City of Southgate Policemen and Firemen Retirement System

GASB Statements No. 67 and No. 68 Accounting and Financial Reporting for Pension

June 30, 2019

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September 16, 2019

Retirement Board
City of Southgate Policemen and Firemen
Retirement System

Dear Board Members:

This report provides accounting and financial reporting information that is intended to comply with the Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68 for the City of Southgate Policemen and Firemen Retirement System. These calculations have been made on a basis that is consistent with our understanding of these Statements.

GASB Statement No. 67 is the accounting standard that applies to the stand-alone financial reports issued by retirement systems. GASB Statement No. 68 establishes accounting and financial reporting for state and local government employers who provide their employees (including former employees) pension benefits through a trust.

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

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of providing reporting and disclosure information that satisfies the requirements of GASB Statements No. 67 and No. 68. The calculation of the plan's liability for this report is not applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statements No. 67 and No. 68 may produce significantly different results.

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

This report complements the actuarial valuation report that was provided to the Board and should be considered in conjunction with that report. Please see the actuarial valuation report as of June 30, 2018 for additional discussion of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

To the best of our knowledge, the information contained within this report is accurate and fairly represents the actuarial position of the City of Southgate Policemen and Firemen Retirement System. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

The signing actuaries are independent of the plan sponsor.

James D. Anderson and Rebecca L. Stouffer 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,

James D. Anderson

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

Rebecca L. Stouffer

Rebecca L. Stouffer, ASA, FCA, MAAA

JDA/RLS:dj

C0276

Auditor's Note – This information is intended to assist in preparation of the financial statements of the City of Southgate Policemen and Firemen Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

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SECTION A

EXECUTIVE SUMMARY

Executive Summary
as of June 30, 2019

		2019
Actuarial Valuation Date		June 30, 2018
Measurement Date of the Net Pension Liability		June 30, 2019
Employer's Fiscal Year Ending Date (Reporting Date)		June 30, 2019
Membership^		
Number of		
- Retirees and Beneficiaries		94
- Inactive, Nonretired Members		3
- Active Members		65
- Total		162
Covered Payroll	$	5,105,443
Net Pension Liability		
Total Pension Liability	$	74,537,531
Plan Fiduciary Net Position		46,799,259
Net Pension Liability	$	27,738,272
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		62.79 %
Net Pension Liability as a Percentage of Covered Payroll		543.31 %
Development of the Single Discount Rate		
Single Discount Rate		7.25 %
Long-Term Expected Rate of Investment Return		7.25 %
Long-Term Municipal Bond Rate*		3.13 %
Last year ending June 30 in the 2020 to 2119 projection period for which projected benefit payments are fully funded		2119
Total Pension Expense	$	4,880,635

Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

		Deferred Outflows of Resources		Deferred Inflows of Resources
Difference between expected and actual experience	$	885,321	$	329,722
Changes in assumptions		1,835,593		-
Net difference between projected and actual earnings on pension plan investments		2,784,132		1,530,647
Total	$	5,505,046	$	1,860,369

^ *Reflects counts and payroll as of the actuarial valuation date that is one year prior to the measurement date. This payroll may differ from the GASB Statement No. 68 definition of covered-employee payroll.*

* *Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" June 28, 2019. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax exempt securities.*

Discussion

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state or local governments to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

Paragraph 57 of GASB Statement No. 68 states, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to the Retirement System subsequent to the measurement date of June 30, 2019.

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.

Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows and inflows of resources related to pensions.

GASB Statement No. 67 and No. 68 require the notes of the financial statements for the employers and pension plans, to include certain additional information. The list of disclosure items should include:

- a description of benefits provided by the plan;
- the type of employees and number of members covered by the pension plan;
- a description of the plan's funding policy, which includes member and employer contribution requirements;
- the pension plan's investment policies;
- the pension plan's fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability;
- the net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes;
- significant assumptions and methods used to calculate the total pension liability;
- inputs to the discount rates; and
- certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- the composition of the pension plan's Board and the authority under which benefit terms may be amended;
- a description of how fair value is determined;
- information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- annual money-weighted rate of return.

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- sources of changes in the net pension liability;
- information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- a comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

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

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.25% on the actuarial value of assets), then the following outcomes are expected:

1. The employer normal cost as a percentage of pay is expected to remain approximately level as a percentage of payroll;
2. The unfunded liability is expected to decrease in dollar amount until it is fully funded; and
3. The funded status of the plan is expected to reach a 100% funded ratio at the completion of the number of years remaining in the closed amortization schedule of the unfunded liability.

This funding policy results in the expectation that the plan's assets will be able to fully pay for promised benefits through at least 2119.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. The net pension liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of June 30, 2018 and a measurement date of June 30, 2019.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects: (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits); and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 3.13% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"); and the resulting Single Discount Rate is 7.25%.

SECTION B

FINANCIAL STATEMENTS

Auditor’s Note – This information is intended to assist in preparation of the financial statements of the City of Southgate Policemen and Firemen Retirement System. Financial statements are the responsibility of management, subject to the auditor’s review. Please let us know if the auditor recommends any changes.

Statement of Pension Expense Under GASB Statement No. 68
Fiscal Year Ended June 30, 2019

A. Expense

1. Service Cost	$	1,016,409
2. Interest on the Total Pension Liability		5,166,786
3. Current-Period Benefit Changes		-
4. Employee Contributions (made negative for addition here)		(369,558)
5. Projected Earnings on Plan Investments (made negative for addition here)		(3,357,212)
6. Pension Plan Administrative Expense		-
7. Other Changes in Plan Fiduciary Net Position		-
8. Recognition of Outflow (Inflow) of Resources due to Liabilities		954,671
9. Recognition of Outflow (Inflow) of Resources due to Assets		1,469,539
10. Total Pension Expense	**$**	**4,880,635**

Statement of Outflows and Inflows Arising from Current Reporting Period Fiscal Year Ended June 30, 2019

A. Outflows (Inflows) of Resources Due to Liabilities		
1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	$	421,080
2. Assumption Changes (gains) or losses	$	-
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}		5.4665
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the difference between expected and actual experience of the Total Pension Liability	$	77,029
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for assumption changes	$	-
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	$	77,029
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	$	344,051
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for assumption changes	$	-
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	$	344,051
B. Outflows (Inflows) of Resources Due to Assets		
1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	$	2,388,649
2. Recognition period for Assets {in years}		5.0000
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	$	477,730
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	$	1,910,919

Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Fiscal Year Ended June 30, 2019

A. Outflows and Inflows of Resources Due to Liabilities and Assets to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to Liabilities	$ 1,081,516	$ 126,845	$ 954,671
2. Due to Assets	2,130,553	661,014	1,469,539
3. Total	$ 3,212,069	$ 787,859	$ 2,424,210

B. Outflows and Inflows of Resources by Source to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	$ 375,356	$ 126,845	$ 248,511
2. Assumption Changes	706,160	-	706,160
3. Net Difference between projected and actual earnings on pension plan investments	2,130,553	661,014	1,469,539
4. Total	$ 3,212,069	$ 787,859	$ 2,424,210

C. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	$ 885,321	$ 329,722	$ 555,599
2. Assumption Changes	1,835,593	-	1,835,593
3. Net Difference between projected and actual earnings on pension plan investments	2,784,132	1,530,647	1,253,485
4. Total	$ 5,505,046	$ 1,860,369	$ 3,644,677

D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses

Year Ending June 30	Net Deferred Outflows of Resources
2020	$ 1,642,728
2021	654,649
2022	741,475
2023	569,890
2024	35,935
Thereafter	0
Total	$ 3,644,677

Recognition of Deferred Outflows and Inflows of Resources
Fiscal Year Ended June 30, 2019

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
Deferred Outflow (Inflow) Due to Differences Between Expected and Actual Experience on Liabilities					
2015	$ 273,660	5.9592	$ 45,922	$ 44,050	0.9592
2016	1,155,057	5.6534	204,312	337,809	1.6534
2017	(710,257)	5.5994	(126,845)	(329,722)	2.5994
2018	255,597	5.3146	48,093	159,411	3.3146
2019	421,080	5.4665	77,029	344,051	4.4665
Total			**$ 248,511**	**$ 555,599**	
Deferred Outflow (Inflow) Due to Assumption Changes					
2015	$ 0	5.9592	$ 0	$ 0	0.9592
2016	0	5.6534	0	0	1.6534
2017	3,954,073	5.5994	706,160	1,835,593	2.5994
2018	0	5.3146	0	0	3.3146
2019	0	5.4665	0	0	4.4665
Total			**$ 706,160**	**$ 1,835,593**	
Deferred Outflow (Inflow) Due to Differences Between Projected and Actual Earnings on Plan Investments					
2015	$ 3,898,055	5.0000	$ 779,611	$ 0	0.0000
2016	4,366,061	5.0000	873,212	873,213	1.0000
2017	(2,261,986)	5.0000	(452,397)	(904,795)	2.0000
2018	(1,043,086)	5.0000	(208,617)	(625,852)	3.0000
2019	2,388,649	5.0000	477,730	1,910,919	4.0000
Total			**$ 1,469,539**	**$ 1,253,485**	

Recognition of Deferred Outflows and Inflows of Resources

According to Paragraph 33 of GASB Statement No. 68, *differences between expected and actual experience* and *changes in assumptions* are recognized in pension expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with pensions through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the current measurement period, the expected remaining service lives of all active employees in the plan was approximately 886 years. Additionally, the total plan membership (active employees and inactive employees) was 162. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 5.4665 years.

Additionally, *differences between projected and actual earnings on pension plan investments* should be recognized in pension expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the pension expense as a level dollar amount over the closed period identified above.

Statement of Fiduciary Net Position
as of June 30, 2019

		2019
Assets		
Cash and Deposits	$	3,413,264
Receivables		
Accounts Receivable - Sale of Investments	$	-
Accrued Interest and Other Dividends		41,889
Contributions		341,751
Accounts Receivable - Other		-
Total Receivables	$	383,640
Investments		
Fixed Income	$	2,495
Domestic Equities		33,434,167
International Equities		-
Alternative Investments		9,615,758
Mortgage Backed Securities		37,154
Total Investments	$	43,089,574
Total Assets	$	46,886,478
Liabilities		
Payables		
Accounts Payable - Purchase of Investments	$	87,219
Accrued Expenses		-
Accounts Payable - Other		-
Total Liabilities	$	87,219
Net Position Restricted for Pensions	$	46,799,259

Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2019

		2019
Additions		
Contributions		
Employer	$	4,328,200
Employee		369,558
Other		-
Total Contributions	$	4,697,758
Investment Income		
Net Appreciation in Fair Value of Investments	$	206,793
Interest and Dividends		1,091,920
Less Investment Expense		(330,150)
Net Investment Income	$	968,563
Other	$	-
Total Additions	$	5,666,321
Deductions		
Benefit Payments, including Refunds of Employee Contributions	$	5,649,110
Pension Plan Administrative Expense		-
Other		-
Total Deductions	$	5,649,110
Net Increase in Net Position	$	17,211
Net Position Restricted for Pensions		
Beginning of Year	$	46,782,048
End of Year	$	46,799,259

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Auditor's Note – This information is intended to assist in preparation of the financial statements of the City of Southgate Policemen and Firemen Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Schedule of Changes in Net Pension Liability and Related Ratios
Current Period
Fiscal Year Ended June 30, 2019

A. Total Pension Liability		
1. Service Cost	$	1,016,409
2. Interest on the Total Pension Liability		5,166,786
3. Changes of benefit terms		-
4. Difference between expected and actual experience of the Total Pension Liability		421,080
5. Changes of assumptions		-
6. Benefit payments, including refunds of employee contributions		(5,649,110)
7. Net change in Total Pension Liability	$	955,165
8. Total Pension Liability – Beginning		73,582,366
9. Total Pension Liability – Ending	**$**	**74,537,531**
B. Plan Fiduciary Net Position		
1. Contributions – employer	$	4,328,200
2. Contributions – employee		369,558
3. Net investment income		968,563
4. Benefit payments, including refunds of employee contributions		(5,649,110)
5. Pension plan administrative expense		-
6. Other		-
7. Net change in plan fiduciary net position	$	17,211
8. Plan Fiduciary Net Position – Beginning		46,782,048
9. Plan Fiduciary Net Position – Ending	**$**	**46,799,259**
C. Net Pension Liability	**$**	**27,738,272**
D. Plan Fiduciary Net Position as a percentage of the total pension liability		**62.79%**
E. Covered-employee payroll^	**$**	**5,105,443**
F. Net Pension Liability as a percentage of covered-employee payroll		**543.31%**

^ *Reflects payroll as of the actuarial valuation date that is one year prior to the measurement date. This payroll may differ from the GASB Statement No. 68 definition of covered employee payroll.*

Schedules of Required Supplementary Information
Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

Last 10 Fiscal Years (which may be built prospectively starting from 2014)

Fiscal year ending June 30,	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total Pension Liability										
Service Cost	$ 1,016,409	$ 984,577	$ 979,925	$ 1,005,271	$ 1,093,031	$ 1,058,512				
Interest on the Total Pension Liability	5,166,786	5,101,773	4,979,248	4,915,376	4,844,541	4,771,821				
Benefit Changes	-	-	-	(993,322)	-	-				
Difference between Expected and										
Actual Experience	421,080	255,597	(710,257)	1,155,057	273,660	-				
Assumption Changes	-	-	3,954,073	-	-	-				
Benefit Payments	(5,649,110)	(5,273,158)	(5,178,850)	(5,257,307)	(5,188,467)	(4,567,523)				
Refunds	-	-	-	-	-	-				
Net Change in Total Pension Liability	$ 955,165	$ 1,068,789	$ 4,024,139	$ 825,075	$ 1,022,765	1,262,810				
Total Pension Liability - Beginning	73,582,366	72,513,577	68,489,438	67,664,363	66,641,598	65,378,788				
Total Pension Liability - Ending (a)	$ 74,537,531	$ 73,582,366	$ 72,513,577	$ 68,489,438	$ 67,664,363	$ 66,641,598				
Plan Fiduciary Net Position										
Employer Contributions	$ 4,328,200	$ 4,321,172	$ 3,244,840	$ 2,580,266	$ 2,604,211	$ 2,649,082				
Employee Contributions	369,558	327,018	377,556	337,603	331,809	359,953				
Pension Plan Net Investment Income	968,563	4,156,121	5,173,828	(1,219,003)	(538,420)	6,412,965				
Benefit Payments	(5,649,110)	(5,273,158)	(5,178,850)	(5,257,307)	(5,188,467)	(4,567,523)				
Refunds	-	-	-	-	-	-				
Pension Plan Administrative Expense	-	-	-	-	-	-				
Other	-	-	61,473	-	-	-				
Net Change in Plan Fiduciary Net Position	$ 17,211	$ 3,531,153	$ 3,678,847	$ (3,558,441)	$ (2,790,867)	4,854,477				
Plan Fiduciary Net Position - Beginning	46,782,048	43,250,895	39,572,048	43,130,489	45,921,356	41,066,879				
Plan Fiduciary Net Position - Ending (b)	$ 46,799,259	$ 46,782,048	$ 43,250,895	$ 39,572,048	$ 43,130,489	$ 45,921,357				
Net Pension Liability - Ending (a) - (b)	$ 27,738,272	$ 26,800,318	$ 29,262,682	$ 28,917,390	$ 24,533,874	20,720,241				
Plan Fiduciary Net Position as a Percentage										
of Total Pension Liability	62.79 %	63.58 %	59.65 %	57.78 %	63.74 %	68.91 %				
Covered-Employee Payroll^	$ 5,105,443	$ 4,841,046	$ 4,745,297	$ 4,633,108	$ 5,047,949	$ 4,708,305				
Net Pension Liability as a Percentage										
of Covered-Employee Payroll	543.3 %	553.6 %	616.7 %	624.1 %	486.0 %	440.1 %				

Notes to Schedule:

^ *For fiscal years ending 2015 and later, reflects payroll as of the actuarial valuation date that is one year prior to the measurement date. This payroll may differ from the GASB Statement No. 68 definition of covered-employee payroll.*

Schedules of Required Supplementary Information
Schedule of the Net Pension Liability Multiyear

Last 10 Fiscal Years (which may be built prospectively starting from 2014)

FY Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll^	Net Pension Liability as a % of Covered Payroll
2010						
2011						
2012						
2013						
2014	$ 66,641,598	$ 45,921,357	$ 20,720,241	68.91 %	$ 4,708,305	440.1 %
2015	67,664,363	43,130,489	24,533,874	63.74 %	5,047,949	486.0 %
2016	68,489,438	39,572,048	28,917,390	57.78 %	4,633,108	624.1 %
2017	72,513,577	43,250,895	29,262,682	59.65 %	4,745,297	616.7 %
2018	73,582,366	46,782,048	26,800,318	63.58 %	4,841,046	553.6 %
2019	74,537,531	46,799,259	27,738,272	62.79 %	5,105,443	543.3 %

^ For fiscal years ending 2015 and later, reflects payroll as of the actuarial valuation date that is one year prior to the measurement date. This payroll may differ from the GASB Statement No. 68 definition of covered employee payroll.

Schedule of Contributions

Last 10 Fiscal Years (which may be built prospectively starting from 2014)

FY Ending June 30,	Actuarially Determined Contribution*	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll^	Actual Contribution as a % of Covered Payroll
2010					
2011					
2012					
2013					
2014	$ 2,649,082	$ 2,649,082	-	$ 4,708,305	56.26 %
2015	2,604,211	2,604,211	-	5,047,949	51.59 %
2016	2,580,266	2,580,266	-	4,633,108	55.69 %
2017	3,244,840	3,244,840	-	4,745,297	68.38 %
2018	4,321,172	4,321,172	-	4,841,046	89.26 %
2019	4,328,200	4,328,200	-	5,105,443	84.78 %

* *It is our understanding that the City's practice is to contribute the percent-of-payroll employer contribution rate shown in the actuarial valuation report applied to the covered payroll at the time of contriubiton. As such, the Actuarially Determined Contribution shown in the Schedule of Employer Contributions are the actual contributions made by the City in the fiscal year.*

^ *For fiscal years ending 2015 and later, reflects payroll as of the actuarial valuation date that is one year prior to the measurement date. This payroll may differ from the GASB Statement No. 68 definition of covered employee payroll.*

Notes to Schedule of Contributions

Notes	Actuarially determined contribution amounts are calculated as of June 30 each year, which is 12 months prior to the beginning of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates for the Fiscal Year Ending June 30, 2019*:

Actuarial Cost Method	Entry-Age Normal
Amortization Method	Level Percent, Closed
Remaining Amortization Period	9 years, 3 years (for benefit change)
Asset Valuation Method	4-Year smoothed market, 80%/120% corridor
Wage Inflation	3.50%
Salary Increases	3.6% to 6.4% including inflation
Investment Rate of Return	7.25% (net of investment and administrative expenses)
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	RP-2014 Generational Mortality Tables, with blue-collar adjustments and extended via cubic spline; adjusted backwards to 2006 with the MP-2014 scale. A base year of 2006 with future mortailty improvements assumed each year using scale MP-2015.

Other Information:

Notes	None.

** Based on valuation assumptions used in the June 30, 2017 actuarial valuation.*

Schedule of Investment Returns

Last 10 Fiscal Years (which may be built prospectively starting from 2014)

FY Ending June 30,	Annual Return[1]
2010	
2011	
2012	
2013	
2014	15.76 %
2015	(1.20)%
2016	(3.04)%
2017	12.62 %
2018	11.97 %
2019	1.38 %

[1] *Annual money-weighted rate of return, net of investment expenses.*

SECTION D

NOTES TO FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the City of Southgate Policemen and Firemen Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Long-Term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return were provided by the Retirement System's investment manager, Morgan Stanley, for each major asset class included in the pension plan's portfolio as of June 30, 2019. These best estimates and the plan's target asset allocation are summarized in the following table:

Asset Allocation

Asset Class	Target Allocation	Long-Term Expected Gross Rate of Return	Inflation Assumption	Long-Term Expected Real Rate of Return
Domestic Equities	35.00 %	7.70 %	1.90 %	5.80 %
International Equities	25.00 %	7.10 %	1.30 %	5.80 %
Fixed Income	18.00 %	3.70 %	1.90 %	1.80 %
Real Estate	5.00 %	7.90 %	1.90 %	6.00 %
Absolute Return/Hedge Funds	5.00 %	5.20 %	1.90 %	3.30 %
Private Equity	10.00 %	12.80 %	1.90 %	10.90 %
Cash & Equivalents	2.00 %	2.90 %	1.90 %	1.00 %
Total	100.00 %			

The rates of return shown above were provided by the Retirement System's investment manager, are based upon the investment manager's inflation assumptions and are gross of investment and administrative expenses.

Single Discount Rate

A Single Discount Rate of 7.25% was used to measure the total pension liability. This Single Discount Rate was based on the expected rate of return on pension plan investments of 7.25%. Based on the System's current funding policy and the City's practice of contributing 100% of the recommended contribution, it is the opinion of the actuaries that the Plan Fiduciary Net Position is sufficient to make all future projected benefit payments, assuming all other assumptions are realized. Therefore, the Single Discount Rate would equal the long-term expected rate of return of 7.25%.

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rate, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 7.25%, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

Sensitivity of Net Pension Liability to the Single Discount Rate (SDR) Assumption

	1% Decrease 6.25%	Current SDR Assumption 7.25%	1% Increase 8.25%
Total Pension Liability	$ 82,803,857	$ 74,537,531	$ 67,585,633
Plan Fiduciary Net Position	46,799,259	46,799,259	46,799,259
Net Pension Liability/(Asset)	$ 36,004,598	$ 27,738,272	$ 20,786,374

Summary of Population Statistics^

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	94
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3
Active Plan Members	65
Total Plan Members	162

^ *As of the valuation date.*

SECTION E

SUMMARY OF BENEFITS

Brief Summary of Act 345 Benefit Provisions

Service Retirement

Eligibility: All groups: Age 50 with 25 or more years of service or age 60 regardless of service.

Amount: The benefit amounts attributable to service retirements and the conditions under which such benefits may be paid are described in tabular form on page 22.

Eligibility	Amount
Deferred Retirement	
10 or more years of service.	Computed as service retirement but based upon service, FAC and benefit in effect at termination. Benefit begins at date retirement would have occurred had member remained in employment.
Death After Retirement Survivor's Pension	
Payable to a surviving spouse, if any, upon the death of a retired member who was receiving a straight life pension which was effective July 1, 1975 or later.	Spouse's pension equals 60% of the pension retiree was receiving.
Non-Duty Death-in-Service Survivor's Pension	
Payable to a surviving spouse, if any, upon the death of a member with 10 or more years of service.	Accrued straight life pension actuarially reduced in accordance with an Option I election.
Duty Death-in-Service Survivor's Pension	
Payable upon the expiration of worker's compensation to the survivors of a member who died in the line of duty.	Same amount that was paid by worker's compensation.
Non-Duty Disability	
Payable upon the total and permanent disability of a member with 5 or more years of service.	To Age 55: 1.5% of FAC times years of service. At Age 55: Same as service retirement pension.
Duty Disability	
Payable upon the total and permanent disability of a member in the line of duty.	To Age 55: 50% of FAC. At Age 55: Same as service retirement pension with service credit from date of disability to age 55.
Member Contributions	
Police Chief, Fire Chief, and Public Safety Director	10.0% of covered compensation.
All Others	6.5% of covered compensation.
FAC Period	
All	Average of the highest 3 years of annual compensation during the 10 years immediately preceding retirement.

Brief Summary of Act 345 Benefit Provisions

Includable Compensation

IAFF Local 1307

- FAC for Command Officers promoted to command on or before 7/1/2006 shall be based upon all compensation received during the employees FAC period, to include any payment received for sick, vacation, or bonus vacation days.
- For employees promoted to command after 7/1/2006, ½ sick with a maximum cap of 45 days.
- For employees hired after 1/1/2008 only base wage, longevity pay, and unused vacation (capped at 5 days) shall be factored into FAC.

Police (COA)

- FAC for all employees shall be based upon all compensation received during the employees FAC period, to include any payment received for sick, vacation, or bonus vacation days. In addition, the dollar value of any compensatory time earned during the officer's FAC period shall be factored in.
- For employees promoted prior to 7/1/2006 the FAC shall include all of the items above up to a maximum of 1600 sick hours.
- For employees hired after 7/1/2007 FAC will not include any sick time payout.

Police Patrol

- For employees hired after 1/1/1981, FAC shall be based upon base wage, overtime pay, longevity pay, holiday pay, accumulated and accrued unused vacation days at the time of retirement, officer training bonus, gun allowance and cleaning and clothing allowance, and one half of accumulated sick leave, to a maximum of 800 hours.
- For employees hired after 7/1/2008, FAC will only include base wage, longevity pay, and unused vacation time (capped at 120 hours).

Brief Summary of Act 345 Benefit Provisions

Group	Benefit Formula					Maximum Annual Benefit After Annuity Withdrawal[3,4]	Comment
	Multiplier x Service			Multiplier x Service			
IAFF Local 1307							
Tier 1: Hired before 7/1/08, retired after 7/1/15	2.69%	first 25	+	1.00%	over 25	$80,000	1
Tier 2: Hired on or after 7/1/08, retired after 7/1/15	2.69%	first 25	+	1.00%	over 25	$70,000	1
Police (COA)							
Tier 1: Hired before 7/1/08, retired after 7/1/15	2.69%	first 25	+	1.00%	over 25	$80,000	2
Tier 2: Hired on or after 7/1/08, retired after 7/1/15	2.69%	first 25	+	1.00%	over 25	$70,000	2
Police Patrol							
Tier 1: Hired before 7/1/08, retired after 7/1/15	2.69%	first 25	+	1.00%	over 25	$80,000	-
Tier 2: Hired on or after 7/1/08, retired after 7/1/15	2.69%	first 25	+	1.00%	over 25	$70,000	-
Current Public Safety Director	2.69%	first 25	+	1.00%	over 25	$89,447	-

[1] *Members promoted to command positions on or after 7/1/06 will be provided the same pension calculations and payout at retirement as they were provided as non-command officers.*

[2] *Members promoted to COA on or after 7/1/06 will maintain their current benefits unless the COA agreement provides less.*

[3] *Payable as straight life annuity.*

[4] *Annuity withdrawal is not offered to members hired after 7/1/18.*

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Valuation Methods

The assumptions and methods are based on an experience study dated September 9, 2016 adopted by the Board on October 20, 2016.

Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an individual ***entry-age normal cost valuation method*** having the following characteristics:

- the annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;

- each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Financing of Unfunded Actuarial Accrued Liabilities. The unfunded actuarial accrued liability (UAAL) was determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment (one component of the contribution requirement), is the level percent of pay required to fully amortize the UAAL over a period of years. This UAAL payment reflects payments expected to be made between the valuation date and the date contributions are scheduled to begin. Unfunded actuarial accrued liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions over a reasonable period of future year.

Actuarial Value of System Assets. The actuarial value of assets recognizes assumed investment income fully each year. Differences between actual and assumed investment income are phased in over a closed four-year period. The total actuarial value of assets is limited to 80%/120% of the market value on the valuation date. During periods when investment performance exceeds the assumed rate, actuarial value of assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, actuarial value of assets will tend to be greater than market value.

The market value of assets was used for GASB Statements No. 67 and No. 68 reporting purposes.

Actuarial Assumptions Used for the Valuation

The actuary calculates the contribution requirements and benefit values of the System by applying actuarial assumptions to the benefit provisions and census data furnished, using the valuation methods described on the prior page.

The principal areas of financial risk which require assumptions about future experiences are:

- long-term rates of investment income likely to be generated by the assets of the Retirement System;
- patterns of salary increases to members;
- rates of mortality among members, retirants and beneficiaries;
- rates of withdrawal of active members;
- rates of disability among members and their subsequent rates of recovery; and
- probabilities of retirement at various ages after benefit eligibility.

In a valuation the actuary projects the monetary effect of each assumption, for each distinct experience group, for the next year and for each year over the next half-century or longer.

Actual experience will not coincide exactly with assumed experience, regardless of the wisdom of the assumptions. Each valuation provides a complete recalculation of System costs based upon assumptions regarding future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of small adjustments to the computed contribution rate.

From time-to-time it is appropriate to modify one or more of the assumptions, to reflect basic experience trends (but not random year-to-year fluctuations).

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 benefit amounts will be based.

Sample Ages	Salary Increase Assumptions for an Individual Member Merit & Seniority	Base (Economy)	Increase Next Year
20	2.9%	3.5%	6.4%
25	2.3%	3.5%	5.8%
30	2.0%	3.5%	5.5%
35	1.8%	3.5%	5.3%
40	1.6%	3.5%	5.1%
45	1.3%	3.5%	4.8%
50	0.9%	3.5%	4.4%
55	0.5%	3.5%	4.0%
60	0.1%	3.5%	3.6%
Ref:	458		

If the number of active members remains constant, then the total active member payroll will increase 3.5% annually, the base portion of the individual salary increase assumptions.

The rate of investment is compounded annually net of expenses.

Investment Return	7.25%
Wage Inflation	3.50%
Price Inflation	2.75%
Spread Between Investment Return and Wage Inflation	3.75%
Spread Between Investment Return and Price Inflation	4.50%

These assumptions are used to equate the value of payments due at different points in time.

The mortality rates utilized are based upon the RP-2014 tables, as extended, and include a margin for future mortality improvements projected using a fully generational improvement scale. The tables used were as follows:

Post-Retirement Mortality: The RP-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 is utilized with future mortality improvements assumed each year using scale MP-2015.

Pre-Retirement Mortality: RP-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 is utilized with future mortality improvements assumed each year using scale MP-2015.

Post-Retirement Disabled Mortality: The RP-2014 Disabled Mortality Tables, extended via cubic spline. This table is 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.

These tables were first used for the June 30, 2016 valuation.

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

Retirement Ages	Percent
50	50%
51	35%
52	30%
53	25%
54	25%
55	25%
56	25%
57	20%
58	20%
59	30%
60	100%
Ref.	557

A member is eligible for retirement at age 50 with 25 years of service or after attaining age 60.

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	Years of Service	% of Active Members Separating within Next Year
All	0	12.50%
	1	8.50%
	2	5.00%
	3	3.00%
	4	2.50%
25	5 & Over	1.62%
30		1.40%
35		0.83%
40		0.32%
45		0.18%
50		0.18%
55		0.18%
60		0.18%
Ref.		146
		237

Rates of disability were as follows. This assumption measures the probability of members retiring with a disability benefit. 10% of disabilities are assumed to be non-duty related and 90% are assumed to be duty related.

Sample Ages	% of Active Members Becoming Disabled within Next Year
20	0.06%
25	0.07%
30	0.10%
35	0.13%
40	0.19%
45	0.29%
50	0.48%
55	0.82%
Ref	256
Multiplier	125%

Miscellaneous and Technical Assumptions

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. 90% of active members are assumed to be married at time of retirement. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined using the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and death decrements do not operate during the first 5 years of service. Disability also does not operate during retirement eligibility.
Loads:	Retirement Present Values, for benefits commencing immediately, were loaded by 17% for all Fire and Police Patrol/Command hired on or before 7/1/2008 (2% for those Police Patrol/Command hired after 7/1/2008) of active member liabilities to account for the additional amount included in the FAC due to unused sick time and unused vacation time.
Option Factors:	Option factors are based upon 7.25% interest and the RP-2014 Healthy Annuitant Mortality Table, with blue collar adjustments and extended via cubic spline with a 100% Unisex Blend. A base year of 2006 is utilized. Future improvements are projected to 2017 with scale MP-2015. This change is effective for retirements after January 1, 2017.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Normal Form of Benefit:	A 60% automatic joint and survivor payment is the assumed form of benefit.

Miscellaneous and Technical Assumptions (Concluded)

Benefit Service:	Exact Fractional service is used to determine the amount of benefit payable.
Annuity Withdrawal:	The actuarial equivalent interest rate for annuity withdrawal was assumed to be 3.0% per year.
Roll Forward Disclosure:	The total pension liability was determined by an actuarial valuation as of June 30, 2018. Update procedures were used to roll forward the total pension liability to the measurement date.

SECTION G

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects: (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits); and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 3.13%; and the resulting Single Discount Rate is 7.25%.

The City of Southgate Policemen and Firemen Retirement System has a history of adhering to a funding policy with actuarially determined contributions. In addition, the System uses a closed amortization period and has a history of fully contributing the actuarially determined contributions to the fund. As a result, the Single Discount Rate is the expected rate of return on pension plan investments (7.25%) and projections have been excluded from this report.

SECTION H

GLOSSARY OF TERMS

Glossary of Terms

Actuarial Accrued Liability (AAL) — The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."

Actuarial Assumptions — These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.

Accrued Service — Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Equivalent — A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

Actuarial Cost Method — A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.

Actuarial Gain (Loss) — The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.

Actuarial Present Value (APV) — The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.

Actuarial Valuation — The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.

Actuarial Valuation Date — The date as of which an actuarial valuation is performed.

Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC) — A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

Glossary of Terms (Continued)

Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll	The payroll of employees that are provided with pensions through the pension plan.
Deferred Retirement Option Program (DROP)	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.
Deferred Inflows and Outflows	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: 1. The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and 2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

Glossary of Terms (Continued)

Entry Age Actuarial Cost Method (EAN)	The EAN is a cost method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit age(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Fiduciary Net Position	The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
Money-Weighted Rate of Return	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
Multiple-Employer Defined Benefit Pension Plan	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Municipal Bond Rate	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
Net Pension Liability (NPL)	The NPL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan.
Non-Employer Contributing Entities	Non-employer contributing entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contributing entities.
Normal Cost	The portion of the actuarial present value allocated to a valuation year is called the normal cost. For purposes of application to the requirements of this Statement, the term normal cost is the equivalent of service cost.

Glossary of Terms (Concluded)

Other Postemployment Benefits (OPEB)
All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.

Real Rate of Return
The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.

Service Cost
The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

Total Pension Expense
The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

1. Service Cost
2. Interest on the Total Pension Liability
3. Current-Period Benefit Changes
4. Employee Contributions (made negative for addition here)
5. Projected Earnings on Plan Investments (made negative for addition here)
6. Pension Plan Administrative Expense
7. Other Changes in Plan Fiduciary Net Position
8. Recognition of Outflow (Inflow) of Resources due to Liabilities
9. Recognition of Outflow (Inflow) of Resources due to Assets

Total Pension Liability (TPL)
The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL)
The UAAL is the difference between actuarial accrued liability and valuation assets.

Valuation Assets
The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of GASB Statement Nos. 67 and 68, the valuation assets are equal to the market value of assets.

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September 16, 2019

Mr. Marc Hatfield, Secretary
City of Southgate Policemen and Firemen
Retirement System
14730 Reaume Parkway
Southgate, Michigan 48195

Dear Mr. Hatfield:

Please find enclosed five copies of the GASB Statements No. 67 and No. 68 Accounting and Financial Reporting for Pensions report of the City of Southgate Policemen and Firemen Retirement System.

Sincerely,

Rebecca L. Stouffer

Rebecca L. Stouffer, ASA, FCA, MAAA

RLS:dj
Enclosures

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723