



Actuarial Valuation Report

State of New Jersey

State Health Benefits Program (State Government)

GASB 75 Accounting Results For the Fiscal Year Ending June 30,
2022

Measurement Date June 30, 2021

Introduction

This report documents the results of the actuarial valuation for the fiscal year ending June 30, 2022 of the State Health Benefits Program for the State of New Jersey. The plan is a single-employer plan and does not issue a separate financial statement. As a result, all reporting requirements are included in the employer's financial statement. These results are based on a Measurement Date of June 30, 2021. The information provided in this report is intended strictly for documenting information relating to company and plan disclosure and reporting requirements.

Determinations for purposes other than the financial accounting requirements may be significantly different from the results in this report. Thus, the use of this report for purposes other than those expressed here may not be appropriate.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. In addition, the valuation results are based on our understanding of the financial accounting and reporting requirements under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 75 (GASB 75) including any guidance or interpretations provided by the Company and/or its audit partners prior to the issuance of this report. The information in this report is not intended to supersede or supplant the advice and interpretations of the State of New Jersey's auditors. Additional disclosures may be required under GASB 74.

A valuation model was used to develop the liabilities for this valuation. The valuation model relies on ProVal software, which was developed by Winklevoss Technologies, LLC. Experts within Aon selected this software and determined it is appropriate for performing valuations. We coded and reviewed the software for the provisions, assumptions, methods, and data of the State Health Benefits Program.

The valuation model outputs various cost scenarios. The "1% increase" and "1% decrease" interest rate scenarios vary only the discount rate assumption, in order to illustrate the impact of a change in that assumption in isolation. In practice, certain other assumptions would also be expected to vary when the discount rate changes. Therefore, the output from these scenarios should be used solely for assessing the impact of the discount rate in isolation and may not represent a realistic set of results for other purposes.

The "1% increase" and "1% decrease" healthcare cost trend scenarios vary only the healthcare cost trend assumption, in order to illustrate the impact of a change in that assumption in isolation. Therefore, the output from these scenarios should be used solely for assessing the impact of the healthcare cost trend in isolation and may not represent a realistic set of results for other purposes.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to (but not limited to) such factors as the following:

- Plan experience differing from that anticipated by the economic or demographic assumptions;
- Changes in actuarial methods or in economic or demographic assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- Changes in plan provisions or applicable law.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

Funded status measurements shown in this report are determined based on various measures of plan assets and liabilities. For entity and plan disclosure and reporting purposes, funded status is determined using plan assets measured at market value. Plan liabilities are measured based on the interest rates and other assumptions summarized in the Actuarial Assumptions and Methods section of this report.

These funded status measurements may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, and funded status measurements for State of New Jersey and plan disclosure and reporting purposes may not be appropriate for assessing the need for or the amount of future contributions. In conducting the valuation, we have relied on personnel, plan design, health care claim cost, and asset information supplied by State of New Jersey as of the valuation date. While we cannot verify the accuracy of all the information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results.

The actuarial assumptions and methods used in this valuation are described in the Actuarial Assumptions and Methods section of this report. State of New Jersey selected the economic and demographic assumptions and prescribed them for use for purposes of compliance with GASB 75. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience.

The undersigned are familiar with the near-term and long-term aspects of OPEB valuations and collectively meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. The information provided in this report is dependent upon various factors as documented throughout this report, which may be subject to change. Each section of this report is considered to be an integral part of the actuarial opinions.

To our knowledge, no colleague of Aon providing services to State of New Jersey has any material direct or indirect financial interest in State of New Jersey. Thus, we believe there is no relationship existing that might affect our capacity to prepare and certify this actuarial report for State of New Jersey.



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Accounting Requirements

Development of GASB 75 Net OPEB Expense

Calculation Details

The following table illustrates the Net OPEB Liability under GASB 75.

	Measurement Date 6/30/2020	Measurement Date 6/30/2021
(1) OPEB Liability		
(a) Retired Participants and Beneficiaries Receiving Payment	\$ 12,055,580,656	\$ 10,526,000,085
(b) Active Participants	<u>16,241,109,513</u>	<u>14,428,062,138</u>
(c) Total	\$ 28,296,690,169	\$ 24,954,062,223
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>
(3) Net OPEB Liability	\$ 28,296,690,169	\$ 24,954,062,223
(4) Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	0.00%	0.00%
(5) Deferred Outflow of Resources for Contributions Made After Measurement Date	\$ 602,287,420	TBD

Expense

The following table illustrates the OPEB expense under GASB 75.

	Measurement Date 6/30/2020	Measurement Date 6/30/2021
(1) Service Cost	\$ 653,852,814	\$ 1,118,702,034
(2) Interest Cost	649,957,785	643,461,262
(3) Expected Investment Return	0	0
(4) Employee Contributions	0	0
(5) Administrative Expense	0	0
(6) Plan Changes	0	0
(7) Amortization of Unrecognized		
(a) Liability (Gain)/Loss	(388,108,505)	(961,629,525)
(b) Asset (Gain)/Loss	0	0
(c) Assumption Change (Gain)/Loss	<u>(338,533,037)</u>	<u>(293,474,907)</u>
(8) Total Expense	\$ 577,169,057	\$ 507,058,864

Shown below are details regarding the calculation of Service Cost, Interest Cost and Expected Investment Return components of the Expense.

	Measurement Date 6/30/2020	Measurement Date 6/30/2021
(1) Development of Service Cost:		
(a) Normal Cost at Beginning of Measurement Period	\$ 653,852,814	\$ 1,118,702,034
(2) Development of Interest Cost:		
(a) Total OPEB Liability at Beginning of Measurement Period	\$ 18,205,874,446	\$ 28,296,690,169
(b) Normal Cost at Beginning of Measurement Period	653,852,814	1,118,702,034
(c) Gross Benefit Payments ¹	(618,413,059)	(639,886,132)
(d) Actual Contributions—Employee ¹	34,380,625	37,598,712
(e) Discount Rate	<u>3.50%</u>	<u>2.21%</u>
(f) Interest Cost	\$ 649,957,785	\$ 643,461,262

¹ Data was provided by the State.

Reconciliation of Net OPEB Liability

Shown below are details regarding the Total OPEB Liability, Plan Fiduciary Net Position, and Net OPEB Liability for the Measurement Period from June 30, 2020 to June 30, 2021:

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (c) = (a) – (b)
Balance Recognized at 6/30/2020 (Based on 6/30/2020 Measurement Date)	\$ 28,296,690,169	\$ 0	\$ 28,296,690,169
Changes Recognized for the Fiscal Year:			
Service Cost	\$ 1,118,702,034	N/A	\$ 1,118,702,034
Interest on the Total OPEB Liability	643,461,262	N/A	643,461,262
Changes of Benefit Terms	0	N/A	0
Differences Between Expected and Actual Experience	(4,886,399,090)	N/A	(4,886,399,090)
Changes of Assumptions	383,895,268	N/A	383,895,268
Gross Benefit Payments ¹	(639,886,132)	(639,886,132)	0
Contributions From the Employer ¹	N/A	602,287,420	(602,287,420)
Contributions From the Employee ¹	37,598,712	37,598,712	0
Net Investment Income	N/A	0	0
Administrative Expense	N/A	0	0
Net Changes	\$ (3,342,627,946)	\$ 0	\$ (3,342,627,946)
Balance Recognized at 6/30/2021 (Based on 6/30/2021 Measurement Date)	\$ 24,954,062,223	\$ 0	\$ 24,954,062,223

Notes to Schedule:

Differences Between Expected and Actual Experience: The \$4,886,399,090 decrease in liability from June 30, 2020 to June 30, 2021 is due to changes in the census.

Update in census information	(\$959,973,090)
Premiums and Claims Experience	<u>(3,926,426,000)</u>
Total	(\$4,886,399,090)

Changes in Assumptions: The \$383,895,268 increase in the liability from June 30, 2020 to June 30, 2021 is due to the combined effect of the following:

Trend Update	\$88,338,888
Mortality Projection Scale Update	99,887,356
Discount Rate Change	<u>195,669,024</u>
Total Changes in Assumptions	\$383,895,268

¹ Data was provided by the State.

Liability (Gain)/Loss

The following table illustrates the liability gain/loss under GASB 75.

	Measurement Date 6/30/2020	Measurement Date 6/30/2021
(1) OPEB Liability at Beginning of Measurement Period	\$ 18,205,874,446	\$ 28,296,690,169
(2) Service Cost	653,852,814	1,118,702,034
(3) Interest on the Total OPEB Liability	649,957,785	643,461,262
(4) Changes of Benefit Terms	0	0
(5) Changes of Assumptions	4,802,217,953	383,895,268
(6) Gross Benefit Payments ¹	(618,413,059)	(639,886,132)
(7) Actual Contributions—Employee ¹	<u>34,380,625</u>	<u>37,598,712</u>
(8) Expected OPEB Liability at End of Measurement Period	\$ 23,727,870,564	\$ 29,840,461,313
(9) Actual OPEB Liability at End of Measurement Period	<u>28,296,690,169</u>	<u>24,954,062,223</u>
(10) OPEB Liability (Gain)/Loss	\$ 4,568,819,605	\$ (4,886,399,090)
(11) Average Future Working Life Expectancy	<u>8.52</u>	<u>8.52</u>
(12) OPEB Liability (Gain)/Loss Amortization	\$ 536,246,433	\$ (573,521,020)

¹ Data was provided by the State.

Deferred Outflows/Inflows

The following table illustrates the Deferred Inflows and Outflows as of the June 30, 2021 Measurement date under GASB 75.

	Deferred Outflows	Deferred Inflows
(1) Difference Between Actual and Expected Experience	\$ 3,496,326,739	\$ 9,233,141,880
(2) Net Difference Between Expected and Actual Earnings on OPEB Plan Investments	0	0
(3) Assumption Changes	<u>4,013,773,881</u>	<u>3,982,882,539</u>
(4) Sub Total	\$ 7,510,100,620	\$ 13,216,024,419
(5) Contributions Made in Fiscal Year Ending 6/30/2022 After Measurement Date	<u>TBD</u>	<u>N/A</u>
(6) Total	TBD	\$ 13,216,024,419

Amortization of Deferred Inflows/Outflows

The table below lists the amortization bases included in the deferred inflows/outflows as of the June 30, 2021 Measurement Date.

Date Established	Type of Base	Period		Balance		Annual Payment
		Original	Remaining	Original	Remaining	
6/30/2021	Liability (Gain)/Loss	8.52	7.52	(\$4,886,399,090)	(\$4,312,878,070)	(573,521,020)
6/30/2021	Assumptions	8.52	7.52	383,895,268	338,837,138	45,058,130
6/29/2020	Liability (Gain)/Loss	8.52	6.52	4,568,819,605	3,496,326,739	536,246,433
6/30/2020	Assumptions	8.52	6.52	4,802,217,953	3,674,936,743	563,640,605
6/30/2019	Liability (Gain)/Loss	8.58	5.58	(5,316,961,201)	(3,457,883,857)	(619,692,448)
6/30/2019	Assumptions	8.58	5.58	(1,216,395,242)	(791,082,221)	(141,771,007)
6/30/2018	Liability (Gain)/Loss	8.80	4.80	(2,681,029,913)	(1,462,379,953)	(304,662,490)
6/30/2018	Assumptions	8.80	4.80	(3,155,083,136)	(1,720,954,436)	(358,532,175)
6/30/2017	Assumptions	8.66	3.66	(3,480,198,182)	(1,470,845,882)	(401,870,460)
	Total Charges				(5,705,923,799)	(1,255,104,432)

Amounts Recognized in the deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in the OPEB expense as follows:

Measurement Period Ending June 30:

2022	\$(1,255,104,432)
2023	\$(1,255,104,432)
2024	\$(1,255,104,432)
2025	\$(1,118,468,474)
2026	\$ (720,595,036)
Total Thereafter	\$ (101,546,993)

Plan Fiduciary Net Position

The State does not pre-fund the liability and the funding policy is pay-as-you-go as disclosed in the section above. Therefore, the Plan Fiduciary Net Position at the beginning and the end of the Fiscal Year in addition to the Net Investment Income are assumed to be zero.

Interest Rate Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net OPEB Liability as of the June 30, 2020 Measurement date:

	1% Decrease (1.21%)	Current Rate (2.21%)	1% Increase (3.21%)
(1) Total OPEB Liability	\$ 33,588,789,792	\$ 28,296,690,169	\$ 24,108,462,432
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
(3) Net OPEB Liability/(Asset)	\$ 33,588,789,792	\$ 28,296,690,169	\$ 24,108,462,432

The following table illustrates the impact of interest rate sensitivity on the Net OPEB Liability as of the June 30, 2021 Measurement date:

	1% Decrease (1.16%)	Current Rate (2.16%)	1% Increase (3.16%)
(1) Total OPEB Liability	\$ 29,378,999,418	\$ 24,954,062,223	\$ 21,426,029,326
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
(3) Net OPEB Liability/(Asset)	\$ 29,378,999,418	\$ 24,954,062,223	\$ 21,426,029,326

Healthcare Cost Trend Sensitivity

The following table illustrates the impact of healthcare cost trend sensitivity on the Net OPEB Liability as of the June 30, 2020 Measurement date:

	1% Decrease	Trend Rate	1% Increase
(1) Total OPEB Liability	\$ 23,274,074,006	\$ 28,296,690,169	\$ 34,889,243,811
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
(3) Net OPEB Liability/(Asset)	\$ 23,274,074,006	\$ 28,296,690,169	\$ 34,889,243,811

The following table illustrates the impact of healthcare cost trend sensitivity on the Net OPEB Liability as of the June 30, 2021 Measurement date:

	1% Decrease	Trend Rate	1% Increase
(1) Total OPEB Liability	\$ 20,627,767,141	\$ 24,954,062,223	\$ 30,595,541,698
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
(3) Net OPEB Liability/(Asset)	\$ 20,627,767,141	\$ 24,954,062,223	\$ 30,595,541,698

Disclosure—Changes in the Net OPEB Liability and Related Ratios

Changes in the Net Pension Liability and Related Ratios¹

	Measurement Date: June 30,		
	2019	2020	2021
Total OPEB Liability			
Service Cost	\$ 829,363,849	\$ 653,852,814	\$ 1,118,702,034
Interest Cost	933,104,452	649,957,785	643,461,262
Changes of Benefit Terms	20,523,847	0	0
Differences Between Expected and Actual Experiences	(5,316,961,201)	4,568,819,605	(4,886,399,090)
Changes of Assumptions	(1,216,395,242)	4,802,217,953	383,895,268
Gross Benefit Payments ²	(682,509,283)	(618,413,059)	(639,886,132)
Contributions—Member ²	37,385,816	34,380,625	37,598,712
Net Change in Total OPEB Liability	\$ (5,395,487,762)	\$ 10,090,815,723	\$ (3,342,627,946)
Total OPEB Liability (Beginning)	23,601,362,208	18,205,874,446	28,296,690,169
Total OPEB Liability (Ending)	\$ 18,205,874,446	\$ 28,296,690,169	\$ 24,954,062,223
Plan Fiduciary Net Position			
Contributions—Employer ²	\$ 645,123,467	\$ 584,032,434	\$ 602,287,420
Contributions—Member ²	37,385,816	34,380,625	37,598,712
Net Investment Income	0	0	0
Gross Benefit Payments ²	(682,509,283)	(618,413,059)	(639,886,132)
Administrative Expense	0	0	0
Other	0	0	0
Net Change in Plan Fiduciary Net Position	\$ 0	\$ 0	\$ 0
Plan Fiduciary Net Position (Beginning)	0	0	0
Plan Fiduciary Net Position (Ending)	\$ 0	\$ 0	\$ 0
Net OPEB Liability (Ending)	\$ 18,205,874,446	\$ 28,296,690,169	\$ 24,954,062,223
Net Position as a Percentage of OPEB Liability	0.00%	0.00%	0.00%
Covered-Employee Payroll³	\$ 7,474,461,653	\$ 7,825,392,564	\$ 7,627,973,607
Net OPEB Liability as a Percentage of Payroll	243.57%	361.60%	327.14%

¹ GASB 75 was effective first for employer fiscal years beginning after June 15, 2017.

² Data was provided by the State.

³ Covered payroll for the measurement period is based on the payroll census data as of the beginning of the measurement period.

Disclosure—Contribution Schedule

Contributions

	Measurement Date: June 30,		
	2019	2020	2021
Actuarially Determined Contribution	\$ N/A	\$ N/A	\$ N/A
Contributions Made in Relation to the Actuarially Determined Contribution	N/A	N/A	N/A
Contribution Deficiency (Excess)	\$ N/A	\$ 0	\$ N/A
Covered-Employee Payroll	\$ 7,474,461,653	\$ 7,825,392,564	\$ 7,627,973,607
Contributions as a Percentage of Payroll	N/A	N/A	N/A

Notes to Schedule:

Valuation Date: June 30, 2020.

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method: Entry Age Normal -Level % of Salary

Asset Valuation Method: N/A

Salary Increases: Differs by pension group (e.g. - PERS, PFRS, SPRS, JRS, TPAF, ABP). See "Actuarial Assumptions and Methods" section.

Investment Rate of Return: 2.16%

Retirement Age¹: 64

Mortality: PUB-2010 "General", "Teachers" and "Safety" classification headcount-weighted mortality table with fully generation mortality improvement projections from central year using Scale MP-2021

¹ Weighted average retirement age based on June 30, 2020 census data and retirement rates provided in the "Actuarial Assumptions and Methods" section.

Appendix

Participant Data

The actuarial valuation was based on personnel information from State of New Jersey records as of June 30, 2020. Following are some of the pertinent characteristics from the personnel data as of that date.

Participant Counts as of June 30, 2020	
<u>Actives</u>	
PERS General	69,529
PERS Law Enforcement	1
PERS Legislators	174
JRS	395
SPRS	2,767
TPAF	127
ABP	18,987
PFRS	6,878
Active Total	98,858
<u>Retirees</u>	
Single Coverage	
HMO	4,299
PPO	21,223
Family Coverage	
HMO	3,610
PPO	19,719
Retiree Total	48,851
Grand Total*	147,709
*Excludes retirees with no coverage and beneficiaries	
Male / Female Ratio as of June 30, 2020	
<u>Actives</u>	
% Female	57%
% Male	43%
<u>Retirees</u>	
% Female	52%
% Male	48%
Average Age as of June 30, 2020	
Actives	47.23
Retirees	69.53
Average Service as of June 30, 2020	
Actives	13.26
Retirees	N/A

Age/Service Scatter

The following table summarizes the distribution of the future retiree population by age and service as of June 30, 2020.

State

Age	Service							Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+	
15-19	13	0	0	0	0	0	0	13
20-24	1,504	3	0	0	0	0	0	1,507
25-29	6,699	736	15	0	0	0	0	7,450
30-34	5,760	3,389	752	50	0	0	0	9,951
35-39	3,889	3,007	3,311	1,683	57	0	0	11,947
40-44	2,767	2,072	2,631	4,358	997	20	0	12,845
45-49	2,147	1,571	2,096	3,608	2,507	545	103	12,577
50-54	1,960	1,370	1,811	3,103	2,263	1,481	1,561	13,549
55-59	1,673	1,207	1,656	2,736	1,845	1,072	2,322	12,511
60-64	959	945	1,338	2,207	1,479	850	1,778	9,556
65-69	322	445	679	1,068	640	420	946	4,520
70+	85	129	301	483	331	242	861	2,432
Total	27,778	14,874	14,590	19,296	10,119	4,630	7,571	98,858

Projected Cash Flows

The following table summarizes the annual expected payments for benefits provided by the State based on assumptions and contributions described in the “Plan Provisions” and “Actuarial Assumptions and Methods” sections:

State	
Year Ending	(\$ millions)
6/30/2021 ¹	\$602.3
6/30/2022	\$693.6
6/30/2023	\$718.7
6/30/2024	\$741.0
6/30/2025	\$773.4
6/30/2026	\$814.2
6/30/2027	\$855.5
6/30/2028	\$899.5
6/30/2029	\$940.4
6/30/2030	\$986.2
6/30/2031	\$1,037.6

¹Actual health and prescription drug benefit payments and member contributions for the year ending June 30, 2021 provided by the State.

Ten-Year Projection of Total OPEB Liability

Projections assume an annual discount rate of 2.16% and a level active population. Please note that the discount rate will change each year based on the Bond Buyer General Obligation 20-Bond Municipal Bond Index rate each year and actual results will vary from the projected liability projections below.

State
(\$ millions)

Measurement Period Ending	Total OPEB Liability (Beginning)	Service Cost + Interest Cost¹	Benefit Payments²	Total OPEB Liability (End)
6/30/2022	\$ 24,954.1	\$ 1,561.1	\$ 693.6	\$ 25,821.6
6/30/2023	\$ 25,821.6	\$ 1,615.6	\$ 718.7	\$ 26,718.5
6/30/2024	\$ 26,718.5	\$ 1,672.0	\$ 741.0	\$ 27,649.5
6/30/2025	\$ 27,649.5	\$ 1,730.4	\$ 773.4	\$ 28,606.5
6/30/2026	\$ 28,606.5	\$ 1,790.6	\$ 814.2	\$ 29,582.9
6/30/2027	\$ 29,582.9	\$ 1,852.6	\$ 855.5	\$ 30,580.0
6/30/2028	\$ 30,580.0	\$ 1,916.4	\$ 899.5	\$ 31,596.9
6/30/2029	\$ 31,596.9	\$ 1,982.3	\$ 940.4	\$ 32,638.8
6/30/2030	\$ 32,638.8	\$ 2,050.1	\$ 986.2	\$ 33,702.7
6/30/2031	\$ 33,702.7	\$ 2,120.0	\$ 1,037.6	\$ 34,785.1

¹Projection assumes an annual discount rate of 2.16%. Service Cost increases each year with the average salary scale by pension group.

²Based on expected benefit payments.

Health Care Claims Development

Applicability of Health Care Reforms to Valuation

Background

On March 23, 2010, the “Patient Protection and Affordable Care Act” was signed into law, followed by the passage of the “Health Care and Education Affordability Reconciliation Act of 2010” on March 30, 2010 (“Acts”). The health care reforms contained in these Acts have wide-spread impact on corporate health care programs, including those covering retirees. This valuation reflects Aon’s interpretation of the Acts based on information currently available. Future regulations on each aspect of the Acts may be different than Aon’s initial interpretations.

Key issues in Health Care Reform that have an effect on the Plan Sponsor valuation include:

- Group market reforms
- Early Retiree Reimbursement Program
- Taxation of Retiree Drug Subsidy for Post-65 Coverage

The valuation issues related to each of these topics are discussed below.

Group Market Reforms

- **Requirement to Cover Children to Age 26**—The Acts requires that a group health plan that provides dependent coverage of children shall continue to make such coverage available for an adult child until the child turns 26 years of age. Current and future dependent children are valued implicitly in the valuation. Per capita claims costs were developed using claims information for all covered lives and adult headcounts. As such, the impact of child coverage is built into the per capita claims for retirees and spouses.
- **Elimination of Benefit Limitations**—The Acts include a number of other provisions that may increase the cost of retiree health care including the elimination of lifetime maximum benefits and “restrictive” annual benefit limitations. We have made no adjustment for these additional benefits because there are no material limits in the plans.

Health Care Claims Development (continued)

Claims Cost Development

PPO and HMO medical, prescription drug, and EGWP incurred claims were developed based on actual incurred claims from January 2020 through December 2020 reflecting paid claims runout through March 2021. EGWP revenue amounts are developed for Plan Year 2021, based on information provided by Optum, then trended to 2022. Projected incurred claims used to develop projected claims amounts include claims that are assumed to be incurred but not reported. Claims were trended and adjusted for plan design changes in effect for Plan Year 2022.

Claim costs for future retirees are based on a blend of the claim costs for current retirees. This blend consists of 80% of the current retiree PPO costs and 20% of the current retiree HMO costs.

2020 claims experience was adjusted to normalize the cost for the impact of COVID-19. At this time, we expect the impact of COVID-19 on medical claims costs (excluding prescription drugs) will be small for 2021 and 2022 relative to the overall liability. We do expect these factors to be short-term in nature, with claims costs returning to normal in 2023 and beyond. Therefore, we do not believe COVID-19 has a significant impact on long-term claims costs projections and plan liabilities. Given the uncertainty is short-term in nature with minimal long-term impact, we have not adjusted our projected claims costs or healthcare trend assumptions for COVID-19.

Claims Cost for Current Retirees as of June 30, 2020

Age	State Retirees					
	PPO			HMO		
	Medical & Admin	Rx Claims	Retiree EGWP	Medical & Admin	Rx Claims	Retiree EGWP
25	\$4,645	\$562	\$0	\$4,450	\$549	\$0
30	\$5,315	\$711	\$0	\$5,072	\$694	\$0
35	\$6,092	\$898	\$0	\$5,794	\$877	\$0
40	\$6,993	\$1,135	\$0	\$6,630	\$1,108	\$0
45	\$8,038	\$1,435	\$0	\$7,601	\$1,400	\$0
50	\$9,552	\$1,805	\$0	\$9,007	\$1,762	\$0
55	\$11,634	\$2,271	\$0	\$10,940	\$2,218	\$0
60	\$14,323	\$2,842	\$0	\$13,440	\$2,778	\$0
65	\$1,320	\$3,842	\$1,856	\$1,981	\$4,529	\$1,912
70	\$1,487	\$4,629	\$2,237	\$2,245	\$5,457	\$2,303
75	\$1,612	\$5,239	\$2,531	\$2,442	\$6,174	\$2,607
80	\$1,780	\$5,452	\$2,634	\$2,707	\$6,425	\$2,713
85	\$2,022	\$5,507	\$2,659	\$3,088	\$6,490	\$2,738
90	\$2,157	\$5,537	\$2,674	\$3,301	\$6,523	\$2,753

Health Care Claims Development (continued)

Claims Cost for Future Retirees as of June 30, 2020

State Actives - CWA / NJ Direct PPO			
Age	Medical & Admin	Rx Claims	Retiree EGWP
25	\$4,606	\$559	\$0
30	\$5,266	\$708	\$0
35	\$6,032	\$894	\$0
40	\$6,920	\$1,130	\$0
45	\$7,951	\$1,428	\$0
50	\$9,443	\$1,796	\$0
55	\$11,495	\$2,260	\$0
60	\$14,146	\$2,829	\$0
65	\$1,452	\$3,979	\$1,867
70	\$1,639	\$4,795	\$2,250
75	\$1,778	\$5,426	\$2,546
80	\$1,965	\$5,647	\$2,650
85	\$2,235	\$5,704	\$2,675
90	\$2,386	\$5,734	\$2,690

Medicare Part B*

Average Rates

Reimbursements as of January 1, 2020

\$148.50 per month

* Note: The Medicare Part B reimbursement is the assumed amount for all future retirees and non-Medicare current retirees. Actual Part B reimbursements were used for current Medicare retirees, provided by the State for the State and the Local Education groups.

Trends

	To Measurement			
	Period Beginning	Pre-65	Post-65 (PPO)	Post-65 (HMO)
Medical Trend (all programs in these categories)	2021	5.65%	Actual Rates*	Actual Rates*
	2022	5.55%	Actual Rates*	Actual Rates*
	2023	5.45%	Actual Rates*	Actual Rates*
	2024	5.35%	5.79%	5.98%
	2025	5.20%	13.79%	15.49%
	2026	5.00%	12.03%	13.39%
	2027	4.75%	10.65%	11.80%
	2028	4.50%	9.59%	10.55%
	2029	4.50%	8.74%	9.54%
	2030	4.50%	8.04%	8.70%
	2031	4.50%	6.10%	6.40%
	2032 and Later	4.50%	4.50%	4.50%

*Actual fully-insured Medicare Advantage rates for Plan Year 2021 through Plan Year 2023 are reflected.

Health Care Claims Development (continued)

Prescription Drug Trend (all programs in these categories)

EGWP revenue assumed to increase with prescription drug trend

Annual Rate of Increase	
To Measurement	
Period	%
Beginning	
2021	6.75%
2022	6.50%
2023	6.25%
2024	6.00%
2025	5.50%
2026	5.00%
2027	4.75%
2028 and Later	4.50%

Medicare Part B Premium Reimbursement

Annual Rate of Increase	
To Measurement	
Period	%
Beginning	
2021 and Later	5.00%

Morbidity

Expected medical claims are assumed to increase as participants age as follows:

Medical

Annual rate of increase	
Age	%
20 - 24	3.00%
25 - 29	3.00%
30 - 34	3.00%
35 - 39	3.00%
40 - 44	3.00%
45 - 49	3.70%
50 - 54	4.20%
55 - 59	4.40%
60 - 64	3.70%
65 - 69	2.70%
70 - 74	1.80%
75 - 79	2.20%
80 - 84	2.80%
85 - 89	1.40%
90+	0.00%

Health Care Claims Development (continued)

Prescription Drug

Expected prescription drug claims are assumed to increase as participants age as follows:

Annual rate of increase	
Age	%
20 - 24	4.80%
25 - 29	4.80%
30 - 34	4.80%
35 - 39	4.80%
40 - 44	4.80%
45 - 49	4.70%
50 - 54	4.70%
55 - 59	4.60%
60 - 64	4.60%
65 - 69	3.80%
70 - 74	2.50%
75 - 79	0.80%
80 - 84	0.20%
85 - 89	0.10%
90+	0.00%

Actuarial Assumptions and Methods

Actuarial Cost Method	Entry Age Normal cost method.																
Measurement Date	June 30, 2021																
Measurement Period	July 1, 2020 to June 30, 2021																
Valuation Date	June 30, 2020																
Census Data	For the Fiscal Year Ending June 30, 2022: June 30, 2020 For the Fiscal Year Ending June 30, 2021: June 30, 2019																
Service Cost	The Actuarial Present Value of Benefits is allocated as a level percentage over the earnings of an individual between entry age (i.e. – age at hire) and assumed retirement age(s).																
Discount Rate	As of June 30, 2021: 2.16% As of June 30, 2020: 2.21% As of June 30, 2019: 3.50%																
Municipal Bond Rate Basis	Bond Buyer General Obligation 20-Bond Municipal Bond Index																
Salary Increases	Active salaries, used to determine retirement allowance in the future, are assumed to increase as follows:																
State Police Retirement System	<table border="0" style="margin-left: 40px;"> <thead> <tr> <th colspan="2" style="text-align: center;"><u>Annual Rate of Increase (%)</u></th> </tr> <tr> <th style="text-align: center;">Period Ending June 30,</th> <th style="text-align: center;">Unisex</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2021</td> <td style="text-align: center;">2.95</td> </tr> <tr> <td style="text-align: center;">2022</td> <td style="text-align: center;">2.95</td> </tr> <tr> <td style="text-align: center;">2023</td> <td style="text-align: center;">2.95</td> </tr> <tr> <td style="text-align: center;">2024</td> <td style="text-align: center;">2.95</td> </tr> <tr> <td style="text-align: center;">2025</td> <td style="text-align: center;">2.95</td> </tr> <tr> <td style="text-align: center;">2026 and Later</td> <td style="text-align: center;">3.95</td> </tr> </tbody> </table>	<u>Annual Rate of Increase (%)</u>		Period Ending June 30,	Unisex	2021	2.95	2022	2.95	2023	2.95	2024	2.95	2025	2.95	2026 and Later	3.95
<u>Annual Rate of Increase (%)</u>																	
Period Ending June 30,	Unisex																
2021	2.95																
2022	2.95																
2023	2.95																
2024	2.95																
2025	2.95																
2026 and Later	3.95																

Actuarial Assumptions and Methods (continued)

Judicial Retirement System

Annual Rate of Increase (%)	
Period Ending June 30,	Unisex
2021	2.00
2022	2.00
2023	2.00
2024	2.00
2025	2.00
2026 and Later	2.75

	Annual Rate of Increase (%)		
	Service	FYE 2020 to FYE 2026	FYE 2026 and Later
Public Employees' Retirement System (PERS)	0	6.00	7.00
	5	4.75	5.75
	10	3.60	4.60
	15	2.80	3.80
	20	2.60	3.60
	25	2.40	3.40
	29	2.00	3.00

Police and Firemen's Retirement System (PFRS)

Service	Annual Rate of Increase (%)
0	15.25
1	15.25
2	12.75
3	10.75
4	10.25
5	9.25
6	8.25
7	7.25
8	5.75
9	5.25
10	4.75
11	4.25
12	3.75
13	3.25

Actuarial Assumptions and Methods (continued)

Alternate Benefits Program (ABP) –
Based on Teachers’ Pension and
Annuity Fund (TPAF) experience

Completed Years of Service	Annual Rate of Increase (%)	
	FYE 2016 to FYE 2026	FYE 2026 and Later
0	3.05	4.25
5	3.50	4.70
10	4.20	5.40
15	4.45	5.65
20	2.85	4.05
25	1.85	3.05
29	1.55	2.75

CPI 2.50%

Retirement Rates See Table

Future Retiree Healthy Mortality SPRS: PUB-2010 Healthy “Safety” classification headcount-weighted mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021

PFRS: PUB-2010 Healthy “Safety” classification headcount-weighted mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021

PERS: PUB-2010 Healthy “General” classification headcount-weighted mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021

JRS: PUB-2010 Healthy “General” classification headcount-weighted mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021

Current Retiree Healthy Mortality TPAF/ABP: PUB-2010 Healthy “Teachers” classification headcount-weighted mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021

Current Retirees: PUB-2010 “General” classification headcount-weighted mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021

Disabled Mortality SPRS Future Disabled Retirees: PUB-2010 “Safety” classification headcount-weighted disabled mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021

PFRS Future Disabled Retirees: PUB-2010 “Safety” classification headcount-weighted disabled mortality

Actuarial Assumptions and Methods (continued)

	<p>table with fully generational mortality improvement projections from the central year using Scale MP-2021</p> <p><u>PERS Future Disabled Retirees:</u> PUB-2010 “General” classification headcount-weighted disabled mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021</p> <p><u>JRS Future Disabled Retirees:</u> PUB-2010 “General” classification headcount-weighted disabled mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021</p> <p><u>TPAF/ABP Future Disabled Retirees:</u> PUB-2010 “Teachers” classification headcount-weighted disabled mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021</p> <p><u>Current Disabled Retirees:</u> PUB-2010 “General” classification headcount-weighted disabled mortality table with fully generational mortality improvement projections from the central year using Scale MP-2021</p>
Withdrawal Rates	See Table
Disability Rates	See Table.
Decrement Timing	Beginning of year for active decrements, with 100% retirement occurring at beginning of year.
Spouse Coverage Election Rate	Spouses are assumed to lose coverage upon the death of the former employee. While spouses may participate in the SHBP at an unsubsidized rate, we have assumed they will not participate. The State provided data for spouses of police officers killed in the line of duty who are assumed to receive retiree health care benefits for life.
Future Retirees	It is assumed that 45% are married. Future retirees who are assumed to be married are assumed to choose family coverage at retirement. Males are assumed to be three years older than their female spouses.
Current Retirees	Spousal coverage is based on actual retiree coverage elections. Actual spouse age is used where available. In instances where this information is not available, males are assumed to be three years older than their female spouses.

Actuarial Assumptions and Methods (continued)

Coverage	<p>We assumed that:</p> <ul style="list-style-type: none">➤ 100% of all retirees who currently have healthcare coverage will continue with the same coverage.➤ 100% of all actives, upon retirement, will be assumed to have the following coverage blend: PPO: 80% HMO: 20% <p>Other available plan options are assumed to garner zero enrollment</p> <p>Part B coverage is based on actual provisions.</p>
Participant Contributions for Current Retirees	<p>Actual contribution amounts were provided by the State for current healthy and disabled retirees who contribute towards the cost of their postretirement health care benefits. The Chapter 78 contribution percentages for healthy retirees were determined based on the actual contributions received from the State and each retiree's plan election.</p>
Actuarial Accrued Liability	<p>The Actuarial Present Value of Benefits allocated to all periods prior to the valuation year.</p>
Valuation Methodology and Terminology	<p>We have used the GASB accounting methodology to determine the postretirement medical benefit obligations. Under the EGWP program, the Medicare reimbursements to the Plan will be shown as a reduction in the plan sponsor liability.</p>
Data Adjustments	<p>During the course of our review of the census data provided by the State, reasonable adjustments were made to the census data resulting from conversations with the State.</p>

Actuarial Assumptions and Methods (continued)

Medical and Prescription Drug Benefit Contributions for Current Retirees and Grandfathered Future Retirees

Individuals who pay 100% of the plan cost are excluded from the valuation results.

For retirees receiving State-paid SHBP benefits and future retirees who are currently in retirement status as of July 1, 2011, or have at least 20 years of service as of July 1, 2011, we will apply average contribution rates to the population. Based on the reporting in published SHBP financial reports, the average contributions are as follows:

State: 2% of cost

Certain future retirees will pay 1.5% of pension for retiree medical coverage, unless they participate in the New Jersey Retirees' Wellness Program. The valuation assumes that 100% of future retirees will participate in the Wellness Program and, therefore, avoid paying the contribution rates for coverage.

Actuarial Assumptions and Methods (continued)

Retiree Contributions for Current Retirees Grandfathered under Chapter 78

Age	Employee Contributions	
	PPO	HMO
25	\$104	\$100
30	\$121	\$115
35	\$140	\$133
40	\$163	\$155
45	\$189	\$180
50	\$227	\$215
55	\$278	\$263
60	\$343	\$324
65	\$103	\$130
70	\$122	\$154
75	\$137	\$172
80	\$145	\$183
85	\$151	\$192
90	\$154	\$196

Grandfathered Retiree Contributions for Future Retirees (not subject to Retiree Contributions under Chapter 78)

Age	Employee Contributions
25	\$103
30	\$119
35	\$139
40	\$161
45	\$188
50	\$225
55	\$275
60	\$340
65	\$109
70	\$129
75	\$144
80	\$152
85	\$159
90	\$162

Actuarial Assumptions and Methods (continued)

Plan Year 2022 Medical & Rx Annual Gross Premiums

(Used to determine future Retiree Contributions under Chapter 78)

Medical Cost Group	Pre 65		65 and Over	
	Single	Family	Single	Family
State	\$10,809	\$21,942	\$1,541	\$4,915

Rx Cost Group	Pre 65		65 and Over	
	Single	Family	Single	Family
State	\$2,232	\$4,892	\$2,766	\$5,426

Medical premiums are assumed to increase with medical trend. Prescription drug premiums are assumed to increase with prescription drug trend.

Single premiums are a weighted average of PPO and HMO premiums. Family premiums reflect the current enrollment distribution of Married, Family, and Parent premiums, as well as the PPO/HMO blend.

Medical and Prescription Drug Benefit Contributions for Non-Grandfathered Future Retirees (who are subject to retiree contributions under Chapter 78)

Future retirees, who do not have at least 20 years of service as of July 1, 2011 are expected to pay an amount equal to their Contribution Rate times the plan's gross premiums. In no event shall the contribution be less than 1.5% of the Retirement Allowance. The Contribution Rate is based on type of coverage (single or family) and the Retirement Allowance.

Retiree Contribution Rates

Retirement Allowance (RA)	Single	Family
RA < \$20k	4.5%	3.43%
\$20k =< RA < \$25k	5.5%	3.43%
\$25k =< RA < \$30k	7.5%	4.43%
\$30k =< RA < \$35k	10.0%	5.85%
\$35k =< RA < \$40k	11.0%	6.85%
\$40k =< RA < \$45k	12.0%	7.85%
\$45k =< RA < \$50k	14.0%	9.85%
\$50k =< RA < \$55k	20.0%	14.55%
\$55k =< RA < \$60k	23.0%	16.55%
\$60k =< RA < \$65k	27.0%	20.40%
\$65k =< RA < \$70k	29.0%	22.40%
\$70k =< RA < \$75k	32.0%	25.40%
\$75k =< RA < \$80k	33.0%	26.40%
\$80k =< RA < \$85k	34.0%	27.40%
\$85k =< RA < \$90k	34.0%	29.40%
\$90k =< RA < \$95k	34.0%	29.70%
\$95k =< RA < \$100k	35.0%	29.85%
\$100k =< RA < \$110k	35.0%	34.55%
\$110k =< RA	35.0%	35.00%

Family coverage is defined as 85% of the "Family + One" schedule and 15% of the "Family" schedule.

Actuarial Assumptions and Methods (continued)

Medical and Prescription Drug Benefit Contributions for Future Disabled Retirees

All future disabled retirees are assumed to contribute 1.5% of their Retirement Allowance.

Medical and Prescription Drug Benefit Contributions for Future Retirees Assumed to Enroll in the NJDIRECT PPO Plan

All State pre-Medicare future retirees who enroll in the NJDIRECT Plan are assumed to contribute a percentage of retirement allowance ("RA") or a flat dollar amount based on the following schedule assumed to be in effect as of June 30, 2018:

	<u>Single</u>	<u>Married</u>	<u>Family</u>	<u>Parent & Child</u>
RA < \$25k	2.00%	2.00%	2.00%	2.00%
\$25k ≤ RA < \$30k	2.00%	2.00%	2.25%	2.00%
\$30k ≤ RA < \$35k	2.25%	2.75%	2.50%	2.75%
\$35k ≤ RA < \$40k	2.25%	3.00%	3.00%	3.00%
\$40k ≤ RA < \$45k	2.25%	3.00%	3.00%	3.00%
\$45k ≤ RA < \$50k	2.40%	3.00%	3.50%	3.25%
\$50k ≤ RA < \$55k	3.00%	4.25%	4.50%	4.50%
\$55k ≤ RA < \$60k	3.40%	4.50%	5.00%	4.50%
\$60k ≤ RA < \$65k	3.75%	5.50%	6.00%	5.00%
\$65k ≤ RA < \$70k	3.75%	5.75%	6.50%	5.25%
\$70k ≤ RA < \$75k	4.00%	6.20%	7.25%	5.75%
\$75k ≤ RA < \$80k	\$2,977	\$4,678	7.25%	\$4,400
\$80k ≤ RA < \$85k	\$3,083	\$4,890	7.25%	\$4,550
\$85k ≤ RA < \$90k	\$3,083	\$5,316	7.50%	\$4,950
\$90k ≤ RA < \$95k	\$3,083	\$5,316	7.50%	\$4,950
\$95k ≤ RA < \$100k	\$3,190	\$5,316	7.50%	\$4,950
\$100k ≤ RA < \$110k	\$3,190	\$6,390	\$8,213	\$5,950
RA ≥ \$110k	\$3,190	\$6,390	\$9,122	\$5,950

For purposes of estimating contributions for dependent coverages, a weighted average contribution is assumed reflecting approximately 47% of the "Married" schedule, 40% of the "Family" schedule and 13% of the "Parent & Child" schedule, based on current pre-Medicare retiree PPO enrollment.

Actuarial Assumptions and Methods (continued)

Retirement Allowance

Retirement Allowance is assumed to be the annual annuity from the State of New Jersey pension plan.

A participant's estimated retirement allowance is not assumed to increase after retirement.

<i>Public Employees' Retirement System (PERS)</i>	Final Compensation times service at retirement divided by 55
<i>Judicial Retirement System (JRS)</i>	Mandatory Retirement Benefit: 75% of Final Compensation
<i>State Police Retirement System (SPRS)</i>	65% of Final Compensation plus 1% of Final Compensation for each year of credited service in excess of 25, subject to a maximum of 70% of Final Compensation
<i>Teachers' Pension and Annuity Fund (TPAF)</i>	Final compensation times service at retirement divided by 55
<i>Alternate Benefits Program (ABP)</i>	50% of salary at retirement
<i>Police and Firemen's Retirement System (PFRS)</i>	Special Retirement Benefit: 65% of Final Compensation plus 1% of Final Compensation for each year of credited service over 25, subject to a maximum of 70% of Final Compensation

Actuarial Assumptions and Methods (continued)

The following tables provide a sampling of the decrement rate assumptions for each pension group. Where applicable, the sample decrement rates below were adjusted to incorporate eligibility for OPEB benefits.

Public Employees' Retirement System of New Jersey

Age	Ordinary Disability		Accidental
	Years of Service		All
	Less than 10	10 and Up	
30	0.000%	0.150%	0.020%
35	0.000%	0.205%	0.020%
40	0.000%	0.275%	0.020%
45	0.000%	0.325%	0.020%
50	0.000%	0.380%	0.020%
55	0.000%	0.455%	0.020%
60	0.000%	0.530%	0.020%
65	0.000%	0.605%	0.020%
69	0.000%	0.665%	0.020%

Withdrawal			
Service	Electing a Deferred Annuity	Electing a Refund	
	All	Age	
		<= 30	>= 31
0	0.00%	23.00%	11.00%
1	0.00%	23.00%	11.00%
2	0.00%	12.00%	8.00%
3	0.00%	11.00%	7.00%
4	0.00%	10.50%	6.00%
5	0.00%	10.00%	6.00%
6	0.00%	7.50%	6.00%
7	0.00%	7.50%	5.00%
8	0.00%	7.50%	4.50%
9	0.00%	7.50%	3.50%
10	1.60%	1.70%	1.70%
11	1.60%	1.50%	1.50%
12	1.20%	1.10%	1.10%
13	1.20%	1.10%	1.10%
14	1.00%	0.70%	0.70%
15	0.90%	0.60%	0.60%
16	0.90%	0.60%	0.60%
17	0.80%	0.60%	0.60%
18	0.80%	0.50%	0.50%
19	0.80%	0.50%	0.50%
20	0.80%	0.50%	0.50%
21	0.70%	0.50%	0.50%
22	0.50%	0.40%	0.40%
23	0.50%	0.40%	0.40%
>= 24	0.40%	0.30%	0.30%

Actuarial Assumptions and Methods (continued)

Retirement			
Tiers 1, 2, 3 and 4			
Age	Less than 25 Years of Service	25 Years of Service	26 or More Years of Service
40	0.00%	3.50%	2.00%
45	0.00%	3.50%	2.00%
50	0.00%	3.50%	3.50%
55	0.00%	17.50%	18.00%
60	0.00%	20.00%	17.00%
65	0.00%	44.00%	25.00%
70	0.00%	47.00%	26.00%
75	0.00%	100.00%	100.00%

Retirement					
Tiers 5					
Age	Less than 25 Years of Service	25 Years of Service	26 to 29 Years of Service	30 Years of Service	31 or More Years of Service
40	0.00%	0.00%	0.00%	3.50%	2.00%
45	0.00%	0.00%	0.00%	3.50%	2.00%
50	0.00%	0.00%	0.00%	3.50%	3.50%
55	0.00%	0.00%	0.00%	17.50%	18.00%
60	0.00%	0.00%	0.00%	20.00%	17.00%
65	0.00%	44.00%	44.00%	44.00%	25.00%
70	0.00%	47.00%	26.00%	26.00%	26.00%
75	0.00%	100.00%	100.00%	100.00%	100.00%

Actuarial Assumptions and Methods (continued)

Judicial Retirement System of New Jersey

Age	Disability
30	0.022%
35	0.026%
40	0.033%
45	0.064%
50	0.114%
55	0.197%
60	0.326%
65	0.473%

Age	Retirement		
	Less than 15 Years of Judicial Service	15 to 19 Years of Judicial Service	20 or More Years of Judicial Service
59	0.00%	0.00%	0.00%
60	2.00%	5.00%	20.00%
61	2.00%	5.00%	20.00%
62	2.00%	5.00%	20.00%
63	2.00%	5.00%	20.00%
64	2.00%	5.00%	20.00%
65	5.00%	40.00%	30.00%
66	2.00%	50.00%	20.00%
67	2.00%	60.00%	20.00%
68	2.00%	60.00%	20.00%
69	2.00%	60.00%	20.00%
70	100.00%	100.00%	100.00%

Note: JRS population assumes no Withdrawal

Actuarial Assumptions and Methods (continued)

State Police Retirement System of New Jersey

Age	Disability	
	Ordinary	Accidental
25	0.041%	0.025%
30	0.061%	0.053%
35	0.169%	0.194%
40	0.172%	0.208%
45	0.218%	0.214%
50	0.375%	0.220%

Service	Withdrawal
0-3	0.450%
4	0.300%
5	0.225%
6	0.200%
7	0.175%
8	0.150%
9	0.125%
10	0.100%
11 - 19	0.075%
20 - 24	0.500%
>= 25	0.000%

Age	Retirement		
	Less than 25 Years of Service	25 Years of Service	More than 25 Years of Service
<49	0.00%	25.00%	35.00%
49 - 54	0.00%	50.00%	35.00%
>=55	100.00%	100.00%	100.00%

Actuarial Assumptions and Methods (continued)

Police and Firemen's Retirement System of New Jersey

Age	Ordinary Disability		Accidental
	Years of Service		
	Less than 4	4 and Up	All
25	0.000%	0.045%	0.030%
30	0.000%	0.105%	0.100%
35	0.000%	0.205%	0.250%
40	0.000%	0.345%	0.400%
45	0.000%	0.340%	0.380%
50	0.000%	0.240%	0.280%
55	0.000%	0.200%	0.180%
60	0.000%	0.500%	0.160%
64	0.000%	0.500%	0.160%

Withdrawal	
Service	Rates
0	2.00%
1	2.00%
2	1.90%
3	1.80%
4	1.70%
5	1.60%
6	1.50%
7	1.40%
8	1.00%
9	0.80%
10	0.80%
11	0.50%
12	0.45%
13	0.40%
14	0.35%
15	0.30%
16	0.25%
17	0.20%
18	0.15%
19	0.10%
20 - 24	1.00%
>= 25	0.00%

Age	Retirement		
	Less than 25 Years of Service	25 Years of Service	26 or More Years of Service
40	2.00%	45.00%	22.00%
45	2.00%	45.00%	22.00%
50	3.00%	50.00%	22.00%
55	3.00%	55.00%	24.00%
60	5.00%	60.00%	26.00%
64	14.00%	90.00%	40.00%
65	100.00%	100.00%	100.00%

Actuarial Assumptions and Methods (continued)

Teachers' Pension and Annuity Fund and Alternate Benefit Program

Age	Disability	
	Ordinary	Accidental
30	0.005%	0.006%
35	0.040%	0.006%
40	0.090%	0.006%
45	0.140%	0.006%
50	0.200%	0.006%
55	0.350%	0.006%

Years of Employment	Withdrawal
0	7.00%
5	3.75%
10	2.25%
15	1.20%
20	0.55%
24	0.30%
>=25	0.00%

Age	Retirement		
	Tiers 1, 2, 3 and 4		
	Less than 25 Years of Service	25 Years of Service	26 or More Years of Service
50	0.00%	1.50%	1.50%
55	0.00%	10.00%	13.00%
60	0.00%	25.00%	20.00%
65	0.00%	42.00%	30.00%
70	0.00%	55.00%	30.00%
75	0.00%	100.00%	100.00%

Age	Retirement				
	Tiers 5				
	Less than 25 Years of Service	25 Years of Service	26 to 29 Years of Service	30 Years of Service	31 or More Years of Service
50	0.00%	0.00%	0.00%	1.50%	1.50%
55	0.00%	0.00%	0.00%	10.00%	13.00%
60	0.00%	0.00%	0.00%	25.00%	20.00%
65	0.00%	42.00%	42.00%	42.00%	30.00%
70	0.00%	55.00%	30.00%	30.00%	30.00%
75	0.00%	100.00%	100.00%	100.00%	100.00%

Tier Classifications

Tier	Criteria
Tier 1	Enrollment prior to July 1, 2007
Tier 2	Enrollment on or after July 1, 2007 and prior to November 2, 2008
Tier 3	Enrollment on or after November 2, 2008 and prior to May 22, 2010
Tier 4	Enrollment on or after May 22, 2010 and prior to June 28, 2011
Tier 5	Enrollment on or after June 28, 2011

Actuarial Assumptions and Methods

Discussion of Actuarial Assumptions and Methods

State of New Jersey selected the economic, demographic and health care claim cost assumptions and prescribed them for use for purposes of compliance with GASB 75. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience. Retirement, withdrawal, and disability rates as well as assumed salary increases were developed by the PERS experience study for the period July 1, 2014 through June 30, 2018, the TPAF experience study for the period July 1, 2015 through June 30, 2018, the PFRS experience study for the period July 1, 2013 through June 30, 2018, the JRS experience study for the period July 1, 2014 through June 30, 2018, and the SPRS experience study for the period July 1, 2014 through June 30, 2018. An evaluation of the reasonability and consistency of these prescribed assumptions is beyond the scope of the assignment.

Calculation of Normal Costs and Liabilities

The method used to calculate the service cost and accumulated postretirement benefit obligation for determining OPEB expense is the entry age normal cost method. Under this cost method, the actuarial accrued liability is based on a prorated portion of the present value of all benefits earned to date over expected future working lifetime as defined by GASB. The proration is determined so that the cost with respect to service accrued from date of hire is recognized as a level percentage of pay each year. The Normal Cost is equal to the prorated cost for the year of the valuation.

Accounting Information Under GASB 75

Benefit obligations and expense/(income) are calculated under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 75.

The total OPEB liability represents the actuarial present value of benefits based on the entry age normal cost method as of the measurement date. The service cost represents the actuarial present value of benefits that are attributed to the 2022 fiscal year, reflecting the effect of assumed future health care claim cost and/or pay increases.

The OPEB expense is the annual amount to be recognized in the income statement as the cost of OPEB benefits for this plan for the period ending June 30, 2022.

Plan Provisions

Plan Provisions

Program Eligibility for Retired Group Coverage

The following individuals will be offered Program's Retired Group coverage for themselves and their eligible dependents:

- Full-time State employees, employees of State colleges/universities, autonomous State agencies and commissions, or local employees (including benefits-eligible Local Education employees of non-participating Local Education employers) who were covered by, or eligible for, the SHBP at the time of retirement.
- Part-time State employees and part-time faculty at institutions of higher education that participate in the SHBP if enrolled in the SHBP at the time of retirement.

The following subsections outline the eligibility for retirement (that would qualify a retiree for State-paid Program benefits) for the various groups of State employees. Service under multiple Retirement Systems can be aggregated for purposes of Program's benefit eligibility.

Public Employees' Retirement System Members

(i) In General for State-paid Benefits

Service Retirement	Eligible at age 60 with 25 years of service.
Early Retirement	Eligible after 25 years of service prior to age 60.
Ordinary Disability Retirement	Eligible after 10 years of service and total and permanent disability.
Accidental Disability	Eligible upon total and permanent disability as a result of a duty injury.

(ii) Law Enforcement (Chapter 330, P.L. 1997)

In General for State-paid Benefits

Service Retirement	Eligible at age 55 after 25 years of service.
Chapter 4, P.L. 2001 Special Retirement	Completion of 25 years of service.
Ordinary Disability	Eligible after 5 years of service and total and permanent disability.

Plan Provisions (continued)

(iii) Legislators

In General for State-paid Benefits

Service Retirement	Eligible at age 60 and 25 years of service.
Early Retirement	Attainment of 25 years of service prior to age 60.
Ordinary Disability Retirement	Eligible after 10 years of service and total and permanent disability.
Accidental Disability	Eligible upon total and permanent disability as a result of a duty injury.

(iv) Prosecutors Part (Chapter 366, P.L. 2001)

In General for State-paid Benefits

Service Retirement	Eligible after age 55 and 25 years of service.
Special Retirement	After completion of 25 years of service.
Ordinary Disability Retirement	Eligible after 10 years of service and total and permanent disability.
Accidental Disability	Eligible upon total and permanent disability as a result of a duty injury.

(v) Workers' Compensation Judges Part (Chapter 259, P.L. 2001)

Service Retirement	(A) Mandatory retirement at age 70. Voluntary retirement prior to age 70 as follows: <ul style="list-style-type: none">(a) Age 70 and 10 years of service as a Workers' Compensation Judge;(b) Age 65 and 15 years of service as a Workers' Compensation Judge; or(c) Age 60 and 20 years of service as a Workers' Compensation Judge.
	(B) Age 65, with 5 consecutive years of service as a Workers' Compensation Judge and 15 years in the aggregate of public service; or Age 60, with 5 consecutive years of service as a Workers' Compensation Judge and 20 years in the aggregate of public service.

Plan Provisions (continued)

In General for State-paid Benefits	Attainment of 25 years of service and Service Retirement eligibility.
Early Retirement	Prior to age 60, with 5 consecutive years of service as a Workers' Compensation Judge and 25 years or more in the aggregate of public service.
Ordinary Disability Retirement	Eligible after 10 years of service and total and permanent disability
Accidental Disability	Eligible upon total and permanent disability as a result of a duty injury.

Judicial Retirement System Members

Chief Justice and associate justices of the Supreme Court, judges of the Superior Court and tax courts of the State of New Jersey.

Service Retirement	(A) Mandatory retirement at age 70. Voluntary retirement prior to age 70 as follows: (a) Age 70 and 10 years of judicial service; (b) Age 65 and 15 years of judicial service; or (c) Age 60 and 20 years of judicial service. (B) Age 65 while serving as a judge, 5 consecutive years of judicial service and 15 years in the aggregate of public service; or, Age 60 while serving as a judge, 5 consecutive years of judicial service and 20 years in the aggregate of public service.
In General for State-paid Benefits	Attainment of 25 years of service and Service Retirement eligibility.
Early Retirement	Prior to age 60 while serving as a judge, 5 consecutive years of judicial service and 25 more years in the aggregate of public service.
Disability Retirement	Physically or otherwise incapacitated for a full and efficient service to the State in a judicial capacity, and such incapacity is likely to be permanent.

Plan Provisions (continued)

State Police Retirement System Members

All members of the former State Police and Benevolent Fund: full-time commissioned officers, non-commissioned officers or troopers of the Division of State Police. Membership is a condition of employment.

In General for State-paid Benefits

Service Retirement	Mandatory retirement at age 55. Voluntary retirement prior to age 55 with 25 years of credited service.
Ordinary Disability Retirement	A Member is eligible for Ordinary Disability Retirement if he (she) has 4 years of service and is totally and permanently incapacitated from the performance of usual or available duties.
Accidental Disability Retirement	A Member is eligible upon total and permanent incapacitation as a direct result of a traumatic event occurring during and as a result of the performance of regular or assigned duties.

Teachers' Pension and Annuity Fund Members

Employees appointed to positions requiring certification as members of a regular teaching or professional staff of a public school system in New Jersey are required to enroll as a condition of employment. Employees of the Department of Education holding unclassified, professional and certified titles are eligible for membership. Temporary or substitute employees are not eligible.

In General for State-paid Benefits

Service Retirement	Eligibility means age 60 with 25 years of service for Program benefits.
Early Retirement	A Member may retire after completion of 25 years of Creditable Service.
Ordinary Disability Retirement	A Member is eligible for Ordinary Disability Retirement if he (she) has 10 years of Creditable Service and is totally and permanently incapacitated from the performance of usual or available duties.
Accidental Disability Retirement	A Member is eligible upon total and permanent incapacitation as a direct result of a traumatic event occurring during and as a result of the performance of regular or assigned duties.

Plan Provisions (continued)

Alternate Benefit Program (ABP) Members

Participants in the ABP who retire with at least 25 years of credited ABP service, or those who are on a long-term disability, will qualify for SHBP benefits.

In General for subsidized SHBP Benefits

Service Retirement	Eligibility means age 60 with 25 years of service for Program benefits.
Early Retirement	A Member may retire after completion of 25 years of Creditable Service.
Ordinary Disability Retirement	A Member is eligible for Ordinary Disability Retirement if he (she) has 10 years of Creditable Service and is totally and permanently incapacitated from the performance of usual or available duties.
Accidental Disability Retirement	A Member is eligible upon total and permanent incapacitation as a direct result of a traumatic event occurring during and as a result of the performance of regular or assigned duties.

Police and Firemen's Retirement System Members

Enrollment is restricted to eligible policemen and fireman who are permanent and full-time and who pass the physical and mental fitness requirements. The maximum enrollment age is 35.

In General for State-paid Benefits

Service Retirement	Eligibility means age 55 and 25 years of service. Mandatory at age 65.
Special Retirement	After completion of 25 years of service.
Ordinary Disability Retirement	A Member is eligible for Ordinary Disability Retirement if he (she) has 4 years of Service and is totally and permanently incapacitated from the performance of usual or available duties.
Accidental Disability Retirement	A Member is eligible upon total and permanent incapacitation from the performance of usual and available duties as a result of injury during the performance of regular duties.
Special Disability Retirement	A Member is eligible for Special Disability Retirement if he (she) has 5 years of Credited Service, is under age 55, and has received a heart transplant.

Plan Provisions (continued)

Part B Memorandum

If a participant had 25 or more years of service credited on one pension system before July 1, 1997, the State of New Jersey agreed to reimburse future retirees at retirement for the standard cost of any Medicare Part B premiums paid by the participant and/or their spouse, civil union partner, or eligible same-sex domestic partner. If a participant attained 25 years of service credit after July 1, 1997, any reimbursement of Medicare Part B premiums paid by the participant and/or their spouse, civil union partner, or eligible domestic partner may be limited by the terms of the bargaining unit agreement in place at the time of retirement or by legislation (Chapter 8, PL 1996). State employees who began employment after July 1, 1995 will not be eligible for Medicare Part B reimbursement.

Plan Provisions (continued)

The following tables provide concise summaries of each of the benefit plan designs available to eligible retirees as of January 1, 2021:

Medical Plans	In-Network					Out-of-Network		
	Office Visit	ER Copay	Deductible	Member Coinsurance	Out-of-Pocket Maximum*	Deductible	Member Coinsurance	Out-of-Pocket Maximum
HMO	\$10	\$85	None	0%	\$6,799	Not Covered		
PPO 10	\$10	\$75	None	0%	\$400	\$100	20%	\$2,000
PPO 15	\$15	\$100	None	0%	\$400** & \$7,199	\$100	30%	\$2,000

* Excludes prescription drug copays.

** The \$400 out-of-pocket maximum includes coinsurance only.

Rx Plans	Retail			Mail			Out-of-Pocket Maximum
	Generic	Preferred Brand	Other Brand	Generic	Preferred Brand	Other Brand	
HMO (State)	\$6	\$12	\$24	\$5	\$18	\$30	\$1,351
PPO 10/15 (State)	\$10	\$22	\$44	\$5	\$28	\$55	\$1,351
NJDIRECT PPO (State)	\$7	\$16	\$35	\$18	\$40	\$88	\$1,351

State Medicare retirees are also eligible to enroll in one of four Medicare Advantage plan offerings.

Plan Provisions (continued)

The following State employers are included in the valuation as of June 30, 2020:

June 30, 2020 State Employers

Employer Group	Employer Name
0001-00	CENTRALIZED PAYROLL
0001-01	STATE LEGISLATURE - ASSEMBLY
0001-03	STATE LEGISLATURE - SENATE
1229-00	RUTGERS UNIVERSITY
1285-00	NEW JERSEY INSTITUTE OF TECHNOLOGY
1812-00	RAMAPO COLLEGE OF NEW JERSEY
1820-00	COLLEGE OF NEW JERSEY
1821-00	THOMAS EDISON STATE UNIVERSITY
1821-01	NJ STATE LIBRARY
1822-00	STOCKTON UNIVERSITY
1823-00	NEW JERSEY CITY STATE UNIVERSITY
1824-00	WILLIAM PATERSON STATE UNIVERSITY
1825-00	ROWAN UNIVERSITY
1825-01	ROWAN UNIVERSITY (STRATFORD)
1826-00	MONTCLAIR STATE UNIVERSITY
1832-00	KEAN UNIVERSITY
8005-00	NJ BUILDING AUTHORITY
8119-00	STOCKTON AFFILIATED SVCS INC
8157-00	UNIVERSITY HOSPITAL
8180-00	ROWAN UNIV RUTGERS CAM BOG
9889-00	WATERFRONT COMMISSION OF NY HA
9910-00	PALISADES INTERSTATE PARK COMMISSION
9978-00	NJ DEPARTMENT OF MILITARY AND VETERAN AFFAIRS

Plan Provisions (continued)

The following State employers are included in the valuation as of June 30, 2019:

June 30, 2019 State Employers

Employer Group	Employer Name
0001-00	CENTRALIZED PAYROLL
0001-01	STATE LEGISLATURE - ASSEMBLY
0001-03	STATE LEGISLATURE - SENATE
1229-00	RUTGERS UNIVERSITY
1285-00	NEW JERSEY INSTITUTE OF TECHNOLOGY
1603-00	RUTGERS UNIVERSITY-NEWARK
1603-01	RUTGERS UNIVERSITY-NEW BRUNSWICK
1603-02	RUTGERS UNIVERSITY-STRATFORD
1812-00	RAMAPO COLLEGE OF NEW JERSEY
1820-00	COLLEGE OF NEW JERSEY
1821-00	THOMAS EDISON STATE UNIVERSITY
1821-01	NJ STATE LIBRARY
1822-00	STOCKTON UNIVERSITY
1823-00	NEW JERSEY CITY STATE UNIVERSITY
1824-00	WILLIAM PATERSON STATE UNIVERSITY
1825-00	ROWAN UNIVERSITY
1825-01	ROWAN UNIVERSITY (STRATFORD)
1826-00	MONTCLAIR STATE UNIVERSITY
1832-00	KEAN UNIVERSITY
8005-00	NJ BUILDING AUTHORITY
8119-00	STOCKTON AFFILIATED SVCS INC
8157-00	UNIVERSITY HOSPITAL
8180-00	ROWAN UNIV RUTGERS CAM BOG
9889-00	WATERFRONT COMMISSION OF NY HA
9910-00	PALISADES INTERSTATE PARK COMMISSION
9978-00	NJ DEPARTMENT OF MILITARY AND VETERAN AFFAIRS