

The Public Employees' Retirement System of New Jersey

GASB 67 Report as of June 30, 2023

Produced by Cheiron

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SECTION I – BOARD SUMMARY

The purpose of this report is to provide accounting and financial disclosure information under Governmental Accounting Standards Board Statement 67 for the Public Employees' Retirement System of New Jersey (PERS, Plan or System). This information includes:

- Projection of the Total Pension Liability (TPL) from the valuation date to the measurement date,
- Calculation of the Net Pension Liability (NPL) at the discount rate as well as discount rates 1% higher and lower than the discount rate, and
- Changes in the Net Pension Liability.

Highlights

The reporting date for the PERS is June 30, 2023. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2023 and the Total Pension Liability as of the valuation date, July 1, 2022, updated to June 30, 2023. We are not aware of any significant events between the valuation date and the measurement date that are measurable at this time, so the update procedures only include the addition of service cost and interest cost offset by actual benefit payments.

The following table provides a summary of the key results during this reporting period for the System in Total, as well as broken out for the State portion and the Local Employers portion.

Table I-1 Summary of Results									
Measurement Date June 30, 2023 June 30,									
<u>State</u>									
Total Pension Liability Plan Fiduciary Net Position	\$ 29,889,262,049 7,431,214,496	\$ 29,144,869,310 6,758,038,264							
Net Pension Liability	\$ 22,458,047,553	\$ 22,386,831,046							
<u>Local Employers</u>									
Total Pension Liability	\$ 42,006,927,506	\$ 41,029,268,965							
Plan Fiduciary Net Position	27,400,438,440	25,810,084,045							
Net Pension Liability	\$ 14,606,489,066	\$ 15,219,184,920							
<u>Total</u>									
Total Pension Liability	\$ 71,896,189,555	\$ 70,174,138,275							
Plan Fiduciary Net Position	34,831,652,936	32,568,122,309							
Net Pension Liability	\$ 37,064,536,619	\$ 37,606,015,966							



SECTION II - CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the Public Employees' Retirement System of New Jersey (PERS). This report is for the use of PERS, the Division of Pensions and Benefits (DPB) and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report is not appropriate for other purposes, including the measurement of funding requirements for PERS and estimating the price to settle PERS's obligations.

In preparing our report, we relied on information (some oral and some written) supplied by the DPB. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23, Data Quality.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

For purposes of this report, the calculation of the Total Pension Liability and the projection of the Plan's contributions and projected benefit payments as of June 30, 2023 was based on the recommended demographic assumptions of the July 1, 2018 – June 30, 2021 Experience Study, which was approved by the Board of Trustees on November 16, 2022.

This report was prepared using census data as of the July 1, 2022 valuation date and financial information as of the June 30, 2023 measurement date.

Based on the State Treasurer's recommendation, the investment return assumption used to determine the actuarially determined contributions is 7.00% per annum.

In accordance with Paragraph 40 of GASB Statement No. 67, the projection of the Plan's fiduciary net position is based on a long-term expected rate of return of 7.00% per annum. The discount rate used to measure the Total Pension Liability is 7.00% as of June 30, 2023 and is described in Section III of the report.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.



SECTION II – CERTIFICATION

This report was prepared for PERS for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Janet Cranna, FSA, FCA, MAAA, EA

Principal Consulting Actuary

Jake Libauskas, FSA, FCA, MAAA, EA

Libauskas

Consulting Actuary



SECTION III – DETERMINATION OF DISCOUNT RATE

The discount rate used to measure the Total Pension Liability was 7.00% as of June 30, 2022 and June 30, 2023. As discussed with the DPB, the projection of cash flows used to determine the discount rate as of June 30, 2023 assumed:

- In accordance with Paragraph 40 of GASB Statement No. 67, the projection of the Plan's fiduciary net position is based on a long-term expected rate of return of 7.00% per annum.
- In accordance with Paragraph 41 of GASB Statement No. 67, the projection of the Plan's contributions and benefit payments are based on the same assumptions used to determine the expected contributions for the System. The demographic assumptions are based on the recommendations of the July 1, 2018 June 30, 2021 Experience Study, which was approved by the Board of Trustees on November 16, 2022.
 - Based on the State Treasurer's recommendation, the investment return assumption used to determine the actuarially determined contributions is 7.00% per annum.
- It is assumed that the Local employers will contribute 100% of their actuarially determined contribution and 100% of their Non-Contributory Group Insurance Premium Fund (NCGIPF) contribution. It is assumed that the State will contribute 100% of its actuarially determined contribution and NCGIPF contribution. The 100% contribution rate is the total State contribution rate expected to be paid in fiscal year ending June 30, 2024 with respect to the actuarially determined contribution for the fiscal year ending June 30, 2024 for all State administered retirement systems.
- Consistent with Chapter 83, P.L. 2016, it is assumed that the State will make pension contributions in equal amounts at the end of each quarter.
- In accordance with Chapter 98, P. L. 2017, PERS receives 21.02% of the proceeds of the Lottery Enterprise for a period of 30 years. Revenues received from lottery proceeds are assumed to be contributed to the System on a monthly basis.
- It is assumed that Local employers' contributions, including the NCGIPF contributions, are expected to be received on April 1st, 21 months after the associated valuation date.
- The State NCGIPF contributions are assumed to be paid monthly.
- Annual administrative expenses are assumed to be 0.29% and 0.50% of expected pension benefit payments for State and Local employers, respectively.

The Fiduciary Net Position (FNP) includes Local employers' contributions receivable as reported in the financial statements provided to us by the DPB. In determining the discount rate in Appendix D, the FNP at the beginning of each year does not reflect receivable contributions as those amounts are not available at the beginning of the year to pay benefits. The receivable contributions for the current year and prior year are shown below:



SECTION III – DETERMINATION OF DISCOUNT RATE

- For FYE June 30, 2022, the FNP includes receivable contributions of \$1,288,683,017 (\$1,206,444,085 for appropriations, \$54,603,937 for NCGIPF, \$10,055,321 for Chapter 19 and \$17,579,674 for Early Retirement Incentive (ERI)).
- For FYE June 30, 2023, the FNP includes receivable contributions of \$1,354,892,653 (\$1,280,103,723 for appropriations, \$56,423,536 for NCGIPF, \$2,910,385 for Chapter 19 and \$15,455,009 for ERI).

In the event the Plan's fiduciary net position was no longer sufficient to make future benefit payments, municipal bond rates of 3.54% as of June 30, 2022 and 3.65% as of June 30, 2023 would be used to develop the blended GASB discount rate. As selected by the State Treasurer, the rates are based on the Bond Buyer GO 20-Bond Municipal Bond Index.

As of June 30, 2023, based on the assumptions above, the pension Plan's fiduciary net position is expected to be sufficient to make all projected future benefit payments for current Plan members; therefore, the GASB discount rate as of June 30, 2023 is equal to the long-term rate of return of 7.00%. Similarly, the GASB discount rate as of June 30, 2022 was equal to the long-term rate of return of 7.00%. The assumed discount rates have been determined in accordance with the method prescribed by GASB Statement No. 67. See Appendix D for the determination of the discount rate.



SECTION IV - PROJECTION OF TOTAL PENSION LIABILITY

The Total Pension Liability at the end of the measurement year, June 30, 2023, is measured as of a valuation date of July 1, 2022 and projected to June 30, 2023. The TPL and service cost were calculated using the Entry Age Normal Cost Method as prescribed by GASB 67. All TPL amounts shown in Tables IV-1A to IV-1C below include liabilities attributable to the NCGIPF. In addition, net employer transfer contributions and net member transfer contributions with accumulated interest are added to the June 30, 2023 TPL.

There were no significant events during the projection period of which we are aware. Because the TPL shown in the prior report was measured as of July 1, 2021 and projected to June 30, 2022, it will not match the amounts measured as of July 1, 2022 that are shown in this exhibit.

The following tables show the projection of the TPL, broken out by State, Local employers and in Total for the System, and at discount rates equal to the rate used for disclosure and plus and minus one percent from the rate used for disclosure.

Table IV-1A Projection of Total Pension Liability from Valuation to Measurement Date State								
Discount Rate		6.00%		7.00%		8.00%		
Total Pension Liability, 7/1/2022								
Actives	\$	12,965,308,722	\$	11,248,504,275	\$	9,820,426,838		
Deferred Vested		23,909,861		20,897,763		18,423,772		
Retirees		19,697,618,517		18,212,547,290		16,924,078,222		
Total	\$	32,686,837,100	\$	29,481,949,328	\$	26,762,928,832		
Service Cost		576,354,947		468,862,341		387,406,434		
Benefit Payments		(2,089,660,605)		(2,089,660,605)		(2,089,660,605)		
Transfer Contributions - Employer		(295,378)		(295,378)		(295,378)		
Transfer Contributions - Member		3,635,743		3,635,743		3,635,743		
Interest		1,934,113,608		2,024,770,620		2,090,179,467		
Total Pension Liability, 6/30/2023	\$	33,110,985,415	\$	29,889,262,049	\$	27,154,194,493		



SECTION IV – PROJECTION OF TOTAL PENSION LIABILITY

Table IV-1B Projection of Total Pension Liability from Valuation to Measurement Date Local Employers									
Discount Rate		6.00%		7.00%		8.00%			
Total Pension Liability, 7/1/2022									
Actives	\$	19,444,870,551	\$	16,993,876,949	\$	14,944,414,384			
Deferred Vested		49,179,290		43,328,749		38,494,219			
Retirees		26,024,249,115		24,099,804,583		22,426,760,657			
Total	\$	45,518,298,956	\$	41,137,010,281	\$	37,409,669,260			
Service Cost		909,623,341		749,639,969		627,358,002			
Benefit Payments		(2,703,626,872)		(2,703,626,872)		(2,703,626,872)			
Transfer Contributions - Employer		(1,956,284)		(1,956,284)		(1,956,284)			
Transfer Contributions - Member		(12,675,156)		(12,675,156)		(12,675,156)			
Interest		2,705,315,429		2,838,535,568		2,936,323,590			
Total Pension Liability, 6/30/2023	\$	46,414,979,414	\$	42,006,927,506	\$	38,255,092,540			

Table IV-1C									
Projection of Total Pension Liability from Valuation to Measurement Date									
		Total							
Discount Rate		6.00%		7.00%		8.00%			
Total Pension Liability, 7/1/2022									
Actives	\$	32,410,179,273	\$	28,242,381,224	\$	24,764,841,222			
Deferred Vested		73,089,151		64,226,512		56,917,991			
Retirees		45,721,867,632		42,312,351,873		39,350,838,879			
Total	\$	78,205,136,056	\$	70,618,959,609	\$	64,172,598,092			
Service Cost		1,485,978,288		1,218,502,310		1,014,764,436			
Benefit Payments		(4,793,287,477)		(4,793,287,477)		(4,793,287,477)			
Transfer Contributions - Employer		(2,251,662)		(2,251,662)		(2,251,662)			
Transfer Contributions - Member		(9,039,413)		(9,039,413)		(9,039,413)			
Interest		4,639,429,037		4,863,306,188		5,026,503,057			
Total Pension Liability, 6/30/2023	\$	79,525,964,829	\$	71,896,189,555	\$	65,409,287,033			



SECTION V – NOTE DISCLOSURES

The following tables show the changes in the Total Pension Liability, the Plan Fiduciary Net Position (i.e., fair value of System assets), and the Net Pension Liability during the Measurement Year.

Table V-1A Change in Net Pension Liability State							
			Inc	rease (Decrease)			
		Total Pension Liability (a)	I	Plan Fiduciary Net Position (b)		Net Pension Liability (a) - (b)	
Balances at 6/30/2022	\$	29,144,869,310	\$	6,758,038,264	\$	22,386,831,046	
Changes for the year:							
Service cost		468,862,341				468,862,341	
Interest		2,001,175,018				2,001,175,018	
Changes of benefits		0				0	
Differences between expected and actual experience		360,675,620				360,675,620	
Changes of assumptions		0				0	
Contributions - employer (appropriations)				1,569,342,915		(1,569,342,915)	
Contributions - employer (NCGI)				45,638,724		(45,638,724)	
Contributions - employer (lottery)				245,934,000		(245,934,000)	
Contributions - member				357,335,214		(357,335,214)	
Transfers from other systems - employer		(295,378)		(295,378)		0	
Transfers from other systems - member		3,635,743		3,635,743		0	
Employer contribution - delayed enrollment		0		240,648		(240,648)	
Employer contribution - delayed appropriations		0		0		0	
Employer contribution - retroactive		0		0		0	
Employer contribution - additional		0		0		0	
Other - NCGIPF adjustment		0		0		0	
Net investment income				546,916,081		(546,916,081)	
Benefit payments		(2,089,660,605)		(2,089,660,605)		0	
Administrative expense				(5,911,110)		5,911,110	
Net changes		744,392,739		673,176,232		71,216,507	
Balances at 6/30/2023	\$	29,889,262,049	\$	7,431,214,496	\$	22,458,047,553	



SECTION V – NOTE DISCLOSURES

Table V-1B Change in Net Pension Liability Local Employers							
			In	crease (Decrease)			
		Total Pension Liability (a)		Plan Fiduciary Net Position (b)		Net Pension Liability (a) - (b)	
Balances at 6/30/2022	\$	41,029,268,965	\$	25,810,084,045	\$	15,219,184,920	
Changes for the year:							
Service cost		749,639,969				749,639,969	
Interest		2,830,993,676				2,830,993,676	
Changes of benefits		0				0	
Differences between expected and actual experience		115,283,208				115,283,208	
Changes of assumptions		0				0	
Contributions - employer (appropriations)				1,280,103,723		(1,280,103,723)	
Contributions - employer (NCGI)				56,423,536		(56,423,536)	
Contributions - employer (paid by State on behalf of locals)				61,366,036		(61,366,036)	
Contributions - member				604,584,027		(604,584,027)	
Transfers from other systems - employer		(1,956,284)		(1,956,284)		0	
Transfers from other systems - member		(12,675,156)		(12,675,156)		0	
Employer contribution - delayed enrollment		0		746,888		(746,888)	
Employer contribution - delayed appropriations		0		3,050,065		(3,050,065)	
Employer contribution - retroactive		0		7,305,219		(7,305,219)	
Employer contribution - additional		0		38,784		(38,784)	
Other - NCGIPF adjustment		0		0		0	
Net investment income				2,308,223,907		(2,308,223,907)	
Benefit payments		(2,703,626,872)		(2,703,626,872)		0	
Administrative expense				(13,229,478)		13,229,478	
Net changes		977,658,541		1,590,354,395		(612,695,854)	
Balances at 6/30/2023	\$	42,006,927,506	\$	27,400,438,440	\$	14,606,489,066	



SECTION V – NOTE DISCLOSURES

Table V-1C Change in Net Pension Liability Total							
			In	crease (Decrease)			
		Total Pension Liability (a)		Plan Fiduciary Net Position (b)		Net Pension Liability (a) - (b)	
Balances at 6/30/2022	\$	70,174,138,275	\$	32,568,122,309	\$	37,606,015,966	
Changes for the year:							
Service cost		1,218,502,310				1,218,502,310	
Interest		4,832,168,694				4,832,168,694	
Changes of benefits		0				0	
Differences between expected and actual experience		475,958,828				475,958,828	
Changes of assumptions		0				0	
Contributions - employer (appropriations)				2,849,446,638		(2,849,446,638)	
Contributions - employer (NCGI)				102,062,260		(102,062,260)	
Contributions - employer (lottery)				245,934,000		(245,934,000)	
Contributions - employer (paid by State on behalf of locals)				61,366,036		(61,366,036)	
Contributions - member				961,919,241		(961,919,241)	
Transfers from other systems - employer		(2,251,662)		(2,251,662)		0	
Transfers from other systems - member		(9,039,413)		(9,039,413)		0	
Employer contribution - delayed enrollment		0		987,536		(987,536)	
Employer contribution - delayed appropriations		0		3,050,065		(3,050,065)	
Employer contribution - retroactive		0		7,305,219		(7,305,219)	
Employer contribution - additional		0		38,784		(38,784)	
Other - NCGIPF adjustment		0		0		0	
Net investment income				2,855,139,988		(2,855,139,988)	
Benefit payments		(4,793,287,477)		(4,793,287,477)		0	
Administrative expense		_		(19,140,588)		19,140,588	
Net changes		1,722,051,280		2,263,530,627		(541,479,347)	
Balances at 6/30/2023	\$	71,896,189,555	\$	34,831,652,936	\$	37,064,536,619	



SECTION V – NOTE DISCLOSURES

Changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a relatively small change in the discount rate. The following table shows the sensitivity of the NPL to the discount rate.

Table V-2 Sensitivity of Net Pension Liability to Changes in Discount Rate								
		1% Decrease 6.00%		Discount Rate 7.00%		1% Increase 8.00%		
<u>State</u>								
Total Pension Liability	\$	33,110,985,415	\$	29,889,262,049	\$	27,154,194,493		
Plan Fiduciary Net Position		7,431,214,496		7,431,214,496		7,431,214,496		
Net Pension Liability	\$	25,679,770,919	\$	22,458,047,553	\$	19,722,979,997		
Plan Fiduciary Net Position as a Percentage of		_		_		_		
the Total Pension Liability		22.4%		24.9%		27.4%		
<u>Local Employers</u>								
Total Pension Liability	\$	46,414,979,414	\$	42,006,927,506	\$	38,255,092,540		
Plan Fiduciary Net Position		27,400,438,440		27,400,438,440		27,400,438,440		
Net Pension Liability	\$	19,014,540,974	\$	14,606,489,066	\$	10,854,654,100		
Plan Fiduciary Net Position as a Percentage of								
the Total Pension Liability		59.0%		65.2%		71.6%		
Total								
Total Pension Liability	\$	79,525,964,829	\$	71,896,189,555	\$	65,409,287,033		
Plan Fiduciary Net Position		34,831,652,936		34,831,652,936		34,831,652,936		
Net Pension Liability	\$	44,694,311,893	\$	37,064,536,619	\$	30,577,634,097		
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		43.8%		48.4%		53.3%		



SECTION VI – REQUIRED SUPPLEMENTARY INFORMATION

The schedules below show the changes in NPL and related ratios required by GASB for the current and prior year.

Table VI-1A Schedule of Changes in Net Pension Liability	and F	Related Ratios	
State	anu i	xciateu ixatios	
		FYE 2023	FYE 2022
Total Pension Liability			
Service cost	\$	468,862,341	\$ 438,055,831
Interest (includes interest on service cost)		2,001,175,018	1,987,977,705
Changes of benefit terms		0	2,624,741
Differences between expected and actual experience		360,675,620	(110,013,251)
Changes of assumptions		0	(112,484,301)
Transfers from other systems - employer		(295,378)	694,985
Transfers from other systems - member		3,635,743	(791,893)
Benefit payments, including refunds of member contributions		(2,089,660,605)	 (2,011,711,451)
Net change in total pension liability	\$	744,392,739	\$ 194,352,366
Total pension liability - beginning		29,144,869,310	 28,950,516,944
Total pension liability - ending	\$	29,889,262,049	\$ 29,144,869,310
Plan fiduciary net position			
Contributions - employer (appropriations)	\$	1,569,342,915	\$ 1,576,629,756
Contributions - employer (NCGI)		45,638,724	43,175,709
Contributions - employer (lottery)		245,934,000	233,550,067
Contributions - member		357,335,214	354,378,152
Transfers from other systems - employer		(295,378)	694,985
Transfers from other systems - member		3,635,743	(791,893)
Employer contribution - delayed enrollment		240,648	214,832
Employer contribution - delayed appropriations		0	0
Employer contribution - retroactive		0	0
Employer contribution - additional		0	0
Other - NCGIPF adjustment		0	0
Net investment income		546,916,081	(753,520,870)
Benefit payments, including refunds of member contributions		(2,089,660,605)	(2,011,711,451)
Administrative expense		(5,911,110)	 (5,600,482)
Net change in plan fiduciary net position	\$	673,176,232	\$ (562,981,195)
Plan fiduciary net position - beginning		6,758,038,264	 7,321,019,459
Plan fiduciary net position - ending	\$	7,431,214,496	\$ 6,758,038,264
Net pension liability - ending	\$	22,458,047,553	\$ 22,386,831,046
Plan fiduciary net position as a percentage of the total pension liability		24.86%	23.19%
Covered payroll	\$	4,664,968,264	\$ 4,578,674,071
Net pension liability as a percentage of covered payroll		481.42%	488.94%



SECTION VI – REQUIRED SUPPLEMENTARY INFORMATION

Table VI-1B Schedule of Changes in Net Pension Liability and Related Ratios						
Local Employers		FYE 2023		FYE 2022		
Total Pension Liability		F I E 2023		F I E 2022		
Service cost	\$	749,639,969	\$	694,024,318		
Interest (includes interest on service cost)	Ψ	2,830,993,676	Ψ	2,783,542,580		
Changes of benefit terms		0		8,076,428		
Differences between expected and actual experience		115,283,208		(56,207,429)		
Changes of assumptions		0		(137,996,645)		
Transfers from other systems - employer		(1,956,284)		(2,911,963)		
Transfers from other systems - member		(12,675,156)		(12,566,305)		
Benefit payments, including refunds of member contributions		(2,703,626,872)		(2,606,260,074)		
Net change in total pension liability	\$	977,658,541	\$	669,700,910		
Total pension liability - beginning		41,029,268,965		40,359,568,055		
Total pension liability - ending	\$	42,006,927,506	\$	41,029,268,965		
Plan fiduciary net position						
Contributions - employer (appropriations)	\$	1,280,103,723	\$	1,206,444,085		
Contributions - employer (NCGI)		56,423,536		54,603,937		
Contributions - employer (paid by State on behalf of locals)		61,366,036		48,654,369		
Contributions - member		604,584,027		578,777,150		
Transfers from other systems - employer		(1,956,284)		(2,911,963)		
Transfers from other systems - member		(12,675,156)		(12,566,305)		
Employer contribution - delayed enrollment		746,888		769,882		
Employer contribution - delayed appropriations		3,050,065		3,147,089		
Employer contribution - retroactive		7,305,219		5,977,713		
Employer contribution - additional		38,784		75,615		
Other - NCGIPF adjustment		0		0		
Net investment income		2,308,223,907		(1,840,982,899)		
Benefit payments, including refunds of member contributions		(2,703,626,872)		(2,606,260,074)		
Administrative expense		(13,229,478)		(12,429,731)		
Net change in plan fiduciary net position	\$	1,590,354,395	\$	(2,576,701,132)		
Plan fiduciary net position - beginning		25,810,084,045		28,386,785,177		
Plan fiduciary net position - ending	\$	27,400,438,440	\$	25,810,084,045		
Net pension liability - ending	\$	14,606,489,066	\$	15,219,184,920		
Plan fiduciary net position as a percentage of the total pension liability		65.23%		62.91%		
Covered payroll	\$	7,591,465,466	\$	7,369,908,268		
Net pension liability as a percentage of covered payroll		192.41%		206.50%		



SECTION VI – REQUIRED SUPPLEMENTARY INFORMATION

Table VI-1C			
Schedule of Changes in Net Pension Liability a	ınd F	Related Ratios	
Total			
		FYE 2023	FYE 2022
<u>Total Pension Liability</u>			
Service cost	\$	1,218,502,310	\$ 1,132,080,149
Interest (includes interest on service cost)		4,832,168,694	4,771,520,285
Changes of benefit terms		0	10,701,169
Differences between expected and actual experience		475,958,828	(166,220,680)
Changes of assumptions		0	(250,480,946)
Transfers from other systems - employer		(2,251,662)	(2,216,978)
Transfers from other systems - member		(9,039,413)	(13,358,198)
Benefit payments, including refunds of member contributions		(4,793,287,477)	 (4,617,971,525)
Net change in total pension liability	\$	1,722,051,280	\$ 864,053,276
Total pension liability - beginning		70,174,138,275	69,310,084,999
Total pension liability - ending	\$	71,896,189,555	\$ 70,174,138,275
Plan fiduciary net position			
Contributions - employer (appropriations)	\$	2,849,446,638	\$ 2,783,073,841
Contributions - employer (NCGI)		102,062,260	97,779,646
Contributions - employer (lottery)		245,934,000	233,550,067
Contributions - employer (paid by State on behalf of locals)		61,366,036	48,654,369
Contributions - member		961,919,241	933,155,302
Transfers from other systems - employer		(2,251,662)	(2,216,978)
Transfers from other systems - member		(9,039,413)	(13,358,198)
Employer contribution - delayed enrollment		987,536	984,714
Employer contribution - delayed appropriations		3,050,065	3,147,089
Employer contribution - retroactive		7,305,219	5,977,713
Employer contribution - additional		38,784	75,615
Other - NCGIPF adjustment		0	0
Net investment income		2,855,139,988	(2,594,503,769)
Benefit payments, including refunds of member contributions		(4,793,287,477)	(4,617,971,525)
Administrative expense		(19,140,588)	(18,030,213)
Net change in plan fiduciary net position	\$	2,263,530,627	\$ (3,139,682,327)
Plan fiduciary net position - beginning		32,568,122,309	35,707,804,636
Plan fiduciary net position - ending	\$	34,831,652,936	\$ 32,568,122,309
Net pension liability - ending	\$	37,064,536,619	\$ 37,606,015,966
Plan fiduciary net position as a percentage of the total pension liability		48.45%	46.41%
Covered payroll	\$	12,256,433,730	\$ 11,948,582,339
Net pension liability as a percentage of covered payroll		302.41%	314.73%



SECTION VI – REQUIRED SUPPLEMENTARY INFORMATION

Since an Actuarially Determined Contribution (ADC) is calculated, the following schedule is required. An ADC is a contribution amount determined in accordance with Actuarial Standards of Practice. Amounts shown for the ADC and actual contributions in the table below include the Non-Contributory Group Insurance Premium Fund costs.

Table VI-2 Schedule of Employer Contributions						
		FYE 2023		FYE 2022		
<u>State</u>						
Actuarially Determined Contribution Contributions in Relation to the Actuarially Determined Contribution	\$	1,805,361,812 1,922,281,675		1,762,215,197 1,902,009,901		
Contribution Deficiency/(Excess)	\$	(116,919,863)	\$	(139,794,704)		
Covered Payroll Contributions as a Percentage of Covered Payroll	\$	4,664,968,264 41.21%	\$	4,578,674,071 41.54%		
Local Employers Actuarially Determined Contribution Contributions in Relation to the Actuarially Determined Contribution	\$	1,272,913,017 1,272,913,017	\$	1,221,803,400 1,183,411,891		
Contribution Deficiency/(Excess)	\$	0	\$	38,391,509		
Covered Payroll Contributions as a Percentage of Covered Payroll	\$	7,591,465,466 16.77%	\$	7,369,908,268 16.06%		
System Total Actuarially Determined Contribution Contributions in Relation to the Actuarially Determined Contribution Contribution Deficiency/(Excess)	\$ 	3,078,274,829 3,195,194,692 (116,919,863)		2,984,018,597 3,085,421,792 (101,403,195)		
Covered Payroll Contributions as a Percentage of Covered Payroll	\$	12,256,433,730 26.07%	\$	11,948,582,339 25.82%		

^{*} Includes NCGIPF



SECTION VI – REQUIRED SUPPLEMENTARY INFORMATION

The following summarizes key methods and assumptions used to determine the Actuarially Determined Contribution for FYE 2023.

Valuation Date: July 1, 2021

Timing: Actuarial determined contributions are calculated as of the July 1 preceding the fiscal year in which

contributions are made.

Actuarial cost method: Projected Unit Credit

Amortization method: Level dollar Remaining amortization period: 28 years

Asset valuation method: 5-year smoothing of difference between market value and expected actuarial value

Investment rate of return: 7.00%

Salary increases: Service-based rates scaling from 6.00% at enrollment to 2.00% at 29 or more years of service through

period ending June 30, 2026;

Service-based rates scaling from 7.00% at enrollment to 3.00% at 29 or more years of service for the period

after June 30, 2026

Mortality: Pre-Retirement Mortality: The Pub-2010 General Below-Median Income Employee mortality table [PubG-

2010(B) Employee] as published by the Society of Actuaries with an 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 using SOA's Scale MP-2018.

All pre-retirement deaths are assumed to be ordinary deaths.

Healthy Retirees and Beneficiaries (Healthy Annuitants): The Pub-2010 General Below-Median Income Healthy Retiree mortality table [PubG-2010(B) Healthy Retiree] as published by the Society of Actuaries 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 using SOA's Scale MR 2018

the base year of 2010 on a generational basis using SOA's Scale MP-2018.

<u>Disabled Retirees (Disabled Annuitants)</u>: The Pub-2010 Non-Safety Disabled Retiree mortality table [*PubNS-2010 Disabled Retiree*] as published by the Society of Actuaries with a 127.7% adjustment for males and 117.2% adjustment for females, and with future improvement from the base year of 2010 on a

generational basis using SOA's Scale MP-2018.



APPENDIX A – MEMBERSHIP INFORMATION

			Plan Mem	ber	ship			
			July 1, 2022				July 1, 2021	
			Local				Local	
	State		Employers		Total	State	Employers	Total
Contributing Actives	64,35	7	139,073		203,430	65,555	138,672	204,227
Non-Contributing Actives	9,78	6	27,935		37,721	9,253	26,422	35,675
Deferred Beneficiaries	1	1	67		78	183	876	1,059
Terminated Vested	14	7	433		580	186	537	723
Inactive Receiving Benefits*	62,84	2	128,199		191,041	61,535	125,837	187,372
Total	137,14	3	295,707		432,850	136,712	292,344	429,056
Annual Compensation for Contributing Actives Annual Retirement Allowances for Those	\$ 4,664,968,26	4 \$	7,591,465,466	\$	12,256,433,730	\$ 4,578,674,071	\$ 7,369,908,268	\$ 11,948,582,339
Receiving Benefits	\$ 1,857,631,69	5 \$	2,517,340,724	\$	4,374,972,419	\$ 1,776,844,453	\$ 2,414,370,737	\$ 4,191,215,190

^{*} QDRO recipients are excluded from the counts for both years.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1.	Investment Rate of Return for determining Actuarially Determined Contributions	7.00% per annum, compounded annually.
2.	Long-Term Expected Rate of Return	7.00% per annum, compounded annually.
3.	Interest Crediting Rate on Accumulated Deductions	7.00% per annum, compounded annually. Interest credits are assumed to end upon termination.
4.	GASB 67 Effective Discount Rate	 June 30, 2022: 7.00% per annum, compounded annually. June 30, 2023: 7.00% per annum, compounded annually.
5.	Price Inflation	• 2.75% per annum, compounded annually.
6.	Wage Inflation	• 3.25% per annum, compounded annually.
7.	Cost-of-Living Adjustments (COLAs)	No future COLAs are assumed. Previously granted COLAs are included in the data.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

8. Salary Increases Salaries are assumed to increase annually as follows:

Years of Service	Rates
0	6.55%
1	6.55
2	6.35
3	6.15
4	5.95
5	5.75
6	5.55
7	5.35
8	5.15
9	4.95
10	4.75
11	4.55
12	4.35
13	4.15
14	3.95
15	3.75
16	3.55
17	3.45
18	3.35
19	3.25
20	3.15
21	3.05
22	2.95
23-27	2.85
28+	2.75

Salary increases are assumed to occur on July 1.

Non-contributing members reported with a salary are assumed to have no future salary increase.

- **9. 401(a)(17) Pay Limit** \$305,000 in 2022 increasing 2.75% per annum, compounded annually.
- **10. Social Security** \$147,000 in 2022 increasing 3.25% per annum, compounded annually. **Wage Base**



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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

11. Termination

Termination rates are shown separately for members electing a refund of contributions and members electing a deferred annuity.

Termination rates for members electing a refund of contributions are as follows:

7	Termination Rates for Members Electing a Refund						
State		Local Er	nployers'				
		31 Years or	Less than 31	31 Years or			
Service	Years Old	Older	Years Old	Older			
0	21.00%	11.00%	19.00%	11.50%			
1	21.00	11.00	19.00	11.50			
2	11.50	7.50	15.50	8.50			
3	9.50	6.50	14.00	7.50			
4	9.00	5.50	11.50	6.50			
5	8.00	5.50	10.50	6.00			
6	7.00	5.00	8.50	5.50			
7	7.00	4.50	8.00	5.00			
8	7.00	4.00	7.50	4.50			
9	7.00	3.50	6.50	4.00			
10	1.70	1.70	1.70	1.70			
11	1.50	1.50	1.50	1.50			
12	1.10	1.10	1.40	1.40			
13	1.10	1.10	1.20	1.20			
14	0.70	0.70	1.10	1.10			
15	0.60	0.60	0.90	0.90			
16	0.60	0.60	0.80	0.80			
17	0.60	0.60	0.70	0.70			
18	0.50	0.50	0.60	0.60			
19	0.50	0.50	0.60	0.60			
20	0.50	0.50	0.50	0.50			
21	0.50	0.50	0.50	0.50			
22	0.40	0.40	0.50	0.50			
23	0.40	0.40	0.40	0.40			
24-29	0.30	0.30	0.30	0.30			

No termination is assumed after attainment of retirement eligibility.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Termination rates for members electing a deferred annuity are as follows:

Termination Rates for Members Electing a Deferred Annuity					
		Local			
Service	State	Employers			
< 10	N/A	N/A			
10	1.60%	1.80%			
11	1.60	1.80			
12	1.20	1.70			
13	1.20	1.60			
14	1.00	1.50			
15	0.90	1.40			
16	0.90	1.30			
17	0.80	1.20			
18	0.80	1.10			
19	0.80	1.00			
20	0.80	1.00			
21	0.70	0.90			
22	0.50	0.80			
23	0.50	0.80			
24	0.40	0.70			

No termination is assumed after attainment of retirement eligibility.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

12. Disability

Ordinary disability rates are as follows:

Ordinary Disability Rates						
		Local			Local	
Age	State	Employers	Age	State	Employers	
25	0.100%	0.200%	50	0.335%	0.335%	
26	0.110	0.200	51	0.350	0.350	
27	0.120	0.200	52	0.365	0.365	
28	0.130	0.200	53	0.380	0.380	
29	0.140	0.200	54	0.395	0.395	
30	0.150	0.205	55	0.410	0.405	
31	0.160	0.210	56	0.425	0.415	
32	0.170	0.215	57	0.440	0.425	
33	0.180	0.220	58	0.455	0.435	
34	0.190	0.225	59	0.470	0.445	
35	0.205	0.225	60	0.485	0.455	
36	0.220	0.225	61	0.500	0.465	
37	0.220	0.225	62	0.515	0.475	
38	0.220	0.225	63	0.530	0.485	
39	0.220	0.225	64	0.545	0.495	
40	0.230	0.235	65	0.560	0.505	
41	0.240	0.245	66	0.575	0.515	
42	0.250	0.255	67	0.590	0.525	
43	0.260	0.265	68	0.605	0.535	
44	0.270	0.275	69	0.620	0.545	
45	0.280	0.275	70	0.630	0.560	
46	0.290	0.275	71	0.640	0.575	
47	0.300	0.290	72	0.650	0.590	
48	0.310	0.305	73	0.660	0.605	
49	0.320	0.320	74	0.670	0.620	

Accidental disability rates are assumed to be 0.02% for all State members and 0.03% for all Local employers' members.

Ordinary disability rates apply upon attainment of 10 years of service and continue through the ultimate retirement age.

Members are assumed to receive the greater of the applicable disability benefit or the early or service retirement benefit, depending on eligibility.

Tier 4 and Tier 5 members are not eligible for the Ordinary or Accidental Disability benefits, but the disability rates still apply. Such members terminating under the disability decrement are assumed to separate from service and elect a Deferred Retirement benefit.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

13. Mortality

<u>Pre-Retirement Mortality (Non-Annuitants)</u>: The Pub-2010 General Below-Median Income Employee mortality table [PubG-2010(B) Employee] as published by the Society of Actuaries with an 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 using SOA's Scale MP-2021.

All pre-retirement deaths are assumed to be ordinary deaths.

Healthy Retirees and Beneficiaries (Healthy Annuitants): The Pub-2010 General Below-Median Income Healthy Retiree mortality table [PubG-2010(B) Healthy Retiree] as published by the Society of Actuaries 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 using SOA's Scale MP-2021.

<u>Disabled Retirees (Disabled Annuitants)</u>: The Pub-2010 Non-Safety Disabled Retiree mortality table *[PubNS-2010 Disabled Retiree]* as published by the Society of Actuaries with a 127.7% adjustment for males and 117.2% adjustment for females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2021.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

14. Retirement

Retirement rates for State Tier 1-4 members are as follows:

State Tiers 1-4 Retirement Rates					
	Less Than 25	25 Years of	26 or More Years		
Age	Years of Service	Service	of Service		
< 49	N/A	3.50%	2.00%		
49	N/A	3.50	2.00		
50	N/A	3.50	3.50		
51	N/A	3.50	3.50		
52	N/A	6.00	4.25		
53	N/A	6.00	5.50		
54	N/A	7.00	6.75		
55	N/A	17.50	18.00		
56	N/A	17.50	15.00		
57	N/A	17.50	14.00		
58	N/A	20.00	14.00		
59	N/A	20.00	14.00		
60	5.00	20.00	17.00		
61	5.00	30.00	17.00		
62	8.00	36.50	27.00		
63	8.00	36.50	24.00		
64	8.00	36.50	21.00		
65	12.00	44.00	25.00		
66	17.00	55.00	30.00		
67	16.00	50.00	26.00		
68	15.00	47.00	23.00		
69	15.00	47.00	23.00		
70	15.00	47.00	26.00		
71	15.00	47.00	23.00		
72	15.00	47.00	21.00		
73	15.00	47.00	21.00		
74	15.00	47.00	21.00		
75	100.00	100.00	100.00		

Rates apply upon retirement eligibility by tier.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Retirement rates for Local employers' Tier 1-4 members are as follows:

Local Employers' Tiers 1-4 Retirement Rates						
	Less Than 25	25 Years of	26 or More Years			
Age	Years of Service	Service	of Service			
< 49	N/A	3.00%	2.25%			
49	N/A	3.00	3.00			
50	N/A	3.50	3.50			
51	N/A	4.25	3.75			
52	N/A	4.75	3.75			
53	N/A	7.00	5.00			
54	N/A	7.00	6.00			
55	N/A	15.00	15.00			
56	N/A	17.00	13.00			
57	N/A	18.00	12.00			
58	N/A	18.00	12.00			
59	N/A	18.00	12.00			
60	4.50	18.00	14.00			
61	4.50	18.00	14.00			
62	7.50	34.00	25.00			
63	7.50	34.00	22.00			
64	7.50	34.00	20.00			
65	11.00	35.00	20.00			
66	15.00	43.00	26.00			
67	14.00	40.00	26.00			
68	13.00	40.00	22.00			
69	13.00	37.00	22.00			
70	13.00	37.00	24.00			
71	13.00	37.00	24.00			
72	13.00	37.00	20.00			
73	13.00	37.00	20.00			
74	13.00	37.00	20.00			
75	100.00	100.00	100.00			

Rates apply upon retirement eligibility by tier.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Retirement rates for State Tier 5 members are as follows:

State Tier 5 Retirement Rates					
A	Less Than 25	25 Years of	26 to 29 Years	30 Years of	31 or More Years
Age < 49	Years of Service N/A	Service N/A	of Service N/A	Service 3.50%	of Service 2.00%
49	N/A N/A	N/A N/A	N/A	3.50%	2.00%
50	N/A	N/A N/A	N/A	3.50	3.50
51		N/A N/A			
	N/A		N/A	3.50	3.50
52	N/A	N/A	N/A	6.00	4.25
53	N/A	N/A	N/A	6.00	5.50
54	N/A	N/A	N/A	7.00	6.75
55	N/A	N/A	N/A	17.50	18.00
56	N/A	N/A	N/A	17.50	15.00
57	N/A	N/A	N/A	17.50	14.00
58	N/A	N/A	N/A	20.00	14.00
59	N/A	N/A	N/A	20.00	14.00
60	N/A	N/A	N/A	20.00	17.00
61	N/A	N/A	N/A	30.00	17.00
62	N/A	N/A	N/A	36.50	27.00
63	N/A	N/A	N/A	36.50	24.00
64	N/A	N/A	N/A	36.50	21.00
65	12.00	44.00	44.00	44.00	25.00
66	17.00	55.00	30.00	30.00	30.00
67	16.00	50.00	26.00	26.00	26.00
68	15.00	47.00	23.00	23.00	23.00
69	15.00	47.00	23.00	23.00	23.00
70	15.00	47.00	26.00	26.00	26.00
71	15.00	47.00	23.00	23.00	23.00
72	15.00	47.00	21.00	21.00	21.00
73	15.00	47.00	21.00	21.00	21.00
74	15.00	47.00	21.00	21.00	21.00
75	100.00	100.00	100.00	100.00	100.00



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Retirement rates for Local employers' Tier 5 members are as follows:

Local Employers' Tier 5 Retirement Rates						
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	
< 49	N/A	N/A	N/A	3.00%	2.25%	
49	N/A	N/A	N/A	3.00	3.00	
50	N/A	N/A	N/A	3.50	3.50	
51	N/A	N/A	N/A	4.25	3.75	
52	N/A	N/A	N/A	4.75	3.75	
53	N/A	N/A	N/A	7.00	5.00	
54	N/A	N/A	N/A	7.00	6.00	
55	N/A	N/A	N/A	15.00	15.00	
56	N/A	N/A	N/A	17.00	13.00	
57	N/A	N/A	N/A	18.00	12.00	
58	N/A	N/A	N/A	18.00	12.00	
59	N/A	N/A	N/A	18.00	12.00	
60	N/A	N/A	N/A	18.00	14.00	
61	N/A	N/A	N/A	18.00	14.00	
62	N/A	N/A	N/A	34.00	25.00	
63	N/A	N/A	N/A	34.00	22.00	
64	N/A	N/A	N/A	34.00	20.00	
65	11.00	35.00	35.00	35.00	20.00	
66	15.00	43.00	26.00	26.00	26.00	
67	14.00	40.00	26.00	26.00	26.00	
68	13.00	40.00	22.00	22.00	22.00	
69	13.00	37.00	22.00	22.00	22.00	
70	13.00	37.00	24.00	24.00	24.00	
71	13.00	37.00	24.00	24.00	24.00	
72	13.00	37.00	20.00	20.00	20.00	
73	13.00	37.00	20.00	20.00	20.00	
74	13.00	37.00	20.00	20.00	20.00	
75	100.00	100.00	100.00	100.00	100.00	

Retirement rates for members of Prosecutors Part (Chapter 366, P.L. 2001 and Chapter 226, P.L. 2021) are as follows:

- Members with less than 25 years of service: 6.0% for all ages,
- Members with 25 years of service: 40.0% for all ages,
- Members with 26 or more years of service: 20.0% for all ages.

Rates apply upon retirement eligibility. 100% retirement is assumed at age 70.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Retirement rates for members of WCJ Part (Chapter 140, P.L. 2021) are as follows:

	Less than 15 Years of WCJ Part	15-19 Years of WCJ Part	20 or more Years of WCJ Part
Age	Service _	Service	Service _
<60	0.0%	0.0%	0.0%
60	2.0	2.0	20.0
61	2.0	2.0	20.0
62	2.0	2.0	20.0
63	2.0	2.0	20.0
64	2.0	2.0	20.0
65	5.0	40.0	30.0
66	2.0	40.0	20.0
67	2.0	40.0	20.0
68	2.0	40.0	20.0
69	2.0	40.0	20.0
70	100.0	100.0	100.0

15. Family Composition Assumptions

For members not currently in receipt, 50% of members are assumed married to spouses of the opposite sex. Males are assumed to be two years older than females.

For purposes of the optional form of payment death benefit for members currently in receipt, beneficiary status is based on the beneficiary allowance reported. If no beneficiary date of birth is provided, the beneficiary is assumed to be the member's spouse of the opposite sex with males assumed to be two years older than females.

No additional dependent children or parents are assumed.

16. Form of Payment

Current active members are assumed to elect the Maximum Option.

17. Non-Contributory Group Insurance Form of Payment

All benefits are assumed to be paid as lump sums.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

18. Data

Non-contributing members reported without a salary are included in the valuation with a liability based on the reported Accumulated Deductions with interest (Annuity Savings Fund or ASF), adjusted to include interest through the valuation date.

Per discussions with DPB, the statuses for active records in Locations 4-7 (General Assembly and Senate) are based on changes in service instead of the contribution code.

For current beneficiaries with incomplete information, reasonable assumptions were made based on information available in prior years.

Deferred beneficiaries were reported separately from other noncontributing members for the first time in 2021. The benefit is based on the reported Accumulated Deductions with interest (Annuity Savings Fund or ASF).

Inactive participants receiving benefits according to the 2021 data but omitted from the 2022 data are assumed to have died without a beneficiary.

For retirees who earned benefits under both a State and Local employer, their total benefit is assigned to the location with the highest salary prior to retirement.

Tier 4 and 5 members on long-term disability appeared on the active data for the first time in 2019. The number of members on long-term disability is immaterial for valuation purposes. Therefore, we valued these members as regular contributing and non-contributing members while we gain clarity on what happens with these members.

19. Rationale for Assumptions

The demographic and economic assumptions used in this report, except for the investment return assumption, reflect the results of the July 1, 2018 – June 30, 2021 Experience Study, which was approved by the Board of Trustees on November 16, 2022.

The investment return assumption was recommended by the State Treasurer. We find the investment return assumption to be reasonable based on the System's current asset allocation and the capital market outlook of the New Jersey Division of Investment.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

20. Projection Basis

This report includes projections of future assets, benefit payments and contributions for the purpose of determining the GASB 67 discount rate.

The projections are based on the census data as of July 1, 2022 and the financial information as of June 30, 2023. The projections assume continuation of the plan provisions and actuarial assumptions in effect as of July 1, 2023 and do not reflect the impact of any changes in benefits or actuarial assumptions that may be adopted after July 1, 2023 unless otherwise indicated. While the assumptions individually are reasonable for the underlying valuation that supports the projections, specifically for projection purposes, they are also considered reasonable in the aggregate.

21. Changes in Assumptions since Last Valuation

None.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

The actuarial methods used for determining State and Local employer contributions are described below.

1. Actuarial Cost Method

The actuarial cost method for funding calculations is the Projected Unit Credit Cost Method. Non-contributing members reported with a salary use the Projected Unit Credit Cost Method without any future projected salary increases.

The actuarial liability is calculated as the actuarial present value of the projected benefits linearly allocated to periods prior to the valuation year based on service (WCJ Part Service for members in the WCJ Part). Refunds are valued as the reported Accumulated Deductions with interest as of the valuation date. The unfunded actuarial liability is the actuarial liability on the valuation date less the actuarial value of assets.

In accordance with Chapter 78, P.L. 2011:

- Beginning with the July 1, 2010 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars, it will amortize the unfunded accrued liability over an open 30-year period.
- Beginning with the July 1, 2019 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars, it will amortize the unfunded accrued liability over a closed 30-year period (i.e., for each subsequent actuarial valuation the amortization period shall decrease by one year).
- Beginning with the July 1, 2029 actuarial valuation, when the remaining amortization period reaches 20 years, any increase or decrease in the unfunded accrued liability as a result of actuarial losses or gains for subsequent valuation years shall serve to increase or decrease, respectively, the amortization period for the unfunded accrued liability, unless an increase in the amortization period will cause it to exceed 20 years. If an increase in the amortization period as a result of actuarial losses for a valuation year would exceed 20 years, the accrued liability contribution shall be computed for the valuation year using a 20-year amortization period.

Certain portions of the normal cost and unfunded actuarial liabilities attributable to Local employers are payable by the State and/or over different periods in accordance with the NJ State Statutes.

To the extent that the amortization period remains an open period in future years and depending upon the specific circumstances, it should be noted that in the absence of emerging actuarial gains or contributions made in excess of the actuarially determined contribution, any existing unfunded accrued liability may not be fully amortized in the future.

The non-contributory group life insurance benefit is funded separately through a term cost.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

2. Asset Valuation Method

For the purposes of determining contribution rates, an actuarial value of assets is used that dampens the volatility in the market value of assets, resulting in a smoother pattern of contributions.

The actuarial value of assets is adjusted to reflect actual contributions, benefit payments and administrative expenses, and an assumed rate of return on the previous year's assets and current year's cash flow at the prior year's actuarial valuation interest rate, with a further adjustment to reflect 20% of the difference between the resulting value and the actual market value of Plan assets.

3. Contributions

Chapter 83, P.L. 2016 requires the State to make pension contributions on a quarterly basis: at least 25% by September 30, at least 50% by December 31, at least 75% by March 31, and at least 100% by June 30. As such, contributions are assumed to be made on a quarterly basis with the first contribution 15 months after the associated valuation date, with the exception of the FYE 2022 contribution. For FYE 2022 only, we assumed that the entire contribution was made in a single payment on July 1, 2021 based on information provided by the DPB.

Local employers' contributions are expected to be paid on April 1st, 21 months after the associated valuation date.

Chapter 98, P.L. 2017, the Lottery Enterprise Contribution Act, allows the PERS to receive 21.02% of the proceeds of the Lottery Enterprise, based upon their members' past or present employment in schools and institutions in the State for a term of 30 years. Revenues from Chapter 98, P.L. 2017, the Lottery Enterprise Contribution Act, are assumed to be contributed to the trust on a monthly basis. The State's pension contribution is reduced by the product of the allocable percentage for the PERS, the adjustment percentage, and the special asset value.

Contributions payable in the fiscal year starting on the valuation date are included in the actuarial value of assets as receivable contributions, discounted by the applicable valuation interest rate.

Legislation has provided for additional benefits and/or funding requirements which are included in this valuation and are described as follows.

Early Retirement Incentive Programs

Local employers which elected to participate in various early retirement incentive programs authorized by NJ Statute make contributions to cover the cost of these programs over amortization periods elected by the employer to the extent permitted by NJ Statute.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Chapter 133, P.L. 2001

Chapter 133, P.L. 2001 increased the accrual rate from 1/60 to 1/55. In addition, it lowered the age required for a veteran benefit equal to 1/55 of highest 12-month Compensation for each Year of Service from 60 to 55.

Chapter 133, P.L. 2001 also established the Benefit Enhancement Fund (BEF) to fund the additional annual employer normal contribution due to the Statute's increased benefits. (Chapter 353, P.L. 2001 extended this coverage to this Statute's additional annual employer normal contribution.) If the assets in the BEF are insufficient to cover the normal contribution for the increased benefits for a valuation period, the State will pay such amount for both the State and Local employers.

Chapter 259, P.L. 2001

Chapter 259, P.L. 2001 established the Workers' Compensation Judges Part of the System with special retirement benefits for Workers' Compensation Judges. See Appendix C for details.

In accordance with the provisions of Chapter 259, P.L. 2001, the additional contributions for these special retirement benefits will be funded by transfers from the Second Injury Fund.

Chapter 366, P.L. 2001

Chapter 366, P.L. 2001 established the Prosecutors Part of the System with special retirement benefits for Prosecutors. See Appendix C for details.

Chapter 366, P.L. 2001 also requires the State be liable for any increase in pension costs to a County that results from the enrollment of Prosecutors in the Prosecutors Part. Any increase in the unfunded actuarial liability arising from the benefits established for the Prosecutors Part are to be amortized over a closed 30-year period.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Chapter 19, P.L. 2009

Chapter 19, P.L. 2009 provided that the State Treasurer will reduce for Local employers the normal and accrued liability contributions to 50 percent of the amount certified for fiscal year 2009. The remaining 50% of the contribution (unfunded liability) will be paid by the Local employers in level annual payments over a period of 15 years with the first payment due in the fiscal year ending June 30, 2012. The unfunded liability will be adjusted by the rate of return on the actuarial value of assets. The legislation also provided that a Local employer may pay 100 percent of the contribution for the 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. In addition, certain Local employers who were eligible to defer 50% of their fiscal year 2009 pension contributions but instead paid 100% of the fiscal year 2009 pension contributions were permitted to defer 50% of their 2010 fiscal year pension contributions. The unfunded liability will be paid by these Local employers over a period of 15 years with the first payment due in the fiscal year ending June 30, 2012. The unfunded liability will be adjusted by the rate of return on the actuarial value of assets.

Chapter 140, P.L. 2021

Chapter 140, P.L. 2021 reopened the Worker's Compensation Judges (WCJ) Part of PERS and transferred WCJs from the Defined Contribution Retirement Program (DCRP) and the regular part of PERS into the WCJ Part of PERS.

The corresponding increase in the unfunded actuarial liability is amortized over a closed 20-year period. The additional unfunded actuarial liability contribution and the increased normal cost will be paid by transfers from the Second Injury Fund (SIF).

4. Valuation Software

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

5. Changes in Methods since the Last Valuation

The actuarial liability for retirees who earned benefits under both a State and Local employer is assigned to the location with the highest salary prior to retirement upon direction from the DPB. Previously, the actuarial liability for these retirees was split between State and Local employers based on the benefit reported in the valuation data for each location.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

This summary of Plan provisions provides an overview of the major provisions of the PERS used in the actuarial valuation. It is not intended to replace the more precise language of the NJ State Statutes, Title 43, Chapter 15A, and if there is any difference between the description of the plan herein and the actual language in the NJ State Statutes, the NJ State Statutes will govern.

1. Eligibility for Membership

Employees of the State or any county, municipality, school district, or public agency employed on a regular basis in a position covered by Social Security and not required to be a member of any other State or local government retirement system. Certain exceptions apply.

- a) Class B (or Tier 1) Member: Any member hired prior to July 1, 2007.
- b) <u>Class D (or Tier 2) Member</u>: Any member hired on or after July 1, 2007 and before November 2, 2008.
- c) <u>Class E (or Tier 3) Member</u>: Any member hired after November 1, 2008 and before May 22, 2010.
- d) Class F (or Tier 4) Member: Any member hired after May 21, 2010 and before June 28, 2011.
- e) Class G (or Tier 5) Member: Any member hired on or after June 28, 2011.

The hiring, rehiring, retention, and benefits of certain public employees during the COVID-19 Public Health Emergency was modified under Executive Order No. 103 of 2020, as extended.

2. Plan Year

The 12-month period beginning on July 1 and ending on June 30.

3. Years of Service

A year of service for each year an employee is a Member of the Retirement System plus service, if any, covered by a prior service liability. Tier 4 and Tier 5 Members must be scheduled to work at least 35 hours per week for the State or 32 hours per week for a Local employer. Tier 3, 4 and 5 Members must have an annual salary of \$7,500 (indexed for inflation) and other members must have an annual salary of \$1,500.

4. Compensation

Base salary upon which contributions by a Member to the Annuity Savings Fund were based. Chapter 113, P.L. 1997 provides that Compensation cannot exceed the compensation limitation of Section 401(a)(17) of the Internal Revenue Code. Chapter 103, P.L. 2007 provides that for a Tier 2, 3, 4 or 5 Member, Compensation cannot exceed the annual maximum wage contribution base for Social Security, pursuant to the Federal Insurance Contribution Act.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

5. Final Compensation

The average annual compensation upon which contributions by a Member are made for the three consecutive years of service immediately preceding retirement, or the highest three fiscal years of service, if greater. Chapter 1, P. L. 2010 provides that for a Tier 4 or Tier 5 Member, Final Compensation is the average annual compensation upon which contributions by a Member are made for the five consecutive years of service immediately preceding retirement, or the highest five fiscal years of service, if greater.

6. Final Year Compensation

The compensation upon which contributions by a Member to the Annuity Savings Fund are based in the last year of service.

7. Accumulated Deductions

The sum of all amounts deducted from the compensation of a Member or contributed by the Member or on the Member's behalf without interest.

8. Interest Credits on Accumulated Deductions

Members receive interest credits while contributing and for the first two years of inactivity. The rate depends on the type of benefit. Prior to July 1, 2018, members received interest credits for the entire period of inactivity until retirement or death.

9. Member Contributions

Each Member contributes a percentage of Compensation. Effective October 1, 2011, Chapter 78, P.L. 2011 set the member contribution rate at 6.5% and increased it by 1/7th of 1% each July thereafter until it attained an ultimate rate of 7.5% on July 1, 2018.

For members who are eligible to retire under the Prosecutors Part as provided by Chapter 366, P.L. 2001, Chapter 78, P.L. 2011 set the member contribution rate at 10.0%, effective October 1, 2011.

10. Benefits

a) **Service Retirement:** For a Tier 1 or Tier 2 Member, age 60. For a Tier 3 or Tier 4 Member, age 62. For a Tier 5 Member, age 65.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of:

- (1) For a Tier 1, 2 or 3 Member, 1/55 of Final Compensation for each Year of Service.
- (2) For a Tier 4 or 5 Member, 1/60 of Final Compensation for each Year of Service.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

b) **Early Retirement:** Prior to eligibility for Service Retirement. For a Tier 1, 2, 3 or 4 Member, 25 Years of Service. For a Tier 5 Member, 30 Years of Service.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of:

- (1) For a Tier 1 Member, the Service Retirement benefit reduced by 1/4 of one percent for each month the retirement date precedes age 55.
- (2) For a Tier 2 Member, the Service Retirement benefit reduced by 1/12 of one percent for each month the retirement date precedes age 60 through age 55 and by 1/4 of one percent for each month the retirement date precedes age 55.
- (3) For a Tier 3 or 4 Member, the Service Retirement benefit reduced by 1/12 of one percent for each month the retirement date precedes age 62 through age 55 and by 1/4 of one percent for each month the retirement date precedes age 55.
- (4) For a Tier 5 Member, the Service Retirement benefit reduced by 1/4 of one percent for each month the retirement date precedes age 65.
- c) <u>Veteran Retirement:</u> Age 55 with 25 Years of Service or Age 60 with 20 Years of Service for a qualified military veteran who retires directly from active service.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of the greater of:

- (1) 54.5% of highest 12-month Compensation, or
- (2) For a member who is at least age 55 with 35 Years of Service, 1/55 of highest 12-month Compensation for each Year of Service.

Veterans may receive a Service Retirement benefit if greater.

d) <u>Deferred Retirement:</u> Termination of service prior to eligibility for Service Retirement with 10 Years of Service.

Benefit is either:

- (1) A refund of Accumulated Deductions plus, if the member has completed three years of service, interest accumulated at 2.0% per annum; or
- (2) A deferred life annuity, commencing at age 60 for a Tier 1 or Tier 2 Member, age 62 for a Tier 3 or Tier 4 Member or age 65 for a Tier 5 Member, comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of the Service Retirement benefit based on Final Compensation and Years of Service at date of termination.

For Members who die during the deferral period, the benefit is a return of Accumulated Deductions with credited interest.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

e) **Non-Vested Termination:** Termination of service prior to eligibility for Service Retirement and less than 10 Years of Service.

Benefit is a refund of Accumulated Deductions plus, if the member has completed three years of service, interest accumulated at 2.0% per annum.

f) **Death Benefits**

- (1) Ordinary Death Before Retirement: Death of an active contributing Member. Benefit is equal to:
 - a. Lump sum payment equal to 150% of Final Year Compensation, also known as the non-contributory group life insurance benefit, plus
 - b. Accumulated Deductions with credited interest.
- (2) <u>Accidental Death Before Retirement:</u> Death of an active Member resulting from injuries received from an accident during performance of duty and not a result of willful negligence. Benefit is equal to:
 - a. Lump sum payment equal to 150% of Final Year Compensation, also known as the non-contributory group life insurance benefit, plus
 - b. Spouse life annuity of 50% of Final Year Compensation payable until spouse's death or remarriage. If there is no surviving spouse or upon death or remarriage, a total of 20% (35%, 50%) of Final Year Compensation payable to one (two, three or more) dependent child(ren). If there is no surviving spouse or dependent child(ren), 25% (40%) of Final Year Compensation to one (two) dependent parent(s). If there is no surviving spouse, dependent child(ren) or parent(s), the benefit is a refund of Accumulated Deductions with credited interest.
- (3) <u>Death After Retirement:</u> Death of a retired Member. Benefit is equal to:
 - a. Lump sum payment equal to 3/16 of Final Year Compensation for a Member retired under Service, Early, Veteran or Deferred Retirement with 10 Years of Service. For a Member receiving a Disability benefit, lump sum payment of 150% of Final Year Compensation if death occurs prior to age 60 and 3/16 of Final Compensation if death occurs after age 60. This benefit is also known as the non-contributory group life insurance benefit, plus
 - b. Any survivor benefit due under the Member's optional form of payment election. Previously granted COLAs also apply to life annuities.

Members are also eligible for a voluntary, employee-paid life insurance policy, known as the contributory group life insurance policy. This benefit is not paid through the System and is not considered for valuation purposes.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

g) Disability Retirement

(1) Ordinary Disability Retirement: 10 years of service and totally and permanently incapacitated from the performance of normal or assigned duties. Only available to Tier 1, 2 and 3 Members.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of:

- a. 1.64% of Final Compensation for each Year of Service; or
- b. 43.6% of Final Compensation.
- (2) Accidental Disability Retirement: 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. Under certain conditions for law enforcement officers or emergency medical technicians, regular or assigned duties may include the World Trade Center (WTC) rescue, recovery, or cleanup operations between September 11, 2001 and October 11, 2001. For such members who participated in the WTC rescue, recovery, or cleanup operations, the total and permanent disability may occur after retirement on a service retirement or an ordinary disability retirement. Only available to Tier 1, 2 and 3 Members.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 72.7% of Compensation at the date of injury.

The pension portion of the benefit will be offset for any periodic Workers' Compensation benefits.

Tier 4 and Tier 5 Members are eligible for long-term disability coverage. This benefit is not paid through the System and is not considered for valuation purposes. Both Member and employer contributions to the System continue while on long-term disability, with the policy covering the Member portion. The long-term disability benefit equals 60% of Final Year Compensation and may be offset for other periodic benefits, such as Workers' Compensation, short-term disability or Social Security. The long-term disability benefit may continue through the earlier of age 70 or commencement of a retirement benefit under the System.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

11. Benefits for Special Employee Groups

Certain members qualify for enrollment into special employee groups. Such members receive the greater of the special benefits described below or the regular PERS benefit described above. For benefit types not explicitly mentioned, the regular PERS benefit applies.

a) Law Enforcement Officers (LEOs):

Members employed in eligible job titles as well as individuals who do not meet the age or medical requirements for entry into the Police and Firemen's Retirement System (PFRS).

(1) Service and Special Retirement

Mandatory retirement at age 65. Veterans with less than 20 Years of Service at age 65 must retire upon attainment of 20 Years of Service or age 70, whichever is earlier. Voluntary retirement prior to those ages.

a. <u>Service Retirement</u>: Age 55 after 20 Years of LEO Service.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 2% of Final Compensation for each Year of LEO Service up to 25 years plus 1% of Final Compensation for each Year of LEO Service over 25 years.

The Member is also eligible for a regular PERS benefit based on any non-LEO service.

b. Special Retirement: 25 Years of LEO Service.

Benefit is the Service Retirement benefit plus 5% of Final Compensation with a maximum of 70% of Final Compensation.

(2) Ordinary Disability Retirement: 5 Years of LEO Service.

Benefit is the regular PERS Ordinary Disability benefit.

(3) Death Benefits:

Benefit is the regular PERS Death benefit except, upon Accidental Disability Retirement, the minimum lump sum payment is \$5,000.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

b) <u>Legislative Retirement System (LRS):</u>

Members of the State Legislature. Chapter 92, P.L. 2007 closed LRS to new members enrolled on or after July 1, 2007.

(1) Special Legislative Retirement: Age 60.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 3% of Final Compensation for each Year of Legislative Service with a maximum of two-thirds of Final Compensation.

The Member is also eligible for a regular PERS benefit based on any non-legislative service.

(2) <u>Deferred Retirement</u>: Termination of service prior to eligibility for Service or Special Legislative Retirement with 8 Years of Legislative Service.

Benefit is either:

- a. A refund of Accumulated Deductions plus, if the Member has completed three years of service, interest accumulated at 2.0% per annum; or
- b. A deferred life annuity, commencing at age 60, comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of the Service or Special Legislative Retirement benefit based on Final Compensation and Years of Service at date of termination.

c) Prosecutors Part (Chapter 366, P.L. 2001 and Chapter 226, P.L. 2021):

Covers prosecutors as well as members employed in certain other related job titles. Chapter 1. P.L. 2010 closed the Prosecutors Part to new members enrolled on or after May 22, 2010.

Chapter 226, P.L. 2021 reopened the Prosecutors Part of PERS and made membership in the Prosecutors Part of PERS mandatory for prosecutors.

(1) Service and Special Retirement

Mandatory retirement at age 70. Voluntary retirement prior to that age.

In addition to the benefits described below, the member is eligible for a regular PERS benefit based on any non-Prosecutors Part service.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

a. <u>Service Retirement</u>: For a Prosecutors Part Member enrolled as of January 7, 2002, age 55 or 20 Years of Prosecutors Part Service. For a Prosecutors Part Member enrolled after January 7, 2002, age 55.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of the greater of:

- i. 2% of Final Year Compensation for each Year of Prosecutors Part Service up to 30 years plus 1% of Final Year Compensation for each Year of Prosecutors Part Service over 30 years.
- ii. 50% of Final Year Compensation for Prosecutors Part Members with 20 or more Years of Prosecutors Part Service.
- iii. 1/60 of Final Year Compensation for each Year of Prosecutors Part Service.
- b. Special Retirement: 25 Years of Prosecutors Part Service.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 65% of Final Year Compensation plus 1% of Final Year Compensation for each Year of Prosecutors Part Service in excess of 25 years with a maximum of 70% of Final Compensation.

(2) <u>Deferred Retirement</u>: Termination of service prior to eligibility for Service or Special Retirement with 10 Years of Prosecutors Part Service.

Benefit is either:

- a. A refund of Accumulated Deductions plus, if the Member has completed three years of service, interest accumulated at 2.0% per annum; or
- b. A deferred life annuity, commencing at age 55, comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 2% of Final Year Compensation for each Year of Prosecutors Part Service.

(3) <u>Death Benefits</u>:

Benefit is the regular PERS Death benefit except, upon Service, Special or Deferred Prosecutors Part Retirement with 10 Years of Prosecutors Part Service, the lump sum payment equals 50% of Final Year Compensation.



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d) Workers Compensation Judges Part (WCJ) (Chapter 259, P.L. 2001 and Chapter 140, P.L. 2021):

Members employed in an eligible job title by the Division of Workers' Compensation. Chapter 92, P.L. 2007 closed the Workers Compensation Judges Part to new members enrolled on or after July 1, 2007.

Chapter 140, P.L. 2021 reopened the Worker's Compensation Judges (WCJ) Part of PERS and transferred WCJs from the Defined Contribution Retirement Program (DCRP) and the regular part of PERS into the WCJ Part of PERS.

(1) <u>Service Retirement</u>:

Mandatory retirement age 70. Voluntary retirement prior to that age.

a. Age 70 and 10 Years of WCJ Service; or

Age 65 and 15 Years of WCJ Service; or

Age 60 and 20 Years of WCJ Service.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 75% of contractual Compensation at the date of retirement.

b. Age 65, 5 consecutive Years of WCJ Service and 15 Years of Aggregate PERS Service; or

Age 60, 5 consecutive Years of WCJ Service and 20 Years of Aggregate PERS Service.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 50% of contractual Compensation at the date of retirement.

c. Age 60, 5 consecutive Years of WCJ Service and 15 Years of Aggregate PERS Service.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 2% of contractual Compensation at the date of retirement for each Year of Aggregate PERS Service up to 25 years plus 1% of contractual Compensation at the date of retirement for each Year of Aggregate PERS Service over 25 years.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

d. Age 60.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 2% of contractual Compensation at the date of retirement for each Year of WCJ Service up to 25 years plus 1% of contractual Compensation at the date of retirement for each Year of Aggregate PERS Service over 25 years.

(2) <u>Early Retirement</u>: Prior to eligibility for Service Retirement and 5 consecutive Years of WCJ Service and 25 Years of Aggregate PERS Service.

Benefit is an annual retirement allowance comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 2% of contractual Compensation at the date of retirement for each Year of Aggregate PERS Service up to 25 years plus 1% of contractual Compensation at the date of retirement for each Year of Aggregate PERS Service over 25 years, actuarially reduced for commencement prior to age 60.

(3) <u>Deferred Retirement</u>: Termination of service prior to eligibility for Service Retirement with 5 consecutive Years of WCJ Service and 10 Years of Aggregate PERS Service.

Benefit is either:

- a. A refund of Accumulated Deductions plus, if the Member has completed three years of service, interest accumulated at 2.0% per annum; or
- b. A deferred life annuity, commencing at age 60, comprised of a member annuity plus an employer pension which together will provide a total retirement allowance of 2% of contractual Compensation at the date of retirement for each Year of Aggregate PERS Service up to 25 years plus 1% of contractual Compensation at the date of retirement for each Year of Aggregate PERS Service over 25 years.

(4) <u>Death Benefits</u>

- a. <u>Before Retirement</u>: Death of an active WCJ Member. Benefit is equal to:
 - i. Lump sum equal to 150% of contractual Compensation at the date of death, plus
 - ii. Spousal life annuity of 25% of contractual Compensation at the date of death payable until spouse's remarriage plus 10% (15%) to one (two or more) dependent child(ren). If there is no surviving spouse, or upon death or remarriage, a total of 15% (20%, 30%) of contractual Compensation at the date of death payable to one (two, three or more) dependent child(ren). If there is no surviving spouse or dependent child(ren), 20% (30%) of contractual Compensation at the date of



APPENDIX C – SUMMARY OF PLAN PROVISIONS

death to one (two) dependent parent(s). If there is no surviving spouse, dependent child(ren) or parent(s), the benefit is a refund of Accumulated Deductions with interest.

b. After Retirement: Death of a retired WCJ Member. Benefit is equal to:

- i. Lump sum equal to 25% of contractual Compensation at the date of death for a Member retired under Service or Early WCJ Retirement with 10 Years of Aggregate PERS Service. For a Member receiving a Disability benefit, lump sum payment of 150% of contractual Compensation at the date of death if death occurs prior to age 60 and 25% of contractual Compensation at the date of death if death occurs after age 60, plus
- ii. Any survivor benefit due under the Member's optional form of payment election. Previously granted COLAs also apply to life annuities.

12. Optional Forms of Payment

The member may elect the following forms of payment.

- a) Maximum Option: Single life annuity with a return of the balance of the Accumulated Deductions with credited interest.
- b) Option 1: Single life annuity with a return of the balance of the initial reserve.
- c) Option 2: 100% joint and survivor annuity.
- d) Option 3: 50% joint and survivor annuity.
- e) Option 4: Other percentage joint and survivor annuity.
- f) Option A: 100% pop-up joint and survivor annuity.
- g) Option B: 75% pop-up joint and survivor annuity.
- h) Option C: 50% pop-up joint and survivor annuity.
- i) Option D: 25% pop-up joint and survivor annuity.

13. Cost-of-Living Adjustments

Also known as Pension Adjustments. Provided annually to retirees and survivors after 24 months of retirement prior to July 1, 2011. Chapter 78, P.L. 2011 eliminated future adjustments effective July 1, 2011. Adjustments may be reinstated in the future subject to certain conditions outlined in Chapter 78, P.L. 2011.

14. Changes in Plan Provisions since Last Valuation

None.



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APPENDIX D – DETERMINATION OF DISCOUNT RATE

Table 1 - Projection of the Pension Plan's Fiduciary Net Position (In Thousands)
Projections Commence June 30, 2023

Year	Projected Beginning Fiduciary Net Position	Projected Member Contributions	Projected State Contributions	Projected State- paid Local Contributions	Projected Local Employer Contributions	Projected Lottery Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position (j) = (a) + (b) + (c)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	+ (d) + (e) + (f) - (g) - (h) + (i)
1	\$ 33,476,760	\$ 839,910	\$ 1,663,891	\$ 61,436	\$ 1,347,320	\$ 234,510	\$ 5,082,690	\$ 20,630	\$ 2,272,654	\$ 34,793,161
2	34,793,161	806,662	1,674,372	59,353	1,335,483	236,671	5,231,746	21,252	2,358,603	36,011,307
3	36,011,307	774,393	1,683,918	57,203	1,345,155	238,615	5,375,285	21,850	2,438,232	37,151,688
4	37,151,688	742,454	1,690,991	54,899	1,344,450	241,005	5,513,839	22,427	2,512,372	38,201,594
5	38,201,594	710,731	1,695,494	52,479	1,350,742	243,109	5,645,708	22,979	2,580,457	39,165,918
6	39,165,918	679,502	1,698,206	49,951	1,356,149	245,498	5,769,276	23,496	2,642,800	40,045,252
7	40,045,252	648,337	1,699,201	47,410	1,360,983	250,163	5,884,915	23,976	2,699,494	40,841,949
8	40,841,949	617,377	1,697,973	44,875	1,365,361	252,668	5,994,743	24,429	2,750,471	41,551,503
9	41,551,503	586,699	1,692,822	42,325	1,358,354	255,197	6,092,258	24,829	2,795,489	42,165,301
10	42,165,301	556,415	1,687,244	39,781	1,351,035	257,752	6,184,090	25,206	2,833,998	42,682,230
11	42,682,230	526,844	1,681,345	37,256	1,342,221	260,332	6,263,345	25,528	2,866,153	43,107,508
12	43,107,508	498,454	1,671,616	18,536	1,334,126	262,938	6,326,326	25,778	2,891,989	43,433,063
13	43,433,063	471,312	1,665,031	16,241	1,327,320	265,570	6,371,917	25,955	2,912,018	43,692,683
14	43,692,683	445,460	1,658,579	14,166	1,321,228	268,229	6,400,125	26,057	2,928,099	43,902,262
15 16	43,902,262 44,078,744	420,988 397,874	1,652,358 1,646,573	12,350 10,745	1,315,905 1,311,445	270,914 273,626	6,411,285 6,405,425	26,087 26,048	2,941,339 2,952,930	44,078,744 44,240,465
17	44,078,744	376,220	1,641,476	9,316	1,311,445	276,365	6,381,380	25,935	2,964,200	44,408,410
18	44,408,410	355,902	1,637,250	8,049	1,304,538	279,131	6,341,321	25,757	2,976,543	44,602,744
19	44,602,744	336,312	1,633,864	6,921	1,302,002	281,925	6,288,359	25,526	2,991,240	44,841,124
20	44,841,124	316,303	1,630,357	5,924	1,299,757	284,747	6,229,945	25,272	3,009,200	45,132,195
21	45,132,195	295,796	1,626,933	5,043	1,297,110	287,598	6,166,745	24,998	3,030,995	45,483,927
22	45,483,927	274,622	1,623,007	4,272	1,293,888	290,476	6,100,325	24,711	3,057,105	45,902,260
23	45,902,260	252,941	1,618,516	3,596	1,289,729	293,384	6,030,536	24,411	3,087,948	46,393,427
24	46,393,427	230,651	1,613,471	3,006	1,284,612	296,320	5,959,118	24,104	3,123,897	46,962,163
25	46,962,163	207,547	1,737,709	2,505	1,278,479	0	5,888,796	23,805	3,158,242	47,434,045
26	47,434,045	184,669	1,731,016	2,034	1,270,946	0	5,813,134	23,484	3,192,784	47,978,877
27	47,978,877	162,453	788,087	1,612	1,262,742	0	5,730,363	23,133	3,208,461	47,648,737
28	47,648,737	140,848	142,501	1,289	1,254,237	0	5,642,593	22,763	3,170,774	46,693,030
29	46,693,030	119,315	105,735	1,022	1,245,030	0	5,553,070	22,390	3,105,107	45,693,779
30	45,693,779	98,684	95,447	805	1,234,697	0	5,459,374	22,002	3,037,233	44,679,269
31	44,679,269	81,188	86,103	623	1,223,690	0	5,347,754	21,543	2,969,032	43,670,609
32	43,670,609	66,371	77,975	478	862,340	0	5,129,138	20,630	2,899,085	42,427,090
33	42,427,090	53,785	70,933	364	164,893	0	4,990,562	20,064	2,804,305	40,510,745
34	40,510,745	43,189	64,638	275	118,935	0	4,841,514	19,457	2,673,990	38,550,802
35	38,550,802	34,299	59,250	205	108,506	0	4,683,048	18,813	2,541,638	36,592,839
36	36,592,839	26,953	54,565	151	100,622	0	4,516,590	18,137	2,409,815	34,650,219
37	34,650,219	20,978	50,526	110	93,547	0	4,343,400	17,434	2,279,377	32,733,924
38	32,733,924	16,138	47,093	79	87,147	0	4,165,775	16,714	2,151,002	30,852,894
39	30,852,894	12,268	44,182	56	81,342	0	3,984,911	15,981	2,025,265	29,015,114
40	29,015,114	9,218	41,724	39	76,088	0	3,801,539	15,239	1,902,691	27,228,096
41	27,228,096	6,875	39,636	27	71,366	0	3,617,103	14,494	1,783,750	25,498,153
42	25,498,153	5,042	37,868	19	67,146	0	3,432,916	13,749	1,668,831	23,830,394
43 44	23,830,394 22,229,282	3,656 2,602	36,325 34,968	13	63,326 59,890	0	3,249,685 3,068,790	13,008 12,278	1,558,260 1,452,297	22,229,282 20,697,980
44	22,229,282	1,827	33,740	7	59,890 56,775	0	2,890,588	12,278	1,351,146	19,239,327
46	19,239,327	1,256	32,618	5	53,948	0	2,715,693	10,853	1,254,980	17,855,588
47	17,855,588	842	31,557	3	51,363	0	2,544,498	10,163	1,163,942	16,548,633
48	16,548,633	542	30,527	2	48,984	0	2,377,404	9,491	1,078,144	15,319,938
49	15,319,938	331	29,502	2	46,774	0	2,214,615	8,837	997,682	14,170,778
50	14,170,778	194	28,468	1	44,706	0	2,056,296	8,201	922,638	13,102,288
51	13,102,288	101	27,422	i	42,750	0	1,902,810	7,585	853,076	12,115,243
52	12,115,243	50	26,342	0	40,882	0	1,754,277	6,990	789,045	11,210,296
53	11,210,296	24	25,227	0	39,093	0	1,611,015	6,416	730,581	10,387,791
54	10,387,791	9	24,071	0	37,358	0	1,473,342	5,864	677,693	9,647,716
55	9,647,716	2	22,874	0	35,653	0	1,341,503	5,337	630,374	8,989,779
56	8,989,779	0	21,640	0	33,963	0	1,215,700	4,833	588,595	8,413,443
57	8,413,443	0	20,373	0	32,277	0	1,096,153	4,355	552,310	7,917,895
58	7,917,895	0	19,081	0	30,584	0	983,063	3,903	521,457	7,502,051
59	7,502,051	0	17,768	0	28,874	0	876,593	3,477	495,953	7,164,576
60	7,164,576	0	16,446	0	27,145	0	776,879	3,079	475,701	6,903,910



APPENDIX D – DETERMINATION OF DISCOUNT RATE

Table 1 - Projection of the Pension Plan's Fiduciary Net Position (In Thousands)
Projections Commence June 30, 2023

Year	Projected Beginning Fiduciary Net Position	Projected Member Contributions	Projected State Contributions	Projected State- paid Local Contributions	Projected Local Employer Contributions	Projected Lottery Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position (j) = (a) + (b) + (c)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	+ (d) + (e) + (f) - (g) - (h) + (i)
61	\$ 6,903,910	\$ 0	\$ 15,121	\$ 0	\$ 25,396	\$ 0	\$ 684,016	\$ 2,708	\$ 460,588	\$ 6,718,291
62	6,718,291	0	13,807	0	23,628	0	598,070	2,365	450,490	6,605,780
63	6,605,780	0	12,511	0	21,850	0	519,058	2,050	445,270	6,564,302
64	6,564,302	0	11,245	0	20,068	0	446,938	1,763	444,785	6,591,700
65	6,591,700	0	10,018	0	18,296	0	381,611	1,503	448,888	6,685,788
66	6,685,788	0	8,842	0	16,547	0	322,931	1,270	457,432	6,844,407
67	6,844,407	0	7,726	0	14,835	0	270,688	1,063	470,273	7,065,491
68	7,065,491	0	6,679	0	13,176	0	224,612	880	487,277	7,347,131
69	7,347,131	0	5,707	0	11,585	0	184,388	721	508,321	7,687,635
70	7,687,635	0	4,816	0	10,078	0	149,654	584	533,300	8,085,592
71	8,085,592	0	4,011	0	8,668	0	120,008	467	562,130	8,539,925
72	8,539,925	0	3,294	0	7,365	0	95,015	369	594,750	9,049,949
73	9,049,949	0	2,665	0	6,178	0	74,220	288	631,129	9,615,413
74	9,615,413	0	2,122	0	5,113	0	57,155	221	671,264	10,236,535
75	10,236,535	0	1,661	0	4,171	0	43,357	167	715,187	10,914,029
76	10,914,029	0	1,276	0	3,353	0	32,374	125	762,964	11,649,124
77 78	11,649,124	0	961 709	0	2,652	0	23,775	91	814,695	12,443,566
78 79	12,443,566	0	709 511	0	2,063	0	17,161	66 47	870,516	13,299,628
	13,299,628	0		0	1,577	0	12,167		930,598	14,220,101
80 81	14,220,101	0	361 249	0	1,183 870	0	8,469 5,786	32 22	995,147 1,064,404	15,208,290
82	15,208,290 16,268,003	0	249 167	0	627	0	3,880	15	1,138,643	16,268,003 17,403,544
82	17,403,544	0	110	0	442	0	2,555	10	1,138,043	18,619,703
84	18,619,703	0	70	0	305	0	1,653	6	1,303,330	19,921,748
85	19,921,748	0	44	0	206	0	1,052	4	1,394,491	21,315,432
86	21,315,432	0	27	0	135	0	661	3	1,492,061	22,806,991
87	22,806,991	0	16	0	87	0	411	2	1,596,477	24,403,159
88	24,403,159	0	9	0	55	0	254	1	1,708,214	26,111,182
89	26,111,182	0	5	0	34	0	157	1	1,827,778	27,938,842
90	27,938,842	0	3	0	20	0	97	0	1,955,716	29,894,484
91	29,894,484	0	2	0	12	0	61	0	2,092,612	31,987,048
92	31,987,048	0	1	0	7	0	39	0	2,239,092	34,226,109
93	34,226,109	0	1	0	4	0	25	0	2,395,827	36,621,916
94	36,621,916	0	0	0	2	0	16	0	2,563,534	39,185,435
95	39,185,435	0	0	0	1	0	11	0	2,742,980	41,928,406
96	41,928,406	0	0	0	1	0	7	0	2,934,988	44,863,388
97	44,863,388	0	0	0	1	0	5	0	3,140,437	48,003,821
98	48,003,821	0	0	0	0	0	3	0	3,360,267	51,364,086
99	51,364,086	0	0	0	0	0	2	0	3,595,486	54,959,570
100	54,959,570	0	0	0	0	0	1	0	3,847,170	58,806,739
101	58,806,739	0	0	0	0	0	1	0	4,116,472	62,923,210
102	62,923,210	0	0	0	0	0	1	0	4,404,625	67,327,834
103	67,327,834	0	0	0	0	0	0	0	4,712,948	72,040,782
104	72,040,782	0	0	0	0	0	0	0	5,042,855	77,083,637
105	77,083,637	0	0	0	0	0	0	0	5,395,855	82,479,491
106	82,479,491	0	0	0	0	0	0	0	5,773,564	88,253,055
107	88,253,055	0	0	0	0	0	0	0	6,177,714	94,430,769
108	94,430,769	0	0	0	0	0	0	0	6,610,154	101,040,923
109	101,040,923	0	0	0	0	0	0	0	7,072,865	108,113,788
110	108,113,788	0	0	0	0	0	0	0	7,567,965	115,681,753
111	115,681,753	0	0	0	0	0	0	0	8,097,723	123,779,476
112	123,779,476	0	0	0	0	0	0	0	8,664,563	132,444,039
113	132,444,039	0	0	0	0	0	0	0	9,271,083	141,715,122
114	141,715,122	0	0	0	0	0	0	0	9,920,059	151,635,180
115	151,635,180	0	0	0	0	0	0	0	10,614,463	162,249,643



APPENDIX D – DETERMINATION OF DISCOUNT RATE

Table 2 - Actuarial Present Values of Projected Benefit Payments

(In Thousands)

Projections Commence June 30, 2023

* From Table 1 - Projection of the Pension Plan's Fiduciary Net Position, column (a)
** From Table 1 - Projection of the Pension Plan's Fiduciary Net Position, column (g)

** From Table 1 - Projection of the Pension Plan's Fiduciary Net Position, column (g)					D		
	Projected Beginning	Projected Benefit Payments for		"Unfunded" Portion of	Present Value of	Present Value of	Present Value of Benefit Payments
	Fiduciary Net	current Plan	"Funded" Portion of	Benefit	"Funded" Benefit	"Unfunded" Benefit	Using the Single
Year	Position*	participants**	Benefit Payments	Payments	Payments	Payments	Discount Rate
(a)	(b)	(c)	(d) = (c) if (b) >= (c)	(e) = (c) - (d)	$(f) = (d) / (1+7.00\%)^{(a)}5$	$(g) = (e) / (1+3.65\%)^{[a]}$	$(h) = (c) / (1+7.00\%)^{(a)}5$
1	\$ 33,476,760	\$ 5,082,690	\$ 5,082,690	\$ 0	\$ 4,913,622	\$ 0	\$ 4,913,622
2	34,793,161	5,231,746	5,231,746	0	4,726,841	0	4,726,841
3	36,011,307	5,375,285	5,375,285	0	4,538,810	0	4,538,810
4	37,151,688	5,513,839	5,513,839	0	4,351,218	0	4,351,218
5	38,201,594	5,645,708	5,645,708	0	4,163,815	0	4,163,815
6	39,165,918	5,769,276	5,769,276	0	3,976,587	0	3,976,587
7	40,045,252	5,884,915	5,884,915	0	3,790,929	0	3,790,929
8	40,841,949	5,994,743	5,994,743	0	3,609,045	0	3,609,045
9	41,551,503	6,092,258	6,092,258	0	3,427,806	0	3,427,806
10	42,165,301	6,184,090	6,184,090	0	3,251,845	0	3,251,845
11 12	42,682,230	6,263,345	6,263,345	0	3,078,057	0	3,078,057
13	43,107,508 43,433,063	6,326,326 6,371,917	6,326,326 6,371,917	0	2,905,615 2,735,098	0	2,905,615 2,735,098
14	43,692,683	6,400,125	6,400,125	0	2,567,482	0	2,567,482
15	43,902,262	6,411,285	6,411,285	0	2,403,700	0	2,403,700
16	44,078,744	6,405,425	6,405,425	0	2,244,395	0	2,244,395
17	44,240,465	6,381,380	6,381,380	0	2,089,692	0	2,089,692
18	44,408,410	6,341,321	6,341,321	0	1,940,723	0	1,940,723
19	44,602,744	6,288,359	6,288,359	0	1,798,612	0	1,798,612
20	44,841,124	6,229,945	6,229,945	0	1,665,331	0	1,665,331
21	45,132,195	6,166,745	6,166,745	0	1,540,595	0	1,540,595
22	45,483,927	6,100,325	6,100,325	0	1,424,301	0	1,424,301
23	45,902,260	6,030,536	6,030,536	0	1,315,894	0	1,315,894
24	46,393,427	5,959,118	5,959,118	0	1,215,243	0	1,215,243
25	46,962,163	5,888,796	5,888,796	0	1,122,339	0	1,122,339
26	47,434,045	5,813,134	5,813,134	0	1,035,438	0	1,035,438
27	47,978,877	5,730,363	5,730,363	0	953,920	0	953,920
28	47,648,737	5,642,593	5,642,593	0	877,859	0	877,859
29	46,693,030	5,553,070	5,553,070	0	807,413	0	807,413
30 31	45,693,779 44,679,269	5,459,374 5,347,754	5,459,374 5,347,754	0	741,859 679,151	0	741,859 679,151
32	43,670,609	5,129,138	5,129,138	0	608,773	0	608,773
33	42,427,090	4,990,562	4,990,562	0	553,575	0	553,575
34	40,510,745	4,841,514	4,841,514	0	501,909	0	501,909
35	38,550,802	4,683,048	4,683,048	0	453,720	0	453,720
36	36,592,839	4,516,590	4,516,590	0	408,965	0	408,965
37	34,650,219	4,343,400	4,343,400	0	367,555	0	367,555
38	32,733,924	4,165,775	4,165,775	0	329,461	0	329,461
39	30,852,894	3,984,911	3,984,911	0	294,539	0	294,539
40	29,015,114	3,801,539	3,801,539	0	262,603	0	262,603
41	27,228,096	3,617,103	3,617,103	0	233,517	0	233,517
42	25,498,153	3,432,916	3,432,916	0	207,127	0	207,127
43	23,830,394	3,249,685	3,249,685	0	183,244	0	183,244
44 45	22,229,282	3,068,790	3,068,790	0	161,723	0	161,723
45 46	20,697,980 19,239,327	2,890,588	2,890,588 2,715,693	0	142,367 125,003	0	142,367 125,003
47	17,855,588	2,715,693 2,544,498	2,544,498	0	109,460	0	109,460
48	16,548,633	2,377,404	2,377,404	0	95,581	0	95,581
49	15,319,938	2,214,615	2,214,615	0	83,212	0	83,212
50	14,170,778	2,056,296	2,056,296	0	72,209	0	72,209
51	13,102,288	1,902,810	1,902,810	0	62,447	0	62,447
52	12,115,243	1,754,277	1,754,277	0	53,806	0	53,806
53	11,210,296	1,611,015	1,611,015	0	46,180	0	46,180
54	10,387,791	1,473,342	1,473,342	0	39,470	0	39,470
55	9,647,716	1,341,503	1,341,503	0	33,587	0	33,587
56	8,989,779	1,215,700	1,215,700	0	28,446	0	28,446
57	8,413,443	1,096,153	1,096,153	0	23,971	0	23,971
58	7,917,895	983,063	983,063	0	20,092	0	20,092
59	7,502,051	876,593	876,593	0	16,744	0	16,744
60	7,164,576	776,879	776,879	0	13,868	0	13,868



APPENDIX D – DETERMINATION OF DISCOUNT RATE

Table 2 - Actuarial Present Values of Projected Benefit Payments

(In Thousands)

Projections Commence June 30, 2023

* From Table 1 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

*	** From Table	1 - Projection of	of the Pension	Plan's Fig	duciary Net	Position,	column (g)
		Projected	Project	atad Dane	ofit			

Year	Projected Beginning Fiduciary Net Position*	Projected Benefit Payments for current Plan participants**	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefit Payments	Present Value of "Unfunded" Benefit Payments	Present Value of Benefit Payments Using the Single Discount Rate
(a)	(b)	(c)	(d) = (c) if (b) >= (c)	(e) = (c) - (d)	$(f) = (d) / (1+7.00\%)^{(a)5}$	$(g) = (e) / (1+3.65\%)^{(a)}5$	$(h) = (c) / (1+7.00\%)^{(a)}5$
61	\$ 6,903,910	\$ 684,016	\$ 684,016	\$ 0	\$ 11,412	\$ 0	\$ 11,412
62	6,718,291	598,070	598,070	0	9,325	0	9,325
63	6,605,780	519,058	519,058	0	7,564	0	7,564
64	6,564,302	446,938	446,938	0	6,087	0	6,087
65	6,591,700	381,611	381,611	0	4,857	0	4,857
66	6,685,788	322,931	322,931	0	3,841	0	3,841
67	6,844,407	270,688	270,688	0	3,009	0	3,009
68	7,065,491	224,612	224,612	0	2,334	0	2,334
69	7,347,131	184,388	184,388	0	1,790	0	1,790
70	7,687,635	149,654	149,654	0	1,358	0	1,358
71	8,085,592	120,008	120,008	0	1,018	0	1,018
72	8,539,925	95,015	95,015	0	753	0	753
73	9,049,949	74,220	74,220	0	550	0	550
74 75	9,615,413	57,155	57,155	0	396 281	0	396
76	10,236,535	43,357 32,374	43,357 32,374	0	196	0	281 196
70 77	10,914,029 11,649,124	23,775	23,775	0	134	0	134
78	12,443,566	17,161	17,161	0	91	0	91
79	13,299,628	12,167	12,167	0	60	0	60
80	14,220,101	8,469	8,469	0	39	0	39
81	15,208,290	5,786	5,786	0	25	0	25
82	16,268,003	3,880	3,880	0	16	0	16
83	17,403,544	2,555	2,555	0	10	0	10
84	18,619,703	1,653	1,653	0	6	0	6
85	19,921,748	1,052	1,052	0	3	0	3
86	21,315,432	661	661	0	2	0	2
87	22,806,991	411	411	0	1	0	1
88	24,403,159	254	254	0	1	0	1
89	26,111,182	157	157	0	0	0	0
90	27,938,842	97	97	0	0	0	0
91	29,894,484	61	61	0	0	0	0
92	31,987,048	39	39	0	0	0	0
93	34,226,109	25	25	0	0	0	0
94	36,621,916	16	16	0	0	0	0
95	39,185,435	11	11	0	0	0	0
96 97	41,928,406	7 5	7	0	0	0	0
98	44,863,388 48,003,821	3	5 3	0	0	0	0
99	51,364,086	2	2	0	0	0	0
100	54,959,570	1	1	0	0	0	0
101	58,806,739	1	1	0	0	0	0
102	62,923,210	1	1	0	0	0	0
103	67,327,834	0	0	0	0	0	0
104	72,040,782	0	0	0	0	0	0
105	77,083,637	0	0	0	0	0	0
106	82,479,491	0	0	0	0	0	0
107	88,253,055	0	0	0	0	0	0
108	94,430,769	0	0	0	0	0	0
109	101,040,923	0	0	0	0	0	0
110	108,113,788	0	0	0	0	0	0
111	115,681,753	0	0	0	0	0	0
112	123,779,476	0	0	0	0	0	0
113	132,444,039	0	0	0	0	0	0
114	141,715,122	0	0	0	0	0	0
115	151,635,180	0	0	0	0	0	0
					\$ 81,481,547	\$ 0	\$ 81,481,54



APPENDIX E – GLOSSARY OF TERMS

1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

3. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 67 calculations. Under this method, the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total Pension Liability.

4. Measurement Date

The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the plan.

5. Net Pension Liability

The liability of employers and nonemployer contributing entities for employees for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Plan Fiduciary Net Position.

6. Plan Fiduciary Net Position

The fair or market value of assets.

7. Reporting Date

The last day of the plan or employer's fiscal year.



APPENDIX E – GLOSSARY OF TERMS

8. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 67. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

9. Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 67. The Total Pension Liability is the actuarial liability calculated under the entry age actuarial cost method. This measurement generally is not appropriate for estimating the cost to settle the Plan's liabilities.

