



# INTERIM GASB 45 ACTUARIAL VALUATION

Fiscal Year Ending June 30, 2016

## **City of Dover, DE**

**Nyhart Actuary & Employee Benefits**

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**April 5, 2017**

**Lori Peddicord  
City of Dover  
5 E. Reed Street, Suite 300  
Dover, DE 19904**

This report summarizes the interim GASB actuarial valuation for the City of Dover, Delaware 2015/16 fiscal year. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 45 (Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions).

The information presented herein is based on the actuarial assumptions and substantive plan provisions summarized in this report and participant information furnished to us by the Plan Sponsor. We have reviewed the employee census provided by the Plan Sponsor for reasonableness when compared to the prior information provided but have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based. When relevant data may be missing, we may have made assumptions we feel are neutral or conservative to the purpose of the measurement. We are not aware of any significant issues with and have relied on the data provided.

The discount rate and other economic assumptions have been selected by the Plan Sponsor. Demographic assumptions have been selected by the Plan Sponsor with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All calculations have been made in accordance with generally accepted actuarial principles and practice.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

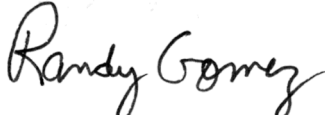
- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); 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.

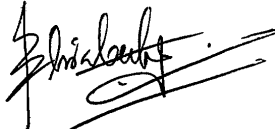
To our knowledge, there have been no significant events prior to the current year's measurement date or as of the date of this report that could materially affect the results contained herein.

Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report. Our professional work is in full compliance with the American Academy of Actuaries "Code of Professional Conduct" Precept 7 regarding conflict of interest. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Should you have any questions please do not hesitate to contact us.



Randy Gomez, FSA, MAAA  
Consulting Actuary



Evi Laksana, ASA, MAAA  
Valuation Actuary

## Summary of Results

Presented below is the summary of GASB 45 results for the fiscal year ending June 30, 2016 projected from the prior fiscal year valuation compared to the prior fiscal years as shown in the City's Notes to Financial Statement.

	<i>As of July 1, 2014</i>		<i>As of July 1, 2015</i>	
<b>Actuarial Accrued Liability</b>	\$	51,224,524	\$	66,600,509
<b>Actuarial Value of Assets</b>	\$	(18,752,196)	\$	(22,448,290)
<b>Unfunded Actuarial Accrued Liability</b>	\$	32,472,328	\$	44,152,219
<b>Funded Ratio</b>		36.6%		33.7%

	<i>FY 2014/15</i>		<i>FY 2015/16</i>	
<b>Annual Required Contribution</b>	\$	3,809,600	\$	5,125,687
<b>Annual OPEB Cost</b>	\$	3,658,108	\$	4,993,262
<b>Annual Employer Contribution</b>	\$	5,305,007	\$	3,567,744

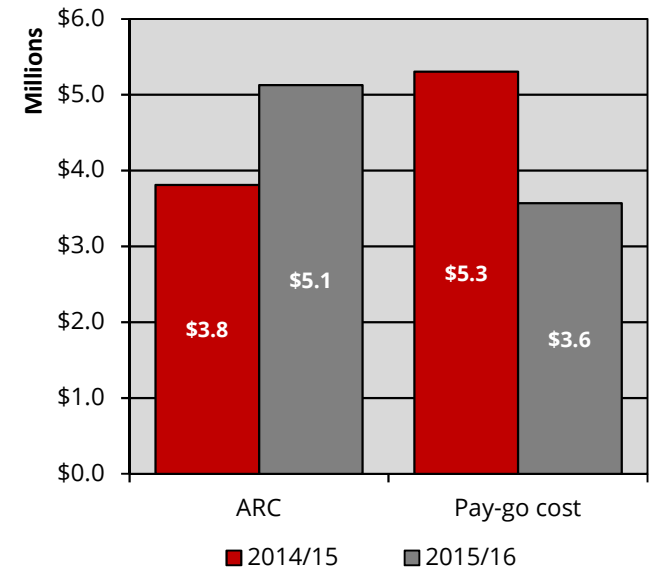
	<i>As of June 30, 2015</i>		<i>As of June 30, 2016</i>	
<b>Net OPEB Obligation</b>	\$	11,438,231	\$	12,863,749

### Development of Annual Required Contribution (ARC)

Required Supplementary Information	FY 2014/15 <sup>1</sup>	FY 2015/16
<b>Actuarial Accrued Liability</b> as of beginning of year	\$ 51,224,524	\$ 66,600,509
<b>Actuarial Value of Assets</b> as of beginning of year	(18,752,196)	(22,448,290)
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	<b>\$ 32,472,328</b>	<b>\$ 44,152,219</b>
Funded Ratio	36.6%	33.7%
Covered payroll <sup>2</sup>	\$ 17,059,787	\$ 17,656,880
UAAL as a % of covered payroll	190.3%	250.1%

Annual Required Contribution	FY 2014/15 <sup>1</sup>	FY 2015/16
Normal cost as of beginning of year	\$ 1,242,210	\$ 1,638,144
Amortization of the UAAL	2,334,880	3,174,708
Total normal cost and amortization payment	\$ 3,577,090	\$ 4,812,852
Interest to end of year	232,510	312,835
<b>Total Annual Required Contribution (ARC)</b>	<b>\$ 3,809,600</b>	<b>\$ 5,125,687</b>

### Cash vs Accrual Accounting



**Annual Required Contribution (ARC)** is the annual expense recorded in the income statement under GASB 45 accrual accounting. It replaces the cash basis method of accounting recognition with an accrual method. The GASB 45 ARC is higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

<sup>1</sup> FY 2014/15 results are based on the full valuation report as of July 1, 2014 prepared by the prior actuary and reported in the City's financial statements.

<sup>2</sup> FY 2015/16 covered payroll is based on FY 2014/15 payroll increased by the payroll growth assumption (3.5%).

## Development of Annual OPEB Cost and Net OPEB Obligation

Net OPEB Obligation		FY 2014/15 <sup>3</sup>		FY 2015/16
ARC as of end of year	\$	3,809,600	\$	5,125,687
Interest on Net OPEB Obligation (NOO) to end of year		850,534		743,485
NOO amortization adjustment to the ARC		(1,002,026)		(875,910)
Annual OPEB cost	\$	3,658,108	\$	4,993,262
Annual employer contribution		(5,305,007)		(3,567,744)
Change in NOO	\$	(1,646,899)	\$	1,425,518
NOO as of beginning of year		13,085,130		11,438,231
<b>NOO as of end of year</b>	<b>\$</b>	<b>11,438,231</b>	<b>\$</b>	<b>12,863,749</b>

**Pay-as-you-go Cost** is the expected total employer cash cost for the coming period based on all explicit and implicit subsidies. It is also the amount recognized as expense on the Income Statement under pay-as-you-go accounting.

**Net OPEB Obligation** is the cumulative difference between the annual OPEB cost and employer contributions. This obligation will be created if cash contributions are less than the current year expense under GASB 45 accrual rules.

The net obligation is recorded as a liability on the employer's balance sheet which will reduce the net fund balance.

The value of implicit subsidies is considered as part of cash contributions for the current period. Other cash expenditures that meet certain conditions are also considered as contributions for GASB 45 purposes.

<sup>3</sup> FY 2014/15 results are based on the full valuation report as of July 1, 2014 prepared by the prior actuary and reported in the City's financial statements.

## Summary of GASB 45 Financial Results

Presented below is the summary of GASB 45 results for the fiscal year ending June 30, 2016 and prior fiscal years as shown in the City's Notes to Financial Statements.

### Schedule of Funding Progress

<i>As of</i>	<i>Actuarial Accrued Liability (AAL)</i>	<i>Actuarial Value of Assets (AVA)</i>	<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	<i>Funded Ratio</i>	<i>Covered Payroll</i>	<i>UAAL as % of Covered Payroll</i>
	<i>A</i>	<i>B</i>	<i>C = A + B</i>	<i>D = B / A</i>	<i>E</i>	<i>F = C / E</i>
July 1, 2015	\$ 66,600,509	\$ (22,448,290)	\$ 44,152,219	33.7%	\$ 17,656,880	250.1%
July 1, 2014	\$ 51,224,524	\$ (18,752,196)	\$ 32,472,328	36.6%	\$ 17,059,787	190.3%
July 1, 2013	\$ 70,414,000	\$ (13,627,223)	\$ 56,786,777	19.4%	\$ 17,521,727	324.1%

### Schedule of Employer Contributions

<i>FYE</i>	<i>Employer Contributions</i>	<i>Annual Required Contribution (ARC)</i>	<i>% of ARC Contributed</i>
	<i>A</i>	<i>B</i>	<i>C = A / B</i>
June 30, 2016	\$ 3,567,744	\$ 5,125,687	69.6%
June 30, 2015	\$ 5,305,007	\$ 3,809,600	139.3%
June 30, 2014	\$ 5,086,180	\$ 5,948,442	85.5%

### Historical Annual OPEB Cost

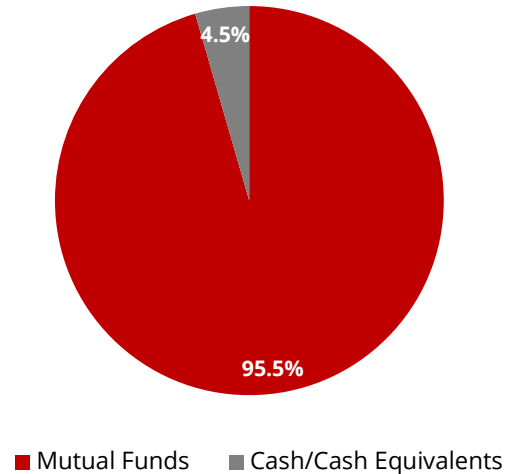
<i>As of</i>	<i>Annual OPEB Cost</i>	<i>% of Annual OPEB Cost Contributed</i>	<i>Net OPEB Obligation</i>
June 30, 2016	\$ 4,993,262	71.5%	\$ 12,863,749
June 30, 2015	\$ 3,658,108	145.0%	\$ 11,438,231
June 30, 2014	\$ 5,779,249	88.0%	\$ 13,085,130

### Asset Information

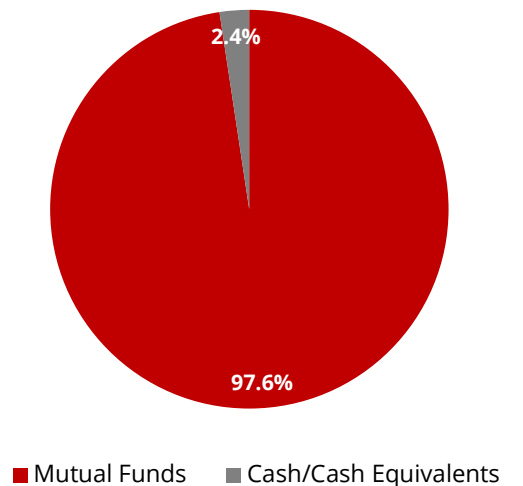
<i>Summary of Assets (Market Value)</i>	<i>June 30, 2015</i>	<i>June 30, 2016</i>
General investments		
Cash and Cash Equivalents	\$ 536,417	\$ 1,082,165
Mutual Funds	21,913,123	22,962,247
Liabilities		
Accounts Payable	(1,250)	(1,250)
<b>Net Assets</b>	<b>\$ 22,448,290</b>	<b>\$ 24,043,162</b>

<i>Reconciliation of Assets</i>	<i>2014/15</i>	<i>2015/16</i>
Income		
Contributions received		
Employer	\$ 5,305,007	\$ 3,567,744
Investment earnings		
Net investment income	515,676	522,278
Total income	\$ 5,820,683	\$ 4,090,022
Disbursements		
Benefit payments	\$ (2,124,589)	\$ (2,465,663)
Administrative expenses	0	(29,487)
Total disbursements	\$ (2,124,589)	\$ (2,495,150)
Net income	\$ 3,696,094	\$ 1,594,872
Net asset at beginning of year	18,752,196	22,448,290
Net asset at end of year	\$ 22,448,290	\$ 24,043,162
Asset return for the year	2.5%	2.1%

Asset Breakdown June 30, 2016



Asset Breakdown June 30, 2015





## Summary of Key Actuarial Assumptions

For a more complete summary of assumptions, refer to the GASB 45 Financial Report prepared by the prior actuary for fiscal year ending June 30, 2015.

<b>Discount Rate</b>	6.5%, funded
<b>Inflation Rate</b>	3.5%
<b>Payroll Growth</b>	3.5% (for covered payroll projections only)
<b>Cost Method</b>	Projected Unit Credit with linear proration to decrement
<b>Amortization</b>	Level dollar over thirty years based on an open group
<b>Health Care Trend Rates</b>	Annual trend rates by benefit are based on the Society of Actuaries Getzen Model (version 12.2). Sample trend rates for medical/Rx are as shown below (without excise tax):

<b>FYE</b>	<b>Pre-65</b>	<b>Post-65</b>
2017	6.2%	4.5%
2018	5.7%	5.0%
2019	5.4%	5.4%
2024	5.4%	5.4%
2029	5.4%	5.4%
2034	5.5%	5.5%
2044	5.2%	5.1%
2054	5.1%	5.1%

Medicare Part B reimbursements' trend is based on the lessor of 4.5% and rates in the Getzen Model above.

## Actuary’s Notes

Adjustments have been made to the City’s July 1, 2015 Actuarial Accrued Liability (AAL), normal cost, and benefit payments for the actual premium rate increases from 2015/16 to 2016/17, which caused the City’s liabilities to be higher than expected.

Additionally, we included the value of implicit subsidy for pre-Medicare benefits in this year’s valuation. Implicit subsidy is the additional employer liabilities when the inherently higher health care costs for retired employees are not directly reflected in the determination of the premium rates. According to the new Actuarial Standards of Practice (ASOP) number 6, that is effective for valuations with measurement date on/after March 31, 2015, an implicit subsidy exists for health plans that commingle the experience of active participants and retirees in setting their premium rates and the non-Medicare retirees premium rates do not vary by age. The inclusion of implicit subsidy increased the City’s liability by 15.3%.

**Medical / Rx Premium Rate Comparison<sup>4</sup>** Below is a comparison of medical / rx premium rates:

Health Plans	Eff. 7/1/2015		Eff. 7/1/2016	
	EE	EE/Sp	EE	EE/Sp
First State Basic Plan	\$ 695.92	\$ 1,436.98	\$ 732.84	\$ 1,513.32
Aetna HMO	\$ 726.42	\$ 1,528.59	\$ 764.94	\$ 1,609.82
Blue Care HMO	\$ 727.02	\$ 1,533.42	\$ 765.56	\$ 1,614.90
Comprehensive PPO	\$ 794.13	\$ 1,644.97	\$ 836.26	\$ 1,732.42
Medicfill including Rx	\$ 420.13	\$ 840.26	\$ 450.63	\$ 901.26

## Per Capita Costs

Annual pre-65 per capita costs were calculated based on the July 1, 2016 premium rates actuarially increased using health index factors and substitute enrollment that is assumed to represent State of Delaware members’ demographic make-up. Post-65 per capita costs are equal to the Medicfill (including Rx) premium rates. Annual per capita costs by plan are as shown below and they are assumed to increase with health care trend rates.

Age	HMO	PPO
< 55	\$ 7,900	\$ 8,600
55 – 59	\$ 9,600	\$ 10,500
60 – 64	\$ 11,900	\$ 13,000

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

<sup>4</sup> Premium rates are based on the State of Delaware full plan premiums including the risk fee and monthly contract charge.

**GASB Results by Group<sup>5</sup>**

Below is the summary of the GASB results for fiscal year ending June 30, 2016 based on the Projected Unit Credit cost method and level dollar amortization method with a funded discount rate of 6.5%.

<b>Required Supplementary Information</b>	<b>Total</b>	<b>General Fund (110)</b>	<b>Water Fund (412)</b>	<b>Electric Fund (480)</b>
<b>Actuarial Accrued Liability</b> as of beginning of year	\$ 66,600,509	\$ 50,159,093	\$ 3,990,734	\$ 12,450,682
<b>Actuarial Value of Assets</b> as of beginning of year <sup>6</sup>	(22,448,290)	(11,635,925)	(1,830,545)	(8,981,820)
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	<b>\$ 44,152,219</b>	<b>\$ 38,523,168</b>	<b>\$ 2,160,189</b>	<b>\$ 3,468,862</b>
Funded ratio	33.7%	23.2%	45.9%	72.1%

<b>Annual Required Contribution</b>	<b>Total</b>	<b>General Fund (110)</b>	<b>Water Fund (412)</b>	<b>Electric Fund (480)</b>
Normal cost as of beginning of year	\$ 1,638,144	\$ 1,433,123	\$ 77,642	\$ 127,379
Amortization of the UAAL	3,174,708	2,769,958	155,326	249,424
Total normal cost and amortization payment	\$ 4,812,852	\$ 4,203,081	\$ 232,968	\$ 376,803
Interest to end of year	312,835	273,200	15,143	24,492
<b>Total Annual Required Contribution (ARC)</b>	<b>\$ 5,125,687</b>	<b>\$ 4,476,281</b>	<b>\$ 248,111</b>	<b>\$ 401,295</b>

<b>Net OPEB Obligation (NOO)</b>	<b>Total</b>	<b>General Fund (110)</b>	<b>Water Fund (412)</b>	<b>Electric Fund (480)</b>
ARC as of end of year	\$ 5,125,687	\$ 4,476,281	\$ 248,111	\$ 401,295
Interest on NOO to end of year	743,485	946,208	23,601	(226,324)
NOO amortization adjustment to the ARC	(875,910)	(1,114,742)	(27,804)	266,636
Annual OPEB cost	\$ 4,993,262	\$ 4,307,747	\$ 243,908	\$ 441,607
Annual employer contribution	(3,567,744)	(3,291,717)	(160,831)	(115,196)
Change in NOO	\$ 1,425,518	\$ 1,016,030	\$ 83,077	\$ 326,411
NOO as of beginning of year	11,438,231	14,557,052	363,087	(3,481,908)
<b>NOO as of end of year</b>	<b>\$ 12,863,749</b>	<b>\$ 15,573,082</b>	<b>\$ 446,164</b>	<b>\$ (3,155,497)</b>

<sup>5</sup> Retirees in a blended fund are assumed to be allocated to multiple funds based on the following percentages: 39% General Fund, 16% Water Fund, and 45% Electric Fund.

<sup>6</sup> Refer to the next page for allocation of asset by Fund.

**Asset Allocation by Fund**

<b>FY 2014/15</b>	<i>Total</i>	<i>General Fund (110)</i>	<i>Water Fund (412)</i>	<i>Electric Fund (480)</i>
<b>Market Value of Assets</b> as of July 1, 2014	\$ 18,752,196	\$ 9,492,179	\$ 1,654,233	\$ 7,605,784
Annual employer contributions	5,305,007	3,295,855	300,009	1,709,143
Benefit payments <sup>7</sup>	(2,124,589)	(1,419,406)	(165,748)	(539,435)
Investment incomes	515,676	267,297	42,051	206,328
<b>Market Value of Assets</b> as of July 1, 2015	<b>\$ 22,448,290</b>	<b>\$ 11,635,925</b>	<b>\$ 1,830,545</b>	<b>\$ 8,981,820</b>

<sup>7</sup> Total benefit payments made in FY 2014/15 have been allocated by Fund based on the estimated claim payments by Fund shown in the prior actuary's report for FYE June 30, 2015.

<sup>8</sup> Net investment income has been allocated by Fund based on the beginning of year market value of assets plus annual employer contributions and less benefit payments made.