City of Greenville
Firefighters' Pension Plan

Statement 68 of Governmental Accounting Standards Board (GASB No. 68)
Accounting Valuation Report for the Fiscal Year Ending June 30, 2018

Actuarial Valuation

September 14, 2018

Table of Contents

Actuarial Certification 2
A. Note Disclosures and Required Supplementary Information 3
B. Changes in the Net Pension Liability 5
C. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 1) 6
D. Schedules of Required Supplementary Information 7
E. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 2) 10
F. Calculation of the Discount Rate 17

Appendices

A. Summary of Plan Provisions
B. Summary of Actuarial Assumptions
C. Statistics for Participant Group

Actuarial Certification

We have performed an actuarial valuation of the City of Greenville Firefighters' Pension Plan ("the Plan") at the request of the City of Greenville. The primary purpose of the valuation is to provide measurements required under Statement No. 68 of the Governmental Accounting Standard Board ("GASB No. 68") for the City of Greenville's fiscal year ending June 30, 2018. The results of the valuation are set forth herein.

Participant census information and Plan asset information were provided to us by the City of Greenville. We did not audit this information, but a review of the reasonability of the information was performed for internal consistency and consistency with last year's information.

Future actuarial measurements may differ significantly from the measurements which are presented in this report. These differences may be caused by future experience differing from the assumptions being used in the valuation, changes in these assumptions, increases or decreases in various items expected as part of the methodology for these measurements (such as reaching the end of an amortization period), and changes in Plan provisions, applicable law, or accounting standards.

Actuarial computations under GASB No. 68 are for purposes of fulfilling employer accounting requirements. Determinations for purposes other than meeting plan or employer financial accounting requirements may be significantly different from the results reported herein. Therefore, the results of this report may not be applicable, and should not be used for, other purposes.

In our opinion, all calculations and procedures in this report were determined in accordance with generally accepted actuarial principles and procedures, and have been determined on the basis of actuarial assumptions and methods selected by the Plan sponsor.

There is no relationship between the City of Greenville and Stanley, Hunt, Dupree & Rhine that impairs our objectivity. The information contained herein is not intended or written to be used, and cannot be used, for the purpose of avoiding tax-related penalties. We are available to respond to any questions regarding this report, and are pleased to review it at the employer's convenience.

I, Myiah L. Gauntlett, am a member of and meet the Qualification Standards of the Society of Actuaries to render actuarial opinions in connection with this plan.

M. Gauntlett

Date: September 14, 2018

Myiah L. Gauntlett, ASA, EA
Vice President / Consulting Actuary
Stanley, Hunt, DuPree & Rhine
7701 Airport Center Drive
Greensboro, North Carolina 27406
(336) 291-1176

As part of SHDR's quality standards procedures, the valuation results reported herein have been reviewed by:

Daniel C Berry

Date: September 14, 2018

Daniel C. Berry, FSA, EA
Vice President / Consulting Actuary

A. Note Disclosures and Required Supplementary Information

Summary of Significant Accounting Policies
Pensions. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the City of Greenville Firefighters' Pension Plan ("the Plan") and additions to/deductions from the Plan's fiduciary net position have been determined on the basis of information supplied by the Plan sponsor. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

General Information About the Pension Plan in effect at the Measurement Date (June 30, 2018)[1]
Employer. City of Greenville

Plan Description. The City of Greenville maintains a defined benefit plan, the City of Greenville Firefighters' Pension Plan (the "Plan"), which is incorporated in the City's Ordinances. It is intended that the Plan satisfies the requirements of Section 401(a) of the Internal Revenue Code of 1986 as amended from time to time ("the Code").

Benefits provided. The Plan covers regularly paid members of the City of Greenville Fire Department. The provided benefits are based on monthly compensation and service at date of determination. Benefits in the normal form of a life annuity are available at retirement, which is upon the later of attainment of age 55 and completion of 25 years of service. Benefits are also available upon other events, such as disability, pre-retirement and post retirement death, and vested termination of service, upon meeting various requirements. Benefits are subject to maximum amounts specified under Section 415 of the Code.

Effective March 1, 2017 a Cost of Living Adjustment (COLA) was provided to certain retirees and beneficiaries receiving Plan benefits. For details see the Summary of Plan Provisions in Appendix A.

Employees covered by benefit terms. At June 30, 2018 (the Valuation Date) the following current and former employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefits	108
Inactive employees entitled to but not yet receiving benefits	5
Active Members	153
Total	266

Employer Contributions
Under City Ordinances in effect at the Measurement Date (June 30, 2018), the City contributes 16.855% of each active Member's Monthly Compensation. The City contribution rate is scheduled to increase. For details see the Summary of Plan Provisions in Appendix A of this report.

In addition, the City contributes to the Plan any amounts received through the state insurance commissioner and any sums designated for the Plan pursuant to state law.

[1] A full summary of the plan provisions and statistical information on the covered Plan participants included in the valuation is provided in Appendices to this report.

A. Note Disclosures and Required Supplementary Information (continued)

Active Member Contributions
Under City Ordinances in effect at the Measurement Date (June 30, 2018), each active Member under the Plan contributes 6.315% of Monthly Compensation. The Member contribution rate is scheduled to increase. For details see the Summary of Plan Provisions in Appendix A of this report.

Net Pension Liability
The employer's net pension liability is reported herein as of June 30, 2018 for the employer fiscal year and reporting period of July 1, 2017 to June 30, 2018. The values shown for this fiscal year and reporting period are based on a Measurement Date of June 30, 2018 and the corresponding measurement period of July 1, 2017 to June 30, 2018. The measurement of the total pension liability is based on a Valuation Date of June 30, 2018.

Actuarial Assumptions and Actuarial Methods
The total pension liability in the June 30, 2018 actuarial valuation was determined using the following key actuarial assumptions, applied to all periods included in the measurement:

Discount Rate:	7.00%
Inflation	3.75%
Salary Scale:	4.00% with a 4% increase in retirement benefits to reflect inclusion of accrued general leave in the participant's final monthly compensation.
Mortality:	Assumed mortality rates are based on rates under the RP-2000 Combined Mortality with projected mortality improvements to 2023 under Projection Scale AA.
Actuarial Cost Method:	Entry Age Normal
Asset Method:	Market Value of Assets

Other key assumptions are listed in the Summary of Actuarial Assumptions in Appendix B of this report.

Expected Return on Assets:
The long-term expected rate of return on pension plan investments is 7.00% and was selected by the plan sponsor.

Discount Rate:
The discount rate has been set to 7.00% and represents a projected benefit weighted average of the long-term expected rate of return on assets (7.00%) for the period during which assets are available for benefit payments. The Plan's fiduciary net position is expected to be sufficient to pay for all future benefits, if the Plan assets return 7.00% on average.

B. Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	**Plan Fiduciary Net Position (b)**	**Net Pension Liability/ (Asset) (a) – (b)**
Balances at June 30, 2017[2]	**$57,656,581**	**$46,982,737**	**$10,673,844**
Changes for the year:			
Service Cost	447,172	-	447,172
Interest	3,958,278	-	3,958,278
Differences in expected and actual experience	(101,901)	-	(101,901)
Contributions - Employer	-	1,499,429	(1,499,429)
Contributions - Employee	-	560,851	(560,851)
Contributions - Other	-	294,881	(294,881)
Investment Income	-	4,250,177	(4,250,177)
Benefits Paid	(3,167,417)	(3,167,417)	-
Expenses	-	(327,632)	327,632
Assumption Changes	-	-	-
Other Changes	-		-
Net changes	**1,136,132**	**3,110,289**	**(1,974,157)**
Balances at June 30, 2018	**$58,792,713**	**$50,093,026**	**$8,699,687**

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability/(asset) of the employer as of June 30, 2018 calculated using the discount rate of 7.00%, as well as what the employer's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate:

	1% Decrease (6.00%)	**Current Discount Rate (7.00%)**	**1% Increase (8.00%)**
Employer's Net Pension Liability/(Asset)	15,706,073	8,699,687	2,807,959
Funded Percentage	76.13%	85.20%	94.69%

[2] Assumes a measurement date of July 1, 2017

C. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 1)

For the year ended June 30, 2018, under GASB No. 68 the employer pension expense is $ 918,307. The Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions as of June 30, 2018 from various sources are as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 2,111,472	$ 543,457
Changes of assumptions	0	0
Differences between expected and actual return on Plan assets	1,196,227	1,597,835
Employer contributions after Measurement Date but prior to fiscal year end	TBD	TBD
Total	TBD	TBD

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30,	Amount
2018	305,107
2019	837,336
2020	329,275
2021	(198,505)
2022	215,282
2023	(16,981)
Thereafter	0

D. Schedules of Required Supplementary Information

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios

Last 10 Fiscal Years (as information becomes available)

Fiscal Year Ending June 30,	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Total Pension Liability						
Service cost	447,172	646,164	644,072	419,548	583,178	742,356
Interest	3,958,278	3,669,244	3,632,596	3,477,321	3,500,759	2,600,325
Changes of Benefit Terms	-	464,707	-	-	-	-
Differences between Expected and Actual Experience	2,493,575	(915,353)	-	793,711	846,127	968,497
Changes of assumptions	-	-	-	-	-	-
Benefit Payments, Including Refunds of Member Contribution	(3,167,417)	(2,931,643)	(2,751,185)	(2,641,318)	(2,651,515)	(2,478,204)
Net change in Total Pension Liability	**3,731,608**	**933,119**	**1,525,483**	**2,049,262**	**2,278,549**	**1,832,974**
Total Pension Liability – Beginning of Year	**55,061,105**	**54,127,986**	**52,602,503**	**50,553,241**	**48,274,692**	**46,441,718**
Total Pension Liability – End of Year (a)	**58,792,713**	**55,061,105**	**54,127,986**	**52,602,503**	**50,553,241**	**48,274,692**
Plan Fiduciary Net Position						
Contributions – employer	1,499,429	1,362,261	1,169,177	1,163,399	1,128,431	1,206,121
Contributions – employee	560,851	509,922	437,731	435,568	422,476	216,902
Contributions – other	294,881	252,818	232,342	184,848	160,811	145,075
Net Investment Income	4,250,177	4,319,025	509,145	1,344,824	5,384,437	3,576,619
Benefit Payments, Including Refunds of Member Contribution	(3,167,417)	(2,931,643)	(2,751,185)	(2,641,318)	(2,651,515)	(2,478,204)
Expenses	(327,632)	(362,986)	(19,382)	(10,785)	(9,542)	(9,413)
Net Change in Plan Fiduciary Net Position	**3,110,289**	**3,149,397**	**(422,172)**	**476,536**	**4,435,098**	**2,657,100**
Plan Fiduciary Net Position – Beginning of Year	**46,982,737**	**43,833,340**	**44,255,512**	**43,778,976**	**39,343,878**	**36,686,778**
Plan Fiduciary Net Position – End of Year (b)	**50,093,026**	**46,982,737**	**43,833,340**	**44,255,512**	**43,778,976**	**39,343,878**
Employer's Net Pension Liability – End of Year (a)-(b)	**8,699,687**	**8,078,368**	**10,294,646**	**8,346,991**	**6,774,265**	**8,930,814**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**85.20%**	**85.33%**	**80.98%**	**84.13%**	**86.60%**	**81.50%**
Covered-employee payroll	**$8,247,571**	**$7,307,269**	**$7,616,546**	**$7,197,708**	**$6,572,453**	**$6,770,349**
Employer's Net Pension Liability as a Percentage of Covered-Employee Payroll	**105.48%**	**110.55%**	**135.16%**	**115.97%**	**103.07%**	**131.91%**

Notes to Schedule:
None

D. Schedules of Required Supplementary Information (Continued)

Schedule of Contributions

Last 10 Fiscal Years (as information becomes available)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Actuarially Determined / Statutorily Required Contribution	$2,060,280	1,872,183	1,606,908	1,598,967	1,071,686	1,327,158	1,141,384	1,307,718	1,418,238	1,085,538
Contributions in Relation to the Actuarially Determined/ Statutorily Required Contribution:										
Employer Contribution	1,499,429	1,362,261	1,169,177	1,163,399	1,128,431	1,206,121	1,297,772	1,287,520	1,273,258	1,286,166
Employee Contribution	560,851	509,922	437,731	435,568	422,476	216,902	118,586	117,638	116,347	117,526
Other Contributions	294,881	252,818	232,342	184,484	160,811	145,075	168,169	154,507	150,296	142,286
Total Contributions	2,355,161	2,125,001	1,839,250	1,783,815	1,711,718	1,568,098	1,584,527	1,559,665	1,539,901	1,545,978
Contribution Deficiency (Excess)	(294,881)	(252,818)	(232,342)	(184,848)	(640,032)	(240,940)	(443,143)	(257,947)	(121,663)	(460,440)
Covered – Employee Payroll	8,247,571	7,307,269	7,616,546	7,197,708	6,572,453	6,770,349	5,882,915	5,995,874	5,965,615	5,858,246
Contributions as a Percentage of Covered-Employee Payroll	28.56%	29.08%	24.15%	24.78%	26.04%	23.16%	26.93%	26.01%	25.81%	26.39%

Notes to Schedule:

1 - Actuarially Determined Contributions are for the Plan year ending June 30 based on City and participant contribution rates under City Ordinances. Actual contributions funded during such Plan year include Other Contributions made by the City.

Schedules of Required Supplementary Information

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Annual Money-Weighted Rate of Return, Net of Investment Expense	8.40%	9.10%	1.10%	3.10%	13.82%	9.94%	2.60%	18.67%	11.00%	(13.00%)

D. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 2)

This illustration provides additional detail about the calculation of pension expense and the balances of deferred outflows of resources and deferred inflows of resources related to pensions that are presented for the employer. The detailed calculations presented in this illustration are not required by Statement 68 to be included in the financial reports of employers and are show here for purposes of documentation.

Part 1:
Components of the Employer's Pension Expense for the Fiscal Year Ended June 30, 2018

Description		Amount
Service Cost, net of employee contribution	$	447,172
Interest on the Total Pension Liability		3,958,278
Projected Earnings on Pension Plan Investments		(3,231,399)
Employee Contributions		
Amortizations of Deferred Outflow and Inflow of Resources		(560,851)
Differences between expected and actual experience		534,648
Changes of assumptions		0
Differences between projected and actual net earnings on plan investments		(229,541)
Other Changes in Fiduciary Net Position		0
Total Pension Expense/(Credit)	**$**	**918,307**

E. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 2) (continued)

Part 2: Amortizations of Deferred Outflow and Inflow of Resources

Schedule of Differences between Expected and Actual Experience

In conformity with paragraph 33a of Statement 68, the effects of differences between expected and actual experience are recognized in pension expense, beginning in the current reporting period, 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 and inactive employees), determined as of the beginning of the measurement period.

The following table illustrates the application of this requirement:

			Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences Between Expected and Actual Experience									
Year End	Differences Between Expected and Actual Experience	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2014	$1,017,152	6.00	$169,525	$169,525	$169,525	$169,525	$169,525	$169,527	$0	$0	$0	$0
2015	$593,597	6.00	0	98,933	98,933	98,933	98,933	98,933	98,932	0	0	0
2016	(917,078)	6.00	0	0	(152,846)	(152,846)	(152,846)	(152,846)	(152,846)	(152,848)	0	0
2017	2,616,120	6.00	0	0	0	436,020	436,020	436,020	436,020	436,020	436,020	0
2018	(101,901)	6.00	0	0	0	0	(16,984)	(16,984)	(16,984)	(16,984)	(16,984)	(16,981)
Net increase (decrease) in pension expense:			$169,525	$268,458	$ 115,612	$ 551,632	$ 534,648	$ 534.650	$ 365,122	$ 266,188	$ 419,036	$ (16,981)

Positive amounts result in increases in pension expense and deferred outflows of resources. Negative amounts represent actual experience that increases the total pension liability less than projected or decreases the total pension liability greater than projected (experience gains). Negative amounts result in decreases in pension expense and increases in deferred inflows of resources.

E. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 2) (continued)

Part 2: Amortizations of Deferred Outflow and Inflow of Resources (continued)

Schedule of Changes of Assumptions

In conformity with paragraph 33a of Statement 68, the effects of changes of assumptions should be recognized in pension expense, beginning in the current reporting period, 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 and inactive employees), determined as of the beginning of the measurement period.

The following table illustrates the application of this requirement:

			Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions								
Year End	**Changes of Assumptions**	**Recognition Period (Years)**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
2014	$ 0		$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
2015	0		0	0	0	0	0	0	0	0	0
2016	0		0	0	0	0	0	0	0	0	0
2017	0		0	0	0	0	0	0	0	0	0
2018	0		0	0	0	0	0	0	0	0	0
Net increase (decrease) in pension expense:			$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

Positive amounts represent increases in the total pension liability from assumption changes and result in increases in pension expense and deferred outflows of resources. Negative amounts represent decreases in the total pension liability from assumption changes and result in decreases in pension expense and increases in deferred inflows of resources.

E. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 2) (continued)

Part 2: Amortizations of Deferred Outflow and Inflow of Resources (continued)

Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments

In conformity with paragraph 33b of Statement 68, the effects of differences between projected and actual earnings on pension plan investments are recognized in pension expense using a systematic and rational method over a closed five-year period, beginning in the current reporting period.

The following table illustrates the application of this requirement:

			Increase (Decrease) in Pension Expense Arising from the Recognition of the Differences Between Projected and Actual Earnings on Pension Plan Investments								
Year End	Differences Between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022
2014	$ (2,661,122)	5.00	$ (532,224)	$ (532,224)	$ (532,224)	$ (532,224)	$ (532,226)	$ 0	$ 0	$ 0	$ 0
2015	1,692,661	5.00	0	338,532	338,532	338,532	338,532	338,533	0	0	0
2016	2,144,235	5.00	0	0	428,847	428,847	428,847	428,847	428,847	0	0
2017	(1,304,689)	5.00	0	0	0	(260,938)	(260,938)	(260,938)	(260,938)	(260,937)	0
2018	(1,018,778)	5.00	0	0	0	0	(203,756)	(203,756)	(203,756)	(203,756)	(203,754)
Net increase (decrease) in pension expense:			$ (532,224)	$ (193,692)	$ 235,155	$ (25,783)	$ 229,541	$ 302,686	$ (35,847)	$ (464,693)	$ (203,754)

Positive amounts represent returns that are less than projected and, therefore, increase pension expense. Negative amounts represent investment returns that are greater than projected and, therefore, decrease pension expense.

E. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 2) (continued)

Part 3: Determination of Remaining Amounts of Deferred Outflows of Resources and Deferred Inflows of Resources Balances at June 30, 2018

The following schedules illustrate calculation of the balances of deferred outflows of resources and deferred inflows of resources related to pensions that are reported for differences between expected and actual experience, changes of assumptions, and differences between projected and actual returns on pension plan investments.

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Expected and Actual Experience

				Balances at June 30, 2018[3]	
Year End	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense through June 30, 2018[4] (c)	Deferred Outflows of Resources (a)-(c)	Deferred Inflows of Resources (b)-(c)
2014	$ 1,017,152	$ -	$ 847,625	$ 169,527	$ -
2015	593,597	-	395,732	197,865	-
2016	-	(917,078)	(458,538)	-	(458,540)
2017	2,616,120		872,040	1,744,080	-
2018	-	(101,901)	(16,984)	-	(84,917)
				$ 2,111,472	$ (543,457)

[3] Deferred outflows of resources are presented as positive amounts. Deferred inflows of resources are presented as negative amounts.

[4] Amounts are equal to the sum of increases (decreases) in pension expense through 2018 for the differences between expected and actual experience in column (a) or column (b) in this table. Positive amounts increase pension expense and decrease deferred outflows of resources balances. Negative amounts decrease pension expense and decrease deferred inflows of resources balances.

E. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 2) (continued)

Part 3: Determination of Remaining Amounts of Deferred Outflows of Resources and Deferred Inflows of Resources Balances at June 30, 2018 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions

				Balances at June 30, 2018[5]	
Year End	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts Recognized in Pension Expense through June 30, 2018[6] (c)	Deferred Outflows of Resources (a)-(c)	Deferred Inflows of Resources (b)-(c)
2015	$ 0	$ 0	$ 0	$ 0	$ 0
2016	0	0	0	0	0
2017	0	0	0	0	0
2018	0	0	0	0	0
2018	0	0	0	0	0
				$ 0	$ 0

[5] Deferred outflows of resources are presented as positive amounts. Deferred inflows of resources are presented as negative amounts.

[6] Amounts are equal to the sum of increases (decreases) in pension expense through 2018 for the change in assumptions shown in column (a) or column (b) in this table. Positive amounts increase pension expense and decrease deferred outflows of resources balances. Negative amounts decrease pension expense and decrease deferred inflows of resources balances.

E. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Part 2) (continued)

Part 3: Determination of Remaining Amounts of Deferred Outflows of Resources and Deferred Inflows of Resources Balances at June 30, 2018 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Projected and Actual Earnings on Pension Plan Investments

				Balances at June 30, 2018 [7]	
Year End	Investment Earnings Less Than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense through June 30, 2018[8] (c)	Deferred Outflows of Resources (a)-(c)	Deferred Inflows of Resources (b)-(c)
2014	$ 0	$ (2,661,122)	$ (2,661,122)	$ 0	$ 0
2015	1,692,661	0	1,354,128	338,533	0
2016	2,144,235	0	1,286,541	857,694	0
2017	0	(1,304,689)	(521,876)	0	(782,813)
2018	0	(1,018,778)	(203,756)	0	(815,022)
				$ 1,196,227	$ (1,597,835)

In conformity with paragraph 33b of Statement 68, deferred outflows of resources and deferred inflows of resources arising from differences between projected and actual earnings on pension plan investments in different measurement periods are aggregated and reported as a net deferred outflow of resources or a net deferred inflow of resources. Therefore, at June 30, 2018, the employer reports a net deferred inflow of resources arising from differences between projected and actual earnings on pension plan investments of $(401,608) calculated as the deferred outflow balance of $1,196,227 net of the deferred inflow balance of $(1,597,835).

[7] Deferred outflows of resources are presented as positive amounts. Deferred inflows of resources are presented as negative amounts.
[8] Amounts are equal to the sum of increases (decreases) in pension expense through 2018 for the differences between projected and actual earnings on pension plan investments in column (a) or column (b) in this table. Positive amounts increase pension expense and decrease deferred outflows of resources balances. Negative amounts decrease pension expense and decrease deferred inflows of resources balances.

F. Calculation of the Discount Rate

The discount rate adopted by the Employer for valuing plan liabilities was determined by the methods prescribed under GASB No. 68 which requires the use of a long term rate of return on Plan assets unless a projection of the net fiduciary position will not be sufficient to provide for projected benefit payments of the covered current and former employees.

The funding policy of the Plan sponsor is to contribute annually an amount equal to the Actuarially Determined Contribution (ADC) determined under the Plan sponsor's funding policy for the calendar Plan year. Under this policy the annual ADC is an amount determined under the EAN-FIL Actuarial Cost Method equal to the annual Normal Cost plus the amortization of any unfunded EAN-FIL Actuarial Liability over a 20-year closed period, but the Plan Sponsor may contribute in excess of this amount.

Because the Plan must contribute at least the amount required to pay for plan benefits, the projected net fiduciary position will be sufficient to provide for the projected benefit payments of the covered participants.

Therefore, the discount rate is set equal to the expected long term rate of return on Plan investments of 7.00%.

Appendices

A. Summary of Plan Provisions

Effective Date

September 19, 1933, as subsequently amended.

Eligibility Requirements

All regularly paid employees of the regular organized City of Greenville Fire Department are eligible to become Members and accrued benefits under the Plan.

Monthly Compensation

The base rate of cash compensation for employment with the Employer, excluding overtime. Effective October 1, 2017 Special OPS Pay is included.

Contribution Increases

As of April 30, 2017 the total contribution under City ordinances was 21.2% of Monthly Compensation. The total annual contribution will increase by 5% by the year 2020 in 1% increments. After the initial 1% increment on March 1, 2017, each subsequent 1% increment will take place on October 1. The final increment will take place on October 1, 2020. Each 1% increase will be allocated to the Member and the City: 0.27% to the Member and 0.73% to the City.

Contributions by Participating Employees

As of October 1, 2017 the Employee Contribution rate was increased to 6.315% of Monthly Compensation.

Contributions from the City and Other Sources

As of October 1, 2017 the City contributes 16.885% of each active Member's Monthly Compensation.

The following are also paid into the Fund:

1. Any money, real estate, personal property or other assets made available by gift, devise or bequest;
2. All forfeitures and fines imposed upon any member of the Department by way of discipline;
3. All proceeds from sales of condemned or discarded personal property and equipment in use by the Department;
4. The income from any tax levy imposed by the City Council in order to supplement or support this fund.

Service Retirement Benefits

An active or disabled Member who has attained age 55 and completed at least 25 years of service may retire with a monthly benefit equal to 50% of Monthly Compensation at the time of his retirement or disability. For each year of service in excess of 25 years, an additional 2% of Monthly Compensation at the time of his retirement or disability will be provided. In no event will more than 35 years of service be considered for the purpose of benefit determination. An adjustment of up to 6% of the percentage of benefit will be added to the benefit calculation to reflect accrued general leave time.

Summary of Plan Provisions (continued)

Disability Retirement Benefits

1. Line of Duty Disability
   A Member who incurs a disability while engaged in the performance of his duty will be retired with a monthly benefit equal to 50% of Monthly Compensation at the time of his disability.

2. Disability Other Than in Line of Duty
   A Member who becomes disabled other than in the line of duty after:
   a. The completion of 5 years of service will be retired with a monthly benefit equal to one-third of Monthly Compensation at the time of his disability.
   b. The completion of 20 years of service will be retired with a monthly benefit equal to 50% of Monthly Compensation at the time of his disability.

If a disabled Member has accrued a greater benefit as a result of completing 25 or more years of service, upon attainment of age 55 such disabled Member's benefit will be adjusted to that payable as a Service Retirement Benefit.

Death Benefits

1. Upon the death of a retired Member, the Member's lawful surviving spouse will receive a monthly benefit equal to one-half of the benefit which the retired Member was receiving.

2. Upon the death of an active Member, the Member's lawful surviving spouse will receive a monthly benefit equal to one-half of the Member's Monthly Compensation at the time of the deceased Member's death.

3. If in the case of (1) or (2) above there is no lawful surviving spouse, the monthly benefits described above shall be paid jointly to the surviving children until any such child attains age 18.

4. Upon the death of an active or retired member a $200 funeral benefit will be paid to the nearest relative of the deceased Member.

Withdrawal Benefits

Members have a vested interest in their accrued retirement benefits of 50% after ten years of service. For each year of service beyond ten years, a Member shall be vested an additional 10%, until upon the completion of fifteen years of service such Member becomes 100% vested in his accrued retirement benefit.

A Member's vested accrued retirement benefit will be based on Monthly Compensation and actual service at date of termination. The vested accrued benefit is payable upon Normal Retirement Age, age 55 or date the member would have completed 25 years of service if later, but not later than age 65. In lieu of a monthly pension, a vested terminated Member may elect upon termination to take a refund of his accumulated contributions with 4% annual interest credit.

A Member who leaves the service of the Fire Department prior to becoming eligible for retirement benefits shall be entitled to a refund of his accumulated contributions with 4% annual interest credit.

Summary of Plan Provisions (continued)

Cost of Living Increase (COLA)

A one-time COLA for all retirees and beneficiaries receiving benefits under the Plan, effective March 1, 2017, for benefits paid March 27, 2017 and thereafter. The COLA is as follow:

- 2% benefit increase for retirees and beneficiaries who have received benefits for over 15 years at March 1, 2017.
- 1% benefit increase for retirees and beneficiaries who have received benefits for between 5 and 15 years at March 1, 2017.

Changes Since Last Valuation

- None.

B. Summary of Actuarial Assumptions

Discount Rate: 7.00%

Salary Scale: Assumed salaries increase at 4% per year occurring at each subsequent October 1st.

Mortality Rates: RP-2000 Combined Mortality Table projected to 2023 using Scale AA, Sex-distinct.

Withdrawal Rates: The following are examples of the probability that a Member will terminate within one year for reasons other than death. Sample rates are as follows:

Age	Percentage
25	7.72%
40	5.15%
55	0.94%

Rate of Retirement: 50% of all remaining active Members are assumed to retire each year following attainment of age 55 or the completion of 35 years of service, if later, but not beyond age 62.

Disability Rate: The following are examples of the probability that a Member will become disabled within one year.

Age	Percentage
25	0.068%
40	0.230%
55	1.176%

Duty-related disabilities are assumed to be 50% of all disabilities.

A disabled mortality assumption is also utilized.

Marriage: It is assumed that 75% of the actives are married at death or retirement with female spouses that are three years younger.

Adjustment for Unused Leave Time: The inclusion of accrued general leave in the benefit calculation is assumed to increase retirement benefits by 4%.

C. Statistics for Participant Group

	Valuation Date	
	6/30/2018	6/30/2017
Active Members		
Number	153	152
Expected Annual Earnings	$ 8,247,571	$ 8,202,854
Average Expected Earnings	$ 53,906	$ 53,966
Average Current Age	40	40
Average Past Service	15	14
Deferred Vested Participants		
Number	5	4
Average Current Age	38	39
Average Monthly Deferred Pension	$ 945	$ 893
Participants Receiving Pension		
Number of Retirees		
(including disabled, working and receiving and QDRO Alternate payees)	81	83
Average Current Age	67	68
Average Monthly Deferred Pension	$ 2,798	$ 2,655
Number of Surviving Widows	27	27
Average Current Age	78	79
Average Monthly Deferred Pension	$ 1,286	$ 1,270