

CITY OF INDIAN HARBOUR BEACH  
POLICE OFFICERS' SUPPLEMENTAL PENSION PLAN

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2018

DETERMINES THE CONTRIBUTION  
FOR THE 2018/19 FISCAL YEAR



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GASB 67/68 Supplement as of September 30, 2018

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January 29, 2019

## Introduction

This report presents the results of the October 1, 2018 actuarial valuation for the City of Indian Harbour Beach Police Officers' Supplemental Pension Plan. 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, 2018 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2018/19 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 normal cost rate.

## Minimum Required Contribution

Table I-A shows the development of the minimum required contribution for the 2018/19 plan year. The minimum required contribution rate is 3.83% of covered payroll, which represents an increase of 1.91% of payroll from the prior valuation.

The normal cost rate is 3.67%, which is 1.83% 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 decreased by 0.06% of payroll due to investment gains, decreased by another 0.17% of payroll due to demographic experience, increased by 1.08% of payroll due to the plan amendment that is described below, and increased by another 0.98% of payroll due to the assumption change that is described below. The market value of





assets earned 7.58% during the 2017/18 plan year, whereas a 7.00% 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 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 2018/19 minimum required contribution will be equal to 3.83% multiplied by the total pensionable earnings for the 2018/19 fiscal year for the active employees who are covered by the plan.

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 \$525,450. As illustrated in Table I-A, current assets are sufficient to cover \$197,427 of this amount and the employer's 2018/19 expected contribution will cover \$37,674 of this amount, leaving \$290,349 to be covered by future employer funding beyond the 2018/19 fiscal year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

## Advance Employer Contribution

The City has made contributions to the plan in excess of the minimum amount that was required to be contributed pursuant to Chapter 112. In this report, the excess contributions are referred to as an "advance employer contribution." As of October 1, 2018, the advance employer contribution is \$75,376, which is equal to the advance employer contribution as of October 1, 2017 plus \$14,201 of actual employer contributions in excess of the minimum required contribution for the 2017/18 plan year as shown in Table II-F.

The City may apply all or any portion of the advance employer contribution towards the minimum required contribution for the 2018/19 plan year or for any later plan year. The minimum required contribution for that plan year will be reduced dollar-for-dollar by the amount of the advance employer contribution that is applied in this manner.

Alternatively, at any time, the City may apply all or any portion of the advance employer contribution as an *extra* contribution in excess of the minimum required contribution. In this case, the immediate application of the entire balance of the advance employer contribution as of October 1, 2018 would reduce the normal cost rate to 2.83% of payroll and would reduce the minimum required contribution for the 2018/19 plan year to 2.95% of payroll.

## 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. 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, 2018, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

### Plan Amendment

Since the previous valuation was prepared, the plan has been amended with respect to those individuals who retire after October 1, 2016 to increase the benefit formula from \$60.00 for each year of service to \$84.00 for each of the first 10 years of service plus \$120.00 for each year of service in excess of 10 years, to a maximum benefit of \$2,400.00 per year. In addition, the normal form of payment has been changed from a single life annuity to a 10-year certain and life annuity for those individuals who retire after September 30, 2009.

### Assumption Change

An administrative expense assumption has been added equal to a 20% loading of the present value of future benefits.

### 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. 17-04927

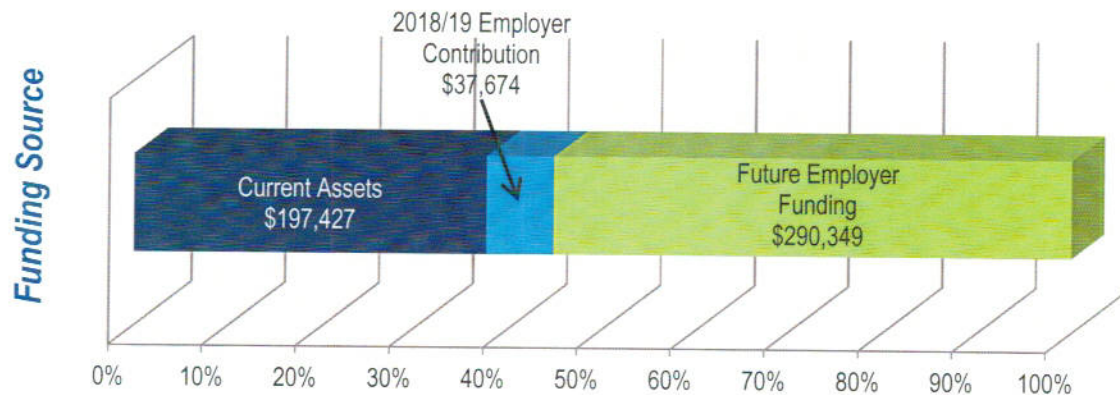
*The individual above is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.*





## Minimum Required Contribution

Table I-A



### For the 2018/19 Plan Year

Present Value of Future Benefits	\$437,875
Present Value of Future Administrative Expenses	\$87,575
Actuarial Value of Assets	(\$197,427)
Present Value of Future Employee Contributions	\$0
Present Value of Future Normal Costs	\$328,023
Present Value of Future Payroll	÷ \$8,935,398
Normal Cost Rate	= 3.6711%
Expected Payroll	x \$983,938
Normal Cost	\$36,121
Adjustment to Reflect Quarterly Employer Contributions	\$1,553
Preliminary Employer Contribution for the 2018/19 Plan Year	\$37,674
Expected Payroll for the 2018/19 Plan Year	÷ \$983,938

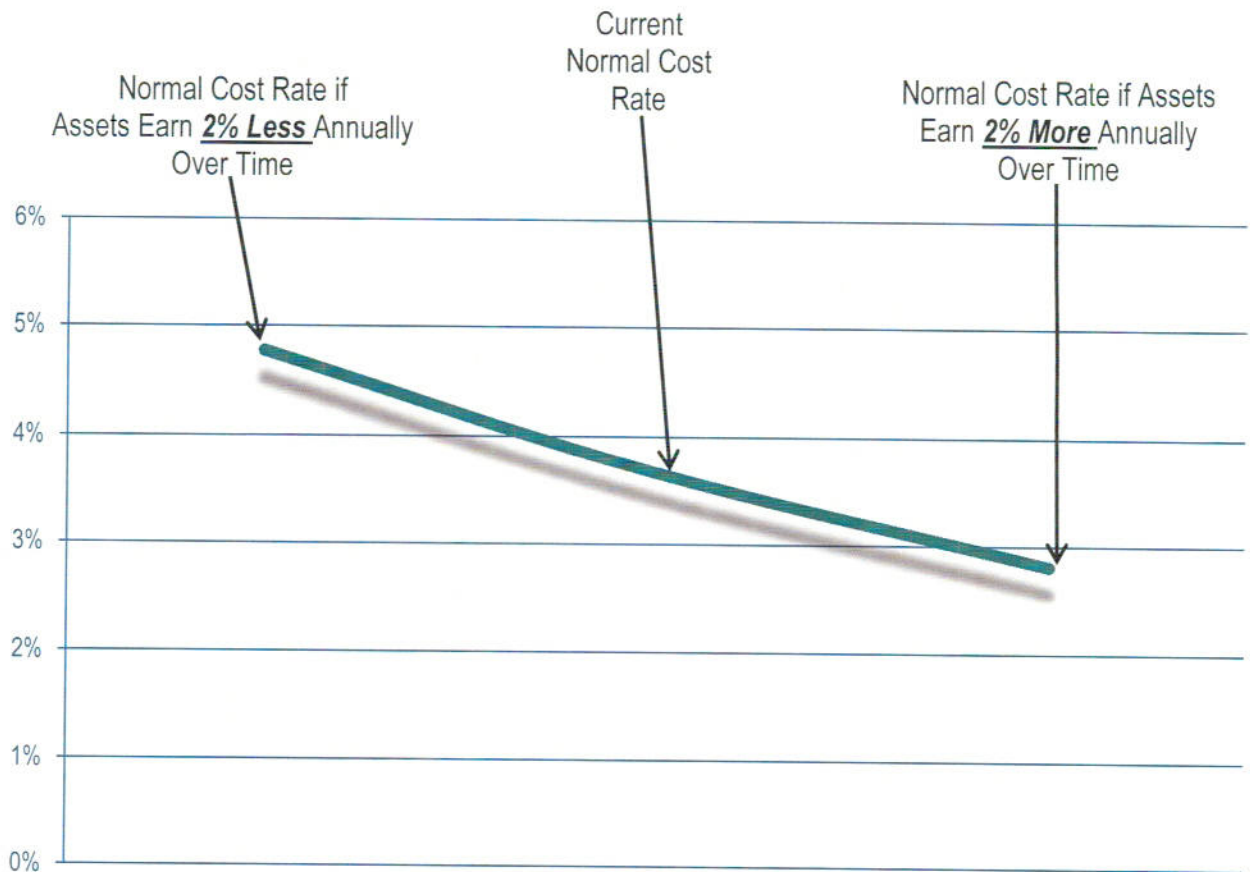
**Minimum Required Contribution Rate** 3.83%

*(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	1.84%
Increase (decrease) due to investment gains and losses	-0.06%
Increase (decrease) due to demographic experience	-0.17%
Increase (decrease) due to plan amendments	1.08%
Increase (decrease) due to actuarial assumption changes	0.98%
Increase (decrease) due to actuarial method changes	0.00%
Current normal cost rate	<u>3.67%</u>





## Present Value of Future Benefits

Table I-D

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$148,118	\$228,747	\$228,747
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>\$148,118</b>	<b>\$228,747</b>	<b>\$228,747</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$28,318	\$28,318	\$28,318
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>\$28,318</b>	<b>\$28,318</b>	<b>\$28,318</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	\$180,810	\$180,810	\$180,810
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$180,810</b>	<b>\$180,810</b>	<b>\$180,810</b>
<u>Grand Total</u>	<b><u>\$357,246</u></b>	<b><u>\$437,875</u></b>	<b><u>\$437,875</u></b>
Present Value of Future Payroll	\$8,935,398	\$8,935,398	\$8,935,398
Present Value of Future Employee Contribs.	\$0	\$0	\$0
Present Value of Future Employer Contribs.	\$231,268	\$328,023	\$328,023



## Present Value of Accrued Benefits

Table I-E

	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	\$92,803	\$144,236	\$144,236
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>\$92,803</b>	<b>\$144,236</b>	<b>\$144,236</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$28,318	\$28,318	\$28,318
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>\$28,318</b>	<b>\$28,318</b>	<b>\$28,318</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	\$180,810	\$180,810	\$180,810
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$180,810</b>	<b>\$180,810</b>	<b>\$180,810</b>
<u>Grand Total</u>	<b><u>\$301,931</u></b>	<b><u>\$353,364</u></b>	<b><u>\$353,364</u></b>
<u>Funded Percentage</u>	90.35%	77.20%	77.20%

(Note: Funded percentage is equal to the ratio of the usable portion of the market value of assets divided by the present value of accrued benefits.)

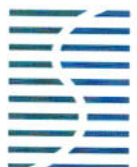




## Present Value of Vested Benefits

Table I-F

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$92,803	\$144,236	\$144,236
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>\$92,803</b>	<b>\$144,236</b>	<b>\$144,236</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$28,318	\$28,318	\$28,318
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>\$28,318</b>	<b>\$28,318</b>	<b>\$28,318</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	\$180,810	\$180,810	\$180,810
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$180,810</b>	<b>\$180,810</b>	<b>\$180,810</b>
<u>Grand Total</u>	<b><u>\$301,931</u></b>	<b><u>\$353,364</u></b>	<b><u>\$353,364</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	\$98,082	\$155,615	\$155,615
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>\$98,082</b>	<b>\$155,615</b>	<b>\$155,615</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$28,318	\$28,318	\$28,318
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>\$28,318</b>	<b>\$28,318</b>	<b>\$28,318</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	\$180,810	\$180,810	\$180,810
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$180,810</b>	<b>\$180,810</b>	<b>\$180,810</b>
<u>Grand Total</u>	<b><u>\$307,210</u></b>	<b><u>\$364,743</u></b>	<b><u>\$364,743</u></b>





## Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2018	\$272,803
Minus advance employer contributions	(\$75,376)
<b>Actuarial Value of Assets as of October 1, 2018</b>	<b><u>\$197,427</u></b>

**Historical Actuarial Value of Assets**

October 1, 2009	\$0
October 1, 2010	\$29,138
October 1, 2011	\$42,127
October 1, 2012	\$67,500
October 1, 2013	\$96,065
October 1, 2014	\$115,439
October 1, 2015	\$125,496
October 1, 2016	\$147,043
October 1, 2017	\$182,508
October 1, 2018	\$197,427

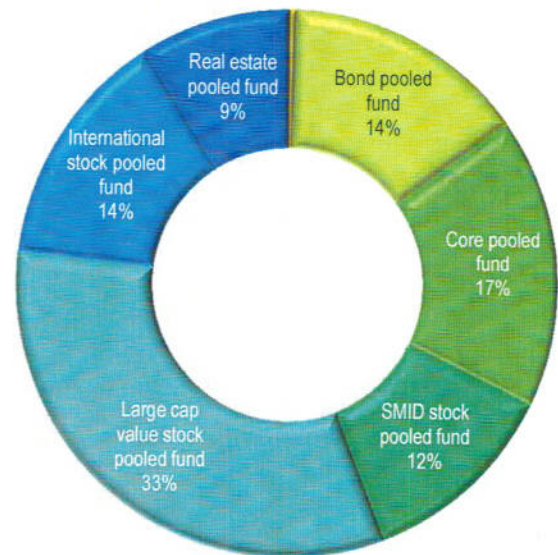


## Market Value of Assets

Table II-B

As of October 1, 2018

<b>Market Value of Assets</b>	<b><u>\$272,803</u></b>
Cash	\$1,091
Bond pooled fund	\$39,556
Core pooled fund	\$46,923
SMID stock pooled fund	\$32,736
Large cap value stock pooled fund	\$89,207
International stock pooled fund	\$38,738
Real estate pooled fund	\$24,552

**Historical Market Value of Assets**

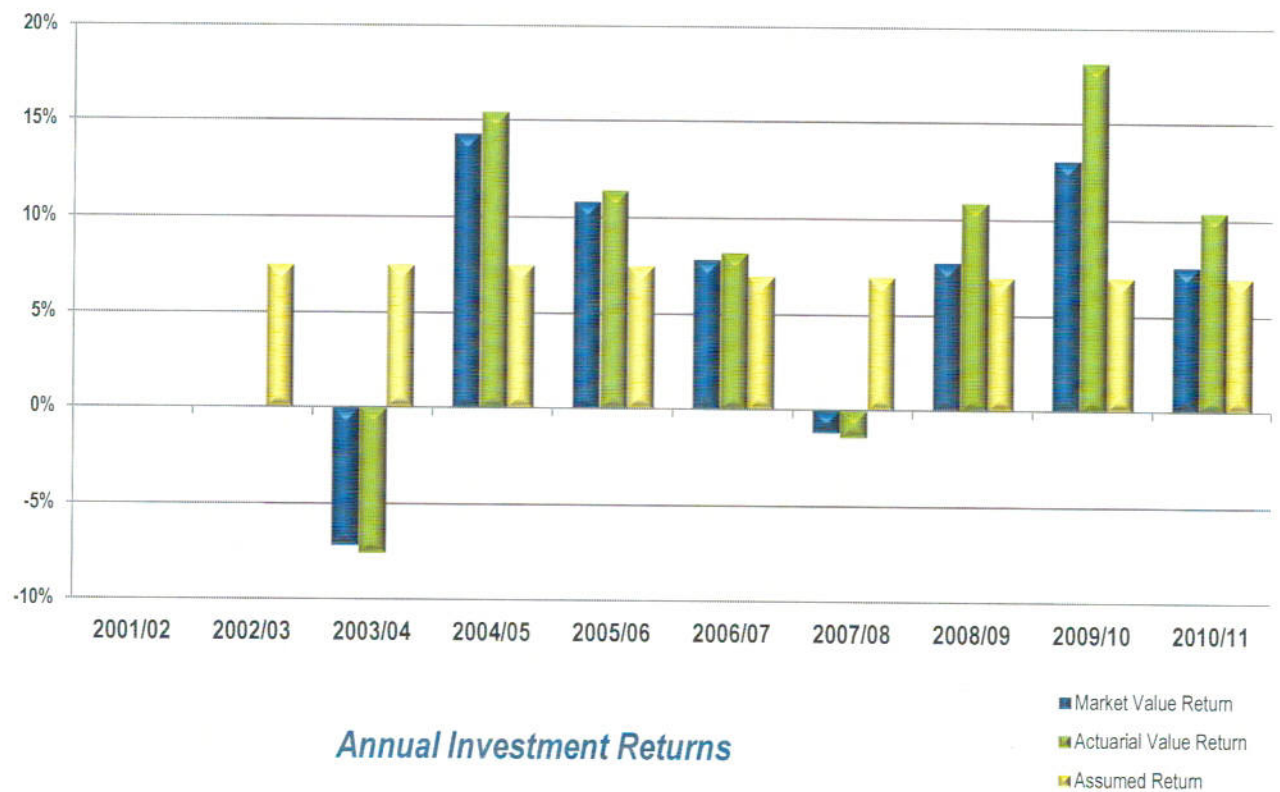
October 1, 2009	\$0
October 1, 2010	\$29,138
October 1, 2011	\$46,386
October 1, 2012	\$71,633
October 1, 2013	\$100,198
October 1, 2014	\$120,128
October 1, 2015	\$173,381
October 1, 2016	\$202,859
October 1, 2017	\$243,683
October 1, 2018	\$272,803





## Investment Return

Table II-C



Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2008/09	N/A	N/A	N/A
2009/10	0.00%	0.00%	7.50%
2010/11	-7.12%	-7.53%	7.50%
2011/12	14.27%	15.45%	7.50%
2012/13	10.85%	11.43%	7.50%
2013/14	7.88%	8.23%	7.00%
2014/15	-1.17%	-1.43%	7.00%
2015/16	7.78%	10.90%	7.00%
2016/17	13.08%	18.15%	7.00%
2017/18	7.58%	10.45%	7.00%
9yr. Avg.	5.68%	6.99%	7.22%



## Asset Reconciliation

Table II-D

	<u>Market Value</u>	<u>Actuarial Value</u>
As of October 1, 2017	\$243,683	\$182,508
<i>Increases Due To:</i>		
Employer Contributions	\$35,955	\$35,955
Employee Contributions	\$0	\$0
Service Purchase Contributions	\$0	\$0
Total Contributions	<u>\$35,955</u>	<u>\$35,955</u>
Interest and Dividends	\$0	
Realized Gains (Losses)	\$0	
Unrealized Gains (Losses)	\$18,869	
Total Investment Income	<u>\$18,869</u>	\$18,869
Other Income	\$0	
Total Income	<u>\$54,824</u>	<u>\$54,824</u>
<i>Decreases Due To:</i>		
Annual Benefit Payments	(\$15,800)	(\$15,800)
Refund of Employee Contributions	\$0	\$0
Total Benefit Payments	<u>(\$15,800)</u>	<u>(\$15,800)</u>
Investment Expenses	\$0	
Administrative Expenses	(\$9,904)	(\$9,904)
Advance Employer Contribution		(\$14,201)
Total Expenses	<u>(\$25,704)</u>	<u>(\$39,905)</u>
As of October 1, 2018	<u>\$272,803</u>	<u>\$197,427</u>



## Historical Trust Fund Detail

Table II-E

Income

Plan Year	Employer Contribs.	Chapter Contribs.	Employee Contribs.	Service Purchase Contribs.	Interest / Dividends	Realized Gains / Losses	Unrealized Gains / Losses	Other Income
2008/09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2009/10	\$36,398	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2010/11	\$40,367	\$0	\$0	\$0	\$0	\$0	-\$2,787	\$0
2011/12	\$27,298	\$0	\$0	\$0	\$0	\$0	\$7,860	\$0
2012/13	\$28,747	\$0	\$0	\$0	\$0	\$0	\$8,839	\$0
2013/14	\$26,298	\$0	\$0	\$0	\$0	\$0	\$8,356	\$0
2014/15	\$68,454	\$0	\$0	\$0	\$0	\$0	-\$1,731	\$0
2015/16	\$35,117	\$0	\$0	\$0	\$0	\$0	\$14,089	\$0
2016/17	\$30,984	\$0	\$0	\$0	\$0	\$0	\$27,414	\$0
2017/18	\$35,955	\$0	\$0	\$0	\$0	\$0	\$18,869	\$0

Expenses

Plan Year	Annual Benefit Payments	Contrib. Refunds	Admin. Expenses	Invest. Expenses	Other Actuarial Adjustments DROP Credits	Advance Employer Contribs.
2008/09	N/A	N/A	N/A	N/A	N/A	N/A
2009/10	\$7,260	\$0	\$0	\$0	\$0	\$0
2010/11	\$20,299	\$0	\$33	\$0	\$0	\$4,259
2011/12	\$6,360	\$0	\$3,551	\$0	\$0	-\$126
2012/13	\$7,875	\$0	\$1,146	\$0	\$0	\$0
2013/14	\$8,460	\$0	\$6,264	\$0	\$0	\$556
2014/15	\$12,230	\$0	\$1,240	\$0	\$0	\$43,196
2015/16	\$12,180	\$0	\$7,548	\$0	\$0	\$7,931
2016/17	\$13,005	\$0	\$4,569	\$0	\$0	\$5,359
2017/18	\$15,800	\$0	\$9,904	\$0	\$0	\$14,201

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.



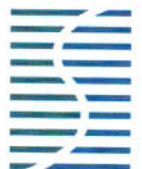


## Other Reconciliations

Table II-F

*Advance Employer Contribution*

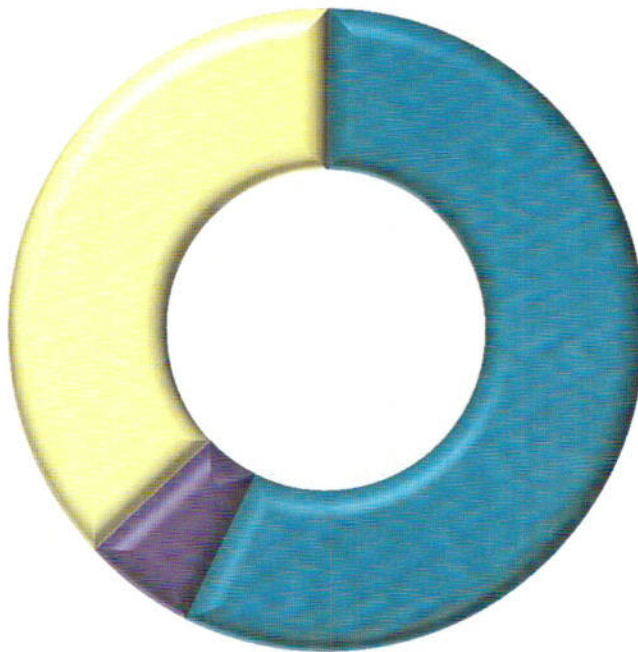
Advance Employer Contribution as of October 1, 2017	\$61,175
Additional Employer Contribution	\$35,955
Minimum Required Contribution	(\$21,754)
Net Increase in Advance Employer Contribution	\$14,201
Advance Employer Contribution as of October 1, 2018	<u>\$75,376</u>



## Summary of Participant Data

Table III-A

As of October 1, 2018

Actively Employed Participants

Active Participants	20
DROP Participants	0

Inactive Participants

Deferred Vested Participants	2
Due a Refund of Contributions	0
Deferred Beneficiaries	0

Participants Receiving a Benefit

Service Retirements	13
Disability Retirements	0
Beneficiaries Receiving	0

**Total Participants 35**Number of Participants Included in Prior Valuations

	Active	DROP	Inactive	Retired	Total
October 1, 2009	19	0	1	6	26
October 1, 2010	N/A	N/A	N/A	N/A	N/A
October 1, 2011	19	0	1	5	25
October 1, 2012	N/A	N/A	N/A	N/A	N/A
October 1, 2013	19	0	2	7	28
October 1, 2014	N/A	N/A	N/A	N/A	N/A
October 1, 2015	19	0	2	10	31
October 1, 2016	19	0	2	10	31
October 1, 2017	20	0	1	11	32
October 1, 2018	20	0	2	13	35



## Data Reconciliation

Table III-B

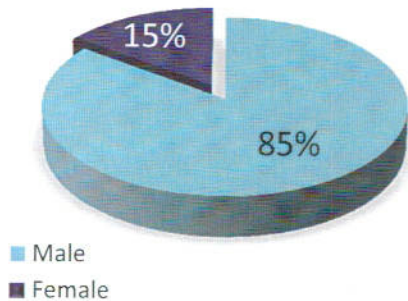
	<u>Active</u>	<u>DROP</u>	<u>Deferred Vested</u>	<u>Due a Refund</u>	<u>Def. Benef.</u>	<u>Service Retiree</u>	<u>Disabled Retiree</u>	<u>Benef. Rec'v.</u>	<u>Total</u>
<u>October 1, 2017</u>	20	0	1	0	0	11	0	0	32
<u>Change in Status</u>									
Re-employed									
Terminated	(1)		1						
Retired	(2)					2			
<u>Participation Ended</u>									
Transferred Out									
Cashed Out									
Died									
<u>Participation Began</u>									
Newly Hired	3								3
Transferred In									
New Beneficiary									
<u>Other Adjustment</u>									
<u>October 1, 2018</u>	20	0	2	0	0	13	0	0	35



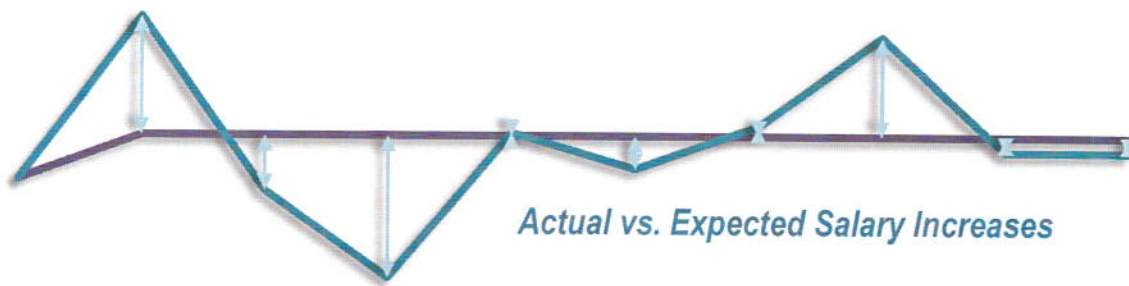


## Active Participant Data

Table III-C

**Gender Mix**As of October 1, 2018

Average Age	40.2 years
Average Service	8.0 years
Total Annualized Compensation for the Prior Year	\$1,137,065
Total Expected Compensation for the Current Year	\$983,938
Average Increase in Compensation for the Prior Year	2.65%
Expected Increase in Compensation for the Current Year	4.00%

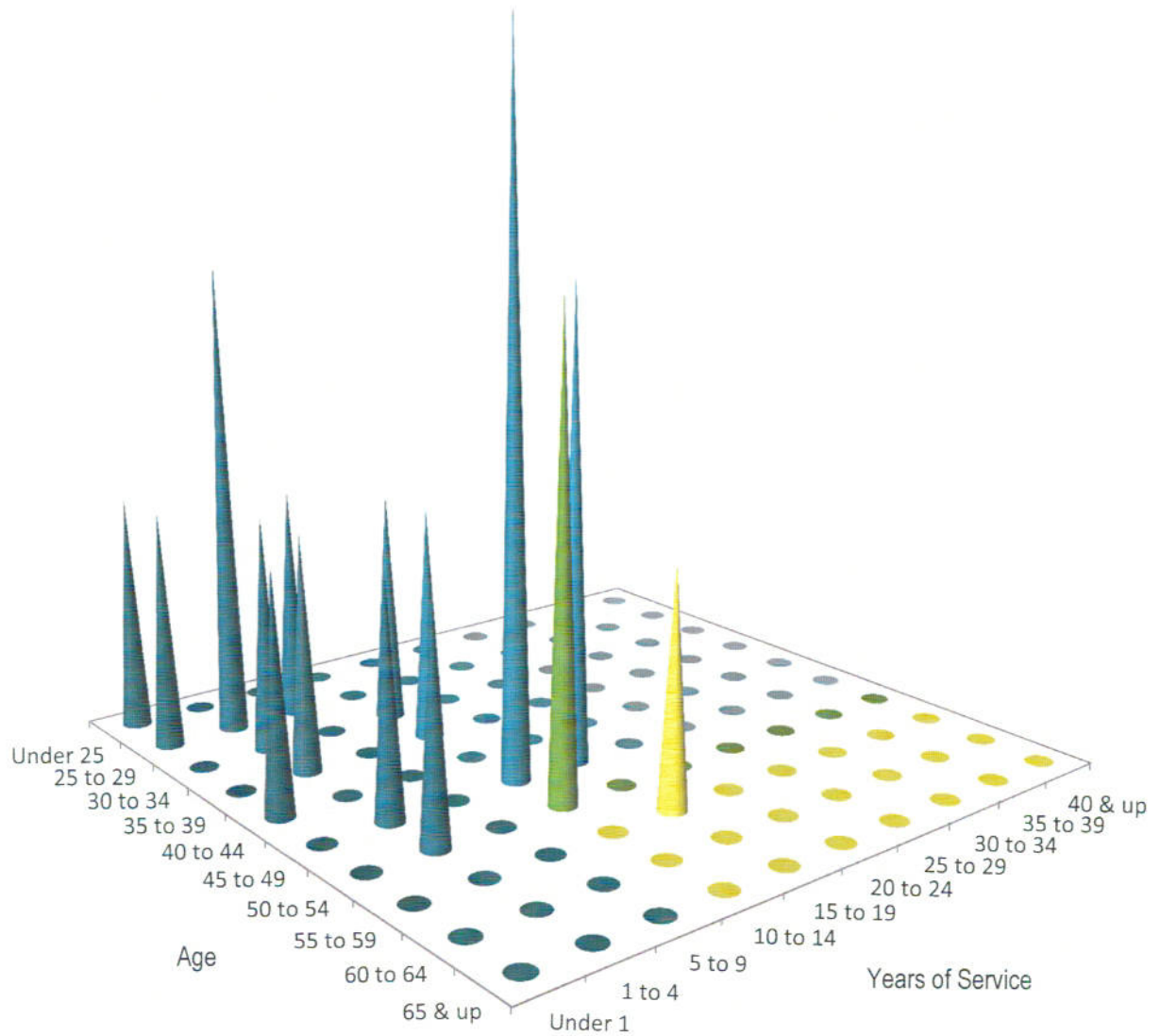
Active Participant Statistics From Prior Valuations

	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
October 1, 2009	43.1	8.3	\$52,411	N/A	N/A
October 1, 2010	N/A	N/A	N/A	4.00%	14.43%
October 1, 2011	44.4	10.3	\$59,203	4.00%	-0.93%
October 1, 2012	N/A	N/A	N/A	4.00%	-8.75%
October 1, 2013	42.3	9.2	\$50,453	4.00%	4.27%
October 1, 2014	N/A	N/A	N/A	4.00%	1.06%
October 1, 2015	40.9	7.6	\$51,012	4.00%	4.90%
October 1, 2016	41.9	8.6	\$57,595	4.00%	12.77%
October 1, 2017	43.1	9.2	\$58,505	4.00%	2.64%
October 1, 2018	40.2	8.0	\$56,853	4.00%	2.65%



# 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

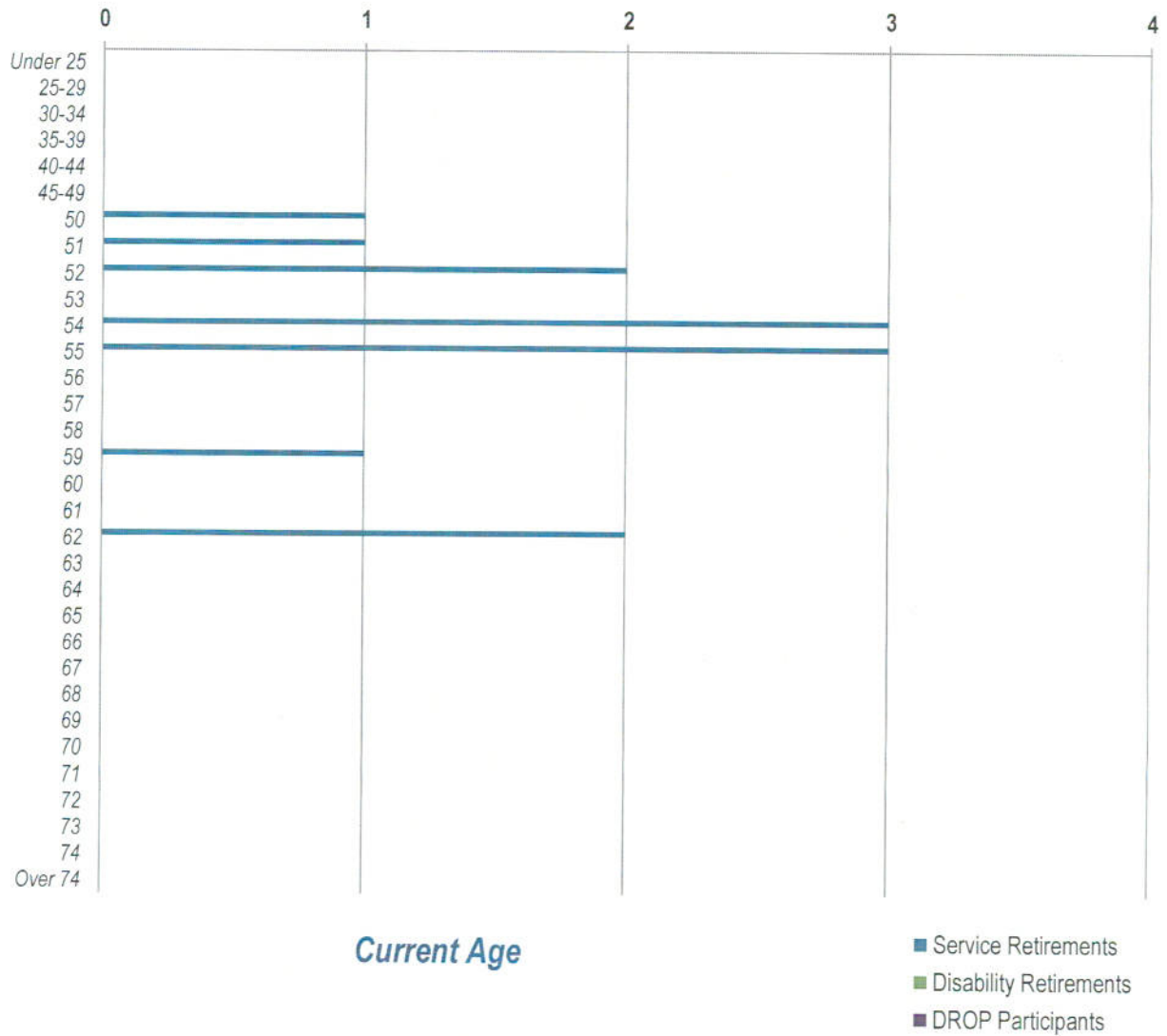
Attained Age	Completed Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25	1	0	0	0	0	0	0	0	0	0	1
Avg.Pay	41,471	0	0	0	0	0	0	0	0	0	41,471
25 to 29	1	2	1	0	0	0	0	0	0	0	4
Avg.Pay	44,488	45,854	47,106	0	0	0	0	0	0	0	45,826
30 to 34	0	1	0	1	0	0	0	0	0	0	2
Avg.Pay	0	46,800	0	58,877	0	0	0	0	0	0	52,839
35 to 39	0	1	0	1	0	0	0	0	0	0	2
Avg.Pay	0	45,479	0	59,444	0	0	0	0	0	0	52,462
40 to 44	1	0	0	0	0	0	0	0	0	0	1
Avg.Pay	42,965	0	0	0	0	0	0	0	0	0	42,965
45 to 49	0	1	0	3	2	0	0	0	0	0	6
Avg.Pay	0	45,857	0	63,212	67,832	0	0	0	0	0	61,860
50 to 54	0	1	0	2	0	0	0	0	0	0	3
Avg.Pay	0	96,598	0	61,511	0	0	0	0	0	0	73,207
55 to 59	0	0	0	0	1	0	0	0	0	0	1
Avg.Pay	0	0	0	0	67,950	0	0	0	0	0	67,950
60 to 64	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
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	3	6	1	7	3	0	0	0	0	0	20
Avg.Pay	42,975	54,407	47,106	61,568	67,871	0	0	0	0	0	56,853





## Inactive Participant Data

Table III-F



Current Age

■ Service Retirements  
 ■ Disability Retirements  
 ■ DROP Participants

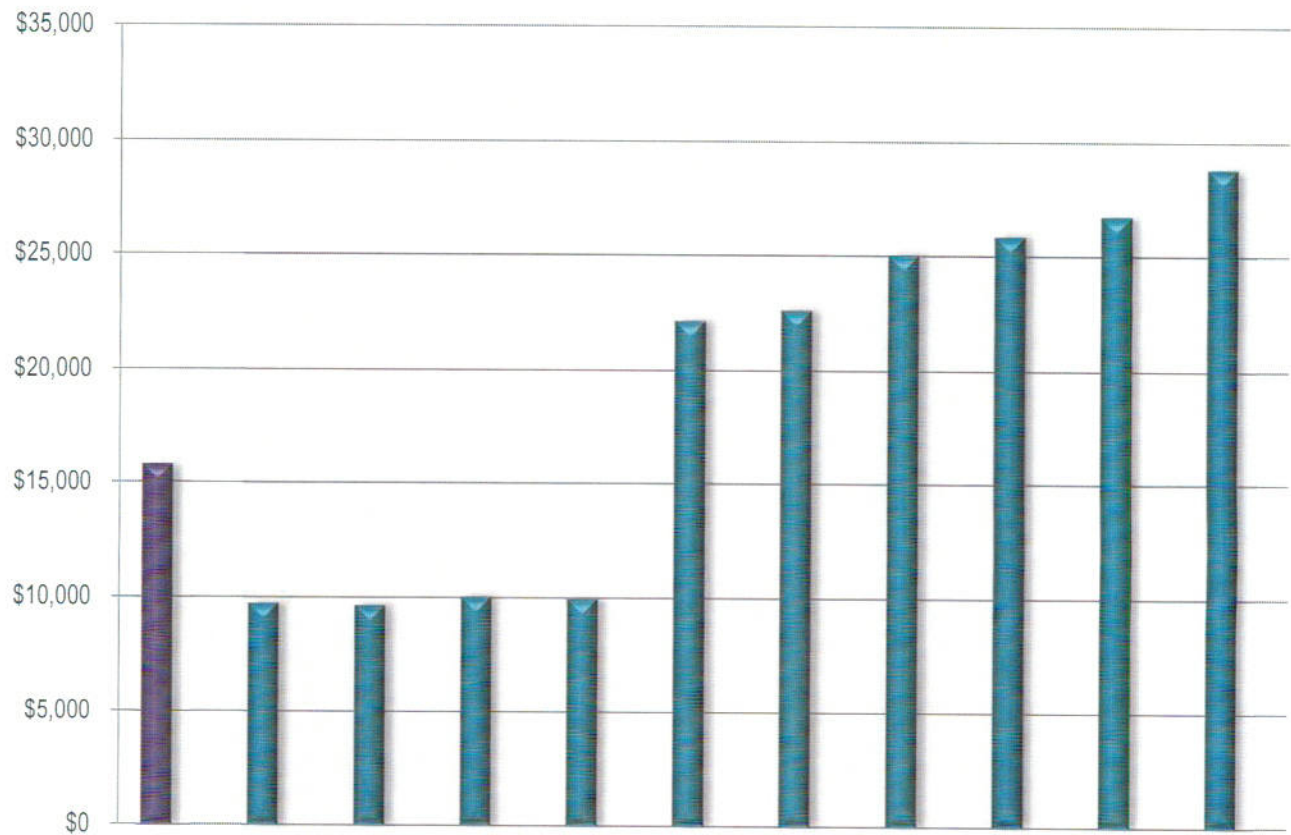
Average Annual Benefit

Service Retirements	\$1,215.38
Disability Retirements	Not applicable
Beneficiaries Receiving	Not applicable
DROP Participants	Not applicable
Deferred Vested Participants	\$1,320.00
Deferred Beneficiaries	Not applicable



## Projected Benefit Payments

Table III-G



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

\$15,800

Projected

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

\$9,752

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

\$9,674

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

\$10,062

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

\$9,971

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

\$22,180

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

\$22,646

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

\$25,061

For the period October 1, 2025 through September 30, 2026

\$25,865

For the period October 1, 2026 through September 30, 2027

\$26,732

For the period October 1, 2027 through September 30, 2028

\$28,822



## Summary of Actuarial Methods and Assumptions

## Table IV-A

*NOTE: The following assumptions and methods have been selected and approved by the Board of Trustees based in part on the advice of the plan's enrolled actuary in accordance with the authority granted to the Board under the pension ordinances and State law.*

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**

7.00% per annum

4. **Salary Increases**

Compensation is assumed to increase at the rate of 4.00% per annum, unless actual plan compensation is known for a prior plan year.

5. **Decrements**

- Pre-retirement mortality: None is assumed.
- Post-retirement mortality: Sex-distinct rates set forth in the RP-2000 Blue Collar Mortality Table, with full generational improvements in mortality using Scale BB
- Disability: None is assumed.
- Termination: None is assumed.
- Retirement: Retirement is assumed to occur at age 52.

6. **Expenses**

The present value of future benefits has been loaded by 20.00% to account for administrative expenses. 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

Since the completion of the previous valuation, an administrative expense assumption was added equal to a 20% loading of the present value of future benefits.

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*The following additional assumption and method changes were made during the past 10 years:*

- (1) Effective October 1, 2016, the mortality basis was changed from a 2015 projection of the RP-2000 Mortality Table for annuitants to a full generational projection using Scale BB of the RP-2000 Blue Collar Mortality Table as required by State law.*
- (2) Effective October 1, 2013, the assumed interest (or discount) rate was decreased from 7.50% per annum to 7.00% per annum.*
- (3) Effective October 1, 2013, the mortality basis was changed from the RP-2000 Mortality Table for annuitants, projected to 2007 by Scale AA, to the RP-2000 Mortality Table for annuitants, projected to 2015 by Scale AA, both as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430.*



## Summary of Plan Provisions

Table V-A

### 1. **Accrued Benefit**

\$84.00 multiplied by the first 10 years of Credited Service plus \$120.00 multiplied by Credited Service in excess of 10 years, to a maximum benefit of \$2,400.00 per year

*(Note: The deferred vested participant is entitled to receive an additional \$500.00 annual benefit.)*

### 2. **Normal Retirement Age and Benefit**

- **Age**  
Age 52
- **Amount**  
Accrued Benefit payable annually as of each January 1
- **Form of Payment**  
10-year certain and life annuity

### 3. **Early Retirement Age and Benefit**

- \* **Age**  
Age 50 with at least 10 years of service
- \* **Amount**  
Accrued Benefit payable annually as of each January 1
- \* **Form of Payment**  
10-year certain and life annuity

### 4. **Participation Requirement**

All police officers of the City of Indian Harbour Beach, Florida automatically become a participant in the plan on their date of hire.



## Summary of Plan Amendments

## Table V-B

Since the completion of the previous valuation, the plan has been amended with respect to those individuals who retire after October 1, 2016 to increase the benefit formula from \$60.00 for each year of service to \$84.00 for each of the first 10 years of service plus \$120.00 for each year of service in excess of 10 years, to a maximum benefit of \$2,400.00 per year. In addition, the normal form of payment has been changed from a single life annuity to a 10-year certain and life annuity for those individuals who retire after September 30, 2009.

*The following additional plan amendments were adopted during the past 10 years and were reflected in prior valuation reports:*

- (1) *The plan was amended to add an early retirement benefit at age 50 if the participant has earned at least 10 years of service.*

