

Police and Firemen's Retirement System of New Jersey

**Governmental Accounting Standards Board
Statements 67 and 68 Actuarial Valuation as of June
30, 2022**



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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December 15, 2022

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, 2022 measurement date for employer reporting as of June 30, 2022. It contains various information that will need to be disclosed in order for Police and Firemen's Retirement System of New Jersey employers to comply with GASB 67 and 68.

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 report 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.

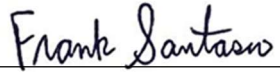
The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic 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 Police and Firemen's Retirement System of New Jersey.

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, 2022. This valuation is based on:

- The benefit provisions of Police and Firemen's Retirement System of New Jersey (PFRS), as administered by the Board, including changes to the benefit provisions under Chapter 52, P.L. 2021, the Dominic Marino PFRS Enhanced Benefit Surviving Spouses Act, and Chapter 255, P.L. 1944;
- The characteristics of covered active members, terminated vested members, and retired members and beneficiaries as of June 30, 2021, provided by the Division of Pensions and Benefits (DPB);
- The draft assets of the Plan as of June 30, 2022, 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, 2022 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, 2022 funding valuation, reflecting the approved assumption changes as recommended in Segal's Actuarial Experience Review report dated October 14, 2022.

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. Employers and plans should develop and adopt funding policies under current practices, if no policy currently exists.
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 the PFRS uses for funding as of July 1, 2022.
3. The Net Pension Liability (NPL) is equal to the difference between the Total Pension Liability (TPL) and the Plan Fiduciary Net Position. 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.

Section 1: Actuarial Valuation Summary

4. The NPL was measured as of June 30, 2022 and June 30, 2021 and determined based upon the results of the actuarial valuations as of June 30, 2021 and June 30, 2020, respectively.
5. The NPL increased from \$13.4 billion as of June 30, 2021 to \$17.8 billion as of June 30, 2022 primarily as a result of poor investment experience during the year ended June 30, 2022. Changes in these values during the last two fiscal years ending June 30, 2021 and June 30, 2022 can be found in Section 2.
6. The discount rate used to measure the TPL and NPL as of June 30, 2022 and June 30, 2021 was 7.00%. 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.
7. The assumptions used to measure the TPL and NPL as of June 30, 2022 reflect the approved assumption changes as recommended in Segal's Actuarial Experience Review report dated October 14, 2022 and the plan amendments adopted between July 1, 2021 and June 30, 2022.
8. It is important to note that this actuarial valuation is based on plan draft assets as of June 30, 2022. 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, 2022	June 30, 2021
Disclosure elements for fiscal year ending June 30:	• Service cost	\$117,854,888	\$114,937,795
	• Total Pension Liability	5,943,036,234	5,783,590,022
	• Plan Fiduciary Net Position	1,616,443,699	1,719,018,257
	• Net Pension Liability	4,326,592,535	4,064,571,765
	• Pension expense	218,635,738	133,596,375
Demographic data for plan year ending June 30:	• Number of retired members and beneficiaries	7,073	6,937
	• Number of vested terminated members	10	13
	• Number of active members	6,445	6,688
	• Number of non-contributing active members	471	426
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, 2022	June 30, 2021
Disclosure elements for fiscal year ending June 30:	• Service cost	\$805,191,572	\$768,655,563
	• Total Pension Liability	42,575,681,720	41,189,084,817
	• Plan Fiduciary Net Position	29,092,209,711	31,824,235,230
	• Net Pension Liability	13,483,472,009	9,364,849,587
	• Pension expense	165,943,124	-742,955,825
Demographic data for plan year ending June 30:	• Number of retired members and beneficiaries	40,445	39,634
	• Number of vested terminated members	50	54
	• Number of active members	34,031	34,150
	• Number of non-contributing active members	1,241	1,168
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, 2022	June 30, 2021
Disclosure elements for fiscal year ending June 30:	• Service cost	\$923,046,459	\$883,593,358
	• Total Pension Liability	48,518,717,954	46,972,674,839
	• Plan Fiduciary Net Position	30,708,653,410	33,543,253,487
	• Net Pension Liability	17,810,064,544	13,429,421,352
	• Pension expense	384,578,862	-609,359,450
Demographic data for plan year ending June 30:	• Number of retired members and beneficiaries	47,518	46,571
	• Number of vested terminated members	60	67
	• Number of active members	40,476	40,838
	• Number of non-contributing active members	1,712	1,594
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 and cost-of-living adjustments. 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	<p>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.</p> <p>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.</p>

Section 1: Actuarial Valuation Summary

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

The 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.

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. Segal's valuation is based on our 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 the PFRS, it is not a fiduciary in its capacity as actuaries and consultants with respect to the PFRS.

GASB 67/68 Information

General information about the pension plan

Plan Description

Plan membership. At June 30, 2021, pension plan membership consisted of the following:

	State	Local Employers	Total
Retired members or beneficiaries currently receiving benefits	7,073	40,445	47,518
Vested terminated members entitled to but not yet receiving benefits	10	50	60
Active members	6,445	34,031	40,476
Non-contributing active members	471	1,241	1,712
Total	13,999	75,767	89,766

Benefits provided. The GASB 67 results as of June 30, 2022 are based on the same plan of benefits as disclosed in the actuarial valuation as of July 1, 2021, updated to reflect the following plan amendments:

- Chapter 52, P.L. 2021 allows members enrolled between January 18, 2000 and April 19, 2021 to retire prior to age 55 if they have attained 20 Years of Creditable Service and retire by May 1, 2023.
- The Dominick Marino PFRS Enhanced Benefits for Surviving Spouses Act placed a \$50,000 annual minimum on the pension of the pre-retirement accidental death benefit for surviving spouses.
- Chapter 255, P.L. 1944 was amended to allow police and fire department chiefs to remain members in the Police and Firemen's Retirement System of New Jersey until the end of the calendar year in which the member reaches age 67 provided the member was appointed as a chief prior to attaining age 65 and attain age 65 between the effective date and 24th month following that date.

Section 2: GASB 67/68 Information

Net pension liability

Measurement Date	State	
	June 30, 2022	June 30, 2021
Total Pension Liability	\$5,943,036,234	\$5,783,590,022
Plan Fiduciary Net Position	1,616,443,699	1,719,018,257
Net Pension Liability	4,326,592,535	4,064,571,765
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	27.20%	29.72%

Measurement Date	Local Employers	
	June 30, 2022	June 30, 2021
Total Pension Liability	\$42,575,681,720	\$41,189,084,817
Plan Fiduciary Net Position	29,092,209,711	31,824,235,230
Net Pension Liability	13,483,472,009	9,364,849,587
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	68.33%	77.26%

Measurement Date	Total	
	June 30, 2022	June 30, 2021
Total Pension Liability	\$48,518,717,954	\$46,972,674,839
Plan Fiduciary Net Position	30,708,653,410	33,543,253,487
Net Pension Liability	17,810,064,544	13,429,421,352
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	63.29%	71.41%

The Net Pension Liability (NPL) for the plan was measured as of June 30, 2022 and 2021. Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total Pension Liability (TPL) was determined from actuarial valuations as of June 30, 2021 and 2020, respectively.

Section 2: GASB 67/68 Information

Actuarial assumptions. The TPL as of June 30, 2022 and 2021, that were measured by actuarial valuations as of June 30, 2021 and 2020, 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 approved changes 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 and a risk margin. 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	30%	6.70%
Foreign equity	12%	7.10%
Emerging market equity	8%	8.80%
Private equity	10%	10.70%
Fixed income	22%	0.70%
Private debt	8%	2.90%
Real estate	7%	4.20%
Infrastructure	3%	5.70%
Total	100.00%	

Discount rate. The discount rates used to measure the Total Pension Liability (TPL) was 7.00% as of June 30, 2022 and June 30, 2021. 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 the actuarially determined contribution amounts. The assumption that the State is paying 100% of the actuarially determined contribution is based on the State making the full contribution for the fiscal year ending June 30, 2023. 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, 2022 and June 30, 2021.

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability (NPL) of the PFRS as of June 30, 2022, calculated using the discount rate of 7.00%, as well as what the PFRS's 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	\$5,034,873,541	\$4,326,592,535	\$3,736,667,464
Local Employers	\$18,500,779,821	\$13,483,472,009	\$9,306,538,862
Total	\$23,535,653,362	\$17,810,064,544	\$13,043,206,326

Section 2: GASB 67/68 Information

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

Measurement Date	State	
	June 30, 2022	June 30, 2021
Total Pension Liability		
Service cost	\$113,388,990	\$114,221,562
Interest	399,819,576	395,779,623
Change of benefit terms	26,190,625	20,671,563
Differences between expected and actual experience	38,376,142	-115,283,258
Changes of assumptions	-47,787,546	6,460,485
Benefit payments	-370,944,563	-356,471,910
Transfers from other systems – employer	-88,476	-116,382
Transfers from other systems – member	<u>491,464</u>	<u>522,268</u>
Net change in Total Pension Liability	\$159,446,212	\$65,783,951
Total Pension Liability – beginning	<u>5,783,590,022</u>	<u>5,717,806,071</u>
Total Pension Liability – ending	<u>\$5,943,036,234</u>	<u>\$5,783,590,022</u>
Plan Fiduciary Net Position		
Contributions – employer (appropriations)	\$387,224,112	\$263,557,056
Contributions – employer (lottery)	13,333,020	13,260,000
Employer contribution – delayed enrollments	19,442	36,986
Employer contribution – delayed appropriations	0	0
Employer contribution – retroactive	0	0
Employer contribution - additional	0	0
Contributions – member	53,744,938	51,571,527
Net investment income	-184,137,196	330,564,509
Benefit payments, including transfers from other systems	-370,541,575	-356,066,024
Administrative expense	<u>-2,217,299</u>	<u>-2,701,917</u>
Net change in Plan Fiduciary Net Position	-\$102,574,558	\$300,222,137
Plan Fiduciary Net Position – beginning	<u>1,719,018,257</u>	<u>1,418,796,120</u>
Plan Fiduciary Net Position – ending	\$1,616,443,699	\$1,719,018,257
Net Pension Liability – ending	<u>\$4,326,592,535</u>	<u>\$4,064,571,765</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	27.20%	29.72%
Covered payroll	\$537,497,633	\$539,845,476
Plan Net Pension Liability as percentage of covered payroll	804.95%	752.91%

Section 2: GASB 67/68 Information

Measurement Date	Local Employers	
	June 30, 2022	June 30, 2021
Total Pension Liability		
Service cost	\$774,728,421	\$764,496,999
Interest	2,846,557,024	2,830,623,074
Change of benefit terms	154,786,182	126,762,778
Differences between expected and actual experience	563,181,939	-1,005,184,014
Changes of assumptions	-355,230,882	46,415,457
Benefit payments	-2,599,531,680	-2,495,912,852
Transfers from other systems – employer	43,389	154,443
Transfers from other systems – member	<u>2,062,510</u>	<u>1,748,485</u>
Net change in Total Pension Liability	\$1,386,596,903	\$269,104,370
Total Pension Liability – beginning	<u>41,189,084,817</u>	<u>40,919,980,447</u>
Total Pension Liability – ending	<u>\$42,575,681,720</u>	<u>\$41,189,084,817</u>
Plan Fiduciary Net Position		
Contributions – employer (appropriations)	\$1,300,795,184	\$1,165,754,089
Contributions – employer (paid by State on behalf of locals)	253,611,000	178,577,000
Employer contribution – delayed enrollments	189,065	149,307
Employer contribution – delayed appropriations	1,257,718	966,820
Employer contribution – retroactive	5,015,523	4,652,327
Employer contribution - additional	416,245	355,901
Contributions – member	376,540,963	367,886,668
Net investment income	-2,059,381,407	6,622,162,496
Benefit payments, including transfers from other systems	-2,597,425,781	-2,494,009,924
Administrative expense	<u>-13,044,029</u>	<u>-15,591,179</u>
Net change in Plan Fiduciary Net Position	-\$2,732,025,519	\$5,830,903,505
Plan Fiduciary Net Position – beginning	<u>31,824,235,230</u>	<u>25,993,331,725</u>
Plan Fiduciary Net Position – ending	\$29,092,209,711	\$31,824,235,230
Net Pension Liability – ending	<u>\$13,483,472,009</u>	<u>\$9,364,849,587</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	68.33%	77.26%
Covered payroll	\$3,664,480,562	\$3,603,060,315
Plan Net Pension Liability as percentage of covered payroll	367.95%	259.91%

Section 2: GASB 67/68 Information

Measurement Date	Total	
	June 30, 2022	June 30, 2021
Total Pension Liability		
Service cost	\$888,117,411	\$878,718,561
Interest	3,246,376,600	3,226,402,697
Change of benefit terms	180,976,807	147,434,341
Differences between expected and actual experience	601,558,081	-1,120,467,272
Changes of assumptions	-403,018,428	52,875,942
Benefit payments	-2,970,476,243	-2,852,384,762
Transfers from other systems – employer	-45,087	38,061
Transfers from other systems – member	<u>2,553,974</u>	<u>2,270,753</u>
Net change in Total Pension Liability	\$1,546,043,115	\$334,888,321
Total Pension Liability – beginning	<u>46,972,674,839</u>	<u>46,637,786,518</u>
Total Pension Liability – ending	<u>\$48,518,717,954</u>	<u>\$46,972,674,839</u>
Plan Fiduciary Net Position		
Contributions – employer (appropriations)	\$1,688,019,296	\$1,429,311,145
Contributions – employer (lottery)	13,333,020	13,260,000
Contributions – employer (paid by State on behalf of locals)	253,611,000	178,577,000
Employer contribution – delayed enrollments	208,507	186,293
Employer contribution – delayed appropriations	1,257,718	966,820
Employer contribution – retroactive	5,015,523	4,652,327
Employer contribution - additional	416,245	355,901
Contributions – member	430,285,901	419,458,195
Net investment income	-2,243,518,603	6,952,727,005
Benefit payments, including transfers from other systems	-2,967,967,356	-2,850,075,948
Administrative expense	<u>-15,261,328</u>	<u>-18,293,096</u>
Net change in Plan Fiduciary Net Position	-\$2,834,600,077	\$6,131,125,642
Plan Fiduciary Net Position – beginning	<u>33,543,253,487</u>	<u>27,412,127,845</u>
Plan Fiduciary Net Position – ending	\$30,708,653,410	\$33,543,253,487
Net Pension Liability – ending	<u>\$17,810,064,544</u>	<u>\$13,429,421,352</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	63.29%	71.41%
Covered payroll	\$4,201,978,195	\$4,142,905,791
Plan Net Pension Liability as percentage of covered payroll	423.85%	324.15%

Section 2: GASB 67/68 Information

Notes to Schedule:

Benefit changes: The following plan amendments are reflected in the Net Pension Liabilities as of June 30, 2022 shown above:

- Chapter 52, P.L. 2021 allows members enrolled between January 18, 2000 and April 19, 2021 to retire prior to age 55 if they have attained 20 Years of Creditable Service and retire by May 1, 2023.
- The Dominick Marino PFRS Enhanced Benefits for Surviving Spouses Act placed a \$50,000 annual minimum on the pension of the pre-retirement accidental death benefit for surviving spouses.
- Chapter 255, P.L. 1944 was amended to allow police and fire department chiefs to remain members in the Police and Firemen's Retirement System of New Jersey until the end of the calendar year in which the member reaches age 67 provided the member was appointed as a chief prior to attaining age 65 and attain age 65 between the effective date and 24th month following that date.

Section 2: GASB 67/68 Information

Deferred outflows and inflows of resources

Measurement Date	State	
	June 30, 2022	June 30, 2021
Deferred Outflows of Resources		
Changes of assumptions or other inputs	\$4,366,325	\$5,413,405
Net difference between projected and actual earnings on pension plan investments	153,292,182	0
Difference between expected and actual experience in the Total Pension Liability	<u>32,206,344</u>	<u>0</u>
Total Deferred Outflows of Resources	\$189,864,851	\$5,413,405
Deferred Inflows of Resources		
Changes of assumptions or other inputs	\$208,001,493	\$322,442,800
Net difference between projected and actual earnings on pension plan investments	0	105,675,257
Difference between expected and actual experience in the Total Pension Liability	<u>107,094,264</u>	<u>146,487,860</u>
Total Deferred Inflows of Resources	\$315,095,757	\$574,605,917
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:		
2022	N/A	-\$208,805,427
2023	-\$85,628,619	-144,879,156
2024	-53,264,861	-112,515,398
2025	-23,106,236	-82,356,773
2026	41,613,134	-17,637,403
2027	-4,511,442	-2,998,355
Thereafter	-332,882	0

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Measurement Date	Local Employers	
	June 30, 2022	June 30, 2021
Deferred Outflows of Resources		
Changes of assumptions or other inputs	\$31,369,927	\$38,892,692
Net difference between projected and actual earnings on pension plan investments	1,048,149,891	0
Difference between expected and actual experience in the Total Pension Liability	<u>518,092,671</u>	<u>83,388,564</u>
Total Deferred Outflows of Resources	\$1,597,612,489	\$122,281,256
Deferred Inflows of Resources		
Changes of assumptions or other inputs	\$1,440,870,113	\$2,190,519,410
Net difference between projected and actual earnings on pension plan investments	0	3,114,667,493
Difference between expected and actual experience in the Total Pension Liability	<u>701,244,931</u>	<u>875,560,941</u>
Total Deferred Inflows of Resources	\$2,142,115,044	\$6,180,747,844
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:		
2022	N/A	-\$1,939,546,350
2023	-\$572,500,384	-1,455,907,848
2024	-365,863,446	-1,249,270,910
2025	-348,525,389	-1,231,932,853
2026	728,015,478	-155,391,986
2027	7,016,005	-26,416,641
Thereafter	7,355,181	0

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Measurement Date	Total	
	June 30, 2022	June 30, 2021
Deferred Outflows of Resources		
Changes of assumptions or other inputs	\$35,736,252	\$44,306,097
Net difference between projected and actual earnings on pension plan investments	1,201,442,073	0
Difference between expected and actual experience in the Total Pension Liability	<u>544,100,940</u>	<u>68,451,114</u>
Total Deferred Outflows of Resources	\$1,781,279,265	\$112,757,211
Deferred Inflows of Resources		
Changes of assumptions or other inputs	\$1,648,871,606	\$2,512,962,210
Net difference between projected and actual earnings on pension plan investments	0	3,220,342,750
Difference between expected and actual experience in the Total Pension Liability	<u>802,141,120</u>	<u>1,007,111,351</u>
Total Deferred Inflows of Resources	\$2,451,012,726	\$6,740,416,311
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:		
2022	N/A	-\$2,148,351,777
2023	-\$658,129,003	-1,600,787,004
2024	-419,128,307	-1,361,786,308
2025	-371,631,625	-1,314,289,626
2026	769,628,612	-173,029,389
2027	2,504,563	-29,414,996
Thereafter	7,022,299	0

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There are changes in the total Net Pension Liability (NPL) during the measurement period ended June 30, 2022. The net effect of the change on the NPL and deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through the PFRS which is 6.22 years determined as of June 30, 2021 (the beginning of the measurement period ending June 30, 2022). This is described in Paragraph 33a. of GASB 67.

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

- Calculating each active employee'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 employee, 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						
			2022	2023	2024	2025	2026	2027	Thereafter
2017	-\$32,607,990	5.59	-\$3,441,633	\$0	\$0	\$0	\$0	\$0	\$0
2018	-24,201,658	5.73	-4,223,675	-3,083,280	0	0	0	0	0
2019	-70,860,849	5.92	-11,969,738	-11,969,738	-11,012,159	0	0	0	0
2020	-6,336,996	5.90	-1,074,067	-1,074,067	-1,074,067	-966,661	0	0	0
2021	-115,283,258	6.17	-18,684,483	-18,684,483	-18,684,483	-18,684,483	-18,684,483	-3,176,360	0
2022	38,376,142	6.22	<u>6,169,798</u>	<u>6,169,798</u>	<u>6,169,798</u>	<u>6,169,798</u>	<u>6,169,798</u>	<u>6,169,798</u>	<u>1,357,354</u>
Net increase (decrease) in pension expense			-\$33,223,798	-\$28,641,770	-\$24,600,911	-\$13,481,346	-\$12,514,685	-\$2,993,438	\$1,357,354

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						
			2022	2023	2024	2025	2026	2027	Thereafter
2017	\$121,972,934	5.59	\$12,873,708	\$0	\$0	\$0	\$0	\$0	\$0
2018	71,877,745	5.73	12,544,109	9,157,198	0	0	0	0	0
2019	-67,495,453	5.92	-11,401,259	-11,401,259	-10,489,160	0	0	0	0
2020	73,846,139	5.90	12,516,295	12,516,295	12,516,295	11,264,664	0	0	0
2021	-1,005,184,014	6.17	-162,914,751	-162,914,751	-162,914,751	-162,914,751	-162,914,751	-27,695,508	0
2022	563,181,939	6.22	<u>90,543,720</u>	<u>90,543,720</u>	<u>90,543,720</u>	<u>90,543,720</u>	<u>90,543,720</u>	<u>90,543,720</u>	<u>19,919,619</u>
Net increase (decrease) in pension expense			-\$45,838,178	-\$62,098,797	-\$70,343,896	-\$61,106,367	-\$72,371,031	\$62,848,212	\$19,919,619

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Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Initial Recognition Period (Years)	Total						
			Recognition Year						
			2022	2023	2024	2025	2026	2027	Thereafter
2017	\$89,364,943	5.59	\$9,432,075	\$0	\$0	\$0	\$0	\$0	\$0
2018	47,676,087	5.73	8,320,434	6,073,918	0	0	0	0	0
2019	-138,356,302	5.92	-23,370,997	-23,370,997	-21,501,319	0	0	0	0
2020	67,509,143	5.90	11,442,228	11,442,228	11,442,228	10,298,003	0	0	0
2021	-1,120,467,272	6.17	-181,599,234	-181,599,234	-181,599,234	-181,599,234	-181,599,234	-30,871,868	0
2022	601,558,081	6.22	<u>96,713,518</u>	<u>96,713,518</u>	<u>96,713,518</u>	<u>96,713,518</u>	<u>96,713,518</u>	<u>96,713,518</u>	<u>21,276,973</u>
Net increase (decrease) in pension expense			-\$79,061,976	-\$90,740,567	-\$94,944,807	-\$74,587,713	-\$84,885,716	\$65,841,650	\$21,276,973

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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						
			2022	2023	2024	2025	2026	2027	Thereafter
2017	-\$455,421,302	5.59	-\$48,067,725	\$0	\$0	\$0	\$0	\$0	\$0
2018	-264,067,892	5.73	-46,085,147	-33,642,156	0	0	0	0	0
2019	-246,980,571	5.92	-41,719,691	-41,719,691	-38,382,113	0	0	0	0
2020	-110,173,087	5.90	-18,673,405	-18,673,405	-18,673,405	-16,806,062	0	0	0
2021	6,460,485	6.17	1,047,080	1,047,080	1,047,080	1,047,080	1,047,080	178,005	0
2022	-47,787,546	6.22	<u>-7,682,885</u>	<u>-7,682,885</u>	<u>-7,682,885</u>	<u>-7,682,885</u>	<u>-7,682,885</u>	<u>-7,682,885</u>	<u>-1,690,236</u>
Net increase (decrease) in pension expense			-\$161,181,773	-\$100,671,057	-\$63,691,323	-\$23,441,867	-\$6,635,805	-\$7,504,880	-\$1,690,236

Local Employers									
Reporting Date for Employer under GASB 68 Year Ended June 30	Assumption Changes	Initial Recognition Period (Years)	Recognition Year						
			2022	2023	2024	2025	2026	2027	Thereafter
2017	-\$3,079,132,668	5.59	-\$324,988,960	\$0	\$0	\$0	\$0	\$0	\$0
2018	-1,805,559,030	5.73	-315,106,288	-230,027,593	0	0	0	0	0
2019	-1,628,190,127	5.92	-275,032,116	-275,032,116	-253,029,548	0	0	0	0
2020	-782,586,271	5.90	-132,641,741	-132,641,741	-132,641,741	-119,377,566	0	0	0
2021	46,415,457	6.17	7,522,765	7,522,765	7,522,765	7,522,765	7,522,765	1,278,867	0
2022	-355,230,882	6.22	<u>-57,111,074</u>	<u>-57,111,074</u>	<u>-57,111,074</u>	<u>-57,111,074</u>	<u>-57,111,074</u>	<u>-57,111,074</u>	<u>-12,564,438</u>
Net increase (decrease) in pension expense			-\$1,097,357,414	-\$687,289,759	-\$435,259,598	-\$168,965,875	-\$49,588,309	-\$55,832,207	-\$12,564,438

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Reporting Date for Employer under GASB 68 Year Ended June 30	Assumption Changes	Initial Recognition Period (Years)	Total							
			Recognition Year							
			2022	2023	2024	2025	2026	2027	Thereafter	
2017	-\$3,534,553,970	5.59	-\$373,056,685	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2018	-2,069,626,923	5.73	-361,191,435	-263,669,749	0	0	0	0	0	0
2019	-1,875,170,697	5.92	-316,751,807	-316,751,807	-291,411,661	0	0	0	0	0
2020	-892,759,358	5.90	-151,315,146	-151,315,146	-151,315,146	-136,183,628	0	0	0	0
2021	52,875,942	6.17	8,569,845	8,569,845	8,569,845	8,569,845	8,569,845	1,456,872	0	0
2022	-403,018,428	6.22	<u>-64,793,959</u>	<u>-64,793,959</u>	<u>-64,793,959</u>	<u>-64,793,959</u>	<u>-64,793,959</u>	<u>-64,793,959</u>	<u>-64,793,959</u>	<u>-14,254,674</u>
Net increase (decrease) in pension expense			-\$1,258,539,187	-\$787,960,816	-\$498,950,921	-\$192,407,742	-\$56,224,114	-\$63,337,087	-\$14,254,674	

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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						
			2022	2023	2024	2025	2026	2027	Thereafter
2017	-\$44,851,415	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2018	5,832,360	5.00	1,166,473	0	0	0	0	0	0
2019	43,284,165	5.00	8,656,833	8,656,833	0	0	0	0	0
2020	106,051,988	5.00	21,210,398	21,210,398	21,210,396	0	0	0	0
2021	-234,733,236	5.00	-46,946,647	-46,946,647	-46,946,647	-46,946,647	0	0	0
2022	303,818,121	5.00	<u>60,763,625</u>	<u>60,763,624</u>	<u>60,763,624</u>	<u>60,763,624</u>	<u>60,763,624</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			\$44,850,682	\$43,684,208	\$35,027,373	\$13,816,977	\$60,763,624	\$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						
			2022	2023	2024	2025	2026	2027	Thereafter
2017	-\$1,034,584,265	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2018	-449,157,320	5.00	-89,831,466	0	0	0	0	0	0
2019	185,740,615	5.00	37,148,123	37,148,123	0	0	0	0	0
2020	1,290,965,979	5.00	258,193,196	258,193,196	258,193,195	0	0	0	0
2021	-4,842,139,825	5.00	-968,427,965	-968,427,965	-968,427,965	-968,427,965	0	0	0
2022	4,249,874,088	5.00	<u>849,974,816</u>	<u>849,974,818</u>	<u>849,974,818</u>	<u>849,974,818</u>	<u>849,974,818</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			\$87,056,704	\$176,888,172	\$139,740,048	-\$118,453,147	\$849,974,818	\$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						
			2022	2023	2024	2025	2026	2027	Thereafter
2017	-\$1,079,435,680	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2018	-443,324,960	5.00	-88,664,993	0	0	0	0	0	0
2019	229,024,780	5.00	45,804,956	45,804,956	0	0	0	0	0
2020	1,397,017,967	5.00	279,403,594	279,403,594	279,403,591	0	0	0	0
2021	-5,076,873,062	5.00	-1,015,374,612	-1,015,374,612	-1,015,374,612	-1,015,374,612	0	0	0
2022	4,553,692,209	5.00	<u>910,738,441</u>	<u>910,738,442</u>	<u>910,738,442</u>	<u>910,738,442</u>	<u>910,738,442</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			\$131,907,386	\$220,572,380	\$174,767,421	-\$104,636,170	\$910,738,442	\$0	\$0

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Total Increase (Decrease) in Pension Expense

		State							
Reporting Date for Employer under GASB 68 Year Ended June 30	Total Increase (Decrease) in Pension Expense	Recognition Year							
		2022	2023	2024	2025	2026	2027	Thereafter	
2017	-\$532,880,708	-\$51,509,358	\$0	\$0	\$0	\$0	\$0	\$0	
2018	-282,437,190	-49,142,349	-36,725,436	0	0	0	0	0	
2019	-274,557,255	-45,032,596	-45,032,596	-49,394,272	0	0	0	0	
2020	-10,458,095	1,462,926	1,462,926	1,462,924	-17,772,723	0	0	0	
2021	-343,556,009	-64,584,050	-64,584,050	-64,584,050	-64,584,050	-17,637,403	-2,998,355	0	
2022	294,406,717	<u>59,250,538</u>	<u>59,250,537</u>	<u>59,250,537</u>	<u>59,250,537</u>	<u>59,250,537</u>	<u>-1,513,087</u>	<u>-332,882</u>	
Net increase (decrease) in pension expense		-\$149,554,889	-\$85,628,619	-\$53,264,861	-\$23,106,236	\$41,613,134	-\$4,511,442	-\$332,882	

		Local Employers							
Reporting Date for Employer under GASB 68 Year Ended June 30	Total Increase (Decrease) in Pension Expense	Recognition Year							
		2022	2023	2024	2025	2026	2027	Thereafter	
2017	-\$3,991,743,999	-\$312,115,252	\$0	\$0	\$0	\$0	\$0	\$0	
2018	-2,182,838,606	-392,393,645	-220,870,395	0	0	0	0	0	
2019	-1,509,944,965	-249,285,252	-249,285,252	-263,518,708	0	0	0	0	
2020	582,225,847	138,067,750	138,067,750	138,067,749	-108,112,902	0	0	0	
2021	-5,800,908,382	-1,123,819,951	-1,123,819,951	-1,123,819,951	-1,123,819,951	-155,391,986	-26,416,641	0	
2022	4,457,825,145	<u>883,407,462</u>	<u>883,407,464</u>	<u>883,407,464</u>	<u>883,407,464</u>	<u>883,407,464</u>	<u>33,432,646</u>	<u>7,355,181</u>	
Net increase (decrease) in pension expense		-\$1,056,138,888	-\$572,500,384	-\$365,863,446	-\$348,525,389	\$728,015,478	\$7,016,005	\$7,355,181	

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Reporting Date for Employer under GASB 68 Year Ended June 30	Total Increase (Decrease) in Pension Expense	Total						
		Recognition Year						
		2022	2023	2024	2025	2026	2027	Thereafter
2017	-\$4,524,624,707	-\$363,624,610	\$0	\$0	\$0	\$0	\$0	\$0
2018	-2,465,275,796	-441,535,994	-257,595,831	0	0	0	0	0
2019	-1,784,502,220	-294,317,848	-294,317,848	-312,912,980	0	0	0	0
2020	571,767,752	139,530,676	139,530,676	139,530,673	-125,885,625	0	0	0
2021	-6,144,464,392	-1,188,404,001	-1,188,404,001	-1,188,404,001	-1,188,404,001	-173,029,389	-29,414,996	0
2022	4,752,231,862	<u>942,658,000</u>	<u>942,658,001</u>	<u>942,658,001</u>	<u>942,658,001</u>	<u>942,658,001</u>	<u>31,919,559</u>	<u>7,022,299</u>
Net increase (decrease) in pension expense		-\$1,205,693,777	-\$658,129,003	-\$419,128,307	-\$371,631,625	\$769,628,612	\$2,504,563	\$7,022,299

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Pension expense

Measurement Date	State	
	June 30, 2022	June 30, 2021
Components of Pension Expense		
Service cost	\$113,388,990	\$114,221,562
Interest on the Total Pension Liability	399,819,576	395,779,623
Current-period benefit changes	26,190,625	20,671,563
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	6,169,798	-18,684,483
Expensed portion of current-period changes of assumptions or other inputs	-7,682,885	1,047,080
Member contributions	-53,744,938	-51,571,527
Projected earnings on plan investments	-119,680,925	-95,831,273
Expensed portion of current-period differences between actual and projected earnings on plan investments	60,763,625	-46,946,648
Administrative expense	2,217,299	2,701,917
Recognition of beginning of year deferred outflows of resources as pension expense	32,080,784	34,177,774
Recognition of beginning of year deferred inflows of resources as pension expense	<u>-240,886,211</u>	<u>-221,969,213</u>
Pension Expense	\$218,635,738	\$133,596,375

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Measurement Date	Local Employers	
	June 30, 2022	June 30, 2021
Components of Pension Expense		
Service cost	\$774,728,421	\$764,496,999
Interest on the Total Pension Liability	2,846,557,024	2,830,623,074
Current-period benefit changes	154,786,182	126,762,778
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	90,543,720	-162,914,751
Expensed portion of current-period changes of assumptions or other inputs	-57,111,074	7,522,765
Member contributions	-376,540,963	-367,886,668
Projected earnings on plan investments	-2,190,492,681	-1,780,022,671
Expensed portion of current-period differences between actual and projected earnings on plan investments	849,974,816	-968,427,965
Administrative expense	13,044,029	15,591,179
Recognition of beginning of year deferred outflows of resources as pension expense	340,798,196	374,738,009
Recognition of beginning of year deferred inflows of resources as pension expense	<u>-2,280,344,546</u>	<u>-1,583,438,574</u>
Pension Expense	\$165,943,124	-\$742,955,825

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Measurement Date	Total	
	June 30, 2022	June 30, 2021
Components of Pension Expense		
Service cost	\$888,117,411	\$878,718,561
Interest on the Total Pension Liability	3,246,376,600	3,226,402,697
Current-period benefit changes	180,976,807	147,434,341
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	96,713,518	-181,599,234
Expensed portion of current-period changes of assumptions or other inputs	-64,793,959	8,569,845
Member contributions	-430,285,901	-419,458,195
Projected earnings on plan investments	-2,310,173,606	-1,875,853,943
Expensed portion of current-period differences between actual and projected earnings on plan investments	910,738,441	-1,015,374,614
Administrative expense	15,261,328	18,293,096
Recognition of beginning of year deferred outflows of resources as pension expense	362,973,132	396,618,297
Recognition of beginning of year deferred inflows of resources as pension expense	<u>-2,511,324,909</u>	<u>-1,793,110,301</u>
Pension Expense	\$384,578,862	-\$609,359,450

Section 2: GASB 67/68 Information

Schedule of reconciliation of Net Pension Liability

Measurement Date	State	
	June 30, 2022	June 30, 2021
Beginning Net Pension Liability	\$4,064,571,765	\$4,299,009,951
Pension expense	218,635,738	133,596,375
State contributions	-400,576,574	-276,854,042
New net deferred inflows/outflows	235,156,179	-278,971,958
Recognition of prior deferred inflows/outflows	<u>208,805,427</u>	<u>187,791,439</u>
Ending Net Pension Liability	\$4,326,592,535	\$4,064,571,765

Measurement Date	Local Employers	
	June 30, 2022	June 30, 2021
Beginning Net Pension Liability	\$9,364,849,587	\$14,926,648,722
Pension expense	165,943,124	-742,955,825
Local Employer contributions	-1,561,284,735	-1,350,455,444
New net deferred inflows/outflows	3,574,417,683	-4,677,088,431
Recognition of prior deferred inflows/outflows	<u>1,939,546,350</u>	<u>1,208,700,565</u>
Ending Net Pension Liability	\$13,483,472,009	\$9,364,849,587

Measurement Date	Total	
	June 30, 2022	June 30, 2021
Beginning Net Pension Liability	\$13,429,421,352	\$19,225,658,673
Pension expense	384,578,862	-609,359,450
State and Local Employer contributions	-1,961,861,309	-1,627,309,486
New net deferred inflows/outflows	3,809,573,862	-4,956,060,389
Recognition of prior deferred inflows/outflows	<u>2,148,351,777</u>	<u>1,396,492,004</u>
Ending Net Pension Liability	\$17,810,064,544	\$13,429,421,352

Section 2: GASB 67/68 Information

Schedule of contributions – Last ten fiscal years

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Total		
			Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2013	\$1,279,412,723	\$895,743,379	\$383,669,344	\$3,656,218,573	24.50%
2014	1,150,719,106	880,431,697	270,287,409	3,678,910,266	23.93%
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	(142,487,666)	4,070,199,174	45.36%

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 reported
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, 2022 there are 26 years remaining on the closed amortization schedule.
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 20% of the market value of assets.
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, 2021 funding actuarial valuation.

Actuarial Assumptions and Methods and Appendices

Exhibit I: Actuarial Assumptions, Actuarial Cost Method and Models

Mortality Rates:

Employee: PubS-2010 amount-weighted mortality table (sex-specific) with MP-2021 mortality projection

Healthy Annuitant: PubS-2010 amount-weighted mortality table (sex-specific) with MP-2021 mortality projection

Disabled: 144% of PubS-2010 amount-weighted mortality table for males and 100% of PubS-2010 amount-weighted mortality table for females, with MP-2021 mortality projection

Section 3: Actuarial Assumptions and Methods and Appendices

Termination Rates before Retirement:

Age	Rate (%)			
	Mortality ¹		Ordinary Disability	Accidental Disability
	Male	Female		
20	0.04	0.02	0.01	0.01
30	0.06	0.04	0.05	0.04
40	0.08	0.06	0.32	0.26
50	0.11	0.08	0.15	0.26
60	0.27	0.18	0.05	0.05
70	0.71	0.40	–	–
80	2.42	1.66	–	–
90	2.52	1.72	–	–

¹ Mortality rates shown for current year (as of June 30, 2021).

Service	Withdrawal Rate ²
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

² Withdrawal rates do not apply at or beyond early retirement age.

Retirement Rates:

For those with less than 25 years of service:

Age	Retirement Probability
40-43	1.00%
44-46	2.50

Section 3: Actuarial Assumptions and Methods and Appendices

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

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

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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	
Cost-of-Living Adjustments (COLAs) for Retirees:	No future COLAs are assumed. Previously granted COLAs are included in the data.	
Salary Increases:	Service	Rate (%)
	0	16.25
	1	14.00
	2-4	12.00
	5	11.00
	6	10.00
	7	9.00
	8	8.00
	9	7.00
	10	6.00
	11-12	5.00
	13-16	4.00
	17+	3.25
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 employees is determined by: <ul style="list-style-type: none"> • Calculating each active employee'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 employee, nonactive, and retired members. 	

Section 3: Actuarial Assumptions and Methods and Appendices

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, 2022

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)
2022	\$30,708,653	\$385,990	\$608,901	\$1,290,383	\$13,236	\$3,019,669	\$15,681	\$2,007,056	\$31,978,870
2023	31,978,870	384,512	623,726	1,302,274	13,388	3,144,996	16,112	2,090,436	33,232,098
2024	33,232,098	382,626	630,079	1,321,378	13,511	3,251,822	16,555	2,173,889	34,485,204
2025	34,485,204	379,021	634,225	1,339,062	13,622	3,358,557	17,011	2,256,838	35,732,404
2026	35,732,404	375,151	637,720	1,354,866	13,759	3,462,998	17,478	2,339,503	36,972,926
2027	36,972,926	371,173	639,794	1,371,116	13,879	3,560,521	17,959	2,421,999	38,212,406
2028	38,212,406	364,812	641,319	1,386,804	14,015	3,657,751	18,453	2,504,311	39,447,462
2029	39,447,462	357,788	642,507	1,373,980	14,281	3,757,162	18,960	2,586,239	40,646,136
2030	40,646,136	347,522	630,332	1,359,276	14,424	3,860,087	19,482	2,666,525	41,784,646
2031	41,784,646	336,581	617,581	1,339,703	14,569	3,967,374	20,018	2,742,506	42,848,195
2032	42,848,195	325,013	604,265	1,319,092	14,715	4,070,602	20,568	2,813,601	43,833,710
2033	43,833,710	312,737	590,558	1,298,690	14,862	4,169,972	21,134	2,879,387	44,738,838
2034	44,738,838	302,189	576,613	1,279,199	15,011	4,258,577	21,715	2,939,965	45,571,524
2035	45,571,524	293,427	562,332	1,263,107	15,161	4,328,421	22,312	2,996,135	46,350,953
2036	46,350,953	283,138	550,079	1,250,493	15,313	4,388,916	22,926	3,048,725	47,086,858
2037	47,086,858	269,993	538,486	1,236,738	15,466	4,453,860	23,556	3,097,846	47,767,971
2038	47,767,971	253,490	525,605	1,218,462	15,621	4,529,192	24,204	3,142,676	48,370,431
2039	48,370,431	234,824	511,865	1,194,375	15,777	4,613,375	24,869	3,181,830	48,870,858
2040	48,870,858	213,559	497,564	1,166,253	15,935	4,704,231	25,553	3,213,806	49,248,191
2041	49,248,191	190,289	482,374	1,132,951	16,095	4,801,612	26,256	3,237,055	49,479,086

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2042	49,479,086	164,788	466,357	1,095,843	16,256	4,904,171	26,978	3,250,044	49,541,224
2043	49,541,224	139,314	448,619	1,054,763	16,419	5,006,288	27,720	3,251,391	49,417,721
2044	49,417,721	113,457	429,801	1,011,952	16,583	5,102,053	28,482	3,240,130	49,099,109
2045	49,099,109	90,564	411,028	968,191	16,749	5,183,066	29,266	3,215,924	48,589,233
2046	48,589,233	66,043	392,444	925,944	16,916	5,253,357	30,070	3,178,702	47,885,855
2047	47,885,855	49,979	374,697	882,687	-	5,296,886	30,897	3,128,510	46,993,945
2048	46,993,945	38,560	359,385	852,028	-	5,295,600	31,747	3,067,561	45,984,132
2049	45,984,132	29,498	346,757	827,468	-	5,268,228	32,620	2,998,763	44,885,771
2050	44,885,771	22,334	336,176	806,004	-	5,223,347	33,517	2,924,178	43,717,599
2051	43,717,599	16,714	326,629	787,075	-	5,163,341	34,439	2,845,153	42,495,389
2052	42,495,389	12,339	317,935	770,157	-	5,090,849	35,386	2,762,715	41,232,301
2053	41,232,301	8,963	309,908	754,818	-	5,007,580	36,359	2,677,739	39,939,791
2054	39,939,791	6,375	302,466	740,720	-	4,915,417	37,359	2,590,973	38,627,548
2055	38,627,548	4,438	295,490	727,645	-	4,815,625	38,386	2,503,062	37,304,172
2056	37,304,172	3,011	288,892	715,405	-	4,709,415	39,442	2,414,569	35,977,193
2057	35,977,193	1,975	282,647	703,832	-	4,597,722	40,526	2,325,995	34,653,393
2058	34,653,393	1,237	276,686	692,835	-	4,481,468	41,641	2,237,784	33,338,825
2059	33,338,825	724	270,971	682,330	-	4,361,316	42,786	2,150,339	32,039,086
2060	32,039,086	401	265,473	672,260	-	4,237,739	43,963	2,064,037	30,759,556
2061	30,759,556	207	260,178	662,612	-	4,111,165	45,172	1,979,240	29,505,457
2062	29,505,457	89	255,064	653,308	-	3,982,226	46,414	1,896,291	28,281,569
2063	28,281,569	32	250,109	644,328	-	3,851,468	47,690	1,815,507	27,092,387
2064	27,092,387	10	245,303	635,664	-	3,719,436	49,002	1,737,184	25,942,111
2065	25,942,111	2	240,636	627,284	-	3,586,232	50,349	1,661,612	24,835,063
2066	24,835,063	-	236,099	619,178	-	3,452,462	51,734	1,589,073	23,775,216
2067	23,775,216	-	175,475	201,559	-	3,318,322	53,157	1,518,363	22,299,134
2068	22,299,134	-	163,403	202,146	-	3,184,025	54,618	1,441,294	20,867,334
2069	20,867,334	-	160,610	202,939	-	3,049,683	56,120	1,345,614	19,470,693

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2070	19,470,693	-	157,911	203,826	-	2,915,381	57,664	1,252,383	18,111,768
2071	18,111,768	-	155,297	204,809	-	2,781,186	59,249	1,161,784	16,793,223
2072	16,793,223	-	152,766	205,891	-	2,647,152	60,879	1,074,002	15,517,851
2073	15,517,851	-	150,317	207,073	-	2,513,336	62,553	989,230	14,288,582
2074	14,288,582	-	147,948	208,357	-	2,379,801	64,273	907,670	13,108,484
2075	13,108,484	-	145,660	209,746	-	2,246,630	66,041	829,535	11,980,754
2076	11,980,754	-	143,450	211,242	-	2,113,935	67,857	755,044	10,908,698
2077	10,908,698	-	141,318	212,846	-	1,981,871	69,723	684,422	9,895,690
2078	9,895,690	-	139,263	214,560	-	1,850,645	71,640	617,900	8,945,127
2079	8,945,127	-	137,284	216,388	-	1,720,526	73,610	555,703	8,060,366
2080	8,060,366	-	135,380	218,331	-	1,591,848	75,635	498,057	7,244,652
2081	7,244,652	-	45,199	220,392	-	1,465,020	77,715	442,854	6,410,363
2082	6,410,363	-	44,247	222,573	-	1,340,526	79,852	388,603	5,645,409
2083	5,645,409	-	43,322	224,877	-	1,218,911	82,048	339,097	4,951,746
2084	4,951,746	-	42,423	227,306	-	1,100,779	84,304	294,452	4,330,845
2085	4,330,845	-	41,550	229,863	-	986,768	86,622	254,748	3,783,614
2086	3,783,614	-	40,702	232,551	-	877,542	89,004	220,024	3,310,346
2087	3,310,346	-	39,878	235,373	-	773,751	91,452	190,280	2,910,675
2088	2,910,675	-	39,079	238,332	-	676,010	93,967	165,467	2,583,576
2089	2,583,576	-	38,303	241,431	-	584,870	96,551	145,494	2,327,382
2090	2,327,382	-	37,551	244,155	-	500,786	87,731	130,629	2,151,201
2091	2,151,201	-	36,811	245,758	-	424,090	75,118	121,260	2,055,821
2092	2,055,821	-	36,067	246,354	-	354,979	63,614	117,301	2,036,950
2093	2,036,950	-	35,322	246,059	-	293,493	53,247	118,444	2,090,036
2094	2,090,036	-	34,577	244,989	-	239,528	44,024	124,368	2,210,418
2095	2,210,418	-	33,834	243,254	-	192,831	35,929	134,749	2,393,495
2096	2,393,495	-	33,095	240,959	-	153,019	28,925	149,275	2,634,880
2097	2,634,880	-	32,362	238,202	-	119,603	22,953	167,651	2,930,540

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2098	2,930,540	-	31,636	235,075	-	92,012	17,940	189,614	3,276,913
2099	3,276,913	-	30,919	231,657	-	69,619	13,802	214,934	3,671,004
2100	3,671,004	-	30,213	228,022	-	51,769	10,443	243,424	4,110,451
2101	4,110,451	-	29,517	224,231	-	37,808	7,765	274,940	4,593,566
2102	4,593,566	-	28,833	220,337	-	27,102	5,671	309,387	5,119,350
2103	5,119,350	-	28,162	216,382	-	19,061	4,065	346,717	5,687,484
2104	5,687,484	-	27,504	212,403	-	13,150	2,859	386,925	6,298,307
2105	6,298,307	-	26,859	208,425	-	8,901	1,972	430,055	6,952,773
2106	6,952,773	-	26,229	204,472	-	5,915	1,335	476,187	7,652,409
2107	7,652,409	-	25,612	200,557	-	3,866	887	525,440	8,399,265
2108	8,399,265	-	25,009	196,693	-	2,492	580	577,968	9,195,863
2109	9,195,863	-	24,420	192,886	-	1,591	374	633,956	10,045,161
2110	10,045,161	-	23,845	189,142	-	1,013	239	693,617	10,950,513
2111	10,950,513	-	23,283	185,464	-	648	152	757,189	11,915,648
2112	11,915,648	-	22,734	181,852	-	421	97	824,937	12,944,652
2113	12,944,652	-	22,198	178,308	-	281	63	897,149	14,041,963
2114	14,041,963	-	21,675	174,831	-	193	42	974,137	15,212,370
2115	15,212,370	-	21,164	171,420	-	137	29	1,056,237	16,461,026
2116	16,461,026	-	20,665	168,076	-	99	20	1,143,810	17,793,457
2117	17,793,457	-	20,178	164,795	-	74	15	1,237,245	19,215,586
2118	19,215,586	-	19,702	161,579	-	55	11	1,336,954	20,733,755
2119	20,733,755	-	19,238	158,424	-	41	8	1,443,383	22,354,751
2120	22,354,751	-	18,785	155,331	-	30	6	1,557,007	24,085,838
2121	24,085,838	-	18,342	152,298	-	22	5	1,678,334	25,934,786
2122	25,934,786	-	17,910	149,324	-	16	3	1,807,909	27,909,910
2123	27,909,910	-	17,489	146,408	-	11	2	1,946,313	30,020,106
2124	30,020,106	-	17,077	143,548	-	8	2	2,094,169	32,274,890
2125	32,274,890	-	16,675	140,744	-	5	1	2,252,144	34,684,447

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2126	34,684,447	-	16,282	137,995	-	3	1	2,420,949	37,259,669
2127	37,259,669	-	15,899	135,299	-	2	-	2,601,349	40,012,214
2128	40,012,214	-	15,525	132,655	-	1	-	2,794,159	42,954,552
2129	42,954,552	-	15,160	130,063	-	1	-	3,000,252	46,100,026
2130	46,100,026	-	14,803	127,522	-	-	-	3,220,562	49,462,913

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, 2021), 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, 2023 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. 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 in the year ending June 30, 2023 are calculated assuming a 2.75% increase from the actual amount for the year ended June 30, 2022, 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, 2022 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, 2022

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
2022	\$30,708,653	\$3,019,669	-	\$2,919,224	-	\$2,919,224
2023	31,978,870	3,144,996	-	2,841,479	-	2,841,479
2024	33,232,098	3,251,822	-	2,745,790	-	2,745,790
2025	34,485,204	3,358,557	-	2,650,388	-	2,650,388
2026	35,732,404	3,462,998	-	2,554,025	-	2,554,025
2027	36,972,926	3,560,521	-	2,454,160	-	2,454,160
2028	38,212,406	3,657,751	-	2,356,241	-	2,356,241
2029	39,447,462	3,757,162	-	2,261,943	-	2,261,943
2030	40,646,136	3,860,087	-	2,171,876	-	2,171,876
2031	41,784,646	3,967,374	-	2,086,206	-	2,086,206
2032	42,848,195	4,070,602	-	2,000,456	-	2,000,456
2033	43,833,710	4,169,972	-	1,915,225	-	1,915,225
2034	44,738,838	4,258,577	-	1,827,962	-	1,827,962
2035	45,571,524	4,328,421	-	1,736,395	-	1,736,395
2036	46,350,953	4,388,916	-	1,645,480	-	1,645,480
2037	47,086,858	4,453,860	-	1,560,587	-	1,560,587
2038	47,767,971	4,529,192	-	1,483,161	-	1,483,161
2039	48,370,431	4,613,375	-	1,411,896	-	1,411,896
2040	48,870,858	4,704,231	-	1,345,516	-	1,345,516
2041	49,248,191	4,801,612	-	1,283,522	-	1,283,522
2042	49,479,086	4,904,171	-	1,225,175	-	1,225,175
2043	49,541,224	5,006,288	-	1,168,866	-	1,168,866
2044	49,417,721	5,102,053	-	1,113,294	-	1,113,294
2045	49,099,109	5,183,066	-	1,056,983	-	1,056,983

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2046	48,589,233	5,253,357	-	1,001,231	-	1,001,231
2047	47,885,855	5,296,886	-	943,483	-	943,483
2048	46,993,945	5,295,600	-	881,546	-	881,546
2049	45,984,132	5,268,228	-	819,616	-	819,616
2050	44,885,771	5,223,347	-	759,471	-	759,471
2051	43,717,599	5,163,341	-	701,632	-	701,632
2052	42,495,389	5,090,849	-	646,525	-	646,525
2053	41,232,301	5,007,580	-	594,345	-	594,345
2054	39,939,791	4,915,417	-	545,240	-	545,240
2055	38,627,548	4,815,625	-	499,225	-	499,225
2056	37,304,172	4,709,415	-	456,275	-	456,275
2057	35,977,193	4,597,722	-	416,312	-	416,312
2058	34,653,393	4,481,468	-	379,239	-	379,239
2059	33,338,825	4,361,316	-	344,926	-	344,926
2060	32,039,086	4,237,739	-	313,227	-	313,227
2061	30,759,556	4,111,165	-	283,992	-	283,992
2062	29,505,457	3,982,226	-	257,089	-	257,089
2063	28,281,569	3,851,468	-	232,380	-	232,380
2064	27,092,387	3,719,436	-	209,733	-	209,733
2065	25,942,111	3,586,232	-	188,992	-	188,992
2066	24,835,063	3,452,462	-	170,040	-	170,040
2067	23,775,216	3,318,322	-	152,741	-	152,741
2068	22,299,134	3,184,025	-	136,972	-	136,972
2069	20,867,334	3,049,683	-	122,610	-	122,610
2070	19,470,693	2,915,381	-	109,542	-	109,542
2071	18,111,768	2,781,186	-	97,664	-	97,664
2072	16,793,223	2,647,152	-	86,876	-	86,876
2073	15,517,851	2,513,336	-	77,088	-	77,088

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2074	14,288,582	2,379,801	-	68,217	-	68,217
2075	13,108,484	2,246,630	-	60,187	-	60,187
2076	11,980,754	2,113,935	-	52,927	-	52,927
2077	10,908,698	1,981,871	-	46,374	-	46,374
2078	9,895,690	1,850,645	-	40,471	-	40,471
2079	8,945,127	1,720,526	-	35,164	-	35,164
2080	8,060,366	1,591,848	-	30,405	-	30,405
2081	7,244,652	1,465,020	-	26,152	-	26,152
2082	6,410,363	1,340,526	-	22,364	-	22,364
2083	5,645,409	1,218,911	-	19,005	-	19,005
2084	4,951,746	1,100,779	-	16,040	-	16,040
2085	4,330,845	986,768	-	13,438	-	13,438
2086	3,783,614	877,542	-	11,169	-	11,169
2087	3,310,346	773,751	-	9,204	-	9,204
2088	2,910,675	676,010	-	7,515	-	7,515
2089	2,583,576	584,870	-	6,077	-	6,077
2090	2,327,382	500,786	-	4,863	-	4,863
2091	2,151,201	424,090	-	3,848	-	3,848
2092	2,055,821	354,979	-	3,011	-	3,011
2093	2,036,950	293,493	-	2,326	-	2,326
2094	2,090,036	239,528	-	1,774	-	1,774
2095	2,210,418	192,831	-	1,335	-	1,335
2096	2,393,495	153,019	-	990	-	990
2097	2,634,880	119,603	-	723	-	723
2098	2,930,540	92,012	-	520	-	520
2099	3,276,913	69,619	-	368	-	368
2100	3,671,004	51,769	-	256	-	256
2101	4,110,451	37,808	-	174	-	174

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2102	4,593,566	27,102	-	117	-	117
2103	5,119,350	19,061	-	77	-	77
2104	5,687,484	13,150	-	50	-	50
2105	6,298,307	8,901	-	31	-	31
2106	6,952,773	5,915	-	19	-	19
2107	7,652,409	3,866	-	12	-	12
2108	8,399,265	2,492	-	7	-	7
2109	9,195,863	1,591	-	4	-	4
2110	10,045,161	1,013	-	3	-	3
2111	10,950,513	648	-	2	-	2
2112	11,915,648	421	-	1	-	1
2113	12,944,652	281	-	1	-	1
2114	14,041,963	193	-	-	-	-
2115	15,212,370	137	-	-	-	-
2116	16,461,026	99	-	-	-	-
2117	17,793,457	74	-	-	-	-
2118	19,215,586	55	-	-	-	-
2119	20,733,755	41	-	-	-	-
2120	22,354,751	30	-	-	-	-
2121	24,085,838	22	-	-	-	-
2122	25,934,786	16	-	-	-	-
2123	27,909,910	11	-	-	-	-
2124	30,020,106	8	-	-	-	-
2125	32,274,890	5	-	-	-	-
2126	34,684,447	3	-	-	-	-
2127	37,259,669	2	-	-	-	-
2128	40,012,214	1	-	-	-	-
2129	42,954,552	1	-	-	-	-

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2130	46,100,026	-	-	-	-	-
Total				\$51,729,083		\$51,729,083

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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 Employees:	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.
Actuarially Determined Contribution:	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
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

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	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 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: <ol style="list-style-type: none"> 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 Employees:	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.

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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 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.
Public Employee Retirement System:	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
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.
Termination Benefits:	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
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.