

Financial Statements and Supplementary Schedules

June 30, 2023

(With Independent Auditors' Report Thereon)

Financial Statements and Supplementary Schedules
June 30, 2023

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KPMG LLP Suite 4000 150 John F. Kennedy Parkway Short Hills, NJ 07078-2702

Independent Auditors' Report

The Treasurer State of New Jersey:

Opinion

We have audited the financial statements of the State of New Jersey, Division of Pensions and Benefits (the Division), as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Division's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Division as of June 30, 2023, and the changes in its fiduciary net position for the year then ended in accordance with U.S. generally accepted accounting principles.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Division and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matter

As discussed in Note 2(a), the financial statements of the Division are intended to present the financial position and the changes in financial position of only that portion of the aggregate remaining fund information of the State of New Jersey that is attributable to the transactions of the Division. They do not purport to, and do not, present fairly the financial position of the State of New Jersey, as of June 30, 2023, the changes in its financial position for the year then ended in accordance with U.S. generally accepted accounting principles. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with U.S. generally accepted accounting principles, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in



the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or
 error, and design and perform audit procedures responsive to those risks. Such procedures include
 examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are
 appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of
 the Division's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis and the schedules listed under Required Supplementary Information in the accompanying table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Division's basic financial statements. The schedules listed under Supplementary Information in the accompanying table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.



Short Hills, New Jersey March 22, 2024

Management's Discussion and Analysis
(Unaudited)
June 30, 2023

Our discussion and analysis of the financial performance of the fiduciary funds (the Funds) administered by the Division of Pensions & Benefits (the Division) provides an overview of the Funds' financial activities for the State of the State of New Jersey (the State) fiscal year ended June 30, 2023. Please read it in conjunction with the basic financial statements which follow this discussion.

Financial Highlights

Fiduciary Funds - Pension and Other Employee Benefit Trust Funds

- Fiduciary net position increased by \$7.2 billion as a result of this year's operations from \$95.3 billion to \$102.5 billion.
- Additions for the year are \$21.3 billion, which are comprised of member, employer, nonemployer, and employer specific and other pension contributions (including transfer) of \$12.9 billion and net investment gain of \$8.4 billion.
- Deductions for the year are \$14.1 billion, which are comprised of benefits, refund payments, and transfers of \$14.1 billion and administrative expenses of \$58.2 million.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the basic financial statements. The basic financial statements are comprised of two components: 1) fiduciary fund financial statements and 2) notes to the financial statements. This report also contains required and other supplementary information in addition to the basic financial statements.

Fund Financial Statements

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The Division uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements.

Fiduciary Funds

Fiduciary funds are used to account for the assets that the Division holds on behalf of others as their agent. The Division administers twelve fiduciary funds: eight pension trust funds, two other employee benefit trust funds, one other postemployment benefit (OPEB) trust fund, and one custodial fund.

The statement of changes in fiduciary net position provides information on the change in the Division's net position during the current year. Additions are comprised of investment income and member, employer, nonemployer, and employer specific and other contributions. Deductions include retirement and health benefit payments, refunds of contributions, and administrative expenses.

Notes to the Financial Statements

The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements and includes a description of the fiduciary funds.

Other Information

In addition to the basic financial statements and accompanying notes, this report also presents certain required supplementary information, which includes the schedules of changes in net pension liability and related ratios, the

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Management's Discussion and Analysis
(Unaudited)
June 30, 2023

schedules of employer contributions, and schedule of investment returns for the pension trust funds as well as the schedule of changes in net OPEB liability and related ratios and the schedule of investment returns for the OPEB plan.

Financial Analysis

Summary of Fiduciary Net Position Pension, Other Employee Benefit, and Other Postemployment Benefit Trust Funds

	-	2023	2022		Increase/ (Decrease)
Assets:					
Cash and cash equivalents	\$	1,070,688,521	18,597,254		1,052,091,267
Receivables		3,183,226,751	3,134,583,247		48,643,504
Investments		96,999,673,567	91,290,770,896		5,708,902,671
Securities lending collateral		1,760,458,605	1,518,870,669		241,587,936
Members' loans and mortgages	-	2,876,163,927	2,485,715,798	_	390,448,129
Total assets	-	105,890,211,371	98,448,537,864		7,441,673,507
Liabilities:					
Accounts payable and accrued expenses		483,499,246	477,462,250		6,036,996
Retirement benefits payable		1,110,548,540	1,073,200,823		37,347,717
Noncontributory group life insurance					
premiums payable		27,844,826	29,857,336		(2,012,510)
Administrative expense payable		50,202,205	43,877,214		6,324,991
Securities lending collateral and					
rebates payable	-	1,759,813,560	1,517,772,881	_	242,040,679
Total liabilities	-	3,431,908,377	3,142,170,504		289,737,873
Net position	\$	102,458,302,994	95,306,367,360	_	7,151,935,634

Assets of the pension, other employee benefit, and OPEB trust funds consist of cash and cash equivalents, investments, contributions due from members and participating employers, accrued interest and dividends on investments, other receivables, securities lending collateral, and members' loans and mortgages. Between State fiscal years 2022 and 2023, total assets increased by \$7.4 billion or 7.6%. This is primarily attributable to an increase of \$5.7 billion in investments in the strong equity markets. Besides, there was an increase of \$1.491 billion in various receivables, cash & equivalents, and members' loans & mortgages, and an increase of \$241.6 million in securities lending collateral.

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Management's Discussion and Analysis
(Unaudited)
June 30, 2023

Liabilities of the pension funds, other employee benefit, and OPEB trust funds consist of retirement benefits payable to retirees and beneficiaries, noncontributory group life insurance (NCGI) premiums payable to the Funds' insurance provider, securities lending collateral and rebates payable, administrative expense payable, and, classified under accounts payable and accrued expenses, outstanding medical claims payable to the medical providers under the OPEB plan. Also included within accounts payable and accrued expenses are liabilities of the pension trust funds for unclaimed member accounts and checks issued to members that have not been negotiated by the members, but remain due and payable. Total liabilities increased by \$289.7 million or 9.2%. This is due to an increase of \$37.4 million in retirement benefits payable, an increase in securities lending collateral and rebates payable of \$242.0 million plus an increase in other payables of \$10.3 million.

Net position restricted for pension, other employee benefits, and OPEB increased by \$7.2 billion or 7.5%.

Summary of Fiduciary Net Position Custodial Fund

		2023	2022	Increase/ (Decrease)
Assets:				
Cash and cash equivalents	\$	187,477	49,598	137,879
Receivables		735,960	541,635	194,325
Investments	_	20,238,592	26,342,273	(6,103,681)
Total assets		21,162,029	26,933,506	(5,771,477)
Liabilities:				
Accounts payable and accrued expenses	_	8,918,659	8,043,093	875,566
Total liabilities	_	8,918,659	8,043,093	875,566
Net position	\$	12,243,370	18,890,413	(6,647,043)

The custodial fund is the State's Dental Expense Program Fund (DEP) – Local, for which the Division holds the funds on behalf of local employers for dental benefits.

Assets of the custodial fund consists of cash and cash equivalents, receivables, and investments. Between State fiscal years 2022 and 2023, total assets decreased by \$5.8 million or 21.4%. This is primarily attributable to the decreased amount invested in the Cash Management Fund (CMF) of \$6.1 million.

Liabilities in the custodial fund are accounts payable and accrued expenses including claims payable. Between State fiscal years 2022 and 2023, total liabilities increased by \$0.9 million or 10.9% primarily due to the increased number of claims.

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Management's Discussion and Analysis
(Unaudited)
June 30, 2023

Summary of Changes in Fiduciary Net Position Pension, Other Employee Benefit, and Other Postemployment Benefit Trust Funds

	_	2023	2022	Increase/ (Decrease)
Additions:				
Member contributions	\$	2,678,765,671	2,602,978,281	75,787,390
Employer contributions		5,638,594,401	5,488,135,668	150,458,733
Nonemployer contributions		4,519,326,544	4,536,291,840	(16,965,296)
Employer specific and other contributions		22,653,597	18,160,310	4,493,287
Net investment income/(loss)		8,398,365,117	(7,870,152,157)	16,268,517,274
Transfers	_	39,242,659	36,162,705	3,079,954
Total additions	_	21,296,947,989	4,811,576,647	16,485,371,342
Deductions:				
Benefits		13,790,397,906	13,395,107,646	395,290,260
Refunds of contributions		255,162,050	253,146,654	2,015,396
Transfers		41,264,007	37,480,801	3,783,206
Administrative expenses	_	58,188,392	60,953,183	(2,764,791)
Total deductions	_	14,145,012,355	13,746,688,284	398,324,071
Change in net position	\$_	7,151,935,634	(8,935,111,637)	16,087,047,271

Additions to the pension, other employee benefit, and OPEB trust funds consist of member, employer, nonemployer, employer specific and other contributions, transfers, and earnings from investment activities. There was an increase of \$16.5 billion or 342.6% in total additions mainly attributable to an increase in net investment income of \$16.3 billion.

Member contributions increased by \$75.8 million mainly due to increases in membership and members' salary.

The State contributed \$6,891.9 million to the pension trust funds in State fiscal year 2023. It was composed of \$1,000.4 million of normal cost and \$5,891.5 million of accrued liability. The contributions were as follows: \$4,117.7 million to TPAF, \$1,876.6 million to PERS, \$624.2 million to the Police & Firemen's Retirement System (PFRS), \$76.0 thousand to Consolidated Police and Fire Pension Fund (CPFPF), \$68.3 million to JRS, and \$204.9 million to the State Police Retirement System (SPRS). Between State fiscal year 2022 and 2023, the State decreased its contribution to the pension trust funds by \$17.5 million from \$6,909.3 million to \$6,891.8 million. In State fiscal year 2022, the contribution for State fiscal year 2023 was approximately 100% of the full actuarially recommended contribution.

State NCGI contributions for the State fiscal year totaling \$110.2 million were as follows: \$55.2 million for TPAF, \$45.6 million for PERS, \$6.4 million for PFRS, \$1.4 million for JRS, and \$1.6 million for SPRS. Between State fiscal

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(Unaudited)
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years 2022 and 2023, the State's contribution toward NCGI decreased by \$6.9 million from \$117.1 million to \$110.2 million due to lower claims activity. State NCGI benefits are funded on a pay-as-you-go basis. The local contributions for PERS and PFRS are included in the annual billings to local employers.

The annual local employer pension appropriation billings increased per the actuarial valuation as of July 1, 2021. For PERS, the amount accrued in State fiscal year 2023 for normal contributions, accrued liability, and NCGI was \$1,261.0 million and was due on April 1, 2023. For State fiscal year 2023, the total amount accrued was \$1,336.5 million and is due April 1, 2024. For PFRS, the total amount accrued in State fiscal year 2022 for normal contributions, accrued liability, and NCGI was \$1,301.3 million and was due April 1, 2023. For State fiscal year 2023, the total amount accrued was \$1,332.1 million and is due April 1, 2024.

Despite geopolitical headwinds, stubborn high inflation levels and central banks around the globe adapting monetary policies to a changing landscape, equity markets in many key regions of the world remained strong. In the United States, strong employment numbers and resilient consumer demand provided a backdrop for the U.S. equity market to end State fiscal year 2023 with a strong finish. That being said, investor concerns were apparent especially in emerging markets and particularly in China as the post COVID-19 economic recovery there seems to be taking longer than initially anticipated.

JRS, Prison Officers' Pension Fund (POPF), SPRS, CPFPF, TPAF, PFRS and PERS (collectively the Pension Funds) returned 9.06% during State fiscal year 2023, outperforming both its benchmark and long-term objectives. Pension Fund returns were positively impacted by constructive performance from both public and private markets. The Pension Fund's U.S. Equity portfolio returned 19.10% while Non-U.S. Developed Market Equity returned 16.89% and Emerging Market Equity returned 6.75% during State fiscal year 2023.

Additionally, public fixed income markets delivered divergent performance with Investment Grade Credit delivering 0.44%, High Yield returning 9.04% and U.S. Treasuries delivering -1.90% in State fiscal year 2023. The disperse performance was evident in the private market asset classes as well. Private Credit led the charge, generating 9.01% during State fiscal year 2023, with Private Equity coming in at 5.00%. Risk Mitigation Strategies and Real Assets provided a 3.30% and 2.65% return, respectively. Real Estate returns were the laggard with a -3.58% return for the State fiscal year.

In reference to Schedule of Investment Returns – Annual Money-Weighted Rate of Return, Net of Investment Expense (see Required Supplementary Information Schedule 3), the State fiscal year 2023 rate was 9.12% compared to -7.66% in the prior year for JRS, SPRS, TPAF, PFRS, and PERS.

Deductions to the pension, other employee benefit, and OPEB trust funds are mainly comprised of pension benefit payments to retirees and beneficiaries, refunds of contributions to former members, transfers, and administrative costs incurred by the Funds to operate the pension trust funds and the OPEB plan. Also included are claim charges for the self-insured health and prescription drug benefit programs and premiums paid to the health insurance carriers for the insured plans. Between State fiscal years 2022 and 2023, benefit payments increased by \$395.3 million or 3.0% due to an increase in the number of retirees receiving retirement and other benefits.

The change in net position of \$16.1 billion was mainly attributable to the increase in net investment income of \$16.3 billion and the increase in benefit and other expenses of \$398.3 million offset by the net increase of \$216.9 million in member, employer and nonemployer contributions and other contributions.

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For the OPEB plan, total expenses incurred exceeded total revenues recognized by \$58.3 million, increasing the deficit at the beginning of the year from \$58.7 million to \$117.0 million at year-end. There was a 46.5% increase in Net Change in Plan Fiduciary Net Position from July 1, 2022 to June 30, 2023 due to a \$62.7 million increase in member, employer and nonemployer contributions plus investment income offset just by \$12.1 million increase in benefit payments plus administrative expenses for the same period.

Summary of Changes in Fiduciary Net Position Custodial Fund

		2023	2022	Increase/ (Decrease)
Additions:				
Other contributions	\$	64,841,854	64,125,310	716,544
Net investment income		779,130	59,433	719,697
Total additions		65,620,984	64,184,743	1,436,241
Deductions:				
Payments on behalf of local governments	_	72,268,027	63,545,785	8,722,242
Total deductions		72,268,027	63,545,785	8,722,242
Change in net position	\$	(6,647,043)	638,958	(7,286,001)

Additions to the custodial fund consists of funds collected for local government employees' and retirees' dental benefits, which are not administered through a trust, and earnings from investment activities. There was an increase of \$1.4 million or 2.2% in total additions partly attributable to an increase in the investment income.

Deductions to the custodial fund is mainly comprised of amounts paid on behalf of local government employees and retirees related to the premiums for dental insurance. Between State fiscal years 2022 and 2023, the amounts disbursed increased by \$8.7 million or 13.7% due to an increase in the number of claims.

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Management's Discussion and Analysis
(Unaudited)
June 30, 2023

Investment Performance

The rates of return (i.e. investment performance, which includes income and changes in the fair value of investments) for the Pension Funds and various market indices are as follows:

	Year ended June 30 2023		Year ended June 30
U.S. Equity	19.10		2023
Custom US Policy Benchmark Non-U.S. Developed Markets Equity	19.20 16.89	Private Credit	9.01
Custom EAFE + Canada Benchmark	17.16	Bloomberg US Corp HY 1 Month lag +100bps Investment Grade Credit	1.05 0.44
Emerging Markets Equity Custom EM Benchmark	6.75 1.61	Custom Investment Grade Credit Benchmark	0.40
Private Equity	5.00	Income Income Benchmark	5.47 1.83
Custom Cambridge Blend Global Growth	(1.42) 14.27	Cash Equivalents ICE BofA US 3-Month Treasury Bill	3.88 3.59
Global Growth Benchmark Real Estate	13.22 (3.58)	U.S. Treasuries Custom Government Benchmark	(1.91) (2.13)
Real Estate Index Real Assets	(3.91) 2.65	Risk Mitigation Strategies	3.30
Custom Commodities and Real Asset Benchmark	7.75	T-Bill + 300 BP Defensive	6.73 2.13
Real Return Real Return Benchmark	(1.76) (0.45)	Liquidity Benchmark Total Pension Funds	2.12 9.06
High Yield Custom High Yield Benchmark	9.04 9.07	Pension Fund Policy Index	8.43

Overall Financial Condition of the Funds

Based on Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans* (GASB 67) and actuaries' GASB 67 disclosures for State fiscal year 2023, for the defined benefit pension trust funds, the combined state and local ratios of plan fiduciary net position as a percentage of the total pension liability was 47.1% and the net pension liability as a percentage of covered payroll was 376.6%. For the prior year, the combined state and local ratios of plan fiduciary net position as a percentage of the total pension liability was 45.0% and the net pension liability as a percentage of covered payroll was 392.2%.

For the New Jersey State Employees Deferred Compensation Plan and the Supplemental Annuity Collective Trust, members are 100% vested in the present value of their contributions, and the funds have sufficient assets to meet future benefit obligations.

Contacting System Financial Management

This financial report is designed to provide our members, beneficiaries, investors, and other interested parties with a general overview of the Funds' finances and to show the Funds' accountability for the money it receives. This report is available on the Division of Pensions and Benefits website at www.state.nj.us/treasury/pensions. If you have any questions about this report or need additional financial information, contact the Division of Pensions and Benefits, P.O. Box 295, Trenton, NJ 08625-0295.

Statement of Fiduciary Net Position Fiduciary Funds

June 30, 2023

Pension,

		Other Employee Benefit, and Other Postemployment Benefit Trust Funds	Custodial Fund
Assets:			
Cash and cash equivalents	\$	1,070,688,521	187,477
Receivables: Contributions:			
Members		216,422,337	_
Employers and nonemployer		2,892,748,944	38,946
Accrued interest and dividends		5,338,275	_
Other		68,717,195	697,014
Total receivables		3,183,226,751	735,960
Investments, at fair value:			
Cash Management Fund		2,552,933,916	20,238,592
Common Pension Fund A		1,721,272,358	_
Common Pension Fund D		58,524,876,919	_
Common Pension Fund E		28,485,801,575	_
Domestic equities		1,012,667,143	_
Fixed income mutual funds		534,097,624	_
Equity mutual funds		4,168,024,032	
Total investments		96,999,673,567	20,238,592
Securities lending collateral		1,760,458,605	_
Members' loans and mortgages	-	2,876,163,927	
Total assets	-	105,890,211,371	21,162,029
Liabilities:			
Accounts payable and accrued expenses		483,499,246	8,918,659
Retirement benefits payable		1,110,548,540	_
Noncontributory group life insurance premiums payable		27,844,826	_
Administrative expense payable		50,202,205	_
Securities lending collateral and rebates payable	-	1,759,813,560	
Total liabilities		3,431,908,377	8,918,659
Net position:			
Restricted for pension, other employee benefits, and			
other postemployment benefits	\$	102,458,302,994	_
Restricted for individuals, organizations, and other governments			12,243,370

Combining Statement of Fiduciary Net Position
Fiduciary Funds – Pension, Other Employee Benefit, and Other Postemployment Benefit Trust Funds

Other

June 30, 2023

					nefit Pension Plans				Other Employee	Benefit Plans	Postemployment Benefit Plan		
	Judicial Retirement System	Prison Officers' Pension Fund	State Police Retirement System	Consolidated Police and Firemen's Pension Fund	Teachers' Pension and Annuity Fund	Police and Firemen's Retirement System	Public Employees' Retirement System	Central Pension Fund	New Jersey State Employees Deferred Compensation Plan	Supplemental Annuity Collective Trust	State Health Benefits Local Government Retired Employees Plan	Total	
Assets: Cash and cash equivalents	\$ 5,196,110	106,729	21,134,589	412,746	408,320,703	251,031,721	383,839,905	41,420	10,909	515,055	78,634	1,070,688,521	
,	φ 5,190,110	100,729	21,134,369	412,740	406,320,703	251,031,721	363,639,903	41,420	10,909	515,055	70,034	1,070,000,321	
Receivables: Contributions:													
Members	375,614	_	1,289,970	_	94,258,915	55,871,258	62,905,922	_	_	548,680	1,171,978	216,422,337	
Employers and nonemployer	_	_	_	140,102	110,706,886	1,364,692,473	1,409,522,790	_	_	_	7,686,693	2,892,748,944	
Accrued interest and dividends	4,416	57	17,538	44	353,359	4,382,152	332,946	32	_	247,731	_	5,338,275	
Other			56,410	8,777	1,723,218	35,534,127	5,710,289				25,684,374	68,717,195	
Total receivables	380,030	57	1,363,918	148,923	207,042,378	1,460,480,010	1,478,471,947	32		796,411	34,543,045	3,183,226,751	
Investments, at fair value:													
Cash Management Fund	26,360,535	4,621,181	47,897,596	1,655,833	819,150,356	728,522,878	921,807,802	151,493	244,373	2,521,869	_	2,552,933,916	
Common Pension Fund A	4,647,435	_	59,039,642	_	722,590,136	_	934,995,145	_	_	_	_	1,721,272,358	
Common Pension Fund D	130,654,929	_	1,340,183,039	_	17,254,338,386	18,982,222,823	20,817,477,742	_	_	_	_	58,524,876,919	
Common Pension Fund E	51,274,443	_	655,173,436	_	8,024,450,304	9,374,677,298	10,380,226,094	_	_	_	_	28,485,801,575	
Domestic equities	_	_	_	_	_	_	_	_	726,611,905	286,055,238	_	1,012,667,143	
Fixed income mutual funds	_	_	_	_	_	_	_	_	534,097,624	_	_	534,097,624	
Equity mutual funds									4,168,024,032			4,168,024,032	
Total investments	212,937,342	4,621,181	2,102,293,713	1,655,833	26,820,529,182	29,085,422,999	33,054,506,783	151,493	5,428,977,934	288,577,107		96,999,673,567	
Securities lending collateral	3,930,168	_	40,313,400	_	519,019,434	570,995,092	626,200,511	_	_	_	_	1,760,458,605	
Members' loans and mortgages	22,192	_	9,553,770	_	275,371,477	2,045,775,403	545,441,085	_	_	_	_	2,876,163,927	
Total assets	222,465,842	4,727,967	2,174,659,390	2,217,502	28,230,283,174	33,413,705,225	36,088,460,231	192,945	5,428,988,843	289,888,573	34,621,679	105,890,211,371	
Liabilities:													
Accounts payable and accrued													
expenses	22,405	_	112,159	_	143,067,906	9,359,498	181,317,503	167,739	255,282	237,028	148,959,726	483,499,246	
Retirement benefits payable	5,660,013	62,933	21,377,967	42,143	411,638,560	260,987,056	410,445,121	25,206	_	309,541	· · ·	1,110,548,540	
Noncontributory group life													
insurance premiums payable	_	_	2,921,331	_	7,204,050	5,338,509	12,380,936	_	_	_	_	27,844,826	
Administrative expense payable	220,281	3,832	1,295,569	3,081	19,362,129	_	26,692,669	_	_	_	2,624,644	50,202,205	
Securities lending collateral													
and rebates payable	3,928,728		40,298,629		518,829,261	570,785,876	625,971,066					1,759,813,560	
Total liabilities	9,831,427	66,765	66,005,655	45,224	1,100,101,906	846,470,939	1,256,807,295	192,945	255,282	546,569	151,584,370	3,431,908,377	
Net position (deficit): Restricted for pension, other employee													
benefits, and other postemployment													
benefits	\$ 212,634,415	4,661,202	2,108,653,735	2,172,278	27,130,181,268	32,567,234,286	34,831,652,936		5,428,733,561	289,342,004	(116,962,691)	102,458,302,994	

Statement of Changes in Fiduciary Net Position Fiduciary Funds

Year ended June 30, 2023

	Pension, Other Employee Benefit, and Other Postemployment Benefit Trust Funds	Custodial Fund	
Additions:			
Contributions:			
Members	\$ 2,678,765,671	_	
Employers	5,638,594,401 4,519,326,544	_	
Nonemployer Employer specific and other	4,519,326,544 22,653,597	<u> </u>	
Total contributions	12,859,340,213	64,841,854	
Investment income:		, , , , , , , , , , , , , , , , , , , ,	
Net decrease in fair value of investments	6,218,224,506	_	
Interest and dividends	2,199,260,676	779,130	
	8,417,485,182	779,130	
Less investment expense	19,120,065		
Net investment income	8,398,365,117	779,130	
Transfers	39,242,659	_	
Total additions	21,296,947,989	65,620,984	
Deductions:			
Benefits	13,790,397,906	_	
Refunds of contributions	255,162,050	_	
Transfer	41,264,007	_	
Administrative and miscellaneous expenses Payments on behalf of local governments	58,188,392 —	— 72,268,027	
Total deductions	14,145,012,355	72,268,027	
Change in net position	7,151,935,634	(6,647,043)	
Net position:			
Beginning of year	95,306,367,360	18,890,413	
End of year	\$ 102,458,302,994	12,243,370	

Combining Statement of Changes In Fiduciary Net Position Fiduciary Funds – Pension, Other Employee Benefit, and Other Postemployment Benefit Trust Funds

Year ended June 30, 2023

Other

				Defined Ben	efit Pension Plans				Other Employe	e Benefit Plans	Postemployment Benefit Plan	
		Duinan	Chata	Consolidated		Deline and	Dublic		New Jersey		State Health	
	Judicial Retirement System	Prison Officers' Pension Fund	State Police Retirement System	Police and Firemen's Pension Fund	Teachers' Pension and Annuity Fund	Police and Firemen's Retirement System	Public Employees' Retirement System	Central Pension Fund	State Employees Deferred Compensation Plan	Supplemental Annuity Collective Trust	Benefits Local Government Retired Employees Plan	Total
Additions:												
Contributions:												
Members	\$ 9,799,479	_	30,727,554	_	933,033,324	439,236,770	961,919,241		233,923,776	7,710,911	62,414,616	2,678,765,671
Employers	69,711,704	_	206,428,454	_	3,494,558	1,729,861,608	3,197,442,898	269,000	_	_	431,386,179	5,638,594,401
Nonemployer	_	_	_	76,000	4,169,444,800	232,824,730	61,366,036	_	_	_	55,614,978	4,519,326,544
Employer specific and other				202,530	449,590	10,619,873	11,381,604					22,653,597
Total contributions	79,511,183		237,156,008	278,530	5,106,422,272	2,412,542,981	4,232,109,779	269,000	233,923,776	7,710,911	549,415,773	12,859,340,213
Investment income: Net increase in fair value	40 550 005		424 024 220		4 070 000 570	4 700 700 205	0.074.446.477		407 500 500	42 440 240		0.040.004.500
of investments Interest and dividends	12,558,985	160 001	131,621,220 47,235,218	— 65,674	1,679,286,570	1,789,708,385	2,074,116,477 787,749,293	9,392	487,520,523	43,412,346 4,549,153	2 001 014	6,218,224,506
interest and dividends	4,775,811	169,991	47,235,218	00,074	626,772,212	714,507,518	787,749,293	9,392	11,424,500	4,549,153	2,001,914	2,199,260,676
	17,334,796	169,991	178,856,438	65,674	2,306,058,782	2,504,215,903	2,861,865,770	9,392	498,945,023	47,961,499	2,001,914	8,417,485,182
Less investment expense	42,655	720	429,558	262	5,452,057	6,239,100	6,725,782		229,931			19,120,065
Net investment income	17,292,141	169,271	178,426,880	65,412	2,300,606,725	2,497,976,803	2,855,139,988	9,392	498,715,092	47,961,499	2,001,914	8,398,365,117
Transfers	1,284,248		387,576		19,745,418	3,318,920	14,506,497					39,242,659
Total additions	98,087,572	169,271	415,970,464	343,942	7,426,774,415	4,913,838,704	7,101,756,264	278,392	732,638,868	55,672,410	551,417,687	21,296,947,989
Deductions:												
Benefits	67,681,020	455,371	253,622,079	328,373	4,837,460,495	3,032,677,637	4,620,890,824	248,435	355,631,822	24,308,550	597,093,300	13,790,397,906
Refunds of contributions	511,215	_	145,718	_	71,304,446	10,774,061	172,396,653	29,957	_	_	_	255,162,050
Transfers	100,036	_	23,087	_	14,776,834	566,478	25,797,572	_	_	_	_	41,264,007
Administrative and miscellaneous												
expenses	177,626	3,112	861,652	2,819	13,581,904	11,239,652	19,140,588		564,295		12,616,744	58,188,392
Total deductions	68,469,897	458,483	254,652,536	331,192	4,937,123,679	3,055,257,828	4,838,225,637	278,392	356,196,117	24,308,550	609,710,044	14,145,012,355
Change in net position	29,617,675	(289,212)	161,317,928	12,750	2,489,650,736	1,858,580,876	2,263,530,627	_	376,442,751	31,363,860	(58,292,357)	7,151,935,634
Net position (deficit) restricted for pension, other employee benefit, and other postemployment benefits:												
Beginning of year	183,016,740	4,950,414	1,947,335,807	2,159,528	24,640,530,532	30,708,653,410	32,568,122,309		5,052,290,810	257,978,144	(58,670,334)	95,306,367,360
End of year	\$ 212,634,415	4,661,202	2,108,653,735	2,172,278	27,130,181,268	32,567,234,286	34,831,652,936		5,428,733,561	289,342,004	(116,962,691)	102,458,302,994

Notes to Financial Statements
June 30, 2023

(1) Description of the Plans

(a) Organization

The State of New Jersey, Division of Pensions and Benefits (the Division) was created and exists pursuant to N.J.S.A. 52:18A to oversee and administer the pension, other employee benefit, and the other postemployment benefit (OPEB) trust funds sponsored by the State of New Jersey (the State). The following is a list of the benefit plans, which have been included in the basic financial statements of the Division, collectively referred to as the Plans:

Type of Plan
Single-employer
Single-employer
Single-employer
Cost-sharing multiple-employer with special funding situation
Single-employer
Single-employer
Multiple-employer
Cost-sharing multiple-employer with special funding situation

^{*} Includes the respective Prescription Drug Program (PDP) of the Local State Health Benefit Plan (SHBP).

The Division's custodial fund accounts for monies held on behalf of local government active employees and retirees that are participating in the State's Dental Expense Program Fund (DEP) – Local. These monies, which are not held in trust, represent amounts collected from active employees, retirees, or local employers that cover the premiums for their active or retired employees, which have not yet been paid to the third-party insurance providers or returned to the party that had contributed them.

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Notes to Financial Statements
June 30, 2023

(b) Defined Benefit Pension Plans

Each defined benefit pension plan's designated purpose is to provide retirement, death, and disability benefits to its members. Below is a summary description of each defined benefit pension plan administered by the Division:

	Established		
Plan	as of	Legislation	Membership
JRS	June 1, 1973	N.J.S.A. 43:6A	All members of the State Judiciary.
POPF*	January 1, 1941	N.J.S.A. 43:7	Various employees in the state penal institutions appointed prior to January 1, 1960.
SPRS	July 1, 1965	N.J.S.A. 53:5A	All uniformed officers and troopers of the Division of State Police.
CPFPF*	January 1, 1952	N.J.S.A. 43:16	County and municipal police and firemen appointed prior to July 1, 1944.
TPAF	January 1, 1955	N.J.S.A. 18A:66	Substantially all teachers or members of the professional staff certified by the State Board of Examiners and employees of the Department of Education, who have titles that are unclassified, professional and certified.
PFRS	July 1, 1944	N.J.S.A. 43:16A	Substantially all full-time county and municipal police or firemen and state firemen or officer employees with police powers appointed after June 30, 1944.
PERS	January 1, 1955	N.J.S.A. 43:15A	Substantially all full-time employees of the State of New Jersey or any county, municipality, school district or public agency, provided the employee is not required to be a member of another stateadministered retirement system or other state pension fund or local jurisdiction's pension fund.
CPF	Various	Various	The CPF is a "pay-as-you-go" benefit plan. The CPF's designated purpose is to provide retirement allowances under the following series of noncontributory pension acts: Veterans Act Pensioners (N.J.S.A. 43:4-1 to 4-6); Health Pension Act (N.J.S.A. 43:5-1 to 5-4); Pension to Widows of Governors (N.J.S.A. 43:8-2); Disabled Veterans Pension, Surviving Spouse of Veterans (N.J.S.A. 38:18-1 to 18-2 and N.J.S.A. 38:18A-1) and Special Act (N.J.S.A. 43:5A to 5A-1).

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^{*} Represents a closed plan.

Notes to Financial Statements
June 30, 2023

The authority to amend the provisions of the above plans rests with legislation passed by the State. Pension reforms enacted pursuant to P.L. 2011, C. 78 included provisions creating special Pension Plan Design Committees for JRS, SPRS, TPAF, and PERS, once a Target Funded Ratio (TFR) is met. These Pension Plan Design Committees will have the discretionary authority to modify certain plan design features, including member contribution rate; formula for calculation of final compensation or final salary; fraction used to calculate a retirement allowance; age at which a member may be eligible and the benefits for service or early retirement; and benefits provided for disability retirement. The committees will also have the authority to reactivate the cost-of-living adjustment (COLA) on pensions. However, modifications can only be made to the extent that the resulting impact does not cause the funded ratio to drop below the TFR in any one year of a 30-year projection period.

The State Legislature adopted P.L. 2018, C. 55 in July 2018, which transferred management of PFRS from the Division to a newly constituted twelve-member PFRS Board of Trustees (PFRSNJ). The PFRSNJ was established in February 2019 per the legislation. In addition to overseeing the management of PFRS, the PFRSNJ has the authority to direct investment decisions, to adjust current benefit levels, and to change member and employer contribution rates. With regard to changes to current benefit provisions, such changes can only be made with the approval of a supermajority of eight (8) of the twelve (12) members of the PFRSNJ. Also, benefit enhancement can only be made if an independent actuary certifies that the benefit enhancements will not jeopardize the long-term viability of PFRS.

Although not currently fully operationalized, in accordance with P.L. 2018, C. 55, the PFRSNJ has the authority to formulate investment policies and direct the investment activities of the assets of the PFRS. The Treasurer, the Division of Investment and PFRSNJ continue to memorialize processes and procedures pertaining to the transition of the assets.

Plan Membership and Contributing Employers

Membership and contributing employers of the defined benefit pension plans consisted of the following at June 30, 2023:

	JRS	POPF	SPRS	CPFPF	TPAF*	PFRS	PERS	CPF
Inactive plan members or beneficiaries currently receiving benefits Inactive plan members entitled to but not yet	678	42	3,612	24	111,420	48,753	191,041	15
receiving benefits	9	_	_	_	316	60	658	_
Active plan members	394		3,059		158,156	41,816	241,151	
Total	1,081	42	6,671	24	269,892	90,629	432,850	15
Contributing employers Contributing nonemployers	1	1 —	1	14 1	4 1	574 1	1,672 1	1

^{*} In addition to the State, who is the sole payer of regular employer contributions to the fund, TPAF's contributing employers include boards of education, who elected to participate in the Early Retirement Incentive Program and continue to pay towards their incurred liability.

Notes to Financial Statements
June 30, 2023

The Defined Benefit Pension Plans' Boards and Composition

The table below represents the composition and source of selection for the defined benefit pension plans' boards:

	SPRS	TPAF	PFRS	PERS
Appointments by:				
Governor	2	2	5	2
Treasurer	1	1	_	1
Superintendent of the				
State Police	2	_	_	_
President of police and				
firemen organizations*	_	_	4	_
Elected by Board or Members		4	3	6
Total	5	7	12	9

^{*} One policeman is selected by the President of the New Jersey State Policemen's Benevolent Association and the New Jersey State Fraternal Order of Police. One fireman is selected by the President of the New Jersey State Firemen's Mutual Benevolent Association and the Professional Firefighters Association of New Jersey.

POPF, CPFPF and CPF are managed by the Division. General responsibility for JRS is vested with the State House Commission.

Contribution Requirements and Benefit Provisions

Significant Legislation

P.L. 2009, C. 19, effective March 17, 2009, provided an option for local employers of PFRS and PERS to contribute 50% of the normal and accrued liability contribution amounts certified for payments due in State fiscal year 2009. Such an employer will be credited with the full payment and any such amounts will not be included in their unfunded liability. The actuaries will determine the unfunded liability of those retirement systems, by employer, for the reduced normal and accrued liability contributions provided under this law. This unfunded liability is paid by the employer in level annual payments over a period of 15 years beginning with State fiscal year ended June 30, 2012 and will be adjusted by the rate of return on the actuarial value of assets.

Pursuant to the provisions of P.L. 2011, C. 78, COLA increases were suspended for all current and future retirees of all retirement systems.

In accordance with the Lottery Enterprise Contribution Act, L. 2018, c. 98 (LECA), the net proceeds from the New Jersey State Lottery are contributed to the TPAF, PFRS, and PERS beginning in State fiscal year 2018. For the purpose of depositing the lottery contribution made to the eligible pension plans, LECA established Common Pension Fund L within the Division of Investment. The net lottery proceeds are contributed to the respective pension plans based upon percentages detailed in LECA on a periodic basis through Common Pension Fund L. The Common Pension Fund L investment account is managed and invested by the Director of the Division of Investment, subject to the oversight of the State Investment Council. The Director of the Division of Investment has full discretion to distribute proceeds and all

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Notes to Financial Statements
June 30, 2023

investments thereof and investment earnings thereon from the investment account into investment vehicles managed by the Division of Investment on behalf of the retirement systems.

During State fiscal year 2023, the TPAF, PFRS, and PERS recognized \$1.17 billion in net lottery proceeds, which has been included as employer contributions in TPAF, PFRS, and PERS in the accompanying financial statements.

The following are specific contribution requirements and benefit provisions related to each defined benefit plan:

JRS

The contribution policy is set by N.J.S.A. 43:6A and requires contributions by active members and the State. Members enrolled on January 1, 1996 or after, contribute on their entire base salary. Contributions by active members enrolled prior to January 1, 1996 are based on the difference between their current salary and the salary of the position on January 18, 1982. Pursuant to the provisions of P.L. 2011, C. 78, the member contribution rate was 12% in State fiscal year 2023. The State's contribution is based on an actuarially determined amount, which includes the normal cost and unfunded accrued liability.

The vesting and benefit provisions are set by N.J.S.A. 43:6A. JRS provides retirement benefits as well as death and disability benefits. Retirement is mandatory at age 70. Service retirement benefits are available to members who have reached certain ages and various years of service. Benefits of 75% of final salary are available to members at age 70 with 10 years or more of judicial service; members between ages 65-69 with 15 years or more of judicial service or between ages 60-64 with 20 years or more of judicial service. Benefits of 50% of final salary are available to those with both judicial service and non-judicial service for which five or more consecutive years are judicial service. These benefits are available at age 65 or older with 15 years or more of aggregate service or age 60 or older with 20 years or more of aggregate service. Benefits of 2% of final salary for each year of public service up to 25 years plus 1% of final salary for each year in excess of 25 years are available at age 60 with five consecutive years of judicial service plus 15 years in the aggregate of public service or at age 60 while serving as a judge.

Early retirement benefits of 2% of final salary for each year of service up to 25 years and 1% of final salary for each year over 25 years is available to members who retire before age 60, have 5 or more consecutive years of judicial service, and 25 years or more in aggregate public service. The amount of benefits is actuarially reduced for the number of months remaining until the member reaches age 60.

POPF

There are no active members in POPF. Additionally, based on the recent actuarial valuation, there was no normal cost or unfunded accrued liability contribution required by the State for the State fiscal year ended June 30, 2023. The vesting and benefit provisions were set by N.J.S.A. 43:7.

COLAs are separately funded on a pay-as-you-go basis, which was established pursuant to P.L. 1958, C. 143.

Notes to Financial Statements
June 30, 2023

SPRS

The contribution policy is set by N.J.S.A. 53:5A and requires contributions by active members and the State. Pursuant to the provisions of P.L. 2011, C. 78, the active member contribution rate was 9% in State fiscal year 2023. The State's contribution is based on an actuarially determined amount, which includes the normal cost and unfunded accrued liability.

The vesting and benefit provisions are set by N.J.S.A. 53:5A. SPRS provides retirement benefits as well as death and disability benefits. All benefits vest after ten years of service, and members are always fully vested in their contributions. Mandatory retirement is at age 55. Voluntary retirement is prior to age 55 with 20 years of credited service. The benefit is an annual retirement allowance equal to the greater of (a), (b), or (c), as follows: (a) 50% of final compensation; (b) for members retiring with 25 years or more of service, 65% of final compensation, plus 1% for each year of service in excess of 25 years, to a maximum of 70% of final compensation; or (c) for members as of August 29, 1985 who would not have 20 years of service by age 55, benefit as defined in (a) above. For members as of August 29, 1985, who would have 20 years of service, but would not have 25 years of service at age 55, benefit is as defined in (a) above plus 3% for each year of service.

CPFPF

There are no active members in CPFPF. Additionally, based on the recent actuarial valuation, the State made a contribution of \$76.0 thousand towards the normal cost or unfunded accrued liability during the State fiscal year ended June 30, 2023. The vesting and benefit provisions were set by N.J.S.A. 43:16.

COLAs are separately funded on a pay-as-you-go basis, which was established pursuant to P.L. 1958, C. 143.

TPAF

The contribution policy is set by N.J.S.A. 18A:66 and requires contributions by active members and contributing employers. Pursuant to the provisions of P.L. 2011, C. 78, the member contribution rate was 7.5% in State fiscal year 2023. The State's contribution is based on an actuarially determined amount, which includes the normal cost and unfunded accrued liability.

The vesting and benefit provisions are set by N.J.S.A. 18A:66. TPAF provides retirement, death, and disability benefits. All benefits vest after ten years of service. Members are always fully vested for their own contributions and, after three years of service credit, become vested for 2% of related interest earned on the contributions. In the case of death before retirement, members' beneficiaries are entitled to full interest credited to the members' accounts.

The following represents the membership tiers for TPAF:

<u>Tier</u>	Definition
1	Members who were enrolled prior to July 1, 2007
2	Members who were eligible to enroll on or after July 1, 2007 and prior to November 2, 2008
3	Members who were eligible to enroll on or after November 2, 2008 and prior to May 22, 2010
4	Members who were eligible to enroll on or after May 22, 2010 and prior to June 28, 2011
5	Members who were eligible to enroll on or after June 28, 2011

Notes to Financial Statements
June 30, 2023

Service retirement benefits of 1/55th of final average salary for each year of service credit is available to tiers 1 and 2 members upon reaching age 60 and to tier 3 members upon reaching age 62. Service retirement benefits of 1/60th of final average salary for each year of service credit is available to tier 4 members upon reaching age 62 and tier 5 members upon reaching age 65. Early retirement benefits are available to tiers 1 and 2 members with 25 years or more of service credit before reaching age 60, tiers 3 and 4 with 25 years or more of service credit before age 62, and tier 5 before age 65 with 30 years or more of service credit. Benefits are reduced by a fraction of a percent for each month that a member retires prior to the retirement age for his/her respective tier. Deferred retirement is available to members who have at least 10 years of service credit and have not reached the service retirement age for the respective tier.

PFRS

The contribution policy is set by N.J.S.A. 43:16A and requires contributions by active members and contributing employers. Pursuant to the provisions of P.L. 2011, C. 78, the active member contribution rate was 10% in State fiscal year 2023. Employers' contributions are based on an actuarially determined amount, which includes the normal cost and unfunded accrued liability.

The vesting and benefit provisions are set by N.J.S.A. 43:16A. PFRS provides retirement as well as death and disability benefits. All benefits vest after ten years of service, except disability benefits, which vest after four years of service.

The following represents the membership tiers for PFRS:

Tier	<u>Definition</u>
1	Members who were enrolled prior to May 22, 2010
2	Members who were eligible to enroll on or after May 22, 2010 and prior to June 28, 2011
3	Members who were eligible to enroll on or after June 28, 2011

Service retirement benefits are available at age 55 and are generally determined to be 2% of final compensation for each year of creditable service up to 30 years plus 1% for each year of service in excess of 30 years. Members may seek special retirement after achieving 25 years of creditable service, in which benefits would equal 65% (tiers 1 and 2 members) and 60% (tier 3 members) of final compensation plus 1% for each year of creditable service over 25 years, but not to exceed 30 years. Members may elect deferred retirement benefits after achieving ten years of service, in which case benefits would begin at age 55 equal to 2% of final compensation for each year of service.

PERS

The contribution policy is set by N.J.S.A. 43:15A and requires contributions by active members and contributing employers. Pursuant to the provisions of P.L. 2011, C. 78, the member contribution rate was 7.5% in State fiscal year 2023. The rate for members who are eligible for the Prosecutors Part of PERS (P.L. 2001, C. 366) was 10% in State fiscal year 2023 Employers' contributions are based on an actuarially determined amount, which includes the normal cost and unfunded accrued liability.

The vesting and benefit provisions are set by N.J.S.A. 43:15A. PERS provides retirement, death, and disability benefits. All benefits vest after ten years of service.

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June 30, 2023

The following represents the membership tiers for PERS:

Tier	Definition
1	Members who were enrolled prior to July 1, 2007
2	Members who were eligible to enroll on or after July 1, 2007 and prior to November 2, 2008
3	Members who were eligible to enroll on or after November 2, 2008 and prior to May 22, 2010
4	Members who were eligible to enroll on or after May 22, 2010 and prior to June 28, 2011
5	Members who were eligible to enroll on or after June 28, 2011

Service retirement benefits of 1/55th of final average salary for each year of service credit is available to tiers 1 and 2 members upon reaching age 60 and to tier 3 members upon reaching age 62. Service retirement benefits of 1/60th of final average salary for each year of service credit is available to tier 4 members upon reaching age 62 and tier 5 members upon reaching age 65. Early retirement benefits are available to tiers 1 and 2 members with 25 years or more of service credit before reaching age 60, tiers 3 and 4 with 25 years or more of service credit before age 62, and tier 5 with 30 years or more of service credit before age 65. Benefits are reduced by a fraction of a percent for each month that a member retires prior to the age at which a member can receive full early retirement benefits in accordance with their respective tier. Tier 1 members can receive an unreduced benefit from age 55 to age 60 if they have at least 25 years of service. Deferred retirement is available to members who have at least 10 years of service credit and have not reached the service retirement age for the respective tier.

CPF

The State makes an annual appropriation payment to CPF to pay current year benefits. The contribution requirements were established by the statutes mentioned in the previous table and are not actuarially determined.

COLAs are separately funded on a pay-as-you-go basis, which was established pursuant to P.L. 1958, C. 143. Benefits are payable under various State legislation in an amount equal to one half of the compensation received by the participant for his/her service.

Notes to Financial Statements
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(c) Other Employee Benefit Plans

The Division administers the following other employee benefit plans to certain members as further discussed below:

Plan	Established as of	Legislation	Membership
NJSEDCP	June 19, 1978	Chapter 39, P.L. 1978, amended by Chapter 449, P.L. 1985, effective January 14, 1986, and further amended by Chapter 116, P.L. 1997, effective June 6, 1997	Any state employee w ho is a member of a state-administered retirement system or an employee of an eligible state agency, authority, commission or instrumentality of state government provided the employee has at least 12 continuous months of employment, and any individual employed through a Governor's appointment.
SACT	1963	Chapter 123, P.L. 1963, amended by Chapter 90, P.L. 1965	Active members of several state-administered retirement systems to provide specific benefits to supplement the guaranteed benefits that are provided by their basic retirement system.

Plan Membership

At June 30, 2023, membership in the other employee benefit plans consisted of the following:

Plan	Members
NJSEDCP	57,137
SACT	2,889

Contribution Requirements and Benefit Provisions

NJSEDCP

Participants may defer between 1% and 100% of their salary, less any Internal Revenue Code (IRC) Section 414(h) reductions, or \$22,500 annually. Under the limited "catch-up" provision, a participant may be eligible to defer up to a maximum of twice the annual maximum in the three years immediately preceding the retirement age at which no reduction in benefits would be applicable.

There are no employer or nonemployer entities that are required to contribute to the plan.

Assets in the plan are held in trust for the exclusive benefit of plan members and their beneficiaries in accordance with Governmental Accounting Standards Board (GASB) Statement No. 97, Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans—an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32 (GASB 97). This Statement (1) requires that a Section 457 plan be classified as either a pension plan or an other employee benefit plan depending on whether the plan

Notes to Financial Statements
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meets the definition of a pension plan and (2) clarifies that Statement 84, as amended, should be applied to all arrangements organized under IRC Section 457 to determine whether those arrangements should be reported as fiduciary activities. Plan members are fully vested for the current valuation of their account from the date of enrollment in the plan. Benefits are payable upon separation from service with the State.

SACT

Participants contribute through payroll deductions and may contribute from 1% to 100% of their base salary. Contributions are voluntary and may be suspended at the beginning of any quarter. Contributions under the Tax Sheltered Supplemental Annuity Plan are subject to Federal law limitations and qualify for tax-sheltered treatment permitted under Section 403(b) of the IRC. Participants are always fully vested for the accumulated units in their accounts.

Upon retirement, a participant receives a life annuity benefit or may elect to receive a benefit paid as a single cash payment or various forms of monthly annuity payments with a beneficiary provision based on the value of the participant's account in the month of retirement. Upon the death of a participant, the designated beneficiary may elect to receive a lump sum equal to the account value or an annuity under any of the settlement options, which a retiree could elect under SACT. Upon termination of employment and withdrawal from the basic retirement systems, a participant must also withdraw his/her account under SACT as a lump-sum settlement.

(d) Defined Benefit Other Postemployment Benefit Plan

The Division administers the State Health Benefits Local Government Retired Employees plan. The plan was established in 1961 under Title 52 Article 14 – 17.25 et. seq. and offers medical and prescription coverage to qualified local government public retirees and their spouses. Local employers must adopt a resolution to participate. The OPEB plan is overseen by the State Health Benefits Commission (the Commission), which was established by NJSA 52:14-17.27. The Commission reviews any member appeals related to member eligibility, benefit or claim denial, and benefit payments for the medical and prescription drug claims. They also have contracting authority for vendors to administer the medical and prescription drug programs as well as the health benefit consultant and actuary. Further, they approve the premiums for the various plans on an annual basis. The Commission is comprised of one representative each from the Office of the Treasurer, Department of Banking and Insurance, Civil Service Commission, State Employee Union, and Local Employee Union.

Plan Membership and Contributing Employers

Membership and contributing employers/nonemployers of the defined benefit OPEB plan consisted of the following at June 30, 2023:

Inactive plan members or beneficiaries currently receiving benefits	34,771
Inactive plan members entitled to but not yet receiving benefits	_
Active plan members	65,613
Total	100,384
Contributing employers	574
Contributing nonemployers	1

Notes to Financial Statements
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Contribution Requirements and Benefit Provisions

The funding policy for the OPEB plan is pay-as-you-go; therefore, there is no prefunding of the liability. However, due to premium rates being set prior to each calendar year, there can be a minimal amount of net position available to cover benefits in future years. Contributions to pay for the health benefit premiums of participating employees in the OPEB plan are collected from the State, participating local employers, and retired members. The State makes contributions to cover those employees eligible under P.L. 1997, C. 330 as disclosed below. Local employers remit employer contributions on a monthly basis. Retired member contributions are generally received on a monthly basis.

The employers participating in the OPEB plan made a contribution of \$431.4 million and the State, as the nonemployer contributing entity, contributed \$55.6 million for State fiscal year 2023.

Pursuant to P.L, 2011, C. 78, future retirees eligible for postretirement medical coverage who have less than 20 years of creditable service on June 28, 2011 will be required to pay a percentage of the cost of their health care coverage in retirement provided they retire with 25 or more years of pension service credit. The percentage of the premium for which the retiree will be responsible will be determined based on the retiree's annual retirement benefit and level of coverage.

The State provides partially funded benefits to certain local police officers and firefighters who retire with 25 years of service or on disability from an employer who does not provide coverage under the provisions of P.L. 1997, C. 330. To be eligible for Chapter 330 postretirement medical benefits, the employee must have retired from an employer who does not provide any payment toward health insurance at retirement.

(2) Summary of Significant Accounting Policies

(a) Reporting Entity

The financial statements include all funds, which are administered by the Division, over which operating controls are with the individual Plan's governing Boards and/or the State. The financial statements of the Plans and the custodial fund are included in the financial statements of the State; however, the accompanying financial statements are intended to present solely the funds listed above, which are administered by the Division and not the State as a whole.

(b) Measurement Focus and Basis of Accounting

The accompanying financial statements were prepared in accordance with U.S. generally accepted accounting principles as applicable to governmental organizations. In doing so, the Division adheres to reporting requirements established by GASB.

The accrual basis of accounting is used for measuring financial position and changes in net position of the pension trust funds, other employee benefit trust funds, other postemployment benefit trust fund, and custodial fund. Under this method, contributions are recorded in the accounting period in which they are legally due from the employer or plan member, and deductions are recorded at the time the liabilities are due and payable in accordance with the terms of each plan. The accounts of the Division are organized and operated on the basis of funds. All funds are accounted for using an economic resources measurement focus.

Notes to Financial Statements
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Fiduciary Funds

The Division reports the following types of funds:

Pension, other employee benefit, and OPEB – Account for monies received for, expenses incurred by and the net position available for plan benefits of the various public employee retirement systems, other employee benefit plans, and an OPEB plan. The pension trust funds include JRS, POPF, SPRS, CPFPF, TPAF, PFRS, PERS, CPF, NJSEDCP, and SACT.

Custodial fund – Custodial fund is used to account for the assets that the Division holds on behalf of others as their agent.

(c) Receivables

Receivables consist primarily of member and employer contributions and other amounts that are legally required to be due to the Plans.

(d) Capital Assets

Capital assets utilized by the Division include equipment, which is owned and paid for by the State.

(e) Investments

The Division of Investment, Department of the Treasury, State of New Jersey (Division of Investment) manages and invests certain assets of seven of the defined benefit pension plans (JRS, POPF, SPRS, CPFPF, TPAF, PFRS and PERS) and two other employee benefit plans (SACT and certain accounts in NJSEDCP). Accounts managed by the Division of Investment included in the accompanying statement of fiduciary net position are: Common Pension Fund A, Common Pension Fund D and Common Pension Fund E (collectively known as the Common Pension Funds), SACT and certain accounts in NJSEDCP. Common Pension Fund D invests primarily in global equity and fixed income securities. Common Pension Fund A and E invests primarily in global diversified credit funds and alternative investments, which includes private equity, real estate, real asset, and absolute return strategy funds.

In addition, the Division of Investment manages the State Cash Management Fund (CMF), which is available on a voluntary basis for investment by State and certain non-State participants. CMF is considered to be an investment trust fund as defined in GASB Statement No. 31, *Certain Investments and External Investment Pools*. Units of ownership in CMF may be purchased or redeemed on any given business day (excluding State holidays) at the unit cost or value of \$1.00. Participant shares are valued on a fair value basis. For additional information about CMF, refer to the audited financial statements, which can be obtained at https://www.nj.gov/treasury/doinvest/cmf/CMF%20Financial%20Statements%20FY 23.pdf.

Empower (formerly Prudential Retirement) is the third-party administrator for the NJSEDCP. Empower provides recordkeeping, administrative services and access to 22 investment options through a combination of their separate account product offerings and retail branded mutual funds. The four state-managed investments options (NJSEDCP Fixed Income Fund, NJSEDCP Equity Fund, NJSEDCP Small Capitalization Equity Fund, and NJSEDCP Cash Management Fund) were closed to new contributions on December 31, 2005. On August 1, 2014, the NJSEDCP Fixed Income Fund and the NJSEDCP Cash Management Fund were closed. On December 15, 2014, the NJSEDCP Equity Fund and the NJSEDCP Small Capitalization Fund were opened to new contributions. The Board of the NJSEDCP

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Notes to Financial Statements
June 30, 2023

is the fiduciary for the investments of the Plan. The Division of Pensions and Benefits maintains its administrative oversight functions for the Plan.

Investment transactions are accounted for on a trade or investment date basis. Interest and dividend income is recorded on the accrual basis, with dividends accruing on the ex-dividend date. The net increase in the fair value of investments includes the net realized and unrealized gains or losses on investments.

(f) Members' Loans

Members of JRS, SPRS, TPAF, PFRS, and PERS who have at least three years of service in these plans may borrow up to 50% of their accumulated member contributions. Repayment of loan balances is deducted from payroll checks and bears a commercially reasonable interest rate as set by the State Treasurer. For State fiscal year 2023, the interest rate was 10%. There was a \$15 processing fee per loan. Members who retire with an outstanding loan have the option of paying the loan in full prior to receiving any benefits or continuing their monthly loan payment schedule into retirement.

(g) Administrative Expenses

Administrative expenses are paid by the Plans to the State's Department of the Treasury and are included in the accompanying financial statements.

In certain funds (JRS, SPRS, TPAF, PFRS and PERS) miscellaneous expenses and reimbursements from the fund that comprise various adjustments to member and employer accounts are incorporated into the administrative expense amounts included in the accompanying financial statements.

(h) Income Tax Status

Based on Internal Revenue Service (IRS) determination letters received in January 2012 for JRS, POPF, SPRS, TPAF, and PERS and in June 2012 for CPFPF and PFRS, the seven pension funds comply with the qualification requirements of the Internal Revenue Code (IRC).

NJSEDCP and SACT are eligible plans as described in Section 457 and Section 401(a) of the IRC, respectively.

(i) Commitments

Common Pension Funds A and E are obligated, under certain private equity, real estate, real asset, absolute return strategy, and global diversified credit fund agreements to make additional capital contributions up to contractual levels over the investment period specified for each investment. As of June 30, 2023, Common Pension Fund A and E had unfunded commitments totaling approximately \$10.9 billion.

(i) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

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(3) Employers' Net Pension Liability (Asset) - Defined Benefit Plans

Components of Net Pension Liability (Asset)

The components of the net pension liability (asset) of the participating employers for the defined benefit plans at June 30, 2023 are as follows:

	_	JRS	POPF	SPRS	CPFPF	TPAF	PFRS	PERS
Total pension liability Plan fiduciary net	\$	923,451,423	2,438,346	4,373,113,800	1,509,353	78,240,143,092	50,075,831,421	71,896,189,555
position	_	212,634,415	4,661,202	2,108,653,735	2,172,278	27,130,181,268	32,567,234,286	34,831,652,936
Net pension liability (asset)	\$_	710,817,008	(2,222,856)	2,264,460,065	(662,925)	51,109,961,824	17,508,597,135	37,064,536,619
Plan fiduciary net position as a percentage of the total pension liability		23.03%	191.16%	48.22%	143.92%	34.68%	65.04%	48.45%

The total pension liability was determined by actuarial valuations as of July 1, 2022, which was rolled forward to June 30, 2023, using the following actuarial assumptions, applied to all periods in the measurement:

	JRS	POPF	SPRS	CPFPF	TPAF	PFRS	PERS
Inflation rate:							
Price	2.75%	N/A	2.75%	N/A	2.75%	2.75%	2.75%
Wage	3.25%	N/A	3.25%	N/A	3.25%	3.25%	3.25%
Salary increases:							
Initial fiscal year applied							
through	2025	NΑ	All future years	N/A	All future years	All future years	All future years
			2.75 - 6.75%		2.75 - 4.25%	3.25 - 16.25%	2.75 - 6.55%
Rate	2.00%	N/A	based on years	N/A	based on years	based on years	based on years
			of service		of service	of service	of service
Thereafter	2.75%	N/A	Not Applicable	N/A	Not Applicable	Not Applicable	Not Applicable
Long-term expected rate of return	7.00%	3.65%	7.00%	3.65%	7.00%	7.00%	7.00%
Period of actuarial experience	July 1, 2018 -	N/A	July 1, 2018 -	N/A	July 1, 2018 -	July 1, 2018 -	July 1, 2018 -
study upon which actuarial	June 30, 2021		June 30, 2021		June 30, 2021	June 30, 2021	June 30, 2021
assumptions were based							

 $\ensuremath{\text{N/A}}$ - This is a closed plan, therefore there are no active employees.

Notes to Financial Statements
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The following table represents the mortality table and improvement assumptions used:

Plan	Pre-retirement mortality	Post-retirement mortality	Disability
JRS	The Pub-2010 Teachers Above-Median Income Employee mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	The Pub-2010 Teachers Above-Median Income Healthy Retiree mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	The Pub-2010 Non-safety Disabled Retiree mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.
POPF	Not applicable as there are no active members.	The Pub-2010 Public Safety Healthy Retiree mortality table, unadjusted, for healthy retirees, and the Pub-2010 General Healthy Retiree mortality table, unadjusted, for beneficiaries, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	The Pub-2010 Public Safety Disabled Retiree mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.
SPRS	The Pub-2010 Public Safety Above-Median Income Employee mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	The Pub-2010 Public Safety Above-Median Income Healthy Retiree mortality table, unadjusted, for healthy retirees (healthy annuitants) and the Pub-2010 General Above-Median Income Healthy Retiree mortality table, unadjusted, for beneficiaries (contingent annuitants), with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	The Pub-2010 Public Safety Disabled Retiree mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.
CPFPF	Not applicable as there are no active members.	The Pub-2010 Public Safety Healthy Retiree mortality table for healthy retirees and the Pub-2010 General Healthy Retiree mortality table for beneficiaries, unadjusted, and with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	Not applicable as there are no disabled retirees.

Notes to Financial Statements
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Plan	Pre-retirement mortality	Post-retirement mortality	Disability
TPAF	The Pub-2010 Teachers Above-Median Income Employee mortality table with a 93.9% adjustment for males and 85.3% adjustment for females, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	The Pub-2010 Teachers Above-Median Income Healthy Retiree mortality table with a 114.7% adjustment for males and 99.6% adjustment for females, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	The Pub-2010 Non-Safety Disabled Retiree mortality table with a 106.3% adjustment for males and 100.3% adjustment for females, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.
PFRS	The PubS-2010 amount-weighted mortality table (sex-specific) with MP-2021 mortality projection.	The PubS-2010 amount-weighted mortality table (sex-specific) with MP-2021 mortality projection	144% of the PubS-2010 amount-weighted mortality table for males and 100% of the PubS-2010 amountweighted mortality table for females, with MP-2021 mortality projection.
PERS	The Pub-2010 General Below-Median Income Employee mortality table with a 82.2% adjustment for males and 101.4% adjustment for females, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	The Pub-2010 General Below-Median Income Healthy Retiree mortality table with a 91.4% adjustment for males and 99.7% adjustment for females, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.	The Pub-2010 Non-Safety Disabled Retiree mortality table with a 127.7% adjustment for males and 117.2% adjustment for females, with future improvement from the base year of 2010 on a generational basis. Mortality improvement is based on Scale MP-2021.

Long-Term Expected Rate of Return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension trust funds' investment expense and inflation) are developed for each major asset class. These ranges 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 and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension trust funds' target asset allocation as of June 30, 2023 are summarized in the following table:

Asset Class	JRS, SPRS, TPAF, PFRS <u>& PERS</u>	POPF & CPFPF
U.S. Equity	8.98%	_
Int'l Developed Markets Equity	9.22%	_
Int'l Small Cap Equity	9.22%	_
Emerging Market Equity	11.13%	_
Private Equity	12.50%	_
Real Estate	8.58%	_
Real Assets	8.40%	_
High Yield	6.97%	_
Private Credit	9.20%	_
Investment Grade Credit	5.19%	_
Cash Equivalents	3.31%	3.31%
U.S. Treasuries	3.31%	_
Risk Mitigation Strategies	6.21%	_

Notes to Financial Statements
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Discount Rate

The discount rates used to measure the total pension liabilities of the plans were as follows:

Plan	Discount Rate
JRS	7.00%
POPF	3.65%
SPRS	7.00%
CPFPF	3.65%
TPAF	7.00%
PFRS	7.00%
PERS	7.00%

The following table represents the crossover period, if applicable, for each defined benefit plan:

	JRS	POPF	SPRS	CPFPF	TPAF	PFRS	PERS
Period of projected benefit payments for w hich the following rates w ere applied:							
Long-term expected rate of return	All periods	Not applicable	All periods	Not applicable	All periods	All periods	All periods
Municipal bond rate*	Not applicable	All periods	Not applicable	All periods	Not applicable	Not applicable	Not applicable

^{*} The municipal bond return rate used is 3.65%. The source is the Bond Buyer Go 20-Bond Municipal Bond Index, which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

Sensitivity of Net Pension Liability (Asset)

The following presents the net pension liability (asset) of each plan calculated using the discount rates as disclosed above as well as what each plan's net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the current rate:

Pension Plan (rates used)	At 1% decrease	At current discount rate	At 1% increase
JRS (6.00%, 7.00%, 8.00%)	 \$ 795,552,119	710,817,008	637,609,978
POPF (2.65%, 3.65%, 4.65%)	(2,113,022)	(2,222,856)	(2,322,741)
SPRS (6.00%, 7.00%, 8.00%)	2,798,737,145	2,264,460,065	1,822,048,168
CPFPF (2.65%, 3.65%, 4.65%)	(596,411)	(662,925)	(723, 147)
TPAF (6.00%, 7.00%, 8.00%)	60,267,919,597	51,109,961,824	43,396,784,734
PFRS (6.00%, 7.00%, 8.00%)	23,394,344,969	17,508,597,135	12,606,933,180
PERS (6.00%, 7.00%, 8.00%)	44,694,311,893	37,064,536,619	30,577,634,097

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(4) Employers' Net Pension Liability - Defined Benefit OPEB Plan

Components of Net OPEB Liability - OPEB Plan

The components of the net OPEB liability of the participating employers for the OPEB plan at June 30, 2023 are as follows:

Total OPEB liability Plan fiduciary net position	\$ 14,889,576,786 (116,962,691)
Net OPEB liability	\$ 15,006,539,477
Plan fiduciary net position as a percentage of	

Plan fiduciary net position as a percentage of the total OPEB liability

-0.79%

The total OPEB liability was determined by an actuarial valuation as of July 1, 2022, which was rolled forward to June 30, 2023 using the following actuarial assumptions, applied to all periods in the measurement:

Salary increases*

PERS 2.75% to 6.55% based on years of service PFRS 3.25% to 16.25% based on years of service

Mortality

PERS PUB-2010 General classification headcount-weighted mortality table with fully

generation mortality improvement projections from the central year using Scale MP-2021

PFRS PUB-2010 Safety classification headcount-weighted mortality table with fully

generation mortality improvement projections from the central year using Scale MP-2021

Long-term rate of return 3.65%

Actuarial assumptions used in the July 1, 2022 valuation were based on the results of the PFRS and PERS experience studies prepared for July 1, 2018 to June 30, 2021.

^{*} Salary increases are based on the defined benefit plan that the individual is enrolled in and his or her age.

Notes to Financial Statements
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As the OPEB plan only invests in the State CMF, the long-term expected rate of return on OPEB investments was based off the best-estimate ranges of future real rates of return (expected returns, net of OPEB plan investment expense and inflation) for cash equivalents, which is 0.50%.

The discount rate for the OPEB plan was 3.65%. This represents the municipal bond return rate as chosen by the Division. The source is the Bond Buyer Go 20-Bond Municipal Bond Index, which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. As the long-term rate of return is less than the municipal bond rate, it is not considered in the calculation of the discount rate, rather the discount rate is set at the municipal bond rate.

Sensitivity of Net OPEB Liability to changes in the discount rate:

	At 1%	At current	At 1%
_	decrease (2.65%)	discount rate (3.65%)	increase (4.65%)
\$	17,382,355,978	15,006,539,477	13,095,561,553

Sensitivity of Net OPEB Liability to changes in the healthcare trend rate:

Healthcare Cost			
_	1% Decrease	Trend Rate	1% Increase
\$	12,753,792,805	15,006,539,477	17,890,743,651

Notes to Financial Statements
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(5) Investments

Investments (including investments held directly by the Common Pension Funds) as of June 30, 2023 are as follows:

Common Pension Fund A:		
Cash Management Fund	\$	33,930,073
Private credit funds		1,083,074,056
Real assets		266,963,263
Private equity funds		266,856,046
Real estate funds		70,448,920
		1,721,272,358
Common Pension Fund D:		
Cash	\$	209,905,675
Cash Management Fund	•	1,840,326,958
Domestic equities		25,858,081,656
International equities		17,437,180,841
Domestic fixed income		11,694,718,256
International fixed income		1,247,600,297
Other ⁽¹⁾		237,063,236
	_	58,524,876,919
Common Pension Fund E:		
Cash	\$	31,376,527
Cash Management Fund		3,428,500,257
		40.050.047.004
Private equity funds		10,858,217,604
Private equity funds Private credit funds		10,858,217,604 4,939,717,573
Private credit funds		4,939,717,573
Private credit funds Real estate funds Absolute return strategy funds Real assets		4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671
Private credit funds Real estate funds Absolute return strategy funds Real assets Domestic equities		4,939,717,573 3,994,484,885 2,888,650,643
Private credit funds Real estate funds Absolute return strategy funds Real assets	_	4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671
Private credit funds Real estate funds Absolute return strategy funds Real assets Domestic equities	_	4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671 367,067,956
Private credit funds Real estate funds Absolute return strategy funds Real assets Domestic equities	<u>-</u>	4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671 367,067,956 7,859,459
Private credit funds Real estate funds Absolute return strategy funds Real assets Domestic equities Other ⁽¹⁾	<u>-</u>	4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671 367,067,956 7,859,459 28,485,801,575 2,573,172,508
Private credit funds Real estate funds Absolute return strategy funds Real assets Domestic equities Other ⁽¹⁾ All Other Investments: Cash Management Fund Domestic equities	_ _	4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671 367,067,956 7,859,459 28,485,801,575 2,573,172,508 1,012,667,143
Private credit funds Real estate funds Absolute return strategy funds Real assets Domestic equities Other ⁽¹⁾ All Other Investments: Cash Management Fund Domestic equities Fixed income mutual funds	<u>-</u>	4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671 367,067,956 7,859,459 28,485,801,575 2,573,172,508 1,012,667,143 534,097,624
Private credit funds Real estate funds Absolute return strategy funds Real assets Domestic equities Other ⁽¹⁾ All Other Investments: Cash Management Fund Domestic equities	<u>-</u>	4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671 367,067,956 7,859,459 28,485,801,575 2,573,172,508 1,012,667,143
Private credit funds Real estate funds Absolute return strategy funds Real assets Domestic equities Other ⁽¹⁾ All Other Investments: Cash Management Fund Domestic equities Fixed income mutual funds	 	4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671 367,067,956 7,859,459 28,485,801,575 2,573,172,508 1,012,667,143 534,097,624
Private credit funds Real estate funds Absolute return strategy funds Real assets Domestic equities Other ⁽¹⁾ All Other Investments: Cash Management Fund Domestic equities Fixed income mutual funds	- - - \$_	4,939,717,573 3,994,484,885 2,888,650,643 1,969,926,671 367,067,956 7,859,459 28,485,801,575 2,573,172,508 1,012,667,143 534,097,624 4,168,024,032

⁽¹⁾ Includes assets (other than investments) and liabilities included in the net position of the Common Pension Funds. Common Pension Fund D excludes assets and liabilities related to securities lending.

New Jersey State statute provides for a State Investment Council (the Council) and a Director. Investment authority is vested in the Director of the Division of Investment, and the role of the Council is to formulate investment policies. The Council issues regulations, which establish guidelines for permissible investments for

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the Common Pension Funds managed by the Division of Investment, which include global equity investments, non-convertible preferred stocks, covered call options, put options, futures contracts, obligations of the U.S. Treasury, government agencies, corporations, international governments and agencies, private credit investments, swap transactions, state and municipal general obligations, public authority revenue obligations, collateralized notes and mortgages, commercial paper, certificates of deposit, repurchase agreements, money market funds, private equity funds, real estate funds, other real assets, absolute return strategy funds, and the CMF.

The Council approves an investment plan that includes a targeted asset allocation, as well as long-term targeted ranges for asset classes. The asset allocation targets approved on July 26, 2023, effective October 1, 2023 by the Council for the Pension Fund, are as follows:

Asset Class	Target
U.S. equity	28.00%
Non-U.S. developed markets equity	12.75%
International Small Cap Equity	1.25%
Emerging markets equity	5.50%
Private equity	13.00%
Global Growth	60.50%
Real Estate	8.00%
Real Assets	3.00%
Real Return	11.00%
High yield	4.50%
Private Credit	8.00%
Investment grade credit	7.00%
Income	19.50%
Cash equivalents	2.00%
U.S. Treasuries	4.00%
Risk mitigation strategies	3.00%
Defensive	9.00%
Total	100.00%

The asset allocation policy is reviewed on at least an annual State fiscal year basis.

Rate of Return

The annual money-weighted rates of return were 9.12% for JRS, SPRS, TPAF, PFRS, and PERS and 3.66% for POPF, CPFPF, and the OPEB Plan. The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amounts of pension plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the end of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

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Deposit and Investment Risk Disclosure

Custodial credit risk, as it relates to investments, is the risk that in the event of the failure of the custodian, the Plans will not be able to recover the value of investments or collateral securities that are in the possession of the third party. The Plans' investment securities are not exposed to custodial credit risk as they are held in segregated accounts in the name of the Plans with the custodians.

The Plans' investments are subject to various risks. Among these risks are credit risk, concentration of credit risk, interest rate risk, and foreign currency risk. Each one of these risks is discussed in more detail below.

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit risk of issuers and debt instruments is evaluated by nationally recognized statistical rating agencies, such as Moody's Investors Service, Inc. (Moody's), Standard & Poor's Corporation (S&P), and Fitch Ratings (Fitch). Concentration of credit risk is the risk of loss attributed to the magnitude of an investment in a single issuer. There are no restrictions in the amount that can be invested in U.S. Treasury and government agency obligations. Council regulations require minimum credit ratings for certain categories of fixed income obligations held directly by the various funds and limit the amount that can be invested in any one issuer or issue.

Notes to Financial Statements
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The credit ratings and limits for the Pension Funds as of June 30, 2023 are as follows:

		Ainimum rating		Limitation of issuer's outstanding	Limitation		
Category	Moody's			debt/stock_	of issue	Other limitations	
Certificates of deposit Domestic International	P-1 P-1	A-1 A-1	F-1 F-1	10% 10%	=	Split rating allowable. Not more than 5% of pension fund assets can be invested in any one issuer and affiliated entities.	
Collateralized notes and mortgages	Ваа3	BBB-	BBB-	_	25%	Not more than 5% of pension fund assets can be invested in any one issuer and affiliated entities.	
Commercial paper	P-1	A-1	F-1	_	_	Split rating allowable. Not more than 5% of pension fund assets can be invested in any one issuer and affiliated entities.	
Global debt obligations	Baa3	BBB-	BBB-	10%	_	Not more than 5% of pension fund assets can be invested in any one issuer and affiliated entities.	
Private credit investments: Direct bank loans	_	_	_	10%	_	Not more than 13% of pension fund assets can be invested in this category. Not more than 5% of pension fund assets can be invested in any one issuer and affiliated entities.	
International government and agency obligations	Ваа3	BBB-	BBB-	25%	25%	Not more than 5% of the pension fund assets can be invested in this category.	

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	N	linimum rating	a	Limitation of issuer's outstanding	Limitation	
Category	Moody's	S&P	Fitch	debt/stock	of issue	Other limitations
Money market funds	_	_	_	_	_	Not more than 5% of pension fund assets can be invested in money market funds; limited to 5% of shares or units outstanding.
Mortgage backed Pass-through securities Senior debt securities	A3 —	<u>A-</u>	<u>A-</u>	Ξ	<u> </u>	Not more than 10% of pension fund assets can be invested in mortgage backed securities.
Non-convertible preferred stocks	Baa3	BBB-	BBB-	10%	25%	Not more than 5% of pension fund assets can be invested in any one issuer and affiliated entities.
Repurchase agreements Broker	P-1	A-1	F-1	_	_	_
State, municipal and public authority obligations	A3	Α-	A-	_	10%	Not more than 2% of pension fund assets can be invested in debt of any one obligor.
Swap transactions	Baa2	BBB	ВВВ	_	_	Notional value of net exposure to any one counterparty shall not exceed 1% of pension fund assets. Notional value of all swap transactions shall not exceed 5% of pension fund assets, but may be increased up to 10% for a fixed period of time.

Up to 8% of the fair value of the combined assets of the Pension Funds may be invested in global debt obligations, collateralized notes and mortgages, non-convertible preferred stock, and mortgage-backed pass-through securities that do not meet the minimum credit rating requirements set forth above.

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The total amount of a particular class of stock directly purchased of any one entity by the Common Pension Funds cannot exceed 10% of that class of stock outstanding. The total amount of shares or interests directly purchased or acquired of any one exchange traded fund or global, regional or country fund by the Common Pension Funds shall not exceed 10% of the total shares outstanding or interests of such fund.

The NJSEDCP Equity Fund and the NJSEDCP Small Capitalization Equity Fund are invested in equity securities that are denominated in U.S. dollars that trade on a securities exchange in the United States or the over-the-counter market. The NJSEDCP Equity Fund and the NJSEDCP Small Capitalization Equity Fund may hold up to 25% of their assets either in short-term fixed income securities, as permitted by the Council regulations, or in CMF. Not more than 10% of the market value of the NJSEDCP Equity Fund or the NJSEDCP Small Capitalization Equity Fund can be invested in the equity of any one issuer and affiliated entities. The total amount of a particular class of stock directly purchased or acquired of any one entity cannot exceed 5% of that class of stock outstanding. The total amount of shares directly purchased or acquired of any one exchange traded fund shall not exceed 5% of the total shares outstanding of such fund.

The funds managed by Empower investments for the NJSEDCP consist of a number of individual investment managers, which individually have investment guidelines that they comply with and follow. For Empower, the NJSEDCP is a participant-directed program offering a range of diversified investment alternatives. The options include bond investments, which are diversified by sector and number of securities held, mitigating undue concentration of both credit and foreign currency risks as well as interest rate risk.

SACT can only invest in equity securities denominated in U.S. dollars that are traded on a securities exchange in the United States or over-the-counter market. For SACT, not more than 10% of the market value of the fund can be invested in the equity of any one issuer and affiliated entities. The total amount of shares directly purchased or acquired of any one exchange traded fund shall not exceed 5% of the total shares outstanding of such fund. The total amount of a particular class of stock directly purchased or acquired of any one entity shall not exceed 5% of that class of stock outstanding.

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The following tables disclose aggregate fair value, by major credit quality rating category as of June 30, 2023, for the fixed income securities held directly by the Common Pension Funds. The first table includes fixed income securities rated by Moody's. The second table discloses S&P's and Fitch's ratings for fixed income securities not rated by Moody's (in thousands).

	Moody's rating											
	Aaa		Aa	A	Baa	Ва	В	Caa	Ca	С	Totals	
Corporate obligations	403	585	677,823	3,473,322	531,773	783,364	746,910	146,555	66	198	6,763,596	
U.S. Treasury bonds	3,357	934	_	_	_	_	_	_	_	_	3,357,934	
Foreign government obligations	166	609	416,654	26,062	_	_	_	_	_	_	609,325	
International corporate obligations	9	988	62,431	126,327	38,276	122,143	179,955	18,067	3,577	_	560,764	
Federal agency obligations	317	059	_	_	_	_	_	_	_	_	317,059	
Mortgages (FHLMC/FNMA/GNMA)	4	025	_	_	_	_	_	_	_	_	4,025	
	•											
\$	4,259	200 1,	156,908	3,625,711	570,049	905,507	926,865	164,622	3,643	198	11,612,703	

	_		Standard	and Poor's r		Fitch's			
		Α	BBB	BB	В	CCC	CCC	C	Totals
Corporate obligations International corporate obligations	\$	146,010 417	23,239 4.407	298,980 58.373	84,821 12.218	7,174 0	0 1.031	458 0	560,682 76.446
mematerial corporate obligations	\$	146,427	27,646	357,353	97,039	7,174	1,031	458	637,128

The tables do not include certain domestic and international corporate obligations and certain fixed income mutual funds, which invest in an underlying portfolio of fixed income securities, totaling approximately \$1,226,585,624 and do not have a Moody's, S&P, or Fitch rating. The above tables also do not include investment in the Cash Management Fund totaling \$7,875,929,796, which is not rated.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Commercial paper must mature within 270 days. Certificates of deposits are limited to a term of one year or less. Repurchase agreements must mature within 30 days. Council regulations permit the Common Pension Funds to enter into foreign exchange contracts for the purpose of hedging the international portfolio.

Notes to Financial Statements
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The following table summarizes the maturities (or, in the case of Remics and mortgage-backed securities, the expected average life) of the Common Pension Funds' fixed income portfolio as of June 30, 2023 (in thousands):

	Maturities in years										
					More	Total					
Fixed income investment type		Less than 1	1-5	6-10	than 10	fair value					
Corporate obligations	\$	432,543	2,852,517	1,914,110	2,127,058	7,326,228					
U.S. Treasury bonds		229,050	1,725,152	720,737	682,995	3,357,934					
Foreign government obligations		109,059	233,504	266,762	_	609,325					
International corporate obligations		41,410	343,751	159,657	93,457	638,275					
Federal agency obligations		171,528	75,980	40,823	28,728	317,059					
Mortgages (FHLMC/FNMA/GNMA)		8	778	3,239	_	4,025					
Bank Loans			416		<u> </u>	416					
	\$	983,598	5,232,098	3,105,328	2,932,238	12,253,262					

The fixed income exchange traded funds held by the Common Pension Funds and the fixed income mutual funds held by NJSEDCP as of June 30, 2023 were \$689,055,963 and \$534,097,624, respectively. These funds have a weighted average duration of 3.54 and 6.28 years, respectively.

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The Common Pension Funds invest in global markets. Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The Common Pension Funds had the following foreign currency exposure as of June 30, 2023 (expressed in thousands of U.S. dollars):

Currency		Equities	Fixed income	Alternative investments	Total fair value
Australian dollar	\$	791,098	_	_	791,098
Brazilian real		339,940	_	_	339,940
Canadian dollar		1,232,193	53,752	_	1,285,945
Chilean peso		8,795	· —	_	8,795
Czech koruna		2,685	_	_	2,685
Danish krone		296,245	_	_	296,245
Euro		3,226,793	58,110	1,156,927	4,441,830
Hong Kong dollar		1,365,313	· —	<u> </u>	1,365,313
Hungarian forint		44,825	_	_	44,825
Indonesian rupiah		137,684	_	_	137,684
Japanese yen		2,330,781	_	_	2,330,781
Malaysian ringgit		25,785	_	_	25,785
Mexican peso		120,153	_	_	120,153
New Israeli sheqel		44,682	_	_	44,682
New Taiwan dollar		376,869	_	_	376,869
New Zealand dollar		18,834	_	_	18,834
Norwegian krone		52,316	_	_	52,316
Philippine peso		11,977	_	_	11,977
Polish zloty		24,938	_	_	24,938
Pound sterling (U.K)		1,441,452	4,943	2,031	1,448,426
Qatari rial		17,582	_	_	17,582
Russian ruble		1,929	_	_	1,929
Singapore dollar		160,515	_	_	160,515
South African rand		181,593	_	_	181,593
South Korean won		544,844	_	_	544,844
Swedish krona		328,956	_	_	328,956
Swiss franc		944,761	_	_	944,761
Thailand baht		80,390	_	_	80,390
Turkish lira		14,582	_	_	14,582
UAE dirham	_	43,096			43,096
	\$	14,211,606	116,805	1,158,958	15,487,369

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The Pension Funds' interests in alternative investments may contain elements of credit, currency and market risk. Such risks include, but are not limited to, limited liquidity, absence of regulatory oversight, dependence upon key individuals, speculative investments (both derivatives and nonmarketable investments), and nondisclosure of portfolio composition. Council regulations provide that not more than 45% of the market value of the Pension Funds can be invested in alternative investments, with limits on the individual investment categories of real estate (13%), real assets (7%), private equity (18%), private credit (13%), and absolute return strategy (10%).

Not more than 5% of the market value invested through direct investments, separate accounts, fund of funds, commingled funds, co-investments and joint ventures in private credit, private equity, real asset and absolute return strategy investments, plus outstanding commitments, may be committed to any one partnership or investment. Investments made through separate accounts, fund of funds, commingled funds, co-investments and joint ventures cannot comprise more than 20% of any one investment managers' total assets.

As of June 30, 2023, the net position of Common Pension Fund E includes receivables of \$347 thousand related to the redemption of hedge funds.

(6) Securities Lending Collateral

The State Investment Council policies permit the Common Pension Funds and several of the direct pension plan portfolios to participate in securities lending programs, whereby securities are loaned to brokers or other borrowers and, in return, the Common Pension Funds have rights to the collateral received. All of the publicly traded securities held in Common Pension Funds are eligible for the securities lending program. Collateral received may consist of cash, letters of credit, or U.S. Treasury obligations having a fair value equal to or exceeding 102% (U.S. dollar denominated) or 105% (non-U.S. dollar denominated) of the value of the loaned securities at the time the loan is made. Collateral is marked to market daily and adjusted as needed to maintain the required minimum level.

For loans of U.S. government securities or sovereign debt issued by non-U.S. governments, in the event that the fair value of the collateral falls below 100% of the fair value of the outstanding loaned securities to an individual borrower, or the fair value of the collateral of all loans of such securities falls below the collateral requirement, additional collateral shall be transferred by the borrower to the respective funds no later than the close of the next business day so that the fair value of such additional collateral together with collateral previously delivered meets the collateral requirements.

For loans of all other types of securities, in the event that the fair value of the collateral falls below the collateral requirement of either 102% or 105% (depending on whether the securities are denominated in U.S. dollars or a foreign currency, respectively) of the fair value of the outstanding loaned securities to an individual borrower, additional collateral shall be transferred in an amount that will increase the aggregate of the borrower's collateral to meet the collateral requirements. As of June 30, 2023, the Common Pension Funds had no aggregate credit risk exposure to borrowers because the collateral amount held by the Common Pension Funds exceeded the fair value of the securities on loan.

The contract with the Common Pension Funds' securities lending agent requires them to indemnify the Common Pension Funds if the brokers or other borrowers fail to return the securities and provide that collateral securities may be sold in the event of a borrower default. The Common Pension Funds are also indemnified for any loss of principal or interest on collateral invested in repurchase agreements. The Common Pension Funds cannot participate in any dividend reinvestment program or vote with respect to any securities that are on loan on the applicable record date. The securities loans can be terminated by notification by either the

Notes to Financial Statements
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borrower or the Common Pension Funds. The term to maturity of the securities loans is generally matched with the term to maturity of the investment of the cash collateral.

The securities lending collateral is subject to various risks. Among these risks are custodial credit risk, credit risk, concentration of credit risk, and interest rate risk. Securities lending collateral is invested in repurchase agreements, the maturities of which cannot exceed 30 days. The collateral for repurchase agreements is limited to obligations of the U.S. Government or certain U.S. Government agencies, collateralized notes and mortgages, and corporate obligations meeting certain minimum rating criteria. Total exposure to any individual issuer is limited consistent with internal policies for funds managed by the Division of Investment.

For securities exposed to credit risk in the collateral portfolio, the following table discloses aggregate fair value, by major credit quality rating category as of June 30, 2023 (in thousands):

Repurchase agreements
State Street Navigator Securities Lending
Money Market Portfolio
Cash

		Rating	
	Aaa/AAA	Not rated	Totals
\$	1,594,427	_	1,594,427
	_	164,850	164,850
\$	1,594,427	164,850	1,759,277
_			

Custodial credit risk for investments is the risk that in the failure of the counterparty to the transaction, the Pension Funds will not recover the value of the investments that are in the possession of an outside party. The repurchase agreement's underlying securities are held in a segregated account at the tri-party bank.

As of June 30, 2023, the Pension Funds had outstanding loaned investment securities with an aggregate fair value of \$1,725,475,778 and did not hold any noncash collateral. There were no borrowers or lending agent default losses, and no recoveries or prior period losses during the year.

(7) Derivatives

The Pension Funds invest in derivative securities through the Common Pension Funds. A derivative security is an investment whose value is derived from other financial instruments such as commodity prices, bonds and stock prices, or a market index. The Common Pension Funds' derivative securities are considered investment derivative instruments. The fair value of all derivative securities is reported in the statement of fiduciary net position, and the change in fair value is recorded in the statement of changes in fiduciary net position as a net increase or decrease in fair value of investments.

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Derivative transactions involve, to varying degrees, credit risk and market risk. Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to terms. Market risk includes, but is not limited to, the possibility that a change in interest rate risk, foreign currency risk, or the value of the underlying securities will cause the value of a financial instrument to decrease or become more costly to settle. The market or the value of underlying security, or securities, risk associated with derivatives, the prices of which are constantly fluctuating, is regulated by imposing limits as to the types, amounts and degree of risk that the Common Pension Funds may undertake as set forth in the Council Regulations.

The Common Pension Funds may use financial futures to replicate an underlying security or indices they wish to hold in the portfolio. In certain instances, it may be beneficial to own a futures contract rather than the underlying security. Additionally, the Common Pension Funds may use futures contracts to improve the yield or adjust the duration of the fixed income portfolio or may sell futures contracts to hedge the portfolio. A financial futures contract is an agreement between a buyer and a seller that is based on a referenced item, such as financial indices, or interest rates or a financial instrument, such as equity or fixed income securities, physical commodities or currencies. Futures contracts may call for physical delivery of specified quantity of the underlying asset at a specified price (futures or strike price) and date, or be settled in cash. Futures contracts must be traded on a securities exchange or over-the-counter market. The net change in the futures contracts value is settled daily in cash with the exchanges. The cash to fulfill these obligations is held in a margin account. As the fair value of the futures contract varies from the original contract price, a gain or loss is paid to or received from the clearinghouse and recognized in the statement of changes in fiduciary net position.

Foreign currency forward contracts are used as a means to hedge against currency risks in the Common Pension Funds. Foreign currency forward contracts are agreements to buy or sell a specific amount of a foreign currency at a specified delivery or maturity date for an agreed upon price. Foreign currency forward contracts are marked to market on a daily basis with the change in fair value included in investment income in the statement of changes in fiduciary net position.

The Common Pension Funds utilize covered call and put options in an effort to add value to or reduce the risk level in the portfolio. Options are agreements that give the owner of the option the right, but not obligation, to buy (in the case of a call option) or to sell (in the case of a put option) a specific amount of an asset for a specific price (called the strike price) on or before a specified expiration date. The Common Pension Funds enter into covered calls when they write (or sell) call options on underlying stocks held by the Common Pension Funds or stock indices. The Common Pension Funds enter into covered put options when they purchase put options on underlying stocks held by the Common Pension Funds or stock indices. The Common Pension Funds enter into put spreads when they purchase put options while simultaneously writing put options on the same underlying securities or indices at a lower strike price. The purchaser of put options pays a premium at the outset of the agreement and stands to gain from an unfavorable change (i.e., a decrease) in the price of the instrument underlying the option. The writer of call options receives a premium at the outset of the agreement and may bear the risk of an unfavorable change (i.e., an increase) in the price of the instrument underlying the option.

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As of June 30, 2023, the Common Pension Fund's derivative investments included foreign currency forward contracts:

		Notional value (local currency) Receivab		Payable	Change in fair value	
Foreign currency forward contracts:						
Buy:						
Euro	795,577	\$	869,077	862,149	6,928	
Sell:						
Euro	54,328,420	\$	59,466,642	59,347,619	119,023	
Pound sterling	4,124,519	_	5,224,523	5,244,581	(20,058)	
Total forward contracts		\$	65,560,242	65,454,349	105,893	

Certain of the alternative investment funds and partnerships may use derivative instruments to hedge against market risk and to enhance investment returns. At any point during the year, the Common Pension Funds may have additional exposure to derivatives primarily through limited liability vehicles such as limited partnerships and commingled investment funds.

(8) Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between independent market participants at the measurement date. Inputs refer broadly to the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk. Inputs may be observable or unobservable. Observable inputs are inputs that reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the reporting entity. Unobservable inputs are inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. The three levels of the fair value hierarchy are as follows:

Level 1 – Quoted or published prices are available in active markets for identical investments as of the reporting date.

Level 2 – Pricing inputs are other than quoted or published prices in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies.

Level 3 – Pricing inputs are unobservable for the investment and inputs into the determination of fair value require significant management judgment or estimation, including assumptions about risk.

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Investments are reported at fair value as follows:

- Domestic and international equity securities and exchange traded funds are valued using closing sales prices reported on recognized securities exchanges on which the securities are principally traded; these securities are included as Level 1 in the chart below. For listed securities having no sales reported and for unlisted securities, such securities will be valued based upon the last reported bid price; these securities are included as Level 2 in the chart below.
- Fixed income and equity mutual funds are valued using the published daily closing prices reported by Empower and are included as Level 1 in the chart below.
- Foreign and domestic government, agency and corporate obligations, municipal bonds, mortgages, bank loans and asset-backed securities are valued using an evaluated price, which is based on a compilation of primarily observable market information or broker quotes in a non-active market. These are included as Level 2 in the chart below.
- Foreign exchange contracts are valued using industry recognized market-based models to calculate
 the value that a holder or counterparty would receive within the bid-ask spread, in an orderly
 transaction under current market conditions. These securities are included as Level 2 in the chart
 below.
- Distributions from alternative investment vehicles are received as the underlying investments are liquidated. The Plan's ownership interest in partners' capital can never be redeemed, but could be sold subject to approval by the fund's management. As of June 30, 2023, a buyer (or buyers) for these investments have not yet been identified. The partnership interest may be sold at an amount different from the net asset value (NAV) per share (or its equivalent) of the plan's ownership interest in partners' capital.

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The following table summarizes the fair value hierarchy of the investment portfolio as of June 30, 2023 (in thousands):

	_	Total	_	Level 1	Level 2
Investments at fair value					
Equity securities					
Domestic equities	\$	27,237,818		27,237,818	_
International equities		15,736,842		15,736,842	_
Equity mutual funds		4,168,024		4,168,024	_
Exchange traded funds	_	1,700,338	_	1,700,338	
Total equity securities		48,843,022		48,843,022	_
Debt securities					
Corporate obligations		7,326,228		_	7,326,228
U.S. Treasury bonds		3,357,934		_	3,357,934
Foreign government obligations		609,325		_	609,325
International corporate obligations		638,275		_	638,275
Federal agency obligations		317,059		_	317,059
Fixed income mutual funds		534,098		534,098	
Mortgages (FHLMC/FNMA/GNMA)		4,025		_	4,025
Exchange traded funds		689,056		689,056	
Bank loans	_	416	_		416
Total debt securities	_	13,476,416	_	1,223,154	12,253,262
Total investments by fair value level		62,319,438	\$	50,066,176	12,253,262
Investments measured at the net asset value (NAV)					
Buyout private equity funds		8,959,577			
Private credit funds		6,022,792			
Real estate funds - equity		3,836,288			
Real assets		2,236,890			
Multi-strategy hedge funds		1,841,258			
Debt related private equity funds		1,182,429			
General partner equity stake private equity funds		664,503			
Opportunistic hedge funds		564,407			
Venture capital private equity funds		314,586			
Credit oriented hedge funds		256,155			
Real estate funds - debt		228,646			
Equity oriented hedge funds		226,830			
Secondary private equity funds	_	3,979	_		
Total investments measured at NAV		26,338,340			
Local Government Investment Pool					
Cash Management Fund	_	7,875,929	_		
Total investments	\$_	96,533,707	=		
Investment derivative instruments					
Foreign currency forward contracts (assets)	\$	65,560		_	65,560
Foreign currency forward contracts (liabilities)	Ψ	(65,454)		_	(65,454)
	_	, , ,	-		
Total investment derivative instruments	\$_	106	=		106

Notes to Financial Statements
June 30, 2023

The following table represents the unfunded commitments, redemptions frequency and redemption notice period for investments measured at NAV as of June 30, 2023 (in thousands):

	_	Fair Value	Unfunded Commitments*	Redemptions Frequency (if currently eligible)	Redemption Notice Period
Buyout private equity funds (1)	\$	8,959,577	2,419,203	None	N/A
Private credit funds (2)		6,022,792	3,087,980	None	N/A
Real estate funds - equity (3)		3,836,288	1,901,136	Quarterly	15 and 90 days
Real assets (4)		2,236,890	1,458,463	None	None
Multi-strategy hedge funds (5)		1,841,258	268,791	Quarterly, semi- annual	45 and 90 days
Debt related private equity funds (6)		1,182,429	767,070	None	N/A
General partner equity stake private equity fund ⁽⁷⁾		664,503	327,813	None	N/A
Opportunistic hedge funds (8)		564,407	25,000	Monthly, quarterly	2-90 days
Venture capital private equity funds (9)		314,586	431,628	None	N/A
Credit oriented hedge funds (10)		256,155	_	None	N/A
Real estate funds - debt (11)		228,646	217,971	None	N/A
Equity oriented hedge funds (12)		226,830	_	Quarterly	65 days
Secondary private equity funds (13)	•	3,979	12,352	None	N/A
Total investments measured at NAV	\$	26,338,340	10,917,407		

^{*} The unfunded commitments are comprised of funds at various points in their investment terms. Certain funds are outside of their investment period or within their dissolution period. Per the contractual fund agreements, these funds can no longer draw capital for new investments and thus are highly unlikely to utilize all of the remaining unfunded balances. In addition, the Division of Investment has contractual rights to veto further capital draws of certain funds on behalf of the Common Pension Fund A and E, limiting the ability to draw down these unfunded balances.

^{1.} Buyout private equity funds include investments in 86 partnerships and 8 co-investment vehicles, which invest primarily in the equity of established operating companies in order to restructure the target company's reserve capital, management and/or organizational structure or facilitate ongoing growth of the firm. Return on investment is typically realized through an initial public offering, sale or merger of the company, or a recapitalization. All of the investments provide for transfer or sale of limited partnership interest with the prior written approval of the General Partner and seven investments further require the right of first refusal by the other partners in the investment. It is expected that the underlying assets will be liquidated over the next 6 months to 11 years.

Notes to Financial Statements
June 30, 2023

- 2. Private credit funds include investments in 25 funds and separate account investments that make investment in mezzanine debt, direct lending, credit structured products, commercial and residential mortgage-backed securities, commercial and residential whole loans, and other similar strategies. Two of these funds are evergreen investments. Twenty-four of these investments cannot be redeemed because the investments include restrictions. As of June 30, 2023, these remaining redemption restriction periods range from 1 year to 9 years. It is expected that the underlying assets will be liquidated over the next 1 to 9 years.
- 3. Real estate funds equity include investments in 46 funds or separate accounts that make investments in the equity of the underlying asset, where the investor acts as a shareholder in a specific property and receives a share of the rental income the property generates. Investments representing approximately 80% of real estate equity investments can never be redeemed. Two funds contain a provision that will trigger conversion into an open-ended fund. Thirty-nine of the investments provide for the transfer or sale of the limited partnership interest with the prior written approval of the General Partner and nine investments further require the right of first refusal by the other partners in the investment. Distributions from each fund and separate account will be received as the underlying investments are liquidated. It is expected that the underlying assets will be liquidated over the next 6 months to 12 years.
- 4. Real asset funds include investments in 20 fund or separate account strategies, which invest in the equity or debt of infrastructure, energy, utilities, water, timber, agriculture, metals, mining, and commodity-related and commodity-linked investments. Real asset investments include investments in products, services and technology related to the above. No real asset investments can be redeemed. All of the investments provide for transfer or sale of limited partnership interest with the prior written approval of the General Partner and one investment further requires the right of first refusal by the other partners in the investment. Distributions from each fund and separate account will be received as the underlying investments are liquidated. It is expected that the underlying assets will be liquidated over the next 1 to 14 years.
- 5. Multi-strategy hedge funds include investments in 9 hedge funds that pursue multiple strategies to diversify risks and reduce volatility. Investments representing approximately 75% of the value of the investments cannot be redeemed because the investment includes restrictions that do not allow for redemptions. As of June 30, 2023, the remaining redemption restriction periods range from 1 to 2 years. Three of the investments are being liquidated as part of the redemption process.
- 6. Debt related private equity funds include investments in 22 funds and 1 co-investment vehicle employing distressed, turnaround and mezzanine debt strategies. Distressed debt involves purchasing debt securities that are trading at a distressed level, in anticipation that those securities will have a higher market valuation and generate profit at a future date, or strategies which take a position to potentially gain control of an asset. Turnaround investments focus on acquiring voting control in companies that are in distress and aim to subsequently restore the company to profitability. Mezzanine debt strategies provide a middle level of financing in leveraged buyouts, which is below the senior debt layer and above the equity layer. A typical mezzanine investment includes a loan to the borrower, in addition to the borrower's issuance of equity in the form of warrants, common stock, preferred stock, or some other equity investment. All of the investments provide for transfer or sale of the limited partnership interest with the prior written approval of the General Partner. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 1 to 11 years.

Notes to Financial Statements
June 30, 2023

- 7. General partner equity stake private equity funds include investments in 1 fund and 3 separate accounts, which acquire minority equity interests in investment management companies. Investments in these funds have a perpetual term and cannot be redeemed.
- 8. Opportunistic hedge funds include investments in 4 hedge funds that invest in speculative opportunities with high net market exposure across varied markets. Opportunistic funds include global macro funds, commodity trading advisor funds, and funds employing other similar strategies. Investments representing approximately 42% of the value of the investments in this type cannot be redeemed because the investments include restrictions. As of June 30, 2023, the remaining redemption restriction period is 1 year.
- 9. Venture capital private equity funds include investments in 7 partnership vehicles that make equity investments primarily in high growth companies during their early or expansion stages. These companies may or may not have revenues or a client base and in most cases will not be cash flow positive. Distributions from each vehicle will be received as the underlying investments are liquidated. It is expected that the underlying assets will be liquidated over the next 1 to 2 years of the investment.
- 10. Credit oriented hedge funds include investments in 5 hedge funds and separate account strategies that include both credit and distressed debt funds. Credit strategies typically invest both long and short in high yield and high-grade bonds, and structured products using fundamental credit analysis. These securities tend to be relatively liquid. Distressed debt strategies take advantage of corporate securities in default, under bankruptcy protection, in distress, or in liquidation. All of the investments are being liquidated in an orderly fashion as part of the redemption process.
- 11. Real estate funds debt include investments in 8 funds or separate accounts that make investments in the debt of the underlying asset, where the investor acts as a lender to the property owner and receives an interest rate on the loan. Investments can never be redeemed. Six of the investments provide for transfer or sale of the limited partnership interest with the prior written approval of the General Partner and two investments further require the right of first refusal by the other partners in the investment. Distributions from each fund and separate account will be received as the underlying investments are liquidated. It is expected that the underlying assets will be liquidated over the next 1 to 3 years.
- 12. Equity oriented hedge funds include investments in 1 hedge fund. that includes both equity long/short and event driven funds. Equity long/short funds hold a combination of long and short positions primarily in publicly traded equities. Event driven funds invest in merger arbitrage, capital structure arbitrage, relative value, activist or other similar strategies. One of the investments is liquidating and the other investment provides quarterly liquidity.
- 13. Secondary private equity funds include investments in 3 funds that purchase secondary interests in private equity partnerships. The underlying investments represent ownership interests in private equity funds managed by buyout or venture capital firms after the capital has been deployed. Distributions from each fund will be received as the underlying investments are liquidated. It is expected that the underlying assets will be liquidated over the next 2 years.

(9) Local Employer's Contributions under P.L. 2009, C. 19

As discussed in note 1, in the State fiscal year ended June 30, 2009, the State passed P.L. 2009, C. 19 to allow local employers of PFRS and PERS to contribute 50% of the normal and accrued liability contributions amounts, while deferring the remaining amount for a 15-year period with payments beginning in the State fiscal

Notes to Financial Statements
June 30, 2023

year ended June 30, 2012. At June 30, 2023, the remaining receivable balances related to P.L. 2009, C. 19 were \$11.8 million and \$2.9 million for PFRS and PERS, respectively.

(10) Reserves

The Plans maintain the following legally required reserves as follows (amounts indicated in parenthesis represent net position restricted for the respective reserve as indicated):

Members' Annuity Savings Reserve and Accumulative Interest Reserve – JRS (\$111,129,715); SPRS (\$266,662,479); TPAF (\$17,605,442,219); PFRS (\$4,164,297,517); PERS (\$17,151,265,252)

The Members' Annuity Savings Reserve (New Jersey Statutes Annotated (NJSA): JRS 43:6A- 34.1 and 34.2; SPRS 53:5A-35; TPAF 18A:66-19 and 25; PFRS 43:16A-16; PERS 43:15A-25 and 33) is credited with all contributions made by active members of the Plans. Interest earned on member contributions is credited to the Accumulative Interest Reserve, which is applied to JRS, TPAF and PERS. Member withdrawals are paid out of these reserves.

Contingent Reserve – JRS (\$-11,258,636); SPRS (\$1,698,349,788); TPAF (\$-35,301,584,151); PERS (\$-23,108,559,668)

The Contingent Reserve (NJSA: JRS 43:6A-33; SPRS 53:5A-34; TPAF 18A:66-18; PERS 43:15A-24) is credited with the contributions of contributing employers. Interest earnings, after crediting the Accumulative Interest Reserve and Retirement Reserve, as required, are credited to this account. Additionally, payments for administrative and miscellaneous expenses are made from this reserve.

Retirement Reserve – JRS (\$112,763,336); SPRS (\$143,641,468); TPAF (\$44,826,323,200); PFRS (\$34,174,573,088); PERS (\$40,721,175,506)

The Retirement Reserve (NJSA: JRS 43:6A-34; SPRS 53:5A-36; TPAF 18A:66-21; PFRS 43:16A-16; PERS 43:15A-27) is the account from which retirement benefits including COLA adjustments are paid. Upon retirement of a member, accumulated contributions together with accumulated interest are transferred to the Retirement Reserve from the Members' Annuity Savings Reserve and Accumulative Interest Reserve. Any additional reserves needed to fund the balance of the retirement benefit are transferred from the Contingent Reserve or Pension Accumulation Reserve. Annually, interest as determined by the State Treasurer (7.0% for State fiscal year 2023) is credited to the Retirement Reserve.

Retirement Reserve – POPF (\$4,661,202)

The Retirement Reserve (NJSA: POPF 43:7-13) is credited with the State contributions and investment income. In addition, all benefits are paid from this account.

Non-Contributory Group Insurance Premium Reserve – PFRS – Local (\$62,649,128); PERS – Local (\$67,771,846)

The Non-Contributory Group Insurance Premium Reserve (NJSA: PFRS 43:16A-56; PERS 43:15A-91) represents the accumulation of employer group life insurance contributions in excess of premiums disbursed to the insurance carrier since the inception of the noncontributory death benefit program plus reserves held by the insurance carrier. Members are eligible by statute for the noncontributory group life insurance plan in the first year of membership. TPAF, PFRS – State and PERS – State show no balance as these premium expenses are funded on a monthly basis.

Notes to Financial Statements
June 30, 2023

Pension Accumulation Reserve – PFRS (\$-5,834,285,447)

The Pension Accumulation Reserve (NJSA: PFRS 43:16A-16) is credited with the contributions of the State and other employers. Interest earnings, after crediting the Retirement Reserve, as required, are credited to this account. Additionally, payments for administrative and miscellaneous expenses are made from this Reserve.

Pension Reserve - CPFPF (\$2,172,278)

The Pension Reserve (NJSA: CPFPF 43:16-5) is credited with the State contributions and investment income.

SHBP Reserve Fund – Local - Retired (\$-116,962,691)

The net position of SHBP – Local (NJSA: SHBP 52:14-17.42) is available to pay claims of future periods. These reserves are maintained by the fund to stabilize rates and to meet unexpected increase in claims.

Variable Accumulation Reserve - NJSEDCP (\$5,428,733,561); SACT (\$225,688,303)

The Variable Accumulation Reserve (NJSA: NJSEDCP 52:18A-164; SACT 52:18A-109) is credited with member contributions and interest earnings on those contributions. Payments for administrative and miscellaneous expense are made from this reserve.

Variable Benefits Reserve – SACT (\$63,653,701)

The Variable Benefits Reserve (NJSA: SACT 52:18A-109) represents contributions accumulations that are transferred to Annuity Benefits for retirees that are receiving monthly life annuity payments.

Notes to Financial Statements
June 30, 2023

The State has not made the full actuarial required contribution to the defined benefit pension plans over the past several years resulting in a negative fund balance in certain reserves. However, the defined benefit pension plans have sufficient net position to make benefit payments as they become due and the State has started making its full actuarial required contribution in State fiscal year 2023.

Othor

Various reserve balances as of June 30, 2023 are as follows:

		Pension Reserves	Postemployment Benefit Plan Reserves
Members' Annuity Savings Reserve and Accumulated	•		
Interest Reserve	\$	39,298,797,182	_
Contingent Reserve		(56,723,052,667)	_
Retirement Reserve		119,983,137,800	_
Non-Contributory Group Insurance Premium Reserve		130,420,974	_
Pension Accumulation Reserve		(5,834,285,447)	_
Pension Reserve		2,172,278	_
SHBP Reserve		_	(116,962,691)
Variable Accumulation Reserve		5,654,421,864	_
Variable Benefits Reserve	•	63,653,701	
Total	\$	102,575,265,685	(116,962,691)

(11) Contingencies

The Division is a party to various legal actions arising in the ordinary course of its operations. While it is not feasible to predict the ultimate outcome of these actions, it is the opinion of management that the resolution of these matters will not have a material adverse effect on the Division's financial statements.

Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios - Defined Benefit Pension Plans

Judicial Retirement System

(Unaudited)

June 30, 2023

	_	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability:											
Service cost	\$	25,247,323	25,155,887	51,347,166	43,552,248	37,584,273	35,477,981	37,224,230	33,333,864	30,702,986	32,123,341
Interest on total pension liability		62,546,102	61,145,172	39,537,147	45,751,351	38,067,870	36,209,627	30,788,977	36,471,524	41,473,055	40,332,123
Effect of economic/demographic (gains) or losses		1,460,241	311,962	(1,657,542)	2,816,229	19,557,727	(8,553,096)	14,120,673	254,822	(1,733,197)	_
Effect of assumptions changes or inputs			(1,861,080)	(402,501,116)	112,739,048	151,274,804	(23,084,707)	(70,235,370)	85,677,552	(41,873,530)	26,907,821
Transfers from other systems		1,184,212	1,990,120	-	1,025,802	1,310,118	2,859,841	1,121,097	726,284	2,081,523	
Benefit payments	_	(68, 192, 235)	(64,714,728)	(62,705,183)	(60,949,109)	(59,591,606)	(58,286,421)	(56,365,718)	(54,686,521)	(52,430,016)	(49,604,080)
Net change in total pension liability		22,245,643	22,027,333	(375,979,528)	144,935,569	188,203,186	(15,376,775)	(43,346,111)	101,777,525	(21,779,179)	49,759,205
Total pension liability-beginning	_	901,205,780	879,178,447	1,255,157,975	1,110,222,406	922,019,220	937,395,995	980,742,106	878,964,581	900,743,760	850,984,555
Total pension liability-ending (a)	\$_	923,451,423	901,205,780	879,178,447	1,255,157,975	1,110,222,406	922,019,220	937,395,995	980,742,106	878,964,581	900,743,760
Plan fiduciary net position:											
Contributions-employer	\$	69,711,704	72,954,420	52,508,011	37,496,113	29,702,700	24,023,637	20,341,379	14,794,774	17,031,026	15,874,857
Contributions-employee		9,799,479	9,608,031	9,426,354	9,239,505	9,688,270	9,177,453	10,348,191	9,271,869	6,310,124	5,096,577
Net investment (loss) income		17,292,141	(19,197,001)	37,225,810	1,972,315	9,230,701	14,809,869	20,031,152	(2,721,949)	8,475,641	34,448,036
Net transfers from other systems		1,184,212	1,990,120	(00 705 100)	1,025,802	1,310,118	2,859,841	1,121,097	726,284	2,081,523	(40.004.000)
Benefit payments, including refunds of employee contributions Administrative expense		(68,192,235) (177,626)	(64,714,728) (183,857)	(62,705,183) (324,080)	(60,949,109) (219,976)	(59,591,606) (200,338)	(58,286,421) (185,364)	(56,365,718) (150,588)	(54,686,521) (168,008)	(52,430,016) (168,762)	(49,604,080) (162,372)
Administrative expense	_			(324,060)	(219,970)	(200,336)	(100,304)	(150,566)	(100,000)	(100,702)	
Net change in Plan fiduciary net position		29,617,675	456,985	36,130,912	(11,435,350)	(9,860,155)	(7,600,985)	(4,674,487)	(32,783,551)	(18,700,464)	5,653,018
Plan fiduciary net position-beginning		183,016,740	182,559,755	146,428,843	157,864,193	167,724,348	175,325,333	179,999,820	212,783,371	231,483,835	225,830,817
Plan fiduciary net position-ending (b)	_	212,634,415	183,016,740	182,559,755	146,428,843	157,864,193	167,724,348	175,325,333	179,999,820	212,783,371	231,483,835
Plan's net pension liability-ending (a)-(b)	\$	710,817,008	718,189,040	696,618,692	1,108,729,132	952,358,213	754,294,872	762,070,662	800,742,286	666,181,210	669,259,925
Plan fiduciary net position as a percentage of the total pension liability		23.03%	20.31%	20.76%	11.67%	14.22%	18.19%	18.70%	18.35%	24.21%	25.70%
Covered-employee payroll	\$	77,035,971	76,401,342	76,970,450	76,627,036	77,763,777	69,216,709	68,062,584	67,097,166	66,028,491	67,810,110
Net pension liability as a percentage of covered-employee payroll		922.71%	940.02%	905.05%	1,446.92%	1,224.68%	1,089.76%	1,119.66%	1,193.41%	1,008.93%	986.96%
Notes to Schedule:											
Changes in benefit terms:		None									
Changes in assumptions:											
Discount rate		7.00%	7.00%	7.00%	3.10%	4.07%	4.09%	3.83%	3.11%	4.12%	4.58%
Long-term expected rate of return		7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.65%	7.90%	7.90%

For 2021 through 2023, the Scale MP-2021 was used for mortality improvement. For 2022, demographic assumptions were updated to reflect the most recent experience study for the period July 1, 2018 to June 30, 2021.

For 2020, the mortality improvement scale was updated to Scale MP 2020.

For 2019, the assumed rates of retirement, mortality, salary increases, and inflation were updated based on the July 1, 2014 - June 30, 2018 Experience Study. For healthy retiree and pre-retirement mortality, the Pub-2010 Teachers Above-Median Income Employee mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis was used. For disabled retiree mortality, the Pub-2010 Non-Safety Disabled Retiree mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis was used. For 2019 mortality improvement, Scale MP-2019 was used.

For 2016, salary increases were assumed to increase 2.00% through fiscal year 2025 and 3.00% for each fiscal year thereafter.

For 2015, the demographic assumptions were revised to reflect those recommended on the basis of the July 1, 2011 - June 30, 2014 experience study.

Required Supplementary Information

Schedule of Changes in Net Pension Liability (Asset) and Related Ratios - Defined Benefit Pension Plans

Prison Officers' Pension Fund

(Unaudited)

June 30, 2023

	_	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability:											
Service cost	\$	_	_	_	_	_	_	_	_	_	_
Interest on total pension liability Effect of economic/demographic (gains) or losses		91,899 (8,340)	70,689 (79,991)	81,970 34,727	152,968 (339,022)	188,032 127,146	215,068 (407,471)	198,788 82,047	251,254 96,657	331,362 (296,620)	401,659
Effect of assumptions changes or inputs		(6,340)	(185,319)	23,594	204,867	(36,496)	(73,662)	(240,233)	1,171,953	163,490	129,449
Benefit payments		(455,371)	(509,871)	(642,747)	(715,168)	(816,972)	(947,877)	(1,069,209)	(1,240,307)	(1,377,505)	(1,583,408)
Net change in total pension liability		(383,382)	(704,492)	(502,456)	(696,355)	(538,290)	(1,213,942)	(1,028,607)	279,557	(1,179,273)	(1,052,300)
Total pension liability-beginning	_	2,821,728	3,526,220	4,028,676	4,725,031	5,263,321	6,477,263	7,505,870	7,226,313	8,405,586	9,457,886
Total pension liability-ending (a)	\$	2,438,346	2,821,728	3,526,220	4,028,676	4,725,031	5,263,321	6,477,263	7,505,870	7,226,313	8,405,586
Plan fiduciary net position:											
Contributions-other	\$	_	313,575	330,028	361,956	412,250	484,565	552,131	634,217	698,360	793,174
Net investment income		169,271	13,892	5,903	74,920	111,413	70,215	30,847	18,067	6,355	7,368
Benefit payments, including refunds of employee contributions Administrative expense		(455,371) (3,112)	(509,871) (3,226)	(642,747) (3,429)	(715,168) (4,628)	(816,972) (4,215)	(947,877) (4,315)	(1,069,209) (4,134)	(1,240,307) (5,312)	(1,377,505) (5,843)	(1,583,408) (5,853)
Net change in Plan fiduciary net position	_		(185,630)	(310,245)		(297,524)		(490,365)	(593,335)	(678,633)	
, ,		(289,212)	, , ,		(282,920)		(397,412)				(788,719)
Plan fiduciary net position-beginning		4,950,414	5,136,044	5,446,289	4,925,932	5,223,456	5,620,868	6,111,233	6,704,568	7,383,201	8,171,920
Plan fiduciary net position-ending (b)	_	4,661,202	4,950,414	5,136,044	4,643,012	4,925,932	5,223,456	5,620,868	6,111,233	6,704,568	7,383,201
Plan's net pension liability (asset)-ending (a)-(b)	\$	(2,222,856)	(2,128,686)	(1,609,824)	(614,336)	(200,901)	39,865	856,395	1,394,637	521,745	1,022,385
Plan fiduciary net position as a percentage of the total pension liability (asset)		191.16%	175.44%	145.65%	115.25%	104.25%	99.24%	86.78%	81.42%	92.78%	87.84%
Covered-employee payroll		N/A	N/A	N/A	N/A						
Net pension liability (asset) as a percentage of covered-employee payroll		N/A	N/A	N/A	N/A						
Notes to Schedule:											
Changes in benefit terms:		None									
Changes in assumptions:											
Discount rate		3.65%	3.54%	2.16%	2.21%	3.50%	3.87%	3.58%	2.85%	3.80%	4.29%
Long-term expected rate of return		3.65%	3.54%	2.16%	2.21%	3.50%	3.87%	3.58%	2.85%	3.80%	4.29%

For 2021 through 2023, the Scale MP-2021 was used for mortality improvement.

Adjustment to 2021 Plan fiduciary net position-beginning (July 1, 2020)

During fiscal year 2021, the Division adopted GASB Statement No. 84, Fiduciary Activities, which resulted in the recognition of historical activity of the legacy Pension Adjustment Fund respective to POPF being recognized as an adjustment to the plan fiduciary net position-beginning.

See accompanying independent auditors' report.

For 2020, the mortality improvement scale was updated to Scale MP 2020.

For 2019, the mortality tables used were the Pub-2010 Safety Healthy Retiree, Pub-2010 General Healthy Retiree, Pub-2010 Safety Disabled Retiree for healthy retirees, beneficiaries, and disabled retirees, respectively. Each used a base year of 2010 with future improvement from the base year on a generational basis using Scale MP-2019.

For 2016, the mortality improvement assumption was revised to be projected on a generational basis from the base year of 2000 to 2014 using Projection Scale BB as the base tables and further projected beyond the valuation date using the plan actuary's modified 2014 projection. Further, the RP-2000 disabled retiree mortality table is used for the period after disability retirements.

Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios - Defined Benefit Pension Plans

State Police Retirement System

(Unaudited)

June 30, 2023

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability:										
Service cost	\$ 85,593,034	72,160,698	106,016,397	92,264,920	100,705,109	119,718,797	139,506,057	113,546,510	93,740,921	93,623,020
Interest on total pension liability	292,841,117	280,610,597	251,694,211	253,377,036	240,494,663	226,928,605	202,545,532	221,675,495	216,980,562	209,010,706
Effect of economic/demographic (gains) or losses	25,672,722	85,334,517	3,828,967	6,595,373	(11,528,958)	(19,592,172)	23,786,696	(17,580,385)	35,245,543	_
Effect of assumptions changes or inputs	_	(24,764,266)	(1,109,430,087)	303,378,361	(333,811,404)	(379,490,284)	(697,970,471)	747,941,075	435,691,094	92,686,900
Transfers from other systems	364,489	370,785	530,473	305,306	(39,834)	190,903	3,925	54,000	222,557	.
Benefit payments	(253,767,797)	(251,116,766)	(237,959,841)	(230,638,032)	(225,682,230)	(222,315,723)	(217,303,946)	(213,436,150)	(206,493,624)	(197,958,938)
Net change in total pension liability	150,703,565	162,595,565	(985,319,880)	425,282,964	(229,862,654)	(274,559,874)	(549,432,207)	852,200,545	575,387,053	197,361,688
Total pension liability-beginning	4,222,410,235	4,059,814,670	5,045,134,550	4,619,851,586	4,849,714,240	5,124,274,114	5,673,706,321	4,821,505,776	4,246,118,723	4,048,757,035
Total pension liability-ending (a)	\$ 4,373,113,800	4,222,410,235	4,059,814,670	5,045,134,550	4,619,851,586	4,849,714,240	5,124,274,114	5,673,706,321	4,821,505,776	4,246,118,723
Plan fiduciary net position:										
Contributions-employer	\$ 206,428,454	206,165,510	141,212,825	117,911,260	98,182,956	74,603,780	53,006,614	37,435,541	38,527,297	36,436,923
Contributions-employee	30,727,554	27,081,021	27,268,772	24,292,258	24,183,990	22,416,571	23,721,785	22,818,295	22,315,431	24,034,496
Net investment (loss) income	178,426,880	(170,386,626)	477,604,855	24,733,948	105,696,140	154,029,009	207,401,590	(19,284,054)	75,532,779	287,098,217
Net transfers from other systems	364,489	370,785	530,473	305,306	(39,834)	190,903	3,925	54,000	222,557	(407.050.000)
Benefit payments, including refunds of employee contributions Administrative expense	(253,767,797) (861,652)	(251,116,766) (701,981)	(237,959,841) (494,765)	(230,638,032) (632,762)	(225,682,230) (596,137)	(222,315,723) (377,193)	(217,303,946) (294,745)	(213,436,150) (334,630)	(206,493,624) (351,724)	(197,958,938) (280,026)
	(001,002)	(701,961)	(494,765)	(032,702)	(596, 137)	(377,193)	(294,745)	(334,030)	(351,724)	(200,020)
Net change in Plan fiduciary net position	161,317,928	(188,588,057)	408,162,319	(64,028,022)	1,744,885	28,547,347	66,535,223	(172,746,998)	(70,247,284)	149,330,672
Plan fiduciary net position-beginning	1,947,335,807	2,135,923,864	1,727,761,545	1,791,789,567	1,790,044,682	1,761,497,335	1,694,962,112	1,867,709,110	1,937,956,394	1,788,625,722
Plan fiduciary net position-ending (b)	2,108,653,735	1,947,335,807	2,135,923,864	1,727,761,545	1,791,789,567	1,790,044,682	1,761,497,335	1,694,962,112	1,867,709,110	1,937,956,394
Plan's net pension liability-ending (a)-(b)	\$ 2,264,460,065	2,275,074,428	1,923,890,806	3,317,373,005	2,828,062,019	3,059,669,558	3,362,776,779	3,978,744,209	2,953,796,666	2,308,162,329
Plan fiduciary net position as a percentage of the total pension liability	48.22%	46.12%	52.61%	34.25%	38.78%	36.91%	34.38%	29.87%	38.74%	45.64%
Covered-employee payroll	\$ 345,191,396	332,022,798	298,254,514	296,189,926	275,790,087	284,707,387	277,771,135	275,477,457	262,496,289	262,063,829
Net pension liability as a percentage of covered-employee payroll	656.00%	685.22%	645.05%	1,120.02%	1,025.44%	1,074.67%	1,210.63%	1,444.31%	1,125.27%	880.76%
Notes to Schedule:										
Changes in benefit terms:	None									
Changes in assumptions:										
Discount rate	7.00%	7.00%	7.00%	5.00%	5.51%	4.97%	4.42%	3.55%	4.59%	5.12%
Long-term expected rate of return	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.65%	7.90%	7.90%

For 2021 through 2023, the Scale MP-2021 was used for mortality improvement. For 2022, demographic assumptions were updated to reflect the most recent experience study for the period July 1, 2018 to June 30, 2021.

For 2020, the mortality improvement scale was updated to Scale MP 2020.

For 2019, the assumed rates of retirement, mortality, salary increases, and inflation were updated based on the July 1, 2014 - June 30, 2018 Experience Study. For healthy retiree and pre-retirement mortality, the Pub-2010 Public Safety Above-Median Income Employee mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis was used. For beneficiaries, the Pub-2010 General Above-Median Income Healthy Retiree mortality table, unadjusted, with future improvement from the base year of 2010 was used. For disabled retiree mortality, the Pub-2010 Public Safety Disabled Retiree mortality table, unadjusted, with future improvement from the base year of 2010 on a generational basis was used. For 2019 mortality improvement, Scale MP-2019 was used.

For 2016, salary increases were assumed to increased 2.95% through fiscal year 2025 and 3.95% for each fiscal year thereafter.

For 2015, the demographic assumptions were revised to reflect those recommended on the basis of the July 1, 2011 - June 30, 2014 experience study.

Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios - Defined Benefit Pension Plans

Consolidated Police and Firemen's Pension Fund

(Unaudited)

June 30, 2023

		2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability: Service cost	\$	_	_	_	_	_	_	_	_	_	_
Interest on total pension liability Effect of economic/demographic (gains) or losses	Ψ	73,367 (463,932)	57,459 (116,774)	67,565 105,481	134,753 (277,515)	200,618 (196,476)	241,913 (582,507)	260,211 (984,588)	352,889 (71,313)	504,066 (993,528)	632,080
Effect of assumptions changes or inputs Benefit payments	_	(6,992) (328,373)	(127,557) (473,437)	18,418 (702,399)	147,999 (889,923)	(375,356) (1,033,175)	(70,518) (1,289,899)	(236,022) (1,535,623)	1,273,909 (1,881,252)	193,719 (2,445,627)	163,528 (2,942,035)
Net change in total pension liability		(725,930)	(660,309)	(510,935)	(884,686)	(1,404,389)	(1,701,011)	(2,496,022)	(325,767)	(2,741,370)	(2,146,427)
Total pension liability-beginning		2,235,283	2,895,592	3,406,527	4,291,213	5,695,602	7,396,613	9,892,635	10,218,402	12,959,772	15,106,199
Total pension liability-ending (a)	\$	1,509,353	2,235,283	2,895,592	3,406,527	4,291,213	5,695,602	7,396,613	9,892,635	10,218,402	12,959,772
Plan fiduciary net position: Contributions-nonemployer Net investment income Contributions-other Benefit payments, including refunds of employee contributions Administrative expense	\$	76,000 65,412 202,530 (328,373) (2,819)	76,000 6,654 368,072 (473,437) (3,226)	248,000 5,956 441,879 (702,399) (2,620)	17,129 541,279 (889,923) (3,308)	28,518 631,757 (1,033,175) (3,013)	325,000 21,542 806,330 (1,289,899) (4,006)	575,000 10,099 964,280 (1,535,623) (4,188)	148,000 10,856 1,196,017 (1,881,252) (6,643)		11,740 585 1,889,091 (2,942,035) (9,566)
Net change in Plan fiduciary net position		12,750	(25,937)	(9,184)	(334,823)	(375,913)	(141,033)	9,568	(533,022)	(875,681)	(1,050,185)
Plan fiduciary net position-beginning Plan fiduciary net position-ending (b)		2,159,528 2,172,278	2,185,465 2,159,528	2,194,649 2,185,465	1,387,550 1,052,727	1,763,463 1,387,550	1,904,496 1,763,463	1,894,928 1,904,496	2,427,950 1,894,928	3,303,631 2,427,950	4,353,816 3,303,631
Plan's net pension liability-ending (a)-(b)	\$	(662,925)	75,755	710,127	2,353,800	2,903,663	3,932,139	5,492,117	7,997,707	7,790,452	9,656,141
Plan fiduciary net position as a percentage of the total pension liability		143.92%	96.61%	75.48%	30.90%	32.33%	30.96%	25.75%	19.15%	23.76%	25.49%
Covered-employee payroll Net pension liability as a percentage of covered-employee payroll		N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Notes to Schedule:											
Changes in benefit terms:		None									
Changes in assumptions:											
Discount rate Long-term expected rate of return		3.65% 3.65%	3.54% 3.54%	2.16% 2.16%	2.21% 2.21%	3.50% 3.50%	3.87% 3.87%	3.58% 3.58%	2.85% 2.85%	3.80% 3.80%	4.29% 4.29%

For 2021 through 2023, the Scale MP-2021 was used for mortality improvement.

Adjustment to 2021 Plan fiduciary net position-beginning (July 1, 2020)

During fiscal year 2021, the Division adopted GASB Statement No. 84, Fiduciary Activities, which resulted in the recognition of historical activity of the legacy Pension Adjustment Fund respective to POPF being recognized as an adjustment to the plan fiduciary net position-beginning.

See accompanying independent auditors' report.

For 2020, the mortality improvement scale was updated to Scale MP 2020.

For 2019, the mortality tables used were the Pub-2010 Public Safety Healthy Retiree and Pub-2010 General Healthy Retiree for healthy retirees and beneficiaries, respectively. Each used a base year of 2010 with future improvement from the base year on a generational basis using Scale MP-2019.

For 2016, the mortality improvement assumption was revised to be projected on a generational basis from the base year of 2000 to 2014 using Projection Scale BB as the base tables and further projected beyond the valuation date using the plan actuary's modified 2014 projection. Further, the RP-2000 disabled retiree mortality table is used for the period after disability retirements of disability retirements.

Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios - Defined Benefit Pension Plans

Teachers' Pension and Annuity Fund

(Unaudited)

June 30, 2023

		2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability: Service cost Interest on total pension liability	\$	1,364,281,690 5,268,967,929	1,195,044,307 5,146,965,905	1,759,507,848 4,695,758,765	1,643,902,335 4,680,942,056	1,882,081,572 4,201,672,382	2,229,422,113 3,858,188,355	3,028,689,581 3,304,988,177	2,344,321,810 3,694,844,118	2,022,411,197 3,797,032,970	1,870,901,832 3,794,362,523
Changes of benefit terms Effect of economic/demographic (gains) or losses Effect of assumptions changes or inputs Transfers from other systems Benefit payments		193,571,995 — 4,968,584 (4,908,764,941)	(20,645,797) 110,219,657 9,387,288 (4,822,987,222)	195,943,171 (14,765,458,197) 1,287,750 (4,710,584,326)	(16,738,469) (8,596,840) 1,613,054,603 9,417,333 (4,615,149,051)	(155,621,840) (4,005,548,119) 6,655,677 (4,510,860,239)	1,195,858,381 (6,816,855,725) 5,686,293 (4,401,203,131)	236,377,556 (13,285,524,000) 1,338,431 (4,306,268,745)	(134,644,168) 10,827,093,000 1,564,002 (4,169,070,762)	365,228,279 5,913,556,000 4,117,141 (4,015,003,587)	(24,898,221) 2,614,173,709 — (3,837,859,513)
Net change in total pension liability	_	1,923,025,257	1,617,984,138	(12,823,544,989)	3,306,831,967	(2,581,620,567)	(3,928,903,714)	(11,020,399,000)	12,564,108,000	8,087,342,000	4,416,680,330
Total pension liability-beginning		76,317,117,835	74,699,133,697	87,522,678,686	84,215,846,719	86,797,467,286	90,726,371,000	101,746,770,000	89,182,662,000	81,095,320,000	76,678,639,670
Total pension liability-ending (a)	\$	78,240,143,092	76,317,117,835	74,699,133,697	87,522,678,686	84,215,846,719	86,797,467,286	90,726,371,000	101,746,770,000	89,182,662,000	81,095,320,000
Plan fiduciary net position: Contributions-employer Contributions-ennoployer Contributions-employee Net investment (loss) income Net transfers from other systems Employer specific contributions - delayed appropriation and	\$	3,494,558 4,169,444,800 933,033,324 2,300,606,725 4,968,584	3,758,422 4,188,158,390 907,326,471 (2,166,014,956) 9,387,288	2,684,911 2,933,363,049 883,659,076 5,902,191,421 1,287,750	2,109,340 2,268,898,389 867,037,595 318,393,101 9,417,333	2,050,414 2,013,446,234 846,166,328 1,361,781,295 6,655,677	1,723,827 1,514,407,623 810,899,751 2,016,316,929 5,686,293	1,404,292 1,125,614,188 790,788,033 2,736,988,791 1,338,431	1,105,810 798,963,467 761,711,695 (267,684,353) 1,564,002	807,246 539,796,289 740,296,265 1,066,062,926 4,117,141	4,688,045 423,012,101 716,183,306 4,100,273,453
delayed enrollments Benefit payments, including refunds of employee contributions Administrative expense	_	449,590 (4,908,764,941) (13,581,904)	395,540 (4,822,987,222) (12,635,916)	403,226 (4,710,584,326) (9,042,590)	329,570 (4,615,149,051) (18,590,555)	300,112 (4,510,860,239) (13,922,385)	345,897 (4,401,203,131) (13,222,178)	357,659 (4,306,268,745) (11,923,787)	243,660 (4,169,070,762) (13,768,112)	358,899 (4,015,003,587) (13,890,080)	(3,837,859,513) (12,170,971)
Net change in Plan fiduciary net position		2,489,650,736	(1,892,611,983)	5,003,962,517	(1,167,554,278)	(294,382,564)	(65,044,989)	338,298,862	(2,886,934,593)	(1,677,454,901)	1,394,126,421
Plan fiduciary net position-beginning Plan fiduciary net position-ending (b)	_	24,640,530,532 27,130,181,268	26,533,142,515 24,640,530,532	21,529,179,998 26,533,142,515	22,696,734,276 21,529,179,998	22,991,116,840 22,696,734,276	23,056,161,829 22,991,116,840	22,717,862,967 23,056,161,829	25,604,797,560 22,717,862,967	27,282,252,461 25,604,797,560	25,888,126,040 27,282,252,461
Plan's net pension liability-ending (a)-(b)	\$	51,109,961,824	51,676,587,303	48,165,991,182	65,993,498,688	61,519,112,443	63,806,350,446	67,670,209,171	79,028,907,033	63,577,864,440	53,813,067,539
Plan fiduciary net position as a percentage of the total pension liability		34.68%	32.29%	35.52%	24.60%	26.95%	26.49%	25.41%	22.33%	28.71%	33.64%
Covered-employee payroll Net pension liability as a percentage of covered-employee payroll	\$	11,866,192,351 430.72%	11,509,652,923 448.98%	11,338,928,538 424.78%	11,061,603,138 596.60%	10,823,504,797 568.38%	10,636,814,121 599.86%	10,436,205,103 648.42%	10,305,472,484 766.86%	10,162,263,470 625.63%	10,038,792,896 536.05%
Notes to Schedule:											
Changes in benefit terms: The Division of Pensions and Benefits adopted a new policy regard prior to retirement or death, interest was credited on member accur first two years of inactivity prior to retirement or death.											

5.40%

7.00%

5.60%

7.00%

4.86%

7.00%

7.00% For 2021 through 2023, the Scale MP-2021 was used for mortality improvement. For 2022, demographic assumptions were updated to reflect the most recent experience study for the period July 1, 2018 to June 30, 2021.

7.00%

For 2019, the assumed rates of retirement, mortality, salary increases, and inflation were updated based on the July 1, 2015 - June 30, 2018 Experience Study. For pre-retirement mortality, the Pub-2010 Teachers Above-Median Income Employee mortality table with a 93.9% adjustment for males and 85.3% adjustment for females, and with future improvement from the base year of 2010 on a generational basis was used. For healthy retirees and beneficiaries, the Pub-2010 Teachers Above-Median Income Healthy Retiree mortality table with a 114.7% adjustment for males and 99.6% adjustment for females, and with future improvement from the base year of 2010 on a generational basis was used. For disabled retiree mortality, the Pub-2010 Non-Safety Disabled Retiree mortality table with a 106.3% adjustment for males, and a 100.3% adjustment for males, and a 100.3% adjustment for females, and with improvement from the base year of 2010 on a generational basis was used. For 2019 mortality improvement, Scale MP-2019 was used.

7.00%

7.00%

7.00%

7.00%

For 2016, the demographic assumptions were revised to reflect those recommended on the basis of the July 1, 2012 - June 30, 2015 experience study.

See accompanying independent auditors' report.

Changes in assumptions:

Long-term expected rate of return

Discount rate

(Continued) 58

4.25%

7.00%

3.22%

7.65%

4.13%

7.90%

4.68%

7.90%

For 2020, the mortality improvement scale was updated to Scale MP-2020.

Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios - Defined Benefit Pension Plans

Police and Firemen's Retirement System

(Unaudited)

June 30, 2023

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014		
Total pension liability:												
Service cost	\$ 933,459,971	888.117.411	878.718.561	890.425.657	958.392.935	1.030.735.624	1,136,338,028	1.148.613.712	994.248.683	1.079.166.175		
Interest on total pension liability	3,355,222,471	3,246,376,600	3,226,402,697	3,131,523,540	3,025,500,679	2,898,092,706	2,738,598,309	2,751,445,220	2,680,664,300	2,535,619,539		
Change of benefit terms	112,669,226	180.976.807	147,434,341		_	_	_		_	_		
Effect of economic/demographic (gains) or losses	196,461,055	601.305.607	(1,120,768,361)	67,509,143	(138,356,304)	47.676.088	89.364.940	(34,916,637)	(215,122,438)	_		
Effect of assumptions changes or inputs	_	(403,018,428)	52,875,942	(892,759,358)	(1,875,170,696)	(2,069,626,924)	(3,534,553,975)	343,078,737	3,755,474,472	649,814,155		
Transfers from other systems	2,752,442	2,508,887	2,308,815	2,350,928	3,239,769	3,422,888	289,960	358,929	800,782			
Benefit payments	(3,043,451,698)	(2,970,223,769)	(2,852,083,674)	(2,725,565,718)	(2,606,863,711)	(2,523,462,466)	(2,421,485,437)	(2,324,175,953)	(2,205,464,297)	(2,105,829,011)		
Net change in total pension liability	1,557,113,467	1,546,043,115	334,888,321	473,484,192	(633,257,328)	(613,162,084)	(1,991,448,175)	1,884,404,008	5,010,601,502	2,158,770,858		
Total pension liability-beginning	48,518,717,954	46,972,674,839	46,637,786,518	46,164,302,326	46,797,559,654	47,410,721,738	49,402,169,913	47,517,765,905	42,507,164,403	40,348,393,545		
Total pension liability-ending (a)	\$ 50,075,831,421	48,518,717,954	46,972,674,839	46,637,786,518	46,164,302,326	46,797,559,654	47,410,721,738	49,402,169,913	47,517,765,905	42,507,164,403		
Plan fiduciary net position:												
Contributions-employer	\$ 1,729,861,608	1,701,099,844	1,442,270,056	1,352,498,105	1,206,535,544	1,127,617,114	1,002,043,734	900,033,567	883,776,917	858,047,628		
Contributions-nonemployer	232,824,730	253,611,000	178,577,000	154,309,000	130,202,000	108,857,000	86,467,000	61,466,000	76,038,000	_		
Contributions-employee	439,236,770	430,285,900	419,458,195	416,433,179	410,943,242	395,604,883	395,878,384	388,681,408	386,991,641	385,660,096		
Net investment (loss) income	2,497,976,803	(2,243,518,603)	6,952,727,005	425,543,356	1,549,138,833	2,139,481,226	2,791,104,860	(150,693,159)	922,598,676	3,381,553,869		
Net transfers from other systems	2,752,442	2,508,887	2,308,815	2,350,928	3,239,769	3,422,888	289,960	358,929	800,782	_		
Employer specific contributions - additional contribution	_	416,245	355,901	997,622	847,716	173,554	268,910	1,923,531	535,424	_		
Employer specific contributions - delayed appropriation	579,698	1,257,718	966,820	603,835	422,890	450,244	892,514	763,176	865,936	_		
Employer specific contributions - delayed enrollments	85,425	208,506	186,293	165,704	96,603	90,933	179,386	142,034	224,629	_		
Employer specific contributions - retroactive	9,954,750	5,015,523	4,652,327	5,230,213	6,501,177	3,120,240	11,476,881	3,661,101	24,536,440	_		
Contributions-other	_	_	_	_	_	(12,230)	_	_	_	_		
Benefit payments, including refunds of employee contributions	(3,043,451,698)	(2,970,223,769)	(2,852,083,674)	(2,725,565,718)	(2,606,863,711)	(2,523,462,466)	(2,421,485,437)	(2,324,175,953)	(2,205,464,297)	(2,105,829,011)		
Administrative expense	(11,239,652)	(15,261,328)	(18,293,096)	(12,859,324)	(7,199,218)	(4,505,685)	(4,124,457)	(4,292,891)	(4,531,012)	(3,884,342)		
Net change in Plan fiduciary net position	1,858,580,876	(2,834,600,077)	6,131,125,642	(380,293,100)	693,864,845	1,250,837,701	1,862,991,735	(1,122,132,257)	86,373,136	2,515,548,240		
Plan fiduciary net position-beginning	30,708,653,410	33,543,253,487	27,412,127,845	27,792,420,945	27,098,556,100	25,847,718,399	23,984,726,664	25,106,858,921	25,020,485,785	22,504,937,545		
Plan fiduciary net position-ending (b)	32,567,234,286	30,708,653,410	33,543,253,487	27,412,127,845	27,792,420,945	27,098,556,100	25,847,718,399	23,984,726,664	25,106,858,921	25,020,485,785		
Plan's net pension liability-ending (a)-(b)	\$ 17,508,597,135	17,810,064,544	13,429,421,352	19,225,658,673	18,371,881,381	19,699,003,554	21,563,003,339	25,417,443,249	22,410,906,984	17,486,678,618		
Plan fiduciary net position as a percentage of the total pension liability	65.04%	63.29%	71.41%	58.78%	60.20%	57.91%	54.52%	48.55%	52.84%	58.86%		
Covered-employee payroll	\$ 4,308,888,412	4,201,978,195	4,142,905,791	3,937,977,209	3,870,718,707	3,803,348,329	3,726,807,562	3,695,509,355	3,682,677,356	3,678,910,266		
Net pension liability as a percentage of covered-employee payroll	406.34%	423.85%	324.15%	488.21%	474.64%	517.94%	578.59%	687.79%	608.55%	475.32%		
Notes to Schedule:												
Changes in benefit terms:												
Plan amendments reflected: The early retir	ement window per State A	ssembly bill S107; the ex	tended eligibility of the	accidental death benef	it in Assembly bill 166	0.						
Changes in assumptions:	7.00%	7.000/	7.00%	7.00%	6.85%	6.51%	0.440/	5.55%	5.79%	0.000/		
Discount rate	7.00% 7.00%	7.00% 7.00%	7.00% 7.00%	7.00% 7.00%	6.85% 7.00%	6.51% 7.00%	6.14% 7.00%	5.55% 7.65%	5.79% 7.90%	6.32% 7.90%		
Long-term expected rate of return	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.05%	7.90%	7.90%		

For 2021 through 2023, the Scale MP-2021 was used for mortality improvement. For 2022, demographic assumptions were updated to reflect the most recent experience study for the period July 1, 2018 to June 30, 2021.

See accompanying independent auditors' report.

For 2020, the mortality improvement scale was updated to Scale MP-2020.

For 2019, the assumed rates of retirement, mortality, salary increases, and inflation were updated based on the July 1, 2013 - June 30, 2018 Experience Study. For pre-retirement mortality, the Pub-2010 Safety Employee mortality table with a 105.6% adjustment for males and 102.5% adjustment for females, and with future improvement from the base year of 2010 on a generational basis was used. For healthy retirees, the Pub-2010 Safety Retiree Below-Median Income Weighted mortality table with a 96.7% adjustment for males and 96.0% adjustment for females, and with future improvement from the base year of 2010 on a generational basis was used. For beneficiaries mortality, the Pub-2010 General Retiree Below-Median Income Weighted mortality table, unadjusted, and with future improvement from the base year of 2010 on a generational basis was used. For disabled mortality, the Pub-2010 Safety Disabled Retiree mortality table with a 152.0% adjustment for females, and with future improvement from the base year of 2010 on a generational basis was used. For 2019 mortality improvement, Scale MP-2019 was used.

For 2016, the mortality improvement scale incorporated the plan actuary's modified 2014 projection scale. Further, salary increases were assumed to increase between 2.10% and 8.98% (based on age) through fiscal year 2026 and 3.10% and 9.98% (based on age) for each fiscal year thereafter. For 2015, demographic assumptions were revised in accordance with the results of the July 1, 2010 - June 30, 2013 experience study.

Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios - Defined Benefit Pension Plans

Public Employees' Retirement System

(Unaudited)

June 30, 2023

	_	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability: Service cost Interest on total pension liability Changes of benefit terms Effect of economic/demographic (gains) or losses Effect of assumptions changes or inputs Transfers from other systems Benefit payments Net change in total pension liability	\$	1,218,502,310 4,832,168,694 — 475,958,828 — (11,291,075) (4,793,287,477) 1,722,051,280	1,132,080,147 4,771,520,285 10,701,169 (166,220,680) (250,480,946) (15,575,176) (4,617,971,525) 864,053,274	1,134,836,940 4,666,037,367 8,488,231 103,617,038 131,461,485 (4,754,619) (4,434,554,694) 1,605,131,748	1,298,089,823 4,408,636,380 (27,350,963) 799,902,851 (5,511,377,388) (14,123,679) (4,253,053,912) (3,299,276,888)	1,330,518,589 4,084,253,310 — 137,159,950 (3,283,548,860) (11,955,594) (4,118,371,422) (1,861,944,027)	1,555,424,045 3,849,650,265 — (363,908,216) (5,613,718,254) (13,217,000) (3,936,320,575) (4,522,089,735)	1,865,398,219 3,412,789,012 — 306,941,390 (10,156,789,076) 854,976 (3,810,818,692) (8,381,624,171)	1,628,065,678 3,653,373,426 — 600,806,505 8,792,817,065 — 778,753 (3,629,651,915) 11,046,189,512	1,523,631,386 3,647,688,354 — 1,050,795,158 4,091,557,460 1,651,542 (3,441,046,065) 6,874,277,835	1,592,214,831 3,506,486,225 ———————————————————————————————————
Total pension liability-beginning		70,174,138,275	69,310,085,001	67,704,953,253	71,004,230,141	72,866,174,168	77,388,263,903	85,769,888,074	74,723,698,562	67,849,420,727	64,787,572,231
Total pension liability-ending (a)	\$	71,896,189,555	70,174,138,275	69,310,085,001	67,704,953,253	71,004,230,141	72,866,174,168	77,388,263,903	85,769,888,074	74,723,698,562	67,849,420,727
Plan fiduciary net position: Contributions-employer Contributions-employer Contributions-employer Contributions-employee Net investment (loss) income Net transfers from other systems Employer specific contributions - additional contribution Employer specific contributions - delayed appropriation Employer specific contributions - delayed enrollments Employer specific contributions - retroactive Contributions - other Benefit payments, including refunds of employee contributions Administrative expense Net change in Plan fiduciary net position Plan fiduciary net position-beginning Plan fiduciary net position-ending (b)	\$	3,197,442,898 61,366,036 961,919,241 2,855,139,988 (11,291,075) 38,784 3,050,065 987,536 7,305,219 (4,793,287,477) (19,140,588) 2,263,530,627 32,568,122,309 34,831,652,936	3,114,403,554 48,654,369 933,155,302 (2,594,503,769) (15,575,176) 75,615 3,147,089 984,714 5,977,713 — (4,617,971,525) (18,030,213) (3,139,682,327) 35,707,804,636 32,568,122,309	2,477,308,520 13,079,912 909,939,594 7,708,453,890 (4,754,619) 93,521 2,411,251 740,098 3,838,038 — (4,434,554,684) (14,120,177) 6,662,435,334 29,045,369,302 35,707,804,636	2,108,766,760 8,117,299 908,936,226 456,271,235 (14,123,679) 102,853 (4,146,446) 567,434 5,318,876 (19,365,010) (802,608,364) 29,847,977,666 29,045,369,302	1,862,706,649 6,829,134 909,191,554 1,741,296,887 (11,955,594) 103,872 1,775,826 657,701 4,623,577 (4,118,371,422) (21,257,441) 375,603,130 29,472,374,536 29,847,977,666	1,680,631,409 	1,465,931,579 847,952,137 3,202,393,837 854,976 25,676 3,2224,612 1,030,774 11,230,521 (7,797) (3,810,818,692) (19,648,715) 1,702,168,908 26,762,070,610 28,464,239,518	1,273,425,342 	1,085,237,214 805,232,235 1,117,827,113 1,661,542 111,824 1,664,415 594,843 6,504,878 (3,441,046,065) (23,761,860) (446,014,867) 28,999,581,773 28,553,566,906	917,689,000 — 797,818,225 4,102,964,869 — — — — — — — — — — — — — — — — — — —
Plan's net pension liability-ending (a)-(b)	\$_	37,064,536,619	37,606,015,966	33,602,280,365	38,659,583,951	41,156,252,475	43,393,799,632	48,924,024,385	59,007,817,464	46,170,131,656	38,849,838,954
Plan fiduciary net position as a percentage of the total pension liability Covered-employee payroll Net pension liability as a percentage of covered-employee payroll	\$	48.45% 12,256,433,730 302.41%	46.41% 11,948,582,339 314.73%	51.52% 11,965,922,552 280.82%	42.90% 11,775,149,674 328.32%	42.04% 11,440,021,762 359.76%	40.45% 11,360,644,671 381.97%	36.78% 11,296,345,312 433.10%	31.20% 11,320,198,747 521.26%	38.21% 11,441,433,226 403.53%	42.74% 11,448,531,265 339.34%
Notes to Schedule:											
Changes in benefit terms: The Division of Pensions and Benefits adopted a new policy regarding th prior to retirement or death, interest was credited on member accumulate first two years of inactivity prior to retirement or death.											
Changes in assumptions: Discount rate Long-term expected rate of return		7.00% 7.00%	7.00% 7.00%	7.00% 7.00%	7.00% 7.00%	6.28% 7.00%	5.66% 7.00%	5.00% 7.00%	3.98% 7.65%	4.90% 7.90%	5.39% 7.90%

For 2021 through 2023, the Scale MP-2021 was used for mortality improvement. For 2022, demographic assumptions were updated to reflect the most recent experience study for the period July 1, 2018 to June 30, 2021.

For 2020, the mortality improvement scale was updated to Scale MP-2020.
For 2019, the assumed rates of retirement, mortality, salary increases, and inflation were updated based on the July 1, 2014 - June 30, 2018 Experience Study. For pre-retirement mortality, the Pub-2010 General Below-Median Income Employee mortality table with a 82.2% adjustment for males and 101.4% adjustment for females, and with future improvement from the base year of 2010 on a generational basis was used. For healthy retirees and beneficiaries, the Pub-2010 General Below-Median Income Healthy Retiree mortality table with a 91.4% adjustment for males and 99.7% adjustment for females, and with future improvement from the base year of 2010 on a generational basis was used. For disabled retiree mortality, the Pub-2010 Non-Safety Disabled Retiree mortality table with a 127.7% adjustment for males, and a 117.2% adjustment for females, and with future improvement from the base year of 2010 on a generational basis was used. For 2019 mortality

For 2016, demographic assumptions were revised in accordance with the results of the July 1, 2011 - June 30, 2014 experience study and the mortality improvement scale incorporated the plan actuary's modified MP-2014 projection scale. Further, salary increases were assumed to increase between 1.65% and 4.15% (based on age) through fiscal year 2026 and 2.65% and 5.15% (based on age) for each fiscal year thereafter.

Required Supplementary Information

Schedule of Employer Contributions - Defined Benefit Pension Plans (Unaudited)

		Actual			
	Actuarially	employer &	Contribution		Contribution
	determined	nonemployer	excess	Covered	as a percentage of
_	contribution	contribution	(deficiency)	payroll	covered payroll
		Judicial Re	tirement System		
Year ended June 30:					
2023 \$	69,711,274	69,711,704	430	77,035,971	90.49%
2022	67,651,519	72,954,420	5,302,901	76,401,342	95.49
2021	66,973,041	52,508,011	(14,465,030)	76,970,450	68.22
2020	53,213,618	37,496,113	(15,717,505)	76,627,036	48.93
2019	49,099,041	29,702,700	(19,396,341)	77,763,777	38.20
2018	47,224,943	24,023,637	(23,201,306)	69,216,709	34.71
2017	44,807,771	20,341,379	(24,466,392)	68,062,584	29.89
2016	47,305,819	14,794,774	(32,511,045)	67,097,166	22.05
2015	45,136,504	17,031,026	(28,105,478)	66,028,491	25.79
2014	43,922,167	15,874,681	(28,047,486)	67,810,110	23.41
		Prison Office	ers' Pension Fund		
Year ended June 30:					
2023 \$				N/A	N/A
2022	_	_	_	N/A	N/A
2021	_	_	_	N/A	N/A
2020	_	_	_	N/A	N/A
2019	_	_	_	N/A	N/A
2018	_	_	_	N/A	N/A
2017	_	_	_	N/A N/A	N/A
2016	_	_	_	N/A N/A	N/A
2015	_	_	_	N/A	N/A N/A
2014	_	_	_	N/A	N/A N/A
2014	_	_	_	IN/A	IV/A
		State Police F	Retirement System		
Year ended June 30:					
2023 \$	206,428,186	206,428,454	268	345,191,396	59.80%
2022	191,415,727	206,165,510	14,749,783	332,022,798	62.09
2021	180,556,737	141,212,825	(39,343,912)	298,254,514	47.35
2020	167,567,439	117,911,260	(49,656,179)	296,189,926	39.81
2019	161,134,729	98,182,956	(62,951,773)	275,790,087	35.60
2018	145,908,823	74,603,780	(71,305,043)	284,707,387	26.20
2017	135,017,662	53,006,614	(82,011,048)	277,771,135	19.08
2016	120,800,705	37,435,541	(83,365,164)	275,477,457	13.59
2015	110,904,703	38,527,297	(72,377,406)	262,496,289	14.68
2014	105,093,378	36,436,923	(68,656,455)	262,063,829	13.90

Required Supplementary Information

Schedule of Employer Contributions - Defined Benefit Pension Plans (Unaudited)

		Actuarially determined	Actual employer & nonemployer	Contribution excess	Covered	Contribution as a percentage of
		contribution	contribution	(deficiency)	payroll	covered payroll
		Co	onsolidated Police a	nd Firemen's Pension	n Fund	
Year ended J	une 30:					
2023	\$	596,597	76,000	(520,597)	N/A	N/A
2022		76,209	76,000	(209)	N/A	N/A
2021		245,506	248,000	2,494	N/A	N/A
2020		_	_	_	N/A	N/A
2019		_	_	_	N/A	N/A
2018		325,191	325,000	(191)	N/A	N/A
2017		884,680	1,539,280	654,600	N/A	N/A
2016		491,683	1,324,017	832,334	N/A	N/A
2015		_	1,577,751	_	N/A	N/A
2014		864,041	1,900,831	1,036,790	N/A	N/A
			Teachers' Pensi	ion and Annuity Fund	I	
Year ended J	une 30:					
2023	\$	4,001,746,562	4,172,939,358	171,192,796	11,866,192,351	35.17%
2022		3,877,974,331	4,191,916,812	313,942,481	11,509,652,923	36.42
2021		3,727,967,714	2,936,047,960	(791,919,754)	11,338,928,538	25.89
2020		3,286,527,638	2,271,007,729	(1,015,519,909)	11,061,603,138	20.53
2019		3,249,224,200	2,015,496,648	(1,233,727,552)	10,823,504,797	18.62
2018		3,035,344,625	1,516,131,450	(1,519,213,175)	10,636,814,121	14.25
2017		2,737,175,151	1,127,018,480	(1,610,156,671)	10,436,205,103	10.80
2016		2,544,811,534	800,069,277	(1,744,742,257)	10,305,472,484	7.76
2015		2,306,611,715	540,603,535	(1,766,008,180)	10,162,263,470	5.32
2014		2,159,287,358	427,700,146	(1,731,587,212)	10,038,792,896	4.26
			Police and Fireme	en's Retirement Syste	em	
Year ended J	une 30:					
2023	\$	1,942,204,908	1,957,388,222	15,183,314	4,308,888,412	45.43%
2022		1,798,890,158	1,845,994,703	47,104,545	4,201,978,195	43.93
2021		1,725,652,140	1,600,575,026	(125,077,114)	4,142,905,791	39.85
2020		1,592,156,607	1,427,886,341	(164,270,266)	3,937,977,209	36.26
2019		1,545,236,051	1,332,222,254	(213,013,797)	3,870,718,707	34.42
2018		1,424,767,509	1,236,395,284	(188,372,225)	3,803,348,329	32.51
2017		1,335,659,737	1,046,327,392	(289,332,345)	3,726,807,562	28.08
2016		1,311,849,713	986,654,840	(325,194,873)	3,695,509,355	26.70
2015		1,217,110,411	941,950,336	(275,160,075)	3,682,677,356	25.58
2014		1,150,719,106	880,431,697	(270,287,409)	3,678,910,266	23.93

Required Supplementary Information

Schedule of Employer Contributions - Defined Benefit Pension Plans (Unaudited)

	Actuarially determined contribution		etermined nonemployer excess ontribution contribution (deficiency)		Covered payroll	Contribution as a percentage of covered payroll
			Public Employees'	Retirement System		
Year ended Jun	e 30:					
2023	\$	3,078,274,829	3,195,194,692	116,919,863	12,256,433,730	26.07%
2022		2,984,018,597	3,085,421,792	101,403,195	11,948,582,339	25.82
2021		2,860,929,748	2,431,743,316	(429,186,432)	11,965,922,552	20.32
2020		2,457,669,386	2,015,797,615	(441,871,771)	11,775,149,674	17.12
2019		2,457,773,619	1,912,209,917	(545,563,702)	11,440,021,762	16.72
2018		2,306,287,092	1,632,971,072	(673,316,020)	11,360,644,671	14.37
2017		2,207,859,541	1,448,520,025	(759,339,516)	11,296,345,312	12.82
2016		2,097,570,117	1,265,246,226	(832,323,891)	11,320,198,747	11.18
2015		1,935,315,246	1,067,584,583	(867,730,663)	11,441,433,226	9.33
2014		1,797,073,081	941,023,184	(856,049,897)	11,448,531,265	8.22

See accompanying independent auditors' report.

Schedule of Employer Contributions - Defined Benefit Pension Plans

Last 10 Fiscal Years

(Unaudited)

Notes to Schedule:

Method and assumptions used in calculations of employers' actuarially determined contributions: The actuarially determined contributions are calculated as of July 1 preceding the fiscal year in which the contributions are reported. Unless otherwise noted above, the following actuarial methods and assumptions were used to determine contribution rates in the Schedule of Employer Contributions.

	JRS	POPF	SPRS	CPFPF	TPAF	PFRS	PERS
Actuarial cost method Amortization method Remaining amortization period Asset valuation method	Projected Unit Credit Level Dollar, open 30 years Five-year smoothing difference between market value and expected actuarial value	Projected Unit Credit Level Dollar 1 year Market value	Projected Unit Credit Level Dollar, open 30 years Five-year smoothing difference between market value and expected actuarial value	Projected Unit Credit Level Dollar 1 year Market value	Projected Unit Credit Level Dollar, open 30 years Five-year smoothing difference between market value and expected actuarial value	Projected Unit Credit Level Dollar, open 30 years Five-year smoothing difference between market value and expected actuarial value	Projected Unit Credit Level Dollar, open 30 years Five-year smoothing difference between market value and expected actuarial value
Projected salary increase 2023							
Initial fiscal year applied through	2025	N/A^	All future years	N/A^	All future years	All future years	All future years
Rate	2.00%	N/A^	2.75 - 6.75% based on years of service	N/A^	2.75 - 4.25% based on years of service	3.25 - 16.25% based on years of service	2.75 - 6.55% based on years of service
Thereafter	2.75%	N/A^	Not Applicable	N/A^	Not Applicable	Not Applicable	Not Applicable
2022							
Initial fiscal year applied through	2025	N/A^	All future years 2.75 - 6.75% based on	N/A^	All future years 2.75 - 4.25% based on	All future years 3.25 - 16.25% based on	All future years 2.75 - 6.55% based on
Rate	2.00%	N/A^	years of service	N/A^	years of service	years of service	years of service
Thereafter	2.75%	N/A^	Not Applicable	N/A^	Not Applicable	Not Applicable	Not Applicable
2021 Initial fiscal year applied through	2025	N/A^	2025	N/A^	2026	N/A	2026
Rate	2.00%	N/A^	2.95%	N/A^	1.55 - 4.45% based on years of service	Varies based on experience	2.00 - 6.00% based on years of service
Thereafter	2.75%	N/A^	3.95%	N/A^	2.75 - 5.65% based on years of service	Varies based on experience	3.00 - 7.00% based on years of service
2016 through 2020 Initial fiscal year applied through	2025	N/A^	2025	N/A^	2026	2025	2026
Rate	2.00%	N/A^	2.95%	N/A^	1.55 - 3.80% based on vears of service	2.10 - 8.98% based on age	1.65 - 4.15% based on age
Thereafter	3.00%	N/A^	3.95%	N/A^	2.00 - 4.90% based on years of service	3.10 - 9.98% based on age	2.65 - 5.15% based on age
2014 and 2015							
Through fiscal year 2021	2.00%	N/A^	2.95%	N/A^	Varies based on experience	2.60 - 9.48% based on age	2.15 - 4.40% based on age
Thereafter	3.00%	N/A^	3.95%	N/A^	Varies based on experience	3.60 - 10.48% based on age	3.15 - 5.40% based on age
Projected COLAs Investment rate of return	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
2023	7.00%	2.00%	7.00%	2.00%	7.00%	7.00%	7.00%
2022	7.00%	2.00%	7.00%	2.00%	7.00%	7.00%	7.00%
2021	7.30%	2.00%	7.30%	2.00%	7.30%	7.30%	7.30%
2020	7.30%	2.00%	7.30%	2.00%	7.30%	7.30%	7.30%
2019	7.50%	5.00%	7.50%	2.00%	7.50%	7.50%	7.50%
2018	7.50%	5.00%	7.50%	2.00%	7.50%	7.50%	7.50%
2017	7.50%	5.00%	7.50%	2.00%	7.50%	7.50%	7.50%
2016	7.65%	5.00%	7.65%	2.00%	7.65%	7.65%	7.65%
2015	7.90%	5.00%	7.90%	2.00%	7.90%	7.90%	7.90%
2014	7.90%	5.00%	7.90%	2.00%	7.90%	7.90%	7.90%

^{*} Pursuant to the provisions of Chapter 78, P.L. 2011, cost of living adjustment (COLA) increases were suspended for all current and future retirees of all retirement systems.

Contributions: Contributions reported on Schedule 1 include actual contributions by State and, where applicable, the local employer's contribution revenue recorded in fiscal year 2019 that is due in fiscal year 2020 and contributions to the Non-Contributory Group Insurance Premium Fund. Contributions reported on Schedule 2 represent actual contributions by the State and local employers (where applicable) made during the year, including contributions to the Non-Contributory Group Life Insurance Premium Fund.

[^] This is a closed plan, therefore there are no active employees.

Required Supplementary Information

Schedule of Investment Returns - Defined Benefit Pension Plans

Annual Money-Weighted Rate of Return, Net of Investment Expense

(Unaudited)

	JRS, SPRS, TPAF, PERS and PFRS*	POPF	CPFPF		
Year ended June 30:					
2023	9.12%	3.66%	3.66%		
2022	(7.66)%	0.24%	0.24%		
2021	28.60%	0.12%	0.12%		
2020	1.40%	1.57%	1.57%		
2019	6.17%	2.29%	2.29%		
2018	9.11%	1.36%	1.36%		
2017	13.01%	0.53%	0.53%		
2016	(1.15)%	0.28%	0.50%		
2015	4.08%	0.09%	0.34%		
2014	16.79%	0.09%	0.02%		

^{*} The annual money-weighted rate of return, net of investment expense, which includes JRS, SPRS, TPAF, PFRS and PERS, is calculated on the investments held within Common Pension Funds D and E, and the State of New Jersey, Cash Management Fund for the Pension Funds, as a whole rather than by individual plan since the portfolios are managed through common trust funds.

Required Supplementary Information

Schedule of Changes in Net OPEB Liability and Related Ratios - Defined Benefit Other Postemployment Benefit Plan

(Unaudited)

June 30, 2023

	2023	2022	2021	2020	2019	2018	2017
Total OPEB liability:							
Service cost	\$ 597,135,801	796,654,029	846,075,674	605,949,339	666,574,660	896,235,148	1,064,525,862
Interest on total OPEB liability	581,375,849	401,372,615	413,837,061	497,444,533	636,082,461	764,082,232	648,423,508
Changes of benefit terms	23,039,435	402,474,416	2,029,119	1,055,527	(1,903,958)	 .	_
Difference between expected and actual experience	(2,123,324,632)	572,046,963	(1,564,654,436)	852,424,987	(1,399,921,930)	(3,626,384,047)	
Effect of changes of assumptions	255,103,873 62.414.616	(3,599,550,175)	333,095,471	3,138,556,114 37.546,413	(1,635,760,217) 43.249.952	(2,314,240,675) 53,987,166	(2,587,850,974)
Contributions - employee Benefit payments	(597,093,300)	53,166,360 (585,291,951)	43,309,873 (509,642,373)	(466,218,997)	(470,179,613)	(421,621,253)	53,585,505 (417,488,848)
Deficit payments	(397,093,300)	(363,291,931)	(509,042,573)	(400,210,997)	(470,179,013)	(421,021,233)	(417,400,040)
Net change in total OPEB liability	(1,201,348,358)	(1,959,127,743)	(435,949,611)	4,666,757,916	(2,161,858,645)	(4,647,941,429)	(1,238,804,947)
Total OPEB liability-beginning	16,090,925,144	18,050,052,887	18,486,002,498	13,819,244,582	15,981,103,227	20,629,044,656	21,867,849,603
Total OPEB liability-ending (a)	\$ 14,889,576,786	16,090,925,144	18,050,052,887	18,486,002,498	13,819,244,582	15,981,103,227	20,629,044,656
Plan fiduciary net position:							
Contributions-employer	\$ 431,386,179	389,490,003	325,097,477	292,404,377	346,415,056	421,194,662	381,813,324
Contributions-nonemployer contributing entity	55,614,978	45,792,081	37,777,433	35,011,940	43,854,500	53,548,285	53,064,311
Contributions - employee	62,414,616	53,166,360	43,309,873	37,546,413	43,249,952	53,987,166	53,585,505
Net investment income	2,001,914	235,962	201,343	2,858,334	4,826,936	2,320,422	791,049
Benefit payments	(597,093,300)	(585,291,951)	(509,642,373)	(466,218,997)	(470,179,613)	(421,621,253)	(417,488,848)
Administrative expense	(12,616,744)	(12,334,441)	(11,334,383)	(9,913,267)	(9,478,435)	(8,200,113)	(8,894,576)
Net change in Plan fiduciary net position	(58,292,357)	(108,941,986)	(114,590,630)	(108,311,200)	(41,311,604)	101,229,169	62,870,765
Plan fiduciary net position-beginning	(58,670,334)	50,271,652	164,862,282	273,173,482	314,485,086	213,255,917	150,385,152
Plan fiduciary net position-ending (b)	(116,962,691)	(58,670,334)	50,271,652	164,862,282	273,173,482	314,485,086	213,255,917
Plan's net OPEB liability-ending (a)-(b)	\$ 15,006,539,477	16,149,595,478	17,999,781,235	18,321,140,216	13,546,071,100	15,666,618,141	20,415,788,739
Plan fiduciary net position as a percentage of the total OPEB liability	-0.79%	-0.36%	0.28%	0.89%	1.98%	1.97%	1.03%
Covered-employee payroll	\$ 5,385,250,793	5,244,103,018	4,991,824,527	4,872,992,497	4,801,667,470	4,646,915,753	4,336,016,376
Net OPEB liability as a percentage of covered-employee payroll	278.66%	307.96%	360.59%	375.97%	282.11%	337.14%	470.84%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Notes to Schedule:

Changes in benefit terms:

There is an increase in liability from fiscal year 2020 to 2021 due to employers adopting and or changing Chapter 48 provisions.

In 2019 there were slight changes to the Chapter 48 provisions. In 2020 employers adopted amended Chapter 48 provisions, which provided different levels of subsidy from fiscal year 2019.

Changes in assumptions:

- In 2022 and 2023, demographic assumptions were updated to reflect the most recent PFRS and PERS experience studies for the period July 1, 2018 to June 30, 2021.
- Further, the discount rate changed to 3.54% from 2.16% for 2022 and from 3.54% to 3.65% for 2023. For 2022 and 2023, the Scale MP-2021 was used for mortality improvement, too.
- In 2021, the discount rate was changed to 2.16% from 2.21% and the mortality improvement scale was changed to Scale MP-2021.
- In 2020, the discount rate changed to 2.21% from 3.50%. Further, there were changes in the assumed health care cost trend rates, the impact of the repeal of the excise tax, and the use of the Scale MP-2020 for mortality improvement.
- In 2019, the discount rate changed to 3.50% from 3.87%, and there were changes in the assumed health care cost trend, PPO/HMO future retiree elections, and excise tax assumptions. Further, decrements, salary scale, and mortality assumptions were updated based on the July 1, 2013 June 30, 2018 PFRS and July 1, 2014 June 30, 2018 PERS experience studies. For mortality related to PFRS members and retirees, the Pub-2010 "Safety" classification headcount-weighted mortality table with fully generational mortality improvement projections from the central year using Scale MP-2019 was used. For mortality related to PERS members and retirees, the Pub-2010 "General" classification headcount-weighted mortality table with fully generational mortality improvement projections from the central year using Scale MP-2019 was used.
- In 2018, the discount rate changed to 3.87% from 3.58%, there were changes in the census, claims and premiums experience and a decrease in the assumed health care cost trend and excise tax assumptions.

Required Supplementary Information

Schedule of Investment Returns - Defined Benefit Other Postemployment Benefit Plan

Annual Money-Weighted Rate of Return, Net of Investment Expense

(Unaudited)

Year	ended	June.	30.

2023	3.66%
2022	0.24%
2021	0.12%
2020	1.57%
2019	2.29%
2018	1.28%
2017	0.58%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Schedule of Administrative Expenses

Year ended June 30, 2023

		JRS	POPF	SPRS	CPFPF	TPAF	PFRS	PERS	NJSEDCP	Total
Personnel services:										
Salaries and wages	\$	145,800	1,541	656,151	1,645	8,054,407	1,868,554	11,523,617	304,733	22,556,448
Employee benefits		25,540	598	147,006	212	4,368,129	1,253,246	5,664,729	186,377	11,645,837
Total personnel										
services		171,340	2,139	803,157	1,857	12,422,536	3,121,800	17,188,346	491,110	34,202,285
Professional services:										
Actuarial services		33,300	429	160,627	312	190,215	201,100	268,727	_	854,710
Data processing		3,124	245	49,120	190	1,397,174	3,169	1,633,664	_	3,086,686
Information systems		4,012	308	43,033	191	1,248,150	53,862	2,093,542	26,991	3,470,089
Other professional (1)		2,616	213	64,841	124	1,423,645	13,255,385	1,874,805	_	16,621,629
Medical reviews (exams/hearings)		_	_	6,031	_	184,753	485,899	509,635	_	1,186,318
Elections		_	_	_	_	_	_	7,588	_	7,588
Internal audit and legal		2,562	164	95,240	137	834,954	404,506	246,451		1,584,014
Total professional										
services		45,614	1,359	418,892	954	5,278,891	14,403,921	6,634,412	26,991	26,811,034
Communication:										
Travel		_	_	_	_	2,514	8,130	4,040	_	14,684
Telephone		340	22	5,001	21	140,677	_	222,031	2,800	370,892
Postage		684	63	11,218	53	389,719	_	933,413	1,000	1,336,150
Motor pool		39	2	976	2	8,976	_	14,422	_	24,417
Printing and office		405	21	7,476	17	107,144		113,636		228,699
Total communication	_	1,468	108	24,671	93	649,030	8,130	1,287,542	3,800	1,974,842
Miscellaneous:										
Office space		1,775	186	32,872	147	914,164	_	1,396,034	12,000	2,357,178
Maintenance		50	12	5,608	8	55,224	184,911	90,270	30,394	366,477
Equipment		33	27	8,155	19	34,740	100,568	88,421	_	231,963
Other services and charges			11_	2,214	3	7,544		7,644		17,406
Total miscellaneous		1,858	226	48,849	177	1,011,672	285,479	1,582,369	42,394	2,973,024
Total administrative										
expenses	\$	220,280	3,832	1,295,569	3,081	19,362,129	17,819,330	26,692,669	564,295	65,961,185

(1) Portion of consulting

Schedule of Investment Expenses

Year ended June 30, 2023

_	JRS	POPF	SPRS	CPFPF	TPAF	PFRS	PERS	NJSEDCP	Total
Investment expense \$	42,655	720	429,558	262	5,452,057	6,239,100	6,725,782	229,931	19,120,065

Schedule of Expenses for Consultants

Year ended June 30, 2023

	_	JRS	POPF	SPRS	CPFPF	TPAF	PFRS	PERS	Total
Actuarial:									
Cheiron	\$	33,300	429	160,627	312	190,215	_	268,727	653,610
Segal		_	_	_	_	_	201,100	_	201,100
Professional services:									
Exams/Hearings/Court Reporters		_	_	6,031	_	184,753	485,899	509,635	1,186,318
Board elections:									
Election America								7,588	7,588
Total expenses for									
consultants	\$	33,300	429	166,658	312	374,968	686,999	785,950	2,048,616

Combining Schedule of Fiduciary Net Position Information Fiduciary Funds – Select Pension Trust Funds

June 30, 2023

				Consolidated				
	Judicial Retirement System	Prison Officers' Pension Fund	State Police Retirement System	Police and Firemen's Pension Fund	Teachers' Pension and Annuity Fund	Police and Firemen's Retirement System	Public Employees' Retirement System	Total
Assets:								
Cash and cash equivalents	\$ 5,196,110	106,729	21,134,589	412,746	408,320,703	251,031,721	383,839,905	1,070,042,503
Receivables:								
Contributions:								
Members	375,614	_	1,289,970	_	94,258,915	55,871,258	62,905,922	214,701,679
Employers and nonemployer	_	_	_	140,102	110,706,886	1,364,692,473	1,409,522,790	2,885,062,251
Accrued interest and dividends	4,416	57	17,538	44	353,359	4,382,152	332,946	5,090,512
Other			56,410	8,777	1,723,218	35,534,127	5,710,289	43,032,821
Total receivables	380,030	57	1,363,918	148,923	207,042,378	1,460,480,010	1,478,471,947	3,147,887,263
Investments, at fair value:								
Cash Management Fund	26,360,535	4,621,181	47,897,596	1,655,833	819,150,356	728,522,878	921,807,802	2,550,016,181
Common Pension Fund A	4,647,435	· · · —	59,039,642	, , <u> </u>	722,590,136	· · · —	934,995,145	1,721,272,358
Common Pension Fund D	130,654,929	_	1,340,183,039	_	17,254,338,386	18,982,222,823	20,817,477,742	58,524,876,919
Common Pension Fund E	51,274,443	_	655,173,436	_	8,024,450,304	9,374,677,298	10,380,226,094	28,485,801,575
Total investments	212,937,342	4,621,181	2,102,293,713	1,655,833	26,820,529,182	29,085,422,999	33,054,506,783	91,281,967,033
Securities lending collateral	3,930,168	_	40,313,400	_	519,019,434	570,995,092	626,200,511	1,760,458,605
Members' loans and mortgages	22,192		9,553,770		275,371,477	2,045,775,403	545,441,085	2,876,163,927
Total assets	222,465,842	4,727,967	2,174,659,390	2,217,502	28,230,283,174	33,413,705,225	36,088,460,231	100,136,519,331
Liabilities:								
Accounts payable and accrued expenses	22,405	_	112,159	_	143,067,906	9,359,498	181,317,503	333,879,471
Retirement benefits payable	5,660,013	62,933	21,377,967	42,143	411,638,560	260,987,056	410,445,121	1,110,213,793
Noncontributory group life insurance premiums payable	· · · —	, <u> </u>	2,921,331	, <u> </u>	7,204,050	5,338,509	12,380,936	27,844,826
Administrative expense payable	220,281	3,832	1,295,569	3,081	19,362,129	· · · · —	26,692,669	47,577,561
Securities lending collateral and rebates payable	3,928,728		40,298,629		518,829,261	570,785,876	625,971,066	1,759,813,560
Total liabilities	9,831,427	66,765	66,005,655	45,224	1,100,101,906	846,470,939	1,256,807,295	3,279,329,211
Net position restricted for pension	\$ 212,634,415	4,661,202	2,108,653,735	2,172,278	27,130,181,268	32,567,234,286	34,831,652,936	96,857,190,120

Combining Schedule of Changes In Fiduciary Net Position Information Fiduciary Funds – Select Pension Trust Funds

Year ended June 30, 2023

Consolidated

	Judicial Retirement System	Prison Officers' Pension Fund	State Police Retirement System	Police and Firemen's Pension Fund	Teachers' Pension and Annuity Fund	Police and Firemen's Retirement System	Public Employees' Retirement System	Total
Additions:								
Contributions:								
Members:								
State	\$ 9,799,479	_	30,727,554	_	933,033,324	53,703,766	357,335,214	1,384,599,337
Local	_	_	_	_	_	385,533,004	604,584,027	990,117,031
Employers:	00 744 704		000 400 454		0.404.550	007 770 705	4 000 045 000	0.500.000.000
State Local	69,711,704	_	206,428,454	_	3,494,558	397,779,705 1,332,081,903	1,860,915,639 1,336,527,259	2,538,330,060 2,668,609,162
Nonemployer	_	_	_	— 76,000	4,169,444,800	232,824,730	61,366,036	4,463,711,566
Employer specific and other	_	_	_	202,530	449,590	10,619,873	11,381,604	22,653,597
								
Total contributions	79,511,183		237,156,008	278,530	5,106,422,272	2,412,542,981	4,232,109,779	12,068,020,753
Investment income:								
Net increase in fair value of investments	12,558,985	_	131,621,220	_	1,679,286,570	1,789,708,385	2,074,116,477	5,687,291,637
Interest	4,775,811	169,991	47,235,218	65,674	626,772,212	714,507,518	787,749,293	2,181,275,717
	17,334,796	169,991	178,856,438	65,674	2,306,058,782	2,504,215,903	2,861,865,770	7,868,567,354
Less investment expense	42,655	720	429,558	262	5,452,057	6,239,100	6,725,782	18,890,134
Net investment income/(loss)	17,292,141	169,271	178,426,880	65,412	2,300,606,725	2,497,976,803	2,855,139,988	7,849,677,220
Transfers	1,284,248		387,576		19,745,418	3,318,920	14,506,497	39,242,659
Total additions	98,087,572	169,271	415,970,464	343,942	7,426,774,415	4,913,838,704	7,101,756,264	19,956,940,632
Deductions: Benefits:								
Benefit expense - retirement allowances	66,295,316	455,371	252,067,625	328,373	4,782,278,137	2,990,411,812	4,511,211,847	12,603,048,481
Noncontributory group insurance expense	1,385,704	455,571	1,554,454	- -	55,182,358	42,265,825	109,678,977	210,067,318
Refunds of contributions	511,215	_	145,718	_	71,304,446	10,774,061	172,396,653	255,132,093
Transfers	100,036	_	23,087	_	14,776,834	566,478	25,797,572	41,264,007
Administrative and miscellaneous expenses	177,626	3,112	861,652	2,819	13,581,904	11,239,652	19,140,588	45,007,353
Total deductions	68,469,897	458,483	254,652,536	331,192	4,937,123,679	3,055,257,828	4,838,225,637	13,154,519,252
Change in net position	29,617,675	(289,212)	161,317,928	12,750	2,489,650,736	1,858,580,876	2,263,530,627	6,802,421,380
Net position restricted for pension:								
Beginning of year	183,016,740	4,950,414	1,947,335,807	2,159,528	24,640,530,532	30,708,653,410	32,568,122,309	90,054,768,740
End of year	\$ 212,634,415	4,661,202	2,108,653,735	2,172,278	27,130,181,268	32,567,234,286	34,831,652,936	96,857,190,120