

INDIANA PUBLIC RETIREMENT SYSTEM

1977 POLICE OFFICERS' AND FIREFIGHTERS' RETIREMENT FUND



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 1977 Police Officers' and Firefighters' Retirement Fund ('77 Fund) as of June 30, 2024, for the purpose of estimating the actuarial determined contribution rate for the calendar year 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 provided that members may elect into the Deferred Retirement Option Program (DROP) for up to five years rather than three years as had been the case. This new provision is reflected under the assumption that members who utilize the DROP will now do so for five years. 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 the '77 Fund 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.



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 the '77 Fund 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



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
Chief Executive Officer

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



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SECTION I – BOARD SUMMARY

This report presents the results of the June 30, 2024 actuarial valuation of the 1977 Police Officers' and Firefighters' Retirement Fund ('77 Fund). The primary purposes of performing this actuarial valuation are to:

- Determine the employer contribution rate for the calendar year ending December 31, 2026 that will be sufficient to meet the funding policy.
- Disclose asset and liability measurements, as well as the plan's funded status on the valuation date.
- Compare actual and expected experience 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 unfunded actuarial accrued liability (UAAL) increased from \$600 million last year to \$986 million this year and the funded ratio decreased from 93.2% to 89.7%. The primary factors behind the decrease in the funded ratio were the extension of the DROP election duration, an actuarial loss on assets, and an actuarial loss on liabilities, primarily due to overall pay increases beyond what was expected along with some losses due to retirements and a larger than assumed COLA.

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	\$ 600,008,826	\$ 986,357,477
Funded Ratio (Actuarial Assets)	93.18%	89.67%
Normal Cost	21.43%	21.77%
UAAL Amortization	4.76%	7.37%
Total Recommended Contribution	26.19%	29.14%
Estimated Member Contributions	(5.91%)	(5.91%)
Actuarially Determined Contribution Rate	20.28%	23.23%

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.





SECTION I – BOARD SUMMARY

ASSETS

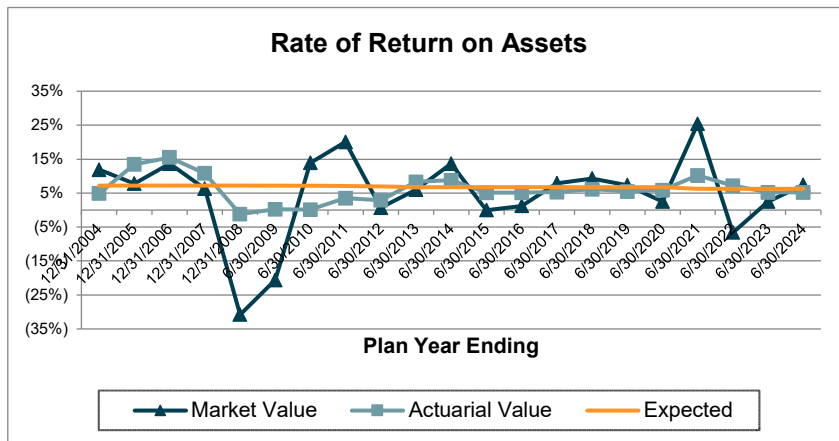
As of June 30, 2024, the plan had net assets of \$8.28 billion when measured on a market value basis. This was an increase of \$509 million from the prior year.

The market value of assets is not used directly in the calculation of the unfunded actuarial accrued liability and the actuarially determined contribution. An asset valuation method, which smooths 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 \$8.56 billion, an increase of \$361 million from the prior year.

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

	Market Value	Actuarial Value
Net Assets, June 30, 2023	\$ 7,771,897,955	\$ 8,196,319,898
- Employer and Member Contributions	+ 281,196,267	+ 281,196,267
- Benefit Payments and Refunds	- 344,577,382	- 344,577,382
- Net Investment Income	+ 572,606,421	+ 424,728,735
Net Assets, June 30, 2024	\$ 8,281,123,261	\$ 8,557,667,518
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 actuarial assets of \$86 million. Since the FY 2024 return on the market value of assets exceeded the 6.25% assumption, the net deferred investment loss decreased from \$424 million in last year's valuation to \$277 million in the current valuation. See Table 1 and Table 2 of this report for detailed information on the market and actuarial value of assets.



The rate of return on 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 time, even with large market gains and losses.





SECTION I – BOARD SUMMARY

LIABILITIES

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

The unfunded actuarial accrued liability on both a market value and actuarial value of assets basis is shown as of June 30, 2024 in the following table:

	Market Value	Actuarial Value
Actuarial Accrued Liability	\$ 9,544,024,995	\$ 9,544,024,995
Value of Assets	8,281,123,261	8,557,667,518
Unfunded Actuarial Accrued Liability	\$ 1,262,901,734	\$ 986,357,477
Funded Ratio	86.77%	89.67%

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

The UAAL (on an actuarial basis) as of June 30, 2023 was a \$986 million deficit, an increase of \$386 million from the \$600 million deficit last year. Factors in this increase included the extension of the DROP duration (\$98 million), the actuarial loss on the smoothed assets (\$86 million), and the actuarial loss of liabilities (\$202 million), largely due to salaries increasing more than expected, a COLA larger than assumed, and losses from retirement experience. The components of the change in the UAAL are quantified in Table 5 of this report. See Table 6 and Table 7 of this report for a breakdown of the components of experience gains/losses for greater detail.

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

	6/30/2020	6/30/2021	6/30/2022	6/30/2023	6/30/2024
Funded Ratio	98.3%	96.5%	94.7%	93.2%	89.7%
UAAL (in millions)	\$115.6	\$267.1	\$437.5	\$600.0	\$986.4

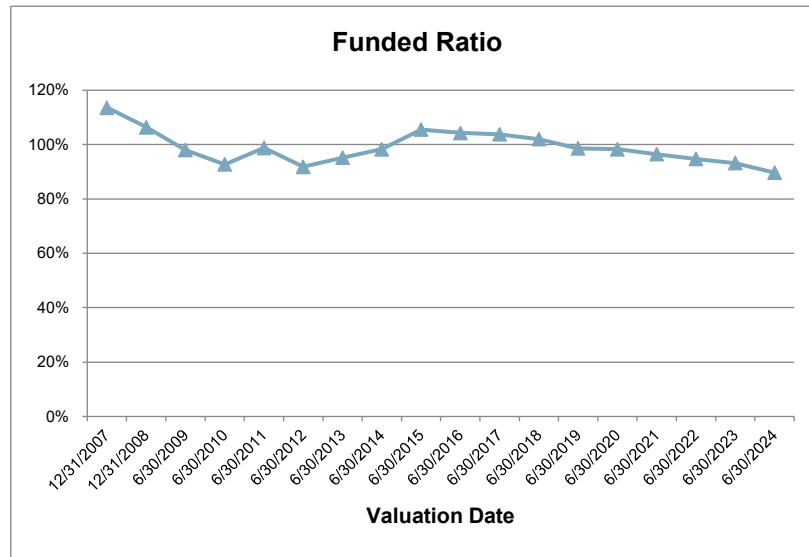
Note that the funded ratio does not indicate whether or not the plan assets are sufficient to settle benefits earned to date. The funded ratio, by itself, also may not be indicative of future funding requirements. In addition, if the funded ratios were shown using the market value of assets, the results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





SECTION I – BOARD SUMMARY

As the following graph of historical funded ratios shows, the '77 Fund has maintained a strong funded level for a number of years.



ACTUARIALLY DETERMINED CONTRIBUTION RATE

The Plan's actuarially determined contribution rate 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 amortization base. Whenever the Plan funded ratio exceeds 100%, all prior amortization bases are eliminated and the negative UAAL (or "surplus") is amortized over an open 30-year period, as an offset to other Plan costs.

The employer actuarially determined contribution rate is the total actuarially determined contribution rate (ADC) less the expected member contribution rate. Members with less than 32 years of service contribute 6% of pay into the plan, so the effective member contribution rate over all payroll (including the members with more than 32 years of service) is estimated to be 5.91% of pay.

The funding policy is for the employers to contribute a rate of pay equal to the greater of the current employer contribution rate or the ADC. 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 cushion above the actuarially determined contribution rate which helps improve the plan's funded status.





SECTION I – BOARD SUMMARY

See Table 10 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	21.43%	21.77%
UAAL Amortization	4.76%	7.37%
Total Recommended Contribution	26.19%	29.14%
Estimated Member Contributions	(5.91%)	(5.91%)
Actuarially Determined Contribution Rate	20.28%	23.23%
Approved Employer Funding Rate	20.30%	23.30%
Estimated Payroll	\$ 1,100,600,156	\$ 1,171,334,947
Actuarially Determined Contribution Amount	\$ 223,201,712	\$ 272,101,108

Last year, the Board approved funding rate was 20.30%, an increase from the previous year's approved funding rate of 19.10%. The funding policy for this year states that the approved funding rate should be the greater of the current employer funding rate or the ADC. The June 30, 2024 actuarially determined contribution rate is 23.23%, resulting in an increase in the recommended employer funding rate from 20.30%. The Board has approved an employer funding rate of 23.30% for the calendar year starting January 1, 2026.





SECTION I – BOARD SUMMARY

SUMMARY OF PRINCIPAL RESULTS

	June 30, 2022	June 30, 2023	June 30, 2024
MEMBERSHIP			
Active Members	13,632	13,679	13,927
Members in DROP	755	824	678
Retired Members and Beneficiaries	5,625	6,016	6,626
Disabled Members	930	977	1,006
Inactive Members	1,800	2,025	2,224
Total Members	22,742	23,521	24,461
Projected Annual Salaries in Following Year	\$ 1,045,593,111	\$ 1,100,600,156	\$ 1,171,334,947
Annual Retirement Payments for Retired Members, Disabled Members and Beneficiaries	\$ 217,397,186	\$ 240,052,283	\$ 277,806,861
ASSETS AND LIABILITIES			
Net Assets			
Market Value of Assets (MVA)	\$ 7,634,013,027	\$ 7,771,897,955	\$ 8,281,123,261
Actuarial Value of Assets (AVA)	7,844,323,391	8,196,319,898	8,557,667,518
Actuarial Accrued Liability (AAL)	8,281,864,869	8,796,328,724	9,544,024,995
Unfunded Actuarial Accrued Liability (UAAL): AAL - AVA	\$ 437,541,478	\$ 600,008,826	\$ 986,357,477
Funded Ratios			
AVA / AAL	94.72%	93.18%	89.67%
MVA / AAL	92.18%	88.35%	86.77%
CONTRIBUTIONS			
Normal Cost Rate	21.39%	21.43%	21.77%
UAAL Rate	3.61%	4.76%	7.37%
Total Recommended Contribution Rate	25.00%	26.19%	29.14%
Expected Employee Contribution Rate	(5.91%)	(5.91%)	(5.91%)
Actuarially Determined Contribution Rate	19.09%	20.28%	23.23%
Actuarially Determined Contribution Amount	\$ 199,603,725	\$ 223,201,712	\$ 272,101,108





SECTION II – SCOPE OF THE REPORT

This report presents the actuarial valuation results of the 1977 Police Officers' and Firefighters' Retirement Fund 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. Table 12 (in the GASB section) provides detail regarding the allocation of investments in the trust.

Actuarial Value of Assets

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

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





SECTION III - ASSETS

TABLE 1
DEVELOPMENT OF MARKET VALUE OF ASSETS

	June 30, 2023	June 30, 2024
1. Market Value of Assets, Beginning of Year	\$ 7,634,013,027	\$ 7,771,897,955
2. Receipts		
a. Member (Includes Purchased Service) ¹	\$ 62,932,250	\$ 67,126,979
b. Employer (Includes Purchased Service) ²	192,971,710	213,706,067
c. Member Reassignment Transfers	0	70,516
d. Miscellaneous	8,558	292,705
e. Total	\$ 255,912,518	\$ 281,196,267
3. Expenditures		
a. Benefit Payments	\$ 305,036,807	\$ 339,234,972
b. Refund of Contributions	4,060,225	5,342,410
c. Member Reassignment Transfers	195,817	0
d. Administrative Expense	2,429,058	2,475,046
e. Miscellaneous Expenditures	0	0
f. Total	\$ 311,721,907	\$ 347,052,428
4. Investment Return		
a. Investment Income	\$ 193,165,080	\$ 574,666,026
b. Securities Lending Income	529,237	415,441
c. Total Investment Return	\$ 193,694,317	\$ 575,081,467
5. Market Value of Assets, End of Year: (1) + (2e) - (3f) + (4c)	\$ 7,771,897,955	\$ 8,281,123,261
6. Estimated Rate of Return, Net of Expenses ³	2.51%	7.40%

¹ Includes \$358,013 of member service purchases during fiscal year 2023 and \$1,054,291 of member service purchases during fiscal year 2024.

² Includes \$272,024 of employer service purchases during fiscal year 2023 and \$1,822,484 of employer service purchases during fiscal year 2024.

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





SECTION III - ASSETS

TABLE 2

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

						For the Year Ending June 30, 2024
1. Market Value as of June 30, 2023						\$ 7,771,897,955
2. Receipts ¹						281,196,267
3. Expenditures, Net of Administrative Expenses						(344,577,382)
4. Expected Return on Assets ²						<u>483,762,962</u>
5. Expected Market Value as of June 30, 2024: (1) + (2) + (3) + (4)						\$ 8,192,279,802
6. Actual Market Value as of June 30, 2024						\$ 8,281,123,261
7. Year End 2024 Asset Gain/(Loss): (6) - (5)						\$ 88,843,459
8. Deferred Investment Gains and Losses						
		Year Ended June 30:	Gain/(Loss)	Factor		Deferred Amount
	a.	2021	\$ 1,222,660,167	20%		\$ 244,532,033
	b.	2022	(1,054,089,012)	40%		(421,635,605)
	c.	2023	(284,192,420)	60%		(170,515,452)
	d.	2024	88,843,459	80%		<u>71,074,767</u>
	e.	Total				\$ (276,544,257)
9. Initial Actuarial Value as of June 30, 2024: (6) - (8e)						\$ 8,557,667,518
10. Constraining Values						
a. 80% of Market Value: (6) x 0.8						\$ 6,624,898,609
b. 120% of Market Value: (6) x 1.2						\$ 9,937,347,913
11. Actuarial Value as of June 30, 2024						\$ 8,557,667,518
12. Actuarial Rate of Return, Net of Expenses ³						5.20%
13. Actuarial Value of Assets as a Percent of Market Value: (11) / (6)						103.3%

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

² Assumes cash flows occur at mid-year and a return assumption of 6.25%.

³ Assumes cash flows occur at mid-year.





SECTION IV – PLAN LIABILITIES

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 1977 Police Officers' and Firefighters' Retirement Fund 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 valuation of the 1977 Police Officers' and Firefighters' Retirement Fund 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 the expectation that all actuarial assumptions are met during the intervening year, there will, of course, be many of the assumptions that are not met exactly. In general, this does not materially affect the resulting calculations or conclusions in this report. Should there be a year in which events, such as plan changes, occur that would affect the results, adjustments in the roll-forward methods would be made to appropriately reflect the events.

All liabilities reflect the benefit provisions and actuarial assumptions in place as of June 30, 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 perform this allocation, it is necessary for the funding method to "breakdown" the present value of future benefits into two components:

- (1) that which is attributable to the past, and
- (2) that which is attributable to the future.

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

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

Low-Default-Risk Obligation Measure

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we are required to include a low-default-risk obligation measure of the System's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of the plan. This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of June 30, 2024 and with the 30-year spot rate used for all durations beyond 30 because this provides an appropriate set of discount rates for





SECTION IV – PLAN LIABILITIES

this intended purpose. Using these assumptions, we calculate a liability of approximately \$8,455,120,000. 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.





SECTION IV – PLAN LIABILITIES

TABLE 3
ACTUARIAL ACCRUED LIABILITY

	As of June 30, 2024	
1. Actuarial Accrued Liability		
a. Member Contribution Balances	\$	893,641,377
b. Active & Inactive Members		4,466,469,431
c. In-pay Members		4,183,914,187
d. Total	\$	<u>9,544,024,995</u>
2. Actuarial Value of Assets	\$	8,557,667,518
3. Unfunded Actuarial Accrued Liability: (1d) – (2)	\$	986,357,477
4. Funded Ratio: (2)/(1d)		89.67%





SECTION IV – PLAN LIABILITIES

TABLE 4
SOLVENCY TEST

Actuarial Valuation as of June 30	Actuarial Accrued Liabilities (AAL)				Portion of AAL Covered by Assets				
	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2024	\$893,641	\$4,183,914	\$4,466,470	\$9,544,025	\$8,557,668	100.0%	100.0%	77.9%	89.7%
2023	883,960	3,583,003	4,329,366	8,796,329	8,196,320	100.0	100.0	86.1	93.2
2022	895,987	3,248,406	4,137,472	8,281,865	7,844,323	100.0	100.0	89.4	94.7
2021	886,016	2,816,400	3,896,358	7,598,774	7,331,654	100.0	100.0	93.1	96.5
2020	895,203	2,377,937	3,512,468	6,785,608	6,670,034	100.0	100.0	96.7	98.3
2019	883,706	2,169,744	3,335,552	6,389,002	6,299,748	100.0	100.0	97.3	98.6
2018	866,551	1,910,154	3,062,954	5,839,659	5,953,978	100.0	100.0	103.7	102.0
2017	857,426	1,715,503	2,812,824	5,385,753	5,587,551	100.0	100.0	107.2	103.7
2016	843,628	1,532,936	2,663,272	5,039,836	5,255,255	100.0	100.0	108.1	104.3
2015	832,760	1,362,021	2,485,913	4,680,694	4,939,330	100.0	100.0	110.4	105.5

Note: Dollar amounts are in thousands of dollars.





SECTION IV – PLAN LIABILITIES

TABLE 5

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

	For Year Ending June 30, 2024
1. Unfunded Actuarial Accrued Liability as of June 30, 2023	\$ 600,008,826
2. Normal Cost	235,858,613
3. Actuarially Determined Contribution	(288,271,030)
4. Interest	34,224,776
5. Expected Unfunded Actuarial Accrued Liability as of June 30, 2024	\$ 581,821,185
6. Actuarial Value of Asset Changes	
a. Investment Experience (Gain)/Loss	\$ 85,560,599
b. Contributions (Above)/Below the Actuarially Determined Contribution and Other (Gain)/Loss	\$ 19,339,752
7. Actuarial Accrued Liability Changes	
a. Actuarial Accrued Liability Experience (Gain)/Loss	\$ 201,691,588
b. Additional Liability Due to Benefit Changes	97,944,353
c. Additional Liability Due to Assumption Changes	0
8. Total Experience (Gain)/Loss	\$ 404,536,292
9. June 30, 2024 Unfunded Actuarial Accrued Liability: (5) + (8)	\$ 986,357,477





SECTION IV – PLAN LIABILITIES

TABLE 6
ACTUARIAL GAIN/(LOSS)

Liabilities

1. Actuarial Accrued Liability as of June 30, 2023	\$ 8,796,328,724
2. Normal Cost for Plan Year Ending June 30, 2024	235,858,613
3. Benefit Payments During Plan Year ¹	(344,581,222)
4. Service Purchases (employee and employer)	2,876,775
5. Member Reassignment Transfers	70,516
6. Interest at 6.25%	553,835,648
7. Change Due to Benefit Changes	97,944,353
8. Change Due to Assumption Changes	0
9. Expected Actuarial Accrued Liability as of June 30, 2024	<u>\$ 9,342,333,407</u>
10. Actuarial Accrued Liability as of June 30, 2024	\$ 9,544,024,995

Assets

11. Actuarial Value of Assets as of June 30, 2023	\$ 8,196,319,898
12. Receipts During Plan Year	281,196,267
13. Expenditures, Excluding Expenses, During Plan Year	(344,577,382)
14. Interest at 6.25%	<u>510,289,334</u>
15. Expected Actuarial Value of Assets as of June 30, 2024	\$ 8,643,228,117
16. Actuarial Value of Assets as of June 30, 2024	\$ 8,557,667,518

Experience Gain / (Loss)

17. Liability Actuarial Experience Gain/(Loss): (9) - (10)	\$ (201,691,588)
18. Asset Actuarial Experience Gain/(Loss): (16) - (15)	<u>(85,560,599)</u>
19. Total Actuarial Experience Gain/(Loss): (17) + (18)	\$ (287,252,187)

¹ Does not include miscellaneous expenses or benefit overpayments.





TABLE 7
EXPERIENCE GAIN/(LOSS) ANALYSIS BY SOURCE

<u>Liability Sources (in thousands)</u>	<u>Gain/(Loss)*</u>
Retirement/DROP	\$ (31,746)
Termination	(8,615)
Disability	(12,542)
Mortality	(5,479)
Salary	(89,676)
New Entrants/Rehires	(21,059)
Miscellaneous/COLA	(32,575)
Total Liability Experience Gain/(Loss)	\$ (201,692)
as a % of AAL	(2.1%)
 Asset Experience Gain/(Loss)	 \$ (85,561)
Total Actuarial Experience Gain/(Loss)	\$ (287,252)

*Numbers may not add due to rounding.





SECTION IV – PLAN LIABILITIES

TABLE 8

PROJECTED BENEFIT PAYMENTS

<u>Plan Year Ending June 30</u>	<u>Benefit Amount</u>
2025	\$ 390,597,739
2026	402,790,246
2027	408,501,134
2028	412,707,842
2029	501,687,565
2030	530,059,746
2031	558,476,050
2032	585,828,686
2033	613,229,043
2034	640,289,017
2035	670,013,137
2036	695,643,374
2037	721,164,122
2038	746,443,194
2039	772,025,144
2040	799,871,061
2041	825,687,517
2042	855,086,720
2043	884,437,807
2044	914,151,299
2045	944,512,180
2046	971,989,370
2047	1,002,573,989
2048	1,033,037,255
2049	1,061,454,022
2050	1,086,137,718
2051	1,108,256,658
2052	1,125,746,073
2053	1,141,590,017
2054	1,151,776,501

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





SECTION V – EMPLOYER CONTRIBUTIONS

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

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

Description of Contribution 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. The unfunded actuarial accrued liability is calculated each year and reflects experience gains and losses.

The contribution rate based on the June 30, 2024 actuarial will be used to calculate the actuarially determined employer contribution rate to the 1977 Police Officers' and Firefighters' Retirement Fund for the 2026 calendar year. Based on the Board funding policy, the employer funding rate for calendar year 2026 has been approved to be 23.30%. This rate is an increase over prior years to ensure the plan contributes the actuarially determined contribution rate and maintains adequate funding of the retirement system. 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 will be funded over the next 20 years, although the funding policy is likely to result in this being accomplished sooner.

Contribution Rate Summary

In Table 9, the amortization payment related to the unfunded actuarial accrued liability/(surplus), as of June 30, 2024, is developed. Table 10 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 11 the contribution rates under alternative discount rates are provided to illustrate the sensitivity of the contribution requirements to the selection of the investment return assumption.





SECTION V – EMPLOYER CONTRIBUTIONS

TABLE 9
SCHEDULE OF AMORTIZATION BASES

Amortization Bases	Original Amount	June 30, 2024 Remaining Payments	Date of Last Payment	Outstanding Balance as of June 30, 2024	Annual Contribution
2019 UAAL Base ¹	89,253,395	15	7/1/2039	76,093,766	7,494,876
2020 UAAL Base	28,557,471	16	7/1/2040	25,275,491	2,394,522
2021 UAAL Base	154,649,894	17	7/1/2041	141,589,425	12,948,711
2022 UAAL Base	177,992,684	18	7/1/2042	168,278,123	14,903,184
2023 UAAL Base	175,221,129	19	7/1/2043	170,584,380	14,671,124
2024 UAAL Base	404,536,292	20	7/1/2044	<u>404,536,292</u>	<u>33,871,498</u>
Total				\$ 986,357,477	\$ 86,283,915

- 1. Total UAAL Amortization Payments \$ 86,283,915
- 2. Projected Payroll for FY 2025 \$ 1,171,334,947
- 3. UAAL Amortization Payment Rate 7.37%

¹ The 2019 UAAL base reflects the change from a plan surplus position, which was amortized over an open, 30-year period, to the closed, 20-year period.





SECTION V – EMPLOYER CONTRIBUTIONS

TABLE 10
ACTUARIAL DETERMINED CONTRIBUTION RATE

1. Projected Payroll for FY 2025	\$ 1,171,334,947
2. Normal Cost Rate	21.77%
3. Amortization of UAAL as of June 30, 2024	
a. Dollar Amount	\$ 86,283,915
b. Percent of Projected Pay	7.37%
4. Total Recommended Contribution Rate: (2) + (3b)	29.14%
5. Expected Employee Contribution Rate ¹	5.91%
6. Actuarially Determined Contribution Rate: (4) - (5)	23.23%
7. Estimated Actuarially Determined Contribution Amount: (1) x (6)	\$ 272,101,108
8. Actuarially Determined Contribution Rate for FY 2026	
a. July 1, 2025 to December 31, 2025	20.28%
b. January 1, 2026 to June 30, 2026	23.23%
c. Average	<u>21.76%</u>
9. Approved Funding Rate	
a. July 1, 2025 to December 31, 2025	20.30%
b. January 1, 2026 to June 30, 2026	<u>23.30%</u>
c. Average	21.80%
10. Expected Percentage of Actuarially Determined Contribution Contributed	100.18%

¹ Member contribution rate of 6% is made only on payroll of those with less than 32 years of service.





SECTION V – EMPLOYER CONTRIBUTIONS

TABLE 11

INVESTMENT RETURN SENSITIVITY

	1.00% Decrease: (5.25%)	0.75% Decrease: (5.50%)	0.50% Decrease: (5.75%)	0.25% Decrease: (6.00%)	Current Assumption: (6.25%)
Funded Status					
Actuarial Accrued Liability	\$11,042,897,698	\$10,635,575,477	\$10,251,029,937	\$9,887,667,036	\$9,544,024,995
Actuarial Value of Assets	<u>8,557,667,518</u>	<u>8,557,667,518</u>	<u>8,557,667,518</u>	<u>8,557,667,518</u>	<u>8,557,667,518</u>
Unfunded Actuarial Accrued Liability	\$2,485,230,180	\$2,077,907,959	\$1,693,362,419	\$1,329,999,518	\$986,357,477
Funded Ratio	77.5%	80.5%	83.5%	86.5%	89.7%
Actuarially Determined Contribution Amount					
Normal Cost Rate	28.67%	26.73%	24.95%	23.30%	21.77%
UAAL Amortization Rate	16.85%	14.39%	12.00%	9.66%	7.37%
Expected Member Contribution Rate	<u>(5.91%)</u>	<u>(5.91%)</u>	<u>(5.91%)</u>	<u>(5.91%)</u>	<u>(5.91%)</u>
Actuarially Determined Employer Contrib. Rate	39.61%	35.22%	31.03%	27.04%	23.23%
	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	\$9,218,761,544	\$8,910,642,605	\$8,618,532,190	\$8,341,383,397	\$8,078,230,346
Actuarial Value of Assets	<u>8,557,667,518</u>	<u>8,557,667,518</u>	<u>8,557,667,518</u>	<u>8,557,667,518</u>	<u>8,557,667,518</u>
Unfunded Actuarial Accrued Liability	\$661,094,026	\$352,975,087	\$60,864,672	(\$216,284,121)	(\$479,437,172)
Funded Ratio	92.8%	96.0%	99.3%	102.6%	105.9%
Actuarially Determined Contribution Amount					
Normal Cost Rate	20.36%	19.06%	17.85%	16.73%	15.69%
UAAL Amortization Rate	5.12%	2.92%	0.77%	(1.42%)	(3.22%)
Expected Member Contribution Rate	<u>(5.91%)</u>	<u>(5.91%)</u>	<u>(5.91%)</u>	<u>(5.91%)</u>	<u>(5.91%)</u>
Actuarially Determined Employer Contrib. Rate	19.57%	16.07%	12.70%	9.40%	6.56%





SECTION VI – GASB INFORMATION

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.





SECTION VI – GASB INFORMATION

TABLE 12

STATEMENT OF FIDUCIARY NET POSITION

June 30, 2024

1. Assets		
a. Cash	\$	3,355,890
b. Receivables		
i. Contributions and Miscellaneous Receivables	\$	5,331,335
ii. Investments Receivable		135,901,933
iii. Foreign Exchange Contracts Receivable		1,318,219,337
iv. Interest and Dividends		21,624,047
v. Receivables Due From Other Funds		0
vi. Total Receivables	\$	1,481,076,652
c. Investments		
i. Short-Term Investments	\$	0
ii. Pooled Repurchase Agreements		1,875,523
iii. Pooled Short-Term Investments		678,078,698
iv. Pooled Fixed Income		2,261,878,250
v. Pooled Equity		1,090,984,944
vi. Pooled Alternative Investments		4,549,817,783
vii. Pooled Derivatives		2,808,925
viii. Pooled Investments		0
ix. Securities Lending Collateral		26,580,974
x. Total Investments	\$	8,612,025,097
d. Net Capital Assets		0
e. Other Assets		0
f. Total Assets: a + b(vi) + c(x) + d + e	\$	10,096,457,639
2. Liabilities		
a. Administrative Payable	\$	104,185
b. Retirement Benefits Payable		2,190,068
c. Investments Payable		414,116,679
d. Foreign Exchange Contracts Payable		1,313,412,924
e. Securities Lending Obligations		26,580,974
f. Securities Sold Under Agreement to Repurchase		58,624,447
g. Due To Other Funds		305,101
h. Due to Other Governments		0
i. Total Liabilities: a + b + c + d + e + f + g + h	\$	1,815,334,378
3. Fiduciary Net Position Restricted for Pensions: (1)(f) - (2)(i)	\$	8,281,123,261





SECTION VI – GASB INFORMATION

TABLE 13

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For Fiscal Year Ending June 30, 2024

1. Fiduciary Net Position as of June 30, 2023	\$ 7,771,897,955
2. Additions	
a. Contributions	
i. Member Contributions	\$ 66,072,688
ii. Employer Contributions	211,883,583
iii. Service Purchases (Employer and Member) ¹	2,876,775
iv. Non-Employer Contributing Entity Contributions	0
v. Total Contributions	<u>\$ 280,833,046</u>
b. Investment Income/(Loss)	
i. Net Appreciation/(Depreciation)	\$ 503,101,983
ii. Net Interest and Dividend Income	119,235,157
iii. Securities Lending Income	485,433
iv. Other Net Investment Income	1,073,064
v. Investment Management Expenses	(47,577,937)
vi. Direct Investment Expenses	(1,166,241)
vii. Securities Lending Expenses	(69,992)
viii. Total Investment Income/(Loss)	<u>\$ 575,081,467</u>
c. Other Additions	
i. Member Reassignments	186,860
ii. Miscellaneous Receipts	292,705
iii. Total Other Additions	<u>\$ 479,565</u>
d. Total Revenue (Additions): a(v) + b(viii) + c(iii)	<u>\$ 856,394,078</u>
3. Deductions	
a. Pension, Survivor and Disability Benefits	\$ 338,046,972
b. Death and Funeral Benefits	1,188,000
c. Distributions of Contributions and Interest	5,342,410
d. Administrative Expenses	2,475,046
e. Member Reassignments	116,344
f. Miscellaneous Expenses	0
g. Total Expenses (Deductions)	<u>\$ 347,168,772</u>
4. Net Increase (Decrease) in Fiduciary Net Position: (2)(d) - (3)(g)	\$ 509,225,306
5. Fiduciary Net Position as of June 30, 2024: (1) + (4)	\$ 8,281,123,261

¹ Service purchases paid by employer of \$1,822,484 and employee of \$1,054,291.





SECTION VI – GASB INFORMATION

TABLE 14

SCHEDULE OF CHANGES IN NET PENSION LIABILITY

	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	\$ 8,796,328,724	\$ 7,771,897,955	\$ 1,024,430,769
2. Changes for the Year:			
Service Cost (SC) ¹	235,858,613		235,858,613
Interest Cost	553,835,768		553,835,768
Experience (Gains)/Losses	201,687,628		201,687,628
Assumption Changes	0		0
Plan Amendments	97,944,353		97,944,353
Benefit Payments ²	(344,577,382)	(344,577,382)	0
Service Purchases			
Employer Contributions	1,822,484	1,822,484	0
Employee Contributions	1,054,291	1,054,291	0
Member Reassignments ³	70,516	70,516	0
Employer Contributions		211,883,583	(211,883,583)
Non-employer Contributions		0	0
Employee Contributions		66,072,688	(66,072,688)
Net Investment Income		575,081,467	(575,081,467)
Administrative Expenses		(2,475,046)	2,475,046
Other		292,705	(292,705)
Net Changes	\$ 747,696,271	\$ 509,225,306	\$ 238,470,965
3. Balance at June 30, 2024	\$ 9,544,024,995	\$ 8,281,123,261	\$ 1,262,901,734

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

² Includes special death benefits of \$1,188,000 and refund of member contributions of \$5,342,410.

³ Includes net interfund transfers of employer contributed amounts.





SECTION VI – GASB INFORMATION

TABLE 15

DEFERRED OUTFLOWS OF RESOURCES

	June 30, 2023	Remaining Period	Recognition	June 30, 2024
1. Liability Experience				
June 30, 2024 Loss	\$ 201,687,628	7.27	\$ 27,742,453	\$ 173,945,175
June 30, 2023 Loss	67,509,012	6.74	10,016,175	57,492,837
June 30, 2022 Loss	179,179,647	5.87	30,524,642	148,655,005
June 30, 2021 Loss	21,074,114	5.04	4,181,372	16,892,742
June 30, 2020 Loss	5,926,165	4.11	1,441,890	4,484,275
June 30, 2019 Loss	13,026,632	3.62	3,598,518	9,428,114
June 30, 2018 Loss	38,096,168	2.69	14,162,145	23,934,023
June 30, 2017 Loss	6,923,882	1.83	3,783,546	3,140,336
June 30, 2016 Loss	4,800,048	1.04	4,615,431	184,617
June 30, 2015 Loss	0	0.31	0	0
June 30, 2014 Loss	0	0.00	0	0
2. Assumption Changes				
June 30, 2024 Loss	\$ 0	7.27	\$ 0	\$ 0
June 30, 2023 Loss	0	6.74	0	0
June 30, 2022 Loss	0	5.87	0	0
June 30, 2021 Loss	229,473,766	5.04	45,530,510	183,943,256
June 30, 2020 Loss	1,154,539	4.11	280,910	873,629
June 30, 2019 Loss	0	3.62	0	0
June 30, 2018 Loss	0	2.69	0	0
June 30, 2017 Loss	0	1.83	0	0
June 30, 2016 Loss	0	1.04	0	0
June 30, 2015 Loss	0	0.31	0	0
3. Investment Experience				
June 30, 2024 Loss	\$ 0	5.00	\$ 0	\$ 0
June 30, 2023 Loss	225,349,963	4.00	56,337,491	169,012,472
June 30, 2022 Loss	631,170,984	3.00	210,390,329	420,780,655
June 30, 2021 Loss	0	2.00	0	0
June 30, 2020 Loss	53,273,283	1.00	53,273,283	0
Total Outflows: (1)+(2)+(3)	\$ 1,678,645,831		\$ 465,878,695	\$ 1,212,767,136

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.





SECTION VI – GASB INFORMATION

TABLE 16
DEFERRED INFLOWS OF RESOURCES

	June 30, 2023	Remaining Period	Recognition	June 30, 2024
1. Liability Experience				
June 30, 2024 Gain	\$ 0	7.27	\$ 0	\$ 0
June 30, 2023 Gain	0	6.74	0	0
June 30, 2022 Gain	0	5.87	0	0
June 30, 2021 Gain	0	5.04	0	0
June 30, 2020 Gain	0	4.11	0	0
June 30, 2019 Gain	0	3.62	0	0
June 30, 2018 Gain	0	2.69	0	0
June 30, 2017 Gain	0	1.83	0	0
June 30, 2016 Gain	0	1.04	0	0
June 30, 2015 Gain	2,052,467	0.31	2,052,467	0
June 30, 2014 Gain	0	0.00	0	0
2. Assumption Changes				
June 30, 2024 Gain	\$ 0	7.27	\$ 0	\$ 0
June 30, 2023 Gain	0	6.74	0	0
June 30, 2022 Gain	0	5.87	0	0
June 30, 2021 Gain	0	5.04	0	0
June 30, 2020 Gain	0	4.11	0	0
June 30, 2019 Gain	0	3.62	0	0
June 30, 2018 Gain	0	2.69	0	0
June 30, 2017 Gain	4,849,481	1.83	2,649,992	2,199,489
June 30, 2016 Gain	0	1.04	0	0
June 30, 2015 Gain	10,315,605	0.31	10,315,605	0
3. Investment Experience				
June 30, 2024 Gain	\$ 91,395,850	5.00	\$ 18,279,170	\$ 73,116,680
June 30, 2023 Gain	0	4.00	0	0
June 30, 2022 Gain	0	3.00	0	0
June 30, 2021 Gain	489,863,698	2.00	244,931,851	244,931,847
June 30, 2020 Gain	0	1.00	0	0
Total Inflows: (1)+(2)+(3)	\$ 598,477,101		\$ 278,229,085	\$ 320,248,016

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.





SECTION VI – GASB INFORMATION

TABLE 17

DEFERRED INFLOWS / OUTFLOWS TO BE RECOGNIZED IN PENSION EXPENSE

Fiscal Year Ending June 30	Deferred Outflows	Deferred Inflows	Net Deferred Outflows/(Inflows)
Current Year:			
2024	\$ 465,878,695	\$ 278,229,085	\$ 187,649,610
Future Years:			
2025	\$ 407,531,388	\$ 265,410,506	\$ 142,120,882
2026	399,816,165	18,279,170	381,536,995
2027	178,286,520	18,279,170	160,007,350
2028	118,184,656	18,279,170	99,905,486
2029	66,303,535	0	66,303,535
Thereafter	42,644,872	0	42,644,872





SECTION VI – GASB INFORMATION

TABLE 18
PENSION EXPENSE UNDER GASB NO. 68

For Fiscal Year Ending June 30, 2024	
1. Service Cost, beginning of year	\$ 235,858,613
2. Interest Cost, including interest on service cost	553,835,768
3. Member Contributions ¹	(66,072,688)
4. Administrative Expenses	2,475,046
5. Expected Return on Assets ²	(483,685,617)
6. Plan Amendments	97,944,353
7. Recognition of Deferred Inflows / Outflows of Resources Related to:	
a. Liability Experience (Gains) / Losses	98,013,705
b. Assumption Change (Gains) / Losses	32,845,823
c. Investment Experience (Gains) / Losses	56,790,082
d. Total: (7a)+(7b)+(7c)	187,649,610
8. Miscellaneous (Income) / Expense	(292,705)
9. Total Collective Pension Expense: (1)+(2)+(3)+(4)+(5)+(6)+(7d)+(8)	527,712,380
10. Employer Service Purchases ³	1,822,484
Pension Expense / (Income): (9) + (10)	\$ 529,534,864

¹ Excludes member paid service purchases of \$1,054,291.

² Cash flows assumed to occur mid-year.

³ To be expensed by the employers who purchased the service.





SECTION VI – GASB INFORMATION

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 1977 Police Officers' and Firefighters' Retirement Fund 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, 2024, 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%
Cost-of-Living Increases	As of June 30, 2024: 1.95% compounded annually, beginning July 1, 2025. Actual COLA increases at July 1, 2023 (3.00%) and July 1, 2024 (3.00%) are reflected in the valuation. As of June 30, 2023: 1.95% compounded annually, beginning July 1, 2024. Actual COLA increases at July 1, 2022 (3.00%) and July 1, 2023 (3.00%) are reflected in the valuation.





SECTION VI – GASB INFORMATION

Mortality Assumption	<p>Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.</p> <p><i>Healthy Employees</i> – Safety Employee table with a 3-year set forward for males and no set forward for females.</p> <p><i>Retirees</i> – Safety Retiree table with a 3-year set forward for males and no set forward for females.</p> <p><i>Beneficiaries</i> – Contingent Survivor table with no set forward for males and a 2-year set forward for females.</p> <p><i>Disableds</i> – General Disabled table.</p>
Experience Study	<p>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.</p>
Discount Rate	<p>6.25%, net of investment expenses</p> <p>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.</p> <p>The INPRS Board of Trustees has established a funding policy of setting the employer contribution rate equal to the greater of 23.3% (the current contribution rate) or 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. 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 (dropped below 100% funded as of June 30, 2019), and a 5-year smoothing method for recognizing investment gains and losses in the actuarial value of assets.</p>





SECTION VI – GASB INFORMATION

Discount Rate Sensitivity

	1% Decrease	Current Rate	1% Increase
	5.25%	6.25%	7.25%
Net Pension Liability	\$2,761,774,437	\$1,262,901,734	\$60,260,136

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	
1. Currently Receiving Benefits:	
Retired Members, Disabled Members, and Beneficiaries	7,632
2. Inactive Members Entitled To But Not Yet Receiving Benefits	357
3. Inactive Non-vested Members Entitled to a Refund of Member Contributions	1,867
4. Active Members	14,605
Total Covered Plan Members: (1)+(2)+(3)+(4)	24,461

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	\$ 9,544,024,995
Fiduciary Net Position	8,281,123,261
Net Pension Liability	\$ 1,262,901,734
Ratio of Fiduciary Net Position to Total Pension Liability	86.77%





SECTION VI – GASB INFORMATION

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	2020	2021	2022	2023	2024
Total Pension Liability					
Total Pension Liability - beginning	\$6,389,001,606	\$6,785,607,786	\$7,598,773,542	\$8,281,864,869	\$8,796,328,724
Service Cost (SC), beginning-of-year	162,496,087	188,343,456	210,535,660	223,652,366	235,858,613
Interest Cost, including interest on SC	434,975,340	462,723,233	480,331,671	521,949,114	553,835,768
Experience (Gains)/Losses	11,693,725	33,618,230	240,228,931	77,525,187	201,687,628
Assumption Changes	2,278,179	366,065,296	0	0	0
Plan Amendments	0	0	0	0	97,944,353
Actual Benefit Payments	(215,750,367)	(238,903,152)	(249,119,113)	(309,097,032)	(344,577,382)
Member Reassignments	0	0	8,462	(195,817)	70,516
Service Purchases	913,216	1,318,693	1,105,716	630,037	2,876,775
Net Change in Total Pension Liability	396,606,180	813,165,756	683,091,327	514,463,855	747,696,271
(a) Total Pension Liability - ending	\$6,785,607,786	\$7,598,773,542	\$8,281,864,869	\$8,796,328,724	\$9,544,024,995
Plan Fiduciary Net Position					
Plan Fiduciary Net Position – beginning	\$6,379,785,641	\$6,542,799,991	\$8,189,788,822	\$7,634,013,027	\$7,771,897,955
Contributions – employer	162,302,282	166,436,369	177,035,424	192,971,710	213,706,067
Contributions – non-employer	0	0	0	0	0
Contributions – member	54,175,163	55,702,995	58,920,419	62,932,250	67,126,979
Net investment income	164,228,138	1,665,667,835	(540,565,173)	193,694,317	575,081,467
Actual benefit payments	(215,750,367)	(238,903,152)	(249,119,113)	(309,097,032)	(344,577,382)
Net member reassignments	0	0	8,462	(195,817)	70,516
Administrative expense	(1,960,735)	(1,933,818)	(2,072,601)	(2,429,058)	(2,475,046)
Other	19,869	18,602	16,787	8,558	292,705
Net change in Plan Fiduciary Net Position	163,014,350	1,646,988,831	(555,775,795)	137,884,928	509,225,306
(b) Plan Fiduciary Net Position - ending	\$6,542,799,991	\$8,189,788,822	\$7,634,013,027	\$7,771,897,955	\$8,281,123,261
Net Pension Liability - ending, (a) - (b)	\$242,807,795	(\$591,015,280)	\$647,851,842	\$1,024,430,769	\$1,262,901,734

Results prior to 2018 were produced by the prior actuary.





SECTION VI – GASB INFORMATION

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	2015	2016	2017	2018	2019
Total Pension Liability					
Total Pension Liability - beginning	\$4,706,997,462	\$4,680,694,445	\$5,039,835,987	\$5,385,753,140	\$5,839,659,033
Service Cost (SC), beginning-of-year	138,204,281	129,369,091	134,489,476	136,640,454	150,288,863
Interest Cost, including interest on SC	323,129,528	320,218,564	344,396,796	366,931,750	398,001,952
Experience (Gains)/Losses	(61,640,441)	41,723,496	33,408,704	123,069,038	31,019,222
Assumption Changes	(309,801,126)	0	(23,399,425)	0	0
Plan Amendments	0	0	1,323,025	0	157,277,908
Actual Benefit Payments	(116,489,902)	(132,746,835)	(148,865,005)	(172,907,999)	(189,951,437)
Member Reassignments	0	(74,416)	0	0	0
Service Purchases	294,643	651,642	4,563,582	172,650	2,706,065
Net Change in Total Pension Liability	(26,303,017)	359,141,542	345,917,153	453,905,893	549,342,573
(a) Total Pension Liability - ending	\$4,680,694,445	\$5,039,835,987	\$5,385,753,140	\$5,839,659,033	\$6,389,001,606
Plan Fiduciary Net Position					
Plan Fiduciary Net Position – beginning	\$4,757,977,785	\$4,828,414,561	\$4,950,999,065	\$5,401,178,536	\$5,927,570,189
Contributions – employer	146,696,360	151,674,202	150,857,418	147,094,151	155,051,201
Contributions – non-employer	0	0	0	0	0
Contributions – member	43,523,241	44,918,203	51,520,565	48,838,461	52,810,729
Net investment income	(1,584,662)	60,464,690	398,273,550	504,991,361	436,228,998
Actual benefit payments	(116,489,902)	(132,746,835)	(148,865,005)	(172,907,999)	(189,951,437)
Net member reassignments	0	(74,416)	0	0	0
Administrative expense	(1,708,261)	(1,651,340)	(1,607,057)	(1,642,550)	(1,903,810)
Other	0	0	0	18,229	(20,229)
Net change in Plan Fiduciary Net Position	70,436,776	122,584,504	450,179,471	526,391,653	452,215,452
(b) Plan Fiduciary Net Position - ending	\$4,828,414,561	\$4,950,999,065	\$5,401,178,536	\$5,927,570,189	\$6,379,785,641
Net Pension Liability - ending, (a) - (b)	(\$147,720,116)	\$88,836,922	(\$15,425,396)	(\$87,911,156)	\$9,215,965

Results prior to 2018 were produced by the prior actuary.





SECTION VI – GASB INFORMATION

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	\$6,785,607,786	\$7,598,773,542	\$8,281,864,869	\$8,796,328,724	\$9,544,024,995
Plan Fiduciary Net Position	6,542,799,991	8,189,788,822	7,634,013,027	7,771,897,955	8,281,123,261
Net Pension Liability	\$242,807,795	(\$591,015,280)	\$647,851,842	\$1,024,430,769	\$1,262,901,734
Ratio of Plan Fiduciary Net Position to Total Pension Liability	96.42%	107.78%	92.18%	88.35%	86.77%
Covered payroll ¹	\$940,495,810	\$951,301,008	\$1,018,600,205	\$1,072,187,195	\$1,141,095,906
Net Pension Liability as a percentage of covered payroll	25.82%	-62.13%	63.60%	95.55%	110.67%

Fiscal Year Ending June 30	2015	2016	2017	2018	2019
Total Pension Liability	\$4,680,694,445	\$5,039,835,987	\$5,385,753,140	\$5,839,659,033	\$6,389,001,606
Plan Fiduciary Net Position	4,828,414,561	4,950,999,065	5,401,178,536	5,927,570,189	6,379,785,641
Net Pension Liability	(\$147,720,116)	\$88,836,922	(\$15,425,396)	(\$87,911,156)	\$9,215,965
Ratio of Plan Fiduciary Net Position to Total Pension Liability	103.16%	98.24%	100.29%	101.51%	99.86%
Covered payroll ¹	\$745,336,167	\$771,948,731	\$809,382,060	\$842,178,524	\$866,299,278
Net Pension Liability as a percentage of covered payroll	-19.82%	11.51%	-1.91%	-10.44%	1.06%

¹ As provided by INPRS.
Results prior to 2018 were produced by the prior actuary.





SECTION VI – GASB INFORMATION

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	\$91,134,044	\$113,014,560	\$142,145,659	\$175,141,778	\$211,616,236
Actual employer contributions ²	<u>\$162,055,659</u>	<u>\$166,093,922</u>	<u>\$176,666,625</u>	<u>\$192,699,686</u>	<u>\$211,883,583</u>
Annual contribution (deficiency) / excess	\$70,921,615	\$53,079,362	\$34,520,966	\$17,557,908	\$267,347
Covered payroll ³	\$940,495,810	\$951,301,008	\$1,018,600,205	\$1,072,187,195	\$1,141,095,906
Actual contributions as a percentage of covered payroll	17.23%	17.46%	17.34%	17.97%	18.57%

Fiscal Year Ending June 30	2015	2016	2017	2018	2019
Actuarially Determined Contribution ¹	\$118,881,119	\$113,437,866	\$91,257,827	\$74,490,690	\$78,010,250
Actual employer contributions ²	<u>\$146,401,717</u>	<u>\$151,299,454</u>	<u>\$150,698,652</u>	<u>\$147,074,327</u>	<u>\$154,228,438</u>
Annual contribution (deficiency) / excess	\$27,520,598	\$37,861,588	\$59,440,825	\$72,583,637	\$76,218,188
Covered payroll ³	\$745,336,167	\$771,948,731	\$809,382,060	\$842,178,524	\$866,299,278
Actual contributions as a percentage of covered payroll	19.64%	19.60%	18.62%	17.46%	17.80%

¹ Actuarially determined contribution rate for July-December was developed in the actuarial funding valuation completed two years prior to the fiscal year. Actuarially determined contribution rate for January-June was developed in the actuarial funding valuation completed one year prior to the fiscal year. The average of these two rates was applied to the actual covered employee payroll for the fiscal year to determine the contribution amount.

² Excludes service purchases paid for by the employer of \$1,822,484.

³ As provided by INPRS.

Results prior to 2018 were produced by the prior actuary.





SECTION VI – GASB INFORMATION

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

SCHEDULE OF MONEY-WEIGHTED RETURNS

<u>For Fiscal Year Ending June 30</u>	<u>Money-Weighted Return</u>
2024	7.4%
2023	2.5%
2022	(6.6%)
2021	25.5%
2020	2.6%
2019	7.3%
2018	9.3%
2017	8.0%
2016	1.2%
2015	(0.1%)

Returns were provided by INPRS.





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APPENDIX A – MEMBERSHIP DATA

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

	Active Members	Actives in DROP	Inactive Vested ¹	Inactive Nonvested	Disabled	Retired	Beneficiary	Total
1. As of June 30, 2022	13,679	824	315	1,710	977	5,118	898	23,521
2. Data Adjustments								
New Participants	1,206	0	0	0	0	0	0	1,206
Rehires	60	(11)	(2)	(43)	(1)	(3)	0	0
Terminations:								
Not Vested	(332)	0	0	332	0	0	0	0
Deferred Vested	(105)	0	105	0	0	0	0	0
DROP	(213)	213	0	0	0	0	0	0
Disability	(63)	(3)	0	0	66	0	0	0
Retirements	(216)	(342)	(64)	0	0	622	0	0
Refund / Benefits Ended	(81)	0	0	(130)	0	0	(1)	(212)
Deaths:								
With Beneficiary	(3)	(1)	0	0	(21)	(53)	78	0
Without Beneficiary	(2)	(1)	0	(1)	(7)	(27)	(23)	(61)
Entitled to Future Benefit	(3)	(1)	3	1	0	0	0	0
Data Corrections	0	0	0	(2)	(8)	15	2	7
Net Change	248	(146)	42	157	29	554	56	940
3. As of June 30, 2023 ²	13,927	678	357	1,867	1,006	5,672	954	24,461

¹ Includes one inactive in DROP members as of June 30, 2022 and zero inactive in DROP members as of June 30, 2023.





APPENDIX A – MEMBERSHIP DATA

SUMMARY OF MEMBERSHIP DATA

Valuation Date	June 30, 2023	June 30, 2024	% Change
Date of Membership Data ¹	June 30, 2022	June 30, 2023	
ACTIVE MEMBERS			
Number of Members			
Active	13,679	13,927	1.8%
Active in DROP	824	678	(17.7%)
Total	14,503	14,605	0.7%
Annual Membership Data Salary ²	\$ 1,031,028,898	\$ 1,089,619,094	5.7%
Anticipated Payroll for Next Fiscal Year	\$ 1,100,600,156	\$ 1,171,334,947	6.4%
Active Member Averages			
Age	40.9	40.4	(1.5%)
Service	13.4	12.8	(4.3%)
Annual Membership Data Salary	\$ 71,091	\$ 74,606	4.9%
INACTIVE MEMBERS			
Number of Members			
Inactive Vested	315	357	13.3%
Inactive Non-Vested	1,710	1,867	9.2%
Total	2,025	2,224	9.8%
Inactive Vested Member Averages			
Age	49.0	49.1	0.3%
Service	22.0	21.9	(0.3%)
RETIREES, DISABLEDS, AND BENEFICIARIES			
Number of Members			
Retired	5,118	5,672	10.8%
Disabled	977	1,006	3.0%
Beneficiaries	898	954	6.2%
Total	6,993	7,632	9.1%
Annual Benefits			
Retired	\$ 190,728,966	\$ 222,592,444	16.7%
Disabled	31,444,755	34,312,242	9.1%
Beneficiaries	17,878,562	20,902,175	16.9%
Total	\$ 240,052,283	\$ 277,806,861	15.7%

¹ Valuation results were calculated using the prior year's census data, adjusted for certain activity during fiscal year.

² Annualized for actives with less than a year of service. Actives missing a salary are defaulted to the average salary.

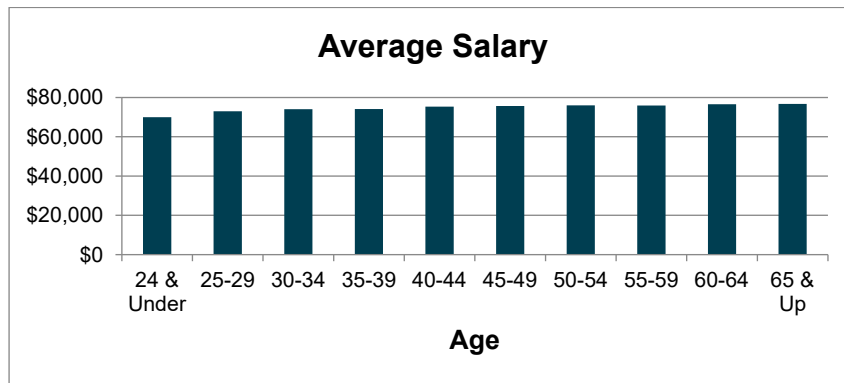
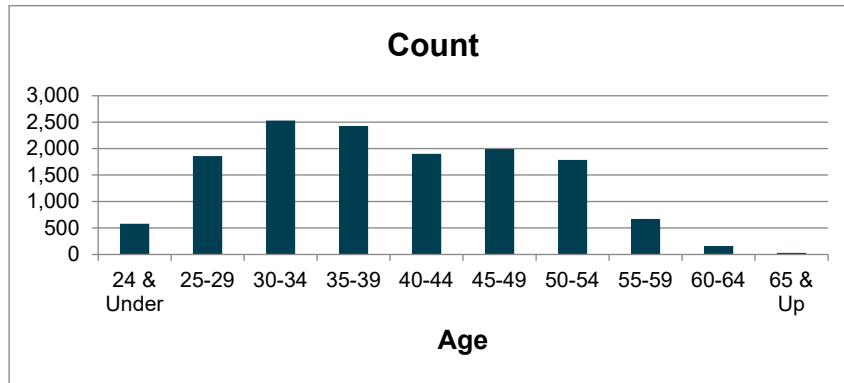




APPENDIX A – MEMBERSHIP DATA

ACTIVE MEMBERS As of June 30, 2023 for the June 30, 2024 Valuation

Age	Count of Members			FY 2023 Annual Membership Data Salary		
	Male	Female	Total	Male	Female	Total
24 & Under	535	45	580	\$ 37,361,164	\$ 3,224,450	\$ 40,585,614
25-29	1,660	198	1,858	120,680,810	14,922,719	135,603,529
30-34	2,336	194	2,530	172,519,086	14,757,884	187,276,970
35-39	2,279	148	2,427	168,495,452	11,374,930	179,870,382
40-44	1,794	106	1,900	134,819,669	8,295,187	143,114,856
45-49	1,875	116	1,991	141,376,638	9,309,296	150,685,934
50-54	1,714	71	1,785	130,011,698	5,554,960	135,566,658
55-59	649	20	669	49,171,706	1,577,152	50,748,858
60-64	153	6	159	11,689,011	484,476	12,173,487
65 & Up	<u>27</u>	<u>1</u>	<u>28</u>	<u>2,061,720</u>	<u>85,108</u>	<u>2,146,828</u>
Total	13,022	905	13,927	\$ 968,186,954	\$ 69,586,162	\$ 1,037,773,116





APPENDIX A – MEMBERSHIP DATA

AGE AND SERVICE DISTRIBUTION As of June 30, 2023 for the June 30, 2024 Valuation

Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
24 & Under	Number	580	0	0	0	0	0	0	0	580
	Total Salary	\$ 40,585,614	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 40,585,614
	Average Sal.	\$ 69,975	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 69,975
25-29	Number	1,635	223	0	0	0	0	0	0	1,858
	Total Salary	\$ 119,135,628	\$ 16,467,901	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 135,603,529
	Average Sal.	\$ 72,866	\$ 73,847	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 72,984
30-34	Number	1,293	1,154	83	0	0	0	0	0	2,530
	Total Salary	\$ 95,046,159	\$ 86,176,473	\$ 6,054,338	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 187,276,970
	Average Sal.	\$ 73,508	\$ 74,676	\$ 72,944	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 74,023
35-39	Number	685	946	592	204	0	0	0	0	2,427
	Total Salary	\$ 49,823,696	\$ 70,764,287	\$ 43,911,763	\$ 15,370,636	\$ 0	\$ 0	\$ 0	\$ 0	\$ 179,870,382
	Average Sal.	\$ 72,735	\$ 74,804	\$ 74,175	\$ 75,346	\$ 0	\$ 0	\$ 0	\$ 0	\$ 74,112
40-44	Number	55	379	455	859	152	0	0	0	1,900
	Total Salary	\$ 4,016,757	\$ 28,194,250	\$ 33,962,655	\$ 65,321,651	\$ 11,619,543	\$ 0	\$ 0	\$ 0	\$ 143,114,856
	Average Sal.	\$ 73,032	\$ 74,391	\$ 74,643	\$ 76,044	\$ 76,444	\$ 0	\$ 0	\$ 0	\$ 75,324
45-49	Number	9	33	247	775	795	132	0	0	1,991
	Total Salary	\$ 562,297	\$ 2,414,386	\$ 18,110,950	\$ 58,915,078	\$ 60,855,798	\$ 9,827,425	\$ 0	\$ 0	\$ 150,685,934
	Average Sal.	\$ 62,477	\$ 73,163	\$ 73,324	\$ 76,019	\$ 76,548	\$ 74,450	\$ 0	\$ 0	\$ 75,684
50-54	Number	4	5	23	386	684	640	43	0	1,785
	Total Salary	\$ 230,789	\$ 348,784	\$ 1,628,311	\$ 29,005,082	\$ 51,990,950	\$ 48,930,764	\$ 3,431,978	\$ 0	\$ 135,566,658
	Average Sal.	\$ 57,697	\$ 69,757	\$ 70,796	\$ 75,143	\$ 76,010	\$ 76,454	\$ 79,813	\$ 0	\$ 75,948
55-59	Number	0	0	1	33	209	252	174	0	669
	Total Salary	\$ 0	\$ 0	\$ 60,166	\$ 2,437,351	\$ 15,821,409	\$ 19,058,904	\$ 13,371,028	\$ 0	\$ 50,748,858
	Average Sal.	\$ 0	\$ 0	\$ 60,166	\$ 73,859	\$ 75,701	\$ 75,631	\$ 76,845	\$ 0	\$ 75,858
60-64	Number	0	0	0	3	11	43	102	0	159
	Total Salary	\$ 0	\$ 0	\$ 0	\$ 213,631	\$ 851,753	\$ 3,240,929	\$ 7,867,174	\$ 0	\$ 12,173,487
	Average Sal.	\$ 0	\$ 0	\$ 0	\$ 71,210	\$ 77,432	\$ 75,370	\$ 77,129	\$ 0	\$ 76,563
65 & Up	Number	0	0	0	1	0	6	21	0	28
	Total Salary	\$ 0	\$ 0	\$ 0	\$ 79,606	\$ 0	\$ 453,550	\$ 1,613,672	\$ 0	\$ 2,146,828
	Average Sal.	\$ 0	\$ 0	\$ 0	\$ 79,606	\$ 0	\$ 75,592	\$ 76,842	\$ 0	\$ 76,672
Total	Number	4,261	2,740	1,401	2,261	1,851	1,073	340	0	13,927
	Total Salary	\$ 309,400,940	\$ 204,366,081	\$ 103,728,183	\$ 171,343,035	\$ 141,139,453	\$ 81,511,572	\$ 26,283,852	\$ 0	\$ 1,037,773,116
	Average Sal.	\$ 72,612	\$ 74,586	\$ 74,039	\$ 75,782	\$ 76,250	\$ 75,966	\$ 77,305	\$ 0	\$ 74,515

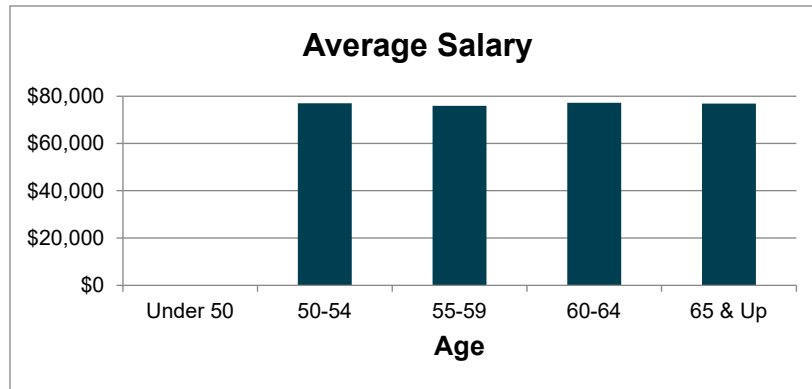
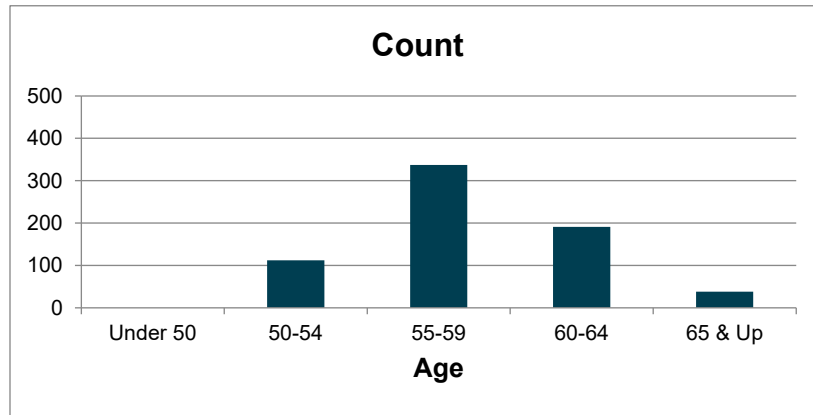




APPENDIX A – MEMBERSHIP DATA

ACTIVE MEMBERS IN DROP As of June 30, 2023 for the June 30, 2024 Valuation

Age	Count of Members			FY 2023 Annual Membership Data Salary		
	Male	Female	Total	Male	Female	Total
Under 50	0	0	0	\$ 0	\$ 0	\$ 0
50-54	108	4	112	8,309,425	312,189	8,621,614
55-59	316	21	337	23,875,099	1,687,457	25,562,556
60-64	184	7	191	14,179,397	562,454	14,741,851
65 & Up	<u>38</u>	<u>0</u>	<u>38</u>	<u>2,919,957</u>	<u>0</u>	<u>2,919,957</u>
Total	646	32	678	\$ 49,283,878	\$ 2,562,100	\$ 51,845,978

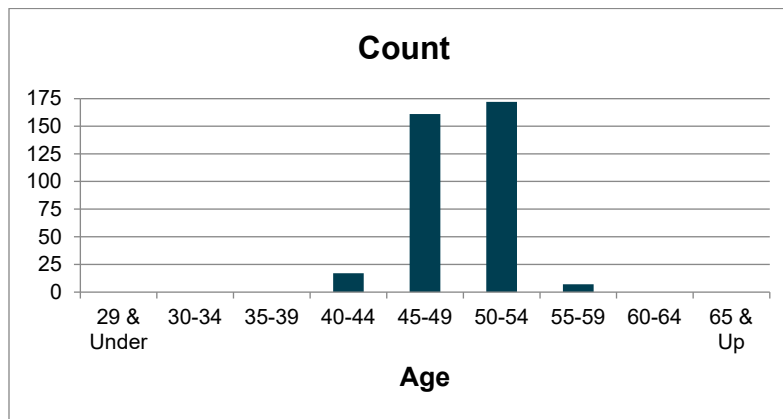




APPENDIX A – MEMBERSHIP DATA

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

<u>Age</u>	<u>Count of Members</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>
29 & Under	0	0	0
30-34	0	0	0
35-39	0	0	0
40-44	16	1	17
45-49	147	14	161
50-54	157	15	172
55-59	7	0	7
60-64	0	0	0
65 & Up	<u>0</u>	<u>0</u>	<u>0</u>
Total	327	30	357

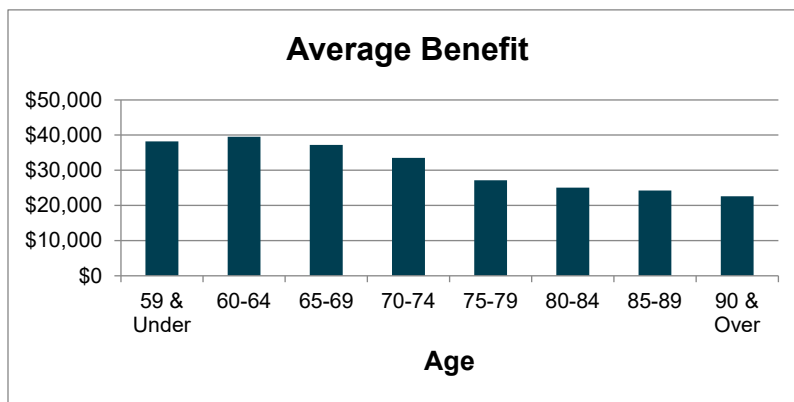
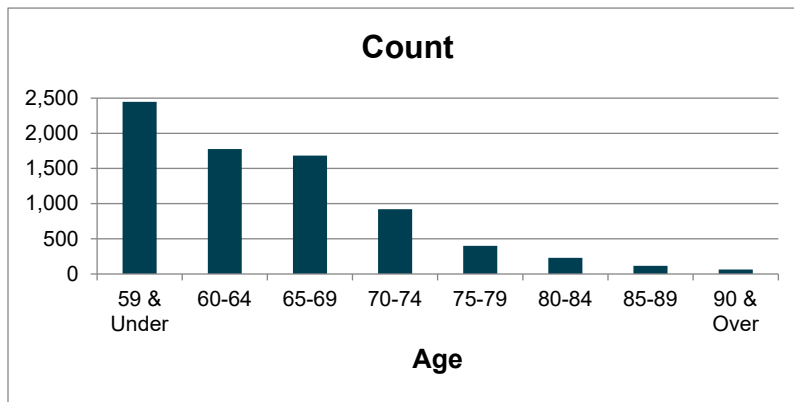




APPENDIX A – MEMBERSHIP DATA

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

Age	Count of Members			Annual Benefits		
	Male	Female	Total	Male	Female	Total
59 & Under	2,091	355	2,446	\$ 82,009,769	\$ 11,421,612	\$ 93,431,381
60-64	1,517	258	1,775	61,803,106	8,324,226	70,127,332
65-69	1,445	237	1,682	55,954,183	6,610,739	62,564,922
70-74	744	176	920	26,583,011	4,240,796	30,823,807
75-79	269	131	400	8,185,624	2,674,556	10,860,180
80-84	129	101	230	3,733,481	2,032,022	5,765,503
85-89	62	53	115	1,774,294	1,012,729	2,787,023
90 & Over	<u>15</u>	<u>49</u>	<u>64</u>	<u>419,364</u>	<u>1,027,349</u>	<u>1,446,713</u>
Total	6,272	1,360	7,632	\$ 240,462,832	\$ 37,344,029	\$ 277,806,861





APPENDIX A – MEMBERSHIP DATA

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

Schedule of Average Benefit Payments ¹

For the Year Ended June 30, 2024	Years of Credited Service ²						Total
	< 10	10 - 14	15 - 19	20 - 24	25 - 29	30 +	
Average Monthly Defined Benefit	\$2,417	\$2,619	\$2,519	\$2,509	\$3,260	\$3,856	\$3,033
Average Final Average Salary ³	\$50,641	\$56,794	\$56,556	\$53,645	\$56,896	\$60,201	\$56,391
Number of Benefit Recipients	276	284	368	2,748	2,241	1,715	7,632

Schedule of Benefit Recipients by Type of Benefit Option ¹

Amount of Monthly Benefit (in dollars)	Joint with Survivor Benefits	Survivors	Disability	Total Benefit Recipients
1 - 500	0	5	0	5
501 - 1,000	1	68	9	78
1,001 - 1,500	33	314	35	382
1,501 - 2,000	252	271	113	636
2,001 - 2,500	764	152	213	1,129
2,501 - 3,000	1,254	64	230	1,548
Over 3,000	3,368	80	406	3,854
Total	5,672	954	1,006	7,632

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

² Members with less than 20 years of service are primarily members receiving a disability benefit.

³ Excludes the 1,156 in-pay members who are missing a final average salary in the data.





APPENDIX A – MEMBERSHIP DATA

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

Schedule of Retirees and Beneficiaries

	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>Rolls - End of Year</u>		Percent Change In Total Annual Benefits ^{1,2}	Average Annual Benefit	Percent Change In Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2024 ³	701	\$31,634	62	\$1,683	7,632	\$277,807	15.7%	\$36,400	6.0%
2023 ³	507	21,139	69	1,705	6,993	240,052	10.4	34,328	3.5
2022 ³	569	23,179	94	2,268	6,555	217,397	12.7	33,165	4.6
2021 ³	567	22,284	68	1,599	6,080	192,843	13.5	31,718	4.2
2020 ³	444	16,965	50	1,036	5,581	169,933	12.3	30,449	4.4
2019 ³	476	17,344	40	803	5,187	151,305	14.4	29,170	4.8
2018 ³	429	14,914	52	1,002	4,751	132,207	11.6	27,827	2.7
2017 ³	407	13,321	37	642	4,374	118,472	12.6	27,085	3.1
2016 ³	312	10,074	44	834	4,004	105,218	9.2	26,278	1.9
2015 ³	283	8,858	38	727	3,736	96,336	10.3	25,786	3.1

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

² End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

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





APPENDIX B – SUMMARY OF PLAN PROVISIONS

Definitions

Fiscal year	Twelve month period ending June 30.
Participation	All full-time, fully-paid police officers and firefighters who work for employers participating in the 1977 Fund and who are hired or rehired after April 30, 1977 and are under age 40 upon entering the plan.
Member contributions	Members are assumed to contribute at the rate of 6% of salary until they have completed 32 years of service. The accounts are credited with interest at a rate established annually by the board. It is based on the 10-Year Treasury Yield, an average of January through March month-end 10-year US Treasury Note yields in the current year.

Eligibility for Benefits

Deferred vested	20 or more years of creditable service and no longer active.
Disability retirement	As determined by a disability medical panel.
Early retirement	Age 50 with 20 or more years of creditable service.
Normal retirement	Age 52 with 20 or more years of creditable service (with mandatory retirement at age 70).
Pre-retirement death	Immediate.

Monthly Benefits Payable

Normal retirement	The retirement benefit valued is 52% of the base salary (first-class salary) of a First Class Police Officer and Firefighter with 20 years of service, plus an additional 1% for each completed 6 months of service over 20 years up to a maximum of 76% with 32 years of service.
Early retirement	Early retirement benefits are reduced by 6% per year (or 6/12ths of a percent per month) for commencement between ages 50 and 52.
Deferred retirement	If a member ends employment other than by death or disability before completing 20 years of active service, the member shall be entitled to the member's contributions plus accumulated interest. This benefit is not available to converted members.





APPENDIX B – SUMMARY OF PLAN PROVISIONS

If termination is after earning 20 years of service, the termination benefit is the accrued retirement benefit determined as of the termination date and payable commencing of the normal retirement date. The member may elect to receive a reduced early retirement benefit.

Disability

Hired before 1990

This disability benefit is only available to members hired prior to January 1, 1990 and who do not choose to be covered by the disability benefit for members hired after 1989. The disability benefit is equal to the benefit the member would have received if the member had retired. If the member does not have 20 years of service or is not at least age 52 on the date of disability, the benefit is computed as if the member does have 20 years of service and is age 52 on the date of disability.

2017 House Enrolled Act Number 1617 Enhanced Disability:

For catastrophic physical personal injuries that result in a degree of impairment of at least 67% and permanently prevents the member from performing any gainful work, the member will receive a disability benefit equal to 100% of base salary. Additionally, the benefit is increased by the increase in the base salary.

Hired after 1989

This disability benefit is for members hired after 1989, or hired prior to January 1, 1990, who have chosen to be covered by this disability benefit. The following describes the three different classes of impairments and the amount of base benefit for each class:

Class 1 Impairment:

A personal injury that occurs while on duty, while responding to an emergency, or due to an occupational disease. The disability benefit is equal to a base benefit of 45% of base salary, plus an additional amount between 10% and 45% of this salary based on degree of impairment. This benefit is payable for life. Upon attainment of normal retirement age, the member is entitled to the greater of their disability benefit or a benefit based on the salary and service the member would have earned had the member remained in active service.

Class 2 Impairment:

A proven duty-related disease. The disability benefit is equal to a base benefit of 22% of base salary, plus an





APPENDIX B – SUMMARY OF PLAN PROVISIONS

additional 0.5% of this salary for each year of service up to a maximum of 30 years of service, plus an additional amount between 10% and 45% of this salary based on degree of impairment. If the member's total benefit is less than 30% of this salary and the member has fewer than 4 years of service, then the benefit is payable for a period equal to the years of service of the member. Otherwise, the benefit is payable for life. Upon attainment of normal retirement age, the member is entitled to the greater of their disability benefit or a benefit based on the salary and service the member would have earned had the member remained in active service.

Class 3 Impairment:

All other impairments that are not Class 1 or Class 2. The disability benefit is equal to a base benefit of 1% of base salary for each year of service up to a maximum of 30 years of service, plus an additional amount between 10% and 45% of this salary based on degree of impairment. If the member's total benefit is less than 30% of this salary and the member has fewer than 4 years of service, then the benefit is payable for a period equal to the years of service of the member. Otherwise, the benefit is payable until age 52, at which time the member is entitled to a retirement benefit based on 20 years of service.

2017 House Enrolled Act No. 1617 Enhanced Disability:

For catastrophic physical personal injuries that result in a degree of impairment of at least 67% and permanently prevents the member from performing any gainful work, the member will receive a disability benefit equal to 100% of base salary. Additionally, the benefit is increased by the increase in the base salary.

Pre-retirement death
Surviving spouse

If a member dies other than in the line of duty, the spouse's benefit is equal to 70% of the monthly benefit the member was receiving or was entitled to receive on the date of death.

If a member dies in the line of duty, the spouse's benefit is equal to the monthly benefit the member was receiving or was entitled to receive on the date of death.

In either case, if the member does not have 20 years of service or is not at least age 52 on the date of death,





APPENDIX B – SUMMARY OF PLAN PROVISIONS

	<p>the benefit is computed as if the member does have 20 years of service and is age 52 on the date of death.</p>
Children	<p>A payment shall be made to each child of a deceased member equal to 20% of the member's benefit until the later of (a) the date the child becomes age 18, or (b) the date the child becomes age 23 if enrolled in a qualified school. If a child is at least 18 and is mentally or physically incapacitated, the child is entitled to an amount equal to the greater of 30% of the base salary, or 55% of the member's benefit payable for the duration of the incapacity. If the member does not have 20 years of service or is not at least age 52 on the date of death, the benefit is computed as if the member does have 20 years of service and is age 52 on the date of death.</p>
Dependent parents	<p>If a deceased member leaves no surviving spouse and no qualified child but does leave a dependent parent or parents, an amount equal to 50% of the member's benefit shall be paid to the parent or parents jointly during their lifetime. If the member does not have 20 years of service or is not at least age 52 on the date of death, the benefit is computed as if the member does have 20 years of service and is age 52 on the date of death.</p>
No spouse or dependent	<p>If a deceased member leaves no surviving spouse, no qualified dependent child, nor a dependent parent, a refund of the member's contributions plus accumulated interest will be made to the member's estate.</p>
Additional death benefits	<p>A funeral death benefit is paid to the heirs or estate upon the member's death from any cause and is equal to at least \$12,000. An additional death benefit is paid outside of the '77 Fund (through the Special Death Benefit Fund) to a surviving spouse, children, or parent(s) if death occurs in the line of duty.</p>
Deferred retirement option plan ("DROP")	<p>The DROP is an optional form of benefit, which allows members who are eligible for an unreduced retirement benefit to continue to work and earn a salary while accumulating a DROP benefit payable in a lump sum or three annual installments. A member who elects to enter the DROP shall execute an irrevocable election to retire on the DROP retirement date. The member shall select a DROP retirement date not less than 12 months and not more than 60 months after the member's DROP entry date. While in the DROP, the member shall continue to make applicable fund contributions.</p>





APPENDIX B – SUMMARY OF PLAN PROVISIONS

When a member enters the DROP, a “DROP frozen benefit” will be calculated. This is equal to the member’s monthly retirement benefit based on accrued service and base salary as of the date member enters the DROP. Upon DROP retirement, the member is eligible to receive a lump sum equal to the amount of the DROP frozen benefit multiplied by the number of months in the DROP. You may elect to receive this amount in three annual installments instead of in a single lump sum. In addition, the member will receive a monthly retirement benefit equal to the DROP frozen benefit. The member will not continue to accrue service credit for the years in the DROP. Cost of living adjustments will not apply to the frozen monthly benefit while in the DROP. The cost of living adjustments will begin to be applied to the frozen monthly benefit, however, in the year after the year in which the member retires.

If the member elected to participate in the DROP, the member may, upon retirement, elect to forego DROP benefits, and instead receive monthly retirement benefits calculated as if the member never elected to participate in the DROP. These benefits would be based on accrued service and base salary as of the date the member retires.

Cost-of-Living-Adjustments

Benefits for retired members are increased annually based on increases in the CPI-U index. The increase is subject to a 3% maximum and 0% minimum. Increases provided each July in the year following the calendar year of commencement.

Forms of payment

a. Single life annuity

Member will receive a monthly benefit for life, but there are no monthly payments to anyone after death.

b. Joint with 70% survivor benefits

Member will be paid a monthly benefit for life. After death, 70% of the benefit will be paid to the spouse or parent for their lifetime or the dependent until age 18.

Changes in Plan Provisions since the Prior Year

The maximum DROP period was extended from 36 to 60 months.





APPENDIX C – SUMMARY OF ACTUARIAL METHODS/ASSUMPTIONS

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 closed 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 an open 30-year period with level payments each year. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities.

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

Member census data as of June 30, 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. Asset Valuation Method

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

3. Employer Contribution Rate

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





APPENDIX C – SUMMARY OF ACTUARIAL METHODS/ASSUMPTIONS

4. Anticipated Payroll

The anticipated payroll for the fiscal year following the valuation date is equal to the actual payroll during the year ending on the valuation date, increased with one year of salary scale.

Changes in Methods since the Prior Year

None.





APPENDIX C – SUMMARY OF ACTUARIAL METHODS/ASSUMPTIONS

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 2.65% per year
- 4. Interest on member balances 3.30% per year
- 5. Cost-of-Living Adjustment (COLA) 1.95% compounded annually, beginning July 1, 2025. Actual COLA increases at July 1, 2023 (3.00%) and July 1, 2024 (3.00%) are reflected in the valuation. For benefits paid under the 2017 House Enrolled Act No. 1617, the annual cost-of-living assumption is 2.65%, which is the same as the salary increase assumption for active members.

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 – Safety Employee table with a 3 year set forward for males and no set forward for females.

Retirees – Safety Retiree table with a 3 year set forward for males and no 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.

- 2. Disability

Age	Sample Rates
<=30	0.100%
35	0.200%
40	0.300%
45	0.400%
50+	0.500%

Rates for ages 30-50 increase by 0.02% per year.





APPENDIX C – SUMMARY OF ACTUARIAL METHODS/ASSUMPTIONS

3. Retirement

Retirement Rate		Of those who retire:		
Age	Rate	Service	Enter DROP	Commence Immediately
50-51	5.0%	<=20	35%	65%
52-55	15.0%	21	40%	60%
56-58	20.0%	22	45%	55%
59	22.5%	23	50%	50%
60-64	25.0%	24-26	55%	45%
65-69	50.0%	27	60%	40%
70+	100.0%	28	65%	35%
		29+	70%	30%

Active members who elect to enter DROP are assumed to be in DROP for a period of 5 years, upon which time they take the full lump sum and commence their annuity benefit.

Inactive vested members are assumed to commence their retirement benefit at their earliest eligible retirement date (age 50, or current age if greater).

4. Termination

Years of Service	Rate
0	10.0%
1	5.0%
2	4.0%
3-4	3.5%
5	2.5%
6-8	2.0%
9-11	1.5%
12-19	1.0%
20+	2.0%

Other Assumptions

1. Form of payment

Members are assumed to elect either a single life annuity or a 70% joint survivor benefit based on the marriage assumptions below.

2. Marital status

a. Percent married

80% of male members and 60% of female members are assumed to be married or to have a dependent beneficiary. No members are assumed to have any children for the child death benefit.





APPENDIX C – SUMMARY OF ACTUARIAL METHODS/ASSUMPTIONS

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. Members in DROP	Members who are participating in the DROP are assumed to receive an annuity benefit commencing at the end of their DROP period, as well as a lump sum payment equal to the number of years they were in the DROP times their annual annuity benefit.
5. Active member death	20% are assumed to be in the line of duty and 80% are other than in the line of duty.
6. Active member disability retirement	<p>For members hired after 1989 who become disabled: 59% are assumed to be Class 1, 10% are assumed to be Class 2, 30% are assumed to be Class 3, and 1% are assumed to be a catastrophic disability (HEA 1617).</p> <p>The additional monthly amount determined under IC 36-8-8-13.5(f) based on the degree of impairment is assumed to be 17%.</p> <p>For members hired before 1989 who become disabled: 99% are assumed to be a non-catastrophic disability, and 1% are assumed to be a catastrophic disability (HEA 1617).</p>

Changes in Assumptions since the Prior Year

Retirement rates were updated based on the change in statute extending the DROP election period from 3 years to 5 years.





APPENDIX C – SUMMARY OF ACTUARIAL METHODS/ASSUMPTIONS

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. Standard actuarial roll-forward techniques were then used to project the liability computed as of June 30, 2023 to the June 30, 2024 valuation date. The normal cost rate is assumed to remain unchanged between June 30, 2023 and June 30, 2024.

The member total payroll and the asset information for this valuation were furnished as of June 30, 2024. Total payroll in FYE 2025 is assumed to increase by the salary growth assumption over the total payroll observed for FYE 2024. We did not audit the information provided, but we did review it thoroughly for reasonableness and compared it with the prior year's submission for consistency.

Other Technical Valuation Procedures

Salary increases are assumed to apply to annual amounts.

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

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





APPENDIX D – GLOSSARY OF TERMS

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





APPENDIX D – GLOSSARY OF TERMS

Normal Cost

The actuarial present value of retirement plan benefits allocated to the current year by the actuarial cost method

Unfunded Actuarial Accrued Liability

The difference between actuarial liability and the actuarial value of assets. Sometimes referred to as “unfunded accrued liability” or “unfunded liability”. Most retirement plans have unfunded actuarial liability. They arise anytime new benefits are added and anytime an actuarial loss is realized.

