

# City of Ann Arbor Retiree Health Care Benefits Plan

Actuarial Valuation Report for  
Fiscal Year Ending June 30, 2017

Information Required Under  
Governmental Accounting Standards  
Board Statements No. 74 and 45

Fiscal Year Ending: June 30, 2017  
November 22, 2017

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November 22, 2017

Ms. Wendy Orcutt  
Executive Director  
City of Ann Arbor Employees' Retirement System  
532 S. Maple Road  
Ann Arbor, Michigan 48103

Dear Wendy

Conduent HR Consulting, LLC ("Conduent") was retained to complete this actuarial valuation report which provides information for the City of Ann Arbor's Postretirement Benefits Plan ("Plan") for the fiscal year ending June 30, 2017. The purposes of the valuation are to measure the fiduciary net position of the Plan, to measure the accounting amounts required for the costs to maintain the Plan for the City and to provide reporting and disclosure information for financial statements of the Plan and of the City of Ann Arbor, as well as for governmental agencies and other interested parties. This valuation report contains information that is required for compliance with the Governmental Accounting Standards Board's Statement 74, Financial Reporting for Postemployment Benefit Plans Other than Pension Plans ("GASB 74") and Statement 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions ("GASB 45").

#### **Purpose of This Report**

GASB 74, replaces Statement No. 43, Financial Reporting for Postemployment Benefit Plans Other than Pension Plans, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, paragraphs 7 and 8. GASB 74 is effective for fiscal years beginning after June 15, 2016. Similarly, GASB 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, replaces Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions, and Statement No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, and is effective for fiscal years beginning after June 15, 2017. The City of Ann Arbor has elected to adopt GASB 75 as of June 30, 2018.

The City of Ann Arbor may use this report as a source of information for its financial statements. Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. This report should not be provided except in its entirety.

Because of the risk of misinterpretation of actuarial results, you should ask Conduent to review any statement you wish to make on the results contained in this report. Conduent will accept no liability for any such statements made without prior review by Conduent.

Future actuarial measurements may differ significantly from current measurements due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions, changes in assumptions, changes expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period), and changes in plan provisions, applicable law or regulations. Retiree group benefit models necessarily rely on the use of approximations and estimates and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. An analysis of the potential range of such future differences other than the required disclosures related to the sensitivity to discount rate and healthcare cost trend rate assumptions is beyond the scope of this report.

### **Data, Assumptions, Methods and Plan Provisions**

This valuation was performed using employee census data, claims and enrollment data, asset information, and plan provisions provided by City personnel. Although we did not audit the data, we reviewed the data for reasonableness and consistency with the prior year's information. A detailed review of the data and its sources beyond that necessary to develop the analysis was not performed and is beyond the scope of the analysis. The results of the valuation are dependent on the accuracy of the data.

The entry age normal liabilities presented herein were determined as of June 30, 2017 using data as of that date provided by The City of Ann Arbor.

The assumptions, methods, and plan provisions used were the same as those in the City of Ann Arbor's Retiree Medical Actuarial Valuation Under GASB 45 for FYE June 30, 2017 report, except for the following:

- The actuarial cost method used was revised to the Entry Age Normal level percent of pay method, consistent with the requirements of GASB 74.
- The Net OPEB Obligation and the Annual Required Contribution as defined in GASB 45 are no longer determined, since they are no longer required to be disclosed on the Annual Financial Statement. Instead, the annual OPEB expense recognized on the statement of activities (income statement) is based on the net OPEB liability change between reporting dates.
- The valuation uses a discount rate of 7.00%, which is the long term rate of return assumption on plan assets (7.0%) A cash flow analysis indicates that the assets will be sufficient to pay all future benefit payments for current participants based on the assumed contribution policy. (See Exhibit IV for this analysis)
- The valuation relies on the City's written contribution policy of increasing the contribution to the OPEB trust by 2% annually until the OPEB trust is fully funded, afterwards, the City will fund the normal cost each year afterwards.
- The per capita costs were updated to reflect the new claims, enrollment, and premiums as received by the City of Ann Arbor.

**Actuarial Certification**

The assumptions used for financial accounting purposes were selected by the plan sponsor with our advice. In my opinion, the actuarial assumptions used are appropriate for purposes of the valuation and are reasonably related to the experience of the Plan and to reasonable long-term expectations. The cost results and actuarial exhibits presented in this report were determined on a consistent and objective basis in accordance with applicable Actuarial Standards of Practice and generally accepted actuarial procedures. To the best of my knowledge, the information fairly presents the actuarial position of the City of Ann Arbor Postretirement Benefits Plan in accordance with the requirements of GASB Statements No. 74 and 45 as of June 30, 2017.

Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask Conduent to review any statement you wish to make on the results contained in this report. Conduent will accept no liability for any such statements made without prior review by Conduent.

In preparing the actuarial results, we have relied upon information provided by the City of Ann Arbor regarding plan provisions, plan participants, plan assets, and other matters used in the actuarial valuation. Although we did not audit the data, we reviewed the data for reasonableness and consistency with the prior year's information. The accuracy of the results presented herein is dependent on the accuracy of the data.

It is important to note that the measurement of postretirement medical obligations is extremely sensitive to the assumptions chosen. The results presented above and in more detail in the next sections are based upon one set of reasonable assumptions. Other sets of equally reasonable assumptions can yield materially lesser or greater obligations.

This report represents a statement of actuarial opinion by the undersigned actuary. Signing Actuary is an Associate of the Society of Actuaries, and a Member of the American Academy of Actuaries. He has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice and they are available to answer questions about it.

Respectfully submitted,



Robert Besenhofer, ASA, MAAA,  
Director, Health & Productivity

Conduent HR Services

# Contents

<b>GASB 74 Information .....</b>	<b>1</b>
<b>GASB 45 Information .....</b>	<b>6</b>
<b>Funding Analysis.....</b>	<b>9</b>
<b>Appendix A.....</b>	<b>15</b>
<b>Appendix B.....</b>	<b>21</b>
<b>Appendix C.....</b>	<b>24</b>
<b>Appendix D.....</b>	<b>29</b>
<b>Appendix E.....</b>	<b>30</b>

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# GASB 74 Information

## Summary of Significant Accounting Policies

**Method used to value investments:** Investments are reported at fair value.

### Plan Description

**Plan administration:** The City of Ann Arbor administers the City of Ann Arbor Postretirement Benefits Plan (“Plan”), a single-employer defined benefit Postretirement Benefits Plan. The Plan covers eligible retirees and disabled employees of the City, as well as their spouses and survivors. The City established the Retiree Benefits Trust to fund the future payments required to provide post-employment benefits other than pension (“OPEB”). Responsibility for the administration of the trust is vested in an nine-member Board.

**Plan membership:**

Membership Status as of June 30, 2017	Count
Inactive plan members or beneficiaries currently receiving benefits	1,043
Active plan members	<u>696</u>
Total	1,739

**Benefits provided:** Please see Appendix B of this report for a summary of plan provisions.

**Contributions:** In the past, the City has established contributions based on the Actuarially Determined Contribution (“ADC”). This report assumes that going forward, the City will contribute the maximum of the prior year contribution increased by 2% or the ADC. The ADC is calculated as the estimated amount necessary to finance the costs of benefits earned by plan members during the year and administrative costs for the year, with an additional amount to finance any unfunded accrued liability beginning June 30, 2017 on a closed level dollar basis. The amortization period begins at 30 years 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. The following liability and asset cost methods are used to determine contributions:

Liabilities are calculated using the entry age normal percent of pay actuarial cost method.

Assets are valued at fair value.

The plan is funded by City contributions. For the year ended June 30, 2017, the City contributed \$16,667,000 to the Plan. Retirees contribute toward the cost of their coverage as described in Appendix A.

## Investments

**Rate of return:** For the year ended June 30, 2017, the annual money-weighted rate of return on investments net of investment expense, was 11.78%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

The long-term expected rate of return for the Postretirement Benefits Plan is an estimated investment return over the entire period that benefits will be paid and reflects anticipation of future inflation.

Guidance stipulates that the short term discount rate used to determine the present value of benefits that will not be paid from the assets should be based on the yield on 20-year, tax-exempt general obligation municipal bonds with an average rating of AA or higher. The assumption used in this valuation is based on the following indices:

At June 30, 2017:

S&P Municipal Bond 20 year High Grade Rate Index yield to maturity: 3.13%

At June 30, 2016:

S&P Municipal Bond 20 year High Grade Rate Index yield to maturity: 2.71%

## Receivables

Not applicable.

## Net OPEB Liability of The City of Ann Arbor

Components of the net OPEB liability	
Total OPEB liability	\$254,029,000
Plan fiduciary net position	<u>157,339,000</u>
Net OPEB liability	96,690,000
Plan fiduciary net position as a percentage of the total OPEB liability	61.94%

## Actuarial assumptions

Please see Appendix A of this report for a description of actuarial assumptions.



## Schedules of Required Supplementary Information

Schedule of Changes in Net OPEB Liability and Related Ratios	2017
<b>Total OPEB liability</b>	
Service cost	\$ 3,071,000
Interest	17,058,000
Changes of benefit terms	0
Differences between expected and actual experience	0
Changes of assumptions	0
Net benefit payments	<u>(13,207,000)</u>
Net change in total OPEB liability	\$ 6,922,000
Total OPEB liability-beginning	\$ 247,107,000
Total OPEB liability-ending (a)	\$ 254,029,000
<b>Plan fiduciary net position</b>	
Contributions- City of Ann Arbor	\$ 16,667,000
Contributions-member	-
Net investment income	17,225,000
Benefit payments	(13,207,000)
Investment related expense	(130,000)
Other	<u>N/A</u>
Net change in plan fiduciary net position	\$ 20,555,000
Plan fiduciary net position-beginning	\$ 136,784,000
Plan fiduciary net position-ending (b)	\$ 157,339,000
Client's net OPEB liability-ending (a)-(b)	\$ 96,690,000
Plan fiduciary net position as a percentage of the total OPEB liability	61.94%
Covered-employee payroll	\$53,583,000
Net OPEB liability as a percentage of covered-employee payroll	180.45%

Notes to Schedule:

A. Benefit changes: None.

B. Changes of assumptions: None

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate	1% Decrease 6.00%	Discount Rate 7.00%	1% Increase 8.00%
Net OPEB liability	\$ 131,239,000	\$ 96,690,000	\$ 69,153,000

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rate	1% Decrease	Current Trend Rate	1% Increase
Net OPEB liability	\$ 67,256,000	\$ 96,690,000	\$ 132,636,000

Schedule of Contributions

Schedule of Employer Contributions	2017
Actuarially determined contribution	\$11,168,000
Contributions related to the actuarially determined contribution	<u>16,667,000</u>
Contribution deficiency (excess)	\$(5,499,000)
Covered-employee payroll	\$53,583,000
Contribution as a percent of payroll	31.1%

Notes to Schedule:

A. Valuation date: June 30, 2017.

B. Methods and assumptions:

Actuarial cost method	Entry Age Normal, level percent of pay
Amortization method	Level percent of pay
Asset valuation method	Actuarial value
Inflation	3.00%
Salary increases	3.50% per annum plus merit component that varies by age.
Healthcare cost trend rates:	Medical Pre-65: 8.25% decreasing 0.25% per year to an ultimate of 4.50%; Medical Post-65 6.25% decreasing to an ultimate of 4.50% in 2031.

Investment Rate of Return	7.00%
Retirement age	For general employees an age related assumption is used. Participants are assumed to retire between age 50 and age 70. For police & fire employees, a service-related assumption is used. Participants are assumed to retire between 25 and 35 years of service.
Mortality	RP 2000 Combined Table projected to 2007 set forward 2 years for males and set back 3 years for females
Other information	See the Actuarial Assumptions and Methods, Appendix A of the Ann Arbor Retiree Medical Funding Valuation Report for FYE June 30, 2017 and for FYE June 30, 2015.

### Schedule of Investment Returns

	2017
Annual money-weighted rate of return, net of investment expenses	11.78%

### Projection of Fiduciary Net Position

#### Information Required Under GASB 74 as of June 30, 2017

As part of our valuation work, we projected benefit payouts and the fiduciary net position of the plan for as long as benefits were expected to be paid to current active and inactive plan participants and their dependents. In projecting the fiduciary net position of the plan, the amount of projected cash flows for contributions from employers was assumed to be equal to the actuarially determined contribution ("ADC") for each fiscal year as per the assumption that the City has a written funding policy to contribute the maximum of the prior year ADC increased by 2% or the calculated ADC for the current year, each fiscal year. A portion of the future employer contributions was assumed to be associated with the service cost for future employees. The projected benefit payout and fiduciary net position amounts were compared for each year in the projection period. The plan fiduciary net position is projected to be greater than the benefits to be made in all years of the projection period. Therefore, a discount rate of 7.0%, based on the long-term rate of return assumption, is appropriate for these measurements.

## GASB 45 Information

Governmental Accounting Standards Board (GASB) Statement No. 74 (GASB 74) replaced GASB 43 for plan years beginning after June 15, 2016. GASB 75 replaces GASB 45 for plan years beginning after June 15, 2017. The calculations included in this report are not appropriate for reporting under GASB 75.

GASB Statement No. 45 requires government entities that sponsor Other Postemployment Benefits (OPEB) to account for these benefits on an accrual basis, similar to ASC 715 for US Corporations or GASB 67/68 for governmental pension plans.

For eligible employees, City of Ann Arbor provides medical and prescription drug benefits to eligible retirees, disabled retirees, their dependents, and surviving spouses. The City also provides life insurance benefits for eligible retirees and disabled retirees.

The results are based on a 7.00% discount rate, which assumes the OPEB plan will be funded via the existing retiree health VEBA fund, which will earn a long-term investment return of 7.00%. The funds used to pay the retiree benefits may earn a lesser return, either because:

- 1) The assets in the fund earn less than an 7.00% long-term return on investments, or
- 2) The City consistently funds less than the GASB 45 Annual Required Contribution (ADC)

In either of these cases a lower discount rate assumption may be appropriate for GASB 45 valuation purposes. For example, if the fund assets were expected to earn a 6.00% return, the impact would be that shown in Section V.

The table on the next page summarizes the valuation results. They have been calculated based upon the actuarial assumptions and methods detailed in Section VIII.

GASB 45 rules prohibit reflecting the Retiree Drug Subsidy (RDS) as an offset in the calculation of the actuarial liability. The VEBA could choose to have an actuarial valuation performed that does reflect the impact of RDS, for funding purposes only.

The following discussion develops the Annual OPEB Cost (AOC), Net OPEB Obligation (NOO), funding status, and required supplementary information for fiscal year ending June 30, 2017. All amounts are shown using a discount rate of 7.00%.

### Annual OPEB Cost (AOC)

	Fiscal Year Ending June 30, 2017
ADC	\$11,168,000
Adjustment to ADC	(\$46,000)
Interest on NOO	60,000
<b>Total AOC</b>	<b>\$11,182,000</b>

## Net OPEB Obligation (NOO)

The Net OPEB Obligation (NOO) as of June 30, 2017 is (\$4,635,000). The NOO will remain constant if 100% of the AOC is always contributed annually. However, if less than 100% is contributed, the NOO is the AOC minus the amount actually contributed. The NOO at June 30, 2017 is developed as follows:

Fiscal Year Ending June 30, 2017	
Actual NOO/(Asset) at June 30, 2016	\$850,000
Annual OPEB Cost	\$11,182,000
Contributions to AOC	\$16,667,000
NOO/(Asset) at June 30, 2017	(\$4,635,000)

Note that benefit payments (net of retiree contributions) count towards the AOC contribution (if they are not paid by drawing down the fund). Since the fiscal 2017 employer contributions are \$16,667,000, 149% of the AOC was contributed.

## Funded Status

City of Ann Arbor must show the funding status at the end of each year after adoption. As of June 30, 2017, the funded status is as follows:

<b>Funded Status</b>	
<u>As Of June 30, 2017</u>	
Actuarial Accrued Liability (AAL)	\$254,029,000
Actuarial Value of Assets	\$157,924,000
Unfunded AAL (UAL)	\$96,105,000
Funded Ratio (Assets/AAL)	62.2%
Covered Payroll	\$53,583,000
UAL as a % of Covered Payroll	179.4%

Required Supplementary Information (3-year history shown after adoption date)

Funding progress for the previous 3 years since adoption date must be provided.

<b>June 30, 2017</b>						
<u>Entry Age Normal Cost Method</u>						
Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
	(a)	(b)	(b - a)	(a / b)	(c)	(b - a) / (c)
6/30/2015	\$132,162,000	\$275,912,000	\$143,750,000	47.9%	\$48,759,000	294.8%
6/30/2016	\$143,250,000	\$281,502,000	\$138,252,000	50.9%	\$50,057,000	276.2%
6/30/2017	\$157,924,000	\$254,029,000	\$96,105,000	62.2%	\$53,583,000	179.4%

## Funding Analysis and FY 2019 Information

This section presents detailed valuation results for City of Ann Arbor's retiree medical program.

- The Present Value of Benefits (PVB) is the total present value of all expected future benefits, based on certain actuarial assumptions. Benefits are defined as paid claims and expenses from the plan, net of retiree contributions. The PVB is a measure of total liability or obligation. Essentially, the PVB is the value (on the valuation date) of the benefits promised to current and future retirees. The plan's projected PVB for the fiscal year ending June 30, 2019 is \$297,928,000. A portion of the combined liability (31%) is for current active employees (future retirees).
- The Actuarial Accrued Liability (AAL) is the liability or obligation for benefits earned through the valuation date, based on certain actuarial methods and assumptions. The plan's projected AAL for the fiscal year ending June 30, 2019 under the "Entry Age Normal – Level % of Salary" method is \$278,866,000. Normal Cost is the value of benefits expected to be earned during the year, again based on certain actuarial methods and assumptions. The projected fiscal year 2019 Normal Cost is \$3,145,000.
- The Actuarially Determined Contribution (ADC) is a combination of the Normal Cost for the fiscal year ending June 30, 2019 and an amortization payment of the Unfunded Accrued Actuarial Liability (UAL). Using the current amortization period of 28 years and a level percent of pay, the fiscal year 2019 ADC is \$9,234,000. The City of Ann Arbor may adopt an amortization period that is lower than this, however this will increase the employer funding contribution from the amounts noted here. The amortization payment for the UAL reflects interest at the discount rate and beginning of year amortization payments.
- Please note that we have included GASB 45 results for fiscal year 2019 for funding scenario purposes only. GASB Statement No. 75 replaces GASB 45 for plan years beginning after June 15, 2017.
- The results are based on an interest discount of 7.00% and a salary inflation rate of 3.50%. Medical, Rx, and Life benefits are included.
- The FY2019 ADC reflects a 28-year level percent of pay amortization of the unfunded AAL. The amortization also reflects interest at the discount rate and beginning of year amortization payments.
- The Annual OPEB Cost for the 2019 fiscal year is equal to the Annual Required Contribution (ADC) PLUS interest on the Net OPEB Obligation (NOO) PLUS a GASB 45 prescribed adjustment to the ADC.
- As noted above, this valuation uses a 7.00% discount rate. The 7.00% rate is based on historical and long-term expected investment returns on retiree health VEBA fund, which is expected to fund OPEB benefits. If the fund only earned a 6.00% long-term return, the impact would be that shown in Section V.

### Changes from the Prior Valuation

- Census data updated as of June 30, 2017 was used, as provided by the City
- Per capita claims experience was updated to reflect the most recent 36 months of fund experience.

City's Computed Contributions to the Benefits Plan for the Fiscal Year End June 30, 2019

Projected for Fiscal Year Ending June 30, 2019	Entry Age Normal Level % of Pay
Present Value of Benefits (PVB)	\$297,928,000
Actuarial Accrued Liability (AAL)	\$278,866,000
GASB 45 Actuarially Determined Contribution (ADC) <sup>1</sup>	\$9,234,000
GASB 45 Annual OPEB Cost (AOC) <sup>2</sup>	\$9,180,000

Item	General Members	Police Members	Fire Members	Totals
1. Active Members				
a. Health benefits	5.37%	6.02%	7.43%	
b. Life benefits	0.18%	0.08%	0.10%	
2. Total Normal Cost (As a % of pay)	5.55%	6.10%	7.53%	5.91%
3. Expected Member Contribution (As a % of pay)	0.20%	0.21%	0.27%	0.21%
4. Expected Member Contribution (Dollar amount)	3,958	1,373	1,382	6,713
5. Total Employer Normal Cost (As a % of pay)	5.35%	5.89%	7.26%	5.70%
a. Traditional plan	5.40%	6.16%	7.51%	5.83%
b. \$2,500/year design	0.37%	0.23%	0.16%	0.31%
6. Total Employer Normal Cost (Dollar amount)	\$1,979,000	\$654,000	\$512,000	\$3,145,000
7. Amortization of Unfunded Actuarial Liability Assets Allocated by AAL (As a % of pay)				
a. Actives (Traditional plan)	2.04%	2.78%	3.13%	
b. Actives (\$2,500/year design)	-0.31%	-0.41%	-0.47%	
c. Inactives	6.98%	9.70%	9.21%	
8. Total Unfunded Actuarial Liability Assets Allocated by AAL (As a % of pay)	8.71%	12.07%	11.87%	11.06%
9. Amortization of Unfunded Actuarial Accrued Liability (Dollar amount)	\$3,633,000	\$1,505,000	\$951,000	\$6,089,000
10. ADC (As a % of pay)	15.20%	19.45%	20.77%	16.77%
11. ADC (Dollar amount)	\$5,612,000	\$2,159,000	\$1,463,000	\$9,234,000
12. Adjustment to the ADC (Estimated Dollar Amount)				\$270,000
13. Interest on Net OPEB Obligation (Estimated Dollar Amount)				(\$324,000)
14. Annual OPEB cost (Estimated Dollar amount)				\$9,180,000



Development of GASB 45 Contribution for Fiscal Year Ending June 30, 2019

Entry Age Normal Level % of Pay – Discount Rate 7.00%, Salary Scale 3.50%

City Of Ann Arbor Development of GASB 45 Contribution For Fiscal Year Ending June 30, 2019 Entry Age Normal Level % of Pay - Discount Rate 7.00%, Salary Scale 3.50%				
	General Members	Police Members	Fire Members	Totals
<b>Present value of Future Benefits(PVB)</b>				
Actives	\$55,789,000	\$21,037,000	\$15,810,000	\$92,636,000
Retirees	122,981,000	51,346,000	30,965,000	205,292,000
Total	178,770,000	72,383,000	46,775,000	297,928,000
<b>Actuarial Accrued Liability (AAL)</b>				
Actives	\$43,451,000	\$17,558,000	\$12,565,000	\$73,574,000
Retirees	122,981,000	51,346,000	30,965,000	205,292,000
Total	166,432,000	68,904,000	43,530,000	278,866,000
Projected Assets (Allocated By AAL)	\$99,161,000	\$41,053,000	\$25,935,000	\$166,150,000
Unfunded AAL	\$67,271,000	\$27,851,000	\$17,595,000	\$112,716,000
<b>FY2019 Actuarially Determined Contribution (ADC)*</b>				
Normal Cost	\$1,979,000	\$654,000	\$512,000	\$3,145,000
Amortization of UAAL(28-year level % of Pay)	3,631,000	1,503,000	950,000	6,084,000
Total	5,610,000	2,157,000	1,462,000	9,229,000
Projected Pay-As-You-Go In Fiscal Year 2019* (Net Of Retiree Contributions)	\$9,093,000	\$3,178,000	\$2,295,000	\$14,566,000
Projected Covered Payroll*	\$36,921,000	\$11,100,000	\$7,043,000	\$55,064,000
ADC as a % of Covered Payroll	15.19%	19.43%	20.76%	16.76%
GASB ADC Relative To Pay-As-You-Go Cost	0.62	0.68	0.64	0.63

\* Assumes a constant active population for the next two years.

## **Funding Projection Key Assumptions**

- 7.0% investment return on the Market Value of Assets in all future years
- The Actuarial Value of Assets reflects the deferred gains and losses generated by the smoothing method adopted by the plan
- Actuarial assumptions and methods as described in Appendix A. All future demographic experience is assumed to be exactly realized.
- Contributions made according to two different scenarios:
  - Baseline Policy - Closed level dollar amortizations starting at 30 year amortization period and decreasing 2 years annually until the amortization period reaches 15 years
  - Current Written Funding Policy - Prior year contribution increased 2% per year, until 100% funded, then normal cost only
- Benefits payments in excess of contributions draw down the assets of the trust.
- 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.

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

Fiscal Year End	Beginning of Year Valuation Amounts						Flow amount during next 12 months				Recognized	Ending	
	Actuarial Asset	General	Accrued Liability		Funding Ratio	Surplus (Deficit)	GASB 74/75 ADC*	Employer Contribs	Benefit Payments	Expected Return	Asset Gain/(loss)	Actuarial Asset	
2018	157,924	161,570	66,502	42,217	270,289	58.4%	(112,365)	10,641	10,655	13,464	10,956	79	166,150
2019	166,150	166,432	68,904	43,530	278,866	59.6%	(112,716)	9,229	9,175	14,566	11,442	(1,702)	170,498
2020	170,498	170,769	71,138	44,748	286,655	59.5%	(116,157)	9,518	9,478	15,480	11,725	(376)	175,844
2021	175,844	174,734	73,233	45,869	293,836	59.8%	(117,992)	9,803	9,780	16,378	12,078	1,399	182,723
2022	182,723	178,336	75,140	46,935	300,411	60.8%	(117,688)	10,006	10,004	17,480	12,529	16	187,792
2023	187,792	181,376	76,788	47,919	306,083	61.4%	(118,291)	10,352	10,376	18,481	12,862	25	192,573
2024	192,573	184,036	78,074	48,785	310,895	61.9%	(118,322)	10,786	10,843	19,513	13,177	36	197,116
2025	197,116	186,277	79,025	49,458	314,760	62.6%	(117,644)	11,346	11,422	20,384	13,484	23	201,660
2026	201,660	188,039	79,700	50,060	317,799	63.5%	(116,139)	11,528	11,604	21,155	13,782	4	205,895
2027	205,895	189,413	80,120	50,526	320,059	64.3%	(114,164)	11,191	11,267	22,223	14,029	3	208,971
2028	208,971	190,118	80,231	50,834	321,183	65.1%	(112,212)	10,854	10,930	23,036	14,204	1	211,070
2029	211,070	190,371	80,078	50,917	321,366	65.7%	(110,296)	10,534	10,610	23,953	14,308	1	212,036
2030	212,036	189,947	79,606	50,854	320,407	66.2%	(108,371)	10,244	10,320	24,706	14,339	0	211,989
2031	211,989	188,908	78,952	50,574	318,434	66.6%	(106,445)	9,971	10,047	25,363	14,303	0	210,976
2032	210,976	187,384	78,096	50,019	315,499	66.9%	(104,523)	9,713	9,788	25,703	14,211	0	209,273
2033	209,273	185,382	77,103	49,392	311,877	67.1%	(102,604)	9,470	9,546	26,055	14,071	0	206,836
2034	206,836	182,786	76,057	48,623	307,466	67.3%	(100,630)	9,234	9,310	26,320	13,883	0	203,709
2035	203,709	179,692	74,949	47,706	302,347	67.4%	(98,638)	9,014	9,090	26,577	13,648	0	199,870
2036	199,870	176,224	73,604	46,661	296,489	67.4%	(96,619)	8,814	8,890	26,534	13,373	0	195,599
2037	195,599	172,353	72,396	45,475	290,224	67.4%	(94,625)	8,622	8,698	26,337	13,075	0	191,035
2038	191,035	168,287	71,045	44,271	283,603	67.4%	(92,568)	8,434	8,510	26,249	12,752	0	186,048
2039	186,048	163,812	69,608	43,133	276,553	67.3%	(90,505)	8,254	8,330	26,082	12,402	0	180,698
2040	180,698	159,009	68,135	42,013	269,157	67.1%	(88,459)	8,078	8,154	25,891	12,028	0	174,990
2041	174,990	153,758	66,615	40,963	261,336	67.0%	(86,346)	7,901	7,977	25,503	11,636	0	169,099
2042	169,099	148,474	64,967	39,954	253,395	66.7%	(84,296)	7,733	7,809	25,100	11,232	0	163,040
2043	163,040	143,011	63,381	38,913	245,305	66.5%	(82,265)	7,571	7,647	24,514	10,822	0	156,995
2044	156,995	137,429	61,912	37,928	237,269	66.2%	(80,274)	7,414	7,490	24,071	10,409	0	150,822
2045	150,822	131,871	60,365	36,906	229,142	65.8%	(78,320)	7,262	7,338	23,715	9,984	0	144,429
2046	144,429	126,328	58,683	35,820	220,831	65.4%	(76,402)	7,116	7,192	23,194	9,550	0	137,978
2047	137,978	120,844	56,894	34,778	212,516	64.9%	(74,538)	6,977	7,053	22,890	9,104	0	131,245

\* Actuarially Determined Contribution (ADC) under GASB 74/75 = amortization of unfunded liability + normal cost

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

Fiscal Year End	Beginning of Year Valuation Amounts						Flow amount during next 12 months				Recognized Asset Gain/(loss)	Ending Actuarial Asset	
	Actuarial Asset	General	Police	Fire	Total	Funding Ratio	Surplus (Deficit)	GASB 74/75 ADC*	Employer Contribs	Benefit Payments			Expected Return
2018	157,924	161,570	66,502	42,217	270,289	58.4%	(112,365)	10,641	15,674	13,464	11,132	79	171,345
2019	171,345	166,432	68,904	43,530	278,866	61.4%	(107,521)	8,949	15,988	14,566	12,044	(1,702)	183,108
2020	183,108	170,769	71,138	44,748	286,655	63.9%	(103,547)	8,805	16,308	15,480	12,847	(376)	196,406
2021	196,406	174,734	73,233	45,869	293,836	66.8%	(97,430)	8,580	16,634	16,378	13,757	1,399	211,817
2022	211,817	178,336	75,140	46,935	300,411	70.5%	(88,594)	8,171	16,966	17,480	14,809	16	226,129
2023	226,129	181,376	76,788	47,919	306,083	73.9%	(79,954)	7,770	17,306	18,481	15,788	25	240,767
2024	240,767	184,036	78,074	48,785	310,895	77.4%	(70,128)	7,287	17,652	19,513	16,789	36	255,731
2025	255,731	186,277	79,025	49,458	314,760	81.3%	(59,029)	6,699	18,005	20,384	17,818	23	271,192
2026	271,192	188,039	79,700	50,060	317,799	85.3%	(46,607)	5,738	18,365	21,155	18,886	4	287,292
2027	287,292	189,413	80,120	50,526	320,059	89.8%	(32,767)	4,413	18,732	22,223	19,988	3	303,792
2028	303,792	190,118	80,231	50,834	321,183	94.6%	(17,391)	2,957	19,107	23,036	21,128	1	320,992
2029	320,992	190,371	80,078	50,917	321,366	99.9%	(374)	1,380	1,677	23,953	21,690	1	320,407
2030	320,407	189,947	79,606	50,854	320,407	100.0%	0	1,219	1,219	24,706	21,606	0	318,526
2031	318,526	188,908	78,952	50,574	318,434	100.0%	92	1,013	1,013	25,363	21,445	0	315,621
2032	315,621	187,384	78,096	50,019	315,499	100.0%	122	885	885	25,703	21,225	0	312,028
2033	312,028	185,382	77,103	49,392	311,877	100.1%	151	774	774	26,055	20,957	0	307,705
2034	307,705	182,786	76,057	48,623	307,466	100.1%	239	615	615	26,320	20,640	0	302,640
2035	302,640	179,692	74,949	47,706	302,347	100.1%	293	507	507	26,577	20,272	0	296,843
2036	296,843	176,224	73,604	46,661	296,489	100.1%	354	412	412	26,534	19,865	0	290,586
2037	290,586	172,353	72,396	45,475	290,224	100.1%	362	380	380	26,337	19,433	0	284,061
2038	284,061	168,287	71,045	44,271	283,603	100.2%	458	267	267	26,249	18,975	0	277,055
2039	277,055	163,812	69,608	43,133	276,553	100.2%	502	215	215	26,082	18,488	0	269,676
2040	269,676	159,009	68,135	42,013	269,157	100.2%	519	193	193	25,891	17,978	0	261,956
2041	261,956	153,758	66,615	40,963	261,336	100.2%	620	90	90	25,503	17,447	0	253,991
2042	253,991	148,474	64,967	39,954	253,395	100.2%	596	119	119	25,100	16,905	0	245,914
2043	245,914	143,011	63,381	38,913	245,305	100.3%	609	110	110	24,514	16,360	0	237,870
2044	237,870	137,429	61,912	37,928	237,269	100.3%	601	127	127	24,071	15,813	0	229,738
2045	229,738	131,871	60,365	36,906	229,142	100.3%	596	143	143	23,715	15,257	0	221,423
2046	221,423	126,328	58,683	35,820	220,831	100.3%	592	162	162	23,194	14,693	0	213,084
2047	213,084	120,844	56,894	34,778	212,516	100.3%	568	201	201	22,890	14,122	0	204,518

\* Actuarially Determined Contribution (ADC) under GASB 74/75 = amortization of unfunded liability + normal cost

# Appendix A

## Actuarial Assumptions and Methods

### Valuation Date

June 30, 2017

### Actuarial Cost Method

Entry Age Normal, level percent of pay. Service Costs are attributed through all assumed ages of exit from active service.

### Asset Valuation

Market values.

### Measurement Date

The liability displayed at June 30, 2016 was measured as of June 30, 2017 and rolled back to June 30, 2016 assuming no gains or losses due to any changes other than discount rate.

The liability displayed at the valuation date of June 30, 2017 was measured as of June 30, 2017.

### Miscellaneous

The valuation was prepared on an on-going plan basis. This assumption does not necessarily imply that an obligation to continue the plan actually exists.

## Economic Assumptions

### Discount Rate

For 6/30/2017 liabilities: 7.00%. The projection of cash flows used to determine the discount rate assumed that City contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected OPEB payments for current active and inactive employees. Therefore the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

For 6/30/2016 liabilities: 7.00%. The projection of cash flows used to determine the discount rate assumed that City contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected OPEB payments for current active and inactive employees. Therefore the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

### Consumer Price Index

3.00%

**Salary Increases**

Salary was provided in the data. Note that Medical benefits do not depend on salary, however, this data is needed to produce results under the Entry Age Normal (level % of pay) cost methods and to amortize the UAAL as a level % of pay:

Salary Adjustment Factors for Projections of Current Salaries*				
Sample Ages	Percent Increase in Salary During Next Year			
	Base	Merit & Longevity		
		General	Police	Fire
20	3.50%	4.00%	6.00%	5.80%
25	3.50%	3.60%	5.10%	5.00%
30	3.50%	2.80%	3.20%	3.40%
35	3.50%	2.10%	1.90%	1.90%
40	3.50%	1.80%	1.20%	1.20%
45	3.50%	1.50%	0.90%	0.90%
50	3.50%	1.00%	0.70%	0.70%
55	3.50%	0.70%	0.50%	0.50%
60	3.50%	0.50%	0.30%	0.40%

**Assumed Trend**

The combined effect of price inflation and utilization on gross eligible medical and prescription drug charges is according to the table below. The initial trend rate was developed using our National Health Care Trend Survey. The survey gathers information of trend expectations for the coming year from various insurers and pharmacy benefit managers. These trends are broken out by drug and medical, as well as type of coverage (e.g. PPO, HMO, POS). We selected plans that most closely match the City of Ann Arbor’s benefits to set the initial trend. The ultimate trend is developed based on a building block approach which considers CPI, GDP, and Technology growth. The healthcare cost trend rates are shown below:

Year	Medical/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%

Retiree contribution trend: Same as medical trend.

**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, 2014 to June 30, 2017. The claims experience was trended to the valuation date. Per capita costs were adjusted for expected age-related differences in morbidity applicable to retirees. Details regarding the Age Morbidity Curve are found under Age-related Morbidity assumptions below.

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

Attained Age	7/1/2017 to 6/30/2018 Cost			
	Older Retirees	High option*	Low option**	All future retirees
Age 60, male	\$10,184	\$9,412	\$8,629	\$9,021
Age 60, female	\$10,180	\$9,409	\$8,626	\$9,018
Age 65, male	\$7,181	\$6,753	\$5,842	\$6,571
Age 65, female	\$6,805	\$6,400	\$5,536	\$6,227

**Administrative Expenses**

Included in medical and dental claim costs.

**Excise Tax on High-Cost Employer Health Plans (aka Cadillac Tax) - Effective 1/1/2020 (initially expected 2018)**

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 2018 limits for calculating the tax were projected using the same cost increase factors as used for the valuation. The limits after 2018 were calculated using an assumed CPI of 3.0%. We adjusted healthcare cost trend to reflect the Tax. This increased the benefit obligation by approximately 0.7%.

### Age Related Morbidity

Per capita costs are adjusted to reflect expected cost differences due to age and gender. Age morbidity factors for pre-Medicare morbidity were developed from "Health Care Costs—From Birth to Death" sponsored by the Society of Actuaries and prepared by Dale H. Yamamoto (May 2013)<sup>1</sup>. Table 4 from Mr. Yamamoto's study formed the basis of Medicare morbidity factors that are gender distinct and assumed a cost allocation of 60% for pharmacy, 20% for inpatient, 10% for outpatient, and 10% for professional services. Adjustments were made to Table 4 factors for inpatient costs at age 70 and below to smooth out what appears to be a spike in utilization for Medicare retirees gaining healthcare for the first time through Medicare. While such retirees were included in the study, their specific experience is not applicable for a valuation of an employer retiree medical plan where participants had group active coverage before retirement. Morbidity factors at sample ages are shown below:

Age	Aging Factor	
	Male	Female
35	22.53%	46.31%
40	28.43%	46.39%
45	35.24%	49.11%
50	46.02%	57.23%
55	60.38%	66.67%
60	77.79%	77.76%
65	100.00%	94.76%
70	108.94%	101.78%
75	117.00%	110.24%
80	122.83%	116.52%
85	123.72%	120.87%
90	121.43%	122.08%
95	119.75%	117.18%
98+	118.16%	107.42%

Morbidity is not applied to dental rates.

### Demographic Assumptions

#### Mortality

For healthy lives the RP 2000 Combined Table projected to 2007 set forward 2 years for males and set back 3 years for females

For existing disabled lives, the standard post-retirement mortality rates set forward 10 years..

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<sup>1</sup> <https://www.soa.org/resources/research-reports/2013/research-health-care-birth-death/>



**Retirement**

Retirement Age	Age Based					
	General Normal	Early	Police Normal	Early	Fire Normal	Early
50	45%	23%		35%		25%
51	40%	15%		35%		25%
52	40%	15%		35%		25%
53	40%	15%		35%		25%
54	40%	18%		35%		25%
55	40%	30%	75%		24%	
56	40%	42%	75%		24%	
57	40%	42%	75%		24%	
58	25%	42%	75%		24%	
59	25%	42%	75%		34%	
60	25%		100%		100%	
61	35%					
62	35%					
63	35%					
64	35%					
65	60%					
66	40%					
67	40%					
68	40%					
69	40%					
70	100%					

Service Based		
Years of Service	Police	Fire
25	70%	50%
26	70%	35%
27	70%	35%
28	50%	35%
29	50%	25%
30	75%	25%
31	75%	25%
32	75%	25%
33	75%	25%
34	75%	25%
35	100%	100%

**Disability Rates (sample ages)**

Probabilities of Becoming Disabled			
Sample Ages	Percent Becoming Disabled Within Next Year		
	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%

**Turnover Rates (sample ages)**

Sample Rates of Separation from Active Employment Before Retirement, Death, or Disability					
Ages	Years of Service	% of Active Members Separating Within Next Year			
		General		Police	Fire
		Male	Female		
ALL	0	6.00%	16.00%	6.00%	4.50%
	1	4.80%	13.00%	6.00%	4.00%
	2	4.00%	11.00%	4.00%	3.60%
	3	3.20%	8.00%	3.00%	3.60%
	4	2.40%	6.00%	2.50%	3.60%
20	5 and Over	3.20%	6.50%	2.40%	1.40%
25		3.20%	6.50%	2.40%	1.40%
30		3.20%	6.50%	2.40%	1.10%
35		2.50%	5.00%	1.75%	0.90%
40		2.50%	5.00%	0.74%	1.00%
45		2.50%	5.00%	0.48%	0.90%
50		2.50%	5.00%	0.48%	0.50%
55		2.50%	5.00%	0.48%	0.50%
60		2.50%	5.00%	0.48%	0.50%
65		2.50%	5.00%	0.48%	0.50%

**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.

# Appendix B

## Summary of Plan Provisions

### Plan sponsor

The City of Ann Arbor

### Plan name

The City of Ann Arbor Postretirement Benefits Plan

### Eligibility

Retirees can participate if they satisfy one of the following criteria:

Normal Retirement: 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.

Group	Effective Date
Non-Union	July 1, 2011
Teamsters/Deputy Chiefs	July 2, 2012
Teamsters Supervisors	July 2, 2012
Teamsters Police Professionals	July 2, 2012
AFSCME	August 29, 2011
AAPOA	January 1, 2012
Firefighters	July 1, 2012
PSS	July 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 2017	\$51.13	\$84.27	\$126.40	\$168.54	\$210.67

- 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/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:

Group	Effective date
Non-union	July 1, 2011
Teamsters/Deputy Chiefs	July 2, 2012
Teamsters Supervisors	July 2, 2012
Teamsters Police Professionals	July 2, 2012
AFSCME	August 29, 2011
AAPOA	January 1, 2012
Firefighters	July 1, 2012
PSS	July 2, 2012

**Monthly Contribution**

Monthly Contribution rates for future retirees based on coverage tier effective July 1, 2017 is as follows:

Group Description	EE	EE +1
Under 65 (50% High / 50% Low Plan)	\$25.57	\$16.57
Over 65 (80% High / 20% Low Plan)	\$40.90	\$26.51

**Life Insurance Benefits:**

**Plan Description**

Retired;

General - \$5,000 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**

None

# Appendix C

## Summary of Participant Data

The following tables show a distribution of age, service, and salary for all active employees as of the valuation date:

### Total Active Employees

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	14	0	0	0	0	0	0	0	14
	Total Salary	617,264	0	0	0	0	0	0	0	617,264
	Average Salary	44,090	0	0	0	0	0	0	0	44,090
25-29	Number	49	5	0	0	0	0	0	0	54
	Total Salary	2,689,927	339,798	0	0	0	0	0	0	3,029,725
	Average Salary	54,896	67,960	0	0	0	0	0	0	56,106
30-34	Number	49	11	4	0	0	0	0	0	64
	Total Salary	2,911,670	796,522	265,867	0	0	0	0	0	3,974,059
	Average Salary	59,422	72,411	66,467	0	0	0	0	0	62,095
35-39	Number	45	17	14	6	0	0	0	0	82
	Total Salary	2,854,003	1,202,112	1,029,758	448,407	0	0	0	0	5,534,280
	Average Salary	63,422	70,712	73,554	74,735	0	0	0	0	67,491
40-44	Number	31	15	23	38	11	0	0	0	118
	Total Salary	1,992,778	1,116,151	1,804,540	3,326,092	1,086,060	0	0	0	9,325,621
	Average Salary	64,283	74,410	78,458	87,529	98,733	0	0	0	79,031
45-49	Number	23	18	24	37	44	10	0	0	156
	Total Salary	1,571,336	1,482,112	1,921,303	3,383,746	4,284,461	974,294	0	0	13,617,252
	Average Salary	68,319	82,340	80,054	91,453	97,374	97,429	0	0	87,290
50-54	Number	12	10	14	20	21	24	2	0	103
	Total Salary	653,170	734,290	1,143,831	1,630,719	2,000,554	2,238,383	262,844	0	8,663,791
	Average Salary	54,431	73,429	81,702	81,536	95,264	93,266	131,422	0	84,114
55-59	Number	13	8	15	17	13	10	1	0	77
	Total Salary	1,022,372	570,793	1,302,142	1,277,099	1,257,406	980,087	64,146	0	6,474,045
	Average Salary	78,644	71,349	86,809	75,123	96,724	98,009	64,146	0	84,079
60-64	Number	2	6	5	3	3	0	3	0	22
	Total Salary	262,140	450,354	338,235	200,135	317,523	0	282,850	0	1,851,237
	Average Salary	131,070	75,059	67,647	66,712	105,841	0	94,283	0	84,147
65-69	Number	0	2	0	0	3	0	0	1	6
	Total Salary	0	156,541	0	0	234,384	0	0	105,080	496,005
	Average Salary	0	78,271	0	0	78,128	0	0	105,080	82,668
TOTAL	Number	238	92	99	121	95	44	6	1	696
	Total Salary	14,574,659	6,848,673	7,805,675	10,266,199	9,180,388	4,192,764	609,840	105,080	53,583,278
	Average Salary	61,238	74,442	78,845	84,845	96,636	95,290	101,640	105,080	76,987

## General Active Employees

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	9	0	0	0	0	0	0	0	9
	Total Salary	371,696	0	0	0	0	0	0	0	371,696
	Average Salary	41,300	0	0	0	0	0	0	0	41,300
25-29	Number	35	4	0	0	0	0	0	0	39
	Total Salary	1,825,439	244,437	0	0	0	0	0	0	2,069,876
	Average Salary	52,155	61,109	0	0	0	0	0	0	53,074
30-34	Number	27	7	3	0	0	0	0	0	37
	Total Salary	1,601,190	443,719	174,900	0	0	0	0	0	2,219,809
	Average Salary	59,303	63,388	58,300	0	0	0	0	0	59,995
35-39	Number	34	16	12	3	0	0	0	0	65
	Total Salary	2,090,534	1,112,564	844,335	140,864	0	0	0	0	4,188,297
	Average Salary	61,486	69,535	70,361	46,955	0	0	0	0	64,435
40-44	Number	30	15	19	12	2	0	0	0	78
	Total Salary	1,927,662	1,116,151	1,476,383	788,606	172,441	0	0	0	5,481,243
	Average Salary	64,255	74,410	77,704	65,717	86,221	0	0	0	70,272
45-49	Number	22	16	19	17	17	4	0	0	95
	Total Salary	1,510,085	1,302,807	1,479,430	1,357,160	1,363,523	296,862	0	0	7,309,867
	Average Salary	68,640	81,425	77,865	79,833	80,207	74,216	0	0	76,946
50-54	Number	11	10	14	18	11	13	1	0	78
	Total Salary	601,105	734,290	1,143,831	1,411,446	987,489	1,009,745	117,523	0	6,005,429
	Average Salary	54,646	73,429	81,702	78,414	89,772	77,673	117,523	0	76,993
55-59	Number	13	8	15	15	7	7	1	0	66
	Total Salary	1,022,372	570,793	1,302,142	1,088,650	600,703	648,315	64,146	0	5,297,121
	Average Salary	78,644	71,349	86,809	72,577	85,815	92,616	64,146	0	80,259
60-64	Number	2	6	5	3	3	0	3	0	22
	Total Salary	262,140	450,354	338,235	200,135	317,523	0	282,850	0	1,851,237
	Average Salary	131,070	75,059	67,647	66,712	105,841	0	94,283	0	84,147
65-69	Number	0	2	0	0	3	0	0	1	6
	Total Salary	0	156,541	0	0	234,384	0	0	105,080	496,005
	Average Salary	0	78,271	0	0	78,128	0	0	105,080	82,668
TOTAL	Number	183	84	87	68	43	24	5	1	495
	Total Salary	11,212,223	6,131,654	6,759,255	4,986,860	3,676,062	1,954,922	464,519	105,080	35,290,575
	Average Salary	61,269	72,996	77,693	73,336	85,490	81,455	92,904	105,080	71,294

### Police Active Employees

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	4	0	0	0	0	0	0	0	4
	Total Salary	202,953	0	0	0	0	0	0	0	202,953
	Average Salary	50,738	0	0	0	0	0	0	0	50,738
25-29	Number	10	1	0	0	0	0	0	0	11
	Total Salary	676,783	95,362	0	0	0	0	0	0	772,145
	Average Salary	67,678	95,362	0	0	0	0	0	0	70,195
30-34	Number	14	4	1	0	0	0	0	0	19
	Total Salary	923,199	352,803	90,967	0	0	0	0	0	1,366,969
	Average Salary	65,943	88,201	90,967	0	0	0	0	0	71,946
35-39	Number	9	0	1	2	0	0	0	0	12
	Total Salary	641,955	0	98,851	214,562	0	0	0	0	955,368
	Average Salary	71,328	0	98,851	107,281	0	0	0	0	79,614
40-44	Number	0	0	0	17	5	0	0	0	22
	Total Salary	0	0	0	1,681,992	521,775	0	0	0	2,203,767
	Average Salary	0	0	0	98,941	104,355	0	0	0	100,171
45-49	Number	0	0	1	11	21	2	0	0	35
	Total Salary	0	0	92,597	1,176,738	2,255,049	247,361	0	0	3,771,745
	Average Salary	0	0	92,597	106,976	107,383	123,681	0	0	107,764
50-54	Number	1	0	0	2	4	4	1	0	12
	Total Salary	52,066	0	0	219,273	444,314	442,256	145,321	0	1,303,230
	Average Salary	52,066	0	0	109,637	111,079	110,564	145,321	0	108,603
55-59	Number	0	0	0	0	5	1	0	0	6
	Total Salary	0	0	0	0	551,423	116,375	0	0	667,798
	Average Salary	0	0	0	0	110,285	116,375	0	0	111,300
60-64	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
65-69	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>Number</b>	<b>38</b>	<b>5</b>	<b>3</b>	<b>32</b>	<b>35</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>121</b>
	<b>Total Salary</b>	<b>2,496,956</b>	<b>448,165</b>	<b>282,415</b>	<b>3,292,567</b>	<b>3,772,561</b>	<b>805,992</b>	<b>145,321</b>	<b>0</b>	<b>11,243,977</b>
	<b>Average Salary</b>	<b>65,709</b>	<b>89,633</b>	<b>94,138</b>	<b>102,893</b>	<b>107,787</b>	<b>115,142</b>	<b>145,321</b>	<b>0</b>	<b>92,925</b>



### Fire Active Employees

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	1	0	0	0	0	0	0	0	1
	Total Salary	42,614	0	0	0	0	0	0	0	42,614
	Average Salary	42,614	0	0	0	0	0	0	0	42,614
25-29	Number	4	0	0	0	0	0	0	0	4
	Total Salary	187,704	0	0	0	0	0	0	0	187,704
	Average Salary	46,926	0	0	0	0	0	0	0	46,926
30-34	Number	8	0	0	0	0	0	0	0	8
	Total Salary	387,280	0	0	0	0	0	0	0	387,280
	Average Salary	48,410	0	0	0	0	0	0	0	48,410
35-39	Number	2	1	1	1	0	0	0	0	5
	Total Salary	121,514	89,547	86,572	92,981	0	0	0	0	390,614
	Average Salary	60,757	89,547	86,572	92,981	0	0	0	0	78,123
40-44	Number	1	0	4	9	4	0	0	0	18
	Total Salary	65,116	0	328,157	855,494	391,844	0	0	0	1,640,611
	Average Salary	65,116	0	82,039	95,055	97,961	0	0	0	91,145
45-49	Number	1	2	4	9	6	4	0	0	26
	Total Salary	61,250	179,306	349,276	849,848	665,890	430,072	0	0	2,535,642
	Average Salary	61,250	89,653	87,319	94,428	110,982	107,518	0	0	97,525
50-54	Number	0	0	0	0	6	7	0	0	13
	Total Salary	0	0	0	0	568,752	786,382	0	0	1,355,134
	Average Salary	0	0	0	0	94,792	112,340	0	0	104,241
55-59	Number	0	0	0	2	1	2	0	0	5
	Total Salary	0	0	0	188,449	105,279	215,396	0	0	509,124
	Average Salary	0	0	0	94,225	105,279	107,698	0	0	101,825
60-64	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
65-69	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	Number	17	3	9	21	17	13	0	0	80
	Total Salary	865,480	268,853	764,004	1,986,773	1,731,765	1,431,850	0	0	7,048,725
	Average Salary	50,911	89,618	84,889	94,608	101,869	110,142	0	0	88,109

Summary of Retired Participants		
Group	Retirees & Surv. Spouses Covered	Spouses Covered
General		
Medical/Life Coverage	545	324
Life Only Coverage	136	n/a
Subtotal	<u>681</u>	<u>324</u>
Police		
Medical/Life Coverage	174	134
Life Only Coverage	31	n/a
Subtotal	<u>205</u>	<u>134</u>
Fire		
Medical/Life Coverage	137	88
Life Only Coverage	20	n/a
Subtotal	<u>157</u>	<u>88</u>
Total		
Medical/Life Coverage	856	546
Life Only Coverage	187	n/a
Grand total	<u>1043</u>	<u>546</u>

## Appendix D

### Health Care Reform

Health care delivery is going through a revolution due to the enactment of Health Care Reform. The Patient Protection and Affordable Care Act (PPACA), was signed March 23, 2010, with further changes enacted by the Health Care and Education Affordability Reconciliation Act (HCEARA), signed March 30, 2010. This valuation uses various assumptions that were modified based on considerations under Health Care Reform legislation. This Section discusses particular legislative changes that were reflected in our assumptions. We have not identified any other specific provision of Health Care Reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we continue to monitor any potential impacts.

#### **Removal of Lifetime Maximum – Effective 1/1/2011**

The City of Ann Arbor provides retirees medical coverage under a retiree only arrangement, so that the provision eliminating lifetime maximums does not apply to the non-insured benefits described herein.

#### **Other Revenue Raisers**

The Health Care Reform includes a variety of other revenue raisers that involve additional costs on providers (such as medical device manufacturers) and insurers. We considered these factors when developing the trend assumptions.

#### **Health Care Reform Repeal**

The new Republican leadership in Washington has clearly announced their intention to repeal HCR. As one of his first acts in office, President Trump issued an executive order that states that federal agencies can grant waivers, exemptions and delays of “Obamacare” provisions that would impose costs on states or individuals. On February 15, CMS issued proposed rules that are intended to minimize adverse selection, but which might disrupt the fragile balance of the healthcare exchanges. We can expect more information about what is being altered. As of the writing of this report, we have not identified any action that has already formally been adopted that would be expected to have significant impact on the measured obligation.

# Appendix E

## Summary of Key Accounting Terms

### **Actuarially determined contribution**

A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

### **Actuarial present value of projected benefit payments**

Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

### **Actuarial valuation**

The determination, as of a point in time (the actuarial valuation date), of the service cost, total OPEB liability, and related actuarial present value of projected benefit payments for OPEB performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.

### **Actuarial valuation date**

The date as of which an actuarial valuation is performed.

### **Ad hoc postemployment benefit changes**

Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.

### **Discount rate**

The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

- a. The actuarial present value of benefit payments projected to be made in future periods in which (1) the amount of the OPEB plan's fiduciary net position is projected (under the requirements of this Statement) to be greater than the benefit payments that are projected to be made in that period and (2) OPEB plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on OPEB plan investments
- b. The actuarial present value of projected benefit payments not included in (a), calculated using a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale).

### **Automatic hoc postemployment benefit changes**

Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority.

### **Covered-employee payroll**

The payroll for employees that are provided with OPEB through the OPEB plan.

### **Entry age actuarial cost method**

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the Actuarial accrued liability.

**Healthcare cost trend rates**

The rates of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

**Inactive employees**

Individuals no longer employed by an employer

**Measurement period**

The period between the prior and the current measurement dates

**Net OPEB liability**

The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit OPEB plan that is administered through a trust that meets the criteria in paragraph 4 of this Statement. Other postemployment benefits (OPEB) Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payments for sick leave.

**Projected benefit payments**

All benefits (including refunds of employee contributions) estimated to be payable through the OPEB plan (including amounts to be paid by employers or non-employer contributing entities as the benefits come due) to current active and inactive employees as a result of their past service and their expected future service.

**Real rate of return**

The rate of return on an investment after adjustment to eliminate inflation.

**Service costs**

The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.

**Total OPEB liability**

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service.