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The Prison Officers' Pension Fund of New Jersey

GASB 67 Report as of June 30, 2018

Produced by Cheiron

February 2019

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SECTION I – BOARD SUMMARY

The purpose of this report is to provide accounting and financial disclosure information under Government Accounting Standards Board Statement 67 for the Prison Officers' Pension Fund of New Jersey. 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 Prison Officers' Pension Fund of New Jersey (POPF) is June 30, 2018. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2018 and the Total Pension Liability as of the valuation date, July 1, 2017, updated to June 30, 2018. There was a change in assumptions as the discount rate used to measure the Total Pension Liability was changed as of the measurement date. 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 change in discount rate.

The June 30, 2017 values shown in this report are based on the prior actuary's GASB report.

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

Table I-1
Summary of Results

Measurement Date	6/30/2018	6/30/2017
Total Pension Liability	$ 5,263,321	$ 6,477,263
Plan Fiduciary Net Position	(5,223,456)	(5,620,868)
Net Pension Liability	$ 39,865	$ 856,395

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 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 Division of Pensions and Benefits. 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 prior actuary's demographic assumptions. While we consider these assumptions to be generally reasonable, we have not yet performed our own actuarial experience study.

The 5% funding long-term rate of return is based on the prior actuary's assumptions. We have not yet performed our own actuarial experience study to determine the reasonableness of this assumption. Additionally, this assumption is not used in the calculations provided in this report. 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 5.00% long-term rate of return used for funding. Therefore, in determining the Total Pension Liability as of June 30, 2018, a discount rate of 3.87% was applied to all periods of projected benefit payments.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. 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.

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 any other user.

Janet Cranna, FSA, FCA, MAAA, EA	Anu Patel, FSA, MAAA, EA
Principal Consulting Actuary	Principal Consulting Actuary

SECTION III – DETERMINATION OF DISCOUNT RATE

The discount rate used to measure the Total Pension Liability was 3.58% as of June 30, 2017 and 3.87% as of June 30, 2018 and was based on the Bond Buyer GO 20-Bond Municipal Bond Index as of June 29, 2017 and June 28, 2018, 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.

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 5.00% long-term rate of return used for funding. Therefore, in determining the Total Pension Liability as of June 30, 2018, a discount rate of 3.87% was applied to all periods of projected benefit payments.

SECTION IV – PROJECTION OF TOTAL PENSION LIABILITY

The Total Pension Liability (TPL) at the end of the measurement year, June 30, 2018, is measured as of a valuation date of July 1, 2017 and projected to June 30, 2018. The TPL and service cost were calculated using the Entry Age Normal Cost Method as prescribed by GASB 67.

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 June 30, 2016 and projected to June 30, 2017, it will not match the amounts measured as of July 1, 2017 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	2.87%	3.87%	4.87%
Total Pension Liability, 7/1/2017			
Actives	$ 0	$ 0	$ 0
Deferred Vested	0	0	0
Retirees	6,307,211	5,997,271	5,717,279
Total	**$ 6,307,211**	**$ 5,997,271**	**$ 5,717,279**
Service Cost	0	0	0
Benefit Payments	(947,877)	(947,877)	(947,877)
Interest	167,511	213,927	255,625
Total Pension Liability, 6/30/2018	**$ 5,526,845**	**$ 5,263,321**	**$ 5,025,027**

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 being higher than expected. There was also a change in assumptions as the discount rate was increased from 3.58% as of June 30, 2017 to 3.87% as of June 30, 2018. The impact of these changes are displayed on the following table.

Table V-1
Change in Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	**Plan Fiduciary Net Position (b)**	**Net Pension Liability (a) - (b)**
Balances at 6/30/2017	$ 6,477,263	$ 5,620,868	$ 856,395
Changes for the year:			
Service cost	0		0
Interest	215,068		215,068
Changes of benefits	0		0
Differences between expected and actual experience	(407,471)		(407,471)
Changes of assumptions	(73,662)		(73,662)
Contributions - employer		484,565	(484,565)
Contributions - member		0	0
Net investment income		70,215	(70,215)
Benefit payments	(947,877)	(947,877)	0
Administrative expense		(4,315)	4,315
Net changes	(1,213,942)	(397,412)	(816,530)
Balances at 6/30/2018	$ 5,263,321	$ 5,223,456	$ 39,865

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 2.87%	Discount Rate 3.87%	1% Increase 4.87%
Total Pension Liability	$ 5,526,845	$ 5,263,321	$ 5,025,027
Plan Fiduciary Net Position	5,223,456	5,223,456	5,223,456
Net Pension Liability	$ 303,389	$ 39,865	$ (198,429)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	94.5%	99.2%	103.9%

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.

Table VI-1
Schedule of Employer Contributions

	FYE 2018	FYE 2017
Actuarially Determined Contribution*	$ 0	$ 0
Contributions in Relation to the Actuarially Determined Contribution*	0	0
Contribution Deficiency/(Excess)	$ 0	$ 0
Covered-Employee Payroll	$ 0	$ 0
Contributions as a Percentage of Covered-Employee Payroll	N/A	N/A

*Excludes $552,131 and $484,565 paid from the Pension Adjustment Fund for cost-of-living adjustments paid during the fiscal years ending June 30, 2017 and June 30, 2018, respectively.

The following summarizes key methods and assumptions used to determine the Actuarially Determined Contribution for FYE 2018.

Valuation Date:	July 1, 2016
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, 2017	**July 1, 2016**
Active	0	0
Terminated Vested	0	0
Inactive Receiving Benefits	77	90
Total	77	90
Annual Retirement Allowances	$ 488,522	$ 579,478

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Investment Rate of Return	For GASB: 3.87% compounded annually. For funding: 5.00% compounded annually.
2. Salary Increases	Not applicable
3. Mortality	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 and the tables will be further projected beyond the valuation date using the Buck Modified 2014 projection scale. RP-2000 disabled retiree mortality table is used for the period after disability retirement for disability retirements.
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

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

Assets are valued at book value, which is equivalent to market value

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:

(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.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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 ⅔ 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.