

CITY OF SATELLITE BEACH  
GENERAL EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2014

DETERMINES THE CONTRIBUTION  
FOR THE 2015/16 FISCAL YEAR



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March 19, 2015

## Introduction

This report presents the results of the October 1, 2014 actuarial valuation of the City of Satellite Beach General Employees' Retirement System. 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, 2014 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2015/16 plan year. In addition, this report provides a projection of the long-term funding requirements of the plan, accounting disclosures pursuant to Governmental Accounting Standards Board Statement Nos. 25 and 27 (GASB 25/27), 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 V-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 2015/16 plan year. The minimum required contribution is \$341,136, which represents a decrease of \$29,719 from the prior valuation.

The normal cost developed in this valuation is \$327,699, which is \$30,291 less than the normal cost from the prior valuation. Table I-C provides a breakdown of the sources of change in the normal cost. Significantly, the normal cost decreased by \$23,623 due to investment gains and decreased by another \$6,668 due to demographic experience. The market value of assets earned 8.62% during the 2013/14 plan year. However, the actuarial value is based on a





four-year average of the market value returns. On this basis, the actuarial value of assets earned 9.53% during the 2013/14 plan year, whereas a 7.75% annual investment return was required to maintain a stable contribution rate.

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, adjusted to reflect interest on any delayed payment of the contribution beyond the valuation date. On this basis, the City's 2015/16 minimum required contribution is \$341,136.

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 \$7,737,965. As illustrated in Table I-A, current assets are sufficient to cover \$6,200,875 of this amount, the employer's 2014/15 contribution will cover \$370,855 of this amount, the employer's 2015/16 contribution will cover \$341,136 of this amount, and future employee contributions are expected to cover \$132,677 of this amount, leaving \$692,422 to be covered by future employer funding beyond the 2015/16 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-C provide information needed by both the plan's and the employer's accountants in order to prepare the relevant financial statements that cover the period October 1, 2013 through September 30, 2014. Tables III-A through III-F provide information concerning the assets of the trust fund. Specifically, Table III-A shows the development of the actuarial value of assets, which is based on the four-year average return on the market value of assets in order to provide a more stable and predictable contribution rate for the employer. Tables IV-A through IV-G provide statistical information concerning the plan's participant population. In particular, Table IV-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 V-A through VI-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, 2014, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

### 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*

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

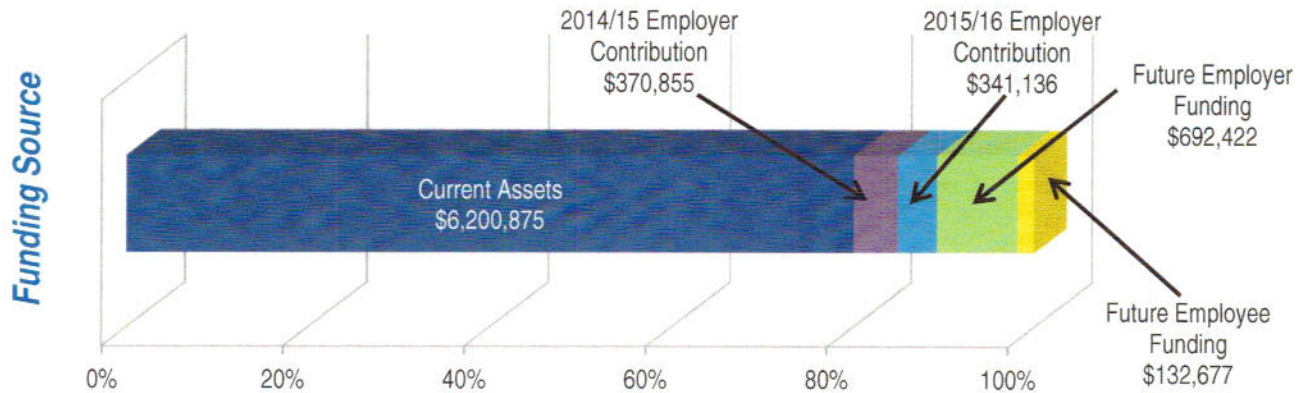
Enrolled Actuary No. 14-04927

*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 2015/16 Plan Year

Present Value of Future Benefits	\$7,708,942
Present Value of Future Administrative Expenses	\$29,023
Actuarial Value of Assets	(\$6,200,875)
Present Value of Future Employee Contributions	(\$132,677)
Present Value of Future Normal Costs	\$1,404,413
Present Value of Future Payroll	÷ \$1,658,474
Normal Cost Rate	= 84.681%
Expected Payroll	x \$386,980
Normal Cost	\$327,699
Adjustment to Reflect End-of-Quarter Employer Contributions	\$15,575
Expected Employer Contribution for the 2014/15 Plan Year	(\$370,855)
Remaining Contribution Due/(Credit) for the 2014/15 Plan Year	(\$27,581)
	x 0.0775
One Year's Interest Charge/(Credit) on the Remaining Contribution	(\$2,138)

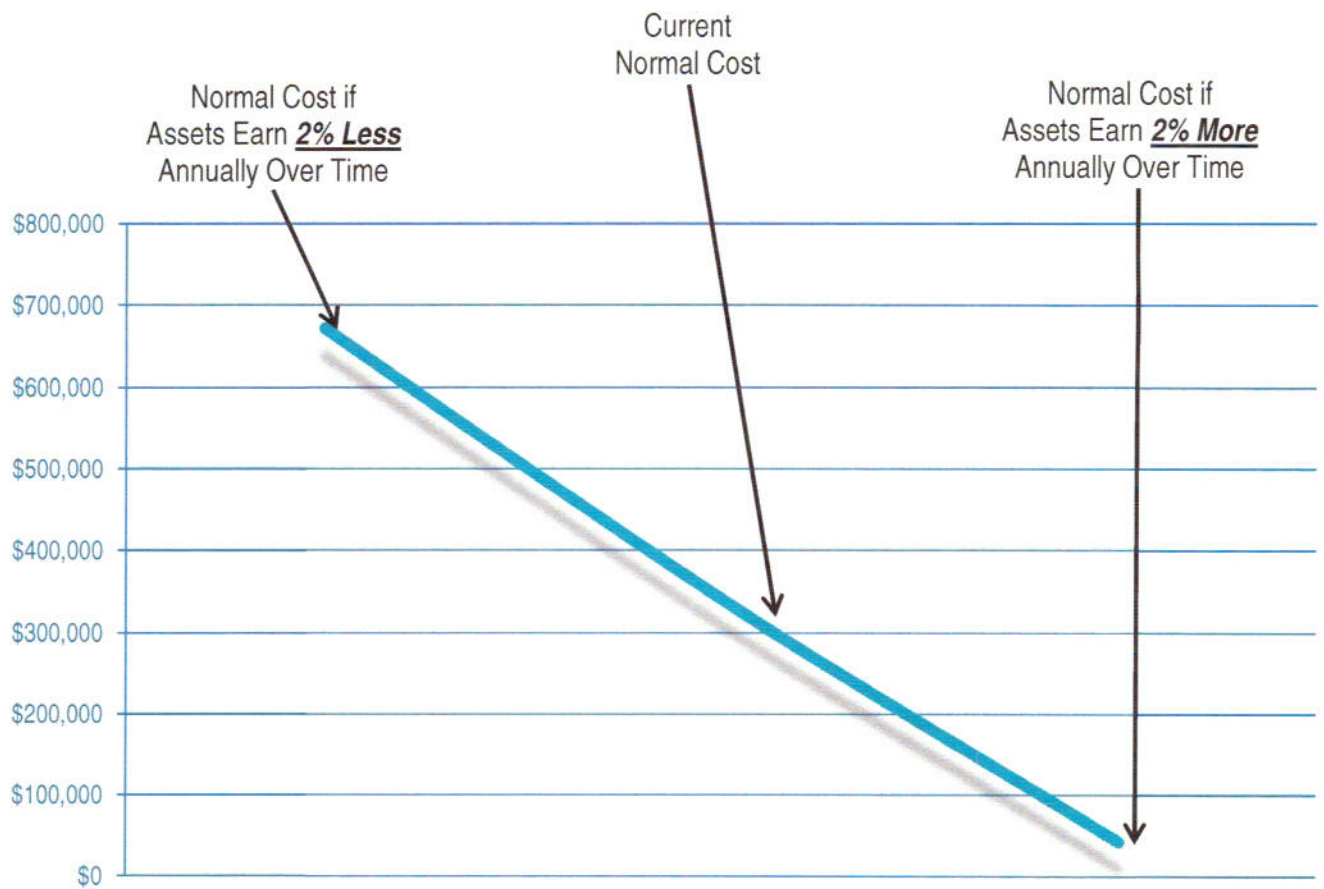
**Minimum Required Contribution for the 2015/16 Plan Year** **\$341,136**





# Sensitivity Analysis

Table I-B



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



## Gain and Loss Analysis

Table I-C

*Source of Change in the Normal Cost*

Previous normal cost	\$357,990
Increase (decrease) due to investment gains and losses	(\$23,623)
Increase (decrease) due to demographic experience	(\$6,668)
Increase (decrease) due to plan amendments	\$0
Increase (decrease) due to actuarial assumption changes	\$0
Increase (decrease) due to actuarial method changes	\$0
Current normal cost	<u>\$327,699</u>





## Present Value of Future Benefits

Table I-D

	Old Assumptions <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<u>Actively Employed Participants</u>			
Retirement benefits	\$2,706,682	\$2,706,682	\$2,706,682
Termination benefits	\$3,293	\$3,293	\$3,293
Disability benefits	\$132,076	\$132,076	\$132,076
Death benefits	\$19,212	\$19,212	\$19,212
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$2,861,263</b>	<b>\$2,861,263</b>	<b>\$2,861,263</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$374,221	\$374,221	\$374,221
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>\$374,221</b>	<b>\$374,221</b>	<b>\$374,221</b>
<u>Due a Refund of Contributions</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$3,856,943	\$3,856,943	\$3,856,943
Disability retirements	\$88,214	\$88,214	\$88,214
Beneficiaries receiving	\$379,400	\$379,400	\$379,400
DROP participants	\$148,901	\$148,901	\$148,901
Sub-total	<b>\$4,473,458</b>	<b>\$4,473,458</b>	<b>\$4,473,458</b>
<u>Grand Total</u>	<b><u>\$7,708,942</u></b>	<b><u>\$7,708,942</u></b>	<b><u>\$7,708,942</u></b>
Present Value of Future Payroll	\$1,658,474	\$1,658,474	\$1,658,474
Present Value of Future Employee Contribs.	\$132,677	\$132,677	\$132,677
Present Value of Future Employer Contribs.	\$1,404,413	\$1,404,413	\$1,404,413



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	\$1,955,020	\$1,955,020	\$1,955,020
Termination benefits	\$3,039	\$3,039	\$3,039
Disability benefits	\$98,279	\$98,279	\$98,279
Death benefits	\$14,402	\$14,402	\$14,402
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$2,070,740</b>	<b>\$2,070,740</b>	<b>\$2,070,740</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$374,221	\$374,221	\$374,221
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>\$374,221</b>	<b>\$374,221</b>	<b>\$374,221</b>
<u>Due a Refund of Contributions</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$3,856,943	\$3,856,943	\$3,856,943
Disability retirements	\$88,214	\$88,214	\$88,214
Beneficiaries receiving	\$379,400	\$379,400	\$379,400
DROP participants	\$148,901	\$148,901	\$148,901
Sub-total	<b>\$4,473,458</b>	<b>\$4,473,458</b>	<b>\$4,473,458</b>
<u>Grand Total</u>	<b><u>\$6,918,419</u></b>	<b><u>\$6,918,419</u></b>	<b><u>\$6,918,419</u></b>



Present Value of Vested Benefits

Table I-F

	Old Assumptions <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<u>Actively Employed Participants</u>			
Retirement benefits	\$1,955,020	\$1,955,020	\$1,955,020
Termination benefits	\$3,039	\$3,039	\$3,039
Disability benefits	\$98,279	\$98,279	\$98,279
Death benefits	\$14,402	\$14,402	\$14,402
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$2,070,740</b>	<b>\$2,070,740</b>	<b>\$2,070,740</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$374,221	\$374,221	\$374,221
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>\$374,221</b>	<b>\$374,221</b>	<b>\$374,221</b>
<u>Due a Refund of Contributions</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$3,856,943	\$3,856,943	\$3,856,943
Disability retirements	\$88,214	\$88,214	\$88,214
Beneficiaries receiving	\$379,400	\$379,400	\$379,400
DROP participants	\$148,901	\$148,901	\$148,901
Sub-total	<b>\$4,473,458</b>	<b>\$4,473,458</b>	<b>\$4,473,458</b>
<u>Grand Total</u>	<b><u>\$6,918,419</u></b>	<b><u>\$6,918,419</u></b>	<b><u>\$6,918,419</u></b>





Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<u>Actively Employed Participants</u>			
Retirement benefits	\$2,443,948	\$2,443,948	\$2,443,948
Termination benefits	\$3,196	\$3,196	\$3,196
Disability benefits	\$119,128	\$119,128	\$119,128
Death benefits	\$17,381	\$17,381	\$17,381
Refund of employee contributions	\$0	\$0	\$0
Sub-total	<b>\$2,583,653</b>	<b>\$2,583,653</b>	<b>\$2,583,653</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$374,221	\$374,221	\$374,221
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>\$374,221</b>	<b>\$374,221</b>	<b>\$374,221</b>
<u>Due a Refund of Contributions</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$3,856,943	\$3,856,943	\$3,856,943
Disability retirements	\$88,214	\$88,214	\$88,214
Beneficiaries receiving	\$379,400	\$379,400	\$379,400
DROP participants	\$148,901	\$148,901	\$148,901
Sub-total	<b>\$4,473,458</b>	<b>\$4,473,458</b>	<b>\$4,473,458</b>
<u>Grand Total</u>	<b><u>\$7,431,332</u></b>	<b><u>\$7,431,332</u></b>	<b><u>\$7,431,332</u></b>



## GASB 25/27 Results

## Table II-A

**Development of the Net Pension Obligation (Asset)**

Net Pension Obligation (Asset) as of October 1, 2013	\$174,745
Annual Pension Cost for the 2013/14 Plan Year	\$364,160
Employer Contributions for the 2013/14 Plan Year	(\$428,556)
Net Increase (Decrease) in NPO	(\$64,396)
<b>Net Pension Obligation (Asset) as of October 1, 2014</b>	<b>\$110,349</b>



## GASB 25/27 Disclosures

## Table II-B

***Schedule of Employer Contributions***

Year Ended <u>September 30</u>	Annual Required <u>Contribution</u>	% <u>Contrib.</u>	Annual Pension <u>Cost</u>	% <u>Contrib.</u>
2009	\$289,431	100%	\$289,431	100%
2010	\$272,755	91%	\$272,755	91%
2011	\$395,830	80%	\$395,712	80%
2012	\$374,300	122%	\$371,222	123%
2013	\$428,556	64%	\$427,848	64%
2014	\$370,855	116%	\$364,160	118%

***Schedule of Funding Progress***

Actuarial Valuation Date	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability * (AAL)	(3) Unfunded AAL (UAAL) (2) – (1)	(4) Funded Ratio (1) ÷ (2)	(5) Covered Payroll	(6) UAAL as % of Covered Payroll (3) ÷ (5)
October 1, 2009	\$4,701,112	\$6,098,153	\$1,397,041	77.09%	\$865,615	161.39%
October 1, 2010	\$4,793,677	\$6,343,023	\$1,549,346	75.57%	\$709,569	218.35%
October 1, 2011	\$4,827,250	\$6,682,573	\$1,855,323	72.24%	\$723,291	256.51%
October 1, 2012	\$5,384,278	\$7,239,284	\$1,855,006	74.38%	\$505,167	367.21%
October 1, 2013	\$5,714,233	\$7,258,509	\$1,544,276	78.72%	\$366,815	421.00%
October 1, 2014	\$6,200,875	\$7,431,332	\$1,230,457	83.44%	\$386,980	317.96%

\* The AAL has been calculated under the entry age normal cost method.

**Additional Information**

Valuation Date **October 1, 2014**

Actuarial Cost Method **Aggregate**

Amortization Method **Level dollar, closed**

Remaining Amortization Period **12 years**

Asset Valuation Method **Four-year smoothed market**

Discount Rate **7.75%**

Salary Increase Rate **4.75%**





## SFAS 35 Disclosures

## Table II-C

Actuarial Present Value of Accrued Benefits

	<u>As of October 1, 2013</u>	<u>As of October 1, 2014</u>
<u>Vested Benefits</u>		
Participants currently receiving benefits	\$4,571,087	\$4,473,458
Other participants	\$2,219,729	\$2,444,961
Sub-total	<u>\$6,790,816</u>	<u>\$6,918,419</u>
<u>Non-Vested Benefits</u>	\$0	\$0
<u>Total Benefits</u>	<u><u>\$6,790,816</u></u>	<u><u>\$6,918,419</u></u>
<u>Funded Percentage</u>	86.17%	91.12%
(based on the market value of assets)		

Statement of Change in Actuarial Present Value of Accrued Benefits

<u>Actuarial Present Value as of October 1, 2013</u>	<u>\$6,790,816</u>
<u>Increase (Decrease) Due To:</u>	
Interest	\$526,288
Benefits accumulated	\$70,570
Benefits paid	(\$469,255)
Plan amendments	\$0
Changes in actuarial methods and assumptions	\$0
Net increase (decrease)	<u>\$127,603</u>
<u>Actuarial Present Value as of October 1, 2014</u>	<u><u>\$6,918,419</u></u>



## Actuarial Value of Assets

Table III-A

Market Value Rate of Return

For the 2010/11 plan year	1.05%
For the 2011/12 plan year	17.17%
For the 2012/13 plan year	11.93%
For the 2013/14 plan year	8.62%

Average return for the preceding four years  
9.53%

Actuarial Value of Assets as of October 1, 2013	\$5,714,233
Plus contributions for the 2013/14 plan year	\$458,818
Minus benefit payments and administrative expenses for the 2013/14 plan year	(\$491,929)
Minus DROP account credits	(\$22,236)
Minus advance employer contribution	\$0

Adjustment for interest at the average rate shown above,  
but restricted to an amount that keeps the actuarial value  
of assets within an 80%-120% corridor of the market value

\$541,989

**Actuarial Value of Assets as of October 1, 2014** **\$6,200,875**

Historical Actuarial Value of Assets

October 1, 2005	\$3,225,943
October 1, 2006	\$3,756,549
October 1, 2007	\$4,171,919
October 1, 2008	\$4,487,893
October 1, 2009	\$4,701,112
October 1, 2010	\$4,793,677
October 1, 2011	\$4,827,250
October 1, 2012	\$5,384,278
October 1, 2013	\$5,714,233
October 1, 2014	\$6,200,875

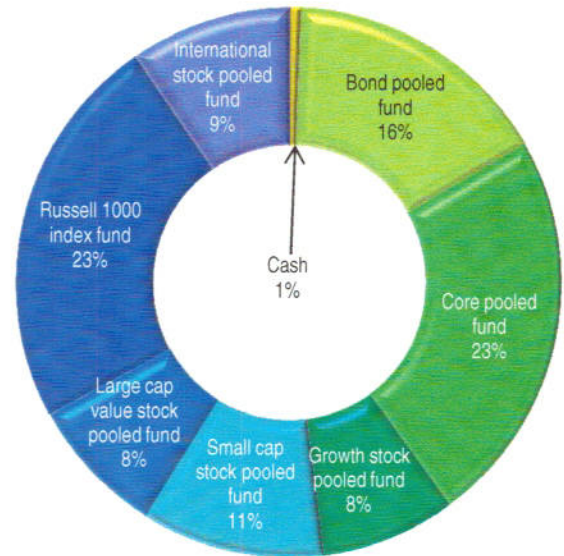


## Market Value of Assets

Table III-B

As of October 1, 2014

<b>Market Value of Assets</b>	<b><u>\$6,388,350</u></b>
Cash	\$38,292
Bond pooled fund	\$1,021,129
Core pooled fund	\$1,493,400
Growth stock pooled fund	\$510,564
Small cap stock pooled fund	\$695,644
Large cap value stock pooled fund	\$523,328
Russell 1000 index fund	\$1,493,401
International stock pooled fund	\$606,295
Employee contribution receivable	\$6,297

Historical Market Value of Assets

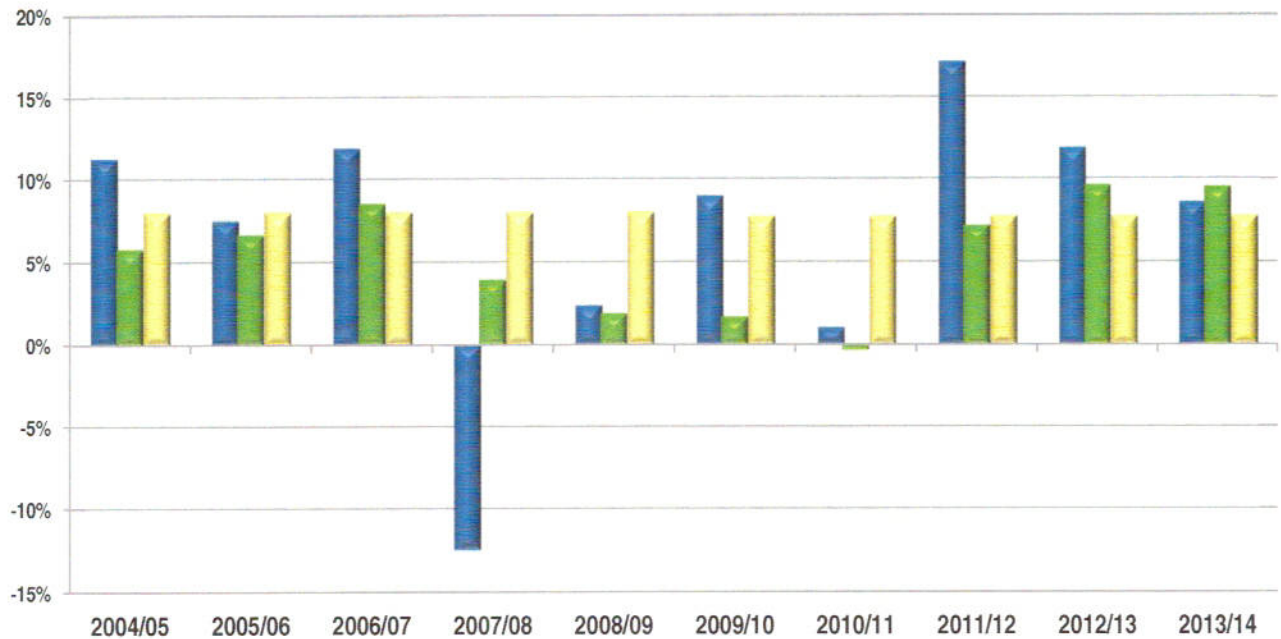
October 1, 2005	\$3,025,221
October 1, 2006	\$3,569,304
October 1, 2007	\$4,090,468
October 1, 2008	\$3,718,867
October 1, 2009	\$3,935,038
October 1, 2010	\$4,400,072
October 1, 2011	\$4,549,931
October 1, 2012	\$5,433,079
October 1, 2013	\$5,913,266
October 1, 2014	\$6,388,350





## Investment Return

Table III-C

*Annual Investment Returns*

■ Market Value Return  
■ Actuarial Value Return  
■ Assumed Return

Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2004/05	11.29%	5.81%	8.00%
2005/06	7.52%	6.67%	8.00%
2006/07	11.93%	8.56%	8.00%
2007/08	-12.46%	3.97%	8.00%
2008/09	2.39%	1.92%	8.00%
2009/10	8.99%	1.71%	7.75%
2010/11	1.05%	-0.32%	7.75%
2011/12	17.17%	7.21%	7.75%
2012/13	11.93%	9.63%	7.75%
2013/14	8.62%	9.53%	7.75%
10yr. Avg.	6.54%	5.42%	7.87%



## Asset Reconciliation

## Table III-D

	<u>Market Value</u>	<u>Actuarial Value</u>
<b>As of October 1, 2013</b>	<b>\$5,913,266</b>	<b>\$5,714,233</b>
<b><i>Increases Due To:</i></b>		
Employer Contributions	\$428,556	\$428,556
Employee Contributions	\$30,262	\$30,262
Service Purchase Contributions	\$0	\$0
Total Contributions	<u>\$458,818</u>	<u>\$458,818</u>
Interest and Dividends	\$0	
Realized Gains (Losses)	\$0	
Unrealized Gains (Losses)	<u>\$508,195</u>	
Total Investment Income	\$508,195	\$541,989
Other Income	\$0	
<b>Total Income</b>	<u><b>\$967,013</b></u>	<u><b>\$1,000,807</b></u>
<b><i>Decreases Due To:</i></b>		
Monthly Benefit Payments	(\$469,255)	(\$469,255)
Refund of Employee Contributions	\$0	\$0
DROP Credits		(\$22,236)
Total Benefit Payments	<u>(\$469,255)</u>	<u>(\$491,491)</u>
Investment Expenses	\$0	
Administrative Expenses	(\$22,674)	(\$22,674)
Advance Employer Contribution		\$0
<b>Total Expenses</b>	<u><b>(\$491,929)</b></u>	<u><b>(\$514,165)</b></u>
<b>As of October 1, 2014</b>	<u><b>\$6,388,350</b></u>	<u><b>\$6,200,875</b></u>



## Historical Trust Fund Detail

Table III-E

Income

Plan Year	Employer Contribs.	Employee Contribs.	Service Purchase Contribs.	Interest / Dividends	Realized Gains / Losses	Unrealized Gains / Losses	Other Income
2004/05	\$136,139	\$56,663	\$190,942	\$0	\$0	\$298,646	\$0
2005/06	\$254,068	\$63,837	\$207,139	\$0	\$0	\$238,955	\$0
2006/07	\$243,190	\$67,758	\$3,223	\$0	\$0	\$431,154	\$0
2007/08	\$324,935	\$67,310	\$0	\$0	\$0	-\$518,820	\$0
2008/09	\$289,431	\$67,953	\$0	\$0	\$0	\$90,144	\$254
2009/10	\$285,286	\$62,726	\$0	\$0	\$0	\$358,675	\$0
2010/11	\$294,485	\$57,237	\$0	\$0	\$0	\$47,001	-\$353
2011/12	\$438,757	\$49,153	\$75,587	\$0	\$0	\$789,085	\$0
2012/13	\$274,264	\$35,318	\$0	\$0	\$0	\$638,768	\$0
2013/14	\$428,556	\$30,262	\$0	\$0	\$0	\$508,195	\$0

Expenses

Plan Year	Monthly Benefit Payments	Contrib. Refunds	Admin. Expenses	Invest. Expenses	<u>Other Actuarial Adjustments</u>	
					DROP Credits	Advance Employer Contribs.
2004/05	\$204,150	\$0	\$14,609	\$0	\$0	\$0
2005/06	\$203,485	\$0	\$16,431	\$0	\$0	\$0
2006/07	\$209,082	\$0	\$15,079	\$0	\$0	\$0
2007/08	\$226,724	\$0	\$18,302	\$0	\$0	\$0
2008/09	\$218,387	-\$49	\$13,273	\$0	\$0	\$0
2009/10	\$224,869	\$0	\$16,784	\$0	\$55,836	\$38,222
2010/11	\$231,350	\$0	\$17,161	\$0	\$75,880	-\$21,785
2011/12	\$450,909	\$0	\$18,525	\$0	-\$91,170	-\$16,437
2012/13	\$445,948	\$0	\$22,215	\$0	\$21,397	\$0
2013/14	\$469,255	\$0	\$22,674	\$0	\$22,236	\$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 III-F

**DROP Account Reconciliation**

DROP Balance as of October 1, 2013	\$61,943
DROP Benefit Credits	\$15,734
DROP Investment Credits	\$6,502
DROP Benefits Paid Out	\$0
Net DROP Credit	\$22,236
DROP Balance as of October 1, 2014	<u>\$84,179</u>

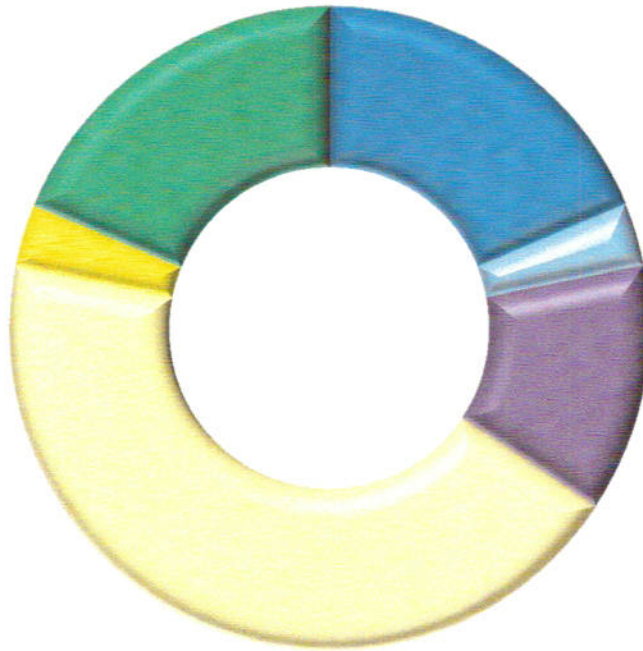
**Advance Employer Contribution**

Advance Employer Contribution as of October 1, 2013	\$0
Additional Employer Contribution	\$428,556
Minimum Required Contribution	(\$428,556)
Net Increase in Advance Employer Contribution	\$0
Advance Employer Contribution as of October 1, 2014	<u>\$0</u>



## Summary of Participant Data

Table IV-A

**As of October 1, 2014**Actively Employed Participants

Active Participants	6
DROP Participants	1

Inactive Participants

Deferred Vested Participants	4
Due a Refund of Contributions	0
Deferred Beneficiaries	0

Participants Receiving a Benefit

Service Retirements	14
Disability Retirements	1
Beneficiaries Receiving	6

**Total Participants 32**Number of Participants Included in Prior Valuations

	<i>Active</i>	<i>DROP</i>	<i>Inactive</i>	<i>Retired</i>	<i>Total</i>
October 1, 2005	15	0	4	16	35
October 1, 2006	14	0	4	17	35
October 1, 2007	13	0	4	18	35
October 1, 2008	13	0	3	16	32
October 1, 2009	13	0	3	16	32
October 1, 2010	10	2	3	17	32
October 1, 2011	10	2	3	17	32
October 1, 2012	8	1	4	19	32
October 1, 2013	6	1	4	21	32
October 1, 2014	6	1	4	21	32



## Data Reconciliation

Table IV-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, 2013</u>	6	1	4	0	0	14	1	6	32
<u>Change in Status</u>									
Re-employed									
Terminated									
Retired									
<u>Participation Ended</u>									
Transferred Out									
Cashed Out									
Died									
<u>Participation Began</u>									
Newly Hired									
Transferred In									
New Beneficiary									
<u>Other Adjustment</u>									
<u>October 1, 2014</u>	6	1	4	0	0	14	1	6	32



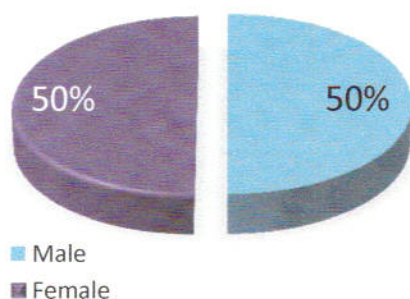


## Active Participant Data

Table IV-C

As of October 1, 2014

## Gender Mix



Average Age	56.2 years
Average Service	25.8 years
Total Annualized Compensation for the Prior Year	\$378,276
Total Expected Compensation for the Current Year	\$386,980
Average Increase in Compensation for the Prior Year	5.53%
Expected Increase in Compensation for the Current Year	4.75%
Accumulated Contributions for Active Employees	\$839,664



## Actual vs. Expected Salary Increases

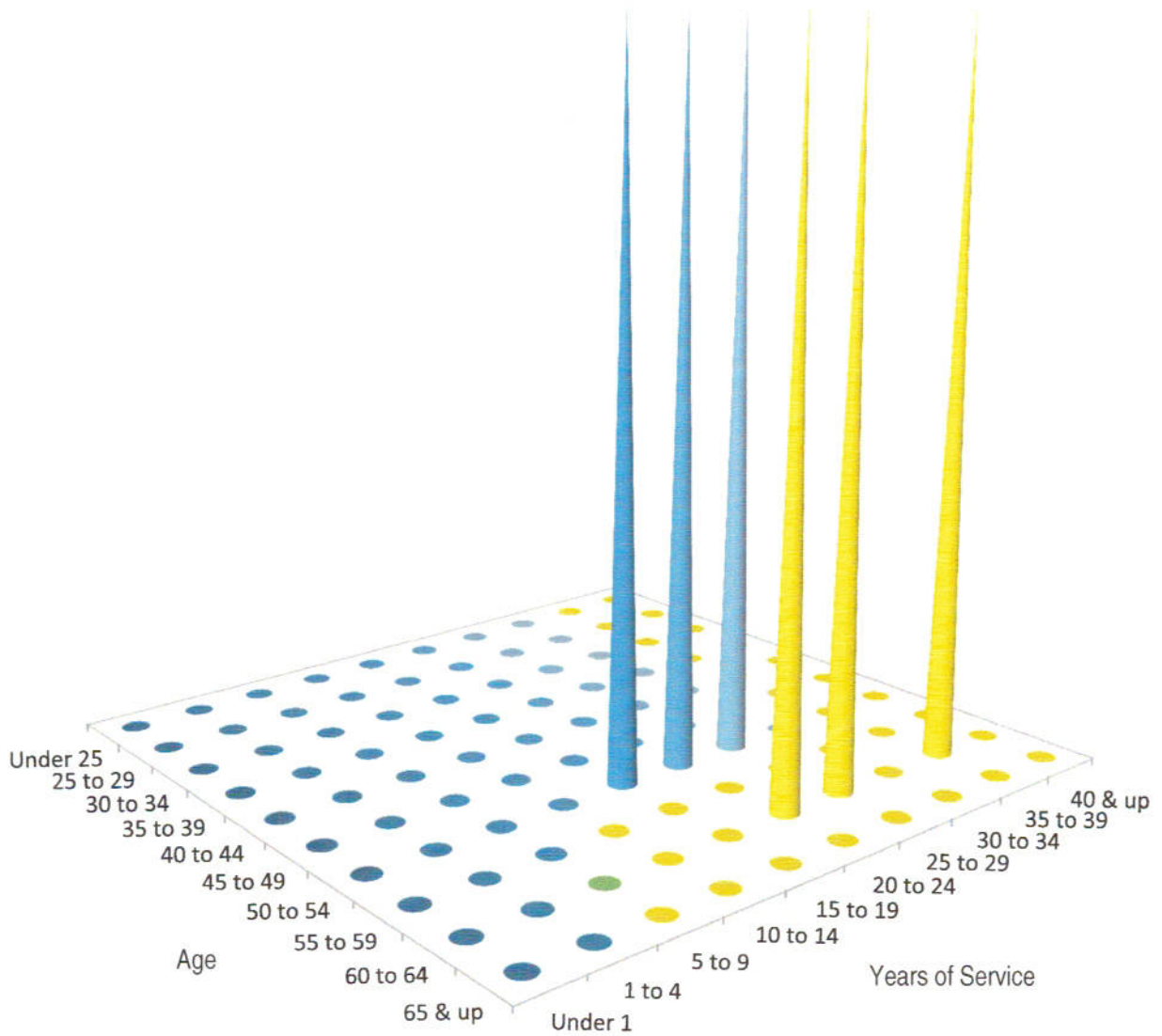
## Active Participant Statistics From Prior Valuations

	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
October 1, 2005	52.7	16.8	\$46,201	5.00%	9.57%
October 1, 2006	53.0	16.8	\$55,902	5.00%	9.43%
October 1, 2007	53.0	17.6	\$62,004	5.00%	9.28%
October 1, 2008	54.0	18.6	\$64,722	5.00%	4.38%
October 1, 2009	54.8	19.5	\$65,340	5.00%	1.24%
October 1, 2010	53.6	20.9	\$69,719	4.75%	3.15%
October 1, 2011	54.6	21.9	\$71,104	4.75%	2.43%
October 1, 2012	54.9	22.4	\$61,826	4.75%	-1.76%
October 1, 2013	55.2	24.8	\$60,127	4.75%	-0.03%
October 1, 2014	56.2	25.8	\$63,046	4.75%	5.53%



# Active Age-Service Distribution

Table IV-D



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



Active Age-Service-Salary Table

Table IV-E

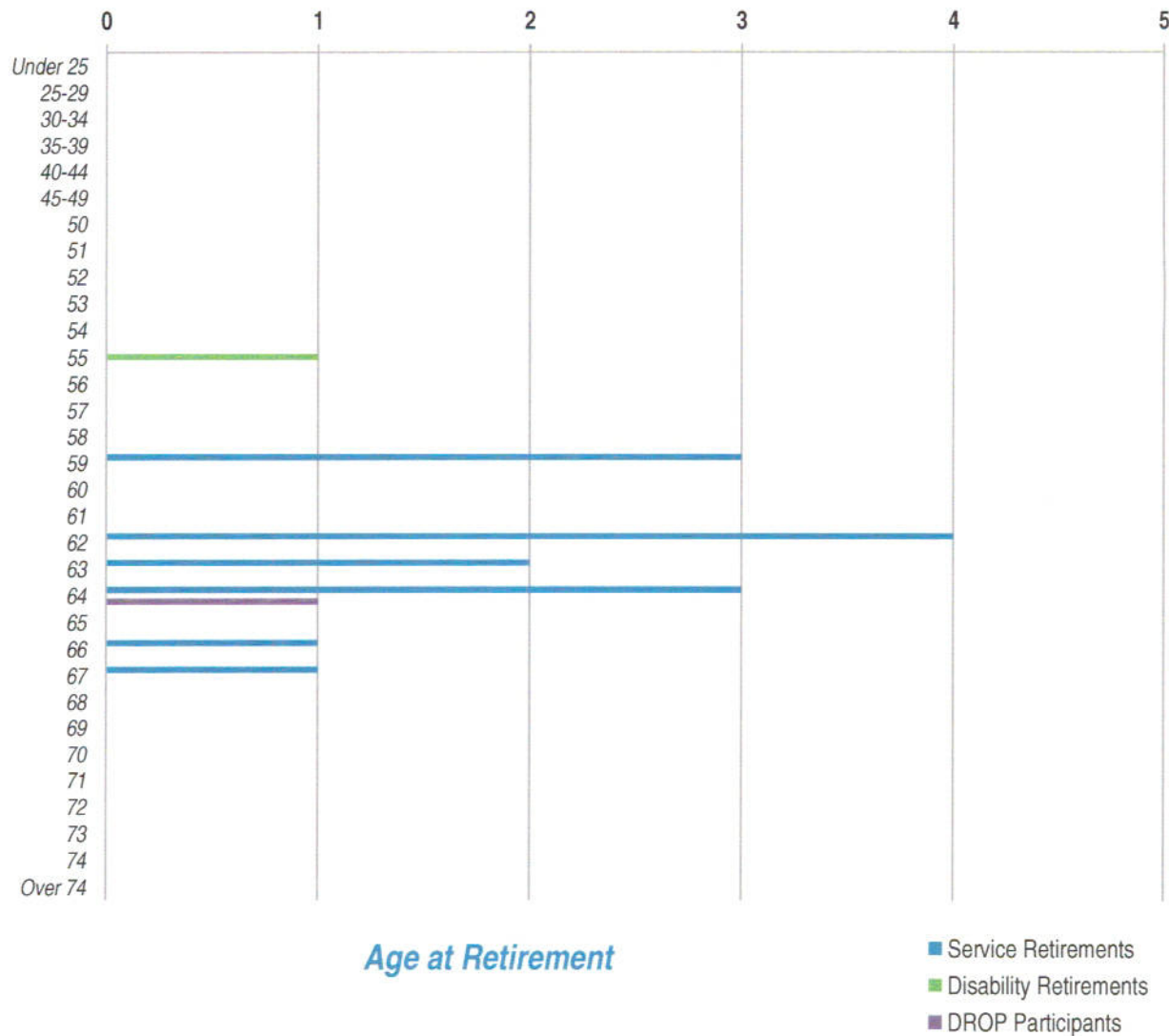
Attained Age	Completed Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
50 to 54	0	0	0	0	1	1	1	0	0	0	3
Avg. Pay	0	0	0	0	47,286	81,148	51,798	0	0	0	60,077
55 to 59	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
60 to 64	0	0	0	0	0	1	1	0	1	0	3
Avg. Pay	0	0	0	0	0	92,202	48,434	0	57,408	0	66,015
65 & up	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	2	2	0	1	0	6
Avg. Pay	0	0	0	0	47,286	86,675	50,116	0	57,408	0	63,046





## Inactive Participant Data

Table IV-F

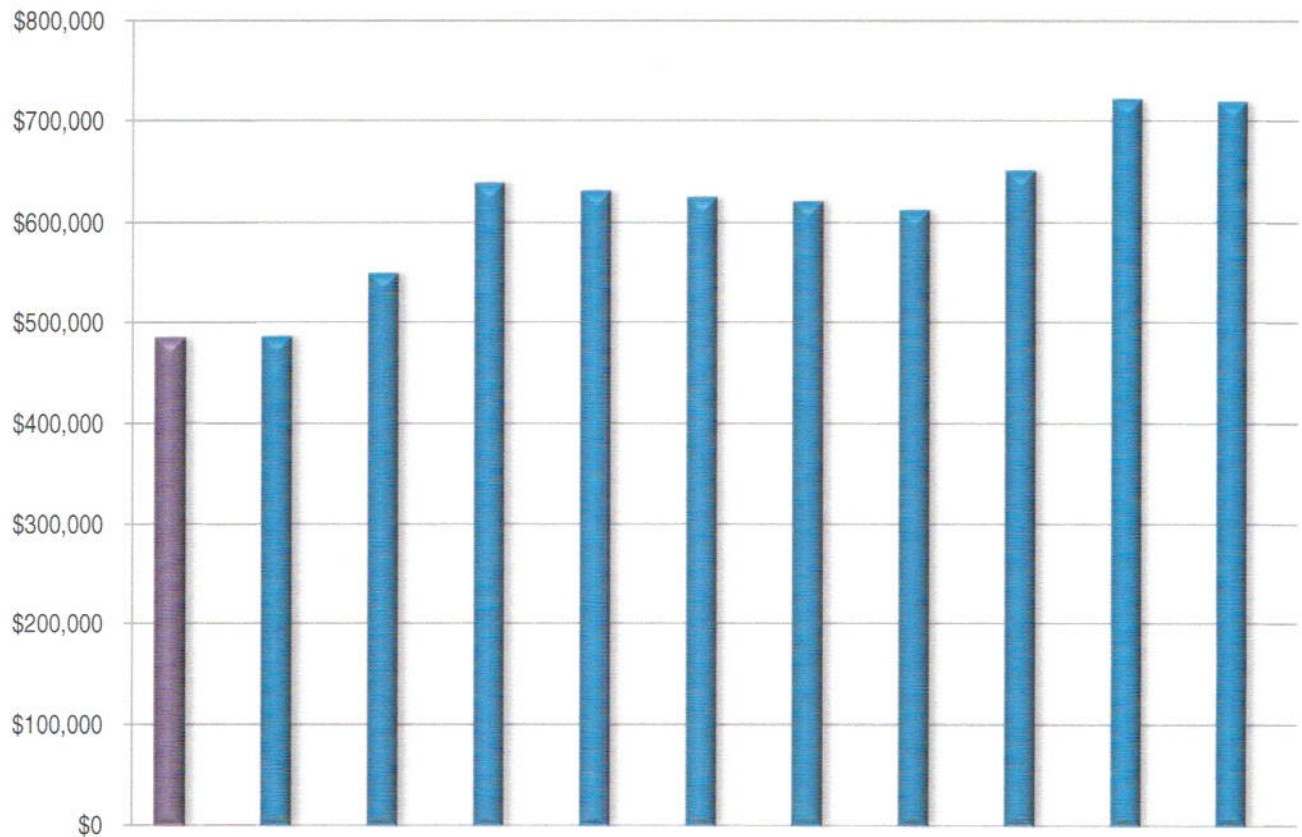
Average Monthly Benefit

Service Retirements	\$2,404.75
Disability Retirements	\$979.64
Beneficiaries Receiving	\$743.08
DROP Participants	\$1,311.14
Deferred Vested Participants	\$1,242.28
Deferred Beneficiaries	Not applicable



## Projected Benefit Payments

Table IV-G

Actual

For the period October 1, 2013 through September 30, 2014

\$484,989

Projected

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

\$486,434

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

\$550,336

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

\$639,971

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

\$632,231

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

\$625,437

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

\$621,746

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

\$612,790

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

\$651,707

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

\$721,672

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

\$719,248



## Summary of Actuarial Methods and Assumptions

Table V-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 prior year's actuarial value of assets adjusted for contributions, benefit payments, and expenses and further adjusted by the average return on the market value of assets for the preceding four years; the actuarial value of assets is restricted to 80% to 120% of the market value.

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

7.75% per annum

4. **Salary Increases**

Plan compensation is assumed to increase at the rate of 4.75% per annum, unless actual plan compensation is known for a prior plan year.

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.
- Disability: Sex-distinct rates set forth in the Wyatt 1985 Disability Study (Class 1); No disabilities are assumed to be service-related.





## Summary of Actuarial Methods and Assumptions

Table V-A

(continued)

- Termination: Sex-distinct rates set forth in the Scale 155 Table
- Retirement: Retirement is assumed to occur upon the attainment of age 62 with at least five years of service, except that those participants who have attained their normal retirement age as of the valuation date are assumed to retire one year after the valuation date. Alternatively, participants who have earned at least 35 years of service are assumed to retire at the rate of 5.00% per annum and participants who have attained age 55 with between 10 years of service and 35 years of service are assumed to retire at the rate of 2.50% per annum.

**6. Form of Payment**

Future retirees have been assumed to select the 10-year certain and life annuity.

**7. Beneficiary Age and Gender**

Where beneficiary information is unavailable, beneficiaries have been assumed to be of the opposite gender of the participant, with males assumed to be three years older than females.

**8. Expenses**

Administrative expenses are assumed to be 1.75% of future payroll. In addition, the interest rate set forth in item 4. above is assumed to be net of investment expenses and commissions.



## Changes in Actuarial Methods and Assumptions

Table V-B

No assumptions or methods have been changed since the previous valuation was completed.



# Summary of Plan Provisions

## Table VI-A

### 1. Benefit Formula

3% of Average Monthly Earnings multiplied by Credited Service earned prior to October 1, 2010 or after September 30, 2013 plus 2% of Average Monthly Earnings multiplied by Credited Service earned during the period October 1, 2010 through September 30, 2013 (§46-33(b)(1))

### 2. Service Retirement

Normal retirement: Age 62 with at least five years of participation (§46-33(a)(1))

Early retirement: Any age with at least 35 years of credited service; or  
Age 55 with at least 10 years of credited service  
(§46-33(a)(2))

*(Note: In the case of early retirement, the participant's benefit is reduced by  $\frac{1}{15}$  for each of the first five years plus  $\frac{1}{30}$  for each of the next five years by which the participant's early retirement age precedes his normal retirement age.) (§46-33(b)(2))*

### 3. Disability Retirement

Service-based disability: Participant must be disabled during the course of his employment with the City.  
(§46-33(c)(1))

Non-service disability: Participant must have earned at least 10 years of credited service. (§46-33(c)(1))

The disability benefit is a monthly 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. A partial month's payment is made to cover the period between the date of the Board's approval and the end of the month.  
(§46-33(c)(4),(5),&(6))

*(A participant is disabled if he is found to be mentally or physically incapacitated so as to be wholly unable to properly perform his duties as an employee of the City and is likely to remain so disabled continuously and permanently. 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 a self-inflicted injury.) (§§46-33(c)(1)&(2))*





# Summary of Plan Provisions

## Table VI-A

(continued)

### 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 actuarially reduced to account for the earlier commencement of the benefit. (§46-33(e)(1))

A non-vested participant who terminates employment receives his accumulated contributions. (§46-33(e)(2))

### 5. Vesting

A participant becomes 100% vested upon the attainment of five years of credited service. For this purpose, service includes service earned under the City of Satellite Beach Police Officers' and Firefighters' Retirement System. (§46-33(e)(1))

### 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. At the beneficiary's election and upon approval by the Board of Trustees, an actuarially equivalent benefit is payable at any time following the participant's death. In any event, the pre-retirement death benefit guarantees at least the return of the participant's accumulated contributions. (§46-33(d))

If a non-vested participant dies prior to retirement, the participant's beneficiary receives the participant's accumulated contributions. (§46-33(d)(1))

### 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 with a relative as the joint annuitant (*optional*);

Actuarially reduced 66⅔% joint and contingent annuity with a relative as the joint annuitant (*optional*);

Actuarially reduced 75% joint and contingent annuity with a relative as the joint annuitant (*optional*);



# Summary of Plan Provisions

## Table VI-A

(continued)

Actuarially reduced 100% joint and contingent annuity with a relative as the joint annuitant (*optional*); or

Any other actuarially equivalent form of payment approved by the Board of Trustees (*optional*)

(Note: All forms of payment guarantee at least the return of the participant's accumulated contributions.)

(§46-33(b)(1), §46-34, & §46-35(a)(2))

### 8. Average Monthly Earnings

Average monthly earnings during the highest consecutive three years out of the 10 years immediately preceding the determination. Earnings include base pay, commissions, bonuses, maintenance pay, and overtime pay, but exclude accrued sick leave and vacation pay. Earnings cannot exceed the maximum amount allowed under IRC section 401(a)(17). (§46-31)

### 9. Credited Service

The service, expressed in years and completed months, from the participant's date of hire until his date of termination, retirement, or death, excluding periods during which the participant does not make the required employee contribution. Participants may also purchase up to five years of credited service for previous employment with any federal, state, county, or city government, including military service, by paying into the plan the full actuarial cost thereof, provided that no other retirement benefit is paid for such service. Payment for purchased service must be made within a period of time equal to the length of service being purchased. Where part-time service is purchased, the additional credited service granted is pro-rated accordingly. (§46-31 & §46-42(b))

### 10. Employee Contribution

Employees must contribute 8.00% of earnings and such contributions are accumulated with interest at the rate of 5.50% per annum. (§46-31)

### 11. City Contribution

The City is required to make quarterly contributions as determined in the most recent actuarial valuation of the retirement system. (§46-35(b))





# Summary of Plan Provisions

## Table VI-A

(continued)

### 12. Deferred Retirement Option Plan (DROP)

A DROP is available to those participants who are at least age 57 and who have attained their early or normal retirement age, whereby the participant's monthly retirement benefit is accumulated on his behalf in a DROP account while he continues in active employment with the City. Individuals may participate in the DROP for a period of 12 to 60 months and neither earn additional benefits nor make the required employee contribution during the period of their DROP participation. DROP participants are considered to be retired for all other purposes under the plan and are not eligible for disability or pre-retirement death benefits. DROP accounts earn interest equal to the investment return realized by the market value of assets. (§46-41)

### 13. Participant Requirement

Only those individuals who were participants in the plan as of September 30, 1996 are eligible to continue their participation after that date. However, the City Manager was allowed to enter the plan on July 31, 2005 by contributing 50.1% of the cost of his past service credit. (§46-32(a) & §46-42(a))

### 14. Actuarial Equivalence

Based on 8.00% interest per annum and the 1984 Uninsured Pensioner Mortality Table (§46-31)

### 15. Retiree Increases

Retirement benefits in payment status on October 1, 1997 were increased by 1.00%. (§46-33(b)(3))

### 16. Plan Effective Date

The plan was originally effective on May 22, 1973.

### 17. Special Retirement Window

A special retirement window was available to participants who had attained age 59 with at least 25 years of service as of June 1, 2012 whereby the participant was eligible to receive a normal retirement benefit effective July 1, 2012 provided that the participant applied for retirement within 10 days following the passage of the ordinance.





## Summary of Plan Amendments

## Table VI-B

Since the completion of the previous valuation, Ordinance No. 1083 was adopted to be effective January 15, 2014. This amendment eliminated the 0.1875% daily administrative charge on the DROP accounts retroactively for the period December 6, 2004 through July 3, 2013. The amendment had no actuarial impact on the plan.

