Town of Indian River Shores
General Employees'
Defined Benefit Plan

Actuarial Valuation
As of October 1, 2020

Determines the Contribution
For the 2020/21 Fiscal Year

SOUTHERN
ACTUARIAL
SERVICES

Table of Contents

March 14, 2021

Introduction

This report presents the October 1, 2020 actuarial valuation of the Town of Indian River Shores General Employees' Defined Benefit 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, 2020 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2020/21 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 2020/21 plan year. The minimum required contribution rate is 40.91% of covered payroll, which represents a decrease of 2.14% of payroll from the prior valuation.

Table I-C provides a breakdown of the sources of change in the contribution rate. Significantly, the rate decreased by 2.14% of payroll due to investment gains, increased by 0.57% of payroll due to demographic experience, and decreased by 0.57% due to the assumption change that is described below. The market value of assets earned 7.06% during the 2019/20 plan year, whereas a 5.90% 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 Town must contribute an amount equal to the annual normal cost of the plan minus the expected employee contributions plus an amortization payment towards the unfunded liability, where the amortization period is no longer than 30 years and where all amounts are adjusted as necessary for administrative expenses and to reflect interest on any delayed payment of the contribution beyond the valuation date. On this basis, the Town's 2020/21 minimum required contribution will be equal to 40.91% multiplied by the total pensionable earnings for the 2020/21 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 $1,631,098 excluding any adjustments for future administrative expenses. As illustrated in Table I-A, current assets are sufficient to cover $1,251,548 of this amount and the employer's 2020/21 expected contribution will cover $63,088 of this amount, leaving $316,462 to be covered by future employer funding beyond the 2020/21 fiscal year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

Amortization of the Unfunded Liability

This plan uses the entry age normal cost method to develop an unfunded liability each year. The unfunded liability is then amortized or "paid off" over a period of time. The period over which the unfunded liability is amortized is often referred to as the "funding period" of the plan. Although under Chapter 112 the maximum allowable funding period is 30 years, the unfunded liability should be paid off within a period that does not exceed the expected future working life of the active employees who are covered by the plan or, if there are no active employees covered by the plan, the expected future lifetime of the retired participants. Table I-I shows the various components of the unfunded liability and the respective funding period for each component. We have used a closed 10-year funding period beginning October 1, 2013 to amortize all components of the unfunded liability that were created prior to October 1, 2019. Components created on and after that date are amortized over a five-year period.

Actuarial Assumption Change

Since the completion of the previous valuation, the mortality basis was changed from the RP-2000 Combined Mortality Table with generational improvements in mortality using Scale BB to selected PUB-2010 Mortality Tables with generational improvements in mortality using Scale MP-2018. The impact of this assumption change was to decrease the minimum required contribution by 0.57% of payroll.

Identification and Assessment of Risk

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, there is always a risk that, should these assumptions not be realized, the liabilities of the plan, the contributions required to fund the plan, and the funded status of the plan may be significantly different than the amounts shown in this report.

Although a thorough analysis of the risk of not meeting the assumptions is beyond the scope of this report, this discussion is intended to identify the significant risks faced by the plan. In some cases, a more detailed review of the risks, including numerical analysis, may be appropriate to help the plan sponsor and other interested parties assess the specific impact of not realizing certain assumptions. For example, Table I-B illustrates the impact that alternative long-term investment returns would have on the contribution rate. Note that this report is not intended to provide advice on the management or reduction of the identified risks nor is this report intended to provide investment advice.

The most significant risk faced by most defined benefit pension plans is investment risk, i.e. the risk that long-term investment returns will be less than assumed. Other related risks include a risk that, if the investments of the plan decline dramatically over a short period of time (such as occurred with many pension plans in 2008), the plan's assets may not have sufficient time to recover before benefits become due. Even if the assets of the plan grow in accordance with the assumed investment return over time, if benefit payments are expected to be large in the short-term (for example, if the plan provides an actuarial equivalent lump sum payment option and a large number of participants are expected to become entitled to such a lump sum in the near future), the plan's assets may not be sufficient to support such a high level of benefit payments. We have provided a 10-year projection of the expected benefit payments in Table III-G to help the Trustees in formulating an investment policy that is expected to provide an investment return that meets both the short- and long-term cash flow needs of the pension plan.

Another source of risk is demographic experience. This is the risk that participants will receive salary increases that are different than the amount assumed, that participants will retire, become disabled, or terminate their employment at a rate that is different than assumed, and that participants will live longer than assumed, just to cite a few examples of the demographic risk faced by the plan. Although for most pension plans, the demographic risk is not as significant as the investment risk, particularly in light of the fact that the mortality assumption includes a component for future life expectancy increases, the demographic risk can nevertheless be a significant contributing factor to liabilities and contribution rates that become higher than anticipated.

A third source of risk is the risk that the plan sponsor (or other contributing entities) will not make, or will not have the ability to make, the contributions that are required to keep the plan funded at a sufficient level. Material changes in the number of covered employees, covered payroll, and, in some cases, hours worked by active participants can also significantly impact the plan's liabilities and the level of contributions received by the plan.

Finally, an actuarial funding method has been used to allocate the gap between projected liablities and assets to each year in the future. The contribution rate under some funding methods is higher during the early years of the plan and then is lower during the later years of the plan. Other funding methods provide for lower contribution rates initially, with increasing contribution rates over time.

The Trustees have adopted the individual entry age normal funding method for this plan with level-dollar payments towards the unfunded accrued liability, which is expected to result in a contribution rate that decreases over time as a percentage of payroll. A brief description of the actuarial funding method is provided in Table IV-A.

Contents of the Report

Tables I-D through I-I 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. 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, 2020, 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/mp

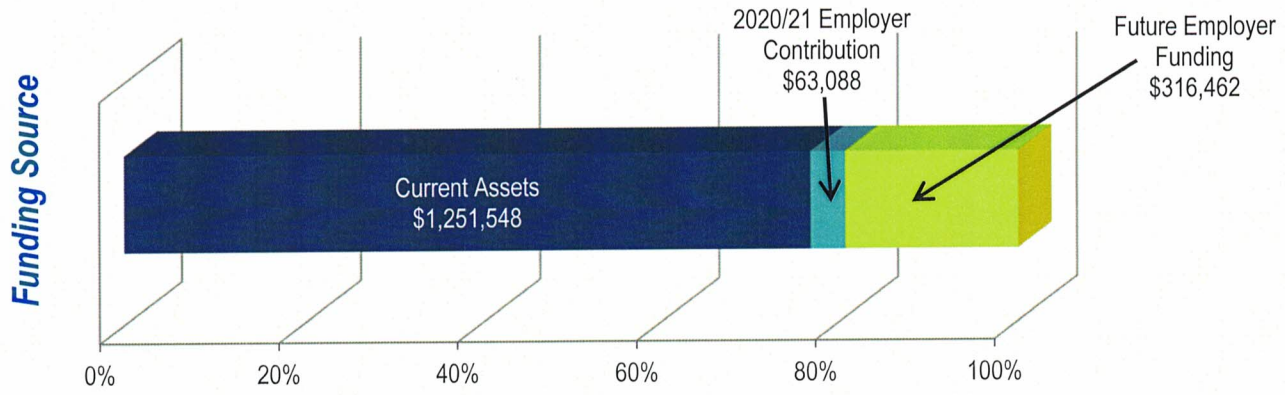
Charles T. Carr
Consulting Actuary
Southern Actuarial Services Company, Inc.

Enrolled Actuary No. 20-04927

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 2020/21 Plan Year
Entry Age Normal Cost	$46,094
Unfunded Liability Amortization Payment	$23,025
Expense Allowance	$6,000
Expected Employee Contribution	($13,878)
Employer Contribution as of the Beginning of the Plan Year	$61,241
Adjustment to Reflect Semi-Monthly Employer Contributions	$1,847
Preliminary Employer Contribution	$63,088
Expected Payroll	÷ *$154,205*
Minimum Required Contribution Rate	**40.91%**

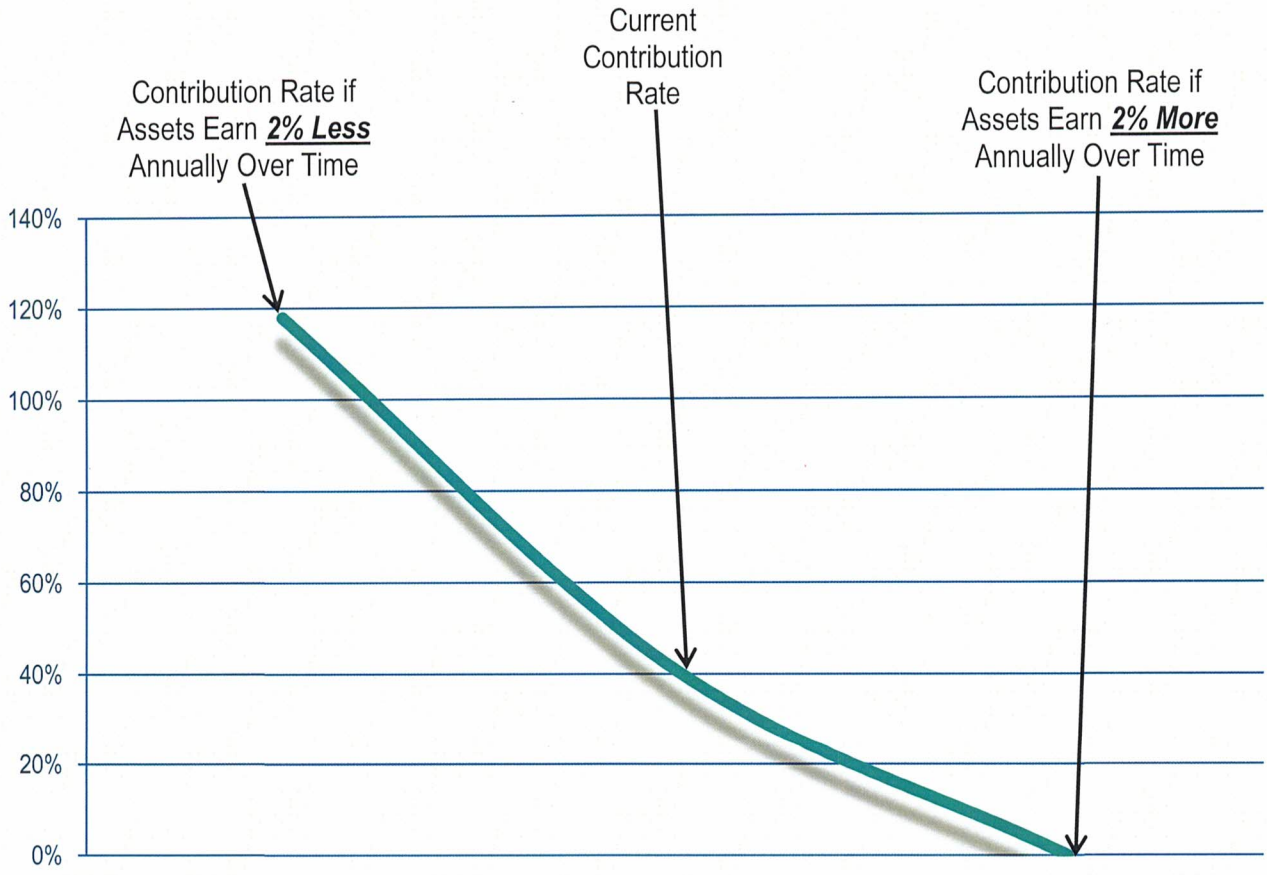
(The actual contribution should be based on the minimum required contribution rate multiplied by the actual payroll for the year.)

Additional Disclosures

Present Value of Future Compensation	$1,075,707
Present Value of Future Employer Contributions	$379,550
Present Value of Future Employee Contributions	$0

Sensitivity Analysis

Table I-B



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

Gain and Loss Analysis

Table I-C

Source of Change in the Contribution Rate

Previous minimum required contribution rate	43.05%
Increase (decrease) due to investment gains and losses	-2.14%
Increase (decrease) due to demographic experience	0.57%
Increase (decrease) due to plan amendments	0.00%
Increase (decrease) due to actuarial assumption changes	-0.57%
Increase (decrease) due to actuarial method changes	0.00%
Current minimum required contribution rate	40.91%

Source of Change in the Unfunded Liability

Previous unfunded liability	$81,475
Increase due to employer normal cost for the prior year	$34,139
Increase due to interest on normal cost and unfunded liability	$6,821
Decrease due to employer contributions	($63,224)
Decrease due to interest on employer contributions	$2,383
Expected unfunded liability	$61,594
Increase (decrease) due to plan experience	$4,292
Increase (decrease) due to plan amendments	$0
Increase (decrease) due to actuarial assumption changes	($5,582)
Increase (decrease) due to actuarial method changes	$0
Current unfunded liability	$60,304

Present Value of Future Benefits

Table I-D

	Old Assumptions Old Plan	Old Assumptions New Plan	New Assumptions New Plan
Actively Employed Participants			
Retirement benefits	$958,322	$958,322	$967,953
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$958,322**	**$958,322**	**$967,953**
Deferred Vested Participants			
Retirement benefits	$0	$0	$0
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$0**	**$0**	**$0**
Due a Refund of Contributions	**$0**	**$0**	**$0**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$669,158	$669,158	$657,145
Disability retirements	$0	$0	$0
Beneficiaries receiving	$0	$0	$0
DROP participants	$0	$0	$0
Sub-total	**$669,158**	**$669,158**	**$657,145**
Grand Total	**$1,627,480**	**$1,627,480**	**$1,625,098**
Present Value of Future Payroll	$1,075,707	$1,075,707	$1,075,707
Present Value of Future Employee Contribs.	$0	$0	$0
Present Value of Future Employer Contribs.	$381,932	$381,932	$379,550

Present Value of Accrued Benefits

Table I-E

	Old Assumptions Old Plan	Old Assumptions New Plan	New Assumptions New Plan
Actively Employed Participants			
Retirement benefits	$443,247	$443,247	$447,558
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$443,247**	**$443,247**	**$447,558**
Deferred Vested Participants			
Retirement benefits	$0	$0	$0
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$0**	**$0**	**$0**
Due a Refund of Contributions	**$0**	**$0**	**$0**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$669,158	$669,158	$657,145
Disability retirements	$0	$0	$0
Beneficiaries receiving	$0	$0	$0
DROP participants	$0	$0	$0
Sub-total	**$669,158**	**$669,158**	**$657,145**
Grand Total	**$1,112,405**	**$1,112,405**	**$1,104,703**
Funded Percentage	112.51%	112.51%	113.29%

(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 Old Plan	Old Assumptions New Plan	New Assumptions New Plan
Actively Employed Participants			
Retirement benefits	$443,247	$443,247	$447,558
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$443,247**	**$443,247**	**$447,558**
Deferred Vested Participants			
Retirement benefits	$0	$0	$0
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$0**	**$0**	**$0**
Due a Refund of Contributions	**$0**	**$0**	**$0**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$669,158	$669,158	$657,145
Disability retirements	$0	$0	$0
Beneficiaries receiving	$0	$0	$0
DROP participants	$0	$0	$0
Sub-total	**$669,158**	**$669,158**	**$657,145**
Grand Total	**$1,112,405**	**$1,112,405**	**$1,104,703**

Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions Old Plan	Old Assumptions New Plan	New Assumptions New Plan
Actively Employed Participants			
Retirement benefits	$648,276	$648,276	$654,707
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$648,276**	**$648,276**	**$654,707**
Deferred Vested Participants			
Retirement benefits	$0	$0	$0
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$0**	**$0**	**$0**
Due a Refund of Contributions	**$0**	**$0**	**$0**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$669,158	$669,158	$657,145
Disability retirements	$0	$0	$0
Beneficiaries receiving	$0	$0	$0
DROP participants	$0	$0	$0
Sub-total	**$669,158**	**$669,158**	**$657,145**
Grand Total	**$1,317,434**	**$1,317,434**	**$1,311,852**
less Actuarial Value of Assets	*($1,251,548)*	*($1,251,548)*	*($1,251,548)*
Unfunded Accrued Liability	**$65,886**	**$65,886**	**$60,304**

Entry Age Normal Cost

Table I-H

	Old Assumptions Old Plan	Old Assumptions New Plan	New Assumptions New Plan
Actively Employed Participants			
Retirement benefits	$45,645	$45,645	$46,094
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$45,645**	**$45,645**	**$46,094**
Deferred Vested Participants			
Retirement benefits	$0	$0	$0
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$0**	**$0**	**$0**
Due a Refund of Contributions	**$0**	**$0**	**$0**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$0	$0	$0
Disability retirements	$0	$0	$0
Beneficiaries receiving	$0	$0	$0
DROP participants	$0	$0	$0
Sub-total	**$0**	**$0**	**$0**
Grand Total	**$45,645**	**$45,645**	**$46,094**

Unfunded Liability Bases

Table I-I

Description	Original Amount	Outstanding Balance	Amortization Payment	Years Rem.
	Total	***$60,304***	***$23,025***	
10/1/2013 Fresh Start	$316,208	$122,819	$43,308	3
2013/14 Experience Gain	($18,157)	($7,971)	($2,811)	3
2014/15 Experience Loss	$42,473	$20,457	$7,213	3
2015/16 Experience Gain	($2,529)	($1,360)	($480)	3
10/1/2016 Assumption Change	$24,658	$13,259	$4,675	3
2016/17 Experience Gain	($74,706)	($44,644)	($15,742)	3
2017/18 Experience Gain	($30,918)	($21,196)	($7,474)	3
2018/19 Experience Gain	($24,045)	($19,770)	($5,376)	4
2019/20 Experience Loss	$4,292	$4,292	$960	5
10/1/2020 Assumption Change	($5,582)	($5,582)	($1,248)	5

Unfunded Accrued Liability Projection

UAL Bal. as of October 1, 2020	$60,304
UAL Bal. as of October 1, 2021	$39,143
UAL Bal. as of October 1, 2022	$16,924
UAL Bal. as of October 1, 2023	($6,406)
⋮	⋮
UAL Bal. as of October 1, 2025	$0

Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2020	$1,251,548
Minus DROP account balances	$0
Minus advance employer contributions	$0
Actuarial Value of Assets as of October 1, 2020	**$1,251,548**

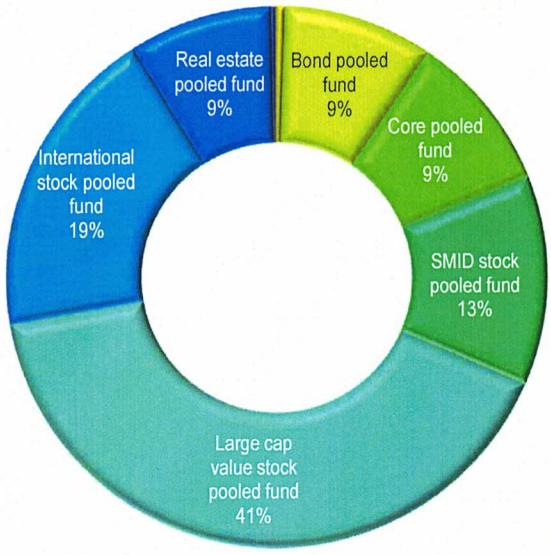
Historical Actuarial Value of Assets

October 1, 2011	$274,505
October 1, 2012	$286,905
October 1, 2013	$422,700
October 1, 2014	$526,361
October 1, 2015	$590,990
October 1, 2016	$723,443
October 1, 2017	$925,141
October 1, 2018	$1,082,203
October 1, 2019	$1,167,852
October 1, 2020	$1,251,548

Market Value of Assets

Table II-B

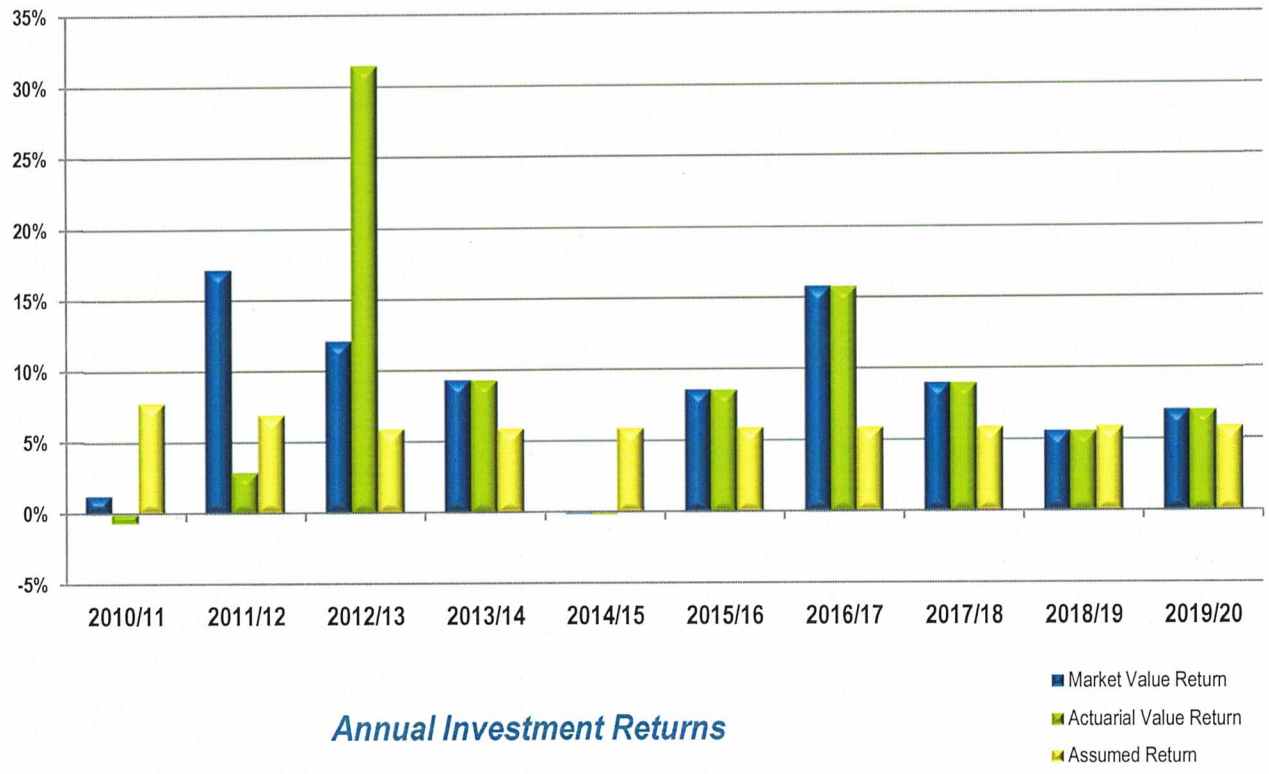
	As of October 1, 2020
Market Value of Assets	**$1,251,548**
Cash	$6,238
Bond pooled fund	$112,302
Core pooled fund	$118,541
SMID stock pooled fund	$157,222
Large cap value stock pooled fund	$510,349
International stock pooled fund	$235,834
Real estate pooled fund	$107,310
Employer contribution receivable	$3,224
Employee contribution receivable	$528



Historical Market Value of Assets	
October 1, 2011	$286,201
October 1, 2012	$339,952
October 1, 2013	$422,700
October 1, 2014	$526,361
October 1, 2015	$590,990
October 1, 2016	$723,443
October 1, 2017	$925,141
October 1, 2018	$1,082,203
October 1, 2019	$1,167,852
October 1, 2020	$1,251,548

Investment Return

Table II-C



Annual Investment Returns

Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2010/11	1.29%	-0.63%	7.75%
2011/12	17.16%	2.94%	6.90%
2012/13	12.08%	31.47%	5.90%
2013/14	9.32%	9.32%	5.90%
2014/15	-0.10%	-0.10%	5.90%
2015/16	8.58%	8.58%	5.90%
2016/17	15.78%	15.78%	5.90%
2017/18	8.99%	8.99%	5.90%
2018/19	5.60%	5.60%	5.90%
2019/20	7.06%	7.06%	5.90%
10yr. Avg.	8.45%	8.57%	6.18%

Asset Reconciliation

Table II-D

	Market Value	Actuarial Value
As of October 1, 2019	**$1,167,852**	**$1,167,852**
Increases Due To:		
Employer Contributions	$63,224	$63,224
Chapter 175/185 Contributions	$0	$0
Employee Contributions	$13,218	$13,218
Service Purchase Contributions	$0	$0
Total Contributions	$76,442	$76,442
Interest and Dividends	$0	
Realized Gains (Losses)	$0	
Unrealized Gains (Losses)	$82,468	
Total Investment Income	$82,468	$82,468
Other Income	$0	
Total Income	**$158,910**	**$158,910**
Decreases Due To:		
Monthly Benefit Payments	($69,106)	($69,106)
Refund of Employee Contributions	$0	$0
DROP Credits		$0
Total Benefit Payments	($69,106)	($69,106)
Investment Expenses	$0	
Administrative Expenses	($6,108)	($6,108)
Advance Employer Contribution		$0
Total Expenses	**($75,214)**	**($75,214)**
As of October 1, 2020	**$1,251,548**	**$1,251,548**

Historical Trust Fund Detail

Table II-E

Income

Plan Year	Employer Contribs.	Employee Contribs.	Service Purchase Contribs.	Interest / Dividends	Realized Gains / Losses	Unrealized Gains / Losses	Other Income
2010/11	$34,961	$7,475	$0	$0	$0	$3,699	$0
2011/12	$47,940	$7,947	$0	$0	$0	$49,489	$0
2012/13	$76,706	$12,716	$0	$0	$0	$43,434	$0
2013/14	$103,810	$21,529	$0	$0	$0	$42,265	$0
2014/15	$97,010	$22,115	$0	$0	$0	-$580	$0
2015/16	$108,876	$23,640	$0	$0	$0	$54,062	$0
2016/17	$111,558	$23,447	$0	$0	$0	$120,559	$0
2017/18	$100,841	$24,092	$0	$0	$0	$86,348	$0
2018/19	$72,813	$18,326	$0	$0	$0	$61,278	$0
2019/20	$63,224	$13,218	$0	$0	$0	$82,468	$0

Expenses

Plan Year	Monthly Benefit Payments	Contrib. Refunds	Admin. Expenses	Invest. Expenses
2010/11	$48,395	$0	$846	$0
2011/12	$48,395	$0	$3,230	$0
2012/13	$48,395	$0	$1,713	$0
2013/14	$48,395	$0	$15,548	$0
2014/15	$48,395	$0	$5,521	$0
2015/16	$48,395	$0	$5,730	$0
2016/17	$48,395	$0	$5,471	$0
2017/18	$48,395	$0	$5,824	$0
2018/19	$60,476	$0	$6,292	$0
2019/20	$69,106	$0	$6,108	$0

Other Actuarial Adjustments

Plan Year	DROP Credits	Advance Employer Contribs.
2010/11	$0	$0
2011/12	$0	$0
2012/13	$0	$0
2013/14	$0	$0
2014/15	$0	$0
2015/16	$0	$0
2016/17	$0	$0
2017/18	$0	$0
2018/19	$0	$0
2019/20	$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

DROP Account Reconciliation

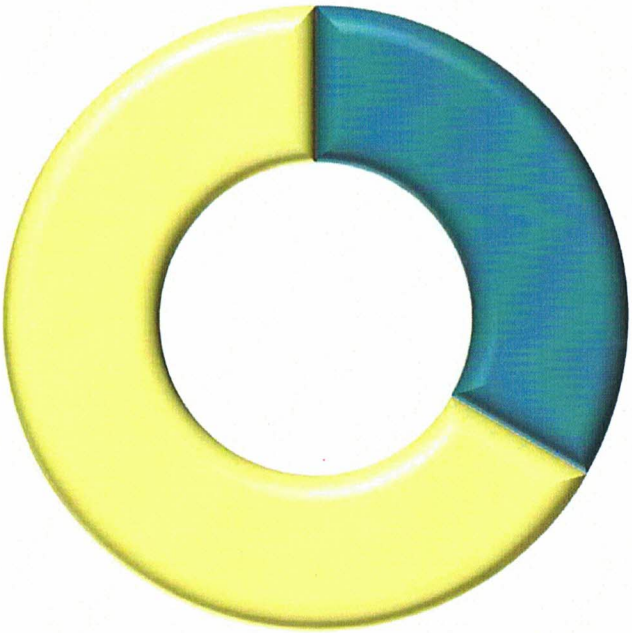
DROP Balance as of October 1, 2019	$0
DROP Benefit Credits	$0
DROP Investment Credits	$0
DROP Benefits Paid Out	$0
Net DROP Credit	$0
DROP Balance as of October 1, 2020	$0

Advance Employer Contribution

Advance Employer Contribution as of October 1, 2019	$0
Additional Employer Contribution	$63,224
Minimum Required Contribution	($63,224)
Net Increase in Advance Employer Contribution	$0
Advance Employer Contribution as of October 1, 2020	$0

Summary of Participant Data

Table III-A



Participant Distribution by Status

As of October 1, 2020

Actively Employed Participants	
Active Participants	2
DROP Participants	0
Inactive Participants	
Deferred Vested Participants	0
Due a Refund of Contributions	0
Deferred Beneficiaries	0
Participants Receiving a Benefit	
Service Retirements	4
Disability Retirements	0
Beneficiaries Receiving	0
Total Participants	**6**

Number of Participants Included in Prior Valuations

	Active	*DROP*	*Inactive*	*Retired*	*Total*
October 1, 2011	2	0	0	3	5
October 1, 2012	2	0	0	3	5
October 1, 2013	3	0	0	3	6
October 1, 2014	3	0	0	3	6
October 1, 2015	3	0	0	3	6
October 1, 2016	3	0	0	3	6
October 1, 2017	3	0	0	3	6
October 1, 2018	3	0	0	3	6
October 1, 2019	2	0	0	4	6
October 1, 2020	2	0	0	4	6

Data Reconciliation

Table III-B

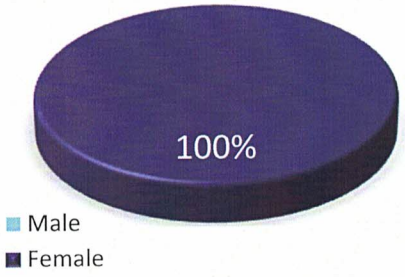
	Active	DROP	Deferred Vested	Due a Refund	Def. Benef.	Service Retiree	Disabled Retiree	Benef. Rec'v.	Total
October 1, 2019	2	0	0	0	0	4	0	0	**6**
Change in Status									
Re-employed									
Terminated									
Retired									
Participation Ended									
Transferred Out									
Cashed Out									
Died									
Participation Began									
Newly Hired									
Transferred In									
New Beneficiary									
Other Adjustment									
October 1, 2020	2	0	0	0	0	4	0	0	**6**

Active Participant Data

Table III-C

As of October 1, 2020

Gender Mix



Average Age	55.0 years
Average Service	14.5 years
Total Annualized Compensation for the Prior Year	$146,862
Total Expected Compensation for the Current Year	$154,205
Average Increase in Compensation for the Prior Year	12.27%
Expected Increase in Compensation for the Current Year	5.00%

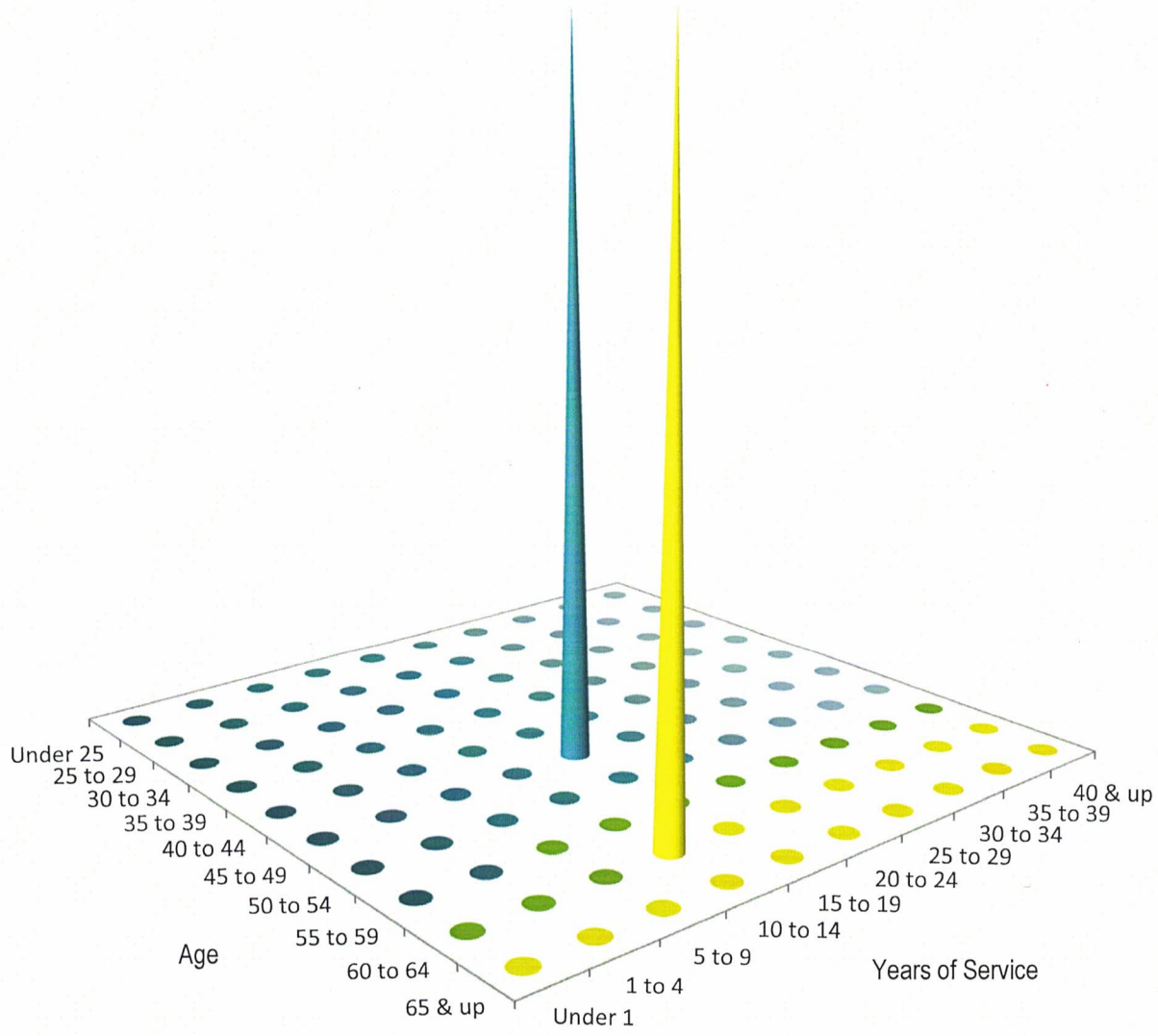
Actual vs. Expected Salary Increases

Active Participant Statistics From Prior Valuations

	Average Age	*Average Service*	*Average Salary*	*Average Expected Salary Increase*	*Average Actual Salary Increase*
October 1, 2011	46.0	5.5	$41,531	5.00%	2.99%
October 1, 2012	47.0	6.5	$44,152	5.00%	6.55%
October 1, 2013	48.7	5.0	$47,097	5.00%	12.59%
October 1, 2014	50.0	6.0	$79,736	5.00%	10.72%
October 1, 2015	51.0	7.0	$81,907	5.00%	2.91%
October 1, 2016	52.0	8.0	$87,556	5.00%	7.08%
October 1, 2017	53.0	9.0	$86,842	5.00%	-0.33%
October 1, 2018	54.0	10.0	$89,232	5.00%	3.70%
October 1, 2019	54.0	13.5	$65,466	5.00%	1.79%
October 1, 2020	55.0	14.5	$73,431	5.00%	12.27%

Active Age-Service Distribution

Table III-D



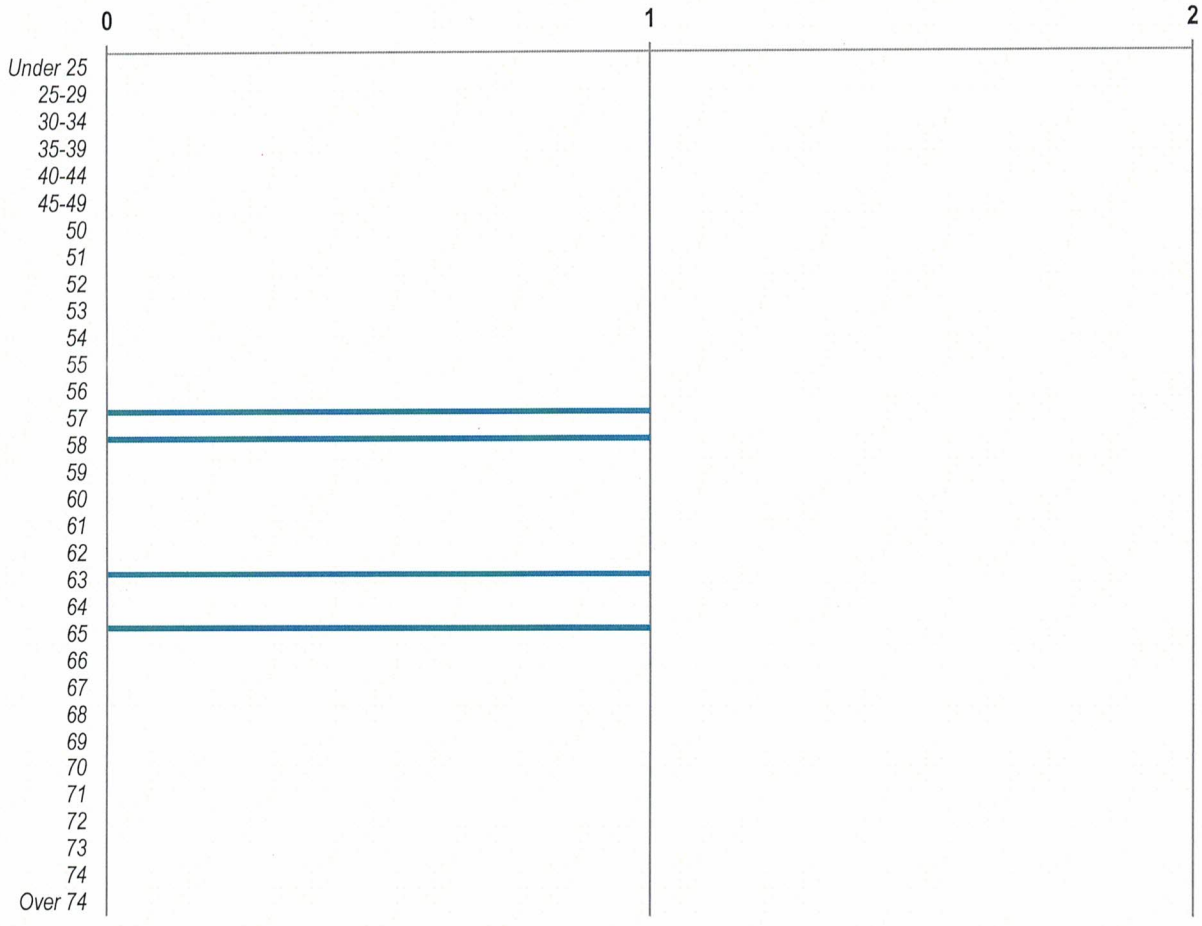
Active Age-Service-Salary Table

Table III-E

Attained Age	Completed Years of Service										
	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	Total
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**	**1**	**0**	**0**	**0**	**0**	**0**	**1**
Avg.Pay	0	0	0	0	69,144	0	0	0	0	0	69,144
50 to 54	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
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**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
Avg.Pay	0	0	0	77,718	0	0	0	0	0	0	77,718
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**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**2**
Avg.Pay	0	0	0	77,718	69,144	0	0	0	0	0	73,431

Inactive Participant Data

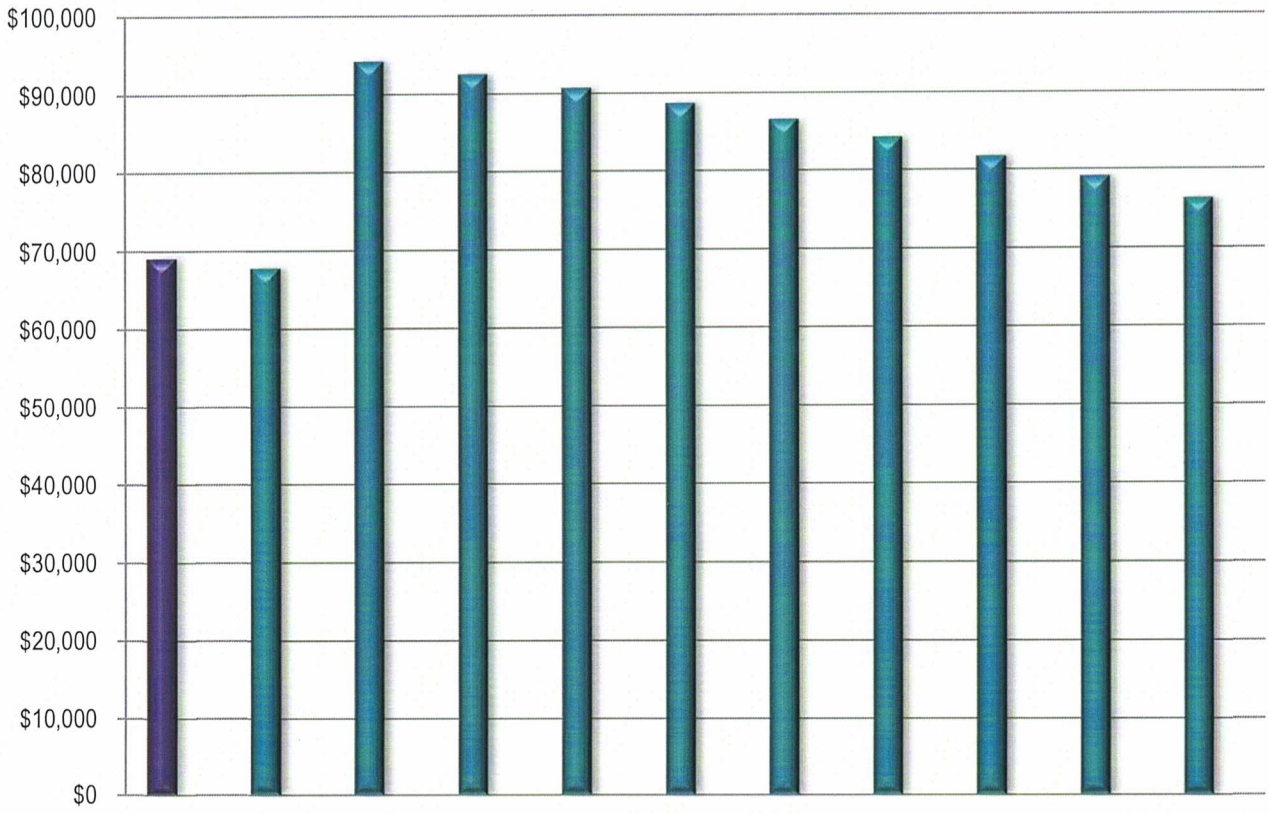
Table III-F



	Average Monthly Benefit
Service Retirements	*$1,439.70*
Disability Retirements	*Not applicable*
Beneficiaries Receiving	*Not applicable*
DROP Participants	*Not applicable*
Deferred Vested Participants	*Not applicable*
Deferred Beneficiaries	*Not applicable*

Projected Benefit Payments

Table III-G



Actual	
For the period October 1, 2019 through September 30, 2020	$69,106
Projected	
For the period October 1, 2020 through September 30, 2021	$67,804
For the period October 1, 2021 through September 30, 2022	$94,258
For the period October 1, 2022 through September 30, 2023	$92,557
For the period October 1, 2023 through September 30, 2024	$90,712
For the period October 1, 2024 through September 30, 2025	$88,718
For the period October 1, 2025 through September 30, 2026	$86,568
For the period October 1, 2026 through September 30, 2027	$84,251
For the period October 1, 2027 through September 30, 2028	$81,767
For the period October 1, 2028 through September 30, 2029	$79,112
For the period October 1, 2029 through September 30, 2030	$76,286

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

Individual entry age normal cost method. Under this actuarial cost method, a level funding cost is developed with respect to each benefit for each participant. The level funding cost for each benefit applies to the period beginning when the participant's service commences and ending when the participant is assumed to cease active participation due to each respective decrement. The actuarial accrued liability is equal to the accumulated level funding cost to the valuation date for all participants. The normal cost is equal to the level funding cost for the year immediately following the valuation date for all active participants.

2. Amortization Method

The unfunded actuarial accrued liability is amortized as a level dollar amount over a closed period of 10 years from October 1, 2013 with respect to components created prior to October 1, 2019 or over a period of five years with respect to components created on and after October 1, 2019.

3. Asset Method

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

4. Interest (or Discount) Rate

5.90% per annum

5. Salary Increases

Plan compensation is assumed to increase at the rate of 5.00% per annum, unless actual plan compensation is known for a prior plan year.

6. Decrements

- Pre-retirement mortality: None is assumed.
- Post-retirement mortality: Sex-distinct rates set forth in the PUB-2010 Headcount-Weighted Below Median Healthy Retiree Mortality Table for general employees, with full generational improvements in mortality using Scale MP-2018 and with male ages set back one year

Summary of Actuarial Methods and Assumptions

Table IV-A

(continued)

- Disability: None is assumed.
- Termination: None is assumed.
- Retirement: Retirement is assumed to occur at the later of normal retirement age or one year after the valuation date.

7. **Form of Payment**

Future retirees have been assumed to select the single life annuity.

8. **Expenses**

Administrative expenses are assumed to be $6,000 per year. In addition, the interest rate set forth in item 4. above is assumed to be net of investment expenses and commissions.

9. **Benefits Payable from the Town of Indian River Shores Pension Plan**

For purposes of determining any applicable benefit offsets under this plan, no employer-paid benefits are assumed to be payable from the Town of Indian River Shores Pension Plan.

Changes in Actuarial Methods and Assumptions

Table IV-B

Since the completion of the previous valuation, the mortality basis was changed from the RP-2000 Combined Mortality Table with generational improvements in mortality using Scale BB to selected PUB-2010 Mortality Tables with generational improvements in mortality using Scale MP-2018.

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

(1) *Effective October 1, 2018, the administrative expense assumption was increased from $3,500 per year to $6,000 per year.*

(2) *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 Combined Mortality Table as required by State law.*

(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 and set back two years.*

(4) *Effective October 1, 2013, the actuarial value of assets was changed from the market value adjusted to reflect a five-year phase-in of the net investments gains and losses to the unadjusted market value.*

(5) *Effective October 1, 2013, the amortization period was shortened by one year.*

(6) *Effective October 1, 2012, the interest (or discount) rate was decreased from 6.90% per annum to 5.90% per annum.*

(7) *Effective October 1, 2012, assumed administrative expenses were changed from 1.50% of future payroll to a flat $3,500 per year.*

(8) *Effective October 1, 2011, the interest (or discount) rate was decreased from 7.75% per annum to 6.90% per annum.*

Summary of Plan Provisions

Table V-A

1. Benefit Formula

2.75% of Average Monthly Earnings multiplied by Credited Service, reduced by the monthly benefit that can be provided by the participant's employer-paid defined contribution account for those individuals who are eligible to receive a benefit from the Town of Indian River Shores Pension Plan

2. Service Retirement

Normal retirement: Age 55 with at least five years of credited service (Town Manager), or
Age 62 (all other participants)

Early retirement: Age 55 with at least seven years of credited service

Note: In the case of early retirement, the participant's benefit is reduced by 2% for each year by which the participant's early retirement age precedes his normal retirement age. In the case of retirement after normal retirement age (a "late" retirement), the participant receives the greater of his monthly accrued benefit calculated at his late retirement age or his monthly accrued benefit calculated at his normal retirement age but multiplied by a late retirement adjustment factor as shown in the following table (the factor is pro-rated for non-integer years):

Number of Years Between The Normal Retirement Date And the Late Retirement Date	Late Retirement Adjustment Factor
One	1.06
Two	1.12
Three	1.19
Four	1.26
Five	1.34
Six	1.42
Seven	1.50
Eight	1.59
Nine	1.69
10	1.79

Summary of Plan Provisions

Table V-A

(continued)

3. Disability Retirement

Service-based disability: Participant must be disabled during the course of his employment with the Town.

Non-service disability: Participant must have earned at least 10 years of credited service.

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 Town-provided disability compensation from exceeding his average monthly earnings.

(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.)

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 2% 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.

5. Vesting

A participant becomes 100% vested upon the attainment of seven years of credited service. Alternatively, a participant becomes partially vested upon the attainment of three years of credited service in accordance with the following table:

Years of Credited Service	Vested Percentage
Less than three	0%
At least three, but less than four	20%
At least four, but less than five	40%
At least five, but less than six	60%
At least six, but less than seven	80%
At least seven	100%

Summary of Plan Provisions

Table V-A

(continued)

6. Pre-Retirement Death Benefit

If a vested, married participant dies prior to retirement, the participant's surviving spouse may choose to receive either one-half of the participant's 50% joint and contingent annuity or a 10-year certain and life annuity equal to the participant's monthly accrued benefit, payable in either case beginning at the participant's early or normal retirement age.

If a vested, unmarried participant dies prior to retirement, the participant's beneficiary receives a 10-year certain and life annuity equal to the participant's monthly accrued benefit, payable beginning at the participant's early or normal retirement age.

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

7. Form of Payment

Single life annuity (normal form of payment);

Actuarially reduced 10-year certain and life annuity (optional);

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

Actuarially reduced 66⅔% 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 and only available if the single sum value of the participant's benefit is less than or equal to $5,000 or the monthly annuity 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.)

Summary of Plan Provisions

Table V-A

(continued)

8. Average Monthly Earnings

Average monthly earnings during the last five years of compensation immediately preceding the determination or career average earnings if higher. Earnings include total cash remuneration for services rendered, but exclude overtime pay. Earnings cannot exceed the maximum amount allowed under Internal Revenue Code (IRC) section 401(a)(17).

9. Credited Service

The elapsed time from the participant's date of hire until his date of termination, retirement, or death. For purposes of calculating the amount of a participant's benefit, credited service excludes periods during which the participant does not make the required employee contribution.

10. Employee Contribution

Employees must contribute a variable contribution rate that is based in part on the funding cost of the plan. The basic employee contribution rate is 5.00% of earnings. The basic employee contribution rate is adjusted to reflect 31.25% of the total minimum required contribution below 14.50% of payroll or above 16.00% of payroll. The employee contribution rate is capped at 9.00% of earnings. Employee contributions are accumulated with interest at the rate of 5.00% per annum and interest is credited from the end of the plan year during which the contribution is made until the first day of the month before the determination.

11. Town Contribution

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

12. Participant Requirement

All full-time general employees of the Town of Indian River Shores who were hired prior to May 1, 2013 may optionally become a participant in the plan as of the April 1 or October 1 following a 12-month period during which the employee earns at least 1,000 hours of service; in addition, the Town Manager may participate in the plan.

Summary of Plan Provisions

Table V-A

(continued)

13. Actuarial Equivalence

Based on 5.90% interest per annum and the unisex mortality table promulgated by the Internal Revenue Service (IRS) for purposes of determining lump sum distributions pursuant to Internal Revenue Code (IRC) section 417(e)(3)

14. Plan Effective Date

The plan was originally effective on May 1, 1999.

Summary of Plan Amendments

Table V-B

No significant plan changes were adopted since the completion of the previous valuation.

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

(1) Effective September 25, 2013, the Town Manager was allowed to participate in the plan with a normal retirement date of age 55 with at least five years of service. (Ordinance No. 512)

(2) Effective May 1, 2013, the plan was frozen to new participants. (Ordinance No. 511)

(3) During the 2010/11 fiscal year, the Town of Indian River Shores Defined Benefit Plan was split into two separate plans, one for the general employees and another for the police and fire employees. (Ordinance No. 504)