

City of Southfield Retiree Health Care Benefits Plan and Trust

Actuarial Valuation Report
as of June 30, 2019



Table of Contents

Section	Page Number	
	--	Cover Letter
		Executive Summary
	1-3	Executive Summary
A		Valuation Results
	1	Determination of Unfunded Actuarial Accrued Liability
	2-3	Computation of the Actuarially Determined Employer Contribution
	4	Comparative Statement of Employer Contributions
	5-6	Sensitivity Analysis
	7	Assets
	8-10	Comments and Other Observations
	11-12	Risk Metrics and Plan Maturity Measures
B		Retiree Premium Rate Development
	1-3	Retiree Premium Rate Development
C		Benefit Projections
	1	Cash Flow Projections
	2	20-Year Benefit Projection Fire and Police
	3	20-Year Benefit Projection SERS
D		Summary of Benefit Provisions and Valuation Data
	1-13	Summary of Benefits
	14	Active Fire and Police Members by Attained Age and Years of Service
	15	Active SERS Members by Attained Age and Years of Service
	16	Retired Members by Attained Age
	17	Deferred Members by Attained Age
E		Actuarial Cost Method and Actuarial Assumptions
	1	Valuation Methods
	2-7	Actuarial Assumptions
	8	Miscellaneous Technical Assumptions
F		Supplementary Information
	1	Supplementary Information
	2-3	Schedule of Funding Progress and Contribution History
	4	Development of Net OPEB Obligation
Appendix		
	1-2	Glossary





June 5, 2020

Board of Trustees
Retiree Health Care Benefits Plan and Trust
City of Southfield
26000 Evergreen Road
P.O. Box 2055
Southfield, Michigan 48076

Dear Ladies and Gentlemen:

Submitted in this report are the results of an Actuarial Valuation of the benefit values associated with the employer financed retiree health care benefits provided by the City of Southfield. The date of the valuation was June 30, 2019, determining Actuarially Determined Contributions for the fiscal years ending June 30, 2021 and June 30, 2022.

This report was prepared at the request of the City of Southfield Retiree Health Care Benefits Plan and Trust Board ("Board"). This report may be provided to parties other than the Board only in its entirety and only with the permission of the Board. 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 employer contribution rate for the fiscal years ending June 30, 2021 and June 30, 2022. This report should not be relied on for any purpose other than the purposes described herein. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results. This report does not satisfy the disclosure requirements of GASB Statements No. 74 and No. 75. Information related to the disclosure requirements of GASB Statement Nos. 74 and 75 is issued in a separate report.

The findings in this report are based on data and other information through June 30, 2019. The valuation was based upon information, furnished by the City, concerning retiree health care benefits, individual members, and financial data. Data was checked for internal consistency, but was not audited. We are not responsible for the accuracy or the completeness of the information provided by the City.

The contributions in this report are determined using the actuarial assumptions and methods disclosed in Section E of this report. This report includes risk metrics on pages A-11 and A-12 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the Plan sponsor to make the contributions necessary to fund this Plan. A determination regarding whether or not the Plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

This report was prepared using assumptions adopted by the Board. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. However, they are not the only reasonable set of assumptions. Other reasonable assumptions could produce different results. Additional information about the actuarial assumptions is included in Section E of this report.

To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes. To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods.

Jeffrey T. Tebeau and Kevin T. Noelke 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. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,



Jeffrey T. Tebeau, FSA, EA, MAAA



Kevin T. Noelke, ASA, MAAA

JTT/KTN:ah

EXECUTIVE SUMMARY

Executive Summary

Introduction

This is the June 30, 2019 actuarial valuation of the City of Southfield Retiree Health Care Benefits Plan and Trust (the "Plan"). This report describes the current actuarial condition of the Plan, determines the recommended employer contribution, and analyzes the changes in principal values.

The contribution is determined actuarially based on the plan provisions in effect as of the valuation date and the actuarial assumptions adopted by the Board of Trustees. The Board's current policy is that the contribution determined by a given actuarial valuation becomes effective one year after the valuation date. For example, the contributions determined by this June 30, 2019 valuation will be applicable for the fiscal years ending June 30, 2021 and June 30, 2022.

Summary of Principal Results

	<u>Fire and Police</u>	<u>SERS</u>
Valuation Date	June 30, 2019	
Actuarially Determined Employer Contributions (ADEC)		
Fiscal Year Ending: June 30, 2021	\$ 7,288,177	\$ 4,815,515
Fiscal Year Ending: June 30, 2022	\$ 7,209,349	\$ 4,770,958
Membership		
Number of		
Active Members	137	152
Deferred Members	1	30
Retirees and Beneficiaries	<u>326</u>	<u>300</u>
Total	464	482
Assets		
Actuarial (Market) Value	\$ 51,495,050	\$ 22,277,384
Actuarial Information		
Employer Normal Cost (FY 2021)	\$ 1,312,854	\$ 622,907
Actuarial Accrued Liability (AAL)	128,747,495	\$ 76,657,893
Unfunded Actuarial Accrued Liability (UAAL)	77,252,445	\$ 54,380,509
Funded Ratio	40.0%	29.06%
Amortization Period	22 years	22 years



Executive Summary

Financing Objectives

The actuarial assumptions, methods and the amortization periods are set by the Board. Contribution rates and liabilities are computed using the Entry Age Normal actuarial cost method. The employer contribution is the sum of two pieces: the normal cost and the amortization payment. Both the normal cost and amortization payment are determined as a level dollar, the combination of which is the amount required to amortize the unfunded actuarial accrued liability over a closed period of 22 years, down from 24 in the prior valuation (the amortization period started at 30 years).

A summary of principal valuation results is shown on the prior page.

Actuarially Determined Employer Contribution

We have calculated the Actuarially Determined Employer Contribution for the fiscal years beginning July 1, 2020 and beginning July 1, 2021 under the interest rate assumption of 5.5%. Below is a summary of the results.

The Actuarially Determined Employer Contribution (ADEC) for the fiscal year beginning July 1, 2020 was determined to be \$7,288,177 for the Fire and Police group and \$4,815,515 for the SERS group. The ADEC for the fiscal year beginning July 1, 2021 was determined to be \$7,209,349 for the Fire and Police group and \$4,770,958 for the SERS group.

The expected employer portion of the claims and premium amounts paid is estimated to be \$6,443,693 for the Fire and Police group and \$4,127,298 for the SERS group for the fiscal year beginning July 1, 2020. For the fiscal year beginning July 1, 2021, the expected employer portion of the claims and premium amounts paid is estimated to be \$6,931,744 for the Fire and Police group and \$4,455,291 for the SERS group.

For additional details, please see Section A of the report.

Health Care Plans and Benefit Provisions

Benefit changes included the transition to BCBSM Medicare Advantage plans with Humana EGWP in July 2019 for Medicare eligible retirees and changes to the retiree contributions for certain Police Officers, Police Command, and Public Safety Technicians. These changes reduced the actuarial liabilities and the ADEC of the Plan.



Executive Summary

Plan Experience

Experience differed for Fire and Police and SERS. Overall experience was unfavorable for Fire and Police and favorable for SERS. On a combined basis the Plan experienced investment gains in fiscal year 2018 with estimated market returns of 7.3% and losses in fiscal year 2019 with estimated market returns of 3.6%, versus the 5.5% assumption. Demographic experience (member-related activity) resulted in losses for Fire and Police but gains for SERS.

Based on recent experience and national experience, the trend assumption has been reset to 8.25% in 2020 grading down to 3.50% by 2029. Based on the trend assumption used for the June 30, 2017 valuation, the first-year trend for this valuation would have been 7.50%. Therefore, the resetting of the trend increased liabilities slightly.

Actuarial Assumptions

The Excise Tax load was removed as a result of the “Further Consolidated Appropriations Act of 2020” (H.R. 1865), which repealed the tax.

Assumption changes related to changes in pension benefit provisions for certain Police Patrol Officers were incorporated into this report.

The above-mentioned assumptions changes resulted in a decrease in the accrued liabilities and actuarially determined contribution.

Please see Section E for a description of actuarial assumptions used in this valuation.

Actuarial Methods

There have been no changes in actuarial methods since the prior valuation. Please see Section E for a description of the actuarial methods used in this valuation.

Data

For the current valuation, the City provided self-insured claims and exposures for use in the premium development for the pre-65 BCBSM plans and fully-insured premiums rates for the development post-65 Medicare Advantage and HAP plans.

The City supplied data for retired, active, and inactive members as of June 30, 2019. We did not audit this data, but we did apply a number of validation tests to the data. Please see Section D for a summary of the data.



SECTION A

VALUATION RESULTS

Determination of Unfunded Actuarial Accrued Liability as of June 30, 2019

	Fire and Police	SERS
A. Present Value of Future Benefits		
1. Retirees and Beneficiaries	\$ 88,299,826	\$ 48,753,212
2. Vested Terminated Members	446,435	3,017,612
3. Active Members	<u>53,576,883</u>	<u>30,314,773</u>
Total Present Value of Future Benefits	\$ 142,323,144	\$ 82,085,597
B. Present Value of Future Total Normal Costs	13,575,649	5,427,704
C. Actuarial Accrued Liability (A.-B.)	\$ 128,747,495	\$ 76,657,893
D. Actuarial Value of Assets	51,495,050	22,277,384
E. Unfunded Actuarial Accrued Liability (C.-D.)	\$ 77,252,445	\$ 54,380,509
F. Funded Ratio (D./C.)	40.00%	29.06%

Computation of the Actuarially Determined Employer Contribution (ADEC) for the Fiscal Year Beginning July 1, 2020 and July 1, 2021

Fire and Police

Contributions for	Annual Required Contribution
Total Normal Cost	\$ 1,797,999
Annual Active Member Contribution	\$ 485,145
Employer Normal Cost	\$ 1,312,854
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 22 years)	\$ 5,975,323
Actuarially Determined Employer Contribution (ADEC)	\$ 7,288,177
Projected Payroll for the Fiscal Year Beginning July 1, 2020	12,861,221
ADEC as a Percentage of Projected Payroll	56.67%
ADEC Per Active Participant	\$ 53,198
Actuarially Determined Employer Contribution (ADEC)	\$ 7,209,349
Projected Payroll for the Fiscal Year Beginning July 1, 2021	12,092,843
ADEC as a Percentage of Projected Payroll	59.62%
ADEC Per Active Participant	\$ 52,623

The unfunded actuarial accrued liabilities were amortized as a level dollar amount over 22 years. The expected employer-provided benefit payments for this group for the fiscal year beginning July 1, 2020 is \$6,443,693 or 50.10% of projected payroll and \$6,931,744 or 57.32% of projected payroll for the fiscal year beginning July 1, 2021.

Computation of the Actuarially Determined Employer Contribution (ADEC) for the Fiscal Year Beginning July 1, 2020 and July 1, 2021

SERS

Contributions for	Annual Required Contribution
Total Normal Cost	\$ 780,405
Annual Active Member Contribution	\$ 157,498
Employer Normal Cost	\$ 622,907
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 22 years)	\$ 4,192,608
Actuarially Determined Employer Contribution (ADEC)	\$ 4,815,515
Projected Payroll for the Fiscal Year Beginning July 1, 2020	7,874,922
ADEC as a Percentage of Projected Payroll	61.15%
ADEC Per Active Participant	\$ 31,681
Actuarially Determined Employer Contribution (ADEC)	\$ 4,770,958
Projected Payroll for the Fiscal Year Beginning July 1, 2021	7,313,341
ADEC as a Percentage of Projected Payroll	65.24%
ADEC Per Active Participant	\$ 31,388

The unfunded actuarial accrued liabilities were amortized as a level dollar amount over 22 years. The expected employer-provided benefit payments for this group for the fiscal year beginning July 1, 2020 is \$4,127,298 or 52.41% of projected payroll and \$4,455,291 or 60.92% of projected payroll for the fiscal year beginning July 1, 2021.

Comparative Statement of Annual Required Contributions (ARC) and Actuarially Determined Employer Contributions (ADEC)

Valuation Date	Fiscal Year Ending	ARC/ADEC	
		Fire/Police	SERS
6/30/2002	6/30/2004	\$ 3,170,767 *	\$2,298,768 *
6/30/2003	6/30/2005	4,544,524	3,035,505
6/30/2004	6/30/2006	4,834,809	3,611,105
6/30/2005	6/30/2007	6,141,255	5,580,556
6/30/2006	6/30/2008	6,312,302	5,216,167
6/30/2007	6/30/2009	6,501,070	4,512,080
6/30/2008	6/30/2010	6,916,187	4,796,821
6/30/2009	6/30/2011	5,866,780	4,436,674
6/30/2010	6/30/2012	7,069,080	5,146,000
6/30/2011	6/30/2013	9,294,221	6,899,819
6/30/2011	6/30/2014	10,519,005	7,435,888
6/30/2013	6/30/2015	9,750,985	7,199,411
6/30/2013	6/30/2016	9,696,635	7,153,708
6/30/2015	6/30/2017	9,683,176	8,343,051
6/30/2015	6/30/2018	9,580,833	8,276,998
6/30/2017	6/30/2019	10,633,965	9,425,014
6/30/2017	6/30/2020	10,504,160	9,331,755
6/30/2019	6/30/2021	7,288,177	4,815,515
6/30/2019	6/30/2022	7,209,349	4,770,958

* Interest only financing on the unfunded actuarial accrued liability.

For the fiscal years ending June 30, 2019 and after, this is considered the Actuarially Determined Employer Contribution instead of an Annual Required Contribution as the new GASB accounting standards do not stipulate a contribution amount.

Sensitivity Analysis for the Fiscal Year Beginning July 1, 2020

Fire and Police

Contributions for	Development of the Actuarially Determined Employer Contribution for July 1, 2020 - June 30, 2021		
	Base Liabilities	Pessimistic Trend	Optimistic Trend
Total Normal Cost	\$ 1,797,999	\$ 1,960,049	\$ 1,644,951
Annual Active Member Contribution	\$ 485,145	\$ 485,145	\$ 485,145
Employer Normal Cost	\$ 1,312,854	\$ 1,474,904	\$ 1,159,806
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 22 years)	\$ 5,975,323	\$ 6,889,756	\$ 5,120,052
Actuarially Determined Employer Contribution (ADEC)	\$ 7,288,177	\$ 8,364,660	\$ 6,279,858

Optimistic and Pessimistic Health Care trend rates are found on page E-7.

Sensitivity Analysis for the Fiscal Year Beginning July 1, 2020

SERS

Contributions for	Development of the Actuarially Determined Employer Contribution for July 1, 2020 - June 30, 2021		
	Base Liabilities	Pessimistic Trend	Optimistic Trend
Total Normal Cost	\$ 780,405	\$ 848,918	\$ 714,255
Annual Active Member Contribution	\$ 157,498	\$ 157,498	\$ 157,498
Employer Normal Cost	\$ 622,907	\$ 691,420	\$ 556,757
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 22 years)	\$ 4,192,608	\$ 4,732,041	\$ 3,687,826
Actuarially Determined Employer Contribution (ADEC)	\$ 4,815,515	\$ 5,423,461	\$ 4,244,583

Optimistic and Pessimistic Health Care trend rates are found on page E-7.

Assets as of June 30, 2019

Assets	Fire and Police	SERS	Total
Cash and Deposits	\$ 286,187	\$ 122,652	\$ 408,839
Receivables			
Accounts Receivable	\$ 1,295,490	\$ 555,210	\$ 1,850,700
Accrued Interest and Other Dividends	24,135	10,344	34,479
Contributions	-	-	-
Prepaid Expenses	622,430	474,830	1,097,260
Total Receivables	<u>\$ 1,942,055</u>	<u>\$ 1,040,384</u>	<u>\$ 2,982,439</u>
Investments			
Debt Securities	\$ 11,205,089	\$ 4,802,181	\$ 16,007,270
Equity Securities	34,240,616	14,674,550	48,915,166
Short-term Investments	3,219,196	1,379,656	4,598,852
Other Investments	2,407,789	1,031,910	3,439,699
Other - Rounding Adjustment	-	-	-
Total Investments	<u>\$ 51,072,690</u>	<u>\$ 21,888,297</u>	<u>\$ 72,960,987</u>
Total Assets	<u><u>\$ 53,300,932</u></u>	<u><u>\$ 23,051,333</u></u>	<u><u>\$ 76,352,265</u></u>
Liabilities			
Payables			
Accounts Payable - Due to Primary Government	\$ 35,021	\$ 15,009	\$ 50,030
Other - Rounding Adjustment	-	-	-
Due to Brokers	1,770,861	758,940	2,529,801
Total Liabilities	<u>\$ 1,805,882</u>	<u>\$ 773,949</u>	<u>\$ 2,579,831</u>
Net Position Restricted for OPEB	<u><u>\$ 51,495,050</u></u>	<u><u>\$ 22,277,384</u></u>	<u><u>\$ 73,772,434</u></u>

Comments

Comment A: One of the key assumptions used in any valuation of the cost of postemployment benefits is the long-term rate of investment return on plan assets. Higher assumed investment returns will result in a lower Actuarially Determined Employer Contribution (ADEC). Lower returns will result in a higher ADEC. We have calculated the liability and the resulting ADEC using an assumed investment return of 5.5%.

Comment B: The contribution rates shown include amortization of the unfunded actuarial accrued liability over 22 years beginning with the fiscal year beginning July 1, 2020. A shorter amortization period would result in a higher ADEC.

Comment C: The actuarial liabilities and ADEC has decreased for both groups from the previous valuation. Factors that decreased the liabilities and ADEC include, but are not limited to:

- Changes to the health care plan offerings for Medicare eligible retirees (see Comment F).
- Changes to benefit provisions (see comment G).
- Removing the estimated costs due to the ACA excise tax on high-cost employer health plans (see Comment E).
- Favorable experience related to member activities (retirements, deaths, etc.) for SERS.
- Favorable investment performance in fiscal year 2018.

Factors that partially offset decreases to the liabilities and ADEC include:

- Resetting the health care trend assumptions (see Comment D).
- Unfavorable experience related to member activities for Fire and Police.
- Unfavorable investment performance in fiscal year 2019.

Comment D: The health care trend assumption was reset to 8.25% the first-year trending down to 3.50% over ten years. The short-term trend of 8.25% is a reasonable expectation of current health care inflation. The transition from short-term to long-term trend is supported by the Society of Actuaries' Getzen model which results in a macroeconomic estimate that health care expenditures will increase from 20% of Gross Domestic Product (GDP) in 2029 to 25% of GDP in 2050 assuming 4.00% annual GDP growth. Please see page B-3 for more information on the Health Care Trend assumption. Based on the trend assumption used for the June 30, 2017 valuation, the first-year trend for this valuation would have been 7.50%. Therefore, the resetting of the trend increased the liabilities and the ADEC.

Comment E: On December 20, 2019, the "Further Consolidated Appropriations Act of 2020," H.R. 1865, was signed into law. The Act repeals the "Cadillac tax" which was a tax provision from the Affordable Care Act (ACA). As a result, any liability/provision analysis included as part of the prior funding valuation is no longer required. In addition, no further adjustments associated with the "Cadillac tax" are required. While the change to the Post-65 health care plans reduced the anticipated excise tax liabilities, removing the excise tax load completely resulted in additional decreases in liabilities and the ADEC.

Comments (Concluded)

Comment F: There were changes to the health care plan offerings since the last valuation for Medicare eligible retirees. Beginning in July 2019, the self-insured BCBSM PPO plans for Medicare eligible retirees were replaced with BCBSM Medicare Advantage plans for medical benefits and a Humana Employee Group Waiver Program (EGWP) for prescription benefits. These new plans offer similar coverage for retirees at reduced premium costs and resulted in a significant decrease in the liabilities and the ADEC. The decrease in the Plan's liabilities based on this valuation was estimated at 35% of accrued liabilities or about \$112 million.

Comment G: There were changes to the benefit provisions for both Fire and Police and SERS since the last valuation (see Section D for additional information). Overall, these changes decreased the liabilities and decreased the ADEC. These changes include:

- Increase in the portion of the premium the retiree pays for Southfield Police Officers Association (SPOA) members retiring after August 28, 2018 and Southfield Police Command Officers Association (SPCOA) members retiring after July 20, 2018. The amount the retiree pays varies by service at retirement (see page D-2 for details).
- Increase in the portion of the premium the retiree pays for Public Safety Technicians (PST) members retiring after August 24, 2018. The amount the retiree pays varies by service at retirement (see page D-7 for details).

Other Observations

General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected System Contributions and Funded Status

Given the Plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the Plan earning 5.50% on the funding value of assets), it is expected that:

- (1) The employer normal cost as a percentage of pay will be sufficient to finance benefits accruing each year,
- (2) The Unfunded Actuarial Accrued Liabilities (UAAL) will be fully amortized after 22 years (June 30, 2042), and
- (3) The funded status of the plan will increase gradually towards a 100% funded ratio.

The above statements assume that the full Actuarially Determined Employer Contribution (ADEC) is contributed each year.

The computed contribution shown on pages A-2 and A-3 may be considered as a minimum contribution rate that complies with the Plan's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

Limitations of Funded Status Measurements

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

- (1) The measurement is inappropriate for assessing the sufficiency of System assets to cover the estimated cost of settling the System's benefit obligations, for example: transferring the liability to an unrelated third party in a market value type transaction.
- (2) The measurement is dependent upon the actuarial cost method which, in combination with the System's amortization policy (funding policy), affects the timing and amounts of future contributions. The amounts of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon the actuarial assumptions. Even if the funded status measurement in this report was 100%, it would not be synonymous with no required future contributions. If the funded status were 100%, the Plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 due to changing conditions; 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.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. **Healthcare-related risk** – actual medical inflation trend rates, benefit election patterns and/or changes in healthcare plan designs may differ from expected resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **Other Demographic risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	2019	2017
Ratio of actives to retirees and beneficiaries	0.5	0.6
Ratio of retiree actuarial accrued liability to total liability	66.7%	68.0%
Ratio of net cash flow to market value of assets	-1.2%	0.5%

RATIO OF ACTIVE TO RETIREES AND BENEFICIARIES

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

RATIO OF RETIREE ACTUARIAL ACCRUED LIABILITY TO TOTAL LIABILITY

The ratio of retiree liability to the total actuarial accrued liability gives an indication of the maturity of the plan. As the ratio increases, cash flow needs increase, and the liquidity needs of the portfolio change. A ratio on the order of 50% indicates a maturing system. In the case of a closed plan, this ratio will eventually reach 100%.

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

ADDITIONAL RISK ASSESSMENT

Additional risk assessment is generally outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Please see pages A-5 and A-6 for sensitivity tests of the health care cost trend rates.

SECTION B

RETIREE PREMIUM RATE DEVELOPMENT

Retiree Premium Rate Development

Initial per capita costs were developed for the two classes of retirees (pre-65 and post-65).

For pre-65 premiums, the rates were calculated by using actual paid claims and exposure data for the period of January 2017 to December 2019, adjusted for trend, claim fluctuation, plus the load for administration, network access fees, and stop loss premiums. The self-insured medical and prescription drug data was provided by the City. The pre-65 medical was provided separately for these two groups of participants. Prescription drug claims data was split between pre-65 and post-65 participants by reflecting the impact of Medicare on post-65 claim costs. Furthermore, since the prescription drug claims and the medical claims exhibit different trends and claim payment patterns, we analyzed these claims separately as well.

For post-65 premiums, initial premium rates were developed based on the 2020 rates for the fully-insured BCBS Medicare Advantage and Humana Employee Group Waiver Rx plans. These rates were used without adjustment since they reflect the demographics of the group.

The fully-insured HMO plans were included in the valuation separately and applied to appropriate retirees.

Age graded and sex distinct premiums are utilized in 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 specific age/sex combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.

Since different groups have benefits which differ, group specific rates were developed for current and future retirees. For the current active employees, the only plans available upon retirement are package codes 200 and 220, which differ from current retirees. We have developed separate premium rates for future retirees in order to reflect the benefit differences.

Retiree Premium Rate Development (Continued)

The tables below show the resulting medical and prescription drug one-person monthly premiums at select ages. These premium (or per capita costs) rates reflect the use of age grading.

Pre-65 Self-Insured Retirees

Age	Current Retirees		Future Retirees	
	Male	Female	Male	Female
45	\$ 684.63	\$ 944.88	\$ 656.58	\$ 906.17
50	\$ 891.47	\$1,098.20	\$ 854.95	\$1,053.21
55	\$1,173.07	\$1,280.82	\$1,125.02	\$1,228.35
60	\$1,515.09	\$1,491.84	\$1,453.02	\$1,430.72

For Those Eligible for Medicare

Age	Current Retirees		Future Retirees	
	Male	Female	Male	Female
65	\$366.73	\$345.90	\$252.19	\$237.87
70	\$399.51	\$386.58	\$274.73	\$265.84
75	\$429.08	\$418.68	\$295.06	\$287.91

Current HAP Retirees

Pre-65 Participants		
Age	Male	Female
45	\$ 548.21	\$ 756.60
50	\$ 713.83	\$ 879.37
55	\$ 939.32	\$1,025.60
60	\$1,213.18	\$1,194.56

For Those Eligible for Medicare		
Age	Male	Female
65	\$585.30	\$552.05
70	\$637.60	\$616.98
75	\$684.79	\$668.21

Retiree Premium Rate Development (Concluded)

Health Care Cost Trend Assumption

The health care cost trend rate is the rate of change in per capita health care claims over time as a result of factors such as medical inflation, utilization of health care services, plan design, and technological improvements. It is a crucial economic assumption that is required for measuring retiree health care benefit obligations.

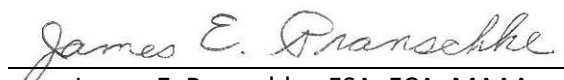
Retiree health care valuations use a health care cost trend assumption (trend vector) that changes over the years. The trend vector used in this valuation begins with a near-term trend assumption and declines over a time to an ultimate trend rate. The near-term rates reflect the increases in the current cost of health care goods and services. The process of trending down to a lower ultimate trend relies on the theory that premiums will moderate over the long- term, otherwise the healthcare sector would eventually consume the entire GDP. It is on this basis that we project premium rate increases will continue to exceed wage inflation for the next fifteen years, but by less each year until leveling off at an ultimate rate, assumed to be 3.50% in this valuation.

While experience is often the best starting point for future costs, GRS does not rely on a group's experience in setting the near-term trend assumptions since trends vary significantly from year to year and are not credible for most groups. Therefore, professional judgment, trends from GRS' book of business and industry benchmarks (e.g., trend reports from various Pharmacy Benefit Management (PBM) organizations and national healthcare benefit consulting firms) are used in conjunction with a group's historical experience to establish the trend assumptions.

Additional Disclosures

Based on the guidance provided by GASB on issues related to Medicare Part D payments to State and Local Governments effective as of June 30, 2006, an employer should apply the measurement requirements of GASB Statement No. 45 to determine the actuarial accrued liabilities, the annual required contribution of the employer, and the annual OPEB cost without reduction for Retiree Drug Subsidy (RDS) payments. Therefore, the impact of the RDS that is part of the Medicare Prescription Drug Improvement and Modernization Act of 2003 is not reflected in this report.

James E. Pranschke is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown above.


James E. Pranschke, FSA, FCA, MAAA

SECTION C

BENEFIT PROJECTIONS

Cash Flow Projections

This section shows projected premium payments for the current population as of the valuation date (assuming no new entrants into the plan). It considers assumed demographic decrements, health care inflation at the base rates, and retiree cost sharing arrangements (where appropriate).

20-Year Benefit Projection Fire and Police

City Financed Retiree Health Payments on Behalf of Present			
Year Ending June 30,	Retirees	Employees	Total
2020	\$5,946,426	\$ 102,784	\$ 6,049,210
2021	6,092,677	351,016	6,443,693
2022	6,269,939	661,805	6,931,744
2023	6,426,329	1,041,342	7,467,670
2024	6,604,468	1,558,261	8,162,729
2025	6,735,382	2,083,239	8,818,621
2026	6,825,851	2,533,048	9,358,899
2027	6,694,001	2,915,202	9,609,203
2028	6,671,100	3,223,697	9,894,797
2029	6,462,752	3,564,305	10,027,057
2030	6,193,505	3,893,090	10,086,595
2031	6,004,806	4,177,675	10,182,481
2032	5,824,545	4,399,735	10,224,280
2033	5,711,629	4,566,509	10,278,138
2034	5,293,485	4,807,250	10,100,736
2035	4,945,842	5,136,556	10,082,398
2036	4,743,731	5,424,811	10,168,542
2037	4,605,740	5,614,185	10,219,926
2038	4,471,731	5,651,520	10,123,251
2039	4,353,028	5,708,695	10,061,723

20-Year Benefit Projection SERS

City Financed Retiree Health Payments on Behalf of Present			
Year Ending June 30,	Retirees	Employees	Total
2020	\$3,799,373	\$ 143,342	\$3,942,714
2021	3,688,510	438,788	4,127,298
2022	3,716,570	738,721	4,455,291
2023	3,749,045	978,523	4,727,568
2024	3,788,894	1,166,160	4,955,055
2025	3,773,895	1,401,099	5,174,994
2026	3,796,702	1,667,313	5,464,015
2027	3,743,815	1,915,671	5,659,486
2028	3,610,878	2,171,571	5,782,449
2029	3,498,295	2,449,456	5,947,752
2030	3,446,780	2,696,449	6,143,229
2031	3,388,895	2,878,679	6,267,574
2032	3,322,535	2,984,102	6,306,637
2033	3,280,697	3,014,697	6,295,395
2034	3,243,359	3,003,188	6,246,547
2035	3,211,925	2,954,546	6,166,470
2036	3,145,086	2,930,061	6,075,147
2037	3,128,068	2,877,500	6,005,567
2038	3,030,138	2,625,532	5,655,671
2039	2,886,340	2,424,465	5,310,805

SECTION D

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

Summary of Plan Provisions as of June 30, 2019

Fire and Police Members

Retiree Health Care Benefits Plan and Trust

Plan Participants

Fire and Police Employees of the City of Southfield are eligible to receive retiree health care benefits. Fire members hired after September 12, 2011, Police (SPOA) members hired after February 19, 2013, and SPCOA members hired after March 1, 2014 will participate in a Retiree Health Savings Plan, funded by both the City and the employee, and will not participate in the Retiree Health Care Benefits Plan and Trust.

Normal Retirement Eligibility

Any age with 20 or more years of service.

Early Retirement Benefits

Members are not eligible for early retirement benefits.

Deferred Retirement Benefits

Any age with 10 or more years of service. Benefit commences at date retirement would have occurred had member remained in employment. Deferred members terminating after October 14, 2016 are not eligible for retiree health benefits.

Duty Death-in-Service Retirement Benefits

Surviving spouses and dependents of duty death-in-service members are eligible for retiree health care coverage at any age and service. Police members receive benefits as if the member had 25 years of credited service. Benefits commence immediately. Benefits commence immediately.

Non-Duty Death-in-Service Retirement Benefits

Surviving spouses and dependents of non-duty death-in-service members are eligible for retiree health care coverage at any age with 10 years of service. Benefits commence immediately.

Duty Disabled Retirement Benefits

Members retiring under duty disability are eligible for retiree health care at any age and service. Benefits commence immediately. Fire members receive benefits as if the member had 25 years of credited service.

Non-Duty Disability

Members retiring under non-duty disability may retain City health insurance if allowed by the carrier; member is responsible for full payment of the required premium.



Summary of Plan Provisions as of June 30, 2019

Fire and Police Members

Retiree Health Care Benefits Plan and Trust

Benefits for Spouses and Dependents of Retired Employees

Qualified spouses of retirees receiving retiree health care are eligible for retiree health care as well. Effective July 1, 1975, retiree health benefits are payable to a qualified surviving spouse, if any, upon the death of a retired member provided the surviving spouse is eligible to receive an optional joint and survivor pension. This benefit was extended to duty disability pensions effective July 1, 1985. Includes members whose DROP was effective on July 1, 1999.

Eligible dependents of members retiring after July 1, 1993 are eligible for retiree health care coverage. Fire members retiring after October 14, 2016 pay one-half of the single retiree premium to cover each eligible dependent.

Retirement Benefits

Access to retiree health care provided by the City of Southfield is available to eligible Fire and Police retirees for the price outlined in the Retiree Premium Payment section provided no hospitalization or medical insurance is provided by a subsequent employer.

Retiree Premium Payment

Fire and Police retirees or their qualified spouses make no premium payments for retiree health care provided they retire after January 1, 1982 (SPCOA), January 1, 1983 (SPOA), and May 3, 1986 (SFFA) and meet all other eligibility requirements. Members retiring prior to the preceding dates must pay 100% of the premium unless they retired under duty disability or exchanged sick-leave pay for health care coverage, in which case they are not responsible for payment of retiree health premiums.

SFFA members who retire after September 12, 2011 but prior to October 14, 2016 pay 10% of the following: net combined cost of medical, dental, and vision insurance less \$500 per month.

SFFA members retiring after October 14, 2016, SPCOA retiring after July 20, 2018, and SPOA retiring after August 28, 2018 pay a portion of the premiums based on service:

20-24 years	Retiree pays \$75 a month plus \$150 a month for eligible spouse
25 or more years	Retiree pays \$30 a month plus \$120 a month for eligible spouse

Non-Medicare and Medicare-Eligible Provisions

Retirees are required to enroll in Medicare once eligible. Retiree pays Medicare premiums.



Summary of Plan Provisions as of June 30, 2019

Fire and Police Members

Retiree Health Care Benefits Plan and Trust

Available Benefit Options

Fire Members who retire after September 12, 2011 and Police Members who retire after February 19, 2013 pay a prescription drug co-pay of \$5 for generic, \$30 for brand name, and \$60 for non-preferred brand name. Police Command members who retire after March 1, 2014 pay a prescription drug co-pay of \$5 for generic, \$30 for brand name, and \$60 for non-preferred brand name.

Pre-65 Benefits: Members and their spouses are eligible to participate in several medical plans which include the Blue Cross Blue Shield PPO Plan, and HAP (Health Alliance Plan).

Post-65 Benefits: Members and their spouses who are Medicare-eligible may participate in Medicare Advantage Plans.

Active Member Contributions

Effective July 1, 2007, active Fire and Police (including Command) employees must contribute 1% of covered pay to the Retiree Health Care Benefit Plan and Trust.

Effective July 1, 2008, active Fire and Police (including Command) employees must contribute 2% of covered pay to the Retiree Health Care Benefit Plan and Trust.

As of July 1, 2015, all active Police employees who entered in the DROP program prior to June 16, 2014 will make an additional 1% of covered pay (3% total) contribution to the Retiree Health Care Benefit Plan and Trust. As of July 1, 2016, these DROP members will contribute an additional 2% of covered pay (4% total). Police employees eligible to DROP after June 16, 2014 will contribute an additional 3% (5% total) to RHC upon entering the DROP.

This is a brief summary of the City of Southfield Fire and Police Retiree Health Care Benefits Plan and Trust provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate Ordinance and/or employee contract will prevail.



Summary of Plan Provisions as of June 30, 2019

SERS Members

Retiree Health Care Benefits Plan and Trust

AFSCME 3636	Hired prior to March 6, 2007
AFSCME 329	Hired prior to April 23, 2007
Non-Union	Hired prior to August 1, 2007
PSS	Hired prior to March 2, 2009
PST	Hired prior to February 2, 2009
TPOAM	Hired prior to April 9, 2007

Plan Participants

SERS Employees of the City of Southfield are eligible to receive retiree health care benefits.

Normal Retirement Eligibility

Age 65 with 10 or more years of service, or the sum of their age and service equals 82 with at least 10 years of service. No service granted for employment prior to July 1, 1965.

Early Retirement Eligibility

Age 57 with 20 or more years of service or age 60 with 10 years of service. No service granted for employment prior to July 1, 1965.

Deferred Retirement Eligibility

Members are eligible for deferred retirement at any age with 10 years of service. Member receives retiree health benefit upon reaching commencement age. Retiree health care commencement age is the same as pension commencement age. Retiree health benefit is not reduced in cases of reduced pension. Pension benefit and commencement is as follows:

Reduced benefit begins at age 60 with 10 or more years of service. Full benefit begins at age 57 with 25 or more years of credited service; or 62 with 20 to 25 years of credited service; or 65 with 10 to 20 years of credited service.

Eligibility for Health Care Benefits

Effective on the following dates for the following SERS groups, no retiree health care benefit is available upon pension commencement for those who terminate with a deferred retirement benefit or with less than 15 years of service.

AFSCME 3636	November 10, 2016
AFSCME 329	November 10, 2016
Non-Union	December 5, 2016
PSS	May 31, 2013
PST	October 20, 2014
TPOAM	January 9, 2017



Summary of Plan Provisions as of June 30, 2019

SERS Members

Retiree Health Care Benefits Plan and Trust

AFSCME 3636	Hired prior to March 6, 2007
AFSCME 329	Hired prior to April 23, 2007
Non-Union	Hired prior to August 1, 2007
PSS	Hired prior to March 2, 2009
PST	Hired prior to February 2, 2009
TPOAM	Hired prior to April 9, 2007

Duty and Non-Duty Death-in-Service Retirement Benefits

Surviving spouses of duty and non-duty death-in-service members are eligible for retiree health care coverage at any age with 10 years of service. Benefit commences immediately. PST members receive benefits as if the member had 25 years of credited service for Duty-Death and 20 years of credited service for Non-Duty Death.

Duty Disabled Retirement Benefits

Duty disabled members are eligible for retiree health care coverage at any age and service. Benefit commences immediately. Members receive benefits as if the member had 25 years of credited service. Non-Union members hired after June 1, 2005 with less than 10 years of service receive benefits as if the member had 10 years of service.

Non-Duty Disability

Non-duty disabled members are eligible for retiree health care coverage at any age with 10 years of service. Benefit commences immediately. AFSCME, Non-Union hired before June 1, 2005, and TPOAM members receive benefits as if the member had 20 years of credited service. PSS and PST members receive benefits as if the member had 25 years of credited service.

Benefits for Spouses of Retired Employees

Qualified spouses of retirees receiving retiree health care are eligible for retiree health care as well. Retiree health benefits are payable to a qualified surviving spouse, if any, upon the death of a retired member provided the surviving spouse is eligible to receive an optional joint and survivor pension.

Retirement Benefits

Access to retiree health care provided by the City of Southfield is available to eligible SERS retirees for the price outlined in the Retiree Premium Payment section.



Summary of Plan Provisions as of June 30, 2019

SERS Members

Retiree Health Care Benefits Plan and Trust

AFSCME 3636	Hired prior to March 6, 2007
AFSCME 329	Hired prior to April 23, 2007
Non-Union	Hired prior to August 1, 2007
PSS	Hired prior to March 2, 2009
PST	Hired prior to February 2, 2009
TPOAM	Hired prior to April 9, 2007

Retiree Premium Payment

Group	Retirement Date	Retiree Premium Payment		
All groups	On or before June 30, 1991 (1993 for PST)	Must pay 100% of the rates in effect on September 30, 1998, plus a percentage of the increases subsequently incurred		
All groups	Between June 30, 1991 (1993 for PST) and January 1, 2003	Specified by the City		
AFSCME 3636 and 329	Between January 1, 2003 and November 10, 2016	\$10 per month for retiree plus \$10 per month for eligible spouse		
	Between January 1, 2003 and November 10, 2016	\$10 per month for retiree plus \$10 per month for eligible spouse		
	After November 10, 2016	15 to 19 years of service	50% of illustrative premium	
		20 to 24 years of service	\$75 per month for retiree plus \$150 per month for eligible spouse	
25 or more years of service		\$30 per month for retiree plus \$120 per month for eligible spouse		
Non-Union	Between January 1, 2003 and December 5, 2016 (Hired prior to June 1, 2005)	\$10 per month for retiree plus \$10 per month for eligible spouse		
	After December 5, 2016 (Hired prior to June 1, 2005)	15 to 19 years of service	50% of illustrative premium	
		20 to 24 years of service	\$75 per month for retiree plus \$150 per month for eligible spouse	
		25 or more years of service	\$30 per month for retiree plus \$120 per month for eligible spouse	
	Any (Hired after June 1, 2005)	10 to 15 years of service	30% of illustrative premium	
		16 to 20 years of service	25% of illustrative premium	
		21 to 25 years of service	20% of illustrative premium	
Over 25 years of service		15% of illustrative premium		



Summary of Plan Provisions as of June 30, 2019

SERS Members

Retiree Health Care Benefits Plan and Trust

AFSCME 3636	Hired prior to March 6, 2007
AFSCME 329	Hired prior to April 23, 2007
Non-Union	Hired prior to August 1, 2007
PSS	Hired prior to March 2, 2009
PST	Hired prior to February 2, 2009
TPOAM	Hired prior to April 9, 2007

Retiree Premium Payment

Group	Retirement Date	Retiree Premium Payment	
PSS	Between January 1, 2003 and July 20, 2015	\$10 per month for retiree plus \$10 per month for eligible spouse	
	On or after July 20, 2015	15 to 25 years of service	Retiree pays remaining premium net of SERS payment (SERS pays 4% multiplied by years of credited service). A minimum payment of \$100 is applied for spousal coverage.
		Over 25 years of service	Retiree pays \$10 per month for single coverage, \$110 per month for retiree and spouse coverage.
PST	Between January 1, 2003 and October 20, 2014	\$10 per month for retiree plus \$10 per month for eligible spouse	
	On or after October 20, 2014	15 to 25 years of service	Retiree pays remaining premium net of SERS payment (SERS pays 4% multiplied by years of credited service). A minimum payment of \$100 is applied for spousal coverage
		Over 25 years of service	Retiree pays \$10 per month for single coverage, \$110 per month for retiree and spouse coverage
	After August 24, 2018	15 to 19 years of service	50% of illustrative premium
		20 to 24 years of service	\$75 per month for retiree plus \$150 per month for eligible spouse
		25 or more years of service	\$30 per month for retiree plus \$120 per month for eligible spouse
TPOAM	Between January 1, 2003 and January 9, 2017	\$10 per month for retiree plus \$10 per month for eligible spouse	
	After January 9, 2017	15 to 19 years of service	50% of illustrative premium
		20 to 24 years of service	\$75 per month for retiree plus \$150 per month for eligible spouse
		25 or more years of service	\$30 per month for retiree plus \$120 per month for eligible spouse



Summary of Plan Provisions as of June 30, 2019

SERS Members

Retiree Health Care Benefits Plan and Trust

AFSCME 3636	Hired prior to March 6, 2007
AFSCME 329	Hired prior to April 23, 2007
Non-Union	Hired prior to August 1, 2007
PSS	Hired prior to March 2, 2009
PST	Hired prior to February 2, 2009
TPOAM	Hired prior to April 9, 2007

Active Member Contributions

Effective July 1, 2005 Non-Union employees, AFSCME 329, AFSCME 3636, and TPOAM employees must contribute 1% of covered pay to the Retiree Health Care Benefits Plan and Trust.

Effective July 1, 2006, Non-Union employees, AFSCME 329, AFSCME 3636, and TPOAM employees must contribute 2% of covered pay to the Retiree Health Care Benefits Plan and Trust.

Effective July 1, 2007, active PST and PSS employees must contribute 1% of covered pay to the Retiree Health Care Benefit Plan and Trust.

Effective July 1, 2008, active PST and PSS employees must contribute 2% of covered pay to the Retiree Health Care Benefit Plan and Trust.

Non-Medicare and Medicare–Eligible Provisions

Retirees are required to enroll in Medicare once eligible. Retiree pays Medicare premiums.

Available Benefit Options

Pre-65 Benefits: Members and their spouses are eligible to participate in several medical plans which include the Blue Cross Blue Shield PPO Plan, and HAP (Health Alliance Plan).

Post-65 Benefits: Members and their spouses are eligible to participate in the Medicare Advantage Plans.

Non-Union, AFSCME 329, AFSCME 3636, PST, PSS, and TPOAM employees hired on or after June 1, 2005: Members and their spouses may choose between Blue Cross/Blue Shield Community Blue PPO or HAP.

Non-Union, AFSCME 329, AFSCME 3636, and TPOAM employees retired after September 12, 2011 pay a prescription drug co-pay of \$5 for generic, \$30 for brand name, and \$60 for non-preferred brand name.

PSS employees retired after May 31, 2013 and PST employees retired after April 10, 2014 pay a prescription drug co-pay of \$5 for generic, \$30 for brand name, and \$60 for non-preferred brand name.



City of Southfield Retiree Health Care Plan

SERS Employees

Summary of Benefits as of June 30, 2019

AFSCME 3636	Hired on or after March 6, 2007 and prior to September 12, 2011
AFSCME 329	Hired on or after April 23, 2007 and prior to September 12, 2011
Non-Union	Hired on or after August 1, 2007 and prior to September 12, 2011
PSS	Hired on or after March 2, 2009 and prior to May 31, 2013
PST	Hired on or after February 2, 2009 and prior to April 10, 2014
TPOAM	Hired on or after April 9, 2007 and prior to September 12, 2011

Plan Participants

SERS Employees of the City of Southfield are eligible to receive retiree health care benefits, provided they are receiving a pension and have a minimum of 15 years credited service.

Normal Retirement Eligibility

Age 65 with 10 or more years of service (requires 15 years of service for health care), age 62 with 20 or more years of service, or age 57 with 25 or more years of service.

Early Retirement Eligibility

Age 57 with 20 or more years of service or age 60 with 10 years of service (requires 15 years of service for health care).

Deferred Retirement Eligibility

Members are eligible for deferred retirement at any age with 10 years of service. Members receive retiree health benefit upon reaching commencement age, provided a minimum of 15 years credited service (no retiree health care for less than 15 years credited service, even if pension-eligible). Pension benefit and commencement is as follows:

Reduced benefit begins at age 60 with 10 or more years of service. Full benefit begins at age 57 with 25 or more years of credited service; or 62 with 20 to 25 years of credited service; or 65 with 10 to 20 years of credited service.

Duty Death-in-Service Retirement Eligibility

Surviving spouses of duty death-in-service members are eligible for retiree health care coverage at any age and service. Benefit commences immediately.

Non-Duty Death-in-Service Retirement Eligibility

Surviving spouses of non-duty death-in-service members are eligible for retiree health care coverage at any age with 15 years of service. Benefit commences immediately.



City of Southfield Retiree Health Care Plan

SERS Employees

Summary of Benefits as of June 30, 2019

AFSCME 3636	Hired on or after March 6, 2007 and prior to September 12, 2011
AFSCME 329	Hired on or after April 23, 2007 and prior to September 12, 2011
Non-Union	Hired on or after August 1, 2007 and prior to September 12, 2011
PSS	Hired on or after March 2, 2009 and prior to May 31, 2013
PST	Hired on or after February 2, 2009 and prior to April 10, 2014
TPOAM	Hired on or after April 9, 2007 and prior to September 12, 2011

Duty Disabled Retirement Benefits

Duty disabled members are eligible for retiree health care coverage at any age and service. Benefit commences immediately.

Non-Duty Disability

Non-duty disabled members are eligible for retiree health care coverage at any age with 15 years of service. Benefit commences immediately.

Benefits for Spouses of Retired Employees

Qualified spouses of retirees receiving retiree health care are eligible for retiree health care as well. Payable to qualified surviving spouse, if any, upon the death of a retired member who was receiving an optional joint and survivor pension.

Retirement Benefits

Access to retiree health care provided by the City of Southfield is available to SERS retirees eligible for pension with at least 15 years of service for the price outlined in the Retiree Premium Payment section.

Retiree Premium Payment

<u>Years of Service Completed</u>	<u>Percentage of Retiree Health Premium Paid by Retiree</u>
0-14	Not eligible for benefit
15-24	50%
25 +	20%



City of Southfield Retiree Health Care Plan

SERS Employees

Summary of Benefits as of June 30, 2019

AFSCME 3636	Hired on or after March 6, 2007 and prior to September 12, 2011
AFSCME 329	Hired on or after April 23, 2007 and prior to September 12, 2011
Non-Union	Hired on or after August 1, 2007 and prior to September 12, 2011
PSS	Hired on or after March 2, 2009 and prior to May 31, 2013
PST	Hired on or after February 2, 2009 and prior to April 10, 2014
TPOAM	Hired on or after April 9, 2007 and prior to September 12, 2011

Non-Medicare and Medicare–Eligible Provisions

Retirees are required to enroll in Medicare once eligible. Retiree pays Medicare premiums.

Available Benefit Options

Pre-65 Benefits: Members and their spouses are eligible to participate in the Blue Cross Blue Shield PPO Plans.

Post-65 Benefits: Members and their spouses are eligible to participate in the Medicare Advantage Plans.

This is a brief summary of the City of Southfield SERS Retiree Health Care Benefits Plan and Trust provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate Ordinance and/or employee contract will prevail.



City of Southfield Retiree Health Care Plan

SERS Employees

Summary of Benefits as of June 30, 2019

AFSCME 3636	Hired on or after September 12, 2011
AFSCME 329	Hired on or after September 12, 2011
Non-Union	Hired on or after September 12, 2011
PSS	Hired on or after May 31, 2013
PST	Hired on or after April 10, 2014
TPOAM	Hired on or after September 12, 2011

The Plan is closed to new members as of the date above. New members in the above-cited groups will participate in a Retiree Health Savings Plan, funded by the City and the employee.



City of Southfield Retiree Health Care Plan

Summary of Benefits as of June 30, 2019

Monthly Retiree Rates Effective January 1, 2020

Carrier/Suffix	Non Medicare			Medicare	
	INDIVIDUAL	2-PARTY	FAMILY	INDIVIDUAL	2-PARTY
Medical and Rx					
BCBSM 67890-910 (0018)	\$ 1,004.91	\$ 2,411.79	\$ 3,014.72	N/A	N/A
BCBSM 67890-911 (0019)	1,002.77	2,406.64	3,008.29	N/A	N/A
BCBSM 67890-913 (0021)	988.07	2,371.34	2,964.18	N/A	N/A
BCBSM 67890-915 (0038)	1,013.59	2,432.58	3,040.74	N/A	N/A
BCBSM 67890-916 (0039)	1,009.46	2,422.67	3,028.35	N/A	N/A
BCBSM 67890-968 (0034)	933.49	2,240.39	2,800.47	N/A	N/A
BCBSM 67890-969 (0036)	933.49	2,240.39	2,800.47	N/A	N/A
BCBSM 67890-972 (0035)	933.49	2,240.39	2,800.47	N/A	N/A
HAP 1001	1,192.84	2,773.13	2,922.31	N/A	N/A
HAP 1101	1,179.44	2,741.98	2,889.49	N/A	N/A
HAP 1201	1,160.30	2,697.49	2,842.60	N/A	N/A
HAP 1401	959.35	2,230.30	2,350.28	N/A	N/A
HAP 1006	N/A	N/A	N/A	752.87	496.11
HAP 1106	N/A	N/A	N/A	651.25	1,302.50
HAP 1206	N/A	N/A	N/A	588.14	1,176.28
Medical Only					
BCBSM MA \$0 Deductible	N/A	N/A	N/A	\$ 171.14	\$ 342.28
BCBSM MA \$250 Deductible	N/A	N/A	N/A	118.70	237.40
Rx Only					
Humana \$2	N/A	N/A	N/A	\$ 271.56	\$ 543.12
Humana \$3	N/A	N/A	N/A	267.39	534.78
Humana \$5	N/A	N/A	N/A	220.53	441.06
Humana \$5/\$10	N/A	N/A	N/A	198.45	396.90
Humana \$10/\$20	N/A	N/A	N/A	175.16	350.32
Humana \$5/\$30/\$60	N/A	N/A	N/A	151.41	302.82
Dental					
Dental	\$ 55.65	\$ 113.53	\$ 176.41	\$ 55.65	\$ 113.53
Vision					
Vision	\$ 10.33	\$ 20.66	\$ 34.29	\$ 8.35	\$ 16.70



Active Fire and Police Members as of June 30, 2019 by Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
30-34		1	3					4	\$ 411,228
35-39		1	17	2				20	1,937,791
40-44		4	17	12	5			38	3,596,567
45-49			6	11	11			28	2,671,834
50-54			2	5	15	6		28	2,996,278
55-59				2	9	6		17	1,807,296
60-64					2			2	216,140
Totals		6	45	32	42	12		137	\$13,637,134

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

Age: 46.1 years
Service: 18.3 years
Annual Pay: \$99,541

Active SERS Members as of June 30, 2019 by Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
35-39			3	1				4	\$ 171,944
40-44			1	12	5			18	1,067,330
45-49			2	14	7	3		26	1,582,808
50-54			5	17	7	4	1	34	1,979,453
55-59		1	3	8	8	4	3	27	1,635,077
60-64			2	11	8	2	5	28	1,548,242
65 & Over		3	1	6	4		1	15	820,076
Totals		4	17	69	39	13	10	152	\$ 8,804,930

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

Age: 53.9 years
Service: 20.1 years
Annual Pay: \$57,927

Retired Members as of June 30, 2019 by Attained Age

Retired Fire and Police Members

Attained Age	Number of Retirees		
	Male	Female	Total
Under 55	36	5	41
55-59	34	11	45
60-64	40	5	45
65 & Over	151	44	195
Totals	261	65	326

Retired SERS Members

Attained Age	Number of Retirees		
	Male	Female	Total
Under 55	5	4	9
55-59	7	11	18
60-64	25	24	49
65 & Over	100	124	224
Totals	137	163	300

Retired Members by Coverage Type

Group	Coverage Election		
	1 person	2 person / family	Total
Fire & Police	98	228	326
SERS	144	156	300
Totals	242	384	626

The above totals include only those Fire and Police and SERS retirees currently participating in the City's Retiree Health Care Benefits Plan.

Deferred Members as of June 30, 2019 by Attained Age

Deferred Fire and Police Members

Attained Age	Number of Members		
	Male	Female	Total
Under 50	1	0	1
50-54	0	0	0
55 & Over	0	0	0
Totals	1	0	1

Deferred SERS Members

Attained Age	Number of Members		
	Male	Female	Total
Under 50	0	4	4
50-54	0	3	3
55 & Over	5	18	23
Totals	5	25	30

SECTION E

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Valuation Methods

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) were amortized by a level (principal and interest combined) dollar contribution. The UAAL were determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment is the amount required to fully amortize the UAAL over a 22-year period beginning on the first day of the fiscal year for which the contributions in this report have been calculated. This UAAL payment does not reflect any payments expected to be made between the valuation date and the fiscal year for which the contributions in this report have been calculated.

Rate of Investment Return (assuming a funding policy of partial Actuarially Determined Employer Contribution payments). 5.5% per year, compounded annually, net of expenses. This assumption is used to equate the value of payments due at different points in time.

Amortization Factor. The amortization factor used in developing the Actuarially Determined Employer Contribution for the fiscal year beginning July 1, 2020 is 12.9261.

Actuarial Assumptions

The assumptions are established by the Board after consulting with the actuary. Most assumptions were updated for the June 30, 2017 valuation pursuant to the Experience Studies done for the pension plans (dated April 8, 2016 for Fire and Police and dated September 16, 2016 for SERS), which contain the rationale for those assumptions. The reasonableness of the economic assumptions is based upon capital market expectations provided by various investment consultants and other sources such as the Social Security Trustees report. All assumptions are based on future expectations, not market measures.

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which future contributions will be based.

Fire and Police

Years of Service	Merit & Longevity	Base Economy	Total Increase Next Year
1-3	5.00 %	3.25 %	8.25 %
4	2.50	3.25	5.75
5	1.50	3.25	4.75
6	0.50	3.25	3.75
7	0.30	3.25	3.55
8	0.20	3.25	3.45
9 & Over	0.00	3.25	3.25

SERS

Sample Ages	Salary Increase Assumptions for an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
20	3.00 %	3.00 %	6.00 %
25	2.25	3.00	5.25
30	1.13	3.00	4.13
35	0.73	3.00	3.73
40	0.38	3.00	3.38
45	0.38	3.00	3.38
50	0.25	3.00	3.25
55	0.25	3.00	3.25
60	0.00	3.00	3.00
65 & Over	0.00	3.00	3.00

The number of active members is assumed to remain constant in the future.

Actuarial Assumptions (Continued)

Mortality. This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. The tables used are as follows:

- **Healthy Pre-Retirement:** The RPH-2014 Employee Generational Mortality Tables, with blue-collar adjustments and extended via cubic spline. This table is adjusted backwards to 2006 with the MP-2014 scale. A base year of 2006 with future mortality improvements assumed each year using scale MP-2015. For Fire and Police, 50% of deaths-in-service are assumed to be duty related.
- **Healthy Post-Retirement:** The RPH-2014 Healthy Annuitant Generational Mortality Tables, with blue-collar adjustments and extended via cubic spline. This table is adjusted backwards to 2006 with the MP-2014 scale. A base year of 2006 with future mortality improvements assumed each year using scale MP-2015.
- **Disability Retirement:** The RPH-2014 Disabled Mortality Table, extended via cubic spline. This table is adjusted backwards to 2006 with the MP-2014 scale. A base year of 2006 with future mortality improvements assumed each year using scale MP-2015.

Sample Attained Ages	Healthy Post-Retirement		Disabled Retirement	
	Future Life Expectancy (Years)*		Future Life Expectancy (Years)*	
	Men	Women	Men	Women
55	28.81	31.95	21.77	26.26
60	24.36	27.30	18.66	22.57
65	20.14	22.78	15.69	18.92
70	16.18	18.47	12.83	15.37
75	12.55	14.49	10.16	12.10
80	9.39	10.97	7.79	9.28

* Based on retirements in 2019. Retirements in future years will reflect improvements in life expectancy.

The provision for future mortality improvement is the fully generational projection table MP-2015, beginning in 2006.

Actuarial Assumptions (Continued)

Rates of separation from active membership are used to estimate the number of employees at each age that are expected to terminate employment before qualifying for retirement benefits. The withdrawal rates do not apply to members eligible to retire, and do not include separation on account of death or disability. For SERS, the assumed rates of withdrawal applied in the current valuation are based on years of service for members with less than 10 years of service, and based on age for members with 10 or more years of service. For Fire and Police, the assumed rates of withdrawal applied in the current valuation are based on years of service for members with less than 5 years of service, and based on age for members with 5 or more years of service.

Sample Ages	Years of Service	Percent of Active Members Separating within Next Year	
		Fire & Police	SERS
ALL	0	8.00 %	20.00 %
	1	5.00	15.00
	2	3.00	10.00
	3	2.00	5.00
	4	2.00	5.00
	5		5.00
	6		5.00
	7		3.00
	8		2.50
	9		2.00
20		1.00	9.00
25		1.00	9.00
30		0.90	5.45
35		0.65	4.60
40		0.50	2.95
45		0.35	1.45
50		0.25	0.95
55		0.20	0.95
60		0.20	0.95

Actuarial Assumptions (Continued)

The rates of retirement used for Fire and Police to measure the probability of eligible members retiring during the next year, were as follows:

Years of Service	% Retiring During the Next Year		
	Fire	Police with 2.8%	Police with 2.5%
20	10.0 %	10.0 %	10.0 %
21	5.0	5.0	5.0
22	5.0	5.0	5.0
23	5.0	5.0	5.0
24	15.0	15.0	15.0
25	20.0	20.0	10.0
26	10.0	20.0	10.0
27	10.0	15.0	10.0
28	25.0	25.0	20.0
29	50.0	50.0	50.0
30	50.0	50.0	50.0
31	50.0	50.0	50.0
32	50.0	50.0	50.0
33	50.0	50.0	50.0
34	50.0	50.0	50.0
35 & Up	100.0	100.0	100.0

A member is eligible for retirement after completing 20 or more years of service.

Actuarial Assumptions (Continued)

The rates of retirement used for SERS to measure the probability of eligible members retiring during the next year, were as follows:

Retirement Ages	Percent of Eligible Active Members Retiring within Next Year		
	Normal Retirement	Early Retirement	Rule of 82
50			20 %
51			20
52			30
53			30
54			30
55			30
56			30
57	20 %	5 %	30
58	20	5	30
59	20	10	30
60	20	5	30
61	20	5	30
62	35	25	30
63	15	10	30
64	15	10	30
65	15	100	40
66	40		40
67	40		40
68	40		40
69	40		40
70	100		100

Members hired prior to June 1, 2005, and all PST and PSS: assumed to be eligible for normal retirement when the sum of their age and service is at least 82, or age 65 with 5 or more years of service. A member was assumed to be eligible for early retirement after attaining age 57 with 20 or more years of service or age 60 with 10 or more years of service.

Members hired June 1, 2005 and later: assumed to be eligible for normal retirement at age 57 with 25 or more years of service, age 62 with 20 or more years of service, or age 65 with 10 or more years of service. A member was assumed to be eligible for early retirement after attaining age 57 with 20 or more years of service or age 60 with 10 or more years of service.

Actuarial Assumptions (Concluded)

Rates of disability were as follows:

Sample Ages	Percent Becoming Disabled within Next Year			
	Fire and Police		SERS	
	Men	Women	Men	Women
20	0.11 %	0.05 %	0.04 %	0.04 %
25	0.14	0.08	0.04	0.04
30	0.15	0.11	0.04	0.04
35	0.22	0.20	0.05	0.05
40	0.32	0.29	0.12	0.12
45	0.49	0.43	0.23	0.23
50	0.79	0.68	0.38	0.38
55	1.38	1.15	0.67	0.67
60	2.30	1.66	1.78	1.78

For Fire and Police employees, 25% of the disabilities are assumed to be non-duty related and 75% are assumed to be duty related. For SERS employees, 100% of disabilities are assumed to be non-duty related.

Health care trend rates used in the valuation were as shown below.

Year Beginning January 1,	Medical and Prescription Drugs		
	Intermediate	Pessimistic	Optimistic
2020	8.25 %	10.00 %	6.50 %
2021	7.50	9.25	6.00
2022	7.00	8.50	5.50
2023	6.50	7.75	5.00
2024	6.00	7.00	4.50
2025	5.50	6.50	4.00
2026	5.00	6.00	3.50
2027	4.50	5.50	3.50
2028	4.00	5.00	3.50
2029	3.50	4.50	3.50
2030	3.50	4.00	3.50
2031 & Later	3.50	3.50	3.50

Miscellaneous and Technical Assumptions

Decrement Operation:	Disability and mortality decrements do not operate during the first 5 years of service. Disability also does not operate during retirement eligibility.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed annual required contribution amount shown in this report, and the actual payroll payable at the time contributions are made.
Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Medicare Coverage:	Assumed to be available for all covered employees on attainment of age 65.
Election Percentage:	<p>It was assumed that 100% of eligible retirees will elect to receive retiree health care benefits through the City. Of those assumed to elect coverage, 90% of Fire and Police and 70% of SERS were assumed to elect two-person coverage, if eligible. For those that elect two-person coverage, it was assumed that 80% of surviving spouses will be eligible and elect to continue coverage upon death of retiree.</p> <p>For Active employees who have opted-out of the City's active health care plan, it is assumed they will elect retiree health care coverage upon retiring.</p>
Loads:	A 50% load was applied to deferred members for anticipated spouses.
Cost Sharing Increase:	Certain SERS retirees currently pay 100% of the premium rates in effect on September 30, 1998, plus a percentage of the increases subsequently incurred. These amounts were assumed to increase at 3.5% per year.

SECTION F

SUPPLEMENTARY INFORMATION

This information is presented in draft form for review by the Plan and/or City auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the Plan and/or City financial statements.

Supplementary Information

Valuation Date	June 30, 2019
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Dollar Closed
Remaining Amortization Periods	22 Years
Asset Valuation Method	Market Value of Assets
Actuarial Assumptions:	
Discount Rate	5.5% Per Year
Projected Salary Increases	3.25% - 8.25% for Fire and Police 3.0% - 6.0% for SERS
Wage Inflation	3.25% for Fire and Police 3.0% for SERS
Valuation Health Care Cost Trend Rate	8.25% in 2020, grading to 3.5% in 2029

Supplementary Information

Fire and Police

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ([b-a]/c)
6/30/2006	\$26,542,495	\$ 98,981,233	\$ 72,438,738	26.82%	\$ 19,826,520	365.36%
6/30/2007	32,159,466	106,647,105	74,487,639	30.16%	20,148,421	369.69%
6/30/2008	31,240,927	114,031,342	82,790,415	27.40%	21,156,661	391.32%
6/30/2009	28,033,938	106,560,574	78,526,636	26.31%	20,917,249	375.42%
6/30/2010	31,298,427	123,265,132	91,966,705	25.39%	20,681,885	444.67%
6/30/2011	35,930,261	133,780,307	97,850,046	26.86%	19,677,191	497.28%
6/30/2013	37,858,962	135,636,840	97,777,878	27.91%	18,554,701	526.97%
6/30/2015	43,204,515	142,322,476	99,117,961	30.36%	17,879,755	554.36%
6/30/2017	50,600,131	165,789,140	115,189,009	30.52%	16,673,632	690.85%
6/30/2019	51,495,050	128,747,495	77,252,445	40.00%	13,637,134	566.49%

Schedule of Employer Contributions

Valuation Date	Fiscal Year Ending	Annual Required Contribution@	Percentage of Annual OPEB Cost Contributed	Actual Contributed*	Percentage of ARC/ADEC Contributed
6/30/2008	6/30/2010	\$6,916,187	94%	\$ 6,475,867	94%
6/30/2009	6/30/2011	5,866,780	132%	7,752,717	132%
6/30/2010	6/30/2012	7,069,080	115%	8,079,028	114%
6/30/2011	6/30/2013	9,294,211	43%	4,078,210	44%
6/30/2011	6/30/2014	9,294,211	46%	4,422,921	48%
6/30/2013	6/30/2015	9,750,985	45%	4,527,871	46%
6/30/2013	6/30/2016	9,696,635	50%	5,019,765	52%
6/30/2015	6/30/2017	9,683,176	N/A	4,932,938	51%
6/30/2015	6/30/2018	9,580,833	N/A	5,165,471	54%
6/30/2017	6/30/2019	10,633,965	N/A	5,746,928	54%
6/30/2017	6/30/2020	10,504,160	N/A	N/A	N/A
6/30/2019	6/30/2021	7,288,177	N/A	N/A	N/A
6/30/2019	6/30/2022	7,209,349	N/A	N/A	N/A

N/A: Not Available

* Obtained from Comprehensive Annual Financial Reports filed by the City.

@ For the fiscal years ending June 30, 2019 and after, this is considered the Actuarially Determined Employer Contribution instead of an Annual Required Contribution as the new GASB accounting standards do not stipulate a contribution amount.



Supplementary Information

SERS

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
6/30/2006	\$ 2,060,123	\$ 60,713,122	\$ 58,652,999	3.39%	\$19,894,215	294.82%
6/30/2007	4,972,240	62,257,843	57,285,603	7.99%	19,005,735	301.41%
6/30/2008	5,568,324	68,578,718	63,010,394	8.12%	19,487,986	323.33%
6/30/2009	7,187,944	66,040,301	58,852,357	10.88%	19,236,720	305.94%
6/30/2010	9,992,728	79,594,475	69,601,747	12.55%	18,537,947	375.46%
6/30/2011	11,643,081	87,330,955	75,687,874	13.33%	17,423,789	434.39%
6/30/2013	13,488,987	90,094,989	76,606,002	14.97%	14,370,492	533.08%
6/30/2015	15,265,279	103,739,273	88,473,994	14.72%	12,789,010	691.80%
6/30/2017	17,540,124	124,345,363	106,805,239	14.11%	10,782,952	990.50%
6/30/2019	22,277,384	76,657,893	54,380,509	29.06%	8,804,930	617.61%

Schedule of Employer Contributions

Valuation Date	Fiscal Year Ending	Annual Required Contribution@	Percentage of Annual OPEB Cost Contributed	Actual Contributed*	Percentage of ARC/ADEC Contributed
6/30/2008	6/30/2010	\$4,796,821	69%	\$3,378,341	70%
6/30/2009	6/30/2011	4,436,674	90%	4,022,978	91%
6/30/2010	6/30/2012	5,146,000	82%	4,295,869	83%
6/30/2011	6/30/2013	6,899,819	37%	2,598,766	38%
6/30/2011	6/30/2014	6,899,819	39%	2,748,108	40%
6/30/2013	6/30/2015	7,199,411	43%	3,187,663	44%
6/30/2013	6/30/2016	7,153,708	45%	3,302,495	46%
6/30/2015	6/30/2017	8,343,051	N/A	3,445,751	41%
6/30/2015	6/30/2018	8,276,998	N/A	3,586,484	43%
6/30/2017	6/30/2019	9,425,014	N/A	4,975,187	53%
6/30/2017	6/30/2020	9,331,755	N/A	N/A	N/A
6/30/2019	6/30/2021	4,815,515	N/A	N/A	N/A
6/30/2019	6/30/2022	4,770,958	N/A	N/A	N/A

N/A: Not Available

* Obtained from Comprehensive Annual Financial Reports filed by the City.

@For the fiscal years ending June 30, 2019 and after, this is considered the Actuarially Determined Employer Contribution instead of an Annual Required Contribution as the new GASB accounting standards do not stipulate a contribution amount.



Supplementary Information

Calculation of Net OPEB Obligation

Fire and Police

Fiscal Year Ending	Annual Required Contribution (ARC)@	Interest on Net OPEB Obligation	Adjustment to Annual Required Contribution (ARC)	Annual OPEB Cost (Expense)	Net Employer Contributions Made	Change in Net OPEB Obligation (NOO)	Net OPEB Obligation/ (Asset) - End of Year
June 30, 2009	\$ 6,501,073	\$ 0	\$ 0	\$ 6,501,073	\$ 6,807,865	(306,792)	\$ (306,795)
June 30, 2010	6,916,189	(18,408)	0	6,897,781	6,475,867	421,914	115,117
June 30, 2011	5,866,780	6,907	4,750	5,868,937	7,752,717	(1,883,780)	(1,768,662)
June 30, 2012*	7,069,080	(106,120)	(75,521)	7,038,481	8,079,028	(1,040,547)	(2,809,209)
June 30, 2013	9,294,221	721,078	530,942	9,484,357	4,078,210	5,406,147	17,424,117
June 30, 2014	9,294,221	1,045,447	769,781	9,569,887	4,422,921	5,146,966	22,571,083
June 30, 2015	9,750,985	1,241,412	997,169	9,995,228	4,527,871	5,467,357	28,038,440
June 30, 2016	9,696,635	1,542,114	1,261,129	9,977,620	5,019,765	4,957,855	32,996,295
June 30, 2017	9,683,176	NA	NA	NA	4,932,938	NA	NA

SERS

Fiscal Year Ending	Annual Required Contribution (ARC)@	Interest on Net OPEB Obligation	Adjustment to Annual Required Contribution (ARC)	Annual OPEB Cost (Expense)	Net Employer Contributions Made	Change in Net OPEB Obligation (NOO)	Net OPEB Obligation/ (Asset) - End of Year
June 30, 2009	\$ 4,512,080	\$ 0	\$ 0	\$ 4,512,080	\$ 3,111,257	\$ 1,400,823	\$ 1,400,823
June 30, 2010	4,796,821	84,049	0	4,880,870	3,378,341	1,502,529	2,903,352
June 30, 2011	4,436,674	174,201	123,977	4,486,898	4,022,978	463,920	3,367,272
June 30, 2012*	5,146,000	202,036	138,930	5,209,106	4,295,869	913,237	4,280,509
June 30, 2013	6,899,819	484,181	381,217	7,002,783	2,598,766	4,404,017	12,473,699
June 30, 2014	6,899,819	748,422	589,266	7,058,975	2,748,108	4,310,867	16,784,566
June 30, 2015	7,199,411	923,151	792,915	7,329,647	3,187,663	4,141,984	20,926,550
June 30, 2016	7,153,708	1,150,960	1,002,048	7,302,620	3,302,495	4,000,125	24,926,675
June 30, 2017	8,343,051	NA	NA	NA	3,445,751	NA	NA

* Prior to restatement. The Net OPEB Obligation was restated as \$12,017,970 for Fire and Police and \$8,069,682 for SERS as of June 30, 2012.

@For the fiscal years ending June 30, 2019 and after, this is considered the Actuarially Determined Employer Contribution instead of an Annual Required Contribution as the new GASB accounting standards do not stipulate a contribution amount.

The above results were obtained from Comprehensive Annual Financial Reports filed by the City.



APPENDIX

GLOSSARY

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.

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.

Actuarially Determined Employer Contribution (ADEC) - The ADEC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ADEC is an amount that is actuarially determined in accordance with the requirements 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.

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.



Glossary (Concluded)

Medical Trend Rate (Health Care Inflation) - The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

Normal Cost - The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Other Postemployment Employee Benefits (OPEB) - OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other health care benefits.

Reserve Account - An account used to indicate that funds have been set aside for a specific purpose and is not generally available for other uses.

Unfunded Actuarial Accrued Liability - The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

Valuation Assets - The value of current plan assets recognized for valuation purposes.

