

# The Prison Officers' Pension Fund of New Jersey

GASB 67 Report as of June 30, 2020

**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 Prison Officers' Pension Fund of New Jersey (POPF, Plan or Fund). This information includes:

- Projection of the Total Pension Liability from the valuation date to the measurement date,
- Calculation of the Net Pension Liability 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 POPF is June 30, 2020. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2020 and the Total Pension Liability as of the valuation date, July 1, 2019, updated to June 30, 2020. There were two changes in the assumptions. The discount rate used to measure the Total Pension Liability was changed as of the measurement date. In addition, the mortality assumptions were updated. We are not aware of any other significant events between the valuation date and the measurement date so the update procedures only included the addition of service cost and interest cost offset by actual benefit payments, and an adjustment to reflect the changes in assumptions.

The following table provides a summary of the key results during this reporting period.

Table I-1 Summary of Results								
Measurement Date		6/30/2020		6/30/2019				
Total Pension Liability Plan Fiduciary Net Position Net Pension Liability	\$ \$	4,028,676 (4,643,012) (614,336)		4,725,031 (4,925,932) (200,901)				



## **SECTION II - CERTIFICATION**

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the Prison Officers' Pension Fund of New Jersey (POPF). This report is for the use of POPF, 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 POPF and estimating the price to settle POPF'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.

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 was based on the recommended demographic assumptions shown in the draft 2019 Experience Study dated October 23, 2019 and approved by the DPB, with the exception of the mortality assumption. The mortality assumption was based on the SOA's MP-2020 mortality improvement scale upon direction from the DPB.

Beginning with the fiscal year ending June 30, 2016, the State prescribed the use of an expected long-term rate of return based on the Bond Buyer GO 20-Bond Municipal Bond Index for GASB 67 purposes in lieu of the 2.00% long-term rate of return used for funding. Therefore, in determining the Total Pension Liability as of June 30, 2020, a discount rate of 2.21% was applied to all periods of projected benefit payments.

This report was prepared using census data as of the July 1, 2019 valuation date and financial information as of the June 30, 2020 measurement date. Given the uncertainty and lack of credible data regarding the impact that COVID-19 may have had on the Fund's demographic experience between the measurement date and reporting date, no specific adjustments have been made at this time. We will continue to monitor developments regarding the COVID-19 pandemic and the impact it may have on the Fund. Actual experience, both demographic and economic, will be reflected in subsequent GASB 67 reports as experience emerges.

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 POPF 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 Anu Patel, FSA, MAAA, EA Principal Consulting Actuary



# SECTION III – DETERMINATION OF DISCOUNT RATE

Beginning with the fiscal year ending June 30, 2016, the State prescribed the use of an expected long-term rate of return based on the Bond Buyer GO 20-Bond Municipal Bond Index for GASB 67 purposes in lieu of the 2.00% long-term rate of return used for funding. The discount rate used to measure the Total Pension Liability was 3.50% as of June 30, 2019 and 2.21% as of June 30, 2020, respectively. This discount rate is intended to be used for accounting and financial reporting, and is not appropriate for estimating the funding contributions or the price to settle the plan's liability.



# SECTION IV - PROJECTION OF TOTAL PENSION LIABILITY

The Total Pension Liability (TPL) at the end of the measurement year, June 30, 2020, is measured as of a valuation date of July 1, 2019 and projected to June 30, 2020. The TPL was calculated using the Entry Age Normal Cost Method as prescribed by GASB 67.

During the measurement year there were changes in the assumptions. There were no other significant events during the projection period of which we are aware. Because the TPL shown in the prior report was measured as of June 30, 2018 and projected to June 30, 2019, it will not match the amounts measured as of July 1, 2019 that are shown in this exhibit.

The following table shows the projection of the TPL at discount rates equal to the rate used for disclosure and plus and minus one percent from the rate used for disclosure.

Table IV-1 Projection of Total Pension Liability from Valuation to Measurement Date								
Discount Rate	1.21% 2.			2.21%	3.21%			
Total Pension Liability, 7/1/2019								
Actives	\$	0	\$	0	\$	0		
Deferred Vested		0		0		0		
Retirees		4,900,402		4,648,961		4,422,681		
Total	\$	4,900,402	\$	4,648,961	\$	4,422,681		
Service Cost		0		0		0		
Benefit Payments		(715,168)		(715,168)		(715,168)		
Interest		54,981		94,883		130,580		
Total Pension Liability, 6/30/2020	\$	4,240,215	\$	4,028,676	\$	3,838,093		



# SECTION V – NOTE DISCLOSURES

The following table shows 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. There was an experience gain due to inactive mortality rates being higher than expected. There was a net loss from the changes in assumptions. The mortality assumption was updated to use the MP-2020 mortality improvement scale in place of MP-2019, as directed by the DPB. In addition, the discount rate assumption was decreased from 3.50% as of June 30, 2019 to 2.21% as of June 30, 2020. The impact of these changes is displayed in the following table.

Table V-1 Change in Net Pension Liability								
	Increase (Decrease)							
	Total Pension Plan Fiduciary Liability Net Position (a) (b)		let Position	Net Pension Liability (a) - (b)				
Balances at 6/30/2019	\$	4,725,031	\$	4,925,932	\$	(200,901)		
Changes for the year:								
Service cost		0				0		
Interest		152,968				152,968		
Changes of benefits		0				0		
Differences between expected and actual experience		(339,022)				(339,022)		
Changes of assumptions		204,867				204,867		
Contributions - employer				361,956		(361,956)		
Contributions - member				0		0		
Net investment income				74,920		(74,920)		
Benefit payments		(715,168)		(715,168)		0		
Administrative expense				(4,628)		4,628		
Net changes		(696,355)		(282,920)		(413,435)		
Balances at 6/30/2020	\$	4,028,676	\$	4,643,012	\$	(614,336)		



# **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 1.21%		Discount Rate 2.21%		1% Increase 3.21%		
Total Pension Liability Plan Fiduciary Net Position	\$	4,240,215 4,643,012	\$	4,028,676 4,643,012	\$	3,838,093 4,643,012		
Net Pension Liability	\$	(402,797)	\$	(614,336)	\$	(804,919)		
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		109.5%		115.2%		121.0%		



## SECTION VI – REQUIRED SUPPLEMENTARY INFORMATION

If 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. Note that the ADC is zero for both FYE 2019 and FYE 2020 since there are no active members and POPF is overfunded based on the methodology used to determine the Statutory contributions.

Table VI-1 Schedule of Employer Contributions				
	FY	E 2020	F	YE 2019
Actuarially Determined Contribution*  Contributions in Relation to the Actuarially Determined Contribution*  Contribution Deficiency/(Excess)	\$ \$	0 0 0	\$	0 0 0
Covered-Employee Payroll Contributions as a Percentage of Covered-Employee Payroll	\$	0 N/A	\$	0 N/A

<sup>\*</sup>Excludes \$412,250 and \$361,956 paid from the Pension Adjustment Fund for cost-of-living adjustments paid during the fiscal years ending June 30, 2019 and June 30, 2020, respectively.

The following summarizes key methods and assumptions used to determine the Actuarially Determined Contribution for FYE 2020.

Valuation Date: July 1, 2018

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: One year Asset valuation method: Market Value

Investment rate of return: 5.00%

Mortality: Healthy: RP-2000 Combined Healthy Mortality Tables projected

on a generational basis from the base year of 2000 to 2014 using Projection scale BB as the base tables. Tables are further projected beyond the valuation date using the Conduent Modified 2014

projection scale.

Disabled: RP-2000 Disabled Mortality



# **APPENDIX A – MEMBERSHIP INFORMATION**

Plan Membership								
July 1, 2019 July 1, 201								
Active		0		0				
Terminated Vested		0		0				
Inactive Receiving Benefits		62		71				
Total		62		71				
Annual Retirement Allowances	\$	371,024	\$	448,650				

The benefits shown above exclude the cost-of-living adjustments paid from the Pension Adjustment Fund.



## APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

# A. Actuarial Assumptions

1. Investment Rate of Return

For GASB: 2.21% compounded annually.

For funding: 2.00% compounded annually.

2. Salary Increases

Not applicable.

3. Mortality

Healthy Retirees: The Pub-2010 Public Safety Healthy Retiree mortality table [*PubS-2010 Healthy Retiree*] as published by the Society of Actuaries (SOA), unadjusted, and with future improvements from the base year of 2010 on a generational basis. For funding purposes, mortality improvement is based on SOA's Scale MP-2018. Upon direction from the DPB, for purposes of calculating the Total Pension Liability, mortality improvement is based on SOA's Scale MP-2020.

Beneficiaries: The Pub-2010 General Healthy Retiree mortality table [*PubG-2010 Healthy Retiree*] as published by the SOA, unadjusted, and with future improvements from the base year of 2010 on a generational basis. For funding purposes, mortality improvement is based on SOA's Scale MP-2018. Upon direction from the DPB, for purposes of calculating the Total Pension Liability, mortality improvement is based on SOA's Scale MP-2020.

Disabled Retirees: The Pub-2010 Public Safety Disabled Retiree mortality table [*PubS-2010 Disabled Retiree*] as published by the SOA, unadjusted, and with future improvements from the base year of 2010 on a generational basis. For funding purposes, mortality improvement is based on SOA's Scale MP-2018. Upon direction from the DPB, for purposes of calculating the Total Pension Liability, mortality improvement is based on SOA's Scale MP-2020.

4. Withdrawal

Not applicable.

5. Disability

Not applicable.

6. Retirement Age

Not applicable.

7. Family Composition Assumptions

Males are assumed to be 3 years older than females.

No assumption was made for children.



# APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

# 8. Rationale for Assumptions

The assumptions were based on the draft 2019 Experience Study dated October 23, 2019 and approved by the Division of Pensions and Benefits. The MP-2020 mortality improvement scale was used to calculate the Total Pension Liability upon direction from the DPB.

# 9. Changes in Assumptions since Last Valuation

The discount rate for GASB 67 was changed from 3.50% as of June 30, 2019 to 2.21% as of June 30, 2020.

The mortality improvement scale used for the calculation of the TPL was changed from SOA's Scale MP-2019 to SOA's Scale MP-2020.



## APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

# **B.** Actuarial Methods

The actuarial methods used for determining State contributions are described as follows.

# 1. Actuarial Cost Method

The actuarial cost method for funding calculations is the Projected Unit Credit Cost Method.

The actuarial liability is calculated as the actuarial present value of the projected benefits allocated to periods prior to the valuation year. The unfunded actuarial liability is the actuarial liability on the valuation date less the actuarial value of assets.

The unfunded actuarial liability as of July 1, 1988 was amortized over a closed period of 14 years. Without additional guidance, we have assumed that the unfunded actuarial liability will be amortized over one year.

#### 2. Asset Valuation Method

The actuarial value of assets is equal to the market value of assets.

## 3. 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.

# 4. Changes in Actuarial Methods since Last Valuation

None.



# APPENDIX C – SUMMARY OF PLAN PROVISIONS

This summary of Plan provisions provides an overview of the major provisions of the POPF used in the actuarial valuation. It is not intended to replace the more precise language of the NJ State Statutes, Title 43, Chapter 7, 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 of Membership

Employees of State penal institutions, employed prior to January 1, 1960 who did not transfer to the Police & Firemen's Retirement System in accordance with Chapter 205 of Public Law 1989. The System no longer accepts new members.

## 2. Plan Year

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

## 3. Service Credit

A year is credited for each year an employee is a member of the retirement system.

# 4. Average Final Compensation (AFC)

Average annual compensation for the three years immediately preceding retirement, (Effective June 30, 1996, Chapter 113, P.L. 1997 provided that the amount of compensation used for employer and member contributions and benefits under the program cannot exceed the compensation limitation of Section 401(a) (17) of the Internal Revenue Code.)

#### 5. Accumulated Deductions

The sum (without interest) of all required amounts deducted from the compensation of a member or contributed by him or on his behalf.

## 6. Benefits

## a) Service Retirements

25 years of service, or age 55 and 20 years of service. The benefit is a life annuity equal to the greater of (1), (2), and (3) as follows:

- (1) 2% of AFC up to 30 years of service plus 1% for each year in excess of 30 and prior to age 65;
- (2) 50% of final pay; and
- (3) For a member with 25 years of service, 2% of AFC up to 30 years of service plus 1% for each year in excess of 30.

## **b)** Vested Retirements

Eligible upon termination of employment. Benefits are summarized as follows:



## APPENDIX C – SUMMARY OF PLAN PROVISIONS

- (1) Termination with 10 or more years of service: Benefit is a deferred life annuity payable at age 55 equal to 2% of AFC for service up to 30 years plus 1% for service over 30 years.
- (2) Termination with less than 10 years of service: Refund of accumulated deductions.

# c) Ordinary Disability Retirement

Permanent and total disability for causes other than as a direct result of a traumatic event occurring during the performance of regular or assigned duties. Benefit is an immediate life annuity equal to ½ of AFC.

# d) Accidental Disability Retirement

Permanent and total disability as a direct result of a traumatic events occurring while performing regular or assigned duties. Benefit is an immediate life annuity of <sup>2</sup>/<sub>3</sub> of AFC.

# e) Death Benefits

Spouse must be either married to the member prior to retirement, or at least five years before the member's death. Benefit is an annuity equal to 25% of member's AFC, plus an additional 15% for one surviving dependent child or 25% for at least two surviving dependent children.

If there is no surviving spouse or spouse remarries, an annuity equal to 20% of member's AFC will be given to one surviving dependent child, or 35% of the member's AFC to two surviving dependent children, or 50% of the member's AFC to three or more surviving dependent children.

If there is no surviving spouse or child, an annuity equal to 25% of member's AFC will be given to one dependent parent or 40% to two dependent parents, provided the member has not retired.

Minimum spousal annuity is \$1,600 per annum. If no other benefit is payable prior to retirement, the member's beneficiary will receive the accumulated deductions.

# f) Cost-of-Living Adjustments

Cost-of-living increases are granted to retired members and their eligible survivors in accordance with the Pension Adjustment Act. The additional liability due to the pension adjustment is paid by the Pension Adjustment Fund, which was established pursuant to Chapter 143, P.L. 1958. Chapter 78, P.L. 2011 suspended the cost of living adjustments for current and future retirees and beneficiaries until reactivated as permitted by law.

# 7. Employee Contributions

Each member contributes 6% of compensation.

## 8. Changes in Plan Provisions Since Last Valuation

None.



# APPENDIX D - 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 D – 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.

