



ROANOKE COUNTY

Purchasing Division

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March 20, 2020

ADDENDUM NO. 1 TO ALL OFFERRORS:

Reference – RFP 2020-058

Description: Actuarial Services

Issue Date: March 16, 2020

Proposal Due: April 14, 2020

The above Project is hereby changed as addressed below:

1. Recent actuarial valuation reports: Please see the following Attachments to Addendum No. 1 for copies of the most recent reports.
 - a. Attachment A: County of Roanoke Postretirement Benefits Plan
 - b. Attachment B: Roanoke Valley Resource Authority Postretirement Benefits Plan. *Note: the report for RVRA is provided separately, although the RVRA is an entity of the County of Roanoke.*
 - c. Attachment C: Roanoke County Public Schools Postretirement Benefits Plan

Note: A signed acknowledgment of this addendum must be received at the location indicated on the original solicitation either prior to the proposal due date or attached to your proposal. Signature on this addendum does not substitute for your signature on the original proposal/bid document. The original proposal/bid document must be signed.

Thank you,

Kate Hoyt

Phone: (540) 283-8146

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Sign Name:

Print Name:

Name of Firm:

Date:



County of Roanoke Postretirement Benefits Plan

GASB Statement No. 74 and No.75

Actuarial Report

June 30, 2018 and June 30, 2019

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Certification

Legislative background

Statement No.45 of the Governmental Accounting Standards Board was amended by Statement No. 74 of the Governmental Accounting Standards Board. Statement No. 74 became effective for the plan's financial statements for the fiscal year beginning after June 15, 2016. Statement No. 74 establishes financial reporting standards for state and local government OPEB plans that are administered through trusts or equivalent arrangements. The purpose of this report is to provide pertinent GASB Statement No. 74 information relating to the County of Roanoke Postretirement Benefits Plan for the fiscal year ending June 30, 2018 and June 30, 2019 financial statements.

The Governmental Accounting Standards Board amended Statement No. 45 with Statement No. 75; the effective date for Statement No. 75 is for the fiscal year beginning after June 15, 2017. Statement No. 75 of the Governmental Accounting Standards Board requires the determination of the OPEB expense for the fiscal year beginning July 1, 2017. Statement No. 75 provides a new approach in calculating the pension expense which differs significantly from Statement No. 45 methodology. The purpose of this report is to provide pertinent GASB Statement No. 75 information relating to the County of Roanoke Postretirement Benefits Plan for the fiscal year ending June 30, 2019 and June 30, 2020 financial statements.

Purpose and use

This report has been prepared exclusively for the County of Roanoke. Actuarial computations under Statements No. 74 and No. 75 are for purposes of fulfilling employer and other post-employment benefit plan governmental accounting requirements, and may not be appropriate for other purposes. The calculations reported herein have been made on a basis consistent with our understanding of the statements. Findley, Inc. is not responsible for consequences resulting from the use of any part of this report without prior authorization or approval. This report provides actuarial advice and does not constitute legal, accounting, tax or investment advice. Determinations for other purposes, such as funding, bond ratings, or judging benefit security, may be significantly different from the results shown in this report.

Actuarial findings in this report are based on actuarial assumptions selected by the County of Roanoke which reflect expected plan experience. Although the deviation of the actual future plan experience and the expected experience inherently creates some uncertainty with the results, in our opinion the actuarial assumptions reasonably reflect the expected future experience of the plan. 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. All of these factors can result in the risk of volatility in the Net OPEB Liability over time.

Data

The calculations shown in this report have been prepared using employee data and plan documentation furnished by the County of Roanoke as of June 30, 2018. While we have not audited the data, we have reviewed it for reasonableness and internal consistency, and to the best of our knowledge, there are no material limitations to the data provided. Summaries of the census data and plan provisions can be found in the Basis for Valuation section of this report.

Subsequent events

We are unaware of any subsequent event after June 30, 2018 which would have a material effect on the results presented in this report.

Assumptions, methods, and procedures

The results presented in this report comply with the assumptions, methods, and procedures under the Statements No. 74 and No. 75. For Statement 74, the results are based on the June 30, 2018 actuarial valuation date with measurement dates of June 30, 2018 and June 30, 2019, and reporting dates of June 30, 2018 and June 30, 2019. For Statement 75, the results are based on the June 30, 2018 actuarial valuation with measurement dates of June 30, 2018 and June 30, 2019 and reporting dates of June 30, 2019 and June 30, 2020. All actuarial assumptions are set by the plan sponsor. Statements No. 74 and No. 75 mandate the use of the Entry Age Normal actuarial funding method for the purposes of those statements. For a description of the June 30, 2017 assumptions, methods, and procedures, please refer to the June 30, 2017 GASB report.

Changes in plan provisions, actuarial assumptions, and actuarial methods

The following changes were made to the actuarial assumptions and methods effective June 30, 2018.

1. The percentage of future eligible retirees electing medical coverage was updated from 64.6% to 61.4%.
2. The percentage of future eligible retirees electing medical coverage for a spouse was updated from 29.8% to 27.5%.
3. The mortality, disability, withdrawal, and retirement assumptions were updated to the assumptions listed in the most recently published VRS Comprehensive Annual Financial Report, which was the 2017 report.
4. Actives hired on or after July 1, 2016 are not eligible for the plan.

Summaries of the plan provisions, actuarial assumptions and methods can be found in the basis for valuation section of this report.

Professional qualifications

This report has been prepared under the supervision of David L. Shaub, FSA, a member of the American Academy of Actuaries, a Fellow of the Society of Actuaries, and a consulting actuary with Findley, Inc. who has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein. To the best of our knowledge this report has been prepared in accordance with generally accepted actuarial standards and our understanding of Government Accounting Standards Board Statements No. 74 and No. 75, including the overall appropriateness of the analysis, assumptions, and results and conforms to appropriate Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis for the actuarial report. We are not aware of any direct or material indirect financial interest or relationship that could create, or appear to create, a conflict of interest that would impair the objectivity of our work. The undersigned is available to provide supplemental information or explanation.



David L. Shaub, FSA
Managing Consultant

November 19, 2018
Date

Basis of Valuation

Summary of provisions of the plan

Retirement eligibility and plan provisions

A full-time employee who retires directly from the County and is eligible to receive an early or regular retirement benefit from the Virginia Retirement System is eligible for post-retirement medical coverage. In addition, the retiree must have 10 years of continuous full-time service through the date of retirement and have 5 years of enrollment in the County sponsored medical plan.

Eligible dependents on the employee's health insurance may continue to receive the County's contribution toward the health plan.

Retirees contribute to the plan at the rates stated in the Summary of Actuarial Assumptions section.

Actives hired after July 1, 2016 are not eligible.

Summary of Actuarial Assumptions

Mortality rates

Pre-retirement: RP-2000, Males set forward 2 years, Females setback 3 years, projected to 2020 with Scale AA

Post-retirement: RP-2000, Females setback 1 years (no setback for Males), projected to 2020 with Scale AA

Disability: RP-2000, Males setback 3 years, no future mortality improvements

Disability rates

Attained Age	Male	Female
25	0.0009	0.0001
35	0.0018	0.0015
45	0.0018	0.0029
50	0.0045	0.0055
55	0.0045	0.0055
60	0.0072	0.0100
65	0.0072	0.0100
70	0.0000	0.0000

Withdrawal rates

Attained Age	Male Members – Years of Service					
	0	2	4	6	8	10+
25	0.2210	0.2210	0.1300	0.1300	0.1300	0.0000
35	0.1670	0.1670	0.0930	0.0930	0.0930	0.0450
45	0.1290	0.1290	0.0700	0.0700	0.0700	0.0230
55	0.1020	0.1020	0.0600	0.0600	0.0600	0.0000
65	0.1130	0.1130	0.1100	0.0000	0.0000	0.0000

Attained Age	Female Members – Years of Service					
	0	2	4	6	8	10+
25	0.2560	0.2560	0.1570	0.1570	0.1570	0.0000
35	0.1780	0.1780	0.1100	0.1100	0.1100	0.0500
45	0.1390	0.1390	0.0740	0.0740	0.0740	0.0250
55	0.1250	0.1250	0.0600	0.0000	0.0000	0.0000
65	0.1400	0.1400	0.1200	0.0000	0.0000	0.0000

Retirement rates

Attained Age	Male, < 30 years of service	Male, >= 30 years of service	Female, < 30 years of service	Female, >= 30 years of service
50	0.030	0.100	0.032	0.100
55	0.050	0.100	0.050	0.100
60	0.050	0.100	0.055	0.150
65	0.300	0.300	0.300	0.400
70	1.000	1.000	1.000	1.000

Discount rate

7.5% per annum

Salary increases

2.00% per annum

Expected long-term rate of return on plan assets

7.5% per annum

Plan participation

61.4% of future eligible retirees are assumed to elect medical coverage upon retirement. 27.5% are assumed to elect coverage for a spouse.

Marital status

Actual spouse participation and dates of birth were used for retirees. For actives, the marriage assumption of 27.5% was used, and males were assumed to be 3 years older than female spouses.

Medical claims cost

	Pre-65 Cost	Post-65 Cost
Retiree/Spouse	\$10,767	\$0

Age variance

Claims were adjusted downward by 3% for attained ages 65 to 55 while claims were increased by 2% each year for aging after 65.

Healthcare cost trend rate

Medical: graded down from 7.5% to 5% over 10 years beginning in 2018

Participant contributions – medical plan

Participant contributions were assumed to increase at the health care cost trend rate.

	KC1000 with Wellness		KC1000 without Wellness	
	Premium	County Contribution	Premium	County Contribution
Employee	\$546.30	\$478.00	\$656.01	\$508.41
Employee + Spouse	\$1,092.62	\$710.20	\$1,312.06	\$721.63

County contribution received is determined by the number of years of service completed by the employee.

Years of Service	Percentage of County Contribution Received
20+	100%
15-19	90%
10-14	80%
0-9	0%

Administrative expenses

Administrative expenses for the medical plan were \$465 for pre-65 coverage, and \$0 for post-65 coverage, increasing at 5.0% per year. Stop-loss expenses were \$706 for pre-65 coverage, and \$0 for post-65 coverage, increasing at 13.0% per year.

Retirement eligibility

A full-time employee who retires directly from the County and is eligible to receive an early or regular retirement benefit from the Virginia Retirement System is eligible for post-retirement medical coverage. In addition, the retiree must have 10 years of continuous full-time service through the date of retirement and have 5 years of enrollment in the County sponsored medical plan.

Dependent coverage

Eligible dependents on the employee's health insurance may continue to receive the County's contribution toward the health plan.

Valuation date

June 30, 2018

Actuarial valuation method

Entry Age Normal

Asset valuation method

Market Value

Funding policy

The benefits of the County of Roanoke Postretirement Benefits Plan are funded through contributions to a trust through the VACO/VML Pooled OPEB Trust. The company pays benefits on a cash basis as incurred, then contributes the remaining actuarially determined contribution into the trust.

Investment policy

The current portfolio is invested 25% in fixed income, 65% in equity, and 10% in real assets.

Coordination with Medicare

Benefits for retirees are deemed to be similar to those benefits provided for actives. The retiree medical plan is assumed to be the primary plan of benefits prior to age 65. Once the retiree or spouse becomes eligible for Medicare, they must then enroll in the Medicare Advantage Plan.

Amortization period

For Statements No. 74 and 75 contribution calculations: 20 years (closed) beginning in 2018

For Statements No. 74 and No. 75: Experience gains or losses are amortized over the average working lifetime of all participants which for the current period is 8 years. Plan amendments are recognized immediately. Changes in actuarial assumptions are amortized over the average working lifetime of all participants.

Legislative changes

The valuation results provided in this report reflect a best estimate of the potential impact of the Patient Protection and Affordable Care Act (PPACA). Consideration has been made for provisions of the law that are effective as of the valuation date as well as those provisions that will take effect in the future. Based on the results of the County's study, the anticipated future excise tax has been deemed immaterial.

Summary of Participant Data

Data as of June 30, 2018

Number of Participants	
Actives (covered)	694
Actives (not covered/ineligible)	281
Retirees (covered)	126
Disableds (covered)	0
Annual Projected Payroll	\$47,704,369
Average Projected Earnings	\$48,928

Subgroup	Actives (covered)
RCACP	7
RVGC	1
County	686
Total County	694

Actuarially determined contribution

	Fiscal year beginning	Fiscal year beginning
	July 1, 2018	July 1, 2019 *
Total OPEB Liability	12,956,503	13,477,018
Plan Fiduciary Net Position	(6,531,608)	(7,243,066)
Net OPEB Liability	6,424,895	6,233,952
Years of Amortization	19	18
Amortization Payment	600,120	597,468
Normal Cost	497,351	522,219
Interest	40,411	41,229
Actuarially Determined Contribution	1,137,882	1,160,916

*Projected

Actuarially Determined Contribution for Fiscal year beginning

Subgroup	July 1, 2018	July 1, 2019 *
RCACP	8,702	9,348
RVGC	830	907
County	1,128,350	1,150,661
Total County	1,137,882	1,160,916

GASB Disclosure

GASB statement No. 74

This section presents specific information required under Statement No. 74 which is not included in other sections of this report. The information in this section is to satisfy the reporting for the OPEB plan. This section contains the following:

- Statement of Fiduciary Net Position
- Statement of Change in Fiduciary Net Position
- Net OPEB Liability including healthcare cost trend rate and discount rate sensitivity and reconciliation between years
- Schedule of Contributions
- Schedule of Investment Returns

Fiduciary Net Position is the amount of assets available for benefits in the OPEB Plan.

Total OPEB Liability is the plan liability determined using assumptions listed in the Summary of Actuarial Assumptions.

Net OPEB Liability is the difference in the Total OPEB Liability and the Fiduciary Net Position.

Statement of fiduciary net position (unaudited)

	June 30, 2018	June 30, 2019 *
Assets		
Pooled Fund	<u>\$6,531,608</u>	<u>\$7,243,066</u>
Liabilities		
Total Liabilities	<u>\$0</u>	<u>\$0</u>
Net Position Restricted for OPEB	<u>\$6,531,608</u>	<u>\$7,243,066</u>

*Projected

Subgroup	Net Position Restricted for OPEB	
	June 30, 2018	June 30, 2019 *
RCACP	\$30,285	\$37,885
RVGC	\$148	\$591
County	\$6,501,175	\$7,204,590
Total County	\$6,531,608	\$7,243,066

Statement of changes in fiduciary net position (unaudited)

	June 30, 2018	June 30, 2019 *
Additions		
Contributions		
Employer	823,789	1,137,882
Employee	<u>502,321</u>	<u>656,266</u>
Total Contributions	1,326,110	1,794,148
Investment Income	560,627	497,740
Other	<u>0</u>	<u>0</u>
Total Additions	<u>1,886,737</u>	<u>2,291,888</u>
Deductions		
Benefit Payments / Refunds	1,204,285	1,573,359
Administrative Expenses	7,071	7,071
Other	<u>0</u>	<u>0</u>
Total Deductions	<u>1,211,356</u>	<u>1,580,430</u>
Net Increase in Net Position	<u>675,381</u>	<u>711,458</u>
Net Position Restricted for OPEB		
Beginning of Year	<u>5,856,227</u>	<u>6,531,608</u>
End of Year	<u>\$6,531,608</u>	<u>\$7,243,066</u>

*Projected

Net OPEB liability (NOL)

Determination of net OPEB liability

The components of the net OPEB liability at the following dates are as follows:

	<u>June 30, 2018</u>	<u>June 30, 2019 *</u>
Total OPEB Liability	12,956,503	13,477,018
Plan Fiduciary Net Position	<u>(6,531,608)</u>	<u>(7,243,066)</u>
Net OPEB Liability	\$6,424,895	\$6,233,952

Plan Fiduciary Net Position as a Percentage of Total OPEB Liability 50.41% 53.74%

*Projected

June 30, 2018	Total OPEB	Plan Fiduciary	Net OPEB Liability
	Liability	Net Position	
RCACP	\$60,075	(\$30,285)	\$29,790
RVGC	\$294	(\$148)	\$146
County	\$12,896,134	(\$6,501,175)	\$6,394,959
Total County	\$12,956,503	(\$6,531,608)	\$6,424,895

June 30, 2019 *	Total OPEB	Plan Fiduciary	
	Liability	Net Position	Net OPEB Liability
RCACP	\$70,491	(\$37,885)	\$32,606
RVGC	\$1,100	(\$591)	\$509
County	\$13,405,427	(\$7,204,590)	\$6,200,837
Total County	\$13,477,018	(\$7,243,066)	\$6,233,952

Sensitivity of net OPEB liability to changes in the healthcare cost trend rate

The following represents the net OPEB liability calculated using the stated health care cost trend assumption, as well as what the OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1 percentage-point lower or 1-percentage-point higher than the assumed trend rate:

Net OPEB Liability	1% Decrease	Current	1% Increase
	6.5% decreasing	7.5% decreasing	8.5% decreasing
	to 4% over 10 years	to 5% over 10 years	to 6% over 10 years
June 30, 2018	\$4,992,311	\$6,424,895	\$8,152,420
June 30, 2019	\$4,611,639	\$6,233,952	\$8,196,789

Net OPEB Liability	1% Decrease	Current Rate	1% Increase
	6.5% decreasing	7.5% decreasing	8.5% decreasing
	to 4% over 10 years	to 5% over 10 years	to 6% over 10 years
June 30, 2018			
Net OPEB Liability	years	years	years
RCACP	\$19,937	\$29,790	\$41,981
RVGC	(\$66)	\$146	\$375
County	\$4,972,440	\$6,394,959	\$8,110,064
Total County	\$4,992,311	\$6,424,895	\$8,152,420

Net OPEB Liability	1% Decrease	Current Rate	1% Increase
	6.5% decreasing	7.5% decreasing	8.5% decreasing
	to 4% over 10 years	to 5% over 10 years	to 6% over 10 years
June 30, 2019 *			
Net OPEB Liability	years	years	years
RCACP	\$20,993	\$32,606	\$47,007
RVGC	\$288	\$509	\$754
County	\$4,590,358	\$6,200,837	\$8,149,028
Total County	\$4,611,639	\$6,233,952	\$8,196,789

*Projected

Sensitivity of net OPEB liability to changes in the discount rate

The following represents the net OEPB liability calculated using the stated discount rate, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

Net OPEB Liability	1% Decrease 6.5%	Current Rate 7.5%	1% Increase 8.5%
June 30, 2018	\$7,762,289	\$6,424,895	\$5,271,605
June 30, 2019	\$7,655,678	\$6,233,952	\$5,010,723

June 30, 2018	1% Decrease 6.5%	Current Rate 7.5%	1% Increase 8.5%
Net OPEB Liability	6.5%	7.5%	8.5%
RCACP	\$39,386	\$29,790	\$21,711
RVGC	\$107	\$146	\$174
County	\$7,722,796	\$6,394,959	\$5,249,720
Total County	\$7,762,289	\$6,424,895	\$5,271,605

June 30, 2019 *	1% Decrease 6.5%	Current Rate 7.5%	1% Increase 8.5%
Net OPEB Liability	6.5%	7.5%	8.5%
RCACP	\$43,418	\$32,606	\$23,488
RVGC	\$573	\$509	\$450
County	\$7,611,687	\$6,200,837	\$4,986,785
Total County	\$7,655,678	\$6,233,952	\$5,010,723

*Projected

Schedule of changes in the NOL and related ratios

	Fiscal Year Ending June 30									
	2017	2018	2019 *	2020	2021	2022	2023	2024	2025	2026
Total OPEB Liability										
Service cost	\$849,141	\$891,598	\$497,351							
Interest	943,357	1,024,059	940,257							
Changes of benefit terms	0	0	0							
Differences between expected and actual experience	(56,957)	(5,174,702)	0							
Changes of assumptions	0	3,453,025	0							
Contributions - employee	470,020	502,321	656,266							
Benefit Payments / Refunds	(1,493,500)	(1,204,285)	(1,573,359)							
Net Change in Total OPEB Liability	712,061	(507,984)	520,515							
Total OPEB Liability - beginning	12,752,426	13,464,487	12,956,503							
Total OPEB Liability - ending (a)	\$13,464,487	\$12,956,503	\$13,477,018							
Plan Fiduciary Net Position										
Contributions - employer	\$1,219,282	\$823,789	\$1,137,882							
Contributions - employee	470,020	502,321	656,266							
Net investment income	661,110	560,627	497,740							
Benefit Payments / Refunds	(1,493,500)	(1,204,285)	(1,573,359)							
Administrative expenses	(6,596)	(7,071)	(7,071)							
Other	0	0	0							
Net Change in Plan Fiduciary Net Position	\$850,316	\$675,381	\$711,458							
Plan Fiduciary Net Position - beginning	5,005,911	5,856,227	6,531,608							
Plan Fiduciary Net Position - ending (b)	\$5,856,227	\$6,531,608	\$7,243,066							
Net OPEB Liability - ending (a) - (b)	\$7,608,260	\$6,424,895	\$6,233,952							
Plan Fiduciary Net Position as a % of the Total OPEB Liability	43.5%	50.4%	53.7%							
Covered-employee payroll	\$39,941,319	\$33,955,725	\$34,634,840							
Net OPEB Liability as a % of covered-employee payroll	19.0%	18.9%	18.0%							

* Projected

Schedule of contributions

	Fiscal Year Ending June 30									
	<u>2017</u>	<u>2018</u>	<u>2019 *</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Actuarially determined contribution	\$1,219,282	\$1,644,235	\$1,137,882							
Contributions in relation to the actuarially determined contribution	1,219,282	823,789	TBD							
Contribution deficiency (excess)	\$0	\$820,446								
 Covered-employee payroll	 \$39,941,319	 \$33,955,725	 \$34,634,840							
Contributions as a percentage of covered-employee payroll	3.1%	2.4%	TBD							

* Projected

Schedule of investment returns

	Fiscal Year Ending June 30									
	<u>2017</u>	<u>2018</u>	<u>2019 *</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Annual money-weighted rate of return, net of investment	13.04%	9.52%	TBD							

* Projected

GASB statement No. 75

This section presents specific information required under Statement No. 75 which is not included in other sections of this report. The information in this section is to satisfy the reporting for the plan sponsor. This section contains the following:

- Schedule of changes in net OPEB liability
- OPEB expense
- Deferred outflows and inflows of resources

Schedule of changes in net OPEB liability, deferrals, and OPEB Expense

	Increase (Decrease)					
	Total OPEB Liability (a)	Plan Net Position (b)	Net OPEB Liability (a) - (b)	Deferred Outflows of Resources	Deferred Inflows of Resources	OPEB Expense
	\$13,464,487	\$5,856,227	\$7,608,260	\$424,953	(\$271,780)	
Balances—at 06/30/2018						
Changes for the Year:						
Service cost	891,598		891,598			891,598
Interest	1,024,059		1,024,059			1,024,059
Benefit changes	0		0			
Experience losses (gains)	(5,174,702)		(5,174,702)		(4,527,864)	(646,838)
Changes of assumptions	3,453,025		3,453,025	3,021,397		431,628
Contributions—Employer		823,789	(823,789)			
Contributions—members	502,321	502,321	0			0
Net investment income		560,627	(560,627)			
Expected return on plan investments						(443,443)
Current expense of asset gain/loss						(23,437)
Non expensed asset (gain)/loss				0	(93,747)	
Refunds of contributions		0	0			
Benefits paid	(1,204,285)	(1,204,285)	0			
Administrative expenses		(7,071)	7,071			7,071
Recognition of Prior Post-measurement Contribution					(823,789)	
Post-measurement Contribution					1,137,882	
Difference in prior year's contribution					(424,953)	
Other changes		0	0			
Amortization of or change in beginning balances				0	63,877	(63,877)
Net Changes	(507,984)	675,381	(1,183,365)	2,910,537*	(4,557,734)	1,176,761
Balances—at 06/30/2019	\$12,956,503	\$6,531,608	\$6,424,895	\$3,335,490	(\$4,829,514)	\$1,176,761

GASB Statement No. 75 requires contributions between the measurement date (June 30, 2018) and the disclosure date (June 30, 2019) to be reported as a deferred outflow of resources.

* Changes in Deferred OPEB Outflows include deferred losses of \$3,021,397 plus the difference in expected contributions of -\$110,860

	Increase (Decrease)					
	Total OPEB Liability (a)	Plan Net Position (b)	Net OPEB Liability (a) - (b)	Deferred Outflows of Resources	Deferred Inflows of Resources	OPEB Expense
	\$12,956,503	\$6,531,608	\$6,424,895	\$3,335,490	(\$4,829,514)	
Balances—at 06/30/2019						
Changes for the Year:						
Service cost	497,351		497,351			497,351
Interest	940,257		940,257			940,257
Benefit changes	0		0			
Experience losses (gains)	0		0	0	0	0
Changes of assumptions	0		0		0	0
Contributions—Employer		1,137,882	(1,137,882)			
Contributions—members	656,266	656,266	0			0
Net investment income		497,740	(497,740)			
Expected return on plan investments						(497,740)
Current expense of asset gain/loss						0
Non expensed asset (gain)/loss				0	0	
Refunds of contributions		0	0			
Benefits paid	(1,573,359)	(1,573,359)	0			
Administrative expenses		(7,071)	7,071			7,071
Recognition of Prior Post-measurement Contribution				(1,137,882)		
Post-measurement Contribution				1,160,916		
Difference in prior year's contribution				(314,093)		
Other changes		0	0			
Amortization of or change in beginning balances				(431,628)	734,152	(302,524)
Net Changes	520,515	711,458	(190,943)	-722,687*	734,152	644,415
Balances—at 06/30/2020	\$13,477,018	\$7,243,066	\$6,233,952	\$2,612,803	(\$4,095,362)	\$644,415

GASB Statement No. 75 requires contributions between the measurement date (June 30, 2019) and the disclosure date (June 30, 2020) to be reported as a deferred outflow of resources.

* Changes in Deferred OPEB Outflows include deferred losses of \$0 plus the difference in expected contributions of -\$291,059

Projected Disclosures for Fiscal Year 2018-19

OPEB expense & deferred outflows/inflows of resources

For the year ended June 30, 2019, the recognized OPEB expense will be \$1,176,761. At June 30 2019, the employer reported deferred outflows of resources and deferred inflows of resources in relation to OPEBs from the following sources:

	Original Amount	Date Established	Original Amortization Period (Years)	Recognized Annually in Expense	Deferred Outflows of Resources	Deferred Inflows of Resources
Experience losses (gains)	(\$56,957) (5,174,702)	06/30/2018 06/30/2019	7.0 8.0	(\$8,137) (646,838)	\$0 0	(\$40,683) (4,527,864)
Change of assumptions	3,453,025	06/30/2019	8.0	431,628	3,021,397	0
Investment losses (gains)	(278,700) (117,184)	06/30/2018 06/30/2019	5.0 5.0	(55,740) (23,437)	0 0	(167,220) (93,747)
Total				(\$302,524)	\$3,021,397	(\$4,829,514)

Actual investment earnings below (or above) projected earnings are amortized over 5 years. Changes of assumptions and experience losses (gains) are amortized over the average remaining service period of actives and inactives (no future service is assumed for inactives for this calculation).

Amounts reported as deferred outflows (inflows) of resources related to OPEBs will be recognized in OPEB expense as follows:

Years Ending June 30:

2020	(302,524)
2021	(302,524)
2022	(302,524)
2023	(246,783)
2024	(223,345)
Thereafter	(430,417)

OPEB expense per subgroup

Fiscal Year Ending June 30, 2018	RCACP	RVGC	County	Total
Service cost	4,134	20	887,444	891,598
Interest	4,748	23	1,019,288	1,024,059
Current expense of experience losses (gains)	(2,999)	(15)	(643,824)	(646,838)
Current expense of changes of assumptions	2,001	10	429,617	431,628
Expected return on plan investments	(2,056)	(10)	(441,377)	(443,443)
Current expense of asset gain/loss	(109)	(1)	(23,327)	(23,437)
Administrative expenses	33	0	7,038	7,071
Amortization of or change in beginning balances	(296)	(1)	(63,580)	(63,877)
OPEB Expense	5,456	26	1,171,279	1,176,761

Fiscal Year Ending June 30, 2019	RCACP	RVGC	County	Total
Service cost	5,609	787	490,955	497,351
Interest	4,360	21	935,876	940,257
Current expense of experience losses (gains)	0	0	0	0
Current expense of changes of assumptions	0	0	0	0
Expected return on plan investments	(2,308)	(11)	(495,421)	(497,740)
Current expense of asset gain/loss	0	0	0	0
Administrative expenses	33	0	7,038	7,071
Amortization of or change in beginning balances	(1,403)	(7)	(301,114)	(302,524)
OPEB Expense	6,291	790	637,334	644,415



Roanoke Valley Resource Authority Postretirement Benefits Plan

GASB Statement No. 74 and No.75

Actuarial Report

June 30, 2018 and June 30, 2019

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Certification

Legislative background

Statement No.45 of the Governmental Accounting Standards Board was amended by Statement No. 74 of the Governmental Accounting Standards Board. Statement No. 74 became effective for the plan's financial statements for the fiscal year beginning after June 15, 2016. Statement No. 74 establishes financial reporting standards for state and local government OPEB plans that are administered through trusts or equivalent arrangements. The purpose of this report is to provide pertinent GASB Statement No. 74 information relating to the Roanoke Valley Resource Authority Postretirement Benefits Plan for the fiscal year ending June 30, 2018 and June 30, 2019 financial statements.

The Governmental Accounting Standards Board amended Statement No. 45 with Statement No. 75; the effective date for Statement No. 75 is for the fiscal year beginning after June 15, 2017. Statement No. 75 of the Governmental Accounting Standards Board requires the determination of the OPEB expense for the fiscal year beginning July 1, 2017. Statement No. 75 provides a new approach in calculating the pension expense which differs significantly from Statement No. 45 methodology. The purpose of this report is to provide pertinent GASB Statement No. 75 information relating to the Roanoke Valley Resource Authority Postretirement Benefits Plan for the fiscal year ending June 30, 2019 and June 30, 2020 financial statements.

Purpose and use

This report has been prepared exclusively for the Roanoke Valley Resource Authority. Actuarial computations under Statements No. 74 and No. 75 are for purposes of fulfilling employer and other post-employment benefit plan governmental accounting requirements, and may not be appropriate for other purposes. The calculations reported herein have been made on a basis consistent with our understanding of the statements. Findley, Inc. is not responsible for consequences resulting from the use of any part of this report without prior authorization or approval. This report provides actuarial advice and does not constitute legal, accounting, tax or investment advice. Determinations for other purposes, such as funding, bond ratings, or judging benefit security, may be significantly different from the results shown in this report.

Actuarial findings in this report are based on actuarial assumptions selected by the Roanoke Valley Resource Authority which reflect expected plan experience. Although the deviation of the actual future plan experience and the expected experience inherently creates some uncertainty with the results, in our opinion the actuarial assumptions reasonably reflect the expected future experience of the plan. 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. All of these factors can result in the risk of volatility in the Net OPEB Liability over time.

Data

The calculations shown in this report have been prepared using employee data and plan documentation furnished by the Roanoke Valley Resource Authority as of June 30, 2018. While we have not audited the data, we have reviewed it for reasonableness and internal consistency, and to the best of our knowledge, there are no material limitations to the data provided. Summaries of the census data and plan provisions can be found in the Basis for Valuation section of this report.

Subsequent events

We are unaware of any subsequent event after June 30, 2018 which would have a material effect on the results presented in this report.

Assumptions, methods, and procedures

The results presented in this report comply with the assumptions, methods, and procedures under the Statements No. 74 and No. 75. For Statement 74, the results are based on the June 30, 2018 actuarial valuation date with measurement dates of June 30, 2018 and June 30, 2019, and reporting dates of June 30, 2018 and June 30, 2019. For Statement 75, the results are based on the June 30, 2018 actuarial valuation with measurement dates of June 30, 2018 and June 30, 2019 and reporting dates of June 30, 2019 and June 30, 2020. All actuarial assumptions are set by the plan sponsor. Statements No. 74 and No. 75 mandate the use of the Entry Age Normal actuarial funding method for the purposes of those statements. For a description of the June 30, 2017 assumptions, methods, and procedures, please refer to the June 30, 2017 GASB report.

Changes in plan provisions, actuarial assumptions, and actuarial methods

The following changes were made to the actuarial assumptions and methods effective June 30, 2018.

1. The percentage of future eligible retirees electing medical coverage was updated from 64.6% to 61.4%.
2. The percentage of future eligible retirees electing medical coverage for a spouse was updated from 29.8% to 27.5%.
3. The mortality, disability, withdrawal, and retirement assumptions were updated to the assumptions listed in the most recently published VRS Comprehensive Annual Financial Report, which was the 2017 report.
4. Actives hired on or after July 1, 2016 are not eligible for the plan.

Summaries of the plan provisions, actuarial assumptions and methods can be found in the basis for valuation section of this report.

Professional qualifications

This report has been prepared under the supervision of David L. Shaub, FSA, a member of the American Academy of Actuaries, a Fellow of the Society of Actuaries, and a consulting actuary with Findley, Inc. who has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein. To the best of our knowledge this report has been prepared in accordance with generally accepted actuarial standards and our understanding of Government Accounting Standards Board Statements No. 74 and No. 75, including the overall appropriateness of the analysis, assumptions, and results and conforms to appropriate Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis for the actuarial report. We are not aware of any direct or material indirect financial interest or relationship that could create, or appear to create, a conflict of interest that would impair the objectivity of our work. The undersigned is available to provide supplemental information or explanation.



David L. Shaub, FSA
Managing Consultant

November 19, 2018
Date

Basis of Valuation

Summary of provisions of the plan

Retirement eligibility and plan provisions

A full-time employee who retires directly from the County and is eligible to receive an early or regular retirement benefit from the Virginia Retirement System is eligible for post-retirement medical coverage. In addition, the retiree must have 10 years of continuous full-time service through the date of retirement and have 5 years of enrollment in the County sponsored medical plan.

Eligible dependents on the employee's health insurance may continue to receive the County's contribution toward the health plan.

Retirees contribute to the plan at the rates stated in the Summary of Actuarial Assumptions section.

Actives hired after July 1, 2016 are not eligible.

Summary of Actuarial Assumptions

Mortality rates

Pre-retirement: RP-2000, Males set forward 2 years, Females setback 3 years, projected to 2020 with Scale AA

Post-retirement: RP-2000, Females setback 1 years (no setback for Males), projected to 2020 with Scale AA

Disability: RP-2000, Males setback 3 years, no future mortality improvements

Disability rates

Attained Age	Male	Female
25	0.0009	0.0001
35	0.0018	0.0015
45	0.0018	0.0029
50	0.0045	0.0055
55	0.0045	0.0055
60	0.0072	0.0100
65	0.0072	0.0100
70	0.0000	0.0000

Withdrawal rates

Attained Age	Male Members – Years of Service					
	0	2	4	6	8	10+
25	0.2210	0.2210	0.1300	0.1300	0.1300	0.0000
35	0.1670	0.1670	0.0930	0.0930	0.0930	0.0450
45	0.1290	0.1290	0.0700	0.0700	0.0700	0.0230
55	0.1020	0.1020	0.0600	0.0600	0.0600	0.0000
65	0.1130	0.1130	0.1100	0.0000	0.0000	0.0000

Attained Age	Female Members – Years of Service					
	0	2	4	6	8	10+
25	0.2560	0.2560	0.1570	0.1570	0.1570	0.0000
35	0.1780	0.1780	0.1100	0.1100	0.1100	0.0500
45	0.1390	0.1390	0.0740	0.0740	0.0740	0.0250
55	0.1250	0.1250	0.0600	0.0000	0.0000	0.0000
65	0.1400	0.1400	0.1200	0.0000	0.0000	0.0000

Retirement rates

Attained Age	Male, < 30 years of service	Male, >= 30 years of service	Female, < 30 years of service	Female, >= 30 years of service
50	0.030	0.100	0.032	0.100
55	0.050	0.100	0.050	0.100
60	0.050	0.100	0.055	0.150
65	0.300	0.300	0.300	0.400
70	1.000	1.000	1.000	1.000

Discount rate

2.98% per annum

Salary increases

2.00% per annum

Expected long-term rate of return on plan assets

Not applicable

Plan participation

61.4% of future eligible retirees are assumed to elect medical coverage upon retirement. 27.5% are assumed to elect coverage for a spouse.

Marital status

Actual spouse participation and dates of birth were used for retirees. For actives, the marriage assumption of 27.5% was used, and males were assumed to be 3 years older than female spouses.

Medical claims cost

	Pre-65 Cost	Post-65 Cost
Retiree/Spouse	\$10,767	\$0

Age variance

Claims were adjusted downward by 3% for attained ages 65 to 55 while claims were increased by 2% each year for aging after 65.

Healthcare cost trend rate

Medical: graded down from 7.5% to 5% over 10 years beginning in 2018

Participant contributions – medical plan

Participant contributions were assumed to increase at the health care cost trend rate.

	KC1000 with Wellness		KC1000 without Wellness	
	Premium	County Contribution	Premium	County Contribution
Employee	\$546.30	\$478.00	\$656.01	\$508.41
Employee + Spouse	\$1,092.62	\$710.20	\$1,312.06	\$721.63

County contribution received is determined by the number of years of service completed by the employee.

Years of Service	Percentage of County Contribution Received
20+	100%
15-19	90%
10-14	80%
0-9	0%

Administrative expenses

Administrative expenses for the medical plan were \$465 for pre-65 coverage, and \$0 for post-65 coverage, increasing at 5.0% per year. Stop-loss expenses were \$706 for pre-65 coverage, and \$0 for post-65 coverage, increasing at 13.0% per year.

Retirement eligibility

A full-time employee who retires directly from the County and is eligible to receive an early or regular retirement benefit from the Virginia Retirement System is eligible for post-retirement medical coverage. In addition, the retiree must have 10 years of continuous full-time service through the date of retirement and have 5 years of enrollment in the County sponsored medical plan.

Dependent coverage

Eligible dependents on the employee's health insurance may continue to receive the County's contribution toward the health plan.

Valuation date

June 30, 2018

Actuarial valuation method

Entry Age Normal

Asset valuation method

Market Value

Funding policy

The benefits of the Roanoke Valley Resource Authority Postretirement Benefits Plan are funded on a pay-as-you-go basis. The company funds on a cash basis as benefits are paid.

Investment policy

Not applicable

Coordination with Medicare

Benefits for retirees are deemed to be similar to those benefits provided for actives. The retiree medical plan is assumed to be the primary plan of benefits prior to age 65. Once the retiree or spouse becomes eligible for Medicare, they must then enroll in the Medicare Advantage Plan.

Amortization period

For Statements No. 74 and 75 contribution calculations: 20 years (closed) beginning in 2018

For Statements No. 74 and No. 75: Experience gains or losses are amortized over the average working lifetime of all participants which for the current period is 6 years. Plan amendments are recognized immediately. Changes in actuarial assumptions are amortized over the average working lifetime of all participants.

Legislative changes

The valuation results provided in this report reflect a best estimate of the potential impact of the Patient Protection and Affordable Care Act (PPACA). Consideration has been made for provisions of the law that are effective as of the valuation date as well as those provisions that will take effect in the future. Based on the results of the County's study, the anticipated future excise tax has been deemed immaterial.

Summary of Participant Data

Data as of June 30, 2018

Number of Participants	
Actives (covered)	25
Actives (not covered)	11
Retirees (covered)	0
Disableds (covered)	0
Annual Projected Payroll	\$1,824,134
Average Projected Earnings	\$50,670

Actuarially determined contribution

	Fiscal year beginning July 1, 2018	Fiscal year beginning July 1, 2019
Total OPEB Liability	362,970	406,327
Plan Fiduciary Net Position	0	0
Net OPEB Liability	362,970	406,327
Years of Amortization	19	18
Amortization Payment	24,564	28,640
Normal Cost	35,740	37,527
Interest	892	979
Actuarially Determined Contribution	61,196	67,146

GASB Disclosure

GASB statement No. 74

This section presents specific information required under Statement No. 74 which is not included in other sections of this report. The information in this section is to satisfy the reporting for the OPEB plan. This section contains the following:

- Statement of Fiduciary Net Position
- Statement of Change in Fiduciary Net Position
- Net OPEB Liability including healthcare cost trend rate and discount rate sensitivity and reconciliation between years
- Schedule of Contributions
- Schedule of Investment Returns

Fiduciary Net Position is the amount of assets available for benefits in the OPEB Plan.

Total OPEB Liability is the plan liability determined using assumptions listed in the Summary of Actuarial Assumptions.

Net OPEB Liability is the difference in the Total OPEB Liability and the Fiduciary Net Position.

Statement of fiduciary net position (unaudited)

	June 30, 2018	June 30, 2019 *
Assets		
Pooled Fund	<u>\$0</u>	<u>\$0</u>
Liabilities		
Total Liabilities	<u>\$0</u>	<u>\$0</u>
Net Position Restricted for OPEB	<u><u>\$0</u></u>	<u><u>\$0</u></u>

*Projected

Statement of changes in fiduciary net position (unaudited)

	June 30, 2018	June 30, 2019 *
Additions		
Contributions		
Employer	3,611	4,141
Employee	0	0
Total Contributions	3,611	4,141
Investment Income	0	0
Other	0	0
Total Additions	3,611	4,141
Deductions		
Benefit Payments / Refunds	3,611	4,141
Administrative Expenses	0	0
Other	0	0
Total Deductions	3,611	4,141
Net Increase in Net Position	0	0
Net Position Restricted for OPEB		
Beginning of Year	0	0
End of Year	\$0	\$0

*Projected

Net OPEB liability (NOL)

Determination of net OPEB liability

The components of the net OPEB liability at the following dates are as follows:

	June 30, 2018	June 30, 2019 *
Total OPEB Liability	362,970	406,327
Plan Fiduciary Net Position	0	0
Net OPEB Liability	<u>\$362,970</u>	<u>\$406,327</u>

Plan Fiduciary Net Position as a Percentage of Total OPEB Liability 0.00% 0.00%

Sensitivity of net OPEB liability to changes in the healthcare cost trend rate

The following represents the net OPEB liability calculated using the stated health care cost trend assumption, as well as what the OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1 percentage-point lower or 1-percentage-point higher than the assumed trend rate:

	1% Decrease	Current	1% Increase
	6.5% decreasing to 4% over 10	7.5% decreasing to 5% over 10	8.5% decreasing to 6% over 10
Net OPEB Liability	years	years	years
June 30, 2018	\$318,425	\$362,970	\$416,714
June 30, 2019	\$355,178	\$406,327	\$468,348

Sensitivity of net OPEB liability to changes in the discount rate

The following represents the net OEPB liability calculated using the stated discount rate, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease	Current Rate	1% Increase
Net OPEB Liability	1.98%	2.98%	3.98%
June 30, 2018	\$391,586	\$362,970	\$335,617
June 30, 2019	\$439,862	\$406,327	\$375,152

Schedule of changes in the NOL and related ratios

	Fiscal Year Ending June 30									
	2017	2018	2019 *	2020	2021	2022	2023	2024	2025	2026
Total OPEB Liability										
Service cost	\$16,832	\$17,674	\$35,740							
Interest	6,048	5,803	11,758							
Changes of benefit terms	0	0	0							
Differences between expected and actual experience	(18,585)	(32,187)	0							
Changes of assumptions	0	194,614	0							
Contributions - employee	0	0	0							
Benefit Payments / Refunds	(4,642)	(3,611)	(4,141)							
Net Change in Total OPEB Liability	(347)	182,293	43,357							
Total OPEB Liability - beginning	181,024	180,677	362,970							
Total OPEB Liability - ending (a)	\$180,677	\$362,970	\$406,327							
Plan Fiduciary Net Position										
Contributions - employer	\$4,642	\$3,611	\$4,141							
Contributions - employee	0	0	0							
Net investment income	0	0	0							
Benefit Payments / Refunds	(4,642)	(3,611)	(4,141)							
Administrative expenses	0	0	0							
Other	0	0	0							
Net Change in Plan Fiduciary Net Position	\$0	\$0	\$0							
Plan Fiduciary Net Position - beginning	0	0	0							
Plan Fiduciary Net Position - ending (b)	\$0	\$0	\$0							
Net OPEB Liability - ending (a) - (b)	\$180,677	\$362,970	\$406,327							
Plan Fiduciary Net Position as a % of the Total OPEB Liability	0.0%	0.0%	0.0%							
Covered-employee payroll	\$1,258,150	\$1,266,760	\$1,292,095							
Net OPEB Liability as a % of covered-employee payroll	14.4%	28.7%	31.4%							

* Projected

Schedule of contributions

	Fiscal Year Ending June 30									
	<u>2017</u>	<u>2018</u>	<u>2019 *</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Actuarially determined contribution	\$21,544	\$30,052	\$61,196							
Contributions in relation to the actuarially determined contribution	4,642	3,611	TBD							
Contribution deficiency (excess)	<u>\$16,902</u>	<u>\$26,441</u>								
Covered-employee payroll	\$1,258,150	\$1,266,760	\$1,292,095							
Contributions as a percentage of covered-employee payroll	0.4%	0.3%	TBD							

* Projected

Schedule of investment returns

	Fiscal Year Ending June 30									
	<u>2017</u>	<u>2018</u>	<u>2019 *</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Annual money-weighted rate of return, net of investment	0.00%	0.00%	TBD							

* Projected

GASB statement No. 75

This section presents specific information required under Statement No. 75 which is not included in other sections of this report. The information in this section is to satisfy the reporting for the plan sponsor. This section contains the following:

- Schedule of changes in net OPEB liability
- OPEB expense
- Deferred outflows and inflows of resources

Schedule of changes in net OPEB liability, deferrals, and OPEB Expense

	Increase (Decrease)			Deferred Outflows of Resources	Deferred Inflows of Resources	OPEB Expense
	Total OPEB Liability (a)	Plan Net Position (b)	Net OPEB Liability (a) - (b)			
	\$180,677	\$0	\$180,677			
Balances—at 06/30/2018				\$25,410	(\$14,868)	
Changes for the Year:						
Service cost	17,674		17,674			17,674
Interest	5,803		5,803			5,803
Benefit changes	0		0			
Experience losses (gains)	(32,187)		(32,187)		(26,822)	(5,365)
Changes of assumptions	194,614		194,614	162,178		32,436
Contributions—Employer		3,611	(3,611)			
Contributions—members	0	0	0			0
Net investment income		0	0			
Expected return on plan investments						0
Current expense of asset gain/loss						0
Non expensed asset (gain)/loss				0	0	
Refunds of contributions		0	0			
Benefits paid	(3,611)	(3,611)	0			
Administrative expenses		0	0			0
Recognition of Prior Post-measurement Contribution				(3,611)		
Post-measurement Contribution				61,196		
Difference in prior year's contribution				(25,410)		
Other changes	0	0				
Amortization of or change in beginning balances				0	3,717	(3,717)
Net Changes	182,293	0	182,293	194,353*	(23,105)	46,831
Balances—at 06/30/2019	\$362,970	\$0	\$362,970	\$219,763	(\$37,973)	\$46,831

GASB Statement No. 75 requires contributions between the measurement date (June 30, 2018) and the disclosure date (June 30, 2019) to be reported as a deferred outflow of resources.

* Changes in Deferred OPEB Outflows include deferred losses of \$162,178 plus the difference in expected contributions of \$32,175

Roanoke Valley Resource Authority Postretirement Benefits Plan

	Increase (Decrease)			Deferred Outflows of Resources	Deferred Inflows of Resources	OPEB Expense
	Total OPEB Liability (a)	Plan Net Position (b)	Net OPEB Liability (a) - (b)			
	\$362,970	\$0	\$362,970			
Balances-at 06/30/2019				\$219,763	(\$37,973)	
Changes for the Year:						
Service cost	35,740		35,740			35,740
Interest	11,758		11,758			11,758
Benefit changes	0		0			
Experience losses (gains)	0		0	0	0	0
Changes of assumptions	0		0		0	0
Contributions-Employer		4,141	(4,141)			
Contributions-members	0	0	0			0
Net investment income		0	0			
Expected return on plan investments						0
Current expense of asset gain/loss						0
Non expensed asset (gain)/loss				0	0	
Refunds of contributions		0	0			
Benefits paid	(4,141)	(4,141)	0			
Administrative expenses		0	0			0
Recognition of Prior Post-measurement Contribution				(4,141)		
Post-measurement Contribution				67,146		
Difference in prior year's contribution				(57,585)		
Other changes		0	0			
Amortization of or change in beginning balances				(32,436)	9,082	23,354
Net Changes	43,357	0	43,357	-27,016*	9,082	70,852
Balances-at 06/30/2020	\$406,327	\$0	\$406,327	\$192,747	(\$28,891)	\$70,852

GASB Statement No. 75 requires contributions between the measurement date (June 30, 2019) and the disclosure date (June 30, 2020) to be reported as a deferred outflow of resources.

* Changes in Deferred OPEB Outflows include deferred losses of \$0 plus the difference in expected contributions of \$5,420

OPEB expense & deferred outflows/inflows of resources

For the year ended June 30, 2019, the recognized OPEB expense will be \$46,831. At June 30 2019, the employer reported deferred outflows of resources and deferred inflows of resources in relation to OPEBs from the following sources:

	Original Amount	Date Established	Original Amortization Period (Years)	Recognized Annually in Expense	Deferred Outflows of Resources	Deferred Inflows of Resources
Experience losses (gains)	(\$18,585)	06/30/2018	5.0	(\$3,717)	\$0	(\$11,151)
	(32,187)	06/30/2019	6.0	(5,365)	0	(26,822)
Change of assumptions	194,614	06/30/2019	6.0	32,436	162,178	0
Investment losses (gains)	0	06/30/2018	5.0	0	0	0
	0	06/30/2019	5.0	0	0	0
Total				\$23,354	\$162,178	(\$37,973)

Actual investment earnings below (or above) projected earnings are amortized over 5 years. Changes of assumptions and experience losses (gains) are amortized over the average remaining service period of actives and inactives (no future service is assumed for inactives for this calculation).

Amounts reported as deferred outflows (inflows) of resources related to OPEBs will be recognized in OPEB expense as follows:

Years Ending June 30:

2020	23,354
2021	23,354
2022	23,354
2023	27,071
2024	27,072
Thereafter	0



County of Roanoke Public Schools Postretirement Benefits Plan

*GASB Statement No. 74 and No.75
Actuarial Report*

June 30, 2018 and June 30, 2019

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Certification

Legislative background

Statement No.45 of the Governmental Accounting Standards Board was amended by Statement No. 74 of the Governmental Accounting Standards Board. Statement No. 74 became effective for the plan's financial statements for the fiscal year beginning after June 15, 2016. Statement No. 74 establishes financial reporting standards for state and local government OPEB plans that are administered through trusts or equivalent arrangements. The purpose of this report is to provide pertinent GASB Statement No. 74 information relating to the County of Roanoke Public Schools Postretirement Benefits Plan for the fiscal year ending June 30, 2018 and June 30, 2019 financial statements.

The Governmental Accounting Standards Board amended Statement No. 45 with Statement No. 75; the effective date for Statement No. 75 is for the fiscal year beginning after June 15, 2017. Statement No. 75 of the Governmental Accounting Standards Board requires the determination of the OPEB expense for the fiscal year beginning July 1, 2017. Statement No. 75 provides a new approach in calculating the pension expense which differs significantly from Statement No. 45 methodology. The purpose of this report is to provide pertinent GASB Statement No. 75 information relating to the County of Roanoke Public Schools Postretirement Benefits Plan for the fiscal year ending June 30, 2019 and June 30, 2020 financial statements.

Purpose and use

This report has been prepared exclusively for the County of Roanoke Public Schools. Actuarial computations under Statements No. 74 and No. 75 are for purposes of fulfilling employer and other post-employment benefit plan governmental accounting requirements, and may not be appropriate for other purposes. The calculations reported herein have been made on a basis consistent with our understanding of the statements. Findley, Inc. is not responsible for consequences resulting from the use of any part of this report without prior authorization or approval. This report provides actuarial advice and does not constitute legal, accounting, tax or investment advice. Determinations for other purposes, such as funding, bond ratings, or judging benefit security, may be significantly different from the results shown in this report.

Actuarial findings in this report are based on actuarial assumptions selected by the County of Roanoke Public Schools which reflect expected plan experience. Although the deviation of the actual future plan experience and the expected experience inherently creates some uncertainty with the results, in our opinion the actuarial assumptions reasonably reflect the expected future experience of the plan. 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. All of these factors can result in the risk of volatility in the Net OPEB Liability over time.

Data

The calculations shown in this report have been prepared using employee data and plan documentation furnished by the County of Roanoke Public Schools as of June 30, 2018. While we have not audited the data, we have reviewed it for reasonableness and internal consistency, and to the best of our knowledge, there are no material limitations to the data provided. Summaries of the census data and plan provisions can be found in the Basis for Valuation section of this report.

Subsequent events

We are unaware of any subsequent event after June 30, 2018 which would have a material effect on the results presented in this report.

Assumptions, methods, and procedures

The results presented in this report comply with the assumptions, methods, and procedures under the Statements No. 74 and No. 75. For Statement 74, the results are based on the June 30, 2018 actuarial valuation date with measurement dates of June 30, 2018 and June 30, 2019, and reporting dates of June 30, 2018 and June 30, 2019. For Statement 75, the results are based on the June 30, 2018 actuarial valuation with measurement dates of June 30, 2018 and June 30, 2019 and reporting dates of June 30, 2019 and June 30, 2020. All actuarial assumptions are set by the plan sponsor. Statements No. 74 and No. 75 mandate the use of the Entry Age Normal actuarial funding method for the purposes of those statements. For a description of the June 30, 2017 assumptions, methods, and procedures, please refer to the June 30, 2017 GASB report.

Changes in plan provisions, actuarial assumptions, and actuarial methods

The following changes were made to the actuarial assumptions and methods effective June 30, 2018.

1. The percentage of future eligible retirees electing medical coverage was updated from 45.89% to 42.5%.
2. The percentage of future eligible retirees electing medical coverage for a spouse was updated from 9.48% to 8.8%.
3. The mortality, disability, withdrawal, and retirement assumptions were updated to the assumptions listed in the most recently published VRS Comprehensive Annual Financial Report, which was the 2017 report.

Summaries of the plan provisions, actuarial assumptions and methods can be found in the basis for valuation section of this report.

Professional qualifications

This report has been prepared under the supervision of David L. Shaub, FSA, a member of the American Academy of Actuaries, a Fellow of the Society of Actuaries, and a consulting actuary with Findley, Inc. who has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein. To the best of our knowledge this report has been prepared in accordance with generally accepted actuarial standards and our understanding of Government Accounting Standards Board Statements No. 74 and No. 75, including the overall appropriateness of the analysis, assumptions, and results and conforms to appropriate Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis for the actuarial report. We are not aware of any direct or material indirect financial interest or relationship that could create, or appear to create, a conflict of interest that would impair the objectivity of our work. The undersigned is available to provide supplemental information or explanation.



David L. Shaub, FSA
Managing Consultant

October 25, 2018

Date

Basis of Valuation

Summary of provisions of the plan

Retirement eligibility and plan provisions

A full-time employee who retires directly from the County of Roanoke Public Schools and is vested in the Virginia Retirement System is eligible for post-retirement medical coverage. In addition, the retiree must have 12 months of enrollment in the Schools' group health and dental insurance plan.

Retirees will be responsible for the total health and dental insurance program unless they participate in the Employee Extended Work Plan (described below).

Spouses may continue to participate in the group health and dental program by paying the full premium, in the event of the retiree's death.

Effective after January 25, 2001, any employee, aged 55 and older, who is employed full-time by the School with at least 10 years of continuous full time service and is a member of the VRS, is eligible to participate in the Employee Extended Work Plan.

The School will contribute up to \$2,500 towards the annual health insurance premium. In the event of the employee's death, the spouse may continue coverage at the full premium cost for the remainder of the employee's eligibility period.

Employees electing to participate in the Employee Extended Work Plan may continue until the earliest of attainment of age 65, their death, or five years of participation.

Retirees contribute to the plan at the rates stated in the Summary of Actuarial Assumptions section

Summary of Actuarial Assumptions

Mortality rates

Professionals:

Pre-retirement: RP-2000, Males setback 3 years, Females setback 5 years, projected to 2020 with Scale AA

Post-retirement: RP-2000, Males setback 2 years, Females setback 3 years, projected to 2020 with Scale AA

Disability: RP-2000, Males setback 1 year, no future mortality improvements

Non-Professionals:

Pre-retirement: RP-2000, Males set forward 2 years, Females setback 3 years, projected to 2020 with Scale AA

Post-retirement: RP-2000, Females setback 1 years (no setback for Males), projected to 2020 with Scale AA

Disability: RP-2000, Males setback 3 years, no future mortality improvements

Disability rates

Attained Age	Professionals		Non-Professionals	
	Male	Female	Male	Female
25	0.00000	0.00000	0.0009	0.0001
35	0.00010	0.00010	0.0018	0.0015
45	0.00021	0.00036	0.0018	0.0029
50	0.00133	0.00090	0.0045	0.0055
55	0.00133	0.00090	0.0045	0.0055
60	0.00308	0.00240	0.0072	0.0100
65	0.00308	0.00240	0.0072	0.0100

Withdrawal rates

Attained Age	Male Members – Years of Service							
	Professionals				Non-Professionals			
	0-2	3-4	5-9	10+	0-2	3-4	5-9	10+
25	0.154	0.118	0.118	0.008	0.221	0.130	0.130	0.000
35	0.141	0.073	0.073	0.031	0.167	0.093	0.093	0.045
45	0.147	0.075	0.075	0.019	0.129	0.070	0.070	0.023
55	0.143	0.070	0.000	0.000	0.102	0.060	0.060	0.000
65	0.170	0.083	0.000	0.000	0.113	0.110	0.000	0.000

Attained Age	Female Members – Years of Service							
	Professionals				Non-Professionals			
	0-2	3-4	5-9	10+	0-2	3-4	5-9	10+
25	0.146	0.120	0.120	0.150	0.256	0.157	0.157	0.000
35	0.149	0.090	0.090	0.039	0.178	0.110	0.110	0.050
45	0.117	0.064	0.064	0.021	0.139	0.074	0.074	0.025
55	0.124	0.058	0.000	0.000	0.125	0.060	0.000	0.000
65	0.130	0.080	0.000	0.000	0.140	0.120	0.000	0.000

Retirement rates

Professionals

Attained Age	Male, < 30 years of service	Male, >= 30 years of service	Female, < 30 years of service	Female, >= 30 years of service
50	0.020	0.175	0.020	0.150
55	0.057	0.225	0.061	0.225
60	0.075	0.225	0.085	0.225
65	0.300	0.400	0.300	0.350
70	1.000	1.000	1.000	1.000

Non-Professionals

Attained Age	Male, < 30 years of service	Male, >= 30 years of service	Female, < 30 years of service	Female, >= 30 years of service
50	0.030	0.100	0.032	0.100
55	0.050	0.100	0.050	0.100
60	0.050	0.100	0.055	0.150
65	0.300	0.300	0.300	0.400
70	1.000	1.000	1.000	1.000

Discount rate

2.98% per annum

Salary increases

3.00% per annum

Expected long-term rate of return on plan assets

7.5% per annum

Plan participation

42.5% of future eligible retirees are assumed to elect medical coverage upon retirement. 8.8% are assumed to elect coverage for a spouse.

Marital status

Actual spouse participation and dates of birth were used for retirees. For actives, the marriage assumption of 8.8% was used, and males were assumed to be 3 years older than female spouses.

Medical claims cost

	Pre-65 Cost	Post-65 Cost
Retiree/Spouse	\$10,767	\$0

Age variance

Claims were adjusted downward by 3% for attained ages 65 to 55 while claims were increased by 2% each year for aging after 65.

Healthcare cost trend rate

Medical: graded down from 7.5% to 5% over 10 years beginning in 2018

Participant contributions – medical plan

Participant contributions were assumed to increase at the health care cost trend rate.

KC1000	
Employee	\$720.66
Employee + Spouse	\$1,415.04

Administrative expenses

Administrative expenses for the medical plan were \$465 for pre-65 coverage, and \$0 for post-65 coverage, increasing at 5.0% per year. Stop-loss expenses were \$706 for pre-65 coverage, and \$0 for post-65 coverage, increasing at 13.0% per year.

Retirement eligibility

A full-time employee who retires directly from the County of Roanoke Public Schools and is vested in the Virginia Retirement System is eligible for post-retirement medical coverage. In addition, the retiree must have 12 months of enrollment in the Schools' group health and dental insurance plan.

Retirees will be responsible for the total health and dental insurance program unless they participate in the Employee Extended Work Plan (described below).

Dependent coverage

Spouses may continue to participate in the group health and dental program by paying the full premium, in the event of the retiree's death.

Employee extended work plan

Effective after January 25, 2001, any employee, aged 55 and older, who is employed full-time by the School with at least 10 years of continuous full time service and is a member of the VRS, is eligible to participate in the Employee Extended Work Plan.

The School will contribute up to \$2,500 towards the annual health insurance premium. In the event of the employee's death, the spouse may continue coverage at the full premium cost for the remainder of the employee's eligibility period.

Employees electing to participate in the Employee Extended Work Plan may continue until the earliest of attainment of age 65, their death, or five years of participation.

Valuation date

June 30, 2018

Actuarial valuation method

Entry Age Normal

Asset valuation method

Market Value

Funding policy

The benefits of the County of Roanoke Public Schools Postretirement Benefits Plan are funded through contributions to a trust through the VACO/VML Pooled OPEB Trust. The company pays benefits on a cash basis as incurred, then contributes the remaining actuarially determined contribution into the trust.

Investment policy

The current portfolio is invested 25% in fixed income, 65% in equity, and 10% in real assets.

Coordination with Medicare

Benefits for retirees are deemed to be similar to those benefits provided for actives. The retiree medical plan is assumed to be the primary plan of benefits prior to age 65. Coverage ceases upon attainment of age 65 or receipt of Medicare benefits, whichever comes first. Medicare benefits are assumed to be those statutory benefits effective as of the valuation date for all future periods.

Amortization period

For Statements No. 74 and 75 contribution calculations: 20 years (closed) beginning in 2018

For Statements No. 74 and No. 75: Experience gains or losses are amortized over the average working lifetime of all participants which for the current period is 7 years. Plan amendments are recognized immediately. Changes in actuarial assumptions are amortized over the average working lifetime of all participants.

Legislative changes

The valuation results provided in this report reflect a best estimate of the potential impact of the Patient Protection and Affordable Care Act (PPACA). Consideration has been made for provisions of the law that are effective as of the valuation date as well as those provisions that will take effect in the future. In particular, the anticipated future excise tax has been valued and added to the liability reflected in this valuation report. The estimated present value of all future excise tax payments is approximately \$2,177,000.

Summary of Participant Data

Data as of June 30, 2018

Number of Participants	
Actives (covered)	1382
Actives (not covered)	713
Retirees (covered)	147
Disableds (covered)	0
Annual Projected Payroll	\$80,572,063
Average Projected Earnings	\$38,459

Actuarially determined contribution

	Fiscal year beginning	Fiscal year beginning
	July 1, 2018	July 1, 2019
Total OPEB Liability	10,756,321	11,186,267
Plan Fiduciary Net Position	(744,176)	(894,368)
Net OPEB Liability	<u>10,012,145</u>	<u>10,291,899</u>
Years of Amortization	19	18
Amortization Payment	677,559	725,428
Normal Cost	593,436	623,108
Interest	18,799	19,946
Actuarially Determined Contribution	<u>1,289,794</u>	<u>1,368,482</u>

GASB Disclosure

GASB statement No. 74

This section presents specific information required under Statement No. 74 which is not included in other sections of this report. The information in this section is to satisfy the reporting for the OPEB plan. This section contains the following:

- Statement of Fiduciary Net Position
- Statement of Change in Fiduciary Net Position
- Net OPEB Liability including healthcare cost trend rate and discount rate sensitivity and reconciliation between years
- Schedule of Contributions
- Schedule of Investment Returns

Fiduciary Net Position is the amount of assets available for benefits in the OPEB Plan.

Total OPEB Liability is the plan liability determined using assumptions listed in the Summary of Actuarial Assumptions.

Net OPEB Liability is the difference in the Total OPEB Liability and the Fiduciary Net Position.

Statement of fiduciary net position (unaudited)

	<u>June 30, 2018</u>	<u>June 30, 2019 *</u>
Assets		
Pooled Fund	<u>\$744,176</u>	<u>\$894,368</u>
Liabilities		
Total Liabilities	<u>\$0</u>	<u>\$0</u>
Net Position Restricted for OPEB	<u>\$744,176</u>	<u>\$894,368</u>

*Projected

Statement of changes in fiduciary net position (unaudited)

	June 30, 2018	June 30, 2019 *
Additions		
Contributions		
Employer	846,172	579,484
Employee	939,187	540,748
Total Contributions	<u>1,785,359</u>	<u>1,120,232</u>
Investment Income	65,111	59,165
Other	0	0
Total Additions	<u>1,850,470</u>	<u>1,179,397</u>
 Deductions		
Benefit Payments / Refunds	1,785,359	1,027,942
Administrative Expenses	1,263	1,263
Other	0	0
Total Deductions	<u>1,786,622</u>	<u>1,029,205</u>
Net Increase in Net Position	<u>63,848</u>	<u>150,192</u>
 Net Position Restricted for OPEB		
Beginning of Year	680,328	744,176
End of Year	<u>\$744,176</u>	<u>\$894,368</u>

*Projected

Net OPEB liability (NOL)

Determination of net OPEB liability

The components of the net OPEB liability at the following dates are as follows:

	June 30, 2018	June 30, 2019 *
Total OPEB Liability	10,756,321	11,186,267
Plan Fiduciary Net Position	(744,176)	(894,368)
Net OPEB Liability	\$10,012,145	\$10,291,899

Plan Fiduciary Net Position as a Percentage of Total OPEB Liability 6.92% 8.00%

Sensitivity of net OPEB liability to changes in the healthcare cost trend rate

The following represents the net OPEB liability calculated using the stated health care cost trend assumption, as well as what the OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1 percentage-point lower or 1-percentage-point higher than the assumed trend rate:

	1% Decrease	Current	1% Increase
	6.5% decreasing to 4% over 10	7.5% decreasing to 5% over 10	8.5% decreasing to 6% over 10
Net OPEB Liability	years	years	years
June 30, 2018	\$8,936,360	\$10,012,145	\$11,310,959
June 30, 2019	\$9,085,843	\$10,291,899	\$11,755,211

Sensitivity of net OPEB liability to changes in the discount rate

The following represents the net OEPB liability calculated using the stated discount rate, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease	Current Rate	1% Increase
Net OPEB Liability	1.98%	2.98%	3.98%
June 30, 2018	\$11,280,867	\$10,012,145	\$8,904,978
June 30, 2019	\$11,619,429	\$10,291,899	\$9,132,283

Schedule of changes in the NOL and related ratios

	Fiscal Year Ending June 30									
	<u>2017</u>	<u>2018</u>	<u>2019 *</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Total OPEB Liability										
Service cost	\$931,053	\$977,606	\$593,436							
Interest	476,676	471,102	323,704							
Changes of benefit terms	0	0	0							
Differences between expected and actual experience	(28,590)	(2,488,407)	0							
Changes of assumptions	0	(3,035,172)	0							
Contributions - employee	94,298	939,187	540,748							
Benefit Payments / Refunds	(684,162)	(1,785,359)	(1,027,942)							
Net Change in Total OPEB Liability	789,275	(4,921,043)	429,946							
Total OPEB Liability - beginning	14,888,089	15,677,364	10,756,321							
Total OPEB Liability - ending (a)	\$15,677,364	\$10,756,321	\$11,186,267							
 Plan Fiduciary Net Position										
Contributions - employer	\$682,154	\$846,172	\$579,484							
Contributions - employee	94,298	939,187	540,748							
Net investment income	74,106	65,111	59,165							
Benefit Payments / Refunds	(684,162)	(1,785,359)	(1,027,942)							
Administrative expenses	(1,169)	(1,263)	(1,263)							
Other	0	0	0							
Net Change in Plan Fiduciary Net Position	\$165,227	\$63,848	\$150,192							
Plan Fiduciary Net Position - beginning	515,101	680,328	744,176							
Plan Fiduciary Net Position - ending (b)	\$680,328	\$744,176	\$894,368							
Net OPEB Liability - ending (a) - (b)	\$14,997,036	\$10,012,145	\$10,291,899							
 Plan Fiduciary Net Position as a % of the Total OPEB Liability	4.3%	6.9%	8.0%							
Covered-employee payroll	\$65,279,124	\$53,150,640	\$53,150,640							
Net OPEB Liability as a % of covered-employee payroll	23.0%	18.8%	19.4%							

* Projected

Schedule of contributions

	Fiscal Year Ending June 30									
	<u>2017</u>	<u>2018</u>	<u>2019 *</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Actuarially determined contribution	\$682,154	\$1,997,378	\$1,289,794							
Contributions in relation to the actuarially determined contribution	682,154	846,172	TBD							
Contribution deficiency (excess)	\$0	\$1,151,206								
<hr/>										
Covered-employee payroll	\$65,279,124	\$53,150,640	\$53,150,640							
Contributions as a percentage of covered-employee payroll	1.0%	1.6%	TBD							

* Projected

Schedule of investment returns

	Fiscal Year Ending June 30									
	<u>2017</u>	<u>2018</u>	<u>2019 *</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Annual money-weighted rate of return, net of investment	13.04%	9.52%	TBD							

* Projected

GASB statement No. 75

This section presents specific information required under Statement No. 75 which is not included in other sections of this report. The information in this section is to satisfy the reporting for the plan sponsor. This section contains the following:

- Schedule of changes in net OPEB liability
- OPEB expense
- Deferred outflows and inflows of resources

Schedule of changes in net OPEB liability, deferrals, and OPEB Expense

	Increase (Decrease)			Deferred Outflows of Resources	Deferred Inflows of Resources	OPEB Expense
	Total OPEB Liability (a)	Plan Net Position (b)	Net OPEB Liability (a) - (b)			
	\$15,677,364	\$680,328	\$14,997,036			
Balances—at 06/30/2018				(\$15,160)	(\$50,710)	
Changes for the Year:						
Service cost	977,606		977,606			977,606
Interest	471,102		471,102			471,102
Benefit changes	0		0			
Experience losses (gains)	(2,488,407)		(2,488,407)		(2,132,920)	(355,487)
Changes of assumptions	(3,035,172)		(3,035,172)		(2,601,576)	(433,596)
Contributions—Employer		846,172	(846,172)			
Contributions—members	939,187	939,187	0			0
Net investment income		65,111	(65,111)			
Expected return on plan investments						(50,978)
Current expense of asset gain/loss						(2,827)
Non expensed asset (gain)/loss				0	(11,306)	
Refunds of contributions		0	0			
Benefits paid	(1,785,359)	(1,785,359)	0			
Administrative expenses		(1,263)	1,263			1,263
Recognition of Prior Post-measurement Contribution				(846,172)		
Post-measurement Contribution				1,289,794		
Difference in prior year's contribution				15,160		
Other changes		0	0			
Amortization of or change in beginning balances				0	9,998	(9,998)
Net Changes	(4,921,043)	63,848	(4,984,891)	458,782*	(4,735,804)	597,085
Balances—at 06/30/2019	\$10,756,321	\$744,176	\$10,012,145	\$443,622	(\$4,786,514)	\$597,085

GASB Statement No. 75 requires contributions between the measurement date (June 30, 2018) and the disclosure date (June 30, 2019) to be reported as a deferred outflow of resources.

* Changes in Deferred OPEB Outflows include deferred losses of \$0 plus the difference in expected contributions of \$458,782

	Increase (Decrease)			Deferred Outflows of Resources	Deferred Inflows of Resources	OPEB Expense
	Total OPEB Liability (a)	Plan Net Position (b)	Net OPEB Liability (a) - (b)			
	\$10,756,321	\$744,176	\$10,012,145			
Balances-at 06/30/2019				\$443,622	(\$4,786,514)	
Changes for the Year:						
Service cost	593,436		593,436			593,436
Interest	323,704		323,704			323,704
Benefit changes	0		0			
Experience losses (gains)	0		0	0	0	0
Changes of assumptions	0		0		0	0
Contributions-Employer		579,484	(579,484)			
Contributions-members	540,748	540,748	0			0
Net investment income		59,165	(59,165)			
Expected return on plan investments						(59,165)
Current expense of asset gain/loss						0
Non expensed asset (gain)/loss				0	0	
Refunds of contributions		0	0			
Benefits paid	(1,027,942)	(1,027,942)	0			
Administrative expenses		(1,263)	1,263			1,263
Recognition of Prior Post-measurement Contribution				(579,484)		
Post-measurement Contribution				1,368,482		
Difference in prior year's contribution				(443,622)		
Other changes		0	0			
Amortization of or change in beginning balances				0	801,908	(801,908)
Net Changes	429,946	150,192	279,754	345,376*	801,908	57,330
Balances-at 06/30/2020	\$11,186,267	\$894,368	\$10,291,899	\$788,998	(\$3,984,606)	\$57,330

GASB Statement No. 75 requires contributions between the measurement date (June 30, 2019) and the disclosure date (June 30, 2020) to be reported as a deferred outflow of resources.

* Changes in Deferred OPEB Outflows include deferred losses of \$0 plus the difference in expected contributions of \$345,376

OPEB expense & deferred outflows/inflows of resources

For the year ended June 30, 2019, the recognized OPEB expense will be \$597,085. At June 30 2019, the employer reported deferred outflows of resources and deferred inflows of resources in relation to OPEBs from the following sources:

	Original Amount	Date Established	Original Amortization Period (Years)	Recognized Annually in Expense	Deferred Outflows of Resources	Deferred Inflows of Resources
Experience losses (gains)	(\$28,590)	06/30/2018	8.0	(\$3,574)	\$0	(\$21,442)
	(2,488,407)	06/30/2019	7.0	(355,487)	0	(2,132,920)
Change of assumptions	(3,035,172)	06/30/2019	7.0	(433,596)	0	(2,601,576)
Investment losses (gains)	(32,118)	06/30/2018	5.0	(6,424)	0	(19,270)
	(14,133)	06/30/2019	5.0	(2,827)	0	(11,306)
Total				(\$801,908)	\$0	(\$4,786,514)

Actual investment earnings below (or above) projected earnings are amortized over 5 years. Changes of assumptions and experience losses (gains) are amortized over the average remaining service period of actives and inactives (no future service is assumed for inactives for this calculation).

Amounts reported as deferred outflows (inflows) of resources related to OPEBs will be recognized in OPEB expense as follows:

Years Ending June 30:

2020	(801,908)
2021	(801,908)
2022	(801,906)
2023	(795,482)
2024	(792,657)
Thereafter	(792,653)