,775	66,712	\$ 1,233,362,734	\$ 3,202,330,193	\$ 4,435,692,927





¹ Includes 64 records from the 1996 Account with less than a year of service who are missing a salary. Their salaries were defaulted to the average, \$64,961.





AGE AND SERVICE DISTRIBUTION¹ As of June 30, 2023 for the June 30, 2024 Valuation Combined TRF Plans

Age										
, .gc		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
24 &	Number	1,639	0	0	0	0	0	0	0	1,639
Under	Total Salary	\$ 71,324,845	\$ 0	\$ 71,324,845						
	Average Sal.	\$ 43,517	\$ 0	\$ 43,517						
25-29	Number	4,689	1,687	0	0	0	0	0	0	6,376
	Total Salary	\$ 226,925,776	\$ 89,548,054	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 316,473,830
	Average Sal.	\$ 48,395	\$ 53,081	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 49,635
30-34	Number	1,881	4,425	1,283	0	0	0	0	0	7,589
	Total Salary	\$ 91,593,813	\$ 245,879,129	\$ 78,779,972	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 416,252,914
	Average Sal.	\$ 48,694	\$ 55,566	\$ 61,403	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 54,850
35-39	Number	1,532	2,358	3,931	1,213	0	0	0	0	9,034
	Total Salary	\$ 76,431,363	\$ 136,621,363	\$ 250,671,888	\$ 86,707,626	\$ 0	\$ 0	\$ 0	\$ 0	\$ 550,432,240
	Average Sal.	\$ 49,890	\$ 57,940	\$ 63,768	\$ 71,482	\$ 0	\$ 0	\$ 0	\$ 0	\$ 60,929
40-44	Number	1,479	1,697	1,925	4,446	1,251	1	0	0	10,799
	Total Salary	\$ 73,289,267	\$ 100,607,718	\$ 125,834,866	\$ 328,929,480	\$ 100,900,715	\$ 46,816	\$ 0	\$ 0	\$ 729,608,862
	Average Sal.	\$ 49,553	\$ 59,286	\$ 65,369	\$ 73,983	\$ 80,656	\$ 46,816	\$ 0	\$ 0	\$ 67,563
45-49	Number	986	1,327	1,159	1,829	3,953	947	3	0	10,204
	Total Salary	\$ 48,554,218	\$ 79,798,910	\$ 75,164,375	\$ 134,203,495	\$ 322,319,755	\$ 82,313,570	\$ 225,066	\$ 0	\$ 742,579,389
	Average Sal.	\$ 49,244	\$ 60,135	\$ 64,853	\$ 73,375	\$ 81,538	\$ 86,920	\$ 75,022	\$ 0	\$ 72,773
50-54	Number	682	1,071	984	1,247	1,745	3,323	700	1	9,753
	Total Salary	\$ 35,012,707	\$ 64,157,303	\$ 63,612,464	\$ 90,557,947	\$ 138,689,361	\$ 287,799,169	\$ 63,455,101	\$ 57,283	\$ 743,341,335
	Average Sal.	\$ 51,338	\$ 59,904	\$ 64,647	\$ 72,621	\$ 79,478	\$ 86,608	\$ 90,650	\$ 57,283	\$ 76,217
55-59	Number	407	557	598	824	987	1,271	1,538	384	6,566
	Total Salary	\$ 19,761,579	\$ 33,685,638	\$ 37,966,044	\$ 58,249,710	\$ 77,686,147	\$ 107,394,217	\$ 137,374,675	\$ 34,442,243	\$ 506,560,253
	Average Sal.	\$ 48,554	\$ 60,477	\$ 63,488	\$ 70,691	\$ 78,709	\$ 84,496	\$ 89,320	\$ 89,693	\$ 77,149
60-64	Number	196	294	317	424	493	462	409	970	3,565
	Total Salary	\$ 8,637,109	\$ 17,476,787	\$ 19,931,858	\$ 29,904,760	\$ 38,077,080	\$ 38,831,121	\$ 36,278,522	\$ 87,387,690	\$ 276,524,927
	Average Sal.	\$ 44,067	\$ 59,445	\$ 62,877	\$ 70,530	\$ 77,235	\$ 84,050	\$ 88,701	\$ 90,090	\$ 77,567
65 &	Number	149	169	119	167	108	111	89	275	1,187
Up	Total Salary	\$ 5,080,313	\$ 8,695,097	\$ 7,035,068	\$ 11,483,785	\$ 8,442,088	\$ 9,299,465	\$ 7,749,119	\$ 24,809,397	\$ 82,594,332
	Average Sal.	\$ 34,096	\$ 51,450	\$ 59,118	\$ 68,765	\$ 78,167	\$ 83,779	\$ 87,069	\$ 90,216	\$ 69,582
Total	Number	13,640	13,585	10,316	10,150	8,537	6,115	2,739	1,630	66,712
	Total Salary	\$ 656,610,990	\$ 776,469,999	\$ 658,996,535	\$ 740,036,803	\$ 686,115,146	\$ 525,684,358	\$ 245,082,483	\$ 146,696,613	\$ 4,435,692,927
	Average Sal.	\$ 48,139	\$ 57,156	\$ 63,881	\$ 72,910	\$ 80,370	\$ 85,966	\$ 89,479	\$ 89,998	\$ 66,490

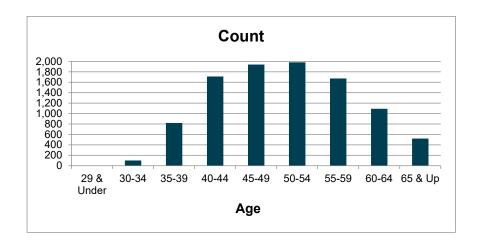
¹ Includes 64 records from the 1996 Account with less than a year of service who are missing a salary. Their salaries were defaulted to the average, \$64,961.





INACTIVE VESTED MEMBERS As of June 30, 2023 for the June 30, 2024 Valuation Combined TRF Plans

_	Cou	unt of Membe	ers
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
29 & Under	0	0	0
30-34	18	82	100
35-39	216	603	819
40-44	450	1,261	1,711
45-49	570	1,370	1,940
50-54	588	1,394	1,982
55-59	427	1,246	1,673
60-64	227	864	1,091
65 & Up	<u>108</u>	<u>413</u>	<u>521</u>
Total	2,604	7,233	9,837

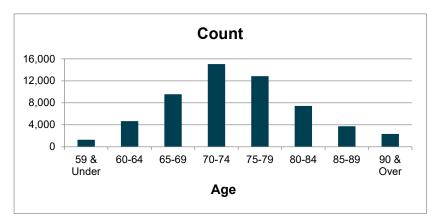


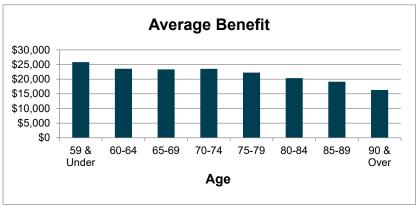




RETIRED MEMBERS As of June 30, 2023 for the June 30, 2024 Valuation Combined TRF Plans

_	Cou	nt of Memb	ers		Annual Benefits	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
59 & Under	371	912	1,283	\$ 10,370,966	\$ 22,739,431	\$ 33,110,397
60-64	1,203	3,470	4,673	30,574,029	79,508,576	110,082,605
65-69	2,400	7,161	9,561	62,713,899	160,358,456	223,072,355
70-74	3,927	11,129	15,056	102,775,570	251,449,435	354,225,005
75-79	4,121	8,736	12,857	103,701,966	182,253,314	285,955,280
80-84	2,678	4,756	7,434	62,188,073	89,125,428	151,313,501
85-89	1,371	2,370	3,741	30,642,687	40,927,932	71,570,619
90 & Over	<u>729</u>	<u>1,606</u>	<u>2,335</u>	<u>14,818,309</u>	23,319,272	<u>38,137,581</u>
Total	16,800	40,140	56,940	\$ 417,785,499	\$ 849,681,844	\$ 1,267,467,343



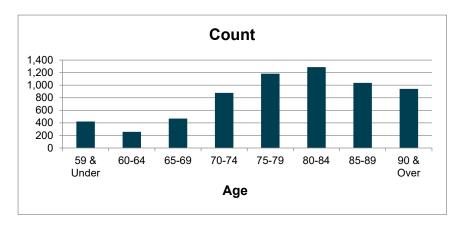


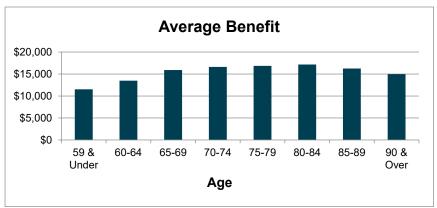




BENEFICIARIES RECEIVING BENEFITS As of June 30, 2022 for the June 30, 2023 Valuation Combined TRF Plans

_	Cou	unt of Membe	rs	Annual Benefits
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u> <u>Female</u> <u>Total</u>
59 & Under	177	244	421	\$ 1,961,970 \$ 2,885,382 \$ 4,847,352
60-64	106	151	257	1,206,767 2,257,452 3,464,219
65-69	192	277	469	2,794,839 4,664,751 7,459,590
70-74	335	542	877	4,832,907 9,739,095 14,572,002
75-79	402	781	1,183	5,887,972 14,048,665 19,936,637
80-84	309	978	1,287	4,470,823 17,620,656 22,091,479
85-89	213	823	1,036	2,837,938 14,005,724 16,843,662
90 & Over	<u>184</u>	<u>757</u>	<u>941</u>	<u>2,193,771</u>
Total	1,918	4,553	6,471	\$ 26,186,987 \$ 77,119,968 \$ 103,306,955



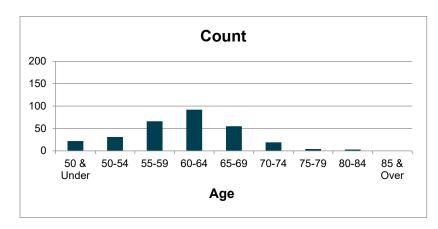


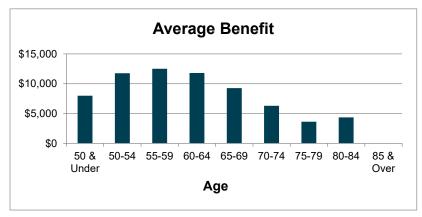




DISABLED MEMBERS As of June 30, 2023 for the June 30, 2024 Valuation Combined TRF Plans

_	Cou	unt of Membe	rs	_		Annual Benefits	3
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	_	<u>Male</u>	<u>Female</u>	<u>Total</u>
50 & Under	4	18	22		\$ 36,300	\$ 139,368	\$ 175,668
50-54	4	27	31		38,932	325,479	364,411
55-59	24	42	66		295,008	530,086	825,094
60-64	21	71	92		281,912	802,649	1,084,561
65-69	9	46	55		97,690	411,949	509,639
70-74	3	16	19		30,202	89,438	119,640
75-79	1	3	4		3,674	10,830	14,504
80-84	0	3	3		0	13,059	13,059
85 & Over	<u>0</u>	<u>0</u>	<u>0</u>		<u>0</u>	<u>0</u>	<u>0</u>
Total	66	226	292		\$ 783,718	\$ 2,322,858	\$ 3,106,576









MEMBERS AND BENEFICIARIES RECEIVING BENEFITS As of June 30, 2023 for the June 30, 2024 Valuation 1996 Account

Schedule of Average Benefit Payments 1,2

Years of Credited Service 20 - 24 For the Year Ended June 30, 2024 < 10 10 - 14 15 - 19 25 - 29 30 + Total Average Monthly Defined Benefit \$193 \$1,231 \$1,407 \$513 \$827 \$1,689 \$2,451 Average Monthly DC Annuity3 \$336 \$496 \$154 \$64 \$243 \$753 \$396 Average Final Average Salary4 \$39,390 \$57,240 \$65,004 \$71,521 \$65,524 \$47,727 \$80,661 **Number of Benefit Recipients** 1,761 180 1,315 2,669 2,211 2,712 10,848



¹ Calculated using the prior year census data, adjusted for certain activity during the fiscal year.

² Members with less than 10 years of service are primarily members receiving a disability benefit.

³ This represents those retirees who elected to receive their DC account as a supplemental monthly payment in addition to the monthly Defined Benefit payment.

⁴ Excludes the 250 in-pay members who are missing a final average salary in the data.



MEMBERS AND BENEFICIARIES RECEIVING BENEFITS As of June 30, 2023 for the June 30, 2024 Valuation 1996 Account

Schedule of Benefit Recipients by Type of Benefit Option 1,2

Number of Recipients by Benefit Option

Amount of Monthly Benefit (in dollars)	5-Year Certain & Life	Straight Life	Joint with 100% Survivor Benefits	Joint with Two-Thirds Survivor Benefits	Joint with One-Half Survivor Benefits	Survivors	Disability	Total Benefit Recipients
1 - 500	283	297	196	38	49	146	59	1,068
501 - 1,000	709	783	614	138	214	185	86	2,729
1,001 - 1,500	594	812	627	174	265	94	34	2,600
1,501 - 2,000	446	572	462	145	196	62	9	1,892
2,001 - 2,500	236	315	330	93	159	39	1	1,173
2,501 - 3,000	104	198	176	50	77	18	1	624
Over 3,000	127	192	238	85	103	16	1	762
Total	2,499	3,169	2,643	723	1,063	560	191	10,848

¹ Calculated using the prior year census data, adjusted for certain activity during the fiscal year.



² Members who elected Social Security Integration were included in their selected benefit option of either 5-Year Certain & Life, Straight Life, Modified Cash Refund Plus 5-Year Certain & Life, Joint With 100% Survivor Benefits, Joint With Two-Thirds Survivor Benefits, or Joint With One-Half Survivor Benefits.



MEMBERS AND BENEFICIARIES RECEIVING BENEFITS As of June 30, 2023 for the June 30, 2024 Valuation 1996 Account

Schedule of Retirees and Beneficiaries 1

	Added	Added to Rolls		Removed from Rolls		nd of Year			
	Number	Annual Benefits²	Number	Annual Benefits²	Number	Total Annual Benefits²	Percent Change In Total Annual Benefits	Average Annual Benefit	Percent Change In Average Annual Benefit
2024 ³	824	\$16,164	103	\$1,495	10,848	\$194,370	8.2%	\$17,918	1.0%
2023 ³	1,171	22,491	79	1,136	10,127	179,664	14.4	17,741	2.1
2022 ³	824	14,602	76	1,044	9,035	157,030	9.3	17,380	0.2
2021 ³	760	12,813	69	977	8,287	143,690	8.9	17,339	(0.2)
2020 ³	619	10,236	64	927	7,596	132,004	7.4	17,378	(0.5)
2019 ³	798	13,285	46	566	7,041	122,935	11.3	17,460	(0.6)
2018 ³	710	9,562	217	1,002	6,289	110,423	8.1	17,558	(0.4)
2017 ³	855	12,106	36	564	5,796	102,178	12.1	17,629	(3.8)
2016 ³	858	16,075	17	305	4,977	91,160	20.4	18,316	0.1
2015 ³	499	9,101	28	353	4,136	75,714	12.7	18,306	(0.1)

¹ Dollar amounts are in thousands except for the average annual benefit.

³ The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.



² Annual benefits includes members selecting an annuity for their DC account. 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.



Definitions

Fiscal year Twelve month period ending June 30.

Participation Any full-time Indiana teachers in a public school

corporation, certain INPRS employees, and some employees in charter schools, innovation schools, turnaround schools and public universities who were

hired after June 30, 1995.

Average annual compensation Average of highest five years of compensation. Years

do not need to be consecutive.

Member contributions All Fund members are required by state law to

contribute 3% of salary contributions to their Defined Contribution Account. These 3% contributions are generally "picked up" by the employer and contributed on a pre-tax basis on behalf of the employee. Extra voluntary contributions by the member are also possible, but on a post-tax basis. At retirement, there are six alternatives for receiving the proceeds of this account, including lump sums, full and partial rollovers, full and partial annuitization of the balance, and

deferred distribution.

Minimum pension benefit The minimum pension benefit paid to a regularly retired

member receiving an unreduced pension benefit is \$185 per month effective July 1, 2017 per SEA 46.

Eligibility for Benefits

Deferred vested Ten years of service. Benefit commences at regular or

early retirement eligibility.

Disability retirement

Regular disability benefit Five years of service.

Disability retirement benefit Five years of service and determined to be disabled by

the Social Security Administration. Annual verification of

Social Security disability is required.

Early retirement Age 50 with 15 years of service.

Normal retirement Age 65 with ten years of service, or age 60 with 15 years

of service, or if age is at least 55 and the sum of age

plus credited service is at least 85.





Upon age 65 with 20 or more years of service, members become eligible for a Millie Morgan Retirement and can receive their pension benefit while still working.

Election is irrevocable.

10 years of service. Spouse to whom member had been Pre-retirement death married for two or more years is automatically eligible,

or a dependent may be designated as beneficiary.

Monthly Benefits Payable

Normal retirement State pension equal to total service times 1.1% of Average Annual Compensation. Beginning July 1,

2017, the minimum pension benefit is \$185 per month.

Early retirement State pension is computed as regular retirement

benefit, but reduced for each month between age at early retirement and attainment of age 65. The age reduction factor is calculated as the sum of the

following:

• 1/10 of 1% for each month from age 60 to 65.

• 5/12 of 1% for each month from age at early

retirement to 60.

Computed as a regular retirement benefit with state Deferred retirement

pension based on service and Average Annual

Compensation at termination.

Disability

Regular disability benefit \$125 per month plus \$5 per month for each year of

service credit over five years.

Disability retirement benefit Computed as a regular retirement benefit using

> creditable service to the date of disability and without reduction for early retirement. The minimum benefit is

\$180 per month.

Pre-retirement death The spouse or dependent beneficiary is entitled to

receive the monthly life benefit payable immediately under the assumption that the member retired on the later of age 50 or the date before the date of death and elected the joint and full survivor option. If eligible for normal retirement at death, the minimum pension

benefit is \$185 per month.

Cost-of-Living-Adjustments The employer-funded monthly pension benefits for

members in pay status are increased periodically to





preserve purchasing power that is diminished due to inflation. Such increases are not guaranteed by Statute and will only be provided by legislative action.

A "13th check" was paid to each member in pay status during fiscal year 2018, 2019, 2020, 2021 and 2025. The amount of the 13th check varied based on the years of creditable service the member had earned prior to retirement.

Legislation passed in the 2018 legislative session creates a funding mechanism to provide for future benefit increases or 13th checks. Prior to the 2024 session, the INPRS Board had the authority to have employers contribute up to 1% of member pay into the fund. Beginning with the 2024 valuation, they may not decrease this rate, but may increase it by up to 0.1% each year. The Board is charged with funding an inflation-indexed 13th Check for those commencing benefits before July 1, 2025 and a 1% COLA for those commencing benefits after June 30, 2025, although these benefits have not been granted or promised.

Increases or payments are made upon passed legislation subject to the availability of funds to provide the benefit.

Forms of payment

The normal form of benefit payment (Option A-1) is a single life annuity with a five-year certain period. There are five optional forms of payment available, as listed below. Additionally, members retiring between ages 50 and 62 may integrate their pension benefit with their Social Security benefit by choosing Social Security Integration (Option A-4) in conjunction with the normal form or any other optional form selected. Optional forms of payment are calculated on an actuarially equivalent basis.

Additional Forms of Payment

Option A-2: Straight Life benefit with no certain period

Option A-3: Modified Cash Refund Annuity (operates in conjunction

with the Defined Contribution Account)

Option B-1: 100% Survivorship





Option B-2: 66 2/3% Survivorship

Option B-3: 50% Survivorship

State law provides for actuarially-adjusted and recalculated benefits based on a new optional form election in the event of the death of the member's

spouse after retirement.

Changes in Plan Provisions since the Prior Year

A 13th Check to be paid in Fiscal Year 2025 from the SRA was granted. The Supplemental Benefit funding for an inflation-indexed 13th Check for participants who have commenced prior to July 1, 2025 and a 1% COLA for commencements thereafter is now required by legislation, although no additional benefits have yet been granted beyond this FY 2025 13th Check.





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. 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 than 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, 2023 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2023 and June 30, 2024. The valuation results from June 30, 2023 were rolled-forward to June 30, 2024 to reflect benefit accruals during the year less benefits paid.

2. COLA Surcharge

The Surcharge Rate is based on the same normal cost and amortization method as is being used for the base benefits, effective with the 2024 valuation which is required by HEA 1004-2024 to begin funding for an inflation-indexed 13th Check and 1% COLA. These benefits have not been granted or promised beyond a 13th Check payable in Fiscal Year 2025.

3. Asset Valuation Method

Actuarial Value of Assets is equal to a five-year smoothing of gains and losses on the Market Value of Assets subject to a 20% corridor.





4. Anticipated Payroll

The Anticipated Payroll for the fiscal year beginning July 1, 2024 is equal to the actual payroll for the combined TRF '96 and TRF Pre-'96 plans during the year ending June 30, 2024, increased with one year of salary scale, less the TRF Pre-'96 Anticipated Payroll based on expected salary increases and decrements between the census date and the valuation date on June 30, 2024.

5. Employer Contribution Rates

Based on the assumptions and methods previously described, an actuarially determined contribution rate is computed for each employer. The Board considers this information and has ultimate authority in setting the employer contribution rates.

Changes in Methods since the Prior Year

The Surcharge Rate Method was significantly revised by the passage by HEA 1004-2024.





ACTUARIAL ASSUMPTIONS

Valuation Date June 30, 2024

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

	Wage		Salary
Service	Inflation	Merit	Increase
0-1	2.65%	9.25%	11.90%
2	2.65%	4.25%	6.90%
3	2.65%	2.75%	5.40%
4-14	2.65%	1.75%	4.40%
15	2.65%	1.50%	4.15%
16	2.65%	1.25%	3.90%
17	2.65%	1.00%	3.65%
18	2.65%	0.75%	3.40%
19	2.65%	0.50%	3.15%
20	2.65%	0.25%	2.90%
21+	2.65%	0.00%	2.65%

4. Cost-of-Living Adjustment (COLA)

A one-time 13th check was granted and payable by October 1, 2024. Thereafter, it is assumed participants who have commenced benefits prior to July 1, 2025 will receive an annual 13th check indexed with inflation. Participants commencing on or after July 1, 2025 are assumed to receive a 1% COLA.

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 – Teacher Employee table with a 1 year set forward for males and a 1 year set forward for females.

Retirees – Teacher Retiree table with a 1 year set forward for males and a 1 year set forward 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
<=36	0.005%
40	0.009%
45	0.014%
50	0.034%
55	0.061%
56-65	0.070%
66+	0.000%

3. Retirement

Age	Eligible for Reduced Benefit	Eligible for Unreduced Benefit
50-53	2.0%	N/A
54	5.0%	N/A
55-56	5.0%	15%
57	6.5%	15%
58	8.0%	15%
59	12.0%	15%
60	N/A	15%
61	N/A	20%
62	N/A	25%
63	N/A	30%
64	N/A	35%
65-74	N/A	40%
75+	N/A	100%

Active members: 30% commence benefit immediately (reduced for early retirement, if applicable). 70% defer to earliest unreduced retirement date.

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





4. Termination

Service	Male	Female
0	15.00%	12.50%
1	13.00%	11.50%
2	11.00%	10.50%
3	9.00%	9.50%
4	8.00%	8.50%
5	7.00%	7.50%
6	6.00%	6.50%
7	5.00%	5.50%
8	4.50%	5.00%
9	4.00%	4.50%
10	3.75%	4.00%
11	3.50%	3.50%
12	3.25%	3.25%
13	3.00%	3.00%
14	2.75%	2.75%
15	2.50%	2.50%
16+	2.25%	2.25%

Other Assumptions

1. Form of payment 100% of members are assumed to elect the normal form of benefit payment (Option A-1), a single life

annuity with a five-year certain period.

2. Marital status

a. Percent married 80% of male members and 75% of female members are

assumed to be married and 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.

4. Miscellaneous adjustments For active members, the Average Annual

Compensation was increased by \$200 for additional wages received upon termination, such as severance or

unused sick leave.





Changes in Assumptions since the Prior Year

The COLA assumption was revised by the passage of HEA 1004-2024.

Data Adjustments

Active and retired member data is reported as of June 30. Member census data as of June 30, 2023 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2023 and June 30, 2024. Standard actuarial roll-forward techniques were then used to project the total pension liability computed as of June 30, 2023 to the June 30, 2024 measurement date.

The member census data and the asset information for this valuation were furnished as of June 30, 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.

Actives and inactives with no date of birth are assumed to be the average age of the member population with their respective status. Additionally, payroll for new hires is annualized, and actives missing a salary are assumed to earn the average active salary amount. For members reported with no gender, the member is assumed to be female.

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.





APPENDIX D - GLOSSARY OF ACTUARIAL TERMS

Accrued Service Service credited under the system 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 system 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

system 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 system benefits

allocated to the current year by the actuarial cost method.





APPENDIX D - GLOSSARY OF ACTUARIAL TERMS

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 systems have unfunded actuarial liability. They arise anytime new benefits are added and anytime an actuarial loss is realized.

