

City of Southgate
Retiree Health Care Plan
Actuarial Valuation Report
as of June 30, 2017

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August 15, 2018

Mr. David Angileri, Finance Director
City of Southgate
Retiree Health Care Plan
14400 Dix-Toledo Road
Southgate, Michigan 48195

Dear Mr. Angileri:

Submitted in this report are the results of an Actuarial Valuation of the assets and liabilities associated with the employer financed retiree health benefits provided by the City of Southgate. The date of the valuation was June 30, 2017.

This report was prepared at the request of the City of Southgate and is intended for use by the City of Southgate and those designated or approved by the City of Southgate. This report may be provided to parties other than the City of Southgate only in its entirety and only with the permission of the City of Southgate. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the Plan's funding progress and to determine the Actuarially Computed Employer Contributions for the fiscal years ending June 30, 2019 and June 30, 2020. This report should not be relied on for any purpose other than the purposes described herein. Determinations of the liability associated with the benefits described in this report for purposes other than those identified above may be significantly different. This report does not satisfy Governmental Accounting Standards Board (GASB) Statement No. 74 or No. 75.

The findings in this report are based on data and other information through June 30, 2017. 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. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

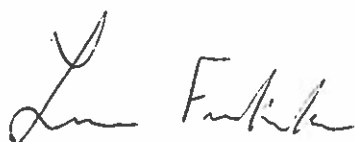
The valuation was based upon information furnished by the City of Southgate, concerning Retiree Health benefits, financial transactions, plan provisions and active members, retirees and beneficiaries. We checked for internal and year-to-year consistency with the last valuation, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the City of Southgate.

Mr. David Angileri
City of Southgate
August 15, 2018
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This report has been prepared by actuaries who have substantial experience valuing public employee retiree health plans. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the City of Southgate as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Laura Frankowiak and James D. Anderson are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



Laura Frankowiak, ASA, MAAA



James D. Anderson, FSA, EA, FCA, MAAA

LF/JDA:rmn



EXECUTIVE SUMMARY

Executive Summary

Actuarially Computed Employer Contribution

Please note that beginning with the fiscal year ending June 30, 2017, GASB Statement No. 43 was replaced by GASB Statement No. 74. Also, beginning with the fiscal year ending June 30, 2018, GASB Statement No. 45 will be replaced by GASB Statement No. 75. A separate GASB report will be required to comply with the actuarial requirements of GASB Statements No. 74 and No. 75 for the fiscal year ending June 30, 2018. As such, there is no longer an "Annual Required Contribution" calculated in this valuation report. Therefore, we have determined the "Actuarially Computed Employer Contribution."

We have calculated the Actuarially Computed Employer Contribution for the fiscal years ending June 30, 2019 and June 30, 2020, under an interest rate assumption of 3.56%. Below is a summary of the results. The Actuarially Computed Employer Contributions and estimated premiums shown below include an adjustment for any implicit rate subsidy.

For additional details please see the Section titled "Valuation Results."

Fiscal Year Ending	Actuarially Computed Employer Contribution	Estimated Claims and Premiums Paid for Retirees
June 30, 2019	\$7,025,212	\$2,552,628
June 30, 2020	7,039,817	2,742,869

Liabilities and Assets

1. Present Value of Future Benefit Payments	\$108,682,660
2. Actuarial Accrued Liability	82,947,627
3. Plan Assets	4,472,506
4. Unfunded Actuarial Accrued Liability (2) – (3)	78,475,121
5. Funded Ratio (3)/(2)	5.4%

The Present Value of Future Benefit Payments (PVFB) is the present value of all benefits projected to be paid from the plan for past and future service to current members. The Actuarial Accrued Liability is the portion of the PVFB allocated to past service by the Plan's funding method (see Section titled "Actuarial Cost Method and Actuarial Assumptions").

SECTION A

VALUATION RESULTS

City of Southgate – Results by Group as of June 30, 2017

Other Postemployment Benefit (OPEB) Group	Municipal	Police/Fire	Total
A. Present Value of Future Benefits			
i) Retirees and Beneficiaries	\$19,056,494	\$33,298,315	\$52,354,809
ii) Vested Terminated Members	0	0	0
iii) Active Members	<u>17,628,887</u>	<u>38,698,964</u>	<u>56,327,851</u>
Total Present Value of Future Benefits	36,685,381	71,997,279	108,682,660
B. Present Value of Future Normal Costs	5,493,954	20,241,079	25,735,033
C. Actuarial Accrued Liability (A.-B.)	31,191,427	51,756,200	82,947,627
D. Actuarial Value of Assets	2,739,101	1,733,405	4,472,506
E. Unfunded Actuarial Accrued Liability (C.-D.)	28,452,326	50,022,795	78,475,121
F. Funded Ratio (D./C.)	8.8%	3.4%	5.4%
G. Fiscal Year Ending June 30, 2019			
i) Employer Normal Cost	\$ 674,401	\$ 1,459,550	\$ 2,133,951
ii) Amortization of UAAL*	<u>2,048,230</u>	<u>2,843,031</u>	<u>4,891,261</u>
Actuarially Computed Employer Contribution	\$ 2,722,631	\$ 4,302,581	\$ 7,025,212
H. Fiscal Year Ending June 30, 2020			
Actuarially Computed Employer Contribution	\$ 2,696,758	\$ 4,343,059	\$ 7,039,817

* The Unfunded Actuarial Accrued Liabilities (UAAL) were amortized as a level dollar amount for Municipal over a closed period of 20 years and as a level dollar amount for Police/Fire over a closed period of 29 years for the fiscal year ending June 30, 2019 and decreasing by 1 each year thereafter.

The long-term rate of investment return used in this valuation is 3.56%.

Comments

COMMENT F: The “Cadillac” tax is a 40% excise tax paid by the coverage provider (employer and/or insurer) on the value of health plan costs in excess of certain thresholds, effective in 2022. The initial thresholds are \$10,200 for single coverage or \$27,500 for family coverage. Many plans are below the thresholds today, but are likely to exceed them in the next decade. The thresholds will be indexed at CPI-U, which is lower than the medical inflation rates affecting the cost of the plans. There is considerable uncertainty about how the tax would be applied, and considerable latitude in grouping of participants for tax purposes. Combining early retiree and Medicare eligible retiree costs is allowed and can keep plans under the thresholds for a longer period of time. For this valuation, there was no load applied to the health care liabilities to approximate the cost for future excise tax, based on the current plan provisions and 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 will review and monitor the impact.

COMMENT G: The GASB issued Statement Nos. 74 and 75 for OPEB valuations similar to the GASB pension standards. GASB Statement No. 74 for the plan OPEB disclosures is effective for fiscal years beginning after June 15, 2016. GASB Statement No. 75 for employer OPEB disclosures is effective for employer fiscal years beginning after June 15, 2017. The recently finalized GASB implementation guides for Statement Nos. 74 and 75 provide additional clarification related to the implementation of these Statements. It is our understanding that the City is required to comply with both GASB Statements No. 74 and No. 75 for the fiscal year ending June 30, 2018. The information necessary for GASB Statements No. 74 and No. 75 for the June 30, 2018 fiscal year end will need to be developed at a later date. The basis for the June 30, 2018 GASB information is expected to be this valuation (as of June 30, 2017), where roll-forward techniques will be applied.

COMMENT H: Michigan Public Act 202 of 2017 created new reporting and other requirements for local units of government. As such, we can work with the City of Southgate Retiree Health Care Plan to develop a funding policy to document Plan procedures and facilitate compliance.

COMMENT I: Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the market value of assets. Unless otherwise indicated, with regards to any funded status measurements presented in this report:

- The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligations, and
- The measure is inappropriate for assessing the need for or the amount of future employer contributions.

SECTION B

RETIREE PREMIUM RATE DEVELOPMENT

Retiree Premium Rate Development

Initial premium rates were developed for the two classes of retirees (pre-65 and post-65). The 6/1/2018 BCBS pre-65, 1/1/2018 BCBS Medicare Advantage Post-65, and 6/1/2018 BCN fully-insured medical rates provided by the City of Southgate were utilized to determine the appropriate premium rates. The BCBS pre-65 fully-insured medical premiums are blended rates based on the combined experience of active and pre-65 retired members; therefore, there is an implicit employer subsidy for the non-Medicare eligible retirees, since the average costs of providing health care benefits to BCBS retirees under age 65 is higher than the average cost of providing health care benefits to active employees. The true per capita cost for the pre-65 retirees is developed by adjusting the demographic differences between the active employees and retirees to reflect this implicit rate subsidy for the retirees. For the post-65 retirees, the fully-insured premium rates included both medical and Rx and are used as the basis of the initial per capita cost without adjustments, since the rate reflects the demographics of the post-65 retiree group.

Since the pre-65 retiree self-insured drug claims data from Medtipster was not credible enough to develop separate per capita costs for the Police/Fire and Municipal groups, due to the lack of adequate exposure, the two groups were combined to develop the appropriate premium rate. In order to obtain Rx rates for the separate segments (Police/Fire and Municipal) each segment's individual experience was credibility weighed and blended with the combined experience.

Several of the post-65 suffixes are Medicare Advantage programs. In a Medicare Advantage Program, the liability is based on the difference between the present value of future claims minus the present value of future reimbursements from CMS. Each of these items will experience future growth under arguably differing forces. Recently announced changes to the Medicare Advantage Program will most likely result in decreases in the reimbursements from CMS within the next few years. This, in turn, will cause the net employer cost to trend upward at a rate above usual market trends for healthcare costs. When the plan is insured, this effect is buried in the rates being charged by the insurer. To account for this expectation, we have adjusted the Medicare rates to account for the expected CMS reimbursement lagging behind medical increases. This adjustment will be revisited at the time of the next valuation.

Age graded and sex distinct premiums are utilized by this valuation. The premiums developed by the preceding process are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.

SECTION C

SUMMARY OF BENEFITS

Summary of the Benefit Provisions for the Retiree Health Care Plan Municipal Employees Hired Prior to July 1, 2008

Group Name: Municipal

Leaving Employment as a Result of	Eligibility for Pension Benefit	Eligibility for Retiree Health Benefit (if different from pension benefit)	When do retiree health benefits commence?	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Retiree Share of Cost for		
				Retiree	Spouse			Retiree	Spouse (while retiree is alive)	Spouse after retiree's death (until re-marriage)
Normal Retirement (Unreduced pension benefits)	Age 50 with 25 or more years of service Age 60 with 10 or more years of service Sum of age plus years of service equals 80 or more	Same as pension	Immediately	Medical Prescription Dental Life Insurance	Medical Prescription Dental	BCBS, HAP Caremark Delta Dental	Fully-insured Self-insured Fully-insured	0% 0% Amount over \$500 Not Eligible	0% 0% Amount over \$500 Not Eligible	0% 0% Amount over \$500 Not Eligible
Deferred Vested Termination	10 or more years of service	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible
Non-Duty Disability	10 or more years of service	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible
Duty Disability	No age or service requirements Must be in receipt of worker's compensation	Same as pension	Immediately	Medical Prescription Dental Life Insurance	Medical Prescription Dental	BCBS, HAP Caremark Delta Dental	Fully-insured Self-insured Fully-insured	0% 0% Amount over \$500 Not Eligible	0% 0% Amount over \$500 Not Eligible	0% 0% Amount over \$500 Not Eligible
Non-Duty Death-In-Service	15 or more years of service Age 60 with 10 or more years of service	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible
Duty Death-In-Service	No age or service requirements Must be in receipt of worker's compensation	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible	Not Eligible

* For certain existing retirees, the City pays for \$15,000 of life insurance coverage for retirees. Retiree life insurance is no longer provided for those retiring after 7/1/2013.

Other Provisions

Those who choose to opt-out of retiree health care receive no incentive from the City. If a member retiree and receives a pension, but does not meet the retiree health care provisions stated above, the retiree may not purchase retiree health care through the City. Retirees pay for Medicare Part A and/or Part B premiums with no reimbursement from the City. Retirees who are Medicare eligible are provided either a Medicare Advantage Plan or complementary coverage by the City. Retiree Health Savings Account set up for employees hired after July 1, 2008. These new employees will not receive Health or Dental Insurance at retirement.

SECTION D

SUMMARY OF PARTICIPANT DATA

**City of Southgate – Total
Eligible Active Members as of June 30, 2017
by Age and Years of Service**

Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
20-24	1							1
25-29	4	1						5
30-34	1	13	2					16
35-39	1	3	3	6				13
40-44			4	13	2			19
45-49			5	13	10			28
50-54		1	3	4	5	2		15
55-59			1	3	2			6
60-64				2				2
65 & Over						1		1
Totals	7	18	18	41	19	3		106

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 43.2 years
Service: 15.3 years

**City of Southgate - Police/Fire
Eligible Active Members as of June 30, 2017
by Age and Years of Service**

Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
20-24	1							1
25-29	4	1						5
30-34	1	13	1					15
35-39	1	3	1	2				7
40-44			2	10	2			14
45-49			2	3	8			13
50-54			1		4	1		6
55-59								
60-64								
65 & Over								
Totals	7	17	7	15	14	1		61

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 39.3 years
Service: 13.5 years

SECTION E

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Actuarial Methods for City of Southgate as of June 30, 2017

Actuarial Cost Method. Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities (UAAL) (full funding credit if assets exceed liabilities) were amortized as a level dollar amount since the divisions are closed to new hires. The UAAL was determined using the actuarial value of assets and actuarial accrued liability calculated as of the valuation date and projected to the beginning of the fiscal year at the assumed rate of investment return.

Actuarial Value Assets. The Actuarial Value of Assets is set equal to the reported market value of assets.

Amortization Factors. The following amortization factors were used in developing the Actuarially Computed Employer Contribution for the fiscal years shown:

Level Dollar	Fiscal Year Ending June 30,	
	2019	2020
Municipal	14.3857	13.8801
Police/Fire	18.2213	17.8522

Actuarial Assumptions for City of Southgate as of June 30, 2017

The rates of mortality used for individual members are in accordance with the following tables.

The same mortality tables are used for Municipal plan members and Police and Fire plan members. The **Post-Retirement Mortality** is the RP-2014 Healthy Annuitant Generational Mortality Tables, with blue collar adjustments and extended via cubic spline. The **Pre-Retirement Mortality** is the RP-2014 Employee Generational Mortality Tables, with blue collar adjustments and extended via cubic spline. The **Post-Retirement Disabled Mortality** is the RP-2014 Disabled Mortality Tables extended via cubic spline. All tables are adjusted backwards to 2006 with the MP-2014 scale. A base year of 2006 is utilized with future mortality improvements assumed each year using scale MP-2015.

Sample Attained Ages	Healthy Pre-Retirement Future Life Expectancy (Years)*		Healthy Post-Retirement Future Life Expectancy (Years)*		Disabled Retirement Future Life Expectancy (Years)*	
	Men	Women	Men	Women	Men	Women
	55	30.39	35.57	29.20	32.11	22.07
60	25.54	30.57	24.63	27.36	18.99	22.26
65	20.99	25.66	20.29	22.78	15.99	18.67
70	16.80	20.88	16.23	18.43	13.06	15.15
75	12.97	16.33	12.54	14.42	10.32	11.93
80	9.58	12.06	9.34	10.88	7.90	9.17

* Based on retirements in 2017. Retirements in future years will reflect projected improvements in life expectancy.

For Police/Fire 95% of Pre-Retirement Deaths are assumed to be non-duty related and 5% are assumed to be duty related. For Municipal 100% of Pre-Retirement Deaths are assumed to be non-duty related and 0% are assumed to be duty related.

Actuarial Assumptions for City of Southgate as of June 30, 2017

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Service Index	Percent of Active Members Separating within Next Year			
		Municipal		Police/Fire	
		Males	Females	Males	Females
ALL	0	10.00%	10.00%	12.50%	12.50%
	1	8.00	8.00	8.50	8.50
	2	6.00	6.00	5.00	5.00
	3	4.00	4.00	3.00	3.00
	4	3.00	3.00	2.50	2.50
25	5 & Over	5.00	5.00	1.62	1.62
30		4.50	4.50	1.40	1.40
35		3.55	3.55	0.83	0.83
40		1.45	1.45	0.32	0.32
45		0.75	0.75	0.18	0.18
50		0.75	0.75	0.18	0.18
55		0.75	0.75	0.18	0.18
60		0.75	0.75	0.18	0.18
65	0.75	0.75	0.18	0.18	
Ref		14	14	146	146
		#55x1	#55x1	#237x1	#237x1

Actuarial Assumptions for City of Southgate as of June 30, 2017

Health care cost trend rates are displayed in the following table:

Year After Valuation	Health Care Trend Inflation Rates	
	Medical/Drug	Dental
1	9.00%	3.50%
2	8.25	3.50
3	7.50	3.50
4	6.75	3.50
5	6.25	3.50
6	5.75	3.50
7	5.25	3.50
8	4.75	3.50
9	4.25	3.50
10	3.50	3.50
11	3.50	3.50
12	3.50	3.50
13	3.50	3.50
14	3.50	3.50
15	3.50	3.50
16 +	3.50	3.50

APPENDIX

Glossary

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarially Computed Employer Contribution. The Actuarially Computed Employer Contribution is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The Actuarially Computed employer Contribution is an amount that is actuarially determined so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Governmental Accounting Standards Board (GASB). GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

Implicit Rate Subsidy. It is common practice for employers to allow retirees to continue in the employer's group health insurance plan (which also covers active employees), often charging the retiree some portion of the premium charged for active employees. Under the theory that retirees have higher utilization of services, the difference between the true cost of providing retiree coverage and what the retiree is being charged is known as the implicit rate subsidy.



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