



City of Ann Arbor Retiree Health Care Benefits Plan

Actuarial Valuation and Report as of June 30, 2018

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Summary of Report

An actuarial valuation of the postemployment Medical and Life Insurance benefits provided by City of Ann Arbor Retiree Health Care Benefits Plan has been performed as of June 30, 2018. The purpose of the valuation is to determine the Actuarially Determined Contribution for City of Ann Arbor Retiree Health Care Benefits Plan under selected actuarial cost methods.

On the basis of the valuation, it has been determined that the Actuarially Determined Contribution for the year ending June 30, 2020 for the plan, as described in the Schedule of Benefits, is as follows:

	Year Ending June 30, 2020
Normal Cost	2,822,213
Amortization of Unfunded Accrued Liability	8,864,068
Interest	443,106
Actuarially Determined Contribution (ADC)	<u>12,129,387</u>
Assume Revenue Increase	2.00%
Funding Plan Contribution (FPC)	9,418,680
Estimated Funding Plan Contributions [Greater of (ADC & FPC)]	12,129,387
ADC as a percentage of projected pay	22.09%

Actuarially Determined Contribution

The Actuarially Determined Contribution for the plan is equal to the normal cost plus the amounts required to amortize the unfunded accrued liability over closed level basis. The amortization will decrease by two years annually until the amortization period reaches 15 years. Once the plan reaches 100% funded status, the amortization period will be set at 1 year.

An interest adjustment has been added to reflect payment at the midpoint of the fiscal year.

	General Traditional Plan	General RHRA Plan	Police Traditional Plan	Police RHRA Plan	Fire Traditional Plan	Fire RHRA Plan	Total
Normal Cost	1,639,710	124,058	565,347	25,582	459,094	8,422	2,822,213
Amortization of Unfunded Accrued Liability (active*)	1,181,559	0	526,885	0	359,597	0	2,068,041
Amortization of Unfunded Accrued Liability (inactive*)	4,120,715	0	1,671,435	0	1,003,877	0	6,796,027
Interest	263,218	4,704	104,789	970	69,106	319	443,106
Actuarially Determined Contribution (ADC)	<u>7,205,202</u>	<u>128,762</u>	<u>2,868,456</u>	<u>26,552</u>	<u>1,891,674</u>	<u>8,741</u>	<u>12,129,387</u>
Projected Pay	19,920,468	16,292,028	8,049,625	3,714,715	5,591,120	1,339,036	54,906,992
ADC as a percentage of projected pay	36.17%	0.79%	35.63%	0.71%	33.83%	0.65%	22.09%

*amortization is pro-rata on Actuarial Accrued Liability

Membership

	<u>June 30, 2018</u>
Inactive Plan Members and Beneficiaries Receiving Benefits	1,052
Active Plan Members	
Traditional Plan	376
RHRA Plan	319
Sub-total Active	<u>695</u>
 Total	 <u>1,747</u>

Component of the OPEB Liability as of:

	<u>June 30, 2018</u>
Total OPEB Liability	283,969,579
Plan Fiduciary Net Position	171,807,353
Net OPEB Liability	<u>112,162,226</u>
Plan Fiduciary Net Position as a percentage of the total OPEB liability	60.50%

Introduction

An actuarial valuation of the City of Ann Arbor Retiree Health Care Benefits Plan was performed as of June 30, 2018. The last valuation performed was as of June 30, 2017. The purpose of the valuation was to determine the current funding status of the Fund, with the intention that funding levels indicated by the valuation be used as the basis for contributions to the Fund.

Actuarial valuations are based on the integrity of employee data, plan asset data, plan provisions and an extensive set of assumptions regarding future events. There is necessary uncertainty with any actuarial calculation based on the accuracy of the data provided, the correct interpretation of plan provisions and the realization of the assumptions made. These results were based on participant data provided by the administrative office of the Fund and asset information provided by the Fund custodian. This information was not audited but was reviewed for reasonableness.

Detailed explanations of the actuarial assumptions and methods used in the report are contained in later sections of this report. Also included in this report is a summary of provisions of the plan as we understand them.

Analysis of Gains and Losses

The ADC increased from \$9,234,000 for fiscal year ending 2019 to \$12,129,387 for fiscal year ending 2020. The primary driver of the increase was a \$19.1 actuarial loss in the accrued liability. The actuarial loss stems greatly from assumption changes. As part of our experience study, we updated the mortality table from a static table to a generational table. In simple terms, we now assume that mortality rates will continue to decline in the future due to continued advances in medicine. This change accounted for \$17.5 million of the accrued liability loss. Other sources of loss included \$1.0 million in demographic changes, \$1.2 million due to differences in coding between the prior actuary and our system, and \$4.1 million using updated claims experience in pricing. There is a \$6.2 million gain from updating termination and retirement rates (which generally assume participants will retire later previously assumed).

In addition, the accrued liability increased by \$1.5 million due to negotiated increase for union groups in the RHRA plan, from \$2,500/year to \$3,500/year; and increase in life insurance benefit amount for General employees from \$5,000 to \$10,000 .

As scheduled, the amortization of the unfunded accrued liability also decreased from 28 to 26 years.

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 City of Ann Arbor Retiree Health Care Benefits Plan for the fiscal year ending June 30, 2018 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, 2018. 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 City of Ann Arbor Retiree Health Care Benefits Plan.

Purpose and use

This report has been prepared exclusively for the City of Ann Arbor. 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 City of Ann Arbor 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.

Notes about Participant Data

The actuarial valuation underlying this report has been made utilizing employee data furnished by the employer. While we have analyzed this information and found no material limitations, please note that a complete and independent audit of these data was not performed.

Census data updated as of June 30, 2018 was used, as provided by the City.

Per capita claims experience was updated to reflect the most recent 36 months of fund experience.

Actuarial Certification

The attached report summarizes the results of the actuarial valuation of the City of Ann Arbor Retiree Health Care Benefits Plan as of June 30, 2018. The report sets forth annual funding levels for the plan and fiscal year ending June 30, 2020.

The information contained in this document is not intended by Findley to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer. The information and valuation results shown in this report are, to the best of our knowledge, complete and accurate.

We trust this report will be helpful in the formulation of policy with respect to the operation and financing of the plan. The opportunity to serve you is appreciated, and we will be pleased to supplement this report in any way, as you request.

We have conducted an actuarial valuation of the plan as of June 30, 2018. The employee data and financial information used in the valuation were furnished by the employer and trustee, and we have not audited this information. Except as noted in our report, we believe the information is sufficiently complete and reliable. This report provides actuarial advice and does not constitute legal, accounting, tax or investment advice.


The actuarial valuation summarized in this report has been performed utilizing generally accepted actuarial principles. The actuarial valuation is based on actuarial assumptions set by the City of Ann Arbor. The employer has selected a long-term rate of return of 7.00%. I have reviewed all other assumptions established by the City and believe them to be reasonable. Based on the assumptions and methods stated herein, it is my opinion that the results fully and fairly disclose the actuarial position of the plan on the valuation date. I am a consulting actuary for Findley, Inc., a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.



By: _____
Matthew R. Klein, FSA, EA, MAAA

Fellow, Society of Actuaries

Date: October 22, 2018



By: _____
Amy Kennedy, EA

Date: October 22, 2018

Changes in Assumptions and Methods from Prior Actuarial Valuation

This is the first year Findley has prepared these results. Prior year Valuations were completed by another consulting firm. Prior year results were matched within reasonable tolerance.

The following assumption changes were adopted by the Board at its August 16, 2018 meeting based on the results of quinquennial Experience Review for the period of July 1, 2013 through June 30, 2018. These changes are incorporated with the June 30, 2018 actuarial valuation. The next Experience Review will cover the period of July 1, 2018 through June 30, 2023 to be first used with the June 30, 2023 valuation.

	Previous	Current
Healthy Mortality	RP 2000 Combined Table projected to 2007 set forward 2 years for males and set back 3 years for females.	RP-2014 Healthy Employees and Annuitants, Adjusted back to 2006 Generational Under Projection Scale MP-2017
Disabled Lives	The standard post-retirement Mortality rates set forward 10 years.	RP-2014 Disabled Mortality Table, Adjusted back to 2006 Generational Under Projection Scale MP-2017

To better recognize current and future mortality assumptions

	Previous	Current
Inflation	3.50%	2.50%

To better recognize current and future inflation assumptions.

	Previous				Current			
Salary Scale (Merit & Longevity)	Age	General	Police	Fire	Age	General	Police	Fire
	20	4.00%	6.00%	5.80%	20	4.00%	7.50%	7.30%
	25	3.60	5.10	5.00	25	3.60	6.60	6.50
	30	2.80	3.20	3.40	30	2.80	4.70	4.90
	35	2.10	1.90	1.90	35	2.10	3.40	3.40
	40	1.80	1.20	1.20	40	1.80	2.70	2.70
	45	1.50	0.90	0.90	45	1.50	2.40	2.40
	50	1.00	0.70	0.70	50	1.00	2.20	2.20
	55	0.70	0.50	0.50	55	0.70	2.00	2.00
	60	0.50	0.30	0.40	60	0.50	1.80	1.90
	The base rate at all ages is 3.50%				The base rate at all ages is 3.50%			

To better recognize current and future salary increase assumptions.

City of Ann Arbor Retiree Health Care Benefits Plan

Rates of Turnover - General

Previous			Current		
Based on Years of Service as Follows:			Based on Years of Service as Follows:		
Years of Service	Male	Female	Years of Service	Male	Female
0	6.00 %	16.00 %	0	6.00 %	16.00 %
1	4.80	13.00	1	4.80	13.00
2	4.00	11.00	2	4.00	11.00
3	3.20	8.00	3	3.20	8.00
4	2.50	6.00	4	2.50	6.00
After 5 Years Of Service			After 5 Years Of Service		
Age(s)	Female	Male	Age(s)	Female	Male
20-34	3.20 %	6.50 %	20-34	3.20 %	4.50 %
35+	2.50	5.00	35+	3.25	3.50

Rates of Retirement - General

Previous			Current		
Based on age as Follows:			Based on age as Follows:		
Age(s)	Normal	Early	Age(s)	Normal	Early
50	45 %	23 %	50	25 %	10 %
51-53	40	15	51-53	25	
54	40	18	54	25	
55	40	30	55	25	
56-57	40	42	56-57	25	
58-59	25	42	58-59	25	
60	25		60	30	
61-64	35		61-64	30	
65	60		65	60	
66-69	40		66-69	40	
70+	100		70+	100	

City of Ann Arbor Retiree Health Care Benefits Plan

Rates of Retirement - Fire

Previous			Current		
Based on age as Follows			Based on age as Follows		
Age(s)	Normal	Early	Age(s)	Normal	Early
50-54		25 %	50-54		10 %
55-58	24 %		55-58	25 %	
59	34		59	25	
60+	100		60+	100	
Based on Service as Follows			Based on Service as Follows		
Years of Service	Rates		Years of Service	Rates	
25	50 %		25	25 %	
26-27	35		26-27	25	
28	35		28	25	
29	25		29	25	
30-34	25		30-34	25	
35+	100		35+	100	

Rates of Retirement - Police

Previous			Current		
Based on age as Follows			Based on age as Follows		
Age(s)	Normal	Early	Age(s)	Normal	Early
50-54		35 %	50-54		10 %
55-59	75 %		55-59	50 %	
60+	100		60+	100	
Based on Service as Follows			Based on Service as Follows		
Years of Service	Rates		Years of Service	Rates	
25	70 %		25	50 %	
26-27	70		26-27	50	
28	50		28	50	
29	50		29	50	
30-34	75		30-34	50	
35+	100		35+	100	

To better recognize current and future Retirement assumptions.

Summaries of the plan provisions, actuarial assumptions and methods can be found in the Basis of Valuation section of this report

Basis of Valuation

Summary of Plan Provisions

Normal Retirement

Eligibility

General: Age 50 with 25 years of service, or age 60 with 5 years of service.

Police-Fire: 25 years of service, or age 55 with 5 years of service.

Hires after the following dates are eligible after 10 years of service, rather than 5.

Employee Group	Effective date
AAPOA	1/1/2012
AFSCME	8/29/2011
CSS/PSS	1/1/2012
DEPCHIEFS	7/2/2012
FIRE	7/1/2012
NON-Union	7/1/2011
POLICEPRO	7/2/2012
TEAMSTERS	7/2/2012

Early Retirement

Age 50 with 20 years of service.

Death in Service

Duty: No age or service requirement.

Non-Duty: 5 years of service. Hires after the dates listed above are eligible after 10 years of service, rather than 5.

Disability

Duty: No age or service requirement.

Non-Duty: 5 years of service. Hires after the dates listed above are eligible after 10 years of service, rather than 5.

Medical Benefits

Frozen Medical Plan (closed to new hires)

Different retiree division codes have different Blue Cross Blue Shield plan designs, with varying copays, deductibles and coinsurances, depending on retirement date and union status.

Monthly contributions for retirees electing the high option designs are as follows:

Group Description	EE	EE + 1	EE + 2	EE + 3	EE + 4 or more
High Option 2018	\$55.52	\$91.51	\$137.25	\$183.01	\$228.70

Medicare coordination is under the exclusion method.

Prescription drug benefits are included with medical and are various prescription drug card copay designs.

New Medical Plan

The City contributes \$2,500 or \$3,500/year into a notional account, during each year of active service. A retirement eligible participant can then draw on these funds after retirement, in order to pay for insurance premiums or claims, as needed.

This new benefit is effective at the following dates, which vary by group:

Employee Group	Effective date \$2,500/Year	Effective date \$3,500/Year
AAPOA	1/1/2012	1/1/2017
AFSCME	8/29/2011	
CSS/PSS	1/1/2012	1/1/2018
DEPCHIEFS	7/2/2012	
FIRE	7/1/2012	1/1/2017
NON-Union	7/1/2011	1/1/2018
POLICEPRO	7/2/2012	1/1/2018
TEAMSTERS	7/2/2012	1/1/2018

Monthly Contribution
(Medical)

Monthly contribution rates for future retirees based on coverage tier effective July 1, 2018 is as follows:

Group Description	EE	EE + 1
Under 65 (50% High / 50% Low Plan)	\$27.58	\$22.87
Over 65 (80% High / 20% Low Plan)	\$45.76	\$28.53

Life Insurance Benefits

Retired: General – \$5,000 flat death benefit
 Effective July 1, 2018 - \$10,000 flat death benefit
 Police-Fire – \$10,000 flat death benefit

Disabled/Widowed: Non-Union – 1x Salary
 Police-Fire – \$40,000 flat death benefit
 Other Unions – \$15,000 flat death benefit

Monthly Contribution
(Life)

None.

Summary of Actuarial Assumptions and Methods

Discount rate	7.00%
Investment rate of return	7.00%
Consumer Price Index	2.50%

Salary Scale (Merit & Longevity)	Age	General	Police	Fire
	20	4.00 %	7.50%	7.30%
	25	3.40	6.60	6.50
	30	2.80	4.70	4.90
	35	2.10	3.40	3.40
	40	1.80	2.70	2.70
	45	1.50	2.40	2.40
	50	1.00	2.20	2.20
	55	0.70	2.00	2.00
	60	0.50	1.80	1.90

The base rate at all ages is 3.50%

Trend	Year	Medical and Rx	
		Pre-Medicare	Post-Medicare
	1	8.25%	6.25%
	2	8.00%	6.25%
	3	7.75%	6.00%
	4	7.50%	5.75%
	5	7.25%	5.50%
	6	7.00%	5.40%
	7	6.75%	5.30%
	8	6.50%	5.20%
	9	6.25%	5.10%
	10	6.00%	5.00%
	11	5.75%	4.90%
	12	5.50%	4.80%
	13	5.25%	4.70%
	14	5.00%	4.60%
	15	4.75%	4.50%
	16+	4.50%	4.50%

Health Care Claim Cost The expected per capita costs for this valuation were based on medical and Rx claims for retired participants for the period July 1, 2015 to June 30, 2018. The claims experience was trended to the valuation date. Per capita costs were adjusted for expected age-related differences in morbidity applicable to retirees.

The table below indicates the assumed average per capita costs for pre and post 65 retirees and spouses.

Per capita claims experience was updated to reflect the most recent 36 months of fund experience.

City of Ann Arbor Retiree Health Care Benefits Plan

7/1/2018 to 6/30/2019 Cost

	Older Retirees	High option*	Low option**	All future retirees
Age 60, male	\$10,999	\$10,165	\$9,319	\$9,743
Age 60, female	\$10,994	\$10,162	\$9,316	\$9,739
Age 65, male	\$7,612	\$7,158	\$6,193	\$6,965
Age 65, female	\$7,213	\$6,784	\$5,868	\$6,601

Administrative Expenses Included in medical and dental claim costs.

Excise Tax (Cadillac Tax) There is considerable uncertainty about how the tax would be applied, and considerable latitude in grouping of participants for tax measurement testing purposes. We prepared a projection of the calculation based on a reasonable interpretation of the applicable legislation. The projection separately valued single and family premium costs for participants over age 65 from the premium costs for pre-65 participants, projecting these amounts by the medical cost increase factors in this valuation. The initial 2019 limits for calculating the tax were projected using the same cost increase factors used for the valuation. The limits after 2019 were calculated using an assumed CPI of 3.0%. The impact was de Minimis.

Mortality Pre/Post-retirement mortality: RP-2014 Healthy Employees and Annuitants, Adjusted back to 2006, Generational Under Projection Scale MP-2017. These tables first used for the June 30, 2018 actuarial valuation.

Rates of Retirement

General

Based on age as follows:

Age(s)	Normal	Early
50-59	25 %	10 %
60	30	
61-64	30	
65	60	
66-69	40	
70+	100	

Fire

Based on age as follows:

Age(s)	Normal	Early
50-54		10 %
55-59	25 %	
60+	100	

Based on Service as follows:

Age(s)	Rates
25-34	25 %
35+	100

Police

Based on age as follows:

Age(s)	Normal	Early
50-54		10 %
55-59	50 %	
60+	100	

Based on service as follows:

Years of Service	Police
25-34	50 %
35+	100

City of Ann Arbor Retiree Health Care Benefits Plan

Rates of Disability	Age	General	Police	Fire
	20	0.06 %	0.08 %	0.02 %
	25	0.06	0.08	0.02
	30	0.06	0.08	0.02
	35	0.06	0.08	0.02
	40	0.10	0.14	0.03
	45	0.24	0.32	0.08
	50	0.42	0.56	0.14
	55	0.65	0.86	0.22
	60	0.86	1.14	0.29

Percent of disabilities due to duty related:

General	25%
Police and Fire	50%

Rates of Turnover

General

Based on age and service as follows:

Years of Service	Male	Female
0	6.00%	16.00%
1	4.80%	13.00%
2	4.00%	11.00%
3	3.20%	8.00%
4	2.40%	6.00%

After Five Years of Service

Ages	Male	Female
20-34	4.50%	3.20%
35+	3.50%	3.25%

Fire

Based on age and service as follows:

Years of Service	
0	4.50%
1	4.00%
2-4	3.60%

After Five Years of Service

Ages	
20-29	1.40%
30-34	1.10%
35-39	.90%
40-44	1.00%
45-49	.90%
50+	.50%

Police

Based on age and service as follows:

Years of Service

0-1	6.00%
2	4.00%
3	3.00%
4	2.50%

After Five Years of Service

Ages

20-34	2.40%
35-39	1.75%
40-44	.74%
45+	.48%

Participation Rate 90%

Dependents Actual data was used for spouses of current retirees. Of those future retirees electing coverage at retirement, 75% of retirees are assumed to be married at time of retirement and elect to cover their spouse in the same medical arrangement that they have elected. Spouses are assumed to be the same age as the participant. No divorce or remarriage after widowhood was reflected.

Actuarial Cost Method Liabilities and contributions shown in this report are computed using the Entry Age Normal (level Percent of Pay), with level pay, consistent with the requirement of GASB 74.

Assets are valued at fair value.

Amortization of Unfunded Liabilities The amortization period begins at 30 years as of a June 30, 2017 decreasing by 2 years annually until the amortization period reaches 15 years. Once the plan hits 100% funded status, the amortization period will be set at 1-year

Contributions This report assumes that going forward, the City will contribute the maximum of the prior year ADC increased by 2% or the current year ADC. The ADC is calculated as the Employer normal cost plus the amortization of unfunded.

The plan is funded by City contributions. For the year ended June 30, 2018, the City contributed \$17,723,985 to the Plan. Retirees contribute toward the cost of their coverage.

Plan Assets

Summary of operations

	June 30, 2018
Assets	
Total Assets	\$ 171,950,291
Liabilities	
Accounts Payable	\$ 142,938
Net Position Restricted for OPEB	\$ 171,807,353
Additions	
Contributions	
Employer*	\$ 17,723,985
Employee	0
Total Contributions	17,723,985
Investment Income	11,114,377
Other	0
Total Additions	\$ 28,838,362
Deductions	
Benefit Payments / Refunds	14,272,653
Administrative Expenses	97,463
Other	0
Total Deductions	14,370,116
Net Increase in Net Position	14,468,247
Beginning of Year	157,339,107
End of Year	\$ 171,807,353

*This includes \$2,049,703 of non-recurring contributions.

Actuarial Computations

Actuarial balance sheet

Assets

Actuarial Asset Value	171,807,353
Unfunded Accrued Liability	112,162,226
Present Value of Future Normal Costs	<u>16,861,059</u>
Total	300,830,638

Liabilities

Present Value of Benefits	
Active Participants	83,112,879
Inactive Participants	<u>217,717,759</u>
Total	300,830,638

Determination of actuarially determined contribution

The Actuarially Determined Contribution for the plan is equal to the normal cost plus the amounts required to amortize the unfunded accrued liability over closed periods not to exceed 26 years, based on a level percentage of pay.

An interest adjustment has been added to reflect payment at the midpoint of the fiscal year.

	<u>June 30, 2018</u>
Number of employees	695
Total projected payroll	\$54,906,992
Average per employee	\$79,003
Actuarially Determined Contribution	\$12,129,387
% of Payroll	22.09%

Sensitivity testing of actuarial assumptions

The results of this valuation must be viewed as estimates of the actual results that will occur in the future. It is important to realize that actual results will likely be either higher or lower than these estimates. In addition, certain assumptions are more critical to the valuation results. The impact caused by change or volatility in these key assumptions can be illustrated by providing valuation results after varying these assumptions. In particular, sensitivity results are shown below for the revision of two key assumptions: (a) increasing the health care cost trend assumption from 8.25% per annum to 9.25% and (b) decreasing the discount rate from 7.00% to 6.0%.

	Base Results	Revision (a)	Revision (b)
Total OPEB Liability	283,969,579	325,245,122	323,297,915
Plan Fiduciary Net Position	171,807,353	171,807,353	171,807,353
Net OPEB Liability	<u>112,162,226</u>	<u>153,437,769</u>	<u>151,490,562</u>
Normal Cost	2,822,213	3,427,662	3,628,347
Amortization of Unfunded Accrued Liability	8,864,068	12,126,033	10,990,833
Interest	443,106	589,744	475,123
Actuarially Determined Contribution	<u>12,129,387</u>	<u>16,143,439</u>	<u>15,094,303</u>
ADC as a percentage of projected pay	22.09%	29.40%	27.49%

Accounting Information

Statement of fiduciary net position (unaudited)

	<u>June 30, 2018</u>
Assets	
Total Assets	<u>\$ 171,950,000</u>
Liabilities	
Account Payable	<u>\$ 143,000</u>
Net Position Restricted for OPEB	<u>\$ 171,807,000</u>

Statement of changes in fiduciary net position (unaudited)

	<u>June 30, 2018</u>
Additions	
Contributions	
Employer	\$ 17,724,000
Employee	<u>0</u>
Total Contributions	17,724,000
Investment Income	11,114,000
Other	<u>0</u>
Total Additions	<u>\$ 28,838,000</u>
 Deductions	
Benefit Payments / Refunds	14,273,000
Administrative Expenses	97,000
Other	<u>0</u>
Total Deductions	<u>14,370,000</u>
Net Increase in Net Position	<u>14,468,000</u>
 Net Position Restricted for OPEB	
Beginning of Year	<u>157,339,000</u>
End of Year	<u>\$ 171,807,000</u>

Net OPEB liability (NOL)

Determination of net OPEB liability

The components of the net OPEB liability at June 30, 2018 were as follows:

Total OPEB Liability	\$ 261,367,000
Plan Fiduciary Net Position	<u>(171,807,000)</u>
Net OPEB Liability	<u>\$ 89,560,000</u>

Plan Fiduciary Net Position as a Percentage of Total OPEB Liability 65.73%

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 7% decreasing to 3.5% over 14 years	Current 8% decreasing to 4.5% over 14 years	1% Increase 9% decreasing to 5.5% over 14 years
Net OPEB Liability	\$ 57,780,000	\$ 89,560,000	\$ 128,080,000

Sensitivity of net OPEB liability to changes in the discount rate

The following represents the net OPEB 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 6.00%	Current Rate 7.00%	1% Increase 8.00%
Net OPEB Liability	\$ 123,851,000	\$ 89,560,000	\$ 61,261,000

Schedule of changes in the NOL and related ratios

	fiscal year ending June 30									
	<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>	<u>2027</u>
Total OPEB Liability										
Service cost	\$ 3,331,000									
Interest	17,099,000									
Changes of benefit terms	0									
Differences between expected and actual experience	0									
Changes of assumptions	0									
Benefit Payments / Refunds	(14,273,000)									
Net Change in Total OPEB Liability	6,157,000									
Total OPEB Liability - beginning	255,210,000									
Total OPEB Liability - ending (a)	\$ 261,367,000									
Plan Fiduciary Net Position										
Contributions - employer	\$17,724,000									
Contributions - employee	0									
Net investment income	11,114,000									
Benefit Payments / Refunds	(14,273,000)									
Administrative expenses	(97,000)									
Other	0									
Net Change in Plan Fiduciary Net Position	\$ 14,468,000									
Plan Fiduciary Net Position - beginning	157,339,000									
Plan Fiduciary Net Position - ending (b)	\$ 171,807,000									
Net OPEB Liability - ending (a) - (b)	\$ 89,560,000									
Plan Fiduciary Net Position as a % of the Total OPEB Liability	65.7%									
Covered-employee payroll	\$ 55,458,000									
Net OPEB Liability as a % of covered-employee payroll	161.5%									

Schedule of contributions

	fiscal year ending June 30									
	<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>	<u>2027</u>
Actuarially determined contribution	9,683,000									
Contributions in relation to the actuarially determined contribution	17,724,000									
Contribution deficiency (excess)	<u>\$ (8,041,000)</u>									
Covered-employee payroll	\$ 55,458,000									
Contributions as a percentage of covered-employee payroll	32.0%									

Schedule of investment returns

	fiscal year ending June 30									
	<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>	<u>2027</u>
Annual money-weighted rate of return, net of investment expense	7.21%									

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)					OPEB Expense
	Total OPEB Liability (a)	Plan Net Position (b)	Net OPEB Liability (a) - (b)	Deferred Outflows of Resources	Deferred Inflows of Resources	
Balances—at 06/30/2017	\$ 255,210,000	\$ 157,339,000	\$ 97,871,000	\$0	\$0	
Changes for the Year:						
Service cost	3,331,000		3,331,000			3,331,000
Interest	17,099,000		17,099,000			17,099,000
Benefit changes	0		0			
Experience losses (gains)	0		0	0	0	0
Changes of assumptions	0		0		0	0
Contributions—Employer		17,724,000	(17,724,000)			
Contributions—members		0	0			0
Expected return on plan investments		11,129,000	(11,129,000)			(11,129,000)
Difference between expected and actual returns		(15,000)	15,000	0	15,000	0
Refunds of contributions		0	0			
Benefits paid	(14,273,000)	(14,273,000)	0			
Administrative expenses		(97,000)	97,000			97,000
Recognition of Prior Post-measurement Contribution						
Post-measurement Contribution						
Other changes		0	0			
Amortization of or change in beginning balances				0	(3,000)	3,000
Net Changes	<u>6,157,000</u>	<u>14,468,000</u>	<u>(8,311,000)</u>	<u>0</u>	<u>12,000</u>	<u>9,401,000</u>
Balances—at 06/30/2018	<u>\$ 261,367,000</u>	<u>\$ 171,807,000</u>	<u>\$ 89,560,000</u>	<u>\$ -</u>	<u>\$ 12,000</u>	<u>\$ 9,401,000</u>

OPEB expense & deferred outflows/inflows of resources

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

Years Ending June 30:	
2019	\$ (3,000)
2020	(3,000)
2021	(3,000)
2022	(3,000)
2023	0
Thereafter	0

Amortization of Difference between Expected and Actual Experience

There are no amortizations due to a difference between expected and actual experience.

Amortization of Difference between Projected and Actual Earnings

Measurement Year	2018	2019	2020	2021	2022
Amount Established	\$ (15,000)				
Amortization Period	5				
Annual Recognition	(3,000)				

Amount Recognized

		Total	Outflows	Inflows
2018	\$ (3,000)	\$ (3,000)	\$ -	(3,000)
2019	(3,000)	(3,000)	-	(3,000)
2020	(3,000)	(3,000)	-	(3,000)
2021	(3,000)	(3,000)	-	(3,000)
2022	(3,000)	(3,000)	-	(3,000)
2023	-	-	-	-
2024	-	-	-	-
2025	-	-	-	-
2026	-	-	-	-

Deferred Balance

2018	\$ (12,000)	\$ (12,000)	\$ -	(12,000)
2019	(9,000)	(9,000)	-	(9,000)
2020	(6,000)	(6,000)	-	(6,000)
2021	(3,000)	(3,000)	-	(3,000)
2022	-	-	-	-
2023	-	-	-	-
2024	-	-	-	-
2025	-	-	-	-
2026	-	-	-	-

Amortization of Change in Assumptions

There are no amortizations due to a change in assumptions.

Actuarial Funding Projections

Projection Assumptions and Methods

Key Assumptions

- 7.0% investment return on the Fair Value of Assets in all future years.
- Actuarial assumptions and methods as described. All future demographic experience is assumed to be exactly realized.
- Contributions made according to two different scenarios:
 - Baseline Policy – Closed level \$ amortization starting at 26 year amortization and decreasing 2 year years annually until the amortization period reaches 15 years.
 - Current written funding Policy – Prior year actual contribution increased 2% per year, until 100% funded, then normal cost only.
- Projections assume a 0% increase in the total active member population. All new future members are expected to enter the plan upon date of hire and contribution rates are determined as a percent of total payroll.

Projection Results

Table of Projected Actuarial Results - Baseline Policy
 Financial Projection(\$'s in 000's)
 Investment return 7.00%

Fiscal Year	Beginning of Year Valuation Amounts						Flow amount during the next 12 months					Ending Actuarial Assets
	End	Actuarial Asset	General	Police	Fire	Total	Funding Ratio	Surplus (Deficit)	ADC	Employer Contribution	Benefit Payments	
2019	171,807	169,864	70,425	43,680	283,969	60.50%	(112,162)	9,234	11,391	13,041	11,970	182,127
2020	182,127	174,998	72,754	44,998	292,750	62.21%	(110,623)	12,129	12,129	13,515	11,979	182,401
2021	182,401	179,822	74,943	46,246	301,011	60.60%	(118,610)	12,144	12,372	14,466	12,687	192,710
2022	192,710	184,299	76,985	47,443	308,727	62.42%	(116,017)	13,053	13,053	15,422	13,383	192,719
2023	192,719	188,390	78,807	48,563	315,760	61.03%	(123,041)	13,088	13,315	16,425	13,377	202,982
2024	202,982	192,086	80,364	49,600	322,050	63.03%	(119,068)	14,156	14,156	17,452	14,070	202,800
2025	202,800	195,371	81,657	50,525	327,553	61.91%	(124,753)	14,331	14,439	18,462	14,050	213,029
2026	213,029	198,222	82,678	51,341	332,241	64.12%	(119,212)	15,204	15,204	19,445	14,743	212,609
2027	212,609	200,606	83,445	52,003	336,054	63.27%	(123,445)	14,433	15,508	20,435	14,650	222,845
2028	222,845	202,462	83,933	52,484	338,879	65.76%	(116,034)	14,693	14,722	21,469	15,343	220,512
2029	220,512	203,802	84,134	52,775	340,711	64.72%	(120,199)	13,710	14,987	22,436	15,113	230,739
2030	230,739	204,556	84,084	52,899	341,539	67.56%	(110,800)	13,990	13,990	23,375	15,810	226,240
2031	226,240	204,742	83,840	52,841	341,423	66.26%	(115,183)	12,853	14,269	24,214	15,432	236,603
2032	236,603	204,386	83,399	52,606	340,391	69.51%	(103,788)	13,190	13,190	24,967	16,145	229,894
2033	229,894	203,469	82,827	52,222	338,518	67.91%	(108,624)	11,850	13,454	25,592	15,615	240,609
2034	240,609	201,985	82,156	51,704	335,845	71.64%	(95,236)	12,255	12,255	26,133	16,359	231,631
2035	231,631	199,962	81,406	51,088	332,456	69.67%	(100,825)	10,731	12,500	26,548	15,675	242,921
2036	242,921	197,425	80,557	50,390	328,372	73.98%	(85,451)	11,251	11,251	26,921	16,465	231,636
2037	231,636	194,388	79,681	49,627	323,696	71.56%	(92,060)	9,550	11,476	27,156	15,625	243,706
2038	243,706	190,919	78,704	48,846	318,469	76.52%	(74,763)	10,204	10,204	27,322	16,472	230,143
2039	230,143	186,975	77,641	48,053	312,669	73.61%	(82,526)	8,322	10,408	27,483	15,475	243,102
2040	243,102	182,608	76,498	47,248	306,354	79.35%	(63,252)	9,118	9,118	27,559	16,388	227,178
2041	227,178	177,845	75,272	46,431	299,548	75.84%	(72,370)	7,041	9,300	27,582	15,230	241,209
2042	241,209	172,780	73,923	45,576	292,279	82.53%	(51,070)	7,991	7,991	27,547	16,220	222,851
2043	222,851	167,413	72,475	44,675	284,563	78.31%	(61,712)	5,707	8,150	27,472	14,894	238,107
2044	238,107	161,767	70,936	43,734	276,437	86.13%	(38,330)	6,829	6,829	27,332	15,971	217,242
2045	217,242	155,900	69,241	42,726	267,867	81.10%	(50,625)	4,330	6,966	27,205	14,471	233,839
2046	233,839	149,826	67,397	41,646	258,869	90.33%	(25,030)	5,633	5,633	27,028	15,645	210,318
2047	210,318	143,578	65,412	40,514	249,504	84.29%	(39,186)	2,903	5,746	26,770	13,963	228,460
2048	228,460	137,173	63,294	39,309	239,776	95.28%	(11,316)	4,408	4,408	26,484	15,249	202,205

Table of Projected Actuarial Results - Assumes 2% Increase in Contribution Until 100% Funded
 Financial Projection(\$'s in 000's)
 Investment return 7.00%

Beginning of Year Valuation Amounts						Flow amount during the next 12 months						
Accrued Liability												
Fiscal Year	Actuarial				Funding	Surplus				Ending		
End	Asset	General	Police	Fire	Total	Ratio	(Deficit)	ADC	Employer	Benefit	Expected	Actuarial
									Contribution	Payments	Return	Assets
2019	171,807	169,864	70,425	43,680	283,969	60.50%	(112,162)	9,234	15,988	13,041	12,128	186,882
2020	186,882	174,998	72,754	44,998	292,750	63.84%	(105,868)	12,129	16,308	13,425	13,181	202,945
2021	202,945	179,822	74,943	46,246	301,011	67.42%	(98,066)	11,742	16,634	14,373	14,284	219,490
2022	219,490	184,299	76,985	47,443	308,727	71.10%	(89,237)	11,252	16,966	15,326	15,421	236,551
2023	236,551	188,390	78,807	48,563	315,760	74.91%	(79,209)	10,636	17,306	16,329	16,592	254,120
2024	254,120	192,086	80,364	49,600	322,050	78.91%	(67,930)	9,929	17,652	17,355	17,799	272,215
2025	272,215	195,371	81,657	50,525	327,553	83.11%	(55,338)	9,080	18,005	18,367	19,043	290,895
2026	290,895	198,222	82,678	51,341	332,241	87.56%	(41,346)	7,811	18,365	19,357	20,329	310,232
2027	310,232	200,606	83,445	52,003	336,054	92.32%	(25,822)	6,140	18,732	20,357	21,660	330,267
2028	330,267	202,462	83,933	52,484	338,879	97.46%	(8,612)	2,269	8,808	21,405	22,685	340,356
2029	340,356	203,590	84,046	52,720	340,356	100.00%	0	1,225	1,225	22,391	23,097	342,287
2030	342,287	205,004	84,268	53,015	342,287	100.00%	0	1,085	1,085	23,354	23,194	343,211
2031	343,211	205,814	84,279	53,118	343,211	100.00%	0	951	951	24,224	23,224	343,162
2032	343,162	206,050	84,078	53,034	343,162	100.00%	0	821	821	25,010	23,189	342,163
2033	342,163	205,660	83,719	52,784	342,163	100.00%	0	708	708	25,677	23,092	340,285
2034	340,285	204,656	83,242	52,387	340,285	100.00%	0	606	606	26,272	22,937	337,556
2035	337,556	203,029	82,655	51,872	337,556	100.00%	0	529	529	26,755	22,727	334,057
2036	334,057	200,843	81,952	51,262	334,057	100.00%	0	464	464	27,216	22,464	329,769
2037	329,769	198,035	81,176	50,558	329,769	100.00%	0	411	411	27,557	22,150	324,773
2038	324,773	194,698	80,262	49,813	324,773	100.00%	0	371	371	27,861	21,788	319,070
2039	319,070	190,803	79,230	49,037	319,070	100.00%	0	339	339	28,200	21,376	312,586
2040	312,586	186,323	78,054	48,209	312,586	100.00%	0	314	314	28,482	20,912	305,330
2041	305,330	181,278	76,725	47,327	305,330	100.00%	0	292	292	28,747	20,394	297,269
2042	297,269	175,730	75,185	46,354	297,269	100.00%	0	277	277	28,989	19,821	288,377
2043	288,377	169,657	73,446	45,274	288,377	100.00%	0	265	265	29,232	19,190	278,600
2044	278,600	163,032	71,491	44,077	278,600	100.00%	0	256	256	29,433	18,498	267,921
2045	267,921	155,932	69,255	42,734	267,921	100.00%	0	249	249	29,700	17,741	256,212
2046	256,212	148,288	66,706	41,218	256,212	100.00%	0	245	245	29,964	16,912	243,404
2047	243,404	140,067	63,813	39,524	243,404	100.00%	0	242	242	30,180	16,008	229,475
2048	229,475	131,280	60,575	37,620	229,475	100.00%	0	241	241	30,391	15,026	214,350

Employee Data

Participants

	Active	Retirees & Surviving Spouses Covered	Spouses Covered
General			
Medical/Life	499	566	320
Life only	n/a	115	n/a
Subtotal	<u>499</u>	<u>681</u>	<u>320</u>
Police			
Medical/Life	118	184	123
Life only	n/a	26	n/a
Subtotal	<u>118</u>	<u>210</u>	<u>123</u>
Fire			
Medical/Life	78	142	88
Life only	n/a	19	n/a
Subtotal	<u>78</u>	<u>161</u>	<u>88</u>
Total			
Medical/Life	695	892	531
Life only	n/a	160	n/a
Grand total	<u>695</u>	<u>1,052</u>	<u>531</u>