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The Consolidated Police and Firemen's Pension Fund of New Jersey

GASB 67 Report as of June 30, 2020

Produced by Cheiron

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www.cheiron.us 1.877.CHEIRON (243.4766)

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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 Consolidated Police and Firemen's Pension Fund of New Jersey (CPFPF, 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 CPFPF 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 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 table below 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	$ 3,406,527	$ 4,291,213
Plan Fiduciary Net Position	(1,052,727)	(1,387,550)
Net Pension Liability	$ 2,353,800	$ 2,903,663

SECTION II – CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the Consolidated Police and Firemen's Pension Fund of New Jersey (CPFPF). This report is for the use of CPFPF, 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 CPFPF and estimating the price to settle CPFPF'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 CPFPF 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	Anu Patel, FSA, MAAA, EA
Principal Consulting Actuary	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%	2.21%	3.21%
Total Pension Liability, 7/1/2019			
Actives	$ 0	$ 0	$ 0
Deferred Vested	0	0	0
Retirees	4,398,560	4,213,120	4,045,148
Total	**$ 4,398,560**	**$ 4,213,120**	**$ 4,045,148**
Service Cost	0	0	0
Benefit Payments	(889,923)	(889,923)	(889,923)
Interest	47,855	83,330	115,679
Total Pension Liability, 6/30/2020	**$ 3,556,492**	**$ 3,406,527**	**$ 3,270,904**

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 also 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 Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 6/30/2019	$ 4,291,213	$ 1,387,550	$ 2,903,663
Changes for the year:			
Service cost	0		0
Interest	134,753		134,753
Changes of benefits	0		0
Differences between expected and actual experience	(277,515)		(277,515)
Changes of assumptions	147,999		147,999
Contributions - employer		541,279	(541,279)
Contributions - member		0	0
Net investment income		17,129	(17,129)
Benefit payments	(889,923)	(889,923)	0
Administrative expense		(3,308)	3,308
Net changes	(884,686)	(334,823)	(549,863)
Balances at 6/30/2020	$ 3,406,527	$ 1,052,727	$ 2,353,800

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	$ 3,556,492	$ 3,406,527	$ 3,270,904
Plan Fiduciary Net Position	1,052,727	1,052,727	1,052,727
Net Pension Liability	$ 2,503,765	$ 2,353,800	$ 2,218,177
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	29.6%	30.9%	32.2%

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 CPFPF is overfunded based on the methodology used to determine the Statutory contributions.

Table VI-1
Schedule of Employer Contributions

	FYE 2020	FYE 2019
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 $631,757 and $541,279 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:	5-year smoothed method with write-up
Investment rate of return:	2.00%
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. Tables are further projected beyond the valuation date using the Conduent Modified 2014 projection scale.

APPENDIX A – MEMBERSHIP INFORMATION

Plan Membership		
	July 1, 2019	**July 1, 2018**
Active	0	0
Terminated Vested	0	0
Inactive Receiving Benefits	52	62
Total	52	62
Annual Retirement Allowances	$ 387,038	$ 444,078

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.
4. Withdrawal	Not applicable.
5. Disability	Not applicable.
6. Retirement Age	Not applicable.
7. Family Composition Assumptions	For those participants with listed beneficiaries, the beneficiary allowance was assumed to be the greater of twice the amount contained in the record or the minimum of \$4,500/yr. (The information contained in the record has not been updated for the change from 25% to 50% payment to the survivor). For those participants without listed beneficiaries, 65% were assumed to be married and the beneficiary amount was assumed to be the minimum benefit payable (\$4,500/yr). Males are assumed to be four 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 below.

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 June 30, 1990 was amortized over a closed period of nine 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 CPFPF used in the actuarial valuation. It is not intended to replace the more precise language of the NJ State Statutes, Title 43, Chapter 16, 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

Member of a municipal police department, a municipal paid or part-paid fire department, a county police department, or a paid or part-paid fire department of a fire district located in a township who has contributed to this pension fund and who is not covered by the Police and Firemen's Retirement System, which became effective on July 1, 1944.

2. Active Member

Any member who is a policeman, fireman, detective, lineman, driver of police van, fire alarm operator, or inspector of combustibles, and who is subject to call for active service as such.

3. Employee Member

Any member who is not subject to active service or duty.

4. Plan Year

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

5. Service Credit

Service rendered while a member as described above.

6. Compensation

Base salary, not including individual salary adjustments which are granted primarily in anticipation of retirement or additional remuneration for performing temporary duties beyond the regular workday. (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.)

7. Final Compensation

Compensation received during the last 12 months of service preceding retirement or other termination of service.

8. Average Salary

Salary averaged over the last three years prior to retirement or other termination of service.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

9. Contributions

Each active member contributes 7% of his salary to the pension fund.

10. Benefits

a) Service Retirements:
Mandatory retirement at age 65 with 25 years of service (a municipality may retain the Chief of Police until age 70). Voluntary retirement after 25 years of service for an active member and after age 60 with 25 years of experience for an employee member. Benefit is life annuity equal to 60% of final compensation, plus 1% of final compensation for years of service in excess of 25.

b) Death Benefits

(1) While on Duty

Immediate life annuity equal to 70% of average salary payable to the spouse. If there is no spouse, or if the spouse dies or remarries, 20% of final compensation will be payable to one surviving child, 35% to two surviving children, or 50% to three surviving children. If is no surviving spouse or child, 25% of the member's average salary will be payable to one dependent parent or 40% to two dependent parents. The minimum spousal benefit is $4,500 per annum.

(2) While not on duty after retirement

Life annuity equal to 50% of the member's average salary payable to the spouse, plus 15% to one surviving child or 25% to two or more surviving children. If there is no surviving spouse or if the surviving spouse dies or remarries, 20% of the member's average salary to one child, 35% to two surviving children, or 50% to three or more surviving children. If is no surviving spouse or child, 25% of the member's average salary will be payable to one dependent parent or 40% to two dependent parents. The minimum spousal benefit is $4,500 per annum.

c) Ordinary Disability Retirement

Totally and permanently incapacitated from service for any cause other than as a direct result of a traumatic event occurring during the performance of a duty. Benefit is an immediate life annuity equal to ½ of average salary.

d) Accidental Disability Retirement

Totally and permanently incapacitated as a direct result of a traumatic event occurring while performing regular or assigned duties. Benefit is an immediate life annuity equal to ⅔ of average salary.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

e) 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.

11. Changes in Plan Provisions Since Last Valuation

No changes.

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.