



City of Dover, Delaware Police Pension Plan

June 30, 2022
GASB Nos. 67 & 68 Report

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This report is prepared in accordance with our understanding of GASB Nos. 67 & 68 for the purpose of disclosing pension plans in financial statements. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report.

The information presented in this report is based on:

- the actuarial assumptions included in this report;
- the plan provisions;
- participant information furnished to us by the Plan Administrator;
- asset information furnished to us by the Plan Trustee.

We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we may have made assumptions we believe are reasonable for the purpose of the measurement. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report.

The interest rate, other economic assumptions, and demographic assumptions have been selected by the plan sponsor with our recommendations. The inflation assumption is selected by the City in conjunction with its asset advisor for GASB disclosure purposes and is not utilized in the calculation of the Total Pension Liability. The assumptions used, in our opinion, are reasonable and represent a reasonable expectation of future experience under the plan. All calculations have been made in accordance with generally accepted actuarial principles and practice.

A summary of any assumptions not included in this report, the plan provisions and the participant information is included in the Actuarial Valuation Report for funding purposes.

Future actuarial measurements may differ significantly from the current measurements presented in this report 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;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

In preparing the results, Nyhart used Proval valuation software developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing pension valuations. We coded the plan provisions, assumptions, methods, and participant data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any material weaknesses or limitations in the software, and have determined it is appropriate for performing this valuation.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.

To our knowledge there have been no significant events prior to the current year's measurement date or as of the date of this report which could materially affect the results contained herein.

Neither Nyhart nor any of its employees have any relationships with the plan or plan sponsor which could impair or appear to impair the objectivity of this report.

Nyhart



Lawrence Watts, Jr., FSA, CFA, EA, MAAA



Rachel Barnes FSA, EA, MAAA

09/12/2022

Net Pension Liability

The components of the net pension liability at June 30

	06/30/2022	06/30/2021
Total pension liability	\$ 17,552,192	\$ 18,137,819
Plan fiduciary net position	(14,803,746)	(17,487,622)
Net pension liability	\$ 2,748,446	\$ 650,197
Plan fiduciary net position as a percent of the total pension liability	84.34%	96.42%
Pension Expense for the Fiscal Year Ended June 30	\$ 44,737	\$ (486,692)

Actuarial Assumptions

The total pension liability was determined using the following actuarial assumptions

Inflation	2.51%	2.20%
Salary increases, including inflation	0.00%	0.00%
Investment rate of return, including inflation, and net of investment expense	6.50%	6.50%

Plan Membership

The total pension liability was determined based on the plan membership as of July 1

	2021	2020
Inactive plan members and beneficiaries currently receiving benefits	45	45
Inactive plan members entitled to but not yet receiving benefits	0	0
Active plan members	0	0
Total members	45	45

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Statement of Fiduciary Net Position

Assets	06/30/2022	06/30/2021
Cash and deposits	\$ 1,838,086	\$ 2,727,182
Securities lending cash collateral	0	0
Total cash	\$ 1,838,086	\$ 2,727,182
Receivables:		
Contributions	\$ 0	\$ 0
Due from broker for investments sold	0	0
Investment income	0	0
Other	0	0
Total receivables	\$ 0	\$ 0
Investments:		
Fixed income	\$ 4,129,812	\$ 4,212,690
Stocks	8,837,535	10,547,750
Short-term investments	0	0
Real estate	0	0
Alternatives	0	0
Total investments	\$ 12,967,347	\$ 14,760,440
Total assets	\$ 14,805,433	\$ 17,487,622
Liabilities		
Payables:		
Investment management fees	\$ 0	\$ 0
Due to broker for investments purchased	0	0
Collateral payable for securities lending	0	0
Other	1,687	0
Total liabilities	\$ 1,687	\$ 0
Net position restricted for pensions	\$ 14,803,746	\$ 17,487,622

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Statement of Changes in Fiduciary Net Position

	06/30/2022	06/30/2021
Additions		
Contributions:		
Employer	\$ 1,287,062	\$ 987,862
Member	0	0
Nonemployer contributing entity	0	0
Total contributions	\$ 1,287,062	\$ 987,862
Investment income:		
Net increase in fair value of investments	\$ (2,741,811)	\$ 3,551,689
Interest and dividends	312,861	276,907
Less investment expense, other than from securities lending	(12,667)	(12,833)
Net income other than from securities lending	\$ (2,441,617)	\$ 3,815,763
Securities lending income	0	0
Less securities lending expense	0	0
Net income from securities lending	\$ 0	\$ 0
Net investment income	\$ (2,441,617)	\$ 3,815,763
Other	0	0
Total additions	\$ (1,154,555)	\$ 4,803,625
Deductions		
Benefit payments, including refunds of member contributions	\$ 1,517,334	\$ 1,534,080
Administrative expense	11,987	6,824
Other	0	0
Total deductions	\$ 1,529,321	\$ 1,540,904
Net increase in net position	\$ (2,683,876)	\$ 3,262,721
Net position restricted for pensions		
Beginning of year	17,487,622	14,224,901
End of year	\$ 14,803,746	\$ 17,487,622

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Schedule of Changes in Net Pension Liability and Related Ratios

	06/30/2022	06/30/2021	06/30/2020	06/30/2019	06/30/2018
Total pension liability					
Service cost	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Interest	1,129,645	1,162,010	1,133,564	1,172,535	1,197,008
Changes of benefit terms	0	0	0	0	0
Differences between expected and actual experience	(245,905)	0	206,546	(157,200)	0
Changes of assumptions	47,967	(134,232)	632,937	(87,912)	(44,440)
Benefit payments, including refunds of member contributions	(1,517,334)	(1,534,080)	(1,536,755)	(1,517,190)	(1,540,946)
Net change in total pension liability	(585,627)	(506,302)	436,292	(589,767)	(388,378)
Total pension liability - beginning	18,137,819	18,644,121	18,207,829	18,797,596	19,185,974
Total pension liability - ending (a)	\$ 17,552,192	\$ 18,137,819	\$ 18,644,121	\$ 18,207,829	\$ 18,797,596
Plan fiduciary net position					
Contributions - employer	\$ 1,287,062	\$ 987,862	\$ 1,033,149	\$ 1,097,151	\$ 1,294,750
Contributions - member	0	0	0	0	0
Contributions - nonemployer contributing member	0	0	0	0	0
Net investment income	(2,441,617)	3,815,763	438,982	819,535	908,413
Benefit payments, including refunds of member contributions	(1,517,334)	(1,534,080)	(1,536,755)	(1,517,190)	(1,540,946)
Administrative expenses	(11,987)	(6,824)	(5,007)	(5,093)	(5,207)
Other	0	0	0	0	0
Net change in plan fiduciary net position	\$ (2,683,876)	\$ 3,262,721	\$ (69,631)	\$ 394,403	\$ 657,010
Plan fiduciary net position - beginning	17,487,622	14,224,901	14,294,532	13,900,129	13,243,119
Plan fiduciary net position - ending (b)	\$ 14,803,746	\$ 17,487,622	\$ 14,224,901	\$ 14,294,532	\$ 13,900,129
Net pension liability - ending (a) - (b)	\$ 2,748,446	\$ 650,197	\$ 4,419,220	\$ 3,913,297	\$ 4,897,467
Plan fiduciary net position as a percentage of the total pension liability	84.34%	96.42%	76.30%	78.51%	73.95%
Covered-employee payroll	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Net pension liability as percentage of covered-employee payroll	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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 Schedule of Changes in Net Pension Liability and Related Ratios

	06/30/2017	06/30/2016	06/30/2015
Total pension liability			
Service cost	\$ 0	\$ 0	\$ 0
Interest	1,210,545	1,280,958	1,311,335
Changes of benefit terms	0	0	0
Differences between expected and actual experience	0	(836,177)	286,306
Changes of assumptions	115,749	0	932,000
Benefit payments, including refunds of member contributions	(1,528,191)	(1,527,910)	(1,557,641)
Net change in total pension liability	(201,897)	(1,083,129)	972,000
Total pension liability - beginning	19,387,871	20,471,000	19,499,000
Total pension liability - ending (a)	\$ 19,185,974	\$ 19,387,871	\$ 20,471,000
Plan fiduciary net position			
Contributions - employer	\$ 1,118,346	\$ 1,093,278	\$ 1,385,789
Contributions - member	0	0	0
Contributions - nonemployer contributing member	0	0	0
Net investment income	1,433,258	279,303	283,144
Benefit payments, including refunds of member contributions	(1,528,191)	(1,527,910)	(1,557,641)
Administrative expenses	(4,979)	(4,831)	(5,794)
Other	0	0	0
Net change in plan fiduciary net position	\$ 1,018,434	\$ (160,160)	\$ 105,498
Plan fiduciary net position - beginning	12,224,685	12,384,845	12,279,347
Plan fiduciary net position - ending (b)	\$ 13,243,119	\$ 12,224,685	\$ 12,384,845
Net pension liability - ending (a) - (b)	\$ 5,942,855	\$ 7,163,186	\$ 8,086,155
Plan fiduciary net position as a percentage of the total pension liability	69.03%	63.05%	60.50%
Covered-employee payroll	Not Applicable	Not Applicable	Not Applicable
Net pension liability as percentage of covered-employee payroll	Not Applicable	Not Applicable	Not Applicable

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Pension Expense

Fiscal year ending	06/30/2022	06/30/2021
Service cost	\$ 0	\$ 0
Interest on total pension liability	1,129,645	1,162,010
Projected earnings on pension plan investments	(1,128,822)	(906,645)
Changes of benefit terms	0	0
Employee contributions	0	0
Pension plan administrative expense	11,987	6,824
Other changes	0	0
Current period recognition of deferred outflows/(inflows) of resources		
Differences between Expected & Actual Experience in measurement of the Total Pension Liability	\$ (245,905)	\$ 0
Changes of assumptions	47,967	(134,232)
Differences between Projected & Actual Earnings on Pension Plan Investments	229,865	(614,649)
Total	\$ 44,737	\$ (486,692)

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Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

Differences between expected and actual experience in measurement of the total pension liability for fiscal year ending:	Initial Balance	Initial Amortization Period	Annual Recognition	06/30/2022 Balance
June 30, 2022	\$ (245,905)	1.0	\$ (245,905)	\$ 0
			<u>\$ (245,905)</u>	<u>\$ 0</u>
Changes in assumptions for fiscal year ending:	Initial Balance	Initial Amortization Period	Annual Recognition	06/30/2022 Balance
June 30, 2022	\$ 47,967	1.0	\$ 47,967	\$ 0
			<u>\$ 47,967</u>	<u>\$ 0</u>
Differences between projected and actual earnings on pension plan investments for fiscal year ending:	Initial Balance	Initial Amortization Period	Annual Recognition	06/30/2022 Balance
June 30, 2022	\$ 3,570,439	5.0	\$ 714,088	\$ 2,856,351
June 30, 2021	\$ (2,909,118)	5.0	\$ (581,824)	\$ (1,745,470)
June 30, 2020	\$ 473,633	5.0	\$ 94,727	\$ 189,452
June 30, 2019	\$ 70,157	5.0	\$ 14,031	\$ 14,033
June 30, 2018	\$ (55,781)	5.0	\$ (11,157)	\$ 0
			<u>\$ 229,865</u>	<u>\$ 1,314,366</u>

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Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 0	\$ 0
Changes of Assumptions	\$ 0	\$ 0
Net difference between projected and actual earnings on pension plan investments	\$ 3,059,836	\$ (1,745,470)
	\$ 3,059,836	\$ (1,745,470)

The balances as of June 30, 2022 of the deferred outflows/(inflows) of resources will be recognized in pension expense for the fiscal year ending June 30.

6/30/2023	\$ 241,024
6/30/2024	\$ 226,989
6/30/2025	\$ 132,266
6/30/2026	\$ 714,087
6/30/2027	\$ 0
Thereafter	\$ 0

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2022 are summarized in the following table:

Asset class	Target allocation	Long-term expected real rate of return
Fixed income	34.0%	1.55%
Stocks	51.0%	6.04%
Real estate	9.0%	5.19%
Cash	6.0%	0.15%
Total	100.0%	

Long-term expected rate of return is 6.50%.

Discount rate

The discount rate used to measure the total pension liability was 6.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Professional judgment on future contributions has been applied in those cases where contribution patterns deviate from the actuarially determined rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability, calculated using the discount rate of 6.50%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (5.50%) or 1-percentage-point higher (7.50%) than the current rate:

	1% Decrease (5.50%)	Current Discount Rate (6.50%)	1% Increase (7.50%)
Net pension liability	\$ 4,351,612	\$ 2,748,446	\$ 1,372,103

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 Schedule of Contributions

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>
Actuarially determined contribution	\$ 1,115,164	\$ 935,006	\$ 964,518	\$ 1,050,375	\$ 1,205,092
Contributions in relation to the actuarially determined contribution	1,287,062	987,862	1,033,149	1,097,151	1,294,750
Contribution deficiency (excess)	\$ (171,898)	\$ (52,856)	\$ (68,631)	\$ (46,776)	\$ (89,658)
Covered-employee payroll	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Contributions as a percentage of covered-employee payroll	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Actuarially determined contribution	\$ 1,176,462	\$ 1,212,000	\$ 1,176,422	\$ 1,155,110	\$ 1,155,796
Contributions in relation to the actuarially determined contribution	1,118,346	1,093,278	1,385,789	1,229,363	1,074,599
Contribution deficiency (excess)	\$ 58,116	\$ 118,722	\$ (209,367)	\$ (74,253)	\$ 81,197
Covered-employee payroll	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Contributions as a percentage of covered-employee payroll	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

The total pension liability as of June 30, 2022 was determined using the following actuarial assumptions:

Actuarial Cost Method	Entry Age Method
Asset Valuation Method	Fair market value of assets on the measurement date
Interest Rates	
Discount Rate	6.50%
Expected Long Term Rate of Return	6.50%
Municipal Bond Rate	N/A
Inflation	2.51%
Annual Pay Increases	N/A
Measurement Date	June 30, 2022
Participant Data	Collected as of July 1, 2021
Cost of Living Increases	2.00% per year every January 1 on a compound basis
Mortality Rates	
Healthy	<u>Participants:</u> PubS-2010 Public Safety Mortality Table with fully generational improvements from 2010 based on Society of Actuaries Scale MP-2021 <u>Survivors:</u> Pub-2010 Continuing Survivors Mortality Table with fully generational improvements from 2010 based on Society of Actuaries Scale MP-2021
Disabled	PubS-2010 Public Safety Disabled Retiree Mortality Table with fully generational improvements from 2010 based on Society of Actuaries Scale MP-2021
All other assumptions	As described in the assumptions section of the actuarially determined contribution

Actuarial Cost Method	Entry Age Method
Asset Valuation Method	Fair market value of assets on the measurement date
Amortization Method	10 year closed level dollar amortization of Unfunded Actuarial Accrued Liability beginning on 7/1/2014. The amortization period is 3 years for the 2021-2022 fiscal year and will decline by 1 each year until 1 year remains.
Interest Rate	6.50% per year, compounded annually
Inflation	2.50%
Annual Pay Increases	N/A
Cost of Living Increases	2.00% per year every January 1 on a compound basis
Mortality Rates	
Healthy	PubS-2010 Public Safety Mortality Table with fully generational improvements from 2010 based on assumptions from the Society of Actuaries MP-2019 Scale
Disabled	PubS-2010 Public Safety Disabled Retiree Mortality Table with fully generational improvements from 2010 based on assumptions from the Society of Actuaries MP-2019 Scale
Retirement Rates	N/A
Disability Rates	N/A
Withdrawal Rates	N/A
Marital Status and Ages	N/A
Expense and/or Contingency Loading	N/A

Name of Plan

City of Dover, Delaware Police Pension Plan

Plan Status

As of the valuation date, there are no active members in the plan. The Plan is a contributory, defined benefit plan for policemen hired prior to September 1, 1982.

Benefits

Normal Retirement

Eligibility Completion of 20 years of service

Benefit 2.5% of Average Earnings multiplied by service, but no more than 62.5% of Average Earnings

Death Benefits

Eligibility Currently Retired

Benefit 50% of the benefit the member was receiving payable immediately to an Eligible Survivor and ceases upon the earliest of death, remarriage, or attainment of age 18 for children

Cost of Living Adjustments

2.0% per year every January 1 on a compound basis