



City of Dover, Delaware General Employee Pension Plan

June 30, 2018
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 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.

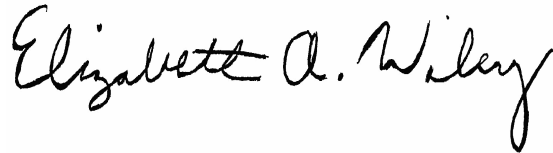
We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

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

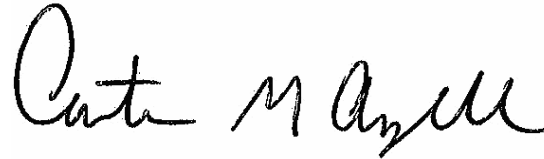
To our knowledge there have been no significant events prior to the current year's measurement date or as of the date of this report which could materially affect the results contained herein.

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



Elizabeth A. Wiley, ASA, EA



Carter M. Angell, FSA, EA, MAAA

10/30/2018

Net Pension Liability

The components of the net pension liability at June 30

	06/30/2018	06/30/2017
Total pension liability	\$ 62,957,382	\$ 60,465,041
Plan fiduciary net position	(43,100,420)	(39,364,426)
Net pension liability	\$ 19,856,962	\$ 21,100,615
Plan fiduciary net position as a percent of the total pension liability	68.46%	65.10%
Pension Expense for the Fiscal Year Ended June 30	\$ 3,395,305	\$ 2,514,584

Actuarial Assumptions

The total pension liability was determined using the following actuarial assumptions

Inflation	2.50%	2.50%
Salary increases, including inflation	3.00%	3.00%
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

	2018	2016
Inactive plan members and beneficiaries currently receiving benefits	210	205
Inactive plan members entitled to but not yet receiving benefits	17	19
Active plan members	95	107
Total members	322	331

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Statement of Fiduciary Net Position

Assets	06/30/2018	06/30/2017
Cash and deposits	\$ 2,092,361	\$ 2,214,573
Securities lending cash collateral	0	0
Total cash	\$ 2,092,361	\$ 2,214,573
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	\$ 12,414,940	\$ 11,216,564
Stocks	28,593,119	26,359,798
Real Estate	0	0
Total investments	\$ 41,008,059	\$ 37,576,362
Total assets	\$ 43,100,420	\$ 39,790,935
Liabilities		
Payables:		
Investment management fees	\$ 0	\$ 0
Due to broker for investments purchased	0	0
Collateral payable for securities lending	0	0
Other	0	426,509
Total liabilities	\$ 0	\$ 426,509
Net position restricted for pensions	\$ 43,100,420	\$ 39,364,426

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 Statement of Changes in Fiduciary Net Position

	06/30/2018	06/30/2017
Additions		
Contributions:		
Employer	\$ 4,777,466	\$ 2,876,657
Member	195,102	202,175
Nonemployer contributing entity	0	0
Total contributions	\$ 4,972,568	\$ 3,078,832
Investment income:		
Net increase in fair value of investments	\$ 1,772,658	\$ 3,397,693
Interest and dividends	997,951	966,419
Less investment expense, other than from securities lending	(13,333)	(13,333)
Net income other than from securities lending	\$ 2,757,276	\$ 4,350,779
Securities lending income	0	0
Less securities lending expense	0	0
Net income from securities lending	\$ 0	\$ 0
Net investment income	\$ 2,757,276	\$ 4,350,779
Other	0	0
Total additions	\$ 7,729,844	\$ 7,429,611
Deductions		
Benefit payments, including refunds of member contributions	\$ 3,976,202	\$ 3,746,045
Administrative expense	17,648	17,677
Other	0	0
Total deductions	\$ 3,993,850	\$ 3,763,722
Net increase in net position	\$ 3,735,994	\$ 3,665,889
Net position restricted for pensions		
Beginning of year	39,364,426	35,698,537
End of year	\$ 43,100,420	\$ 39,364,426

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Schedule of Changes in Net Pension Liability and Related Ratios

	<u>06/30/2018</u>	<u>06/30/2017</u>	<u>06/30/2016</u>	<u>06/30/2015</u>
Total pension liability				
Service cost	\$ 406,344	\$ 433,052	\$ 401,218	\$ 458,969
Interest	3,827,413	3,728,910	3,718,982	3,861,154
Changes of benefit terms	829,609	0	0	0
Differences between expected and actual experience	1,504,660	40,689	(267,154)	(422,281)
Changes of assumptions	(99,483)	1,200,614	0	1,956,000
Benefit payments, including refunds of member contributions	(3,976,202)	(3,746,045)	(3,718,225)	(3,699,842)
Net change in total pension liability	<u>2,492,341</u>	<u>1,657,220</u>	<u>134,821</u>	<u>2,154,000</u>
Total pension liability - beginning	60,465,041	58,807,821	58,673,000	56,519,000
Total pension liability - ending (a)	\$ 62,957,382	\$ 60,465,041	\$ 58,807,821	\$ 58,673,000
Plan fiduciary net position				
Contributions - employer	\$ 4,777,466	\$ 2,876,657	\$ 3,089,409	\$ 3,419,512
Contributions - member	195,102	202,175	202,340	209,446
Contributions - nonemployer contributing member	0	0	0	0
Net investment income	2,757,276	4,350,779	850,131	954,989
Benefit payments, including refunds of member contributions	(3,976,202)	(3,746,045)	(3,718,225)	(3,699,842)
Administrative expenses	(17,648)	(17,677)	(16,040)	(18,792)
Other	0	0	0	0
Net change in plan fiduciary net position	<u>\$ 3,735,994</u>	<u>\$ 3,665,889</u>	<u>\$ 407,615</u>	<u>\$ 865,313</u>
Plan fiduciary net position - beginning	39,364,426	35,698,537	35,290,922	34,425,609
Plan fiduciary net position - ending (b)	\$ 43,100,420	\$ 39,364,426	\$ 35,698,537	\$ 35,290,922
Net pension liability - ending (a) - (b)	\$ 19,856,962	\$ 21,100,615	\$ 23,109,284	\$ 23,382,078
Plan fiduciary net position as a percentage of the total pension liability	68.46%	65.10%	60.70%	60.15%
Covered-employee payroll	\$ 5,561,300	\$ 5,635,987	\$ 5,504,387	\$ 5,864,089
Net pension liability as percentage of covered-employee payroll	357.06%	374.39%	419.83%	398.73%

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Pension Expense

Fiscal year ending	<u>06/30/2018</u>	<u>06/30/2017</u>
Service cost	\$ 406,344	\$ 433,052
Interest on total pension liability	3,827,413	3,728,910
Projected earnings on pension plan investments	(2,590,496)	(2,298,146)
Changes of benefit terms	829,609	0
Employee contributions	(195,102)	(202,175)
Pension plan administrative expense	17,648	17,677
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	\$ 374,555	\$ (173,917)
Changes of assumptions	592,994	843,487
Differences between Projected & Actual Earnings on Pension Plan Investments	132,340	165,696
Total	<u>\$ 3,395,305</u>	<u>\$ 2,514,584</u>

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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	06/30/2018 Balance
June 30, 2018	\$ 1,504,660	3.0	\$ 501,553	\$ 1,003,107
June 30, 2017	\$ 40,689	4.0	\$ 10,172	\$ 20,345
June 30, 2016	\$ (267,154)	4.0	\$ (66,789)	\$ (66,787)
June 30, 2015	\$ (422,281)	3.6	\$ (70,381)	\$ 0
			<u>\$ 374,555</u>	<u>\$ 956,665</u>

Changes in assumptions for fiscal year ending:	Initial Balance	Initial Amortization Period	Annual Recognition	06/30/2018 Balance
June 30, 2018	\$ (99,483)	3.0	\$ (33,161)	\$ (66,322)
June 30, 2017	\$ 1,200,614	4.0	\$ 300,154	\$ 600,306
June 30, 2015	\$ 1,956,000	3.6	\$ 326,001	\$ 0
			<u>\$ 592,994</u>	<u>\$ 533,984</u>

Differences between projected and actual earnings on pension plan investments for fiscal year ending:	Initial Balance	Initial Amortization Period	Annual Recognition	06/30/2018 Balance
June 30, 2018	\$ (166,780)	5.0	\$ (33,356)	\$ (133,424)
June 30, 2017	\$ (2,052,633)	5.0	\$ (410,527)	\$ (1,231,579)
June 30, 2016	\$ 1,429,397	5.0	\$ 285,879	\$ 571,760
June 30, 2015	\$ 1,451,718	5.0	\$ 290,344	\$ 290,342
			<u>\$ 132,340</u>	<u>\$ (502,901)</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	\$ 1,023,452	\$ (66,787)
Changes of Assumptions	\$ 600,306	\$ (66,322)
Net difference between projected and actual earnings on pension plan investments	\$ 862,102	\$ (1,365,003)
	\$ 2,485,860	\$ (1,498,112)

The balances as of June 30, 2018 of the deferred outflows/(inflows) of resources will be recognized in pension expense for the fiscal year ending June 30.

2019	\$ 844,269
2020	\$ 620,716
2021	\$(443,881)
2022	\$(33,356)
2023	\$ 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, 2018 are summarized in the following table:

Asset class	Target allocation	Long-term expected real rate of return
Fixed Income	28.5%	3.63%
Stocks	61.0%	7.73%
Real Estate	5.0%	7.25%
Cash	5.5%	2.26%
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	\$ 27,391,639	\$ 19,856,962	\$ 13,587,469

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 Schedule of Contributions

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Actuarially determined contribution	\$ 3,016,283	\$ 2,824,098	\$ 3,025,982	\$ 2,983,776	\$ 2,628,694
Contributions in relation to the actuarially determined contribution	4,777,466	2,876,657	3,089,409	3,419,512	3,472,736
Contribution deficiency (excess)	\$ (1,761,183)	\$ (52,559)	\$ (63,427)	\$ (435,736)	\$ (844,042)
Covered-employee payroll	\$ 5,561,300	\$ 5,635,987	\$ 5,504,387	\$ 5,864,089	\$ 5,970,703
Contributions as a percentage of covered-employee payroll	85.91%	51.04%	56.13%	58.31%	58.16%
	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
Actuarially determined contribution	\$ 3,217,964	\$ 3,130,022	\$ 3,149,493	\$ 2,564,767	\$ 2,356,529
Contributions in relation to the actuarially determined contribution	9,788,571	3,142,951	3,347,728	2,270,623	2,491,393
Contribution deficiency (excess)	\$ (6,570,607)	\$ (12,929)	\$ (198,235)	\$ 294,144	\$ (134,864)
Covered-employee payroll	\$ 7,076,322	Not Applicable	\$ 8,256,751	\$ 8,786,981	\$ 8,716,361
Contributions as a percentage of covered-employee payroll	138.33%	Not Applicable	40.55%	25.84%	28.58%

The total pension liability as of June 30, 2018 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	2.50%
Annual Pay Increases	3.00% (2.50% for Future Increases on IRS Limits on Compensation and Benefits)
Measurement Date	June 30, 2018
Participant Data	Collected as of July 1, 2018
Cost of Living Increases	None
Mortality Rates	
Healthy	RP-2014 Mortality Table with fully generational improvements from 2006 based on assumptions from the 2017 Social Security Administration Trustee's Report
Disabled	RP-2014 Mortality Table with fully generational improvements from 2006 based on assumptions from the 2017 Social Security Administration Trustee's Report
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 adjusted for a five year phase-in of gains and losses of plan assets
Amortization Method	Closed 15-year level dollar amortization of the Unfunded Actuarial Accrued Liability
Interest Rate	6.50% net of investment expenses
Inflation	2.50%
Annual Pay Increases	3.00% (2.50% for Future Increases on IRS Limits on Compensation and Benefits)
Cost of Living Increases	None
Mortality Rates	
Healthy	RP-2014 Mortality Table with fully generational improvements from 2006 based on assumptions from the 2016 Social Security Administration Trustee's Report
Disabled	RP-2014 Mortality Table with fully generational improvements from 2006 based on assumptions from the 2016 Social Security Administration Trustee's Report
Retirement Rates	Rates of retirement vary by union, age and eligibility for unreduced retirement. No reduced retirements are assumed. Illustrative rates are shown below:

	<u>Hired Pre-5/94</u>	<u>Hired Post-5/94</u>		<u>Hired Pre-5/94</u>	<u>Hired Post-5/94</u>
<u>Age</u>			<u>Age</u>		
50-51	4%	0%	62	25%	20%
52-54	8	0	63-64	25	15
55-57	8	6	65	25	50
58	10	6	66	50	50
59	15	6	67-69	100	50
60	20	10	70	100	100
61	25	10			

Disability Rates

N/A

Withdrawal Rates

Withdrawal rates vary by union status, age and service. Illustrative rates are shown below:

<u>Age</u>	<u>Union</u>	<u>Non-Union</u>		
		<u>< 3 years</u>	<u>3 - 4 Years</u>	<u>5+ Years</u>
25	10.0%	30.0%	27.0%	25.5%
30	9.4	30.0	27.0	23.4
35	8.2	30.0	27.0	20.3
40	6.7	30.0	27.0	16.6
45	5.2	30.0	27.0	12.5
50	3.3	30.0	27.0	7.5
55	1.2	30.0	27.0	2.6

Marital Status and Ages

Husbands are assumed to be 3 years older than wives. 70% of males and 55% of females are assumed to be married.

Payment Form

50% joint and survivor annuity if assumed married; 2-year certain and life to approximate the value of the modified cash refund.

Expense and/or Contingency Loading

N/A

Name of Plan

City of Dover, Delaware General Employee Pension Plan

Effective Date

The plan was originally effective as of July 1, 1967.

Eligibility for membership

All Full-time employment (at least 37 1/2 hours worked per week) with the City. Effective May 1, 1994, employees may make an irrevocable decision to join the Deferred Compensation Plan and forfeit participation in the pension plan. The plan is closed to new members effective September 28, 2009.

Normal Retirement Benefit

2.00% of Average Monthly Earnings multiplied by Continuous Service

Normal Retirement Date

Age 65 and 10 years of Continuous Service

If hired prior to May 1, 1994, the member may also be eligible for unreduced benefits upon later of attainment of age 50 with 20 years of Continuous Service or 25 years of Continuous Service regardless of age.

If hired on or after May 1, 1994, the member may also be eligible for unreduced benefits upon the attainment of age 55 where the sum of the member's age and Continuous Service is at least 80.

Average Monthly Earnings

36 consecutive months in the final ten years of Continuous Service, which results in the highest average, no less than \$150.

Early Retirement Benefit

Normal Retirement Benefit reduced 6% for each year the early retirement date precedes age 65

Early Retirement Date

Age 55 with 10 years of Continuous Service

Disability Retirement Benefit

Normal Retirement Benefit payable immediately. The benefit ceases if the participant has recovered, refuses an examination or attains age 65, at which time the normal retirement benefit commences of the same amount.

Disability Retirement Date

Total and permanent disability and completion of 10 years of Continuous Service

Death Benefit

For members who are currently retired, eligible to retire with a normal or early retirement benefit, or have completed 20 years of Continuous Service, a benefit of 50% of the benefit the member was receiving or entitled to receive. Benefits for members not eligible for a normal retirement benefit will be reduced 6% per year from age 65, but not less than \$200 per month. Benefit is payable immediately to an Eligible Survivor and ceases upon the earliest of death, remarriage, or attainment of age 18 for children.

Eligible Survivor

The member's spouse or domestic partner of at least one year and not domiciled apart at the date of death or surviving children under the age of 18

Termination Benefit

For vested participants: Normal Retirement Benefit payable at age 65

For non-vested participants: A return of accumulated contributions with interest accumulated at 5% will be refunded on the 90th day following termination upon request or automatically after 5 years. Vested participants may elect a refund in lieu of the deferred vested benefit.

Vesting

10 years of Continuous Service

Earnings

Base pay plus scheduled overtime and payment for being on-call, except hours called out.

Continuous Service

Continuous Service is earned for full-time employment with the City. A member who terminates and is rehired within 5 years may have service restored if reemployed within 90 days, reemployed for 5 years if had less than 20 years of Continuous Service or reemployed for 2 years if had at least 20 years Continuous Service. Any contributions withdrawn must be repaid with interest.

Normal Form of Payment

Single life annuity, with the Death Benefit continuing to the Eligible Survivor as applicable

Participant Contributions

3.50% of Earnings

Cost-of-Living Adjustment (COLA)

Employees retired as of 7/1/2016 were granted a one-time ad-hoc 2% COLA effective 7/1/2017. This is a one-time permanent increase to these retirees' benefits.