

Police and Firemen's Retirement System of New Jersey

**Governmental Accounting Standards Board
Statements 67 and 68 Actuarial Valuation as of June
30, 2024**



This report has been prepared at the request of the Board of Trustees to assist the sponsors of the System in preparing their financial report for their liabilities associated with the Police and Firemen's Retirement System of New Jersey. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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Segal



February 27, 2025

Police and Firemen's Retirement System of New Jersey
50 West State Street, Trenton, NJ 08625

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board Statements 67 and 68 (GASB 67 and 68) Actuarial Valuation based on a June 30, 2024 measurement date for employer reporting as of June 30, 2024. It contains various information that will need to be disclosed in order for the Police and Firemen's Retirement System of New Jersey employers to comply with GASB 67 and 68. Please refer to the Police and Firemen's Retirement System of New Jersey Actuarial Valuation and Review as of July 1, 2023, dated December 22, 2023, for the data, assumptions, and plan of benefits underlying these calculations.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial reports for their liabilities associated with the Police and Firemen's Retirement System of New Jersey. The census and financial information on which our calculations were based were provided by the Division of Pensions and Benefits. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. 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; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Jonathan Scarpa, FSA, EA, MAAA. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in my opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Police and Firemen's Retirement System of New Jersey. In addition, in my opinion, the combined effect of these assumptions is expected to have no significant bias.

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal



Frank Santasiero, FSA, FCA, EA, MAAA
Vice President and Actuary



Jonathan Scarpa, FSA, EA, MAAA
Vice President and Actuary

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Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statements 67 and 68 (GASB 67/68) for employer reporting as of June 30, 2024. This valuation is based on:

- The benefit provisions, as of June 30, 2024, of the Police and Firemen's Retirement System of New Jersey (PFRS), as administered by the Board;
- The characteristics of covered active members, terminated vested members, and retired members and beneficiaries as of June 30, 2023, provided by the Division of Pensions and Benefits (DPB);
- The assets of the Plan as of June 30, 2024, provided by the Division of Pensions and Benefits;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the July 1, 2023 funding valuation, reflecting the approved assumption changes as recommended in Segal's Actuarial Experience Review report dated October 14, 2022; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the June 30, 2023 funding valuation, reflecting the approved assumption changes as recommended in Segal's Actuarial Experience Review report dated October 14, 2022.

Section 1: Actuarial Valuation Summary

Highlights of the valuation

1. It is important to note that GASB 67 and 68 only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes.
2. When measuring pension liability, GASB uses the Entry Age actuarial cost method as a level percent of salary and the same discount rate (expected return on assets) as used for funding as of July 1, 2023, 7.0%. The detailed calculations used in the derivation of the discount rate can be found in Appendix A of Section 3. Various other information that is required to be disclosed can be found throughout Section 2.
3. The Net Pension Liability (NPL) is equal to the difference between the Total Pension Liability (TPL) and the Plan Fiduciary Net Position (FNP). The Plan Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) on a market value basis.
4. The NPL was measured as of June 30, 2024 and June 30, 2023 and determined based upon the results of the actuarial valuations as of July 1, 2023, and July 1, 2022, respectively.
5. The NPL decreased from \$17.5 billion as of June 30, 2023 to \$16.8 billion as of June 30, 2024 primarily as a result of investment experience during the year ended June 30, 2024. Changes in these values during the last two fiscal years ended June 30, 2023 and June 30, 2024 can be found in Section 2.
6. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2024. The Plan's actuarial status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the Plan Year. While it is impossible to determine how the market will perform over the next several months, and how that will affect the results of next year's valuation, Segal is available to prepare projections of potential outcomes upon request.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Measurement Date		State	
		June 30, 2024	June 30, 2023
Disclosure elements for fiscal year ended June 30:	• Service cost	\$116,651,482	\$120,233,875
	• Total Pension Liability	6,404,078,773	6,224,656,704
	• Plan Fiduciary Net Position	2,008,799,009	1,800,709,171
	• Net Pension Liability	4,395,279,764	4,423,947,533
	• Pension expense	335,053,585	314,770,816
Demographic data for plan year ended June 30:	• Number of retired members and beneficiaries	7,685	7,363
	• Number of vested terminated members	9	8
	• Number of active members	5,502	5,887
	• Number of non-contributing active members	508	584
Key assumptions as of June 30:	• Investment rate of return	7.00%	7.00%
	• Inflation rate	2.75%	2.75%

Measurement Date		Local Employers	
		June 30, 2024	June 30, 2023
Disclosure elements for fiscal year ended June 30:	• Service cost	\$838,552,120	\$813,226,096
	• Total Pension Liability	45,210,001,314	43,851,174,717
	• Plan Fiduciary Net Position	32,847,534,869	30,766,525,115
	• Net Pension Liability	12,362,466,445	13,084,649,602
	• Pension expense	775,608,387	844,810,693
Demographic data for plan year ended June 30:	• Number of retired members and beneficiaries	42,424	41,390
	• Number of vested terminated members	57	52
	• Number of active members	34,054	34,004
	• Number of non-contributing active members	1,387	1,341
Key assumptions as of June 30:	• Investment rate of return	7.00%	7.00%
	• Inflation rate	2.75%	2.75%

Section 1: Actuarial Valuation Summary

Measurement Date		Total	
		June 30, 2024	June 30, 2023
Disclosure elements for fiscal year ended June 30:	• Service cost	\$955,203,602	\$933,459,971
	• Total Pension Liability	51,614,080,087	50,075,831,421
	• Plan Fiduciary Net Position	34,856,333,878	32,567,234,286
	• Net Pension Liability	16,757,746,209	17,508,597,135
	• Pension expense	1,110,661,972	1,159,581,509
Demographic data for plan year ended June 30:	• Number of retired members and beneficiaries	50,109	48,753
	• Number of vested terminated members	66	60
	• Number of active members	39,556	39,891
	• Number of non-contributing active members	1,895	1,925
Key assumptions as of June 30:	• Investment rate of return	7.00%	7.00%
	• Inflation rate	2.75%	2.75%

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by the DPB. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the market value of assets as of the valuation date, as provided by the DPB.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets or, if there are no assets, a rate of return based on a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary. The blended discount rate used for calculating total pension liability is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Board to assist the sponsors of the System in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the Plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the Plan will be determined by the actual benefits and expenses paid and the actual investment experience of the Plan.
- Actuarial results in this report are not rounded, but that does not imply precision.
- If the Board is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of PFRS, it is not a fiduciary in its capacity as actuaries and consultants with respect to PFRS.

GASB 67/68 Information

General information about the pension plan

Plan Description

Plan membership. At June 30, 2023, pension plan membership consisted of the following:

	State	Local Employers	Total
Retired members or beneficiaries currently receiving benefits	7,685	42,424	50,109
Vested terminated members entitled to but not yet receiving benefits	9	57	66
Active members	5,502	34,054	39,556
Non-contributing active members	508	1,387	1,895
Total	13,704	77,922	91,626

Benefits provided. The GASB 67 results as of June 30, 2024 are based on the plan of benefits as disclosed in the actuarial valuation as of July 1, 2023. There were no changes in the plan during the period July 1, 2023 through June 30, 2024.

Section 2: GASB 67/68 Information

Net pension liability

	State	
Measurement Date	June 30, 2024	June 30, 2023
Total Pension Liability	\$6,404,078,773	\$6,224,656,704
Plan Fiduciary Net Position	2,008,799,009	1,800,709,171
Net Pension Liability	4,395,279,764	4,423,947,533
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	31.37%	28.93%

	Local Employers	
Measurement Date	June 30, 2024	June 30, 2023
Total Pension Liability	\$45,210,001,314	\$43,851,174,717
Plan Fiduciary Net Position	32,847,534,869	30,766,525,115
Net Pension Liability	12,362,466,445	13,084,649,602
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	72.66%	70.16%

	Total	
Measurement Date	June 30, 2024	June 30, 2023
Total Pension Liability	\$51,614,080,087	\$50,075,831,421
Plan Fiduciary Net Position	34,856,333,878	32,567,234,286
Net Pension Liability	16,757,746,209	17,508,597,135
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	67.53%	65.04%

The Net Pension Liability (NPL) for the plan was measured as of June 30, 2024 and 2023. Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total Pension Liability (TPL) was determined based on the actuarial funding valuations as of July 1, 2023 and July 1, 2022, respectively, projected to the measurement date.

Section 2: GASB 67/68 Information

Actuarial assumptions

The TPL as of June 30, 2024 and 2023, measured by actuarial valuations as of July 1, 2023 and 2022, respectively, used the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Salary increases	Varies by service
Investment rate of return	7.00%, net of pension plan investment expense, including inflation
Other assumptions	See Section 3 for a complete description of all actuarial assumptions. These assumptions reflect the changes approved by the Board as recommended in the analysis of actuarial experience study for the period July 1, 2018 through June 30, 2021.

Detailed information regarding all actuarial assumptions can be found in Section 3, Exhibit I.

Section 2: GASB 67/68 Information

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	28.00%	6.25%
Foreign equity	11.50%	6.35%
Emerging market equity	7.50%	7.65%
Private equity	10.00%	9.55%
Core fixed income	17.00%	1.45%
High yield fixed income	6.00%	3.25%
Private debt	8.00%	5.85%
Real estate	7.00%	3.05%
Infrastructure	3.00%	5.65%
Cash	2.00%	0.65%
Total	100.00%	

Discount rate. The discount rates used to measure the Total Pension Liability (TPL) was 7.00% as of June 30, 2024 and June 30, 2023. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that Local employer contributions and State contributions will be made at 100% of the statutory contribution amounts. The assumption that the State will contribute 100% of the statutory contribution is based on the State making the full contribution for the fiscal year ending June 30, 2025. For this purpose, only Local employer and State contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected Local employer and State contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan Fiduciary Net Position (FNP) was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected

Section 2: GASB 67/68 Information

rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2024 and June 30, 2023.

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability (NPL) of PFRS as of June 30, 2024, calculated using the discount rate of 7.00%, as well as what the NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate.

Net Pension Liability	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
State	\$5,149,731,999	\$4,395,279,764	\$3,766,388,682
Local Employers	17,663,214,080	12,362,466,445	7,948,105,229
Total	22,812,946,079	16,757,746,209	11,714,493,911

Section 2: GASB 67/68 Information

Schedule of changes in Net Pension Liability – Last two fiscal years

Measurement Date	State	
	June 30, 2024	June 30, 2023
Total Pension Liability		
Service cost	\$116,651,482	\$120,233,875
Interest	429,441,170	411,096,299
Change of benefit terms	0	14,840,251
Differences between expected and actual experience	46,198,086	116,381,713
Changes of assumptions	0	0
Benefit payments	-413,072,303	-381,362,288
Transfers from other systems – employer	-266,131	0
Transfers from other systems – member	<u>469,765</u>	<u>430,620</u>
Net change in Total Pension Liability	\$179,422,069	\$281,620,470
Total Pension Liability – beginning	<u>6,224,656,704</u>	<u>5,943,036,234</u>
Total Pension Liability – ending	<u>\$6,404,078,773</u>	<u>\$6,224,656,704</u>
Plan Fiduciary Net Position		
Contributions – employer (appropriations)	\$396,790,437	\$384,640,195
Contributions – employer (lottery)	14,100,000	14,040,000
Employer contribution – delayed enrollments	23,034	6,732
Employer contribution – delayed appropriations	0	0
Employer contribution – retroactive	0	0
Employer contribution - additional	0	0
Contributions – member	53,038,073	53,703,766
Net investment income	157,056,954	114,414,928
Benefit payments, including transfers from other systems	-412,868,669	-380,931,668
Administrative expense	<u>-49,991</u>	<u>-1,608,481</u>
Net change in Plan Fiduciary Net Position	\$208,089,838	\$184,265,472
Plan Fiduciary Net Position – beginning	<u>1,800,709,171</u>	<u>1,616,443,699</u>
Plan Fiduciary Net Position – ending	\$2,008,799,009	\$1,800,709,171
Net Pension Liability – ending	<u>\$4,395,279,764</u>	<u>\$4,423,947,533</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	31.37%	28.93%
Covered payroll	\$536,620,088	\$556,078,849
Plan Net Pension Liability as percentage of covered payroll	819.07%	795.56%

Section 2: GASB 67/68 Information

Measurement Date	Local Employers	
	June 30, 2024	June 30, 2023
Total Pension Liability		
Service cost	\$838,552,120	\$813,226,096
Interest	3,028,209,690	2,944,126,172
Change of benefit terms	0	97,828,975
Differences between expected and actual experience	351,241,593	80,236,750
Changes of assumptions	0	0
Benefit payments	-2,861,044,192	-2,662,246,818
Transfers from other systems – employer	4,757	157,408
Transfers from other systems – member	<u>1,862,629</u>	<u>2,164,414</u>
Net change in Total Pension Liability	\$1,358,826,597	\$1,275,492,997
Total Pension Liability – beginning	<u>43,851,174,717</u>	<u>42,575,681,720</u>
Total Pension Liability – ending	<u>\$45,210,001,314</u>	<u>\$43,851,174,717</u>
Plan Fiduciary Net Position		
Contributions – employer (appropriations)	\$1,383,423,124	\$1,331,338,821
Contributions – employer (paid by State on behalf of locals)	234,210,000	232,824,730
Employer contribution – delayed enrollments	210,772	78,693
Employer contribution – delayed appropriations	1,540,315	579,698
Employer contribution – retroactive	20,893,369	9,954,750
Employer contribution - additional	140,451	0
Contributions – member	401,450,392	385,533,004
Other – Chapter 19 Adjustment	64,063,502	0
Net investment income	2,838,926,023	2,383,561,875
Benefit payments, including transfers from other systems	-2,859,176,806	-2,659,924,996
Administrative expense	<u>-4,671,388</u>	<u>-9,631,171</u>
Net change in Plan Fiduciary Net Position	\$2,081,009,754	\$1,674,315,404
Plan Fiduciary Net Position – beginning	<u>30,766,525,115</u>	<u>29,092,209,711</u>
Plan Fiduciary Net Position – ending	\$32,847,534,869	\$30,766,525,115
Net Pension Liability – ending	<u>\$12,362,466,445</u>	<u>\$13,084,649,602</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	72.66%	70.16%
Covered payroll	\$3,853,882,562	\$3,752,809,563
Plan Net Pension Liability as percentage of covered payroll	320.78%	348.66%

Section 2: GASB 67/68 Information

Measurement Date	Total	
	June 30, 2024	June 30, 2023
Total Pension Liability		
Service cost	\$955,203,602	\$933,459,971
Interest	3,457,650,860	3,355,222,471
Change of benefit terms	0	112,669,226
Differences between expected and actual experience	397,439,679	196,618,463
Changes of assumptions	0	0
Benefit payments	-3,274,116,495	-3,043,609,106
Transfers from other systems – employer	-261,374	157,408
Transfers from other systems – member	<u>2,332,394</u>	<u>2,595,034</u>
Net change in Total Pension Liability	\$1,538,248,666	\$1,557,113,467
Total Pension Liability – beginning	<u>50,075,831,421</u>	<u>48,518,717,954</u>
Total Pension Liability – ending	<u>\$51,614,080,087</u>	<u>\$50,075,831,421</u>
Plan Fiduciary Net Position		
Contributions – employer (appropriations)	\$1,780,213,561	\$1,715,979,016
Contributions – employer (lottery)	14,100,000	14,040,000
Contributions – employer (paid by State on behalf of locals)	234,210,000	232,824,730
Employer contribution – delayed enrollments	233,806	85,425
Employer contribution – delayed appropriations	1,540,315	579,698
Employer contribution – retroactive	20,893,369	9,954,750
Employer contribution - additional	140,451	0
Contributions – member	454,488,465	439,236,770
Other	64,063,502	0
Net investment income	2,995,982,977	2,497,976,803
Benefit payments, including transfers from other systems	-3,272,045,475	-3,040,856,664
Administrative expense	<u>-4,721,379</u>	<u>-11,239,652</u>
Net change in Plan Fiduciary Net Position	\$2,289,099,592	\$1,858,580,876
Plan Fiduciary Net Position – beginning	<u>32,567,234,286</u>	<u>30,708,653,410</u>
Plan Fiduciary Net Position – ending	\$34,856,333,878	\$32,567,234,286
Net Pension Liability – ending	<u>\$16,757,746,209</u>	<u>\$17,508,597,135</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	67.53%	65.04%
Covered payroll	\$4,390,502,650	\$4,308,888,412
Plan Net Pension Liability as percentage of covered payroll	381.68%	406.34%

Section 2: GASB 67/68 Information

Deferred outflows and inflows of resources

Measurement Date	State	
	June 30, 2024	June 30, 2023
Deferred Outflows of Resources		
Changes of assumptions	\$2,272,165	\$3,319,245
Net difference between projected and actual earnings on pension plan investments	46,942,711	107,761,886
Difference between expected and actual experience in the Total Pension Liability	<u>137,074,384</u>	<u>123,525,124</u>
Total Deferred Outflows of Resources	\$186,289,260	\$234,606,255
Deferred Inflows of Resources		
Changes of assumptions	\$41,544,953	\$106,283,356
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>41,511,987</u>	<u>72,282,696</u>
Total Deferred Inflows of Resources	\$83,056,940	\$178,566,052
Deferred outflows of resources and (deferred inflows) of resources related to pension will be recognized as follows:		
Reporting Date under GASB 68 Year Ended June 30:		
2024	N/A	-\$34,833,248
2025	-\$3,652,061	-4,674,623
2026	61,067,309	60,044,747
2027	14,942,733	13,920,171
2028	19,582,815	18,560,253
2029	10,608,796	3,022,903
Thereafter	682,728	0

Section 2: GASB 67/68 Information

Measurement Date	Local Employers	
	June 30, 2024	June 30, 2023
Deferred Outflows of Resources		
Changes of assumptions	\$16,324,397	\$23,847,162
Net difference between projected and actual earnings on pension plan investments	0	562,693,623
Difference between expected and actual experience in the Total Pension Liability	<u>650,567,756</u>	<u>473,086,762</u>
Total Deferred Outflows of Resources	\$666,892,153	\$1,059,627,547
Deferred Inflows of Resources		
Changes of assumptions	\$303,275,226	\$746,057,589
Net difference between projected and actual earnings on pension plan investments	80,824,393	0
Difference between expected and actual experience in the Total Pension Liability	<u>353,525,010</u>	<u>526,928,921</u>
Total Deferred Inflows of Resources	\$737,624,629	\$1,272,986,510
Deferred outflows of resources and (deferred inflows) of resources related to pension will be recognized as follows:		
Reporting Date under GASB 68 Year Ended June 30:		
2024	N/A	-\$429,980,024
2025	-\$500,196,827	-412,641,967
2026	576,344,040	663,898,900
2027	-144,655,433	-57,100,573
2028	-67,174,233	20,380,627
2029	59,759,212	2,084,074
Thereafter	5,190,765	0

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Measurement Date	Total	
	June 30, 2024	June 30, 2023
Deferred Outflows of Resources		
Changes of assumptions	\$18,596,562	\$27,166,407
Net difference between projected and actual earnings on pension plan investments	0	670,455,509
Difference between expected and actual experience in the Total Pension Liability	<u>786,675,479</u>	<u>594,571,158</u>
Total Deferred Outflows of Resources	\$805,272,041	\$1,292,193,074
Deferred Inflows of Resources		
Changes of assumptions	\$344,820,179	\$852,340,945
Net difference between projected and actual earnings on pension plan investments	33,881,682	0
Difference between expected and actual experience in the Total Pension Liability	<u>394,070,336</u>	<u>597,170,889</u>
Total Deferred Inflows of Resources	\$772,772,197	\$1,449,511,834
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date under GASB 68 Year Ended June 30:		
2024	N/A	-\$464,813,272
2025	-\$503,848,888	-417,316,590
2026	637,411,349	723,943,647
2027	-129,712,700	-43,180,402
2028	-47,591,418	38,940,880
2029	70,368,008	5,106,977
Thereafter	5,873,493	0

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There are changes in the total Net Pension Liability (NPL) during the measurement period ended June 30, 2024. The net effect of the change on the NPL and deferred outflows of resources and deferred inflows of resources, other than those due to the difference in projected an actual earnings on pension plan investments, is recognized over the average of the expected remaining service lives of all members that are provided with pensions through PFRS which is 6.09 years determined as of June 30, 2023 (the beginning of the measurement period ended June 30, 2024). This is described in Paragraph 33a. of GASB 67.

The average of the expected service lives of all members is determined by:

- Calculating each active member's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active, nonactive and retired members.

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Schedule of recognition of change in total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of the
Effects of Differences between Expected and Actual Experience on Total Pension Liability

State									
Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Initial Recognition Period (Years)	Recognition Year						
			2024	2025	2026	2027	2028	2029	Thereafter
2019	-\$70,860,849	5.92	-\$11,012,159	\$0	\$0	\$0	\$0	\$0	\$0
2020	-6,336,996	5.90	-1,074,067	-966,661	0	0	0	0	0
2021	-115,283,258	6.17	-18,684,483	-18,684,483	-18,684,483	-3,176,360	0	0	0
2022	38,376,142	6.22	6,169,798	6,169,798	6,169,798	6,169,798	1,357,354	0	0
2023	116,381,713	6.16	18,893,135	18,893,135	18,893,135	18,893,135	18,893,135	3,022,903	0
2024	46,198,086	6.09	<u>7,585,893</u>	<u>7,585,893</u>	<u>7,585,893</u>	<u>7,585,893</u>	<u>7,585,893</u>	<u>7,585,893</u>	<u>682,728</u>
Net increase (decrease) in pension expense			\$1,878,117	\$12,997,682	\$13,964,343	\$29,472,466	\$27,836,382	\$10,608,796	\$682,728

Local Employers									
Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Initial Recognition Period (Years)	Recognition Year						
			2024	2025	2026	2027	2028	2029	Thereafter
2019	-\$67,495,453	5.92	-\$10,489,160	\$0	\$0	\$0	\$0	\$0	\$0
2020	73,846,139	5.90	12,516,295	11,264,664	0	0	0	0	0
2021	-1,005,184,014	6.17	-162,914,751	-162,914,751	-162,914,751	-27,695,508	0	0	0
2022	563,181,939	6.22	90,543,720	90,543,720	90,543,720	90,543,720	19,919,619	0	0
2023	80,236,750	6.16	13,025,446	13,025,446	13,025,446	13,025,446	13,025,446	2,084,074	0
2024	351,241,593	6.09	<u>57,675,138</u>	<u>57,675,138</u>	<u>57,675,138</u>	<u>57,675,138</u>	<u>57,675,138</u>	<u>57,675,138</u>	<u>5,190,765</u>
Net increase (decrease) in pension expense			\$356,688	\$9,594,217	-\$1,670,447	\$133,548,796	\$90,620,203	\$59,759,212	\$5,190,765

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Total									
Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Initial Recognition Period (Years)	Recognition Year						
			2024	2025	2026	2027	2028	2029	Thereafter
2019	-\$138,356,302	5.92	-\$21,501,319	\$0	\$0	\$0	\$0	\$0	\$0
2020	67,509,143	5.90	11,442,228	10,298,003	0	0	0	0	0
2021	-1,120,467,272	6.17	-181,599,234	-181,599,234	-181,599,234	-30,871,868	0	0	0
2022	601,558,081	6.22	96,713,518	96,713,518	96,713,518	96,713,518	21,276,973	0	0
2023	196,618,463	6.16	31,918,581	31,918,581	31,918,581	31,918,581	31,918,581	5,106,977	0
2024	397,439,679	6.09	<u>65,261,031</u>	<u>65,261,031</u>	<u>65,261,031</u>	<u>65,261,031</u>	<u>65,261,031</u>	<u>65,261,031</u>	<u>5,873,493</u>
Net increase (decrease) in pension expense			\$2,234,805	\$22,591,899	\$12,293,896	\$163,021,262	\$118,456,585	\$70,368,008	\$5,873,493

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Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes

State									
Reporting Date for Employer under GASB 68 Year Ended June 30	Assumption Changes	Initial Recognition Period (Years)	Recognition Year						
			2024	2025	2026	2027	2028	2029	Thereafter
2019	-\$246,980,571	5.92	-\$38,382,113	\$0	\$0	\$0	\$0	\$0	\$0
2020	-110,173,087	5.90	-18,673,405	-16,806,062	0	0	0	0	0
2021	6,460,485	6.17	1,047,080	1,047,080	1,047,080	178,005	0	0	0
2022	-47,787,546	6.22	-7,682,885	-7,682,885	-7,682,885	-7,682,885	-1,690,236	0	0
2023	0	--	0	0	0	0	0	0	0
2024	0	--	0	0	0	0	0	0	0
Net increase (decrease) in pension expense			-\$63,691,323	-\$23,441,867	-\$6,635,805	-\$7,504,880	-\$1,690,236	\$0	\$0

Local Employers									
Reporting Date for Employer under GASB 68 Year Ended June 30	Assumption Changes	Initial Recognition Period (Years)	Recognition Year						
			2024	2025	2026	2027	2028	2029	Thereafter
2019	-\$1,628,190,127	5.92	-\$253,029,548	\$0	\$0	\$0	\$0	\$0	\$0
2020	-782,586,271	5.90	-132,641,741	-119,377,566	0	0	0	0	0
2021	46,415,457	6.17	7,522,765	7,522,765	7,522,765	1,278,867	0	0	0
2022	-355,230,882	6.22	-57,111,074	-57,111,074	-57,111,074	-57,111,074	-12,564,438	0	0
2023	0	--	0	0	0	0	0	0	0
2024	0	--	0	0	0	0	0	0	0
Net increase (decrease) in pension expense			-\$435,259,598	-\$168,965,875	-\$49,588,309	-\$55,832,207	-\$12,564,438	\$0	\$0

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Total									
Reporting Date for Employer under GASB 68 Year Ended June 30	Assumption Changes	Initial Recognition Period (Years)	Recognition Year						
			2024	2025	2026	2027	2028	2029	Thereafter
2019	-\$1,875,170,697	5.92	-\$291,411,661	\$0	\$0	\$0	\$0	\$0	\$0
2020	-892,759,358	5.90	-151,315,146	-136,183,628	0	0	0	0	0
2021	52,875,942	6.17	8,569,845	8,569,845	8,569,845	1,456,872	0	0	0
2022	-403,018,428	6.22	-64,793,959	-64,793,959	-64,793,959	-64,793,959	-14,254,674	0	0
2023	0	--	0	0	0	0	0	0	0
2024	0	--	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			-\$498,950,921	-\$192,407,742	-\$56,224,114	-\$63,337,087	-\$14,254,674	\$0	\$0

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Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Projected and Actual Earnings on Pension Plan Investments

State									
Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Projected and Actual Earnings	Initial Recognition Period (Years)	Recognition Year						
			2024	2025	2026	2027	2028	2029	Thereafter
2019	\$43,284,165	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	106,051,988	5.00	21,210,396	0	0	0	0	0	0
2021	-234,733,236	5.00	-46,946,647	-46,946,647	0	0	0	0	0
2022	303,818,121	5.00	60,763,624	60,763,624	60,763,624	0	0	0	0
2023	-2,307,611	5.00	-461,522	-461,522	-461,522	-461,522	0	0	0
2024	-32,816,654	5.00	<u>-6,563,330</u>	<u>-6,563,331</u>	<u>-6,563,331</u>	<u>-6,563,331</u>	<u>-6,563,331</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			\$28,002,521	\$6,792,124	\$53,738,771	-\$7,024,853	-\$6,563,331	\$0	\$0

Local Employers									
Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Projected and Actual Earnings	Initial Recognition Period (Years)	Recognition Year						
			2024	2025	2026	2027	2028	2029	Thereafter
2019	\$185,740,615	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	1,290,965,979	5.00	258,193,195	0	0	0	0	0	0
2021	-4,842,139,825	5.00	-968,427,965	-968,427,965	0	0	0	0	0
2022	4,249,874,088	5.00	849,974,818	849,974,818	849,974,818	0	0	0	0
2023	-385,710,118	5.00	-77,142,024	-77,142,024	-77,142,024	-77,142,024	0	0	0
2024	-726,149,992	5.00	<u>-145,230,000</u>	<u>-145,229,998</u>	<u>-145,229,998</u>	<u>-145,229,998</u>	<u>-145,229,998</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			-\$82,631,976	-\$340,825,169	\$627,602,796	-\$222,372,022	-\$145,229,998	\$0	\$0

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Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Projected and Actual Earnings	Initial Recognition Period (Years)	Total						
			Recognition Year						
			2024	2025	2026	2027	2028	2029	Thereafter
2019	\$229,024,780	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	1,397,017,967	5.00	279,403,591	0	0	0	0	0	0
2021	-5,076,873,062	5.00	-1,015,374,612	-1,015,374,612	0	0	0	0	0
2022	4,553,692,209	5.00	910,738,442	910,738,442	910,738,442	0	0	0	0
2023	-388,017,729	5.00	-77,603,546	-77,603,546	-77,603,546	-77,603,546	0	0	0
2024	-758,966,646	5.00	<u>-151,793,330</u>	<u>-151,793,329</u>	<u>-151,793,329</u>	<u>-151,793,329</u>	<u>-151,793,329</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			-\$54,629,455	-\$334,033,045	\$681,341,567	-\$229,396,875	-\$151,793,329	\$0	\$0

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Total Increase (Decrease) in Pension Expense

Reporting Date for Employer under GASB 68 Year Ended June 30	Total Increase (Decrease) in Pension Expense	State						
		Recognition Year						
		2024	2025	2026	2027	2028	2029	Thereafter
2019	-\$274,557,255	-\$49,394,272	\$0	\$0	\$0	\$0	\$0	\$0
2020	-10,458,095	1,462,924	-17,772,723	0	0	0	0	0
2021	-343,556,009	-64,584,050	-64,584,050	-17,637,403	-2,998,355	0	0	0
2022	294,406,717	59,250,537	59,250,537	59,250,537	-1,513,087	-332,882	0	0
2023	114,074,102	18,431,613	18,431,613	18,431,613	18,431,613	18,893,135	3,022,903	0
2024	13,381,432	<u>1,022,563</u>	<u>1,022,562</u>	<u>1,022,562</u>	<u>1,022,562</u>	<u>1,022,562</u>	<u>7,585,893</u>	<u>682,728</u>
Net increase (decrease) in pension expense		-\$33,810,685	-\$3,652,061	\$61,067,309	\$14,942,733	\$19,582,815	\$10,608,796	\$682,728

Reporting Date for Employer under GASB 68 Year Ended June 30	Total Increase (Decrease) in Pension Expense	Local Employers						
		Recognition Year						
		2024	2025	2026	2027	2028	2029	Thereafter
2019	-\$1,509,944,965	-\$263,518,708	\$0	\$0	\$0	\$0	\$0	\$0
2020	582,225,847	138,067,749	-108,112,902	0	0	0	0	0
2021	-5,800,908,382	-1,123,819,951	-1,123,819,951	-155,391,986	-26,416,641	0	0	0
2022	4,457,825,145	883,407,464	883,407,464	883,407,464	33,432,646	7,355,181	0	0
2023	-305,473,368	-64,116,578	-64,116,578	-64,116,578	-64,116,578	13,025,446	2,084,074	0
2024	-374,908,399	<u>-87,554,862</u>	<u>-87,554,860</u>	<u>-87,554,860</u>	<u>-87,554,860</u>	<u>-87,554,860</u>	<u>57,675,138</u>	<u>5,190,765</u>
Net increase (decrease) in pension expense		-\$517,534,886	-\$500,196,827	\$576,344,040	-\$144,655,433	-\$67,174,233	\$59,759,212	\$5,190,765

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Reporting Date for Employer under GASB 68 Year Ended June 30	Total Increase (Decrease) in Pension Expense	Total						
		Recognition Year						
		2024	2025	2026	2027	2028	2029	Thereafter
2019	-\$1,784,502,220	-\$312,912,980	\$0	\$0	\$0	\$0	\$0	\$0
2020	571,767,752	139,530,673	-125,885,625	0	0	0	0	0
2021	-6,144,464,392	-1,188,404,001	-1,188,404,001	-173,029,389	-29,414,996	0	0	0
2022	4,752,231,862	942,658,001	942,658,001	942,658,001	31,919,559	7,022,299	0	0
2023	-191,399,266	-45,684,965	-45,684,965	-45,684,965	-45,684,965	31,918,581	5,106,977	0
2024	-361,526,967	<u>-86,532,299</u>	<u>-86,532,298</u>	<u>-86,532,298</u>	<u>-86,532,298</u>	<u>-86,532,298</u>	<u>65,261,031</u>	<u>5,873,493</u>
Net increase (decrease) in pension expense		-\$551,345,571	-\$503,848,888	\$637,411,349	-\$129,712,700	-\$47,591,418	\$70,368,008	\$5,873,493

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Pension expense

Measurement Date	State	
	June 30, 2024	June 30, 2023
Components of Pension Expense		
Service cost	\$116,651,482	\$120,233,875
Interest on the Total Pension Liability	429,441,170	411,096,299
Current-period benefit changes	0	14,840,251
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	7,585,893	18,893,135
Expensed portion of current-period changes of assumptions or other inputs	0	0
Member contributions	-53,038,073	-53,703,766
Projected earnings on plan investments	-124,240,300	-112,107,317
Expensed portion of current-period differences between actual and projected earnings on plan investments	-6,563,330	-461,523
Administrative expense	49,991	1,608,481
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	108,084,033	97,847,733
Recognition of beginning of year deferred inflows of resources as pension expense	<u>-142,917,281</u>	<u>-183,476,352</u>
Pension Expense	\$335,053,585	\$314,770,816

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Measurement Date	Local Employers	
	June 30, 2024	June 30, 2023
Components of Pension Expense		
Service cost	\$838,552,120	\$813,226,096
Interest on the Total Pension Liability	3,028,209,690	2,944,126,172
Current-period benefit changes	0	97,828,975
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	57,675,138	13,025,446
Expensed portion of current-period changes of assumptions or other inputs	0	0
Member contributions	-401,450,392	-385,533,004
Projected earnings on plan investments	-2,112,776,031	-1,997,851,757
Expensed portion of current-period differences between actual and projected earnings on plan investments	-145,230,000	-77,142,022
Administrative expense	4,671,388	9,631,171
Other – Chapter 19 adjustment	-64,063,502	0
Recognition of beginning of year deferred outflows of resources as pension expense	1,231,776,239	1,265,056,115
Recognition of beginning of year deferred inflows of resources as pension expense	<u>-1,661,756,263</u>	<u>-1,837,556,499</u>
Pension Expense	\$775,608,387	\$844,810,693

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Measurement Date	Total	
	June 30, 2024	June 30, 2023
Components of Pension Expense		
Service cost	\$955,203,602	\$933,459,971
Interest on the Total Pension Liability	3,457,650,860	3,355,222,471
Current-period benefit changes	0	112,669,226
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	65,261,031	31,918,581
Expensed portion of current-period changes of assumptions or other inputs	0	0
Member contributions	-454,488,465	-439,236,770
Projected earnings on plan investments	-2,237,016,331	-2,109,959,074
Expensed portion of current-period differences between actual and projected earnings on plan investments	-151,793,330	-77,603,545
Administrative expense	4,721,379	11,239,652
Other – Chapter 19 adjustment	-64,063,502	0
Recognition of beginning of year deferred outflows of resources as pension expense	1,338,786,205	1,358,746,501
Recognition of beginning of year deferred inflows of resources as pension expense	<u>-1,803,599,477</u>	<u>-2,016,875,504</u>
Pension Expense	\$1,110,661,972	\$1,159,581,509

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Schedule of reconciliation of Net Pension Liability

Measurement Date	State	
	June 30, 2024	June 30, 2023
Beginning Net Pension Liability	\$4,423,947,533	\$4,326,592,535
Pension expense	335,053,585	314,770,816
State plan employer contributions	-410,913,471	-398,686,927
New net deferred inflows/outflows	12,358,869	95,642,490
Recognition of prior deferred inflows/outflows	<u>34,833,248</u>	<u>85,628,619</u>
Ending Net Pension Liability	\$4,395,279,764	\$4,423,947,533

Measurement Date	Local Employers	
	June 30, 2024	June 30, 2023
Beginning Net Pension Liability	\$13,084,649,602	\$13,483,472,009
Pension expense	775,608,387	844,810,693
Local plan employer contributions	-1,640,418,031	-1,574,776,692
New net deferred inflows/outflows	-287,353,537	-241,356,792
Recognition of prior deferred inflows/outflows	<u>429,980,024</u>	<u>572,500,384</u>
Ending Net Pension Liability	\$12,362,466,445	\$13,084,649,602

Measurement Date	Total	
	June 30, 2024	June 30, 2023
Beginning Net Pension Liability	\$17,508,597,135	\$17,810,064,544
Pension expense	1,110,661,972	1,159,581,509
Total plan employer contributions	-2,051,331,502	-1,973,463,619
New net deferred inflows/outflows	-274,994,668	-145,714,302
Recognition of prior deferred inflows/outflows	<u>464,813,272</u>	<u>658,129,003</u>
Ending Net Pension Liability	\$16,757,746,209	\$17,508,597,135

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Schedule of contributions – Last ten fiscal years

Total					
Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2015	\$1,217,110,411	\$941,950,336	\$275,160,075	\$3,682,677,356	25.58%
2016	1,311,849,713	986,654,840	325,194,873	3,695,509,355	26.70%
2017	1,335,659,737	1,046,327,392	289,332,345	3,726,807,562	28.08%
2018	1,424,767,509	1,236,395,284	188,372,225	3,803,348,329	32.51%
2019	1,545,236,051	1,332,222,254	213,013,797	3,870,718,707	34.42%
2020	1,592,156,607	1,427,886,341	164,270,266	3,937,977,209	36.26%
2021	1,725,652,140	1,600,351,881	125,300,259	4,016,767,909	39.84%
2022	1,798,890,158	1,846,054,575	(47,164,417)	4,070,199,174	45.36%
2023	1,942,204,908	1,957,493,982	(15,289,074)	4,159,231,628	47.06%
2024	1,988,152,852	2,002,252,741	(14,099,889)	4,238,340,848	47.24%

See accompanying notes to this schedule on next page.

Section 2: GASB 67/68 Information

Notes to Schedule:

Methods and assumptions used to establish the “actuarially determined contribution”:

Valuation date	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are made
Actuarial cost method	Projected Unit Credit Actuarial Cost Method
Amortization method	Level dollar
Remaining amortization period	The NJ statute governing the System (Chapter 78, P.L. 2011) prescribes the funding policy used to calculate the actuarially determined contribution. Specifically, the unfunded actuarial liability is amortized over a closed 30-year period as a level dollar amount beginning with the July 1, 2018 actuarial valuation. On July 1, 2028 when the amortization period reaches 20 years, annual increases or decreases in the unfunded actuarial accrued liability will increase or decrease the amortization period unless that period is in excess of 20 years. If so, the unfunded actuarial accrued liability is amortized over 20 years. As of July 1, 2024 there are 24 years remaining on the closed amortization schedule.
Asset valuation method	Sum of actuarial value at beginning of year and increase in cost value during year excluding realized appreciation or losses plus 20 percent of market value at end of year in excess of that preliminary value.
Actuarial assumptions:	
Investment rate of return	7.00%, net of pension plan investment expense, including inflation.
Inflation rate	2.75%
Real across-the-board salary increase	3.25%
Other assumptions	Same as those used in the July 1, 2023 funding actuarial valuation.

Actuarial Assumptions and Methods and Appendices

Exhibit I: Actuarial Assumptions, Actuarial Cost Method and Models

Mortality Rates:

Employee: Pub-2010 Safety Employee amount-weighted mortality table (sex-specific), projected generationally from 2010 with Scale MP-2021 mortality projection. 5% of deaths are assumed to be accidental.

Healthy Annuitant: Pub-2010 Safety Retiree Below Median amount-weighted mortality table (sex-specific), projected generationally from 2010 with Scale MP-2021 mortality projection

Disabled: 144% of Pub-2010 Safety Disabled Retiree amount-weighted mortality table for males and 100% of Pub-2010 Safety Disabled Retiree amount-weighted mortality table for females, projected generationally from 2010 with Scale MP-2021 mortality projection

Contingent Annuitant: Pub-1010 General Retiree Below-Median amount-weighted mortality tables projected generationally from 2010 with Scale MP-2021 mortality projection.

Section 3: Actuarial Assumptions and Methods and Appendices

Termination Rates before Retirement:

Age	Ordinary Disability Rate	Accidental Disability Rate
20	0.01	0.01
30	0.05	0.04
40	0.32	0.26
50	0.15	0.26
60	0.05	0.05

No ordinary disability is assumed prior to ordinary disability eligibility at four years of service.

No members are assumed to receive the involuntary disability retirement benefit.

Service	Withdrawal Rate
0-4	2.00
5-6	1.60
7-9	1.00
10-11	0.60
12-13	0.25
14-24	0.20
25+	0.00

Withdrawal rates do not apply at or beyond early retirement age.

Section 3: Actuarial Assumptions and Methods and Appendices

Retirement Rates for Active participants:

For those with less than 25 years of service:

Age	Retirement Probability
40-43	1.00%
44-46	2.50
47	3.75
48	4.00
49	5.00
50	6.00
51-56	7.00
57-61	8.00
62-64	13.00
65 and older	100.00

For those with 25 years of service:

Age	Retirement Probability
54 and younger	45.00%
55-57	50.00
58-61	55.00
62-63	70.00
64	90.00
65 and older	100.00

Section 3: Actuarial Assumptions and Methods and Appendices

	For those with 26 or more years of service:			
	Age	Retirement Probability		
	53 and younger	22.00%		
	54-60	24.00		
	61	28.00		
	62	30.00		
	63	20.00		
	64	60.00		
	65 and older	100.00		
Retirement Age for Inactive Vested Participants:	Age 55			
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.			
Percent Married:	90%			
Age of Spouse:	Females three years younger than males			
Net Investment Return:	7.00%, net of investment expenses The net investment return assumption is chosen based on direction from the Treasurer and as adopted by the Board of Trustees.			
Cost-of-Living Adjustments (COLAs) for Retirees:	No future COLAs are assumed. Previously granted COLAs are included in the data.			
Salary Increases:	Service	Rate (%)	Service	Rate (%)
	0	16.25	8	8.00
	1	14.00	9	7.00
	2-4	12.00	10	6.00
	5	11.00	11-12	5.00
	6	10.00	13-16	4.00
	7	9.00	17+	3.25

Section 3: Actuarial Assumptions and Methods and Appendices

Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is the age at date of initiation or, if date is unknown, current age minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary, with Normal Cost determined using the plan of benefits applicable to each participant.
Expected Remaining Service Lives:	The average of the expected service lives of all members is determined by: • Calculating each active member's expected remaining service life as the present value of \$1 per year of future service at zero percent interest. • Setting the remaining service life to zero for each nonactive or retired member. • Dividing the sum of the above amounts by the total number of active, nonactive, and retired members.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary. The blended discount rate used for calculating total pension liability is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

Section 3: Actuarial Assumptions and Methods and Appendices

Appendix A: Projection of Plan Fiduciary Net Position (\$in thousands) for use in the Calculation of Discount Rate as of June 30, 2024

Year Beginning June 30	Projected Beginning Plan Fiduciary Net Position (a)	Projected Employee Contributions (b)	Projected State Contributions (c)	Projected Local Employer Contributions (d)	Projected Lottery Contributions (e)	Projected Benefit Payments (f)	Projected Administrative Expenses (g)	Projected Investment Earnings (h)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) + (c) + (d) + (e) – (f) – (g) + (h)
2024	\$34,856,334	\$411,668	\$637,273	\$1,383,397	\$13,511	\$3,281,976	\$11,370	\$2,285,952	\$36,294,790
2025	36,294,790	405,675	647,279	1,399,268	13,622	3,414,690	11,682	2,379,750	37,714,011
2026	37,714,011	404,599	658,924	1,388,800	13,759	3,536,901	12,004	2,474,247	39,105,434
2027	39,105,434	403,172	658,922	1,389,132	13,879	3,637,157	12,334	2,568,630	40,489,677
2028	40,489,677	400,790	660,461	1,390,801	14,015	3,733,904	12,673	2,662,073	41,871,240
2029	41,871,240	398,077	661,773	1,368,690	14,281	3,827,406	13,022	2,755,359	43,228,992
2030	43,228,992	392,154	650,039	1,347,392	14,424	3,923,480	13,380	2,847,677	44,543,818
2031	44,543,818	384,559	638,133	1,322,979	14,569	4,026,736	13,748	2,936,633	45,800,207
2032	45,800,207	375,937	625,595	1,298,092	14,715	4,129,273	14,126	3,021,634	46,992,781
2033	46,992,781	366,494	612,254	1,274,850	14,862	4,227,967	14,514	3,102,277	48,121,036
2034	48,121,036	358,318	598,668	1,254,095	15,011	4,316,574	14,913	3,178,722	49,194,364
2035	49,194,364	351,837	584,839	1,237,961	15,161	4,386,992	15,323	3,251,881	50,233,728
2036	50,233,728	343,608	572,927	1,226,534	15,313	4,448,673	15,745	3,322,715	51,250,407
2037	51,250,407	332,134	561,738	1,214,942	15,466	4,516,027	16,178	3,391,420	52,233,902
2038	52,233,902	317,073	549,266	1,199,371	15,621	4,595,106	16,623	3,457,241	53,160,746
2039	53,160,746	299,664	535,938	1,178,380	15,777	4,684,357	17,080	3,518,844	54,007,912
2040	54,007,912	279,332	522,142	1,154,034	15,935	4,781,461	17,549	3,574,764	54,755,109
2041	54,755,109	256,588	507,293	1,124,940	16,095	4,886,580	18,032	3,623,470	55,378,882
2042	55,378,882	231,417	491,677	1,092,192	16,256	4,998,218	18,528	3,663,451	55,857,130
2043	55,857,130	205,924	474,451	1,055,568	16,419	5,110,738	19,037	3,693,353	56,173,069

Section 3: Actuarial Assumptions and Methods and Appendices

2044	56,173,069	179,865	456,225	1,017,036	16,583	5,218,361	19,561	3,712,222	56,317,078
2045	56,317,078	156,626	438,162	977,546	16,749	5,312,069	20,099	3,719,745	56,293,738
2046	56,293,738	131,305	420,510	939,755	16,916	5,396,488	20,652	3,715,867	56,100,951
2047	56,100,951	104,654	403,643	896,301	-	5,483,700	21,220	3,699,316	55,699,946
2048	55,699,946	75,450	388,361	847,669	-	5,574,183	21,803	3,668,916	55,084,358
2049	55,084,358	56,928	372,587	798,262	-	5,633,843	22,403	3,625,207	54,281,097
2050	54,281,097	43,938	356,569	764,865	-	5,639,526	23,019	3,570,477	53,354,400
2051	53,354,400	33,657	343,768	738,904	-	5,614,857	23,652	3,507,507	52,339,727
2052	52,339,727	25,535	333,234	716,654	-	5,570,651	24,302	3,438,806	51,259,002
2053	51,259,002	19,143	323,716	697,301	-	5,509,845	24,970	3,365,955	50,130,301
2054	50,130,301	14,148	315,054	680,246	-	5,435,176	25,657	3,290,149	48,969,065
2055	48,969,065	10,328	307,080	681,975	-	5,348,488	26,363	3,212,424	47,806,021
2056	47,806,021	7,425	305,045	666,253	-	5,251,715	27,088	3,134,127	46,640,068
2057	46,640,068	5,232	297,589	652,485	-	5,146,779	27,833	3,056,710	45,477,472
2058	45,477,472	3,600	290,486	639,650	-	5,034,807	28,598	2,979,700	44,327,503
2059	44,327,503	2,401	283,794	626,975	-	4,917,152	29,384	2,903,748	43,197,884
2060	43,197,884	1562	277,187	614,922	-	4,794,730	30,193	2,829,394	42,096,027
2061	42,096,027	982	271,087	603,445	-	4,668,268	31,023	2,757,114	41,029,363
2062	41,029,363	579	265,351	592,480	-	4,538,866	31,876	2,687,384	40,004,415
2063	40,004,415	316	259,735	581,628	-	4,407,019	32,753	2,620,641	39,026,964
2064	39,026,964	156	254,282	571,276	-	4,273,222	33,653	2,557,292	38,103,094
2065	38,103,094	67	248,763	562,122	-	4,137,971	34,579	2,497,718	37,239,214
2066	37,239,214	26	243,728	553,100	-	4,001,653	35,530	2,442,331	36,441,216
2067	36,441,216	8	238,876	544,992	-	3,864,600	36,507	2,391,579	35,715,565
2068	35,715,565	2	234,321	536,983	-	3,727,038	37,511	2,345,869	35,068,192
2069	35,068,192	-	229,983	529,333	-	3,589,059	38,542	2,305,653	34,505,561
2070	34,505,561	-	64,222	-	-	3,450,710	39,602	2,267,124	33,346,594
2071	33,346,594	-	-	-	-	3,311,999	40,691	2,216,917	32,210,821

Section 3: Actuarial Assumptions and Methods and Appendices

2072	32,210,821	-	-	-	-	3,172,897	41,810	2,142,243	31,138,357
2073	31,138,357	-	-	-	-	3,033,375	42,960	2,072,013	30,134,036
2074	30,134,036	-	-	-	-	2,893,409	44,141	2,006,568	29,203,053
2075	29,203,053	-	-	-	-	2,752,995	45,355	1,946,271	28,350,974
2076	28,350,974	-	-	-	-	2,612,161	46,602	1,891,511	27,583,722
2077	27,583,722	-	-	-	-	2,470,981	47,884	1,842,700	26,907,557
2078	26,907,557	-	-	-	-	2,329,586	49,201	1,800,271	26,329,042
2079	26,329,042	-	-	-	-	2,188,176	50,554	1,764,677	25,854,990
2080	25,854,990	-	-	-	-	2,047,027	51,944	1,736,385	25,492,404
2081	25,492,404	-	-	-	-	1,906,500	53,373	1,715,873	25,248,405
2082	25,248,405	-	-	-	-	1,767,046	54,840	1,703,622	25,130,141
2083	25,130,141	-	-	-	-	1,629,195	56,348	1,700,116	25,144,713
2084	25,144,713	-	-	-	-	1,493,556	57,898	1,705,829	25,299,089
2085	25,299,089	-	-	-	-	1,360,802	59,490	1,721,226	25,600,022
2086	25,600,022	-	-	-	-	1,231,655	61,126	1,746,754	26,053,995
2087	26,053,995	-	-	-	-	1,106,861	62,807	1,782,841	26,667,168
2088	26,667,168	-	-	-	-	987,162	64,534	1,829,892	27,445,364
2089	27,445,364	-	-	-	-	873,281	66,309	1,888,290	28,394,064
2090	28,394,064	-	-	-	-	765,877	68,133	1,958,394	29,518,449
2091	29,518,449	-	-	-	-	665,530	70,006	2,040,548	30,823,460
2092	30,823,460	-	-	-	-	572,719	71,931	2,135,079	32,313,889
2093	32,313,889	-	-	-	-	487,790	73,909	2,242,313	33,994,503
2094	33,994,503	-	-	-	-	410,951	73,168	2,362,671	35,873,054
2095	35,873,054	-	-	-	-	342,263	61,643	2,496,977	37,966,126
2096	37,966,126	-	-	-	-	281,626	51,339	2,645,975	40,279,136
2097	40,279,136	-	-	-	-	228,802	42,244	2,810,053	42,818,143
2098	42,818,143	-	-	-	-	183,416	34,320	2,989,649	45,590,056
2099	45,590,056	-	-	-	-	144,982	27,512	3,185,267	48,602,828

Section 3: Actuarial Assumptions and Methods and Appendices

2100	48,602,828	-	-	-	-	112,921	21,747	3,397,485	51,865,644
2101	51,865,644	-	-	-	-	86,597	16,938	3,626,971	55,389,080
2102	55,389,080	-	-	-	-	65,336	12,990	3,874,494	59,185,248
2103	59,185,248	-	-	-	-	48,461	9,800	4,140,928	63,267,915
2104	63,267,915	-	-	-	-	35,308	7,269	4,427,264	67,652,602
2105	67,652,602	-	-	-	-	25,251	5,296	4,734,613	72,356,668
2106	72,356,668	-	-	-	-	17,714	3,788	5,064,214	77,399,380
2107	77,399,380	-	-	-	-	12,183	2,657	5,417,437	82,801,977
2108	82,801,977	-	-	-	-	8,211	1827	5,795,787	88,587,726
2109	88,587,726	-	-	-	-	5,424	1232	6,200,908	94,781,978
2110	94,781,978	-	-	-	-	3,512	814	6,634,587	101,412,240
2111	101,412,240	-	-	-	-	2,231	527	7,098,760	108,508,243
2112	108,508,243	-	-	-	-	1393	335	7,595,517	116,102,032
2113	116,102,032	-	-	-	-	857	209	8,127,105	124,228,071
2114	124,228,071	-	-	-	-	522	129	8,695,942	132,923,363
2115	132,923,363	-	-	-	-	316	78	9,304,622	142,227,590
2116	142,227,590	-	-	-	-	192	47	9,955,923	152,183,274
2117	152,183,274	-	-	-	-	118	29	10,652,824	162,835,951
2118	162,835,951	-	-	-	-	74	18	11,398,513	174,234,372
2119	174,234,372	-	-	-	-	47	11	12,196,404	186,430,718
2120	186,430,718	-	-	-	-	30	7	13,050,149	199,480,830
2121	199,480,830	-	-	-	-	20	5	13,963,657	213,444,463
2122	213,444,463	-	-	-	-	13	3	14,941,112	228,385,559
2123	228,385,559	-	-	-	-	8	2	15,986,989	244,372,537
2124	244,372,537	-	-	-	-	5	1	17,106,077	261,478,608
2125	261,478,608	-	-	-	-	3	1	18,303,502	279,782,106
2126	279,782,106	-	-	-	-	2	1	19,584,747	299,366,850
2127	299,366,850	-	-	-	-	1	-	20,955,679	320,322,528

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2128	320,322,528	-	-	-	-	1	-	22,422,577	342,745,104
2129	342,745,104	-	-	-	-	-	-	23,992,157	366,737,261
2130	366,737,261	-	-	-	-	-	-	25,671,608	392,408,869

Notes

1. Amounts may not total exactly due to rounding.
2. Column (a): None of the projected beginning Plan Fiduciary Net Position amounts shown have been adjusted for the time value of money.
3. Columns (b-e): Projected State and Local contributions include normal cost rates applied to closed group projected payroll (based on covered active members as of June 30, 2023), plus contributions to the unfunded actuarial accrued liability. It is assumed that 1.2% of the proceeds from the Lottery Enterprise are contributed for a period of 30 years from the first contribution. 100% of the actuarially determined State contribution is assumed to be made on a quarterly basis for each fiscal year based on the actual payment made during the June 30, 2025 fiscal year. 100% of the actuarially determined contribution is assumed to be paid by Local Employees on April 1, for the fiscal year 21 months after the actuarial valuation for which that contribution is determined.
4. Column (f): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67 and based on the Actuarial Valuation and Review as of July 1, 2024. The demographic assumptions used are consistent with those approved by the Board of Trustees on November 14, 2022 and are based on the experience study for the period July 1, 2018 – June 30, 2021.
5. Column (g): Projected administrative expenses are calculated assuming annual 2.75% increases from the actual amount for the year ended June 30, 2024, limited to 15% of the prior year's projected benefit payments. Administrative expenses are assumed to occur halfway through the year, on average.
6. Column (h): Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum and reflect the assumed timing of benefit payments, which is halfway through the year, on average.
7. As illustrated in this Exhibit, the Plan Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2024 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

Appendix B: Development of Blended Discount Rate as of June 30, 2024

Year Beginning June 30:	Projected Beginning Plan Fiduciary Net Position	Funded Benefit Payments	Unfunded Benefit Payments	Discounted Funded Benefit Payments	Discounted Unfunded Benefit Payments	Discounted at Blended Rate
2024	\$34,856,334	\$3,281,976	-	\$3,172,806	-	\$3,172,806
2025	36,294,790	3,414,690	-	3,085,146	-	3,085,146
2026	37,714,011	3,536,901	-	2,986,507	-	2,986,507
2027	39,105,434	3,637,157	-	2,870,244	-	2,870,244
2028	40,489,677	3,733,904	-	2,753,824	-	2,753,824
2029	41,871,240	3,827,406	-	2,638,115	-	2,638,115
2030	43,228,992	3,923,480	-	2,527,417	-	2,527,417
2031	44,543,818	4,026,736	-	2,424,236	-	2,424,236
2032	45,800,207	4,129,273	-	2,323,333	-	2,323,333
2033	46,992,781	4,227,967	-	2,223,237	-	2,223,237
2034	48,121,036	4,316,574	-	2,121,336	-	2,121,336
2035	49,194,364	4,386,992	-	2,014,900	-	2,014,900
2036	50,233,728	4,448,673	-	1,909,560	-	1,909,560
2037	51,250,407	4,516,027	-	1,811,655	-	1,811,655
2038	52,233,902	4,595,106	-	1,722,784	-	1,722,784
2039	53,160,746	4,684,357	-	1,641,351	-	1,641,351
2040	54,007,912	4,781,461	-	1,565,771	-	1,565,771
2041	54,755,109	4,886,580	-	1,495,508	-	1,495,508
2042	55,378,882	4,998,218	-	1,429,602	-	1,429,602
2043	55,857,130	5,110,738	-	1,366,155	-	1,366,155
2044	56,173,069	5,218,361	-	1,303,667	-	1,303,667
2045	56,317,078	5,312,069	-	1,240,259	-	1,240,259
2046	56,293,738	5,396,488	-	1,177,542	-	1,177,542
2047	56,100,951	5,483,700	-	1,118,291	-	1,118,291
2048	55,699,946	5,574,183	-	1,062,377	-	1,062,377

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2049	55,084,358	5,633,843	-	1,003,502	-	1,003,502
2050	54,281,097	5,639,526	-	938,799	-	938,799
2051	53,354,400	5,614,857	-	873,544	-	873,544
2052	52,339,727	5,570,651	-	809,969	-	809,969
2053	51,259,002	5,509,845	-	748,717	-	748,717
2054	50,130,301	5,435,176	-	690,253	-	690,253
2055	48,969,065	5,348,488	-	634,807	-	634,807
2056	47,806,021	5,251,715	-	582,543	-	582,543
2057	46,640,068	5,146,779	-	533,555	-	533,555
2058	45,477,472	5,034,807	-	487,801	-	487,801
2059	44,327,503	4,917,152	-	445,235	-	445,235
2060	43,197,884	4,794,730	-	405,748	-	405,748
2061	42,096,027	4,668,268	-	369,202	-	369,202
2062	41,029,363	4,538,866	-	335,484	-	335,484
2063	40,004,415	4,407,019	-	304,429	-	304,429
2064	39,026,964	4,273,222	-	275,875	-	275,875
2065	38,103,094	4,137,971	-	249,667	-	249,667
2066	37,239,214	4,001,653	-	225,647	-	225,647
2067	36,441,216	3,864,600	-	203,662	-	203,662
2068	35,715,565	3,727,038	-	183,563	-	183,563
2069	35,068,192	3,589,059	-	165,203	-	165,203
2070	34,505,561	3,450,710	-	148,444	-	148,444
2071	33,346,594	3,311,999	-	133,156	-	133,156
2072	32,210,821	3,172,897	-	119,218	-	119,218
2073	31,138,357	3,033,375	-	106,519	-	106,519
2074	30,134,036	2,893,409	-	94,957	-	94,957
2075	29,203,053	2,752,995	-	84,439	-	84,439
2076	28,350,974	2,612,161	-	74,878	-	74,878

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2077	27,583,722	2,470,981	-	66,197	-	66,197
2078	26,907,557	2,329,586	-	58,326	-	58,326
2079	26,329,042	2,188,176	-	51,201	-	51,201
2080	25,854,990	2,047,027	-	44,765	-	44,765
2081	25,492,404	1,906,500	-	38,965	-	38,965
2082	25,248,405	1,767,046	-	33,752	-	33,752
2083	25,130,141	1,629,195	-	29,083	-	29,083
2084	25,144,713	1,493,556	-	24,917	-	24,917
2085	25,299,089	1,360,802	-	21,217	-	21,217
2086	25,600,022	1,231,655	-	17,947	-	17,947
2087	26,053,995	1,106,861	-	15,074	-	15,074
2088	26,667,168	987,162	-	12,564	-	12,564
2089	27,445,364	873,281	-	10,388	-	10,388
2090	28,394,064	765,877	-	8,514	-	8,514
2091	29,518,449	665,530	-	6,915	-	6,915
2092	30,823,460	572,719	-	5,561	-	5,561
2093	32,313,889	487,790	-	4,426	-	4,426
2094	33,994,503	410,951	-	3,485	-	3,485
2095	35,873,054	342,263	-	2,713	-	2,713
2096	37,966,126	281,626	-	2,086	-	2,086
2097	40,279,136	228,802	-	1,584	-	1,584
2098	42,818,143	183,416	-	1,187	-	1,187
2099	45,590,056	144,982	-	877	-	877
2100	48,602,828	112,921	-	638	-	638
2101	51,865,644	86,597	-	457	-	457
2102	55,389,080	65,336	-	322	-	322
2103	59,185,248	48,461	-	224	-	224
2104	63,267,915	35,308	-	152	-	152

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2105	67,652,602	25,251	-	102	-	102
2106	72,356,668	17,714	-	67	-	67
2107	77,399,380	12,183	-	43	-	43
2108	82,801,977	8,211	-	27	-	27
2109	88,587,726	5,424	-	17	-	17
2110	94,781,978	3,512	-	10	-	10
2111	101,412,240	2,231	-	6	-	6
2112	108,508,243	1393	-	3	-	3
2113	116,102,032	857	-	2	-	2
2114	124,228,071	522	-	1	-	1
2115	132,923,363	316	-	1	-	1
2116	142,227,590	192	-	-	-	-
2117	152,183,274	118	-	-	-	-
2118	162,835,951	74	-	-	-	-
2119	174,234,372	47	-	-	-	-
2120	186,430,718	30	-	-	-	-
2121	199,480,830	20	-	-	-	-
2122	213,444,463	13	-	-	-	-
2123	228,385,559	8	-	-	-	-
2124	244,372,537	5	-	-	-	-
2125	261,478,608	3	-	-	-	-
2126	279,782,106	2	-	-	-	-
2127	299,366,850	1	-	-	-	-
2128	320,322,528	1	-	-	-	-
2129	342,745,104	-	-	-	-	-
2030	366,737,261	-	-	-	-	-
Total				\$61,678,255		\$61,678,255

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Appendix C: Definition of Terms

Definitions of certain terms as they are used in Statement 68. The terms may have different meanings in other contexts.

Active Members:	Individuals employed at the end of the reporting or measurement period, as applicable.
Actual Contributions:	Cash contributions recognized as additions to a pension Plan Fiduciary Net Position.
Actuarial Present Value of Projected Benefit Payments:	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial Valuation:	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial Valuation Date:	The date as of which an actuarial valuation is performed.
Closed Period:	A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.
Collective Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions:	Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.
Collective Pension Expense:	Pension expense arising from certain changes in the collective Net Pension Liability.
Contributions:	Additions to a pension Plan Fiduciary Net Position for amounts from employers, non-employer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.
Cost-of-Living Adjustments:	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Covered Payroll:	The payroll of employees that are provided with pensions through the pension plan.
Defined Benefit Pension Plans:	Pension plans that are used to provide defined benefit pensions.
Defined Benefit Pensions:	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of

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	Statement 68.)
Discount Rate:	The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: 1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan Fiduciary Net Position is projected (under the requirements of Statement 68) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Entry Age Actuarial Cost Method:	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive Members:	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Measurement Period:	The period between the prior and the current measurement dates.
Net Pension Liability (NPL):	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.
Other Postemployment Benefits:	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension Plans:	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pensions:	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan Fiduciary Net Position:	Market value of assets.
Plan Members:	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their

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	beneficiaries currently receiving benefits (inactive plan members).
Projected Benefit Payments:	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Real Rate of Return:	The rate of return on an investment after adjustment to eliminate inflation.
Service Costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total Pension Liability (TPL):	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 68.