



nyhart

# GASB 74/75 ACTUARIAL VALUATION

Fiscal Year Ending June 30, 2017

## **Kent County Levy Court**

**Nyhart Actuary & Employee Benefits**

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**November 7, 2017**

**Allan Kujala  
Kent County Levy Court  
555 Bay Road  
Dover, DE 19901**

This report summarizes the GASB actuarial valuation for the Kent County Levy Court FY 2016/17 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. 74 (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, other economic assumptions, and 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.

A handwritten signature in black ink that reads "Randy Gomez".

Randy Gomez, FSA, MAAA  
Consulting Actuary

A handwritten signature in black ink that reads "Suraj M. Datta".

Suraj M. Datta, ASA, MAAA  
Valuation Actuary

## Summary of Results

Presented below is the summary of GASB 75 results for the fiscal year ending June 30, 2017.

		<i>As of June 30, 2017</i>
<b>Total OPEB Liability</b>	\$	22,343,038
<b>Actuarial Value of Assets</b>	\$	(15,749,065)
<b>Net OPEB Liability</b>	\$	6,593,973
<b>Funded Ratio</b>		70.5%

		<i>FY 2016/17</i>
<b>OPEB Expense</b>	\$	1,333,517
<b>Annual Employer Contribution</b>	\$	785,111

		<i>As of June 30, 2017</i>
<b>Discount Rate</b>		7.75%
<b>Expected Return on Assets</b>		7.75%

		<i>As of July 1, 2016</i>
<b>Total Active Participants</b>		294
<b>Total Retiree Participants</b>		114

The active participants' number above may include active employees who currently have no health care coverage. Refer to Summary of Participants section for an accurate breakdown of active employees with and without coverage.

Below is a breakdown of total GASB 75 liabilities allocated to past and current service compared to the prior year. The table below also provides a breakdown of the Total OPEB Liability allocated to pre and post Medicare eligibility. The liability shown below includes explicit (if any) and implicit subsidies. Refer to the Substantive Plan Provisions section for complete information on the Plan Sponsor's GASB subsidies.

<b>Present Value of Future Benefits</b>		<i>As of June 30, 2017</i>
Active Employees	\$	22,852,737
Retired Employees		8,220,230
<b>Total Present Value of Future Benefits</b>	<b>\$</b>	<b>31,072,967</b>

<b>Total OPEB Liability</b>		<i>As of June 30, 2017</i>
Active Pre-Medicare	\$	3,229,854
Active Post-Medicare		10,892,954
Active Liability	\$	14,122,808
Retiree Pre-Medicare	\$	725,549
Retiree Post-Medicare		7,494,681
Retiree Liability	\$	8,220,230
<b>Total OPEB Liability</b>	<b>\$</b>	<b>22,343,038</b>

		<i>As of June 30, 2017</i>
Discount Rate		7.75%

**Present Value of Future Benefits (PVFB)** is the amount needed as of June 30, 2017, to fully fund the County's retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

**Total OPEB Liability** is the portion of PVFB considered to be accrued or earned as of June 30, 2017. This amount is a required disclosure in the Required Supplementary Information section.

## Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2016/17
<b>Total OPEB Liability</b>	
Total OPEB liability – beginning of year	\$ 18,186,728
Service cost	677,093
Interest	1,425,396
Changes of benefit terms	168,506
Changes in assumptions	2,579,359
Differences between expected and actual experience	58,998
Benefit payments	(753,042)
Net change in total OPEB liability	\$ 4,156,310
Total OPEB liability – end of year	\$ 22,343,038
<b>Plan Fiduciary Net Position</b>	
Plan fiduciary net position – beginning of year	\$ 14,221,832
Contributions – employer	785,111
Contributions – retired members	0
Net investment income	1,500,706
Benefit payments	(753,042)
Trust administrative expenses	(5,542)
Net change in plan fiduciary net position	\$ 1,527,233
Plan fiduciary net position – end of year	\$ 15,749,065
<b>Net OPEB Liability – end of year</b>	<b>\$ 6,593,973</b>
Plan fiduciary net position as % of total OPEB liability	70.5%
Covered employee payroll	\$ <b>14,595,980</b>
Net OPEB liability as % of covered payroll	45.2%

### Schedule of Employer Contributions

The Actuarially Determined Contribution (ADC) for FY 2016/17 is only calculated for the County that is pre-funding the retiree health benefits. ADC prior to FY 2016/17 is based on the Annual Required Contribution (ARC) calculated in the prior GASB 45 actuarial valuations as shown in the County's financial statements.

	<i>FY 2016/17</i>		<i>FY 2015/16</i>		<i>FY 2014/15</i>		<i>FY 2013/14</i>		<i>FY 2012/13</i>	
Actuarially Determined Contribution (ADC)	\$	785,111	\$	785,111	\$	616,016	\$	616,016	\$	661,025
Contributions in relation to the ADC		785,111		785,111		616,016		616,016		661,025
Contribution deficiency / (excess)	\$	0	\$	0	\$	0	\$	0	\$	0
Covered employee payroll	\$	14,595,980	\$	13,470,257	\$	13,470,257	\$	13,186,023	\$	13,186,023
Contribution as a % of covered employee payroll		5.4%		5.8%		4.6%		4.7%		5.0%

	<i>FY 2011/12</i>		<i>FY 2010/11</i>		<i>FY 2009/10</i>		<i>FY 2008/09</i>	
Actuarially Determined Contribution (ADC)	\$	661,025	\$	630,976	\$	630,976	\$	475,000
Contributions in relation to the ADC <sup>1</sup>		661,025		630,976		630,976		475,000
Contribution deficiency / (excess)	\$	0	\$	0	\$	0	\$	0
Covered employee payroll	\$	12,081,049	\$	12,081,049		N/A		N/A
Contribution as a % of covered employee payroll		5.5%		5.2%		N/A		N/A



**OPEB Expense**

<i>OPEB Expense</i>	<i>FY 2016/17</i>
Discount Rate	7.75%
Service cost	\$ 677,093
Interest	1,425,396
Changes of benefit terms	168,506
Projected earnings on OPEB plan investments	(1,103,411)
Reduction for contributions from active employees	0
OPEB plan administrative expenses	5,542
Current period recognition of deferred outflows / (inflows) of resources	
Differences between expected and actual experience	\$ 5,363
Changes in assumptions	234,487
Net difference between projected and actual earnings on OPEB plan investments	(79,459)
Total current period recognition	\$ 160,391
Total OPEB expense	\$ 1,333,517

### Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

1. Differences between expected and actual experience of the OPEB plan
2. Changes of assumptions
3. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2017</i>
June 30, 2017	\$ 58,998	11	\$ 5,363	\$ 53,635

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2017</i>
June 30, 2017	\$ 2,579,359	11	\$ 234,487	\$ 2,344,872

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2017</i>
June 30, 2017	\$ (397,295)	5	\$ (79,459)	\$ (317,836)

<i>As of fiscal year ending June 30, 2017</i>	<i>Deferred Inflows</i>	<i>Deferred Outflows</i>
Differences between expected and actual experience	\$ 0	\$ 53,635
Changes in assumptions	0	2,344,872
Net difference between projected and actual earnings in OPEB plan investments	(317,836)	0
<b>Total</b>	<b>\$ (317,836)</b>	<b>\$ 2,398,507</b>

**Deferred Outflows / (Inflows) of Resources** - Continued

**Annual Amortization of Deferred Outflows / (Inflows)**

The balances of June 30, 2017 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

<i>FYE</i>	<i>Balance</i>
2018	\$ 160,391
2019	\$ 160,391
2020	\$ 160,391
2021	\$ 160,391
2022	\$ 239,850
Thereafter	\$ 1,199,257

**Sensitivity Results**

The following presents the net OPEB liability as of June 30, 2017, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 7.75%.
- The 1% decrease in discount rate would be 6.75%.
- The 1% increase in discount rate would be 8.75%.

<i>As of June 30, 2017</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 9,357,986
Current Discount Rate	\$ 6,593,973
1% Increase	\$ 4,279,964

The following presents the net OPEB liability as of June 30, 2017, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.0% decreasing by 0.5% annually to an ultimate rate of 4.5%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.0% decreasing by 0.5% annually to an ultimate rate of 3.5%.
- The 1% increase in health care trend rates would assume an initial rate of 9.0% decreasing by 0.5% annually to an ultimate rate of 5.5%.

<i>As of June 30, 2017</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 3,914,869
Current Health Care Trend Rates	\$ 6,593,973
1% Increase	\$ 9,842,082

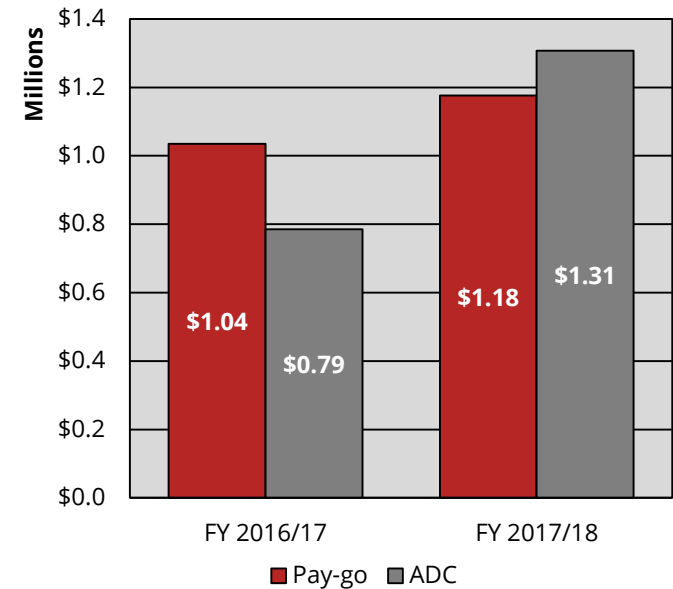
## Asset Information

<i>Reconciliation of Assets</i>	<i>FY 2015/16</i>	<i>FY 2016/17</i>
<b>Additions</b>		
Contributions received		
Employer	\$ 785,111	\$ 785,111
Employee	0	0
Total contributions	\$ 785,111	\$ 785,111
Investment income		
Net increase in fair value of investments	\$ (120,859)	\$ 1,151,320
Interests and dividends	312,134	349,386
Investment expense, other than from securities lending	0	0
Securities lending income	0	0
Securities lending expense	0	0
Net investment income	\$ 191,275	\$ 1,500,706
Total additions	\$ 976,386	\$ 2,285,817
<b>Deductions</b>		
Benefit payments	\$ (613,480)	\$ (753,042)
Administrative expenses	(4,499)	(5,542)
Other	0	0
Total deductions	\$ (617,979)	\$ (758,584)
<b>Net increase in net position</b>	\$ 358,407	\$ 1,527,233
<b>Net position restricted to OPEB</b>		
Beginning of year	\$ 13,863,425	\$ 14,221,832
End of year	\$ 14,221,832	\$ 15,749,065

### Actuarially Determined Contributions

	FY 2016/17	FY 2017/18
Discount rate	7.75%	7.75%
Payroll growth factor used for amortization	N/A	N/A
Actuarial cost method	Entry age normal	Entry age normal
Amortization type	Level Dollar	Level Dollar
Amortization period	30 years	30 years
Actuarial accrued liability (AAL) – beginning of year	\$ 21,090,424	\$ 22,343,038
Actuarial value of assets – beginning of year	(14,221,832)	(15,749,065)
Unfunded AAL – beginning of year	\$ 6,868,592	\$ 6,593,973
Normal Cost	642,772	682,402
Amortization of UAAL	552,934	530,827
Total normal cost plus amortization	\$ 1,195,706	\$ 1,213,229
Interest to the end of year	92,667	94,025
Actuarially Determined Contribution – Preliminary	\$ 1,288,373	\$ 1,307,254
<b>Actuarially Determined Contribution – Final</b>	<b>\$ 785,111</b>	<b>\$ TBD</b>

### Cash vs Accrual Accounting



**Actuarially Determined Contribution (ADC)** is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

The Total OPEB Liability (TOL) is expected to change on an annual basis as a result of expected and unexpected events. Under normal circumstances, it is generally expected to have a net increase each year. Below is a list of the most common events affecting the total OPEB liability and whether they increase or decrease the liability.

Expected Events

- Increases in TOL due to additional benefit accruals as employees continue to earn service each year
- Increases in TOL due to interest as the employees and retirees age
- Decreases in TOL due to benefit payments

Unexpected Events

- Increases in TOL when actual premium rates increase more than expected. A liability decrease occurs if the reverse happens.
- Increases in TOL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite outcomes happen.
- Increases or decreases in TOL depending on whether benefits are improved or reduced.

<b>Projection of Total OPEB Liability</b>	<b>FY 2016/17</b>		<b>FY 2017/18</b>	
Total OPEB Liability as of beginning of year	\$	18,186,728	\$	22,343,038
Normal cost as of beginning of year		626,938		694,194
Benefit payments during the year <sup>1</sup>		(753,042)		(1,109,127)
Interest adjustment to end of year		1,475,551		1,743,209
Expected Total OPEB Liability as of end of year	\$	19,536,175	\$	23,671,314
Actuarial Loss/(Gain)		2,806,863		TBD
<b>Actual Total OPEB Liability as of end of year</b>	<b>\$</b>	<b>22,343,038</b>	<b>\$</b>	<b>TBD</b>

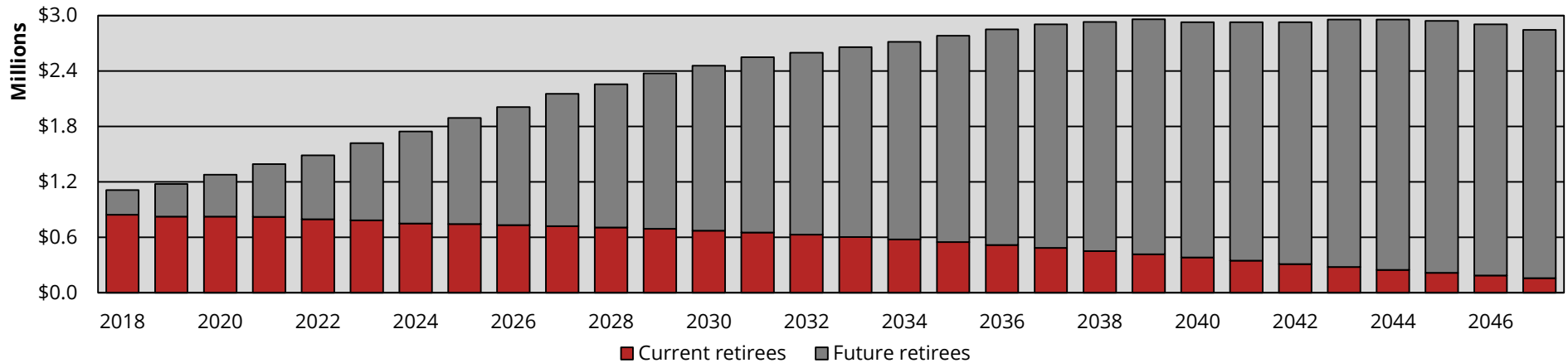
<b>Projection of Actuarial Value of Assets</b>	<b>FY 2016/17</b>		<b>FY 2017/18</b>	
Actuarial Value of Assets as of beginning of year	\$	14,221,832	\$	15,749,065
Expected employer contributions during the year		785,111		1,307,254
Benefit payments during the year <sup>1</sup>		(753,042)		(1,109,127)
Expected investment income		1,097,869		1,228,087
Expected Actuarial Value of Assets as of end of year	\$	15,357,312	\$	17,175,279
Differences between expected and actual experience		391,753		TBD
<b>Actual Actuarial Value of Assets as of end of year</b>	<b>\$</b>	<b>15,749,065</b>	<b>\$</b>	<b>TBD</b>

<sup>1</sup> 2017/18 benefit payments are actuarially estimated.

The below projections show the actuarially estimated employer-paid contributions for retiree health benefits for the next thirty years. Results are shown separately for a closed group of current /future retirees and gross claim costs/retiree contributions. These projections include explicit and implicit subsidies.

FYE	Current Retirees	Future Retirees <sup>2</sup>	Total	FYE	Current Retirees	Future Retirees <sup>3</sup>	Total	FYE	Current Retirees	Future Retirees <sup>3</sup>	Total
2018	\$ 843,502	\$ 265,624	\$ 1,109,127	2028	\$ 706,646	\$ 1,548,445	\$ 2,255,091	2038	\$ 451,241	\$ 2,480,168	\$ 2,931,409
2019	\$ 823,013	\$ 353,667	\$ 1,176,680	2029	\$ 690,261	\$ 1,683,105	\$ 2,373,366	2039	\$ 416,748	\$ 2,542,466	\$ 2,959,214
2020	\$ 823,726	\$ 453,851	\$ 1,277,577	2030	\$ 671,733	\$ 1,785,812	\$ 2,457,545	2040	\$ 381,608	\$ 2,544,299	\$ 2,925,907
2021	\$ 821,900	\$ 570,553	\$ 1,392,453	2031	\$ 651,004	\$ 1,898,530	\$ 2,549,534	2041	\$ 346,204	\$ 2,581,423	\$ 2,927,627
2022	\$ 794,111	\$ 692,647	\$ 1,486,758	2032	\$ 628,180	\$ 1,968,005	\$ 2,596,185	2042	\$ 311,051	\$ 2,614,860	\$ 2,925,911
2023	\$ 784,173	\$ 834,888	\$ 1,619,061	2033	\$ 603,357	\$ 2,053,910	\$ 2,657,267	2043	\$ 278,006	\$ 2,678,620	\$ 2,956,626
2024	\$ 750,007	\$ 995,108	\$ 1,745,115	2034	\$ 576,419	\$ 2,138,454	\$ 2,714,873	2044	\$ 245,830	\$ 2,708,985	\$ 2,954,815
2025	\$ 742,569	\$ 1,149,734	\$ 1,892,303	2035	\$ 547,558	\$ 2,233,013	\$ 2,780,571	2045	\$ 214,887	\$ 2,727,367	\$ 2,942,254
2026	\$ 732,845	\$ 1,274,930	\$ 2,007,775	2036	\$ 516,934	\$ 2,332,047	\$ 2,848,981	2046	\$ 185,639	\$ 2,718,302	\$ 2,903,941
2027	\$ 720,869	\$ 1,430,173	\$ 2,151,042	2037	\$ 484,780	\$ 2,420,014	\$ 2,904,794	2047	\$ 158,454	\$ 2,685,599	\$ 2,844,053

Projected Employer Pay-go Cost



<sup>2</sup> Projections for future retirees do not take into account future new hires.

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used.

	Bond Buyer Go 20- Bond Municipal Bond Index	S&P Municipal Bond 20-Year High Grade Rate Index	Fidelity 20-Year Go Municipal Bond Index	Nyhart Recommendation
Yield as of June 30, 2016	2.85%	2.71%	2.92%	2.59% - 2.92%
Yield as of June 30, 2017	3.53%	3.13%	3.56%	3.13% - 3.56%

For the current valuation:

1. The long-term expected rate of return on OPEB plan investment is approximately 7.50%.
2. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table above, where the range is given as the spread between the lowest and highest rate shown.
3. The final equivalent single discount rate used for this year's valuation is 7.75%. This is based on the expectation that the County will continue to fully fund the ADC. This rate will be reviewed in the County's upcoming pension experience study.



**Summary of Plan Participants**

<i>Actives with coverage</i>	<i>Single<sup>3</sup></i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
EPO Plan	203	69	272	48.4	12.2	\$ 13,746,342
<b>Total actives with coverage</b>	<b>203</b>	<b>69</b>	<b>272</b>	<b>48.4</b>	<b>12.2</b>	<b>\$ 13,746,342</b>

<i>Actives without coverage</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
<b>Total actives without coverage</b>	<b>22</b>	<b>55.0</b>	<b>5.5</b>	<b>\$ 849,638</b>

Actives without coverage are assumed to elect subsidized life insurance at retirement. They have been included in this GASB valuation.

**Active Age-Service Distribution**

<i>Age</i>	<i>Years of Service</i>										<i>Total</i>
	<i>&lt; 1</i>	<i>1 to 4</i>	<i>5 to 9</i>	<i>10 to 14</i>	<i>15 to 19</i>	<i>20 to 24</i>	<i>25 to 29</i>	<i>30 to 34</i>	<i>35 to 39</i>	<i>40 &amp; up</i>	
Under 25	4	3									<b>7</b>
25 to 29	3	13	3								<b>19</b>
30 to 34	2	1	11	3							<b>17</b>
35 to 39	2	7	5	8	2						<b>24</b>
40 to 44	4	6	4	12	6	4					<b>36</b>
45 to 49	3	4	3	7	6	6	2				<b>31</b>
50 to 54	6	9	15	6	11	6	9	2			<b>64</b>
55 to 59		7	7	12	8	5	3	4	1		<b>47</b>
60 to 64		4	6	8	8	1	3	1			<b>31</b>
65 to 69		2	2	4	3	2					<b>13</b>
70 & up			1	3	1						<b>5</b>
<b>Total</b>	<b>24</b>	<b>56</b>	<b>57</b>	<b>63</b>	<b>45</b>	<b>24</b>	<b>17</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>294</b>

<sup>3</sup> Includes participants with employee only and employee and child(ren) coverage levels.

Summary of Plan Participants

<i>Retirees with medical coverage</i>	<i>Single<sup>4</sup></i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
EPO Plan (pre-65)	16	4	20	62.3
Medicare Supplement Plan (post-65)	59	16	75	74.5
<b>Total retirees with medical coverage</b>	<b>75</b>	<b>20</b>	<b>95</b>	<b>71.9</b>

<i>Retirees with dental and life insurance only</i>	<i>Single<sup>4</sup></i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
<b>Total retirees with dental and life insurance only</b>	<b>10</b>	<b>6</b>	<b>16</b>	<b>73.2</b>

<i>Retirees with life insurance only</i>	<i>Single<sup>4</sup></i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
<b>Total retirees with life insurance only</b>	<b>3</b>		<b>3</b>	<b>73.4</b>

Retiree Age Distribution

<i>Age</i>	<i>Retirees</i>
< 45	
45 to 49	
50 to 54	
55 to 59	4
60 to 64	20
65 to 69	31
70 to 74	18
75 to 79	20
80 to 84	15
85 to 89	5
90 & up	1
<b>Total</b>	<b>114</b>

<sup>4</sup> Includes participants with employee only and employee and child(ren) coverage levels.

**Eligibility**

All employees meeting pension eligibility requirements below are eligible for retiree health benefits.

Eligibility for those hired on/before June 29, 2010 is the earlier of:

1. Age 62 with 5 years of service
2. 30 years of service (Early Retirement)
3. Age 55 with 20 years of service (Early Retirement)
4. Age 60 with 15 years of service (Early Retirement)

Eligibility for those hired after June 29, 2010 is the earlier of:

1. Age 62 with 8 years of service
2. 30 years of service (Early Retirement)
3. Age 55 with 20 years of service (Early Retirement)
4. Age 60 with 15 years of service (Early Retirement)

**Spouse Benefit**

Surviving spouses are eligible for COBRA coverage.

**Medical Benefits**

Same benefits are available to retirees as active employees. The EPO plans are fully-insured with a self-insured Health Reimbursement Account (HRA). The Medicare Supplement plan is fully-insured. The monthly funding rates and Highmark premium equivalent rates by plan effective on July 1, 2016 are as shown below.

Funding Rates

<b>Plans</b>	<b>EE</b>	<b>EE + Sp</b>
EPO High Plan	\$ 915.13	\$ 2,104.80
EPO Low Plan	\$ 879.21	\$ 2,022.29
Medicfill Medicare Supplement Plan	\$ 466.04	\$ 932.08

Highmark Premium Equivalent Rates<sup>5</sup>

<b>Plans</b>	<b>EE</b>	<b>EE + Sp</b>
EPO High Plan	\$ 780.83	\$ 1,795.91
EPO Low Plan	\$ 750.18	\$ 1,725.42

<sup>5</sup> Highmark premium equivalent rates do not include HRA expenses.

**Medical Benefits** (Continued)

A summary for each of the County’s plans effective on July 1, 2016 is as described below. The out-of-pocket maximum includes the deductible and coinsurance.

Plan	EPO High Plan	EPO Low Plan	Medicfill Plan
Deductible (EE / EE + Sp)	\$5,000 / \$10,000	\$5,000 / \$10,000	N/A
Coinsurance	100%	90% <sup>6</sup>	N/A
Out-of-Pocket Maximum (EE / EE + Sp)	\$6,850 / \$13,700	\$6,850 / \$13,700	N/A
Co-pay / co-insurances for:			
Office Visit	\$10	\$20	N/A
Specialist Office Visit	\$20	\$40	N/A
Emergency Room	\$150	\$250	N/A
Prescription drugs			
Retail (Generic / Pref / Non-Pref)	\$10 / \$25 / \$75	\$20 / \$60 / \$80	\$10 / \$25 / \$50
Mail Order (Generic/ Pref / Non-Pref)	\$20 / \$50 / \$150	\$40 / \$120 / \$160	\$20 / \$50 / \$100

The HRA benefit features a \$5,000 deductible per individual with an aggregate maximum of \$10,000.

**Dental Benefit**

Monthly dental premiums effective on July 1, 2016 are as shown below.

	EE	EE + Sp
Dental	\$ 34.20	\$ 69.20

**Life Insurance**

Group life insurance is provided at a rate of \$1.08 monthly. This is subsidized for the retiree only.

**Retiree Cost Sharing**

Retirees contribute \$60 monthly for the EPO High Plan or \$30 monthly for the EPO low plan.

Retirees contribute \$3.10 monthly for dental coverage.

The County pays for the full cost of retiree life insurance and post-65 Medicare Supplement coverage.

Retirees contribute 30% of the monthly funding rates for dependent medical coverage. Spousal dental and life insurance coverage was excluded from this valuation as spouses pay the full cost of coverage.

**Explicit Subsidy**

Retirees are responsible for the portion of premium rates not covered by the County.

<sup>6</sup> 100% coinsurance for office/urgent care visits and preventive care services.

The actuarial assumptions used in this report represent a reasonable long-term expectation of future OPEB outcomes. As national economic and County experience change over time, the assumptions will be tested for ongoing reasonableness and, if necessary, updated.

There are changes to the actuarial methods and assumptions since the last GASB valuation, which was for the fiscal year ending June 30, 2015. Refer to Actuary's Notes section for complete information on these changes. For the current year GASB valuation, we have also updated the per capita costs. We expect to update discount rate, health care trend rates, and per capita costs again in the next full GASB valuation, which will be for the fiscal year ending June 30, 2019.

<b>Measurement Date</b>	July 1, 2016; results were actuarially rolled forward to June 30, 2017 on a "no loss / no gain" basis
<b>Discount Rate</b>	7.75% as of July 1, 2016; refer to the Discussion of Discount Rates section for more information on selection of the discount rate.
<b>Payroll Growth</b>	3.5% per year
<b>Inflation Rate</b>	3.0% per year
<b>Cost Method</b>	<p>Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where:</p> <ul style="list-style-type: none"> <li>• Service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant's benefit at retirement; and</li> <li>• Annual Service Cost is a constant percentage of the participant's salary that is assumed to increase according to the Payroll Growth.</li> </ul>
<b>Census Data</b>	Census information was provided by the County in August 2016. We have reviewed it for reasonableness and no material modifications were made to the census data.
<b>Experience Study</b>	Best actuarial practices call for a periodic assumption review and Nyhart recommends the County to complete an actuarial assumption review (also referred to as an experience study). We recommend the study to be completed during the fiscal year ending June 30, 2019 valuation.
<b>Health Care Coverage Election Rate</b>	<p>Active employees with current coverage: 100%</p> <p>Active employees with no coverage<sup>7</sup>: 0%</p> <p>Inactive employees with current coverage: 100%</p> <p>Inactive employees with no coverage: 0%</p>

<sup>7</sup> All are assumed to elect dental and life insurance coverage.

**Employer Funding Policy**

The County fully funds the Actuarially Determined Contribution (ADC).

**Spousal Coverage**

Spousal coverage for current retirees is based on actual data.

20% of employees are assumed to be married at retirement. Husbands are assumed to be the same age as wives.

**Turnover Rate**

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health coverage. The rates represent the probability of termination in the next 12 months. The termination rates are a multiple of Table T-5. Sample annual turnover rates are shown below:

Age	Years of Service				
	1	2	3	4	5+
25	15.4%	13.5%	11.6%	9.7%	7.7%
30	14.4%	12.6%	10.8%	9.0%	7.2%
35	12.6%	11.0%	9.4%	7.8%	6.3%
40	10.3%	9.0%	7.7%	6.4%	5.2%
45	8.0%	7.0%	6.0%	5.0%	4.0%
50	5.1%	4.5%	3.8%	3.2%	2.6%
55	1.9%	1.6%	1.4%	1.2%	0.9%
60	0.2%	0.2%	0.1%	0.1%	0.1%
65+	0.0%	0.0%	0.0%	0.0%	0.0%

**Retirement Rate**

Annual rates of retirement are as shown below.

Age	Male	Female
55	10%	10%
56 - 59	0%	0%
60 - 61	10%	10%
62	20%	20%
63 - 64	10%	10%
65	100%	100%

**Disability**

Sample disability rates are as shown below.

Age	Rates
25	0.07%
30	0.09%
35	0.12%
40	0.20%
45	0.36%
50	0.62%
55	1.08%
60	1.40%

**Mortality**

RP-2000 Combined Mortality Table with mortality improvement projected to 2016 using Scale AA

**Health Care Trend Rates**

FYE	Medical/Rx	Dental
2018	8.00%	4.50%
2019	7.50%	4.25%
2020	7.00%	4.00%
2021	6.50%	3.75%
2022	6.00%	3.50%
2023	5.50%	3.50%
2024	5.00%	3.50%
2025+	4.50%	3.50%

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

The HRA benefit is assumed to increase at 2% annually. Life insurance premium is assumed not to increase in the future.

**Retiree Contributions**

Retiree contributions are assumed to increase according to health care trend rates.

**Per Capita Costs**

Annual per capita costs were calculated based on the Highmark premium equivalent rates effective July 1, 2016, actuarially increased using health index factors and current enrollment. All employees are assumed to elect the EPO High Plan at retirement. The costs are assumed to increase with health care trend rates.

Annual per capita costs are as shown below:

Age	EPO Plan
<55	\$ 9,700
55 – 59	\$ 11,800
60 – 64	\$ 14,500

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.

Annual per capita costs for post-65 retirees equal the Medicare Supplement premium rate of \$5,592 per person. There is no post-65 implicit subsidy.

Annual dental and life insurance per capita costs for retirees are equal to the premium rate (\$410.40 and \$12.96 respectively). There is no implicit subsidy for these benefits.

**Explicit Subsidy**

The difference between (a) the premium rate and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a retiree who is enrolled in the EPO High Plan.

	Funding Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A - B
Retiree	\$ 915.13	\$ 60.00	\$ 855.13
Spouse	\$ 1,189.67	\$ 356.90	\$ 832.77

**Implicit Subsidy**

The difference between (a) the per capita cost and (b) the premium rate. Below is an example of the monthly implicit subsidies for a retiree age 64 with spouse of the same age enrolled in the EPO High Plan.

	Per Capita Cost	Funding Rate	Implicit Subsidy
	A	B	C = A - B
Retiree	\$ 1,208.33	\$ 915.13	\$ 293.20
Spouse	\$ 1,208.33	\$ 1,189.67	\$ 18.66

All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for Medicare plans using a true community-rated premium rate.

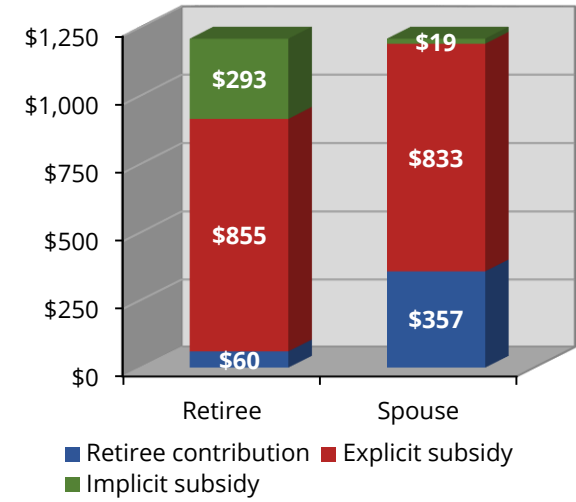


**GASB Subsidy Breakdown**

Below is a breakdown of the GASB 45 monthly total cost for a retiree age 64 with spouse of the same age enrolled in the EPO High Plan.

	<b>Retiree</b>		<b>Spouse</b>	
Retiree contribution	\$	60.00	\$	356.90
Explicit subsidy	\$	855.13	\$	832.77
Implicit subsidy	\$	293.20	\$	18.66
<b>Total monthly cost</b>	<b>\$</b>	<b>1,208.33</b>	<b>\$</b>	<b>1,208.33</b>

**GASB Subsidy Breakdown**



**APPENDIX**

**Appendix A – Comparison of Participant Demographic Information**

The active participants' number below may include active employees who currently have no health care coverage. Refer to Summary of Participants section for an accurate breakdown of active employees with and without coverage.

	<i>As of January 1, 2015</i>	<i>As of July 1, 2016</i>
Active Participants	280	294
Retired Participants	114	114
Averages for Active		
Age	N/A	48.9
Service	N/A	11.7
Averages for Inactive		
Age	N/A	72.2

**Appendix B – Detailed Actuary’s Notes**

There has been one substantive plan provision change since the last full valuation, which was for the fiscal year ending December 31, 2015.

Retirees are now responsible to pay \$60 monthly for the EPO High Plan or \$30 monthly for the EPO Low Plan. The County will pay 70% for dependent coverage. In the prior valuation, the County paid the full cost of the retiree’s coverage and 60% of dependent coverage. The impact of this change was a slight increase in liabilities.

Kent County Levy Court is required to disclose its OPEB liabilities under GASB 74 for the current valuation. The prior valuation was disclosed under GASB 45. The following assumption has been updated in accordance with GASB 74.

The actuarial cost method has been updated from Projected Unit Credit with linear proration to decrement to Entry Age Normal Level Dollar. This change has caused an increase in liabilities.

Additionally, the following assumptions have also been updated:

1. Mortality table has been updated from RP-2000 Combined Mortality Table to RP-2000 Combined Mortality Table with mortality improvement projected to 2016 using Scale AA. The impact of this change is an increase in liabilities.
2. Health care trend rates have been set to an initial rate of 8.0% decreasing by 0.5% annually to an ultimate rate of 4.5% as shown below. This change caused an increase in liabilities.

Year	Prior	Current	Year	Prior	Current
2018	5.0%	8.0%	2023	5.0%	5.5%
2019	5.0%	7.5%	2024	5.0%	5.0%
2020	5.0%	7.0%	2025+	5.0%	4.5%
2021	5.0%	6.5%			
2022	5.0%	6.0%			

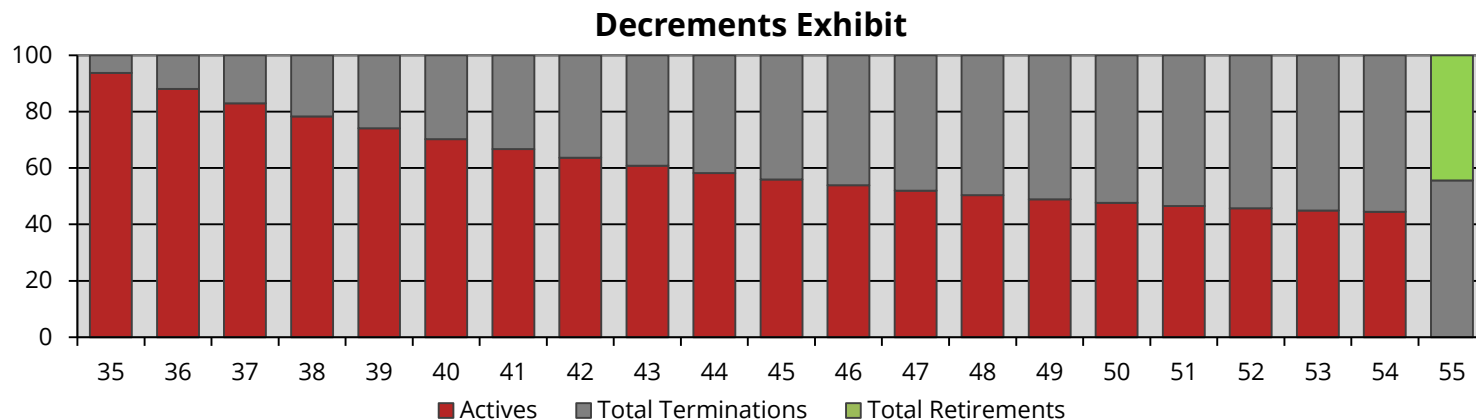
## GLOSSARY

### Decrements Exhibit

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. Starting with 100 employees at age 35, the illustrated actuarial assumptions show that 44.430 employees out of the original 100 are expected to retire and could elect retiree health benefits at age 55.

Age	# Remaining Employees	# of Terminations per Year*	# of Retirements per Year*	Total Decrements
35	100.000	6.276	0.000	6.276
36	93.724	5.677	0.000	5.677
37	88.047	5.136	0.000	5.136
38	82.911	4.648	0.000	4.648
39	78.262	4.209	0.000	4.209
40	74.053	3.814	0.000	3.814
41	70.239	3.456	0.000	3.456
42	66.783	3.131	0.000	3.131
43	63.652	2.835	0.000	2.835
44	60.817	2.564	0.000	2.564
45	58.253	2.316	0.000	2.316

Age	# Remaining Employees	# of Terminations per Year*	# of Retirements per Year*	Total Decrements
46	55.938	2.085	0.000	2.085
47	53.853	1.866	0.000	1.866
48	51.987	1.656	0.000	1.656
49	50.331	1.452	0.000	1.452
50	48.880	1.253	0.000	1.253
51	47.627	1.060	0.000	1.060
52	46.567	0.877	0.000	0.877
53	45.690	0.707	0.000	0.707
54	44.983	0.553	0.000	0.553
55	44.430	0.000	44.430	44.430

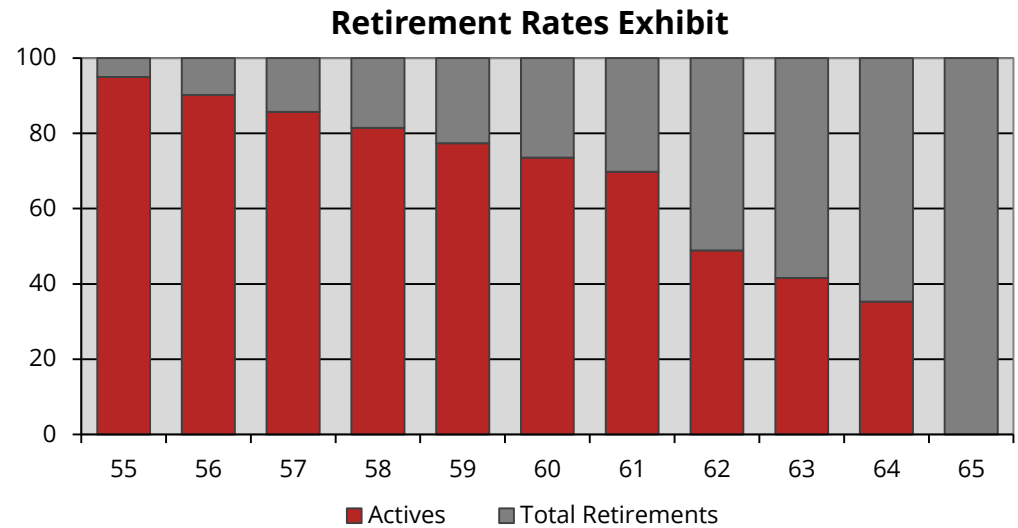


\* The above rates are illustrative rates and are not used in our GASB calculations.

### Retirement Rates Exhibit

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. The illustrated retirement rates show the number of employees who are assumed to retire annually based on 100 employees age 55 who are eligible for retiree health care coverage. The average age at retirement is 62.0.

Age	Active Employees BOY	Annual Retirement Rates*	# Retirements per Year	Active Employees EOY
55	100.000	5.0%	5.000	95.000
56	95.000	5.0%	4.750	90.250
57	90.250	5.0%	4.513	85.738
58	85.738	5.0%	4.287	81.451
59	81.451	5.0%	4.073	77.378
60	77.378	5.0%	3.869	73.509
61	73.509	5.0%	3.675	69.834
62	69.834	30.0%	20.950	48.884
63	48.884	15.0%	7.333	41.551
64	41.551	15.0%	6.233	35.318
65	35.318	100.0%	35.318	0.000



\* The above rates are illustrative rates and are not used in our GASB calculations.

## Definitions

GASB 75 defines several unique terms not commonly employed in the funding of pension and retiree health plans. The definitions of the terms used in the GASB actuarial valuations are noted below.

1. **Actuarial Assumptions** – Assumptions as to the occurrence of future events affecting health care costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided health care benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.
2. **Actuarial Cost Method** – A procedure for determining the Actuarial Present Value of Future Benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Service Cost and a Total OPEB Liability.
3. **Actuarially Determined Contribution** - A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in accordance with the parameters and in conformity with Actuarial Standards of Practice.
4. **Actuarial Present Value** – The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:
  - a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.);
  - b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned; and
  - c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.
5. **Deferred Outflow / (Inflow) of Resources** – represents the following items that have not been recognized in the OPEB Expense:
  - a. Differences between expected and actual experience of the OPEB plan
  - b. Changes in assumptions
  - c. Differences between projected and actual earnings in OPEB plan investments (for funded plans only)
6. **Explicit Subsidy** – The difference between (a) the amounts required to be contributed by the retirees based on the premium rates and (b) actual cash contribution made by the employer.
7. **Funded Ratio** – The actuarial value of assets expressed as a percentage of the Total OPEB Liability.



**Definitions** – Continued

8. **Healthcare Cost Trend Rate** – The rate of change in the per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.
9. **Implicit Subsidy** – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group (which, because of the effect of age on claim costs, generally will be higher than the blended premium rates for all group members) and (b) the amounts required to be contributed by the retirees.
10. **OPEB** – Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payments for sick leave.
11. **OPEB Expense** – Changes in the Net OPEB Liability in the current reporting period, which includes Service Cost, interest cost, changes of benefit terms, expected earnings on OPEB Plan investments, reduction of active employees' contributions, OPEB plan administrative expenses, and current period recognition of Deferred Outflows / (Inflows) of Resources.
12. **Pay-as-you-go** – A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.
13. **Per Capita Costs** – The current cost of providing postretirement health care benefits for one year at each age from the youngest age to the oldest age at which plan participants are expected to receive benefits under the plan.
14. **Present Value of Future Benefits** – Total projected benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Expressed another way, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.
15. **Real Rate of Return** – the rate of return on an investment after adjustment to eliminate inflation.

**Definitions** – Continued

16. **Select and Ultimate Rates** – Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 20W0, then 7.5% for 20W1, and 7% for 20W2 and thereafter, then 8% and 7.5% select rates, and 7% is the ultimate rate.
17. **Service Cost** – The portion of the Actuarial Present Value of projected benefit payments that are attributed to a valuation year by the Actuarial Cost Method.
18. **Substantive Plan** – The terms of an OPEB plan as understood by the employer(s) and plan members.
19. **Total OPEB Liability** – That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Benefits which is attributed to past periods of employee service (or not provided for by the future Service Costs).