

DISCLOSURES REQUIRED PURSUANT TO CHAPTER 2013-100, FLORIDA STATUTES

(a) City/District	Greenacres
(b) Plan Name	Retirement Plan for the Firefighters
(c) Plan Type	Defined Benefit
(d) Valuation Date	10/1/2015
(e) Interest Rate:	
(1) Discount Rate, net of investment fees	9.59%
(2) Long-Term Expected Rate of Return, net of investment fees	9.59%

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were prepared and completed by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, meet the requirements of Section 112.664(1), F.S., and Section 60T-1.0035, F.A.C.

(f) Certification Statement:

(1) Signature	
(2) Actuary's Name	Charles T. Carr
(3) Enrollment Number	14-04927
(4) Signature Date	1/30/2016
(5) Cover letter attached (pdf)?	N

Section 112.664(1)(a), F.S.

(g) Total pension liability:

(1) Service cost	\$546,483
(2) Interest	\$756,257
(3) Benefit changes	\$49,810
(4) Difference between expected and actual experience	\$532,746
(5) Changes in assumptions	(\$1,737,718)
(6) Benefit payments	(\$77,918)
(7) Contribution refunds	(\$7,974)
(8) Net change in total pension liability	\$61,686
(9) Total pension liability - beginning of year	\$7,381,367
(10) Total pension liability - ending of year	\$7,443,053

(h) Plan fiduciary net position:

(1) Contributions - Employer	\$918,747
(2) Contributions - State	\$336,416
(3) Contributions - Member	\$241,030
(4) Net investment income	\$119,480
(5) Benefit payments	(\$77,918)
(6) Contribution refunds	(\$7,974)
(7) Administrative expenses	(\$65,029)
(8) Other	(\$12,318,098)
(9) Net change in plan fiduciary net position	(\$10,853,346)
(10) Plan fiduciary net position - beginning of year	\$20,145,669
(11) Plan fiduciary net position - ending of year	\$9,292,323

(i) Net pension liability/(asset) [(g)(10) minus (h)(11)]	(\$1,849,270)
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Section 112.664(1)(b), F.S.

(j) Total pension liability:

(1) Service cost	\$877,735
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(2) Interest	\$898,334
(3) Benefit changes	\$49,810
(4) Difference between expected and actual experience	\$772,404
(5) Changes in assumptions	(\$2,861,646)
(6) Benefit payments	(\$77,918)
(7) Contribution refunds	(\$7,974)
(8) Net change in total pension liability	(\$349,255)
(9) Total pension liability - beginning of year	\$11,000,183
(10) Total pension liability - ending of year	\$10,650,928
 (k) Plan fiduciary net position:	
(1) Contributions - Employer	\$918,747
(2) Contributions - State	\$336,416
(3) Contributions - Member	\$241,030
(4) Net investment income	\$119,480
(5) Benefit payments	(\$77,918)
(6) Contribution refunds	(\$7,974)
(7) Administrative expenses	(\$65,029)
(8) Other	(\$12,318,098)
(9) Net change in plan fiduciary net position	(\$10,853,346)
(10) Plan fiduciary net position - beginning of year	\$20,145,669
(11) Plan fiduciary net position - ending of year	\$9,292,323
 (l) Net pension liability/(asset) [(j)(10) minus (k)(11)]	 \$1,358,605

Section 112.664(1)(c), F.S. (on last valuation basis)

(m) Number of Years, and fractional parts of Years, for which the Market Value of Assets are adequate to sustain expected retirement benefits	27.81
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Section 112.664(1)(c), F.S. (on Section 112.664(1)(a), F.S. basis)

(n) Number of Years, and fractional parts of Years, for which the Market Value of Assets are adequate to sustain expected retirement benefits	999.99
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Section 112.664(1)(c), F.S. (on Section 112.664(1)(b), F.S. basis)

(o) Number of Years, and fractional parts of Years, for which the Market Value of Assets are adequate to sustain expected retirement benefits	28.88
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Section 112.664(1)(d), F.S. (on last valuation basis)

(p) Recommended Plan contributions in Annual Dollar Value	\$987,303
(q) Recommended Plan contributions as a Percentage of Valuation Payroll	33.96%

Section 112.664(1)(d), F.S. (on Section 112.664(1)(a), F.S. basis)

(r) Recommended Plan contributions in Annual Dollar Value	\$273,067
(s) Recommended Plan contributions as a Percentage of Valuation Payroll	9.39%

Section 112.664(1)(d), F.S. (on Section 112.664(1)(b), F.S. basis)

(t) Recommended Plan contributions in Annual Dollar Value	\$992,256
(u) Recommended Plan contributions as a Percentage of Valuation Payroll	34.13%

RETIREMENT PLAN FOR THE FIREFIGHTERS  
OF THE CITY OF GREENACRES

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2015

DETERMINES THE CONTRIBUTION  
FOR THE 2016/17 FISCAL YEAR



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January 30, 2016

### Introduction

This report presents the results of the October 1, 2015 actuarial valuation of the Retirement Plan for the Firefighters of the City of Greenacres. The report is based on the participant data and asset information provided by the pension plan administrator and, except for a cursory review for reasonableness including a comparison to the data provided for the previous valuation, we have not attempted to verify the accuracy of this information.

The primary purpose of this report is to provide a summary of the funded status of the plan as of October 1, 2015 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2016/17 plan year. In addition, this report provides a projection of the long-term funding requirements of the plan, statistical information concerning the assets held in the trust, statistical information concerning the participant population, and a summary of any recent plan changes.

The liabilities and cost presented in this report are based on numerous assumptions concerning the cost of benefits to be provided in the future, long-term investment returns, and the future demographic experience of the current participants. Anyone referring to this report should remember that the cost developed herein is only an *estimate* of the true cost of providing post-employment pension benefits. No one can predict with certainty whether the true cost will be higher or lower than the cost presented in this report. The calculated cost is entirely dependent upon the assumptions that are described in Table IV-A. If any of the assumptions is changed, then the cost shown in this report will change accordingly. Likewise, if any of the assumptions is not completely realized, then the cost shown in this report will change in the future.

Certain assumptions play a bigger role than others in determining the cost of the post-employment pension benefits. In some cases, relatively small changes in a particular assumption can have a dramatic impact on the anticipated cost of benefits. Although a thorough analysis of the impact of such changes is beyond the scope of this report, Table I-B illustrates the impact that alternative long-term investment returns would have on the minimum required contribution rate.

### Minimum Required Contribution

Table I-A shows the development of the minimum required contribution for the 2016/17 plan year. The minimum required contribution rate is 29.24% of covered payroll, which represents an increase of 9.51% of payroll from the prior valuation.

The normal cost rate is 28.89% of payroll, which is 8.90% of payroll higher than the normal cost rate that was developed in the prior valuation. Table I-C provides a breakdown of the sources of change in the normal cost rate. Significantly, the rate increased by 2.78% of payroll due to investment losses, increased by 2.73% of payroll due to the public safety officers' being moved into a separate plan, and increased by another 3.39% due to demographic



experience. The market value of assets only earned 0.13% during the 2014/15 plan year, whereas a 7.25% annual investment return was required to maintain a stable contribution rate. The demographic loss was primarily due to pay increases that were far greater than assumed.

Chapter 112, Florida Statutes, sets forth the rules concerning the minimum required contribution for public pension plans within the state. Essentially, the City must contribute an amount equal to the annual normal cost of the plan plus an adjustment as necessary to reflect interest on any delayed payment of the contribution beyond the valuation date. On this basis, the City's 2016/17 minimum required contribution will be equal to 29.24% multiplied by the total pensionable earnings for the 2016/17 plan year for the active employees who are covered by the plan and reduced by the portion of the Chapter 175/185 contribution that is allowed to be recognized during the 2016/17 plan year.

Based on the current assets, participant data, and actuarial assumptions and methods that are used to value the plan, the present-day value of the total long-term funding requirement is \$17,871,621. As illustrated in Table I-A, current assets are sufficient to cover \$9,292,323 of this amount, the employer's 2015/16 expected contribution will cover \$573,636 of this amount, the employer's 2016/17 expected contribution will cover \$892,565 of this amount, and future employee contributions are expected to cover \$1,043,348 of this amount, leaving \$6,069,749 to be covered by future employer funding beyond the 2016/17 fiscal year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

### Contents of the Report

Tables I-D through I-G provide a detailed breakdown of various liability amounts by type of benefit and by participant group. Tables II-A through II-F provide information concerning the assets of the trust fund. Specifically, Table II-A shows the development of the actuarial value of assets, which is based on the market value of assets. Tables III-A through III-G provide statistical information concerning the plan's participant population. In particular, Table III-G gives a 10-year projection of the cash that is expected to be required from the trust fund in order to pay benefits to the current group of participants. Finally, Tables IV-A through V-B provide a summary of the actuarial assumptions and methods that are used to value the plan's benefits and of the relevant plan provisions as of October 1, 2015, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

### Refund of Participant Contributions

It is our understanding that there are four participants who are due a refund of their contributions. We have estimated the accumulated amount of their refunds to be \$10,885 as of October 1, 2015. The average amount owed to these individuals is \$2,721. If possible, we recommend that the accumulated contributions be distributed to these individuals in order to simplify the administration of the plan and to reduce future administrative costs.



Ordinance 2016-08

Pursuant to Ordinance 2016-08, the public safety officers will be spun off into a separate pension plan effective February 1, 2016. Because the October 1, 2015 valuation determines the minimum required contribution for the 2016/17 plan year, this valuation report reflects the ordinance as if it were effective on the valuation date. The ordinance has no actuarial impact on the combined plan for firefighters and public safety officers, but, after the two groups are divided into separate plans, the City's contribution rate for firefighters will increase and the City's contribution rate for public safety officers will decrease.

Certification

This actuarial valuation was prepared by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate and, in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material change in plan costs or required contribution rates have been taken into account in the valuation.

For the firm,



Charles T. Carr  
Consulting Actuary  
Southern Actuarial Services Company, Inc.

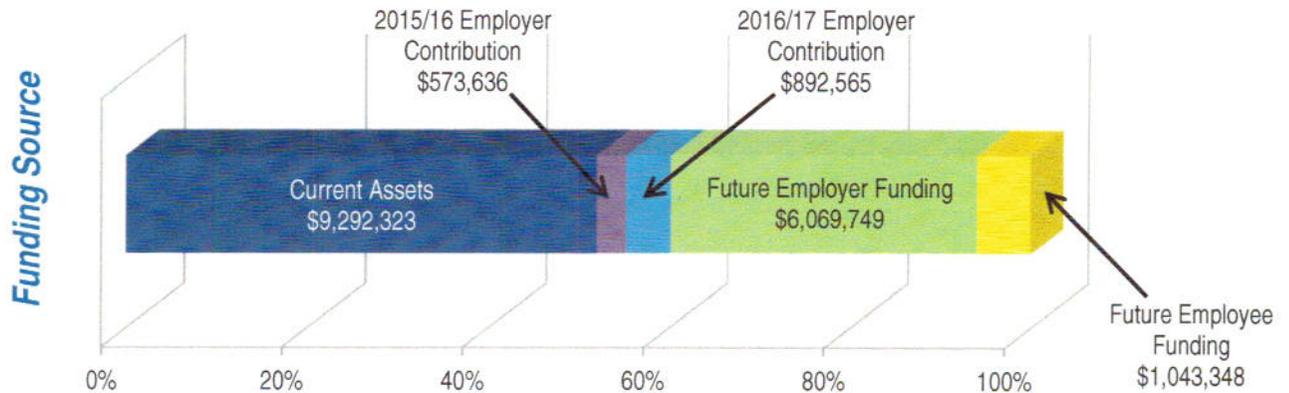
Enrolled Actuary No. 14-04927

*The individual above is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.*



## Minimum Required Contribution

Table I-A



### For the 2016/17 Plan Year

Present Value of Future Benefits	\$17,694,674
Present Value of Future Administrative Expenses	\$176,947
Actuarial Value of Assets	(\$9,292,323)
Present Value of Future Employee Contributions	(\$1,043,348)
Present Value of Future Normal Costs	<u>\$7,535,950</u>
Present Value of Future Payroll	<u>÷ \$26,083,718</u>
Normal Cost Rate	= 28.8914%
Expected Payroll	<u>x \$2,907,431</u>
Normal Cost	\$839,997
Adjustment to Reflect Semi-Monthly Employer Contributions	\$31,009
Expected Employer Contribution for the 2015/16 Plan Year	<u>(\$573,636)</u>
Remaining Contribution Due/(Credit) for the 2015/16 Plan Year	\$297,370
	<u>x 0.0725</u>
One Year's Interest Charge/(Credit) on the Remaining Contribution	<u>\$21,559</u>
Preliminary Employer Contribution for the 2016/17 Plan Year	\$892,565
Expected Payroll for the 2016/17 Plan Year	<u>÷ \$3,052,803</u>

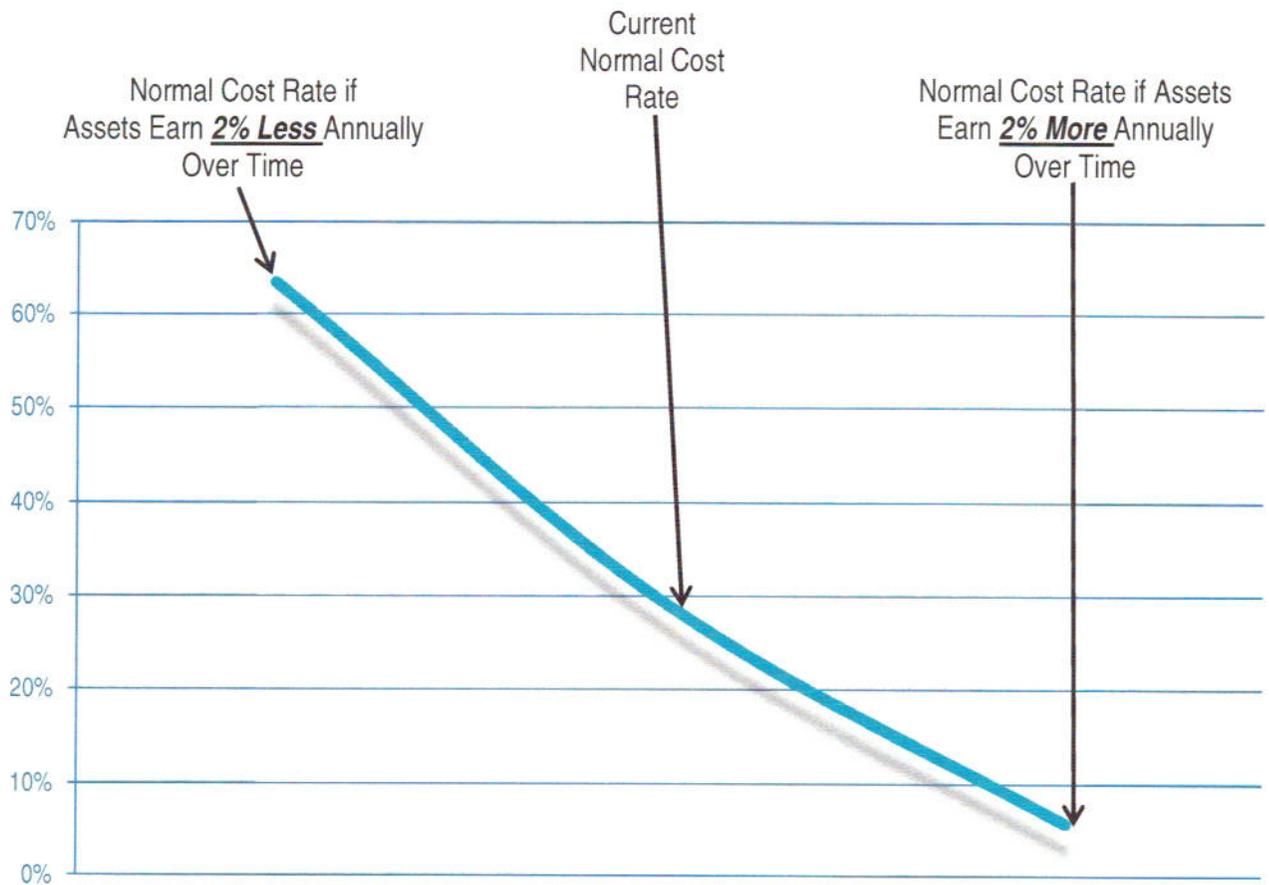
**Minimum Required Contribution Rate** **29.24%**

*(The actual contribution should be based on the minimum required contribution rate multiplied by the actual payroll for the year.)*



Sensitivity Analysis

Table I-B



*The line above illustrates the sensitivity of the normal cost rate to changes in the long-term investment return.*



Gain and Loss Analysis

Table I-C

Previous normal cost rate	19.99%
Increase (decrease) due to investment gains and losses	2.78%
Increase (decrease) due to demographic experience	3.39%
Increase (decrease) due to plan amendments	2.73%
Increase (decrease) due to actuarial assumption changes	0.00%
Increase (decrease) due to actuarial method changes	0.00%
Current normal cost rate	<u>28.89%</u>



## Present Value of Future Benefits

Table I-D

	<u>Old Assumptions w/o Amendment</u>	<u>Old Assumptions w/ Amendment</u>	<u>New Assumptions w/ Amendment</u>
<i><u>Actively Employed Participants</u></i>			
Retirement benefits	\$13,997,985	\$13,997,985	\$13,997,985
Termination benefits	\$1,194,642	\$1,194,642	\$1,194,642
Disability benefits	\$1,075,676	\$1,075,676	\$1,075,676
Death benefits	\$75,623	\$75,623	\$75,623
Refund of employee contributions	\$150,814	\$150,814	\$150,814
Sub-total	<b>\$16,494,740</b>	<b>\$16,494,740</b>	<b>\$16,494,740</b>
<i><u>Deferred Vested Participants</u></i>			
Retirement benefits	\$689,752	\$689,752	\$689,752
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$689,752</b>	<b>\$689,752</b>	<b>\$689,752</b>
<i><u>Due a Refund of Contributions</u></i>	<b>\$10,885</b>	<b>\$10,885</b>	<b>\$10,885</b>
<i><u>Deferred Beneficiaries</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Retired Participants</u></i>			
Service retirements	\$499,297	\$499,297	\$499,297
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$499,297</b>	<b>\$499,297</b>	<b>\$499,297</b>
<i><u>Grand Total</u></i>	<b><u>\$17,694,674</u></b>	<b><u>\$17,694,674</u></b>	<b><u>\$17,694,674</u></b>
Present Value of Future Payroll	\$26,083,718	\$26,083,718	\$26,083,718
Present Value of Future Employee Contribs.	\$1,043,348	\$1,043,348	\$1,043,348
Present Value of Future Employer Contribs.	\$7,535,950	\$7,535,950	\$7,535,950



Present Value of Accrued Benefits

Table I-E

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$3,875,028	\$3,875,028	\$3,875,028
Termination benefits	\$402,481	\$402,481	\$402,481
Disability benefits	\$563,833	\$563,833	\$563,833
Death benefits	\$29,264	\$29,264	\$29,264
Refund of employee contributions	\$94,305	\$94,305	\$94,305
Sub-total	<b>\$4,964,911</b>	<b>\$4,964,911</b>	<b>\$4,964,911</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$689,752	\$689,752	\$689,752
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$689,752</b>	<b>\$689,752</b>	<b>\$689,752</b>
<u>Due a Refund of Contributions</u>	<b>\$10,885</b>	<b>\$10,885</b>	<b>\$10,885</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$499,297	\$499,297	\$499,297
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$499,297</b>	<b>\$499,297</b>	<b>\$499,297</b>
<u>Grand Total</u>	<b>\$6,164,845</b>	<b>\$6,164,845</b>	<b>\$6,164,845</b>



## Present Value of Vested Benefits

Table I-F

	<u>Old Assumptions w/o Amendment</u>	<u>Old Assumptions w/ Amendment</u>	<u>New Assumptions w/ Amendment</u>
<i><u>Actively Employed Participants</u></i>			
Retirement benefits	\$3,811,386	\$3,811,386	\$3,811,386
Termination benefits	\$0	\$0	\$0
Disability benefits	\$563,833	\$563,833	\$563,833
Death benefits	\$28,772	\$28,772	\$28,772
Refund of employee contributions	\$139,520	\$139,520	\$139,520
Sub-total	<b>\$4,543,511</b>	<b>\$4,543,511</b>	<b>\$4,543,511</b>
 <i><u>Deferred Vested Participants</u></i>			
Retirement benefits	\$689,752	\$689,752	\$689,752
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$689,752</b>	<b>\$689,752</b>	<b>\$689,752</b>
<i><u>Due a Refund of Contributions</u></i>	<b>\$10,885</b>	<b>\$10,885</b>	<b>\$10,885</b>
<i><u>Deferred Beneficiaries</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
 <i><u>Retired Participants</u></i>			
Service retirements	\$499,297	\$499,297	\$499,297
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$499,297</b>	<b>\$499,297</b>	<b>\$499,297</b>
<i><u>Grand Total</u></i>	<b><u>\$5,743,445</u></b>	<b><u>\$5,743,445</u></b>	<b><u>\$5,743,445</u></b>



Entry Age Normal Accrued Liability

Table I-G

	<u>Old Assumptions w/o Amendment</u>	<u>Old Assumptions w/ Amendment</u>	<u>New Assumptions w/ Amendment</u>
<i><u>Actively Employed Participants</u></i>			
Retirement benefits	\$7,886,019	\$7,886,019	\$7,886,019
Termination benefits	\$690,950	\$690,950	\$690,950
Disability benefits	\$667,846	\$667,846	\$667,846
Death benefits	\$46,724	\$46,724	\$46,724
Refund of employee contributions	\$102,487	\$102,487	\$102,487
Sub-total	<b>\$9,394,026</b>	<b>\$9,394,026</b>	<b>\$9,394,026</b>
<i><u>Deferred Vested Participants</u></i>			
Retirement benefits	\$689,752	\$689,752	\$689,752
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$689,752</b>	<b>\$689,752</b>	<b>\$689,752</b>
<i><u>Due a Refund of Contributions</u></i>	<b>\$10,885</b>	<b>\$10,885</b>	<b>\$10,885</b>
<i><u>Deferred Beneficiaries</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Retired Participants</u></i>			
Service retirements	\$499,297	\$499,297	\$499,297
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$499,297</b>	<b>\$499,297</b>	<b>\$499,297</b>
<i><u>Grand Total</u></i>	<b><u>\$10,593,960</u></b>	<b><u>\$10,593,960</u></b>	<b><u>\$10,593,960</u></b>



Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2015	\$9,292,323
Minus advance employer contributions	\$0
Minus excess Chapter 175/185 contributions	\$0
<b>Actuarial Value of Assets as of October 1, 2015</b>	<b><u>\$9,292,323</u></b>

<b>Historical Actuarial Value of Assets</b>	
October 1, 2006	\$4,925,104
October 1, 2007	\$6,021,159
October 1, 2008	\$5,844,087
October 1, 2009	\$6,693,561
October 1, 2010	\$8,879,484
October 1, 2011	\$10,564,789
October 1, 2012	\$14,004,298
October 1, 2013	\$17,308,555
October 1, 2014	\$20,145,669
October 1, 2015	\$9,292,323

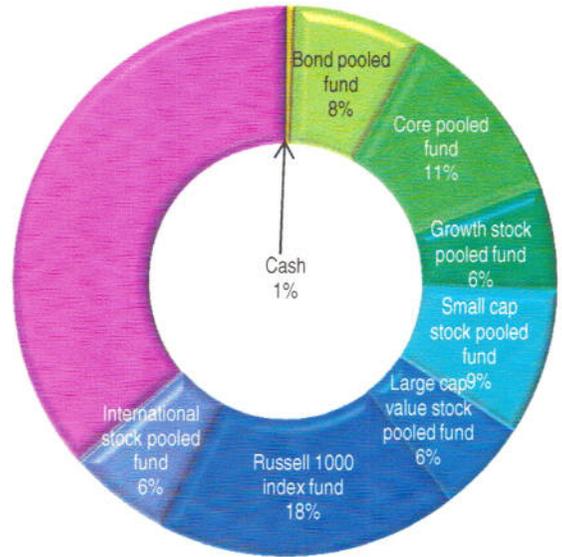


Market Value of Assets

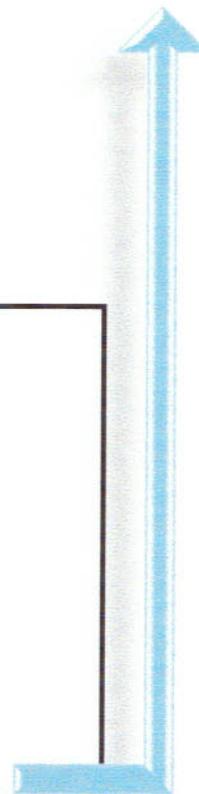
Table II-B

**As of October 1, 2015**

<b>Market Value of Assets</b>	<b><u>\$9,292,323</u></b>
Cash	\$171,380
Bond pooled fund	\$2,592,128
Core pooled fund	\$3,791,790
Growth stock pooled fund	\$2,056,564
Small cap stock pooled fund	\$2,892,044
Large cap value stock pooled fund	\$1,863,761
Russell 1000 index fund	\$6,019,735
International stock pooled fund	\$2,035,142
Employer contribution receivable	\$87,627
Employee contribution receivable	\$8,658
Payable to the police plan	(\$12,226,506)

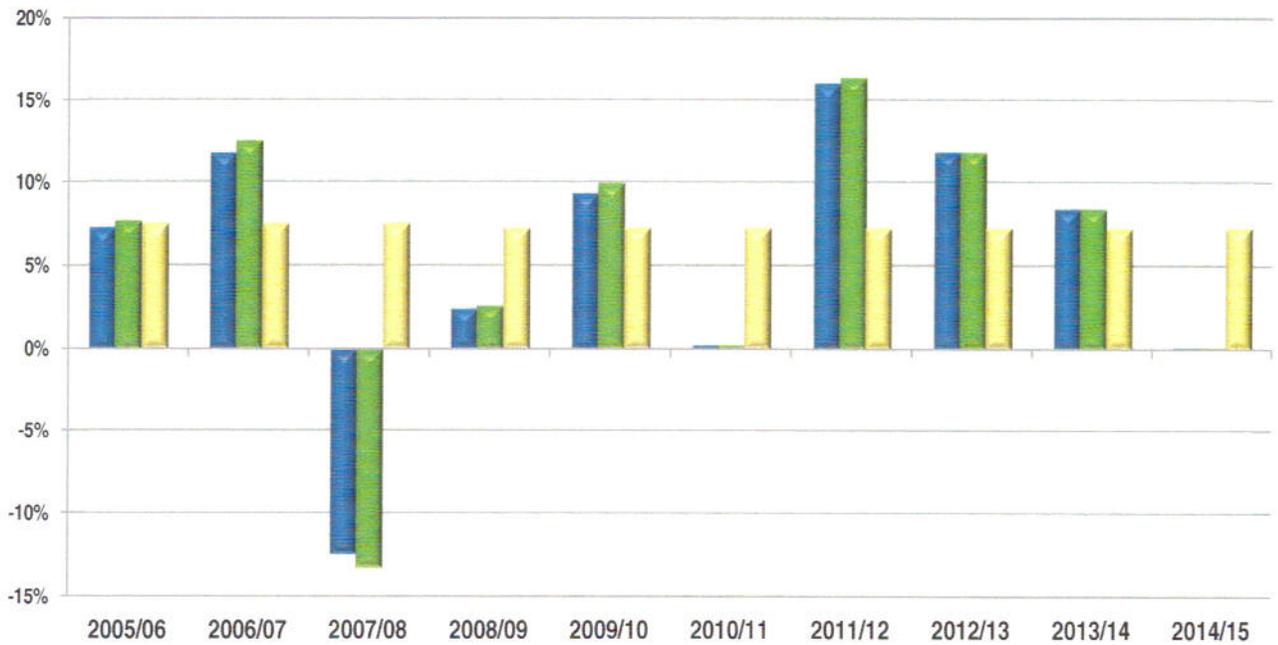


<b>Historical Market Value of Assets</b>	
October 1, 2006	\$5,170,035
October 1, 2007	\$6,391,613
October 1, 2008	\$6,295,699
October 1, 2009	\$7,152,844
October 1, 2010	\$9,367,420
October 1, 2011	\$11,059,940
October 1, 2012	\$14,004,298
October 1, 2013	\$17,308,555
October 1, 2014	\$20,145,669
October 1, 2015	\$9,292,323



Investment Return

Table II-C



Annual Investment Returns

- Market Value Return
- Actuarial Value Return
- Assumed Return

Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2005/06	7.31%	7.68%	7.50%
2006/07	11.81%	12.52%	7.50%
2007/08	-12.46%	-13.27%	7.50%
2008/09	2.46%	2.65%	7.25%
2009/10	9.34%	9.94%	7.25%
2010/11	0.24%	0.26%	7.25%
2011/12	16.03%	16.37%	7.25%
2012/13	11.84%	11.84%	7.25%
2013/14	8.42%	8.42%	7.25%
2014/15	0.13%	0.13%	7.25%
10yr. Avg.	5.21%	5.32%	7.32%



## Asset Reconciliation

Table II-D

	<u>Market Value</u>	<u>Actuarial Value</u>
<b>As of October 1, 2014</b>	<b>\$20,145,669</b>	<b>\$20,145,669</b>
<b><i>Increases Due To:</i></b>		
Employer Contributions	\$918,747	\$918,747
Chapter 175/185 Contributions	\$428,007	\$428,007
Employee Contributions	\$241,030	\$241,030
Service Purchase Contributions	\$0	\$0
Total Contributions	\$1,587,784	\$1,587,784
Interest and Dividends	\$0	
Realized Gains (Losses)	\$0	
Unrealized Gains (Losses)	\$27,889	
Total Investment Income	\$27,889	(\$12,290,209)
Other Income	(\$12,318,098)	
<b>Total Income</b>	<b>(\$10,702,425)</b>	<b>(\$10,702,425)</b>
<b><i>Decreases Due To:</i></b>		
Monthly Benefit Payments	(\$77,918)	(\$77,918)
Refund of Employee Contributions	(\$7,974)	(\$7,974)
Total Benefit Payments	(\$85,892)	(\$85,892)
Investment Expenses	\$0	
Administrative Expenses	(\$65,029)	(\$65,029)
Advance Employer Contribution		\$0
Excess Chapter 175/185 Contribution		\$0
<b>Total Expenses</b>	<b>(\$150,921)</b>	<b>(\$150,921)</b>
<b>As of October 1, 2015</b>	<b>\$9,292,323</b>	<b>\$9,292,323</b>



## Historical Trust Fund Detail

## Table II-E

**Income**

<u>Plan</u> <u>Year</u>	<u>Employer</u> <u>Contribs.</u>	<u>Chapter</u> <u>Contribs.</u>	<u>Employee</u> <u>Contribs.</u>	<u>Service</u> <u>Purchase</u> <u>Contribs.</u>	<u>Interest /</u> <u>Dividends</u>	<u>Realized</u> <u>Gains /</u> <u>Losses</u>	<u>Unrealized</u> <u>Gains /</u> <u>Losses</u>	<u>Other</u> <u>Income</u>
2005/06	\$283,494	\$259,016	\$123,701	\$0	\$0	\$0	\$330,942	\$0
2006/07	\$135,823	\$359,833	\$143,373	\$0	\$0	\$0	\$644,643	\$0
2007/08	\$4,238	\$469,376	\$169,528	\$169,271	\$0	\$0	-\$843,191	\$0
2008/09	\$5,153	\$524,139	\$206,045	\$0	\$0	\$0	\$163,715	\$0
2009/10	\$905,084	\$432,430	\$195,062	\$0	\$0	\$0	\$737,314	\$0
2010/11	\$1,158,781	\$391,454	\$197,738	\$0	\$0	\$0	\$24,954	\$0
2011/12	\$1,051,443	\$413,040	\$205,990	\$0	\$0	\$0	\$1,902,338	-\$571,775
2012/13	\$1,081,399	\$439,902	\$203,198	\$0	\$0	\$0	\$1,756,314	-\$103,486
2013/14	\$891,618	\$464,704	\$201,235	\$0	\$0	\$0	\$1,518,010	-\$128,288
2014/15	\$918,747	\$428,007	\$241,030	\$0	\$0	\$0	\$27,889	-\$12,318,098

**Expenses**

<u>Plan</u> <u>Year</u>	<u>Monthly</u> <u>Benefit</u> <u>Payments</u>	<u>Contrib.</u> <u>Refunds</u>	<u>Admin.</u> <u>Expenses</u>	<u>Invest.</u> <u>Expenses</u>	<u>Other Actuarial Adjustments</u>	
					<u>Advance</u> <u>Employer</u> <u>Contribs.</u>	<u>Excess</u> <u>Chapter</u> <u>Contribs.</u>
2005/06	\$0	\$26,381	\$13,514	\$0	\$54,601	\$0
2006/07	\$16,173	\$23,348	\$22,573	\$0	\$102,106	\$23,417
2007/08	\$16,658	\$22,576	\$25,902	\$0	-\$51,801	\$132,959
2008/09	\$17,157	\$0	\$24,750	\$0	-\$180,052	\$187,723
2009/10	\$17,672	\$6,105	\$31,537	\$0	-\$67,361	\$96,014
2010/11	\$18,202	\$15,020	\$47,185	\$0	-\$47,823	\$55,038
2011/12	\$18,748	\$9,945	\$27,985	\$0	\$0	-\$495,151
2012/13	\$19,311	\$4,019	\$49,740	\$0	\$0	\$0
2013/14	\$45,925	\$1,367	\$62,873	\$0	\$0	\$0
2014/15	\$77,918	\$7,974	\$65,029	\$0	\$0	\$0

Note: Information was not available to separate the investment expenses from the investment income nor was information available to separate the investment income by source.



## Other Reconciliations

Table II-F

**Advance Employer Contribution**

Advance Employer Contribution as of October 1, 2014	\$0
Additional Employer Contribution	\$1,255,163
Minimum Required Contribution	(\$1,255,163)
Net Increase in Advance Employer Contribution	<u>\$0</u>
Advance Employer Contribution as of October 1, 2015	<u><u>\$0</u></u>

**Excess Chapter 175/185 Contribution**

Excess Chapter 175/185 Contribution as of October 1, 2014	\$0
Additional Chapter 175/185 Contribution	\$428,007
Allowable Chapter 175/185 Contribution	(\$336,416)
Transfer to Share Plan	(\$91,591)
Net Increase in Excess Chapter 175/185 Contribution	<u>\$0</u>
Excess Chapter 175/185 Contribution as of October 1, 2015	<u><u>\$0</u></u>



## Historical Chapter 175/185 Contributions

Table II-H

**Total Accumulated Excess Chapter 175/185 Contribution** \$0

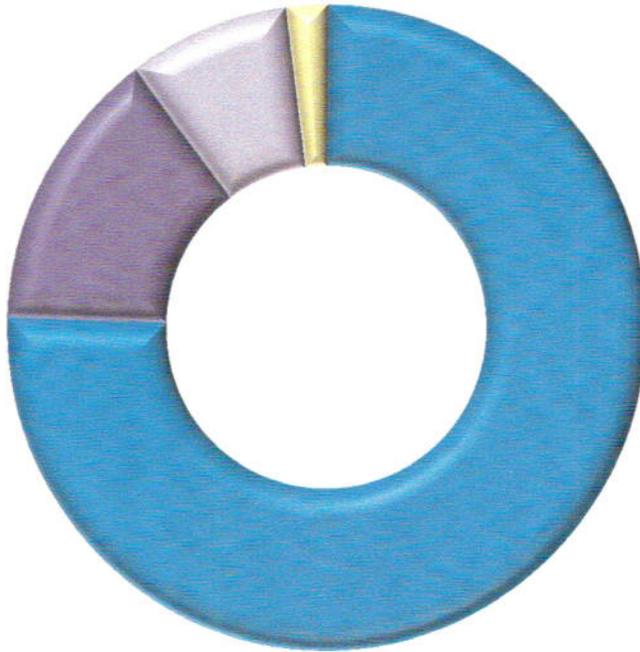
	Chapter 175 Regular <u>Distribution</u>	Chapter 175 Supplemental <u>Distribution</u>	Chapter 185 <u>Distribution</u>	Allowable <u>Amount</u>
1998 Distribution	\$0	\$0	\$61,736	(\$15,282)
1999 Distribution	\$0	\$0	\$116,890	(\$15,282)
2000 Distribution	\$25,888	\$0	\$123,453	(\$15,282)
2001 Distribution	\$32,116	\$7,377	\$140,464	(\$15,282)
2002 Distribution	\$50,540	\$11,252	\$176,353	(\$15,282)
2003 Distribution	\$74,296	\$22,556	\$108,910	(\$15,282)
2004 Distribution	\$90,294	\$22,676	\$127,930	(\$1,101,039)
2005 Distribution	\$96,599	\$20,955	\$141,462	(\$259,016)
2006 Distribution	\$147,230	\$39,411	\$173,192	(\$336,416)
2007 Distribution	\$164,946	\$125,392	\$179,037	(\$336,416)
2008 Distribution	\$162,702	\$129,469	\$231,968	(\$336,416)
2009 Distribution	\$146,876	\$86,661	\$198,893	(\$336,416)
2010 Distribution	\$146,985	\$63,181	\$181,288	(\$336,416)
2011 Distribution	\$147,633	\$70,340	\$195,067	(\$336,416)
2012 Distribution	\$154,864	\$80,164	\$204,874	(\$336,416)
2013 Distribution	\$165,614	\$78,675	\$220,415	(\$336,416)
2014 Distribution	\$104,784	\$91,591	\$231,632	(\$336,416)
Transfer to Share Plan				(\$895,140)



Summary of Participant Data

Table III-A

As of October 1, 2015



Participant Distribution by Status

<u>Actively Employed Participants</u>		
◆	Active Participants	37
◆	DROP Participants	0
<u>Inactive Participants</u>		
◆	Deferred Vested Participants	7
◆	Due a Refund of Contributions	4
◆	Deferred Beneficiaries	0
<u>Participants Receiving a Benefit</u>		
◆	Service Retirements	1
◆	Disability Retirements	0
◆	Beneficiaries Receiving	0
<b>Total Participants</b>		<b>49</b>

Number of Participants Included in Prior Valuations

	<i>Active</i>	<i>DROP</i>	<i>Inactive</i>	<i>Retired</i>	<i>Total</i>
October 1, 2006	62	0	12	1	75
October 1, 2007	66	0	12	1	79
October 1, 2008	74	0	11	1	86
October 1, 2009	72	0	13	1	86
October 1, 2010	72	0	14	1	87
October 1, 2011	73	0	14	1	88
October 1, 2012	74	0	20	1	95
October 1, 2013	75	0	21	1	97
October 1, 2014	73	0	32	3	108
October 1, 2015	37	0	11	1	49

\* Note: Valuations prior to 10/1/2015 include police officers.



## Data Reconciliation

Table III-B

	<u>Active</u>	<u>DROP</u>	<u>Deferred Vested</u>	<u>Due a Refund</u>	<u>Def. Benef.</u>	<u>Service Retiree</u>	<u>Disabled Retiree</u>	<u>Benef. Rec'v.</u>	<u>Total</u>
<u>October 1, 2014</u>	73	0	22	10	0	3	0	0	108
<u>Change in Status</u>									
Re-employed									
Terminated	(1)			1					
Retired									
<u>Participation Ended</u>									
Transferred Out	(40)		(15)	(6)		(2)			(63)
Cashed Out				(1)					(1)
Died									
<u>Participation Began</u>									
Newly Hired	5								5
Transferred In									
New Beneficiary									
<u>Other Adjustment</u>									
<u>October 1, 2015</u>	37	0	7	4	0	1	0	0	49

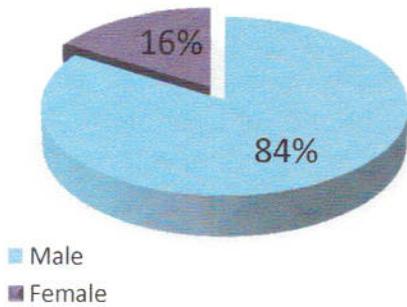


Active Participant Data

Table III-C

Gender Mix

As of October 1, 2015



Average Age	38.0 years
Average Service	7.4 years
Total Annualized Compensation for the Prior Year	\$2,976,553
Total Expected Compensation for the Current Year	\$2,907,431
Average Increase in Compensation for the Prior Year	16.99%
Expected Increase in Compensation for the Current Year	5.64%



**Active Participant Statistics From Prior Valuations**

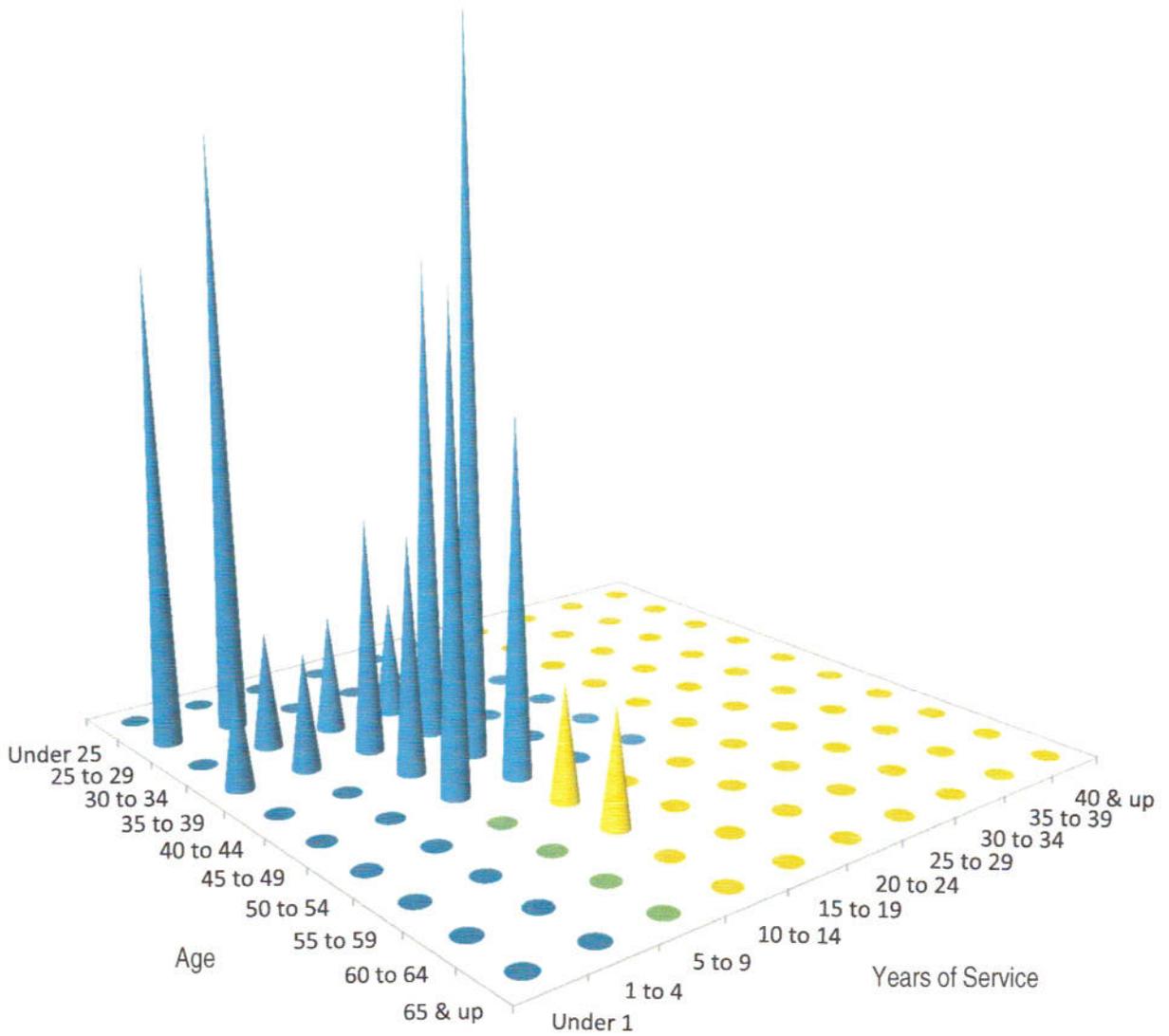
	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
October 1, 2006	31.9	2.9	\$45,469	5.75%	1.37%
October 1, 2007	32.9	3.6	\$53,859	5.67%	11.21%
October 1, 2008	34.6	4.3	\$57,568	5.68%	8.13%
October 1, 2009	35.5	4.7	\$69,475	5.66%	17.08%
October 1, 2010	36.2	5.3	\$67,626	5.32%	-2.42%
October 1, 2011	36.8	6.2	\$68,127	5.19%	3.71%
October 1, 2012	37.2	6.5	\$69,548	5.16%	4.89%
October 1, 2013	38.0	7.1	\$68,324	5.36%	-1.30%
October 1, 2014	36.9	6.9	\$68,518	5.35%	3.57%
October 1, 2015	38.0	7.4	\$80,447	5.60%	16.99%

\* Note: Valuations prior to 10/1/2015 include police officers.



Active Age-Service Distribution

Table III-D



- ▲ Eligible to retire
- ▲ May be eligible to retire
- ▲ Not eligible to retire



Active Age-Service-Salary Table

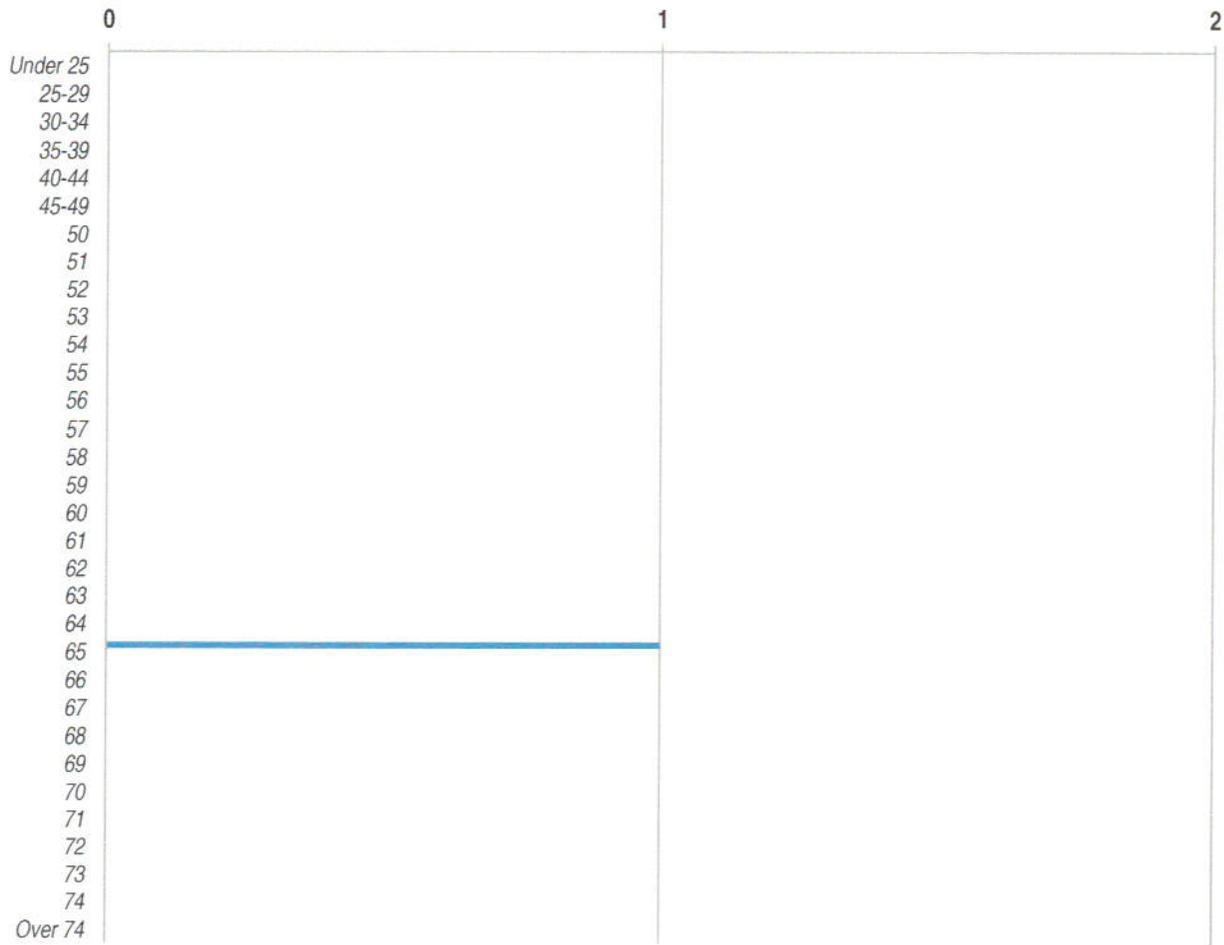
Table III-E

Attained Age	Completed Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	0	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	4	5	0	0	0	0	0	0	0	0	0	9
Avg.Pay	47,533	58,369	0	0	0	0	0	0	0	0	0	53,553
30 to 34	0	1	1	1	0	0	0	0	0	0	0	3
Avg.Pay	0	71,020	78,129	88,951	0	0	0	0	0	0	0	79,367
35 to 39	1	1	2	4	0	0	0	0	0	0	0	8
Avg.Pay	49,254	71,735	84,362	90,919	0	0	0	0	0	0	0	81,674
40 to 44	0	0	2	6	0	0	0	0	0	0	0	8
Avg.Pay	0	0	83,528	97,946	0	0	0	0	0	0	0	94,342
45 to 49	0	0	4	3	0	0	0	0	0	0	0	7
Avg.Pay	0	0	88,111	103,354	0	0	0	0	0	0	0	94,644
50 to 54	0	0	0	1	0	0	0	0	0	0	0	1
Avg.Pay	0	0	0	96,367	0	0	0	0	0	0	0	96,367
55 to 59	0	0	0	1	0	0	0	0	0	0	0	1
Avg.Pay	0	0	0	89,483	0	0	0	0	0	0	0	89,483
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0	0
65 & up	0	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>7</b>	<b>9</b>	<b>16</b>	<b>0</b>	<b>37</b>						
Avg.Pay	47,877	62,085	85,150	96,013	0	0	0	0	0	0	0	80,447



Inactive Participant Data

Table III-F



**Age at Retirement**

- Service Retirements
- Disability Retirements
- DROP Participants

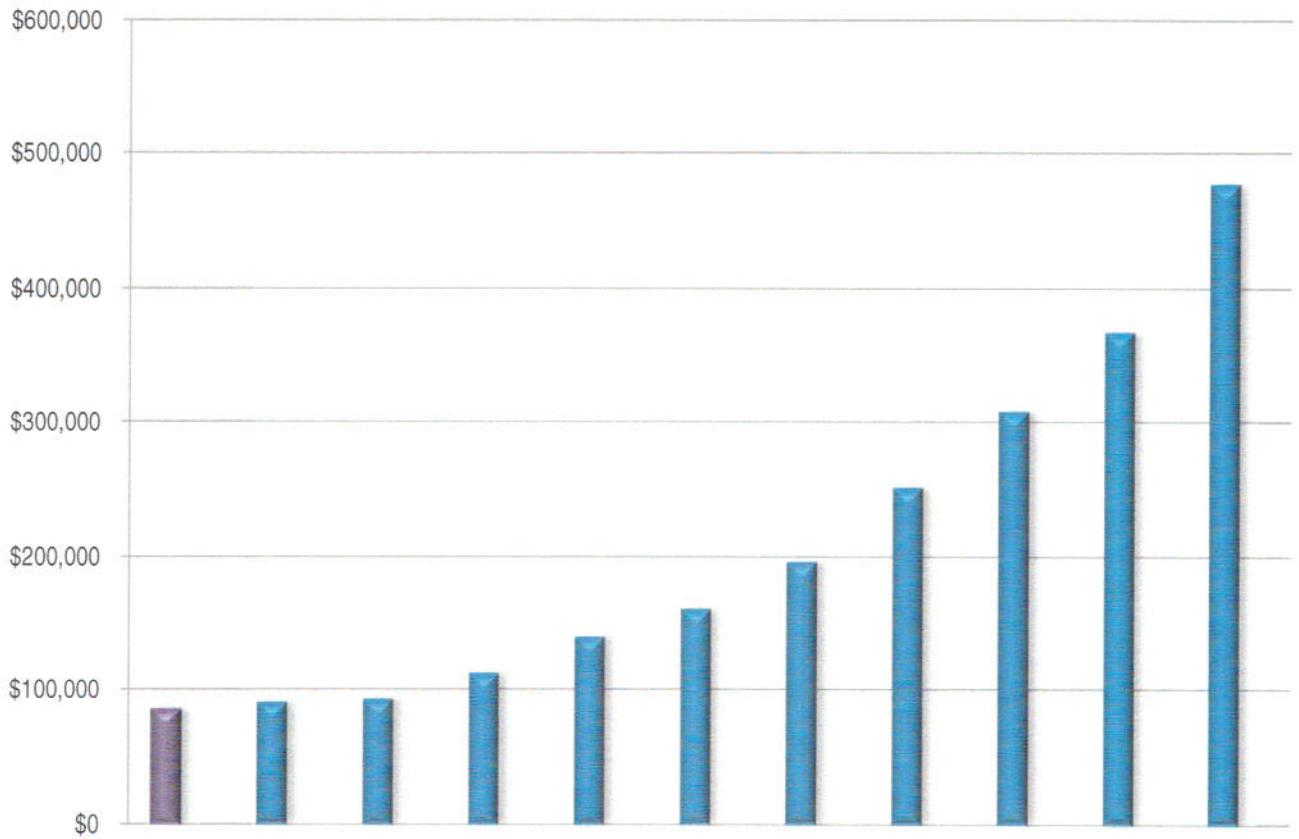
Average Monthly Benefit

Service Retirements	\$2,502.97
Disability Retirements	Not applicable
Beneficiaries Receiving	Not applicable
DROP Participants	Not applicable
Deferred Vested Participants	\$1,368.33
Deferred Beneficiaries	Not applicable



Projected Benefit Payments

Table III-G



Actual

For the period October 1, 2014 through September 30, 2015

\$85,892 \*

Projected

For the period October 1, 2015 through September 30, 2016

\$90,873

For the period October 1, 2016 through September 30, 2017

\$93,053

For the period October 1, 2017 through September 30, 2018

\$112,790

For the period October 1, 2018 through September 30, 2019

\$140,710

For the period October 1, 2019 through September 30, 2020

\$161,605

For the period October 1, 2020 through September 30, 2021

\$196,615

For the period October 1, 2021 through September 30, 2022

\$251,388

For the period October 1, 2022 through September 30, 2023

\$307,897

For the period October 1, 2023 through September 30, 2024

\$367,434

For the period October 1, 2024 through September 30, 2025

\$476,910

\* includes police officers



## Summary of Actuarial Methods and Assumptions

Table IV-A

**1. Actuarial Cost Method**

Aggregate cost method. Under this actuarial cost method, a funding cost is developed for the plan as a level percentage of payroll. The level funding percentage is calculated as the excess of the total future benefit liability over accumulated assets and future employee contributions, with this excess spread over the expected future payroll for current active participants. The normal cost is equal to the level funding percentage multiplied by the expected payroll for the year immediately following the valuation date. The actuarial accrued liability is equal to the accumulated assets. Therefore, under the aggregate cost method, no unfunded accrued liability is developed.

**2. Asset Method**

The actuarial value of assets is equal to the market value of assets.

**3. Interest (or Discount) Rate**

7.25% per annum

**4. Salary Increases**

Plan compensation is generally assumed to increase at the rate of 5.00% per annum, unless actual plan compensation is known for a prior plan year. However, with respect to participants who have earned less than four years of service, compensation is assumed to increase at a higher rate. Specifically, compensation for participants with less than one year of service is assumed to increase 8.00% per annum, compensation for participants with at least one year of service, but less than two years of service, is assumed to increase 7.00% per annum, compensation for participants with at least two years of service, but less than three years of service, is assumed to increase 6.00% per annum, and compensation for participants with at least three years of service, but less than four years of service, is assumed to increase 5.50% per annum.

**5. Decrements**

- Pre-retirement mortality: Sex-distinct rates set forth in the RP-2000 Mortality Table for non-annuitants, projected to 2007 by Scale AA, as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430; future generational improvements in mortality have not been reflected.
- Post-retirement mortality: Sex-distinct rates set forth in the RP-2000 Mortality Table for annuitants, projected to 2007 by Scale AA, as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430; future generational improvements in mortality have not been reflected.



## Summary of Actuarial Methods and Assumptions

## Table IV-A

(continued)

- Disability: Age- and gender-based rates of disability were assumed, ranging from 0.067% for males and 0.040% for females at age 25, 0.119% for males and 0.118% for females at age 35, 0.462% for males and 0.435% for females at age 45, and 1.000% for males and 0.840% for females at age 55; 75% of disabilities are assumed to be service-related.
- Termination: With respect to participants with less than 10 years of service, the termination rates are both gender- and service-based, ranging from 15.00% for males and 10.01% for females with less than two years of service to 4.30% for males and 4.75% for females with between eight and 10 years of service; with respect to participants with at least 10 years of service, the termination rates are both gender- and age-based, ranging from 4.28% for males and 5.41% for females at age 25 to 0.00% for both genders at age 55.
- Retirement: For those participants who have met the age and service requirements to retire, retirement is assumed to occur at the rate of 15% per year during each of the three years prior to normal retirement age; alternatively, 40% of participants who reach their normal retirement age are assumed to retire immediately, with 20% assumed to retire during each of the next two years after the attainment of normal retirement age and 100% assumed to retire three years after the attainment of normal retirement age. No retirements are assumed to occur prior to age 45.

**6. Form of Payment**

Future retirees have been assumed to select the 10-year certain and life annuity, except that participants who terminate their service with less than 15 years of service or prior to age 40 are assumed to receive a refund of their accumulated employee contributions.

**7. Expenses**

The total projected benefit liability has been loaded by 1.00% to account for anticipated administrative expenses. In addition, the interest rate set forth in item 3. above is assumed to be net of investment expenses and commissions.



Changes in Actuarial Methods and Assumptions

Table IV-B

No assumptions or methods have been changed from those used to complete the previous valuation.



## Summary of Plan Provisions

## Table V-A

### 1. Benefit Formula

3.00% of Average Monthly Earnings multiplied by Credited Service

### 2. Service Retirement

Normal retirement: Age 55 with at least six years of credited service; or

Any age with at least 25 years of credited service

Early retirement: Age 50 with at least six years of credited service

*(Note: In the case of early retirement, the participant's benefit is reduced by 3% for each year by which the participant's early retirement age precedes his normal retirement age.)*

### 3. Disability Retirement

The disability benefit is a monthly 10-year certain and life annuity equal to the larger of the monthly accrued benefit or either 42% of average monthly earnings (for service-based disability) or 25% of average monthly earnings (for non-service disability), but offset as necessary to preclude the total of the participant's worker's compensation, disability benefit, and other City-financed disability or salary continuation benefit (excluding social security benefits) from exceeding his average monthly earnings. The participant must have earned at least 10 years of credited service in order to be eligible for a non-service disability. The participant may convert his disability benefit into any of the optional forms of payment that are otherwise available under the plan.

*(A participant is disabled if he is found to have a mental or physical condition resulting from bodily injury, disease, or a mental disorder that renders him incapable of employment as a firefighter. However, a participant will not be eligible for a disability benefit if his disability is caused by excessive and habitual use of drugs, intoxicants, or narcotics; by injury or disease sustained while serving in the armed forces; by injury or disease sustained while willfully and illegally participating in fights, riots, or civil insurrections, or while committing a crime; by injury or disease sustained after termination of employment; or by an injury or disease sustained while working for another employer and arising from such employment.)*

### 4. Deferred Vested Retirement

A vested participant who terminates employment before becoming eligible for retirement receives a deferred vested retirement benefit payable at the participant's early or normal retirement age. If the benefit is payable prior to normal retirement age, then the benefit is reduced by 3% for each year by which the participant's early retirement age precedes his normal retirement age.

A non-vested participant who terminates employment receives his accumulated contributions.



Summary of Plan Provisions

Table V-A

(continued)

5. **Vesting**

An employee becomes 100% vested upon the attainment of six years of credited service.

6. **Pre-Retirement Death Benefit**

If a vested participant dies prior to retirement, the participant's beneficiary receives a 10-year certain annuity equal to the participant's monthly accrued benefit payable beginning at the participant's early or normal retirement age. The pre-retirement death benefit guarantees at least the return of the participant's accumulated contributions.

If a non-vested participant dies prior to retirement, the participant's beneficiary receives the participant's accumulated contributions.

7. **Form of Payment**

Actuarially increased single life annuity *(optional)*;

10-year certain and life annuity *(normal form of payment)*;

Actuarially reduced 50% joint and contingent annuity *(optional)*;

Actuarially reduced 66 $\frac{2}{3}$ % joint and contingent annuity *(optional)*;

Actuarially reduced 75% joint and contingent annuity *(optional)*;

Actuarially reduced 100% joint and contingent annuity *(optional)*; or

Actuarially equivalent single lump sum distribution *(automatic if the single sum value of the participant's benefit is less than or equal to \$5,000 or if the monthly benefit is less than \$100)*

*(Note: All forms of payment guarantee at least the return of the participant's accumulated contributions. Furthermore, a participant may change his joint annuitant up to two times after retirement subject to an actuarially equivalent adjustment.)*

8. **Automatic Cost-of-Living Adjustment**

Employees receive an automatic annual 3% cost-of-living adjustment.



Summary of Plan Provisions

Table V-A

(continued)

9. **Average Monthly Earnings**

Average monthly earnings during the highest five years of compensation out of the 10 years immediately preceding the determination date or career average earnings, if greater. Earnings include fixed monthly compensation and cannot exceed the maximum amount allowed under IRC section 401(a)(17).

10. **Credited Service**

The elapsed time from the participant's date of hire until his date of termination, retirement, or death.

11. **Employee Contribution**

Employees must contribute 4.00% of earnings. Employee contributions are accumulated without interest.

12. **City Contribution**

The City is required to make periodic contributions at least on a quarterly basis as determined under Chapter 112, Florida Statutes.

13. **Participant Requirement**

All firefighters of the City of Greenacres automatically become participants in the plan on their date of hire.

14. **Actuarial Equivalence**

Based on 7.25% interest per annum and the unisex mortality table promulgated by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 417(e)(3)

15. **Plan Effective Date**

The plan was originally effective on January 1, 1996.



## Summary of Plan Amendments

## Table V-B

Since the completion of the previous valuation, Ordinance 2016-08 was adopted. This ordinance divides the firefighters and public safety officers into two separate plans effective February 1, 2016.

