

Town of Howey-in-the-Hills  
Municipal Police Officers'  
Retirement Trust Fund

Actuarial Valuation  
As of October 1, 2020

Determines the Contribution  
For the 2020/21 Fiscal Year



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March 28, 2021

## Introduction

This report presents the results of the October 1, 2020 actuarial valuation for the Town of Howey-in-the-Hills Municipal Police Officers' Retirement Trust Fund. 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 22.68% of covered payroll, which represents an increase of 5.08% of payroll from the prior valuation.

The normal cost rate is 22.01%, which is 5.01% higher than the normal cost rate that was developed in the prior valuation. Table I-C provides a breakdown of the sources of change in the normal cost rate. Significantly, the rate increased by 1.53% of payroll due to investment shortfalls, decreased by 2.70% of payroll due to demographic experience, and increased by 6.18% of payroll due to the assumption changes that are described below. The market value of assets only earned 5.45% during the 2018/19 plan year and 6.67% during the 2019/20 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 Town 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 Town's 2020/21 minimum required contribution will be equal to 22.68% multiplied by the total pensionable earnings for the 2020/21 fiscal year for the active employees who are covered by the plan and reduced by the allowable Chapter 175/185 contribution. If an actuarial valuation is not prepared as of October 1, 2021, then the 22.68% contribution rate will apply to the 2021/22 plan year as well.

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 \$2,465,932. As illustrated in Table I-A, current assets are sufficient to cover \$1,917,753 of this amount, the employer's 2020/21 expected contribution will cover \$64,458 of this amount, and future employee contributions are expected to cover \$101,493 of this amount, leaving \$382,228 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.

### Actuarial Assumption Changes

Since the completion of the previous valuation, the mortality basis was changed from the RP-2000 Blue Collar 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 and the interest (or discount) rate was decreased from 7.00% per annum to 6.00% per annum. The impact of these assumption changes was to increase the normal cost rate by 6.18% 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 liabilities 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 aggregate funding method for this plan, which is expected to result in a contribution rate that is level as a percentage of payroll over the working life of the plan's active participants. A brief description of the actuarial funding method is provided in Table IV-A.

### 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, 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*

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

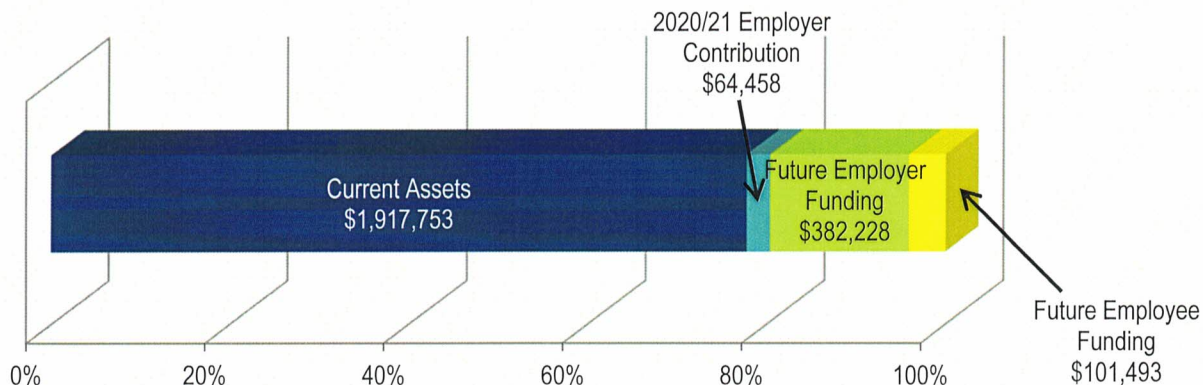
Enrolled Actuary No. 20-04927

*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**

Present Value of Future Benefits	\$2,326,351
Present Value of Future Administrative Expenses	\$139,581
Actuarial Value of Assets	(\$1,917,753)
Present Value of Future Employee Contributions	(\$101,493)
Present Value of Future Normal Costs	\$446,686
Present Value of Future Payroll	÷ \$2,029,854
Normal Cost Rate	= 22.0058%
Expected Payroll	x \$284,227
Normal Cost	\$62,546
Adjustment to Reflect Bi-Weekly Employer Contributions	\$1,912
Preliminary Employer Contribution for the Plan Year	\$64,458
Expected Payroll for the 2020/21 Plan Year	÷ \$284,227

**Minimum Required Contribution Rate** **22.68%**

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

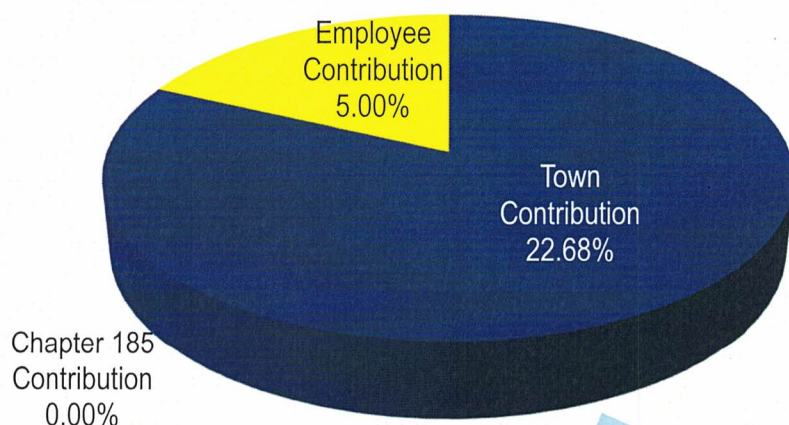


Minimum Required Contribution

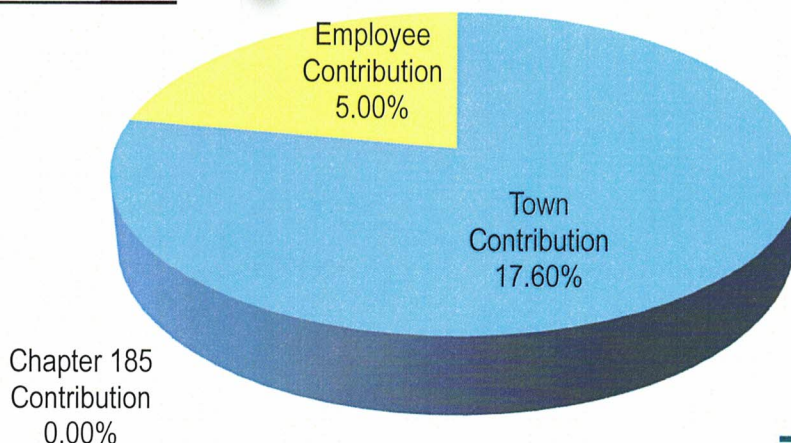
Table I-A  
(continued)

The minimum required contribution rate of 22.68% includes both the Town contribution and the allowable Chapter 185 contribution. In addition, employees are required to contribute 5.00% of pensionable earnings. The actual Town contribution rate is expected to be approximately 22.68% based on the allowable Chapter 185 contribution for the previous year. The chart below shows the expected contribution rate by source for the 2020/21 plan year based on the expected payroll. A comparative chart shows the contribution rate by source for the previous plan year.

**For the 2020/21 Plan Year**



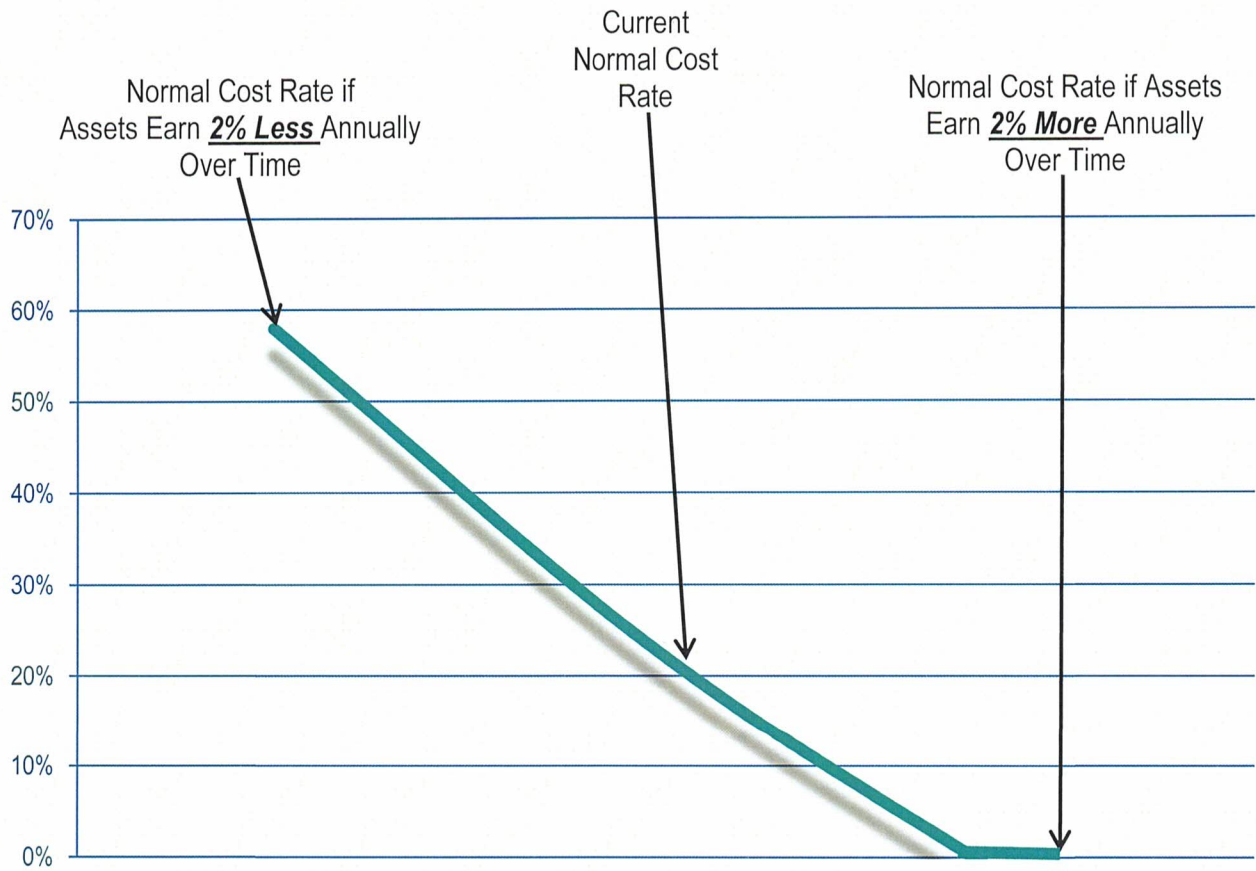
**For the 2019/20 Plan Year**





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	17.00%
Increase (decrease) due to investment gains and losses	1.53%
Increase (decrease) due to demographic experience	-2.70%
Increase (decrease) due to plan amendments	0.00%
Increase (decrease) due to actuarial assumption changes	6.18%
Increase (decrease) due to actuarial method changes	0.00%
Current normal cost rate	<u>22.01%</u>



Present Value of Future Benefits

Table I-D

	<u>Old Assumptions w/o Amendment</u>	<u>Old Assumptions w/ Amendment</u>	<u>New Assumptions w/ Amendment</u>
<i><u>Actively Employed Participants</u></i>			
Retirement benefits	\$1,361,769	\$1,361,769	\$1,569,798
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>\$1,361,769</b>	<b>\$1,361,769</b>	<b>\$1,569,798</b>
<i><u>Deferred Vested Participants</u></i>			
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	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Due a Refund of Contributions</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Deferred Beneficiaries</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Retired Participants</u></i>			
Service retirements	\$522,942	\$522,942	\$562,908
Disability retirements	\$199,858	\$199,858	\$193,645
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$722,800</b>	<b>\$722,800</b>	<b>\$756,553</b>
<i><u>Grand Total</u></i>	<b><u>\$2,084,569</u></b>	<b><u>\$2,084,569</u></b>	<b><u>\$2,326,351</u></b>
Present Value of Future Payroll	\$1,934,558	\$1,934,558	\$2,029,854
Present Value of Future Employee Contribs.	\$96,727	\$96,727	\$101,493
Present Value of Future Employer Contribs.	\$2,559,602	\$2,559,602	\$2,811,125



Present Value of Accrued Benefits

Table I-E

	<u>Old Assumptions w/o Amendment</u>	<u>Old Assumptions w/ Amendment</u>	<u>New Assumptions w/ Amendment</u>
<i><u>Actively Employed Participants</u></i>			
Retirement benefits	\$742,844	\$742,844	\$830,695
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>\$742,844</b>	<b>\$742,844</b>	<b>\$830,695</b>
<i><u>Deferred Vested Participants</u></i>			
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	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Due a Refund of Contributions</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Deferred Beneficiaries</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Retired Participants</u></i>			
Service retirements	\$522,942	\$522,942	\$562,908
Disability retirements	\$199,858	\$199,858	\$193,645
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$722,800</b>	<b>\$722,800</b>	<b>\$756,553</b>
<i><u>Grand Total</u></i>	<b><u>\$1,465,644</u></b>	<b><u>\$1,465,644</u></b>	<b><u>\$1,587,248</u></b>
<i><u>Funded Percentage</u></i>	130.85%	130.85%	120.82%



## Present Value of Vested Benefits

Table I-F

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<i>Actively Employed Participants</i>			
Retirement benefits	\$615,165	\$615,165	\$680,624
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>\$615,165</b>	<b>\$615,165</b>	<b>\$680,624</b>
<i>Deferred Vested Participants</i>			
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	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i>Due a Refund of Contributions</i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i>Deferred Beneficiaries</i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i>Retired Participants</i>			
Service retirements	\$522,942	\$522,942	\$562,908
Disability retirements	\$199,858	\$199,858	\$193,645
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$722,800</b>	<b>\$722,800</b>	<b>\$756,553</b>
<i>Grand Total</i>	<b><u>\$1,337,965</u></b>	<b><u>\$1,337,965</u></b>	<b><u>\$1,437,177</u></b>



Entry Age Normal Accrued Liability

Table I-G

	<u>Old Assumptions w/o Amendment</u>	<u>Old Assumptions w/ Amendment</u>	<u>New Assumptions w/ Amendment</u>
<i><u>Actively Employed Participants</u></i>			
Retirement benefits	\$881,841	\$881,841	\$979,781
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>\$881,841</b>	<b>\$881,841</b>	<b>\$979,781</b>
<i><u>Deferred Vested Participants</u></i>			
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	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Due a Refund of Contributions</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Deferred Beneficiaries</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Retired Participants</u></i>			
Service retirements	\$522,942	\$522,942	\$562,908
Disability retirements	\$199,858	\$199,858	\$193,645
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$722,800</b>	<b>\$722,800</b>	<b>\$756,553</b>
<i><u>Grand Total</u></i>	<b><u>\$1,604,641</u></b>	<b><u>\$1,604,641</u></b>	<b><u>\$1,736,334</u></b>



## Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2020	\$1,917,753
Minus advance employer contributions	\$0
Minus excess Chapter 175/185 contributions	\$0
<b>Actuarial Value of Assets as of October 1, 2020</b>	<b><u>\$1,917,753</u></b>

Historical Actuarial Value of Assets

October 1, 2011	N/A
October 1, 2012	\$1,013,795
October 1, 2013	\$1,167,034
October 1, 2014	\$1,259,231
October 1, 2015	\$1,181,785
October 1, 2016	\$1,284,136
October 1, 2017	\$1,466,593
October 1, 2018	\$1,630,604
October 1, 2019	\$1,738,402
October 1, 2020	\$1,917,753

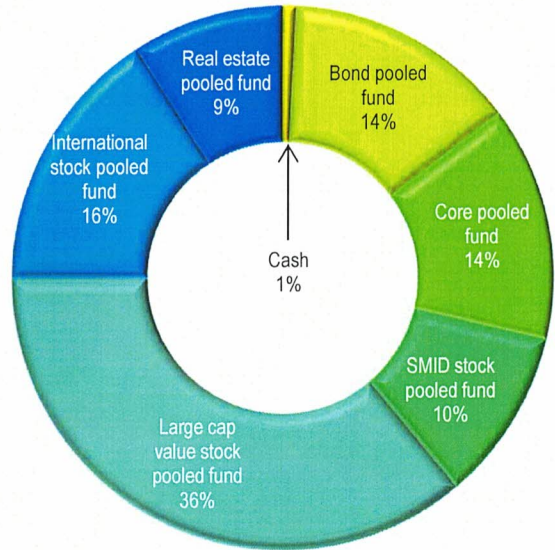


Market Value of Assets

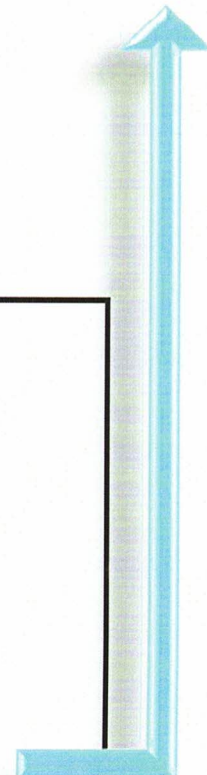
Table II-B

As of October 1, 2020

<b>Market Value of Assets</b>	<b><u>\$1,917,753</u></b>
Cash	\$15,342
Bond pooled fund	\$266,576
Core pooled fund	\$268,493
SMID stock pooled fund	\$195,617
Large cap value stock pooled fund	\$692,330
International stock pooled fund	\$304,932
Real estate pooled fund	\$174,521
Employee contribution payable	(\$58)



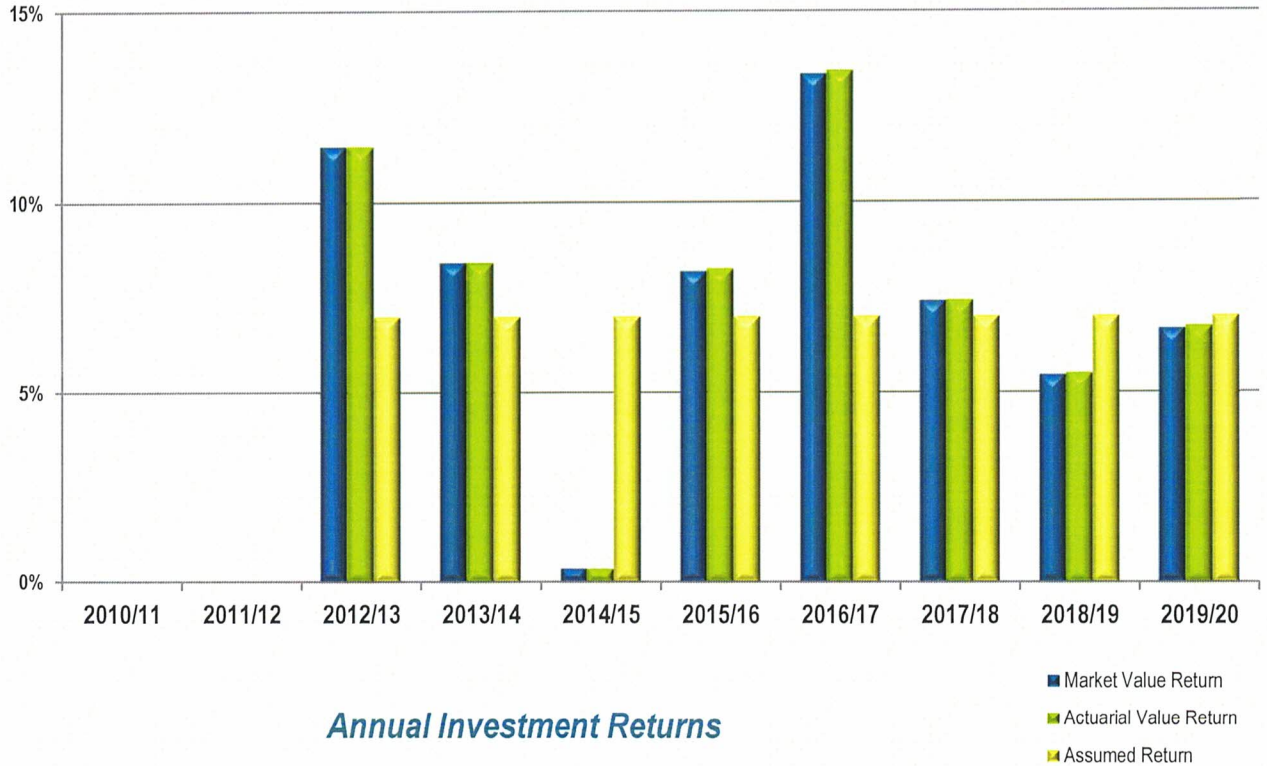
<u>Historical Market Value of Assets</u>	
October 1, 2011	N/A
October 1, 2012	\$1,013,795
October 1, 2013	\$1,167,034
October 1, 2014	\$1,259,231
October 1, 2015	\$1,188,956
October 1, 2016	\$1,296,213
October 1, 2017	\$1,469,969
October 1, 2018	\$1,630,604
October 1, 2019	\$1,775,207
October 1, 2020	\$1,917,753





Investment Return

Table II-C



Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2010/11	N/A	N/A	N/A
2011/12	N/A	N/A	N/A
2012/13	11.46%	11.46%	7.00%
2013/14	8.42%	8.42%	7.00%
2014/15	0.37%	0.37%	7.00%
2015/16	8.18%	8.25%	7.00%
2016/17	13.36%	13.44%	7.00%
2017/18	7.40%	7.41%	7.00%
2018/19	5.45%	5.51%	7.00%
2019/20	6.67%	6.74%	7.00%
8yr. Avg.	7.60%	7.64%	7.00%



## Asset Reconciliation

## Table II-D

	<u>Market Value</u>	<u>Actuarial Value</u>
As of October 1, 2018	\$1,630,604	\$1,630,604
<i>Increases Due To:</i>		
Employer Contributions	\$175,565	\$175,565
Chapter 175/185 Contributions	\$13,075	\$13,075
Employee Contributions	\$31,845	\$31,845
Service Purchase Contributions	\$0	\$0
Total Contributions	<u>\$220,485</u>	<u>\$220,485</u>
Interest and Dividends	\$0	
Realized Gains (Losses)	\$0	
Unrealized Gains (Losses)	\$209,573	
Total Investment Income	<u>\$209,573</u>	\$209,573
Other Income	\$0	
<b>Total Income</b>	<b><u>\$430,058</u></b>	<b><u>\$430,058</u></b>
<i>Decreases Due To:</i>		
Monthly Benefit Payments	(\$111,073)	(\$111,073)
Refund of Employee Contributions	(\$6,607)	(\$6,607)
Total Benefit Payments	<u>(\$117,680)</u>	<u>(\$117,680)</u>
Investment Expenses	\$0	
Administrative Expenses	(\$25,229)	(\$25,229)
Advance Employer Contribution		\$0
Excess Chapter 175/185 Contribution		\$0
<b>Total Expenses</b>	<b><u>(\$142,909)</u></b>	<b><u>(\$142,909)</u></b>
As of October 1, 2020	<b><u><u>\$1,917,753</u></u></b>	<b><u><u>\$1,917,753</u></u></b>



## Historical Trust Fund Detail

Table II-E

Income

<u>Plan</u> <u>Year</u>	<u>Employer</u> <u>Contribs.</u>	<u>Chapter</u> <u>Contribs.</u>	<u>Employee</u> <u>Contribs.</u>	<u>Service</u> <u>Purchase</u> <u>Contribs.</u>	<u>Interest /</u> <u>Dividends</u>	<u>Realized</u>	<u>Unrealized</u>	<u>Other</u> <u>Income</u>
						<u>Gains /</u> <u>Losses</u>	<u>Gains /</u> <u>Losses</u>	
2010/11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2011/12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2012/13	\$64,772	\$10,265	\$11,543	\$0	\$0	\$0	\$118,233	\$0
2013/14	\$61,535	\$10,022	\$11,104	\$0	\$0	\$0	\$98,020	\$0
2014/15	\$55,086	\$9,916	\$10,401	\$0	\$0	\$0	\$4,532	\$0
2015/16	\$71,139	\$10,983	\$12,605	\$0	\$0	\$0	\$97,676	\$0
2016/17	\$70,234	\$10,991	\$13,006	\$0	\$0	\$0	\$173,224	\$0
2017/18	\$84,885	\$12,294	\$14,544	\$0	\$0	\$0	\$110,663	\$0
2018/19	\$93,829	\$13,075	\$16,698	\$0	\$0	\$0	\$90,347	\$0
2019/20	\$81,736	\$0	\$15,147	\$0	\$0	\$0	\$119,226	\$0

Expenses

<u>Plan</u> <u>Year</u>	<u>Monthly</u> <u>Benefit</u> <u>Payments</u>	<u>Contrib.</u> <u>Refunds</u>	<u>Admin.</u> <u>Expenses</u>	<u>Invest.</u> <u>Expenses</u>	<u>Other Actuarial Adjustments</u>	
					<u>Advance</u> <u>Employer</u> <u>Contribs.</u>	<u>Excess</u> <u>Chapter</u> <u>Contribs.</u>
2010/11	N/A	N/A	N/A	N/A	N/A	N/A
2011/12	N/A	N/A	N/A	N/A	N/A	N/A
2012/13	\$38,380	\$0	\$13,194	\$0	\$0	\$0
2013/14	\$53,558	\$18,901	\$16,025	\$0	\$0	\$0
2014/15	\$65,440	\$72,694	\$12,076	\$0	\$7,171	\$0
2015/16	\$77,149	\$0	\$7,997	\$0	\$4,906	\$0
2016/17	\$77,149	\$2,651	\$13,899	\$0	-\$8,701	\$0
2017/18	\$54,670	\$0	\$7,081	\$0	-\$3,376	\$0
2018/19	\$48,463	\$4,483	\$16,400	\$0	\$36,804	\$0
2019/20	\$62,610	\$2,124	\$8,829	\$0	-\$36,804	\$0

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



## Other Reconciliations

## Table II-F

**Advance Employer Contribution**

Advance Employer Contribution as of October 1, 2018	\$0
Additional Employer Contribution	\$106,904
Minimum Required Contribution	(\$70,100)
Net Increase in Advance Employer Contribution	\$36,804
Advance Employer Contribution as of October 1, 2019	\$36,804
Additional Employer Contribution	\$81,736
Immediate Application of Advance Contribution	(\$65,185)
Minimum Required Contribution	(\$53,355)
Net Increase in Advance Employer Contribution	(\$36,804)
Advance Employer Contribution as of October 1, 2020	\$0

**Excess Chapter 175/185 Contribution**

Excess Chapter 175/185 Contribution as of October 1, 2018	\$0
Additional Chapter 175/185 Contribution	\$13,075
Allowable Chapter 175/185 Contribution	(\$13,075)
Net Increase in Excess Chapter 175/185 Contribution	\$0
Excess Chapter 175/185 Contribution as of October 1, 2019	\$0
Additional Chapter 175/185 Contribution	\$0
Allowable Chapter 175/185 Contribution	\$0
Net Increase in Excess Chapter 175/185 Contribution	\$0
Excess Chapter 175/185 Contribution as of October 1, 2020	\$0



## Historical Chapter 175/185 Contributions

Table II-G

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

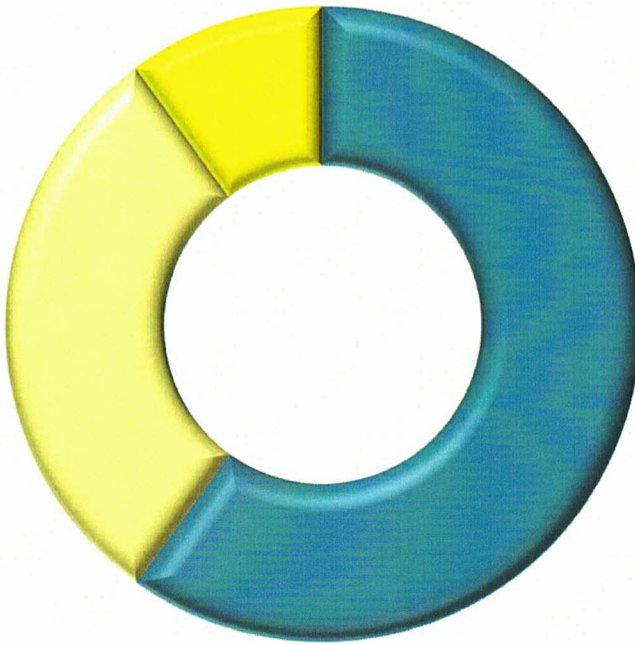
	Chapter 175 Regular Distribution	Chapter 175 Supplemental Distribution	Chapter 185 Distribution	Allowable Amount
1998 Distribution	\$0	\$0	\$5,907	(\$5,907)
1999 Distribution	\$0	\$0	\$5,470	(\$5,470)
2000 Distribution	\$0	\$0	\$6,082	(\$6,082)
2001 Distribution	\$0	\$0	\$8,235	(\$8,235)
2002 Distribution	\$0	\$0	\$8,299	(\$8,299)
2003 Distribution	\$0	\$0	\$9,271	(\$9,271)
2004 Distribution	\$0	\$0	\$8,657	(\$8,657)
2005 Distribution	\$0	\$0	\$9,244	(\$9,244)
2006 Distribution	\$0	\$0	\$9,193	(\$9,193)
2007 Distribution	\$0	\$0	\$8,809	(\$8,809)
2008 Distribution	\$0	\$0	\$9,607	(\$9,607)
2009 Distribution	\$0	\$0	\$10,019	(\$10,019)
2010 Distribution	\$0	\$0	\$9,394	(\$9,394)
2011 Distribution	\$0	\$0	\$10,053	(\$10,053)
2012 Distribution	\$0	\$0	\$10,265	(\$10,265)
2013 Distribution	\$0	\$0	\$10,022	(\$10,022)
2014 Distribution	\$0	\$0	\$9,916	(\$9,916)
2015 Distribution	\$0	\$0	\$10,983	(\$10,983)
2016 Distribution	\$0	\$0	\$10,991	(\$10,991)
2017 Distribution	\$0	\$0	\$12,294	(\$12,294)
2018 Distribution	\$0	\$0	\$13,075	(\$13,075)
2019 Distribution	\$0	\$0	\$0	\$0



Summary of Participant Data

Table III-A

As of October 1, 2020

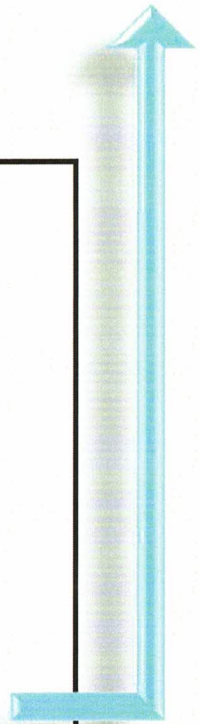


Participant Distribution by Status

<u>Actively Employed Participants</u>		
◆	Active Participants	6
◆	DROP Participants	0
<u>Inactive Participants</u>		
◆	Deferred Vested Participants	0
◆	Due a Refund of Contributions	0
◆	Deferred Beneficiaries	0
<u>Participants Receiving a Benefit</u>		
◆	Service Retirements	3
◆	Disability Retirements	1
◆	Beneficiaries Receiving	0
<b>Total Participants</b>		<b>10</b>

Number of Participants Included in Prior Valuations

	<i>Active</i>	<i>DROP</i>	<i>Inactive</i>	<i>Retired</i>	<i>Total</i>
October 1, 2011	N/A	N/A	N/A	N/A	N/A
October 1, 2012	N/A	N/A	N/A	N/A	N/A
October 1, 2013	6	0	0	2	8
October 1, 2014	5	0	0	3	8
October 1, 2015	N/A	N/A	N/A	N/A	N/A
October 1, 2016	6	0	0	4	10
October 1, 2017	N/A	N/A	N/A	N/A	N/A
October 1, 2018	7	0	0	3	10
October 1, 2019	N/A	N/A	N/A	N/A	N/A
October 1, 2020	6	0	0	4	10



## 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, 2018</u>	7	0	0	0	0	2	1	0	10
<u>Change in Status</u>									
Re-employed	1		(1)						
Terminated	(3)		1	2					
Retired	(1)					1			
<u>Participation Ended</u>									
Transferred Out									
Cashed Out				(2)					(2)
Died									
<u>Participation Began</u>									
Newly Hired	2								2
Transferred In									
New Beneficiary									
<u>Other Adjustment</u>									
<u>October 1, 2020</u>	6	0	0	0	0	3	1	0	10

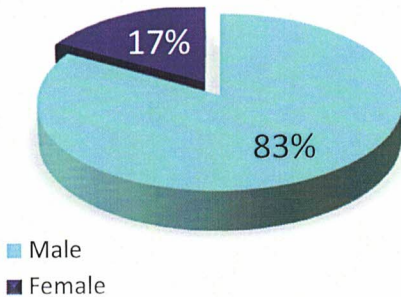


Active Participant Data

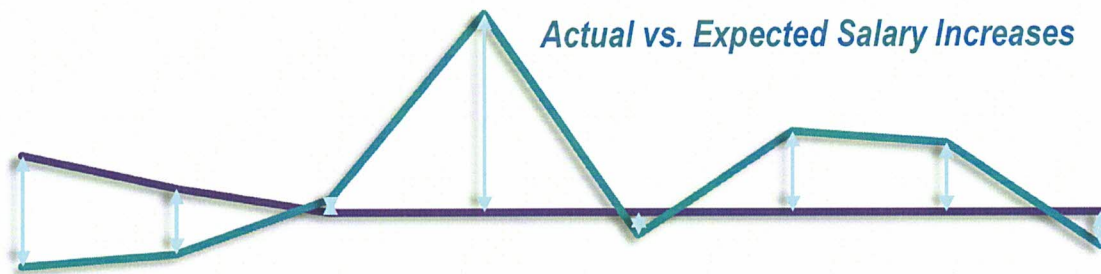
Table III-C

As of October 1, 2020

Gender Mix



Average Age	49.0 years
Average Service	9.0 years
Total Annualized Compensation for the Prior Year	\$264,712
Total Expected Compensation for the Current Year	\$284,227
Average Increase in Compensation for the Prior Year	1.99%
Expected Increase in Compensation for the Current Year	4.00%



Active Participant Statistics From Prior Valuations

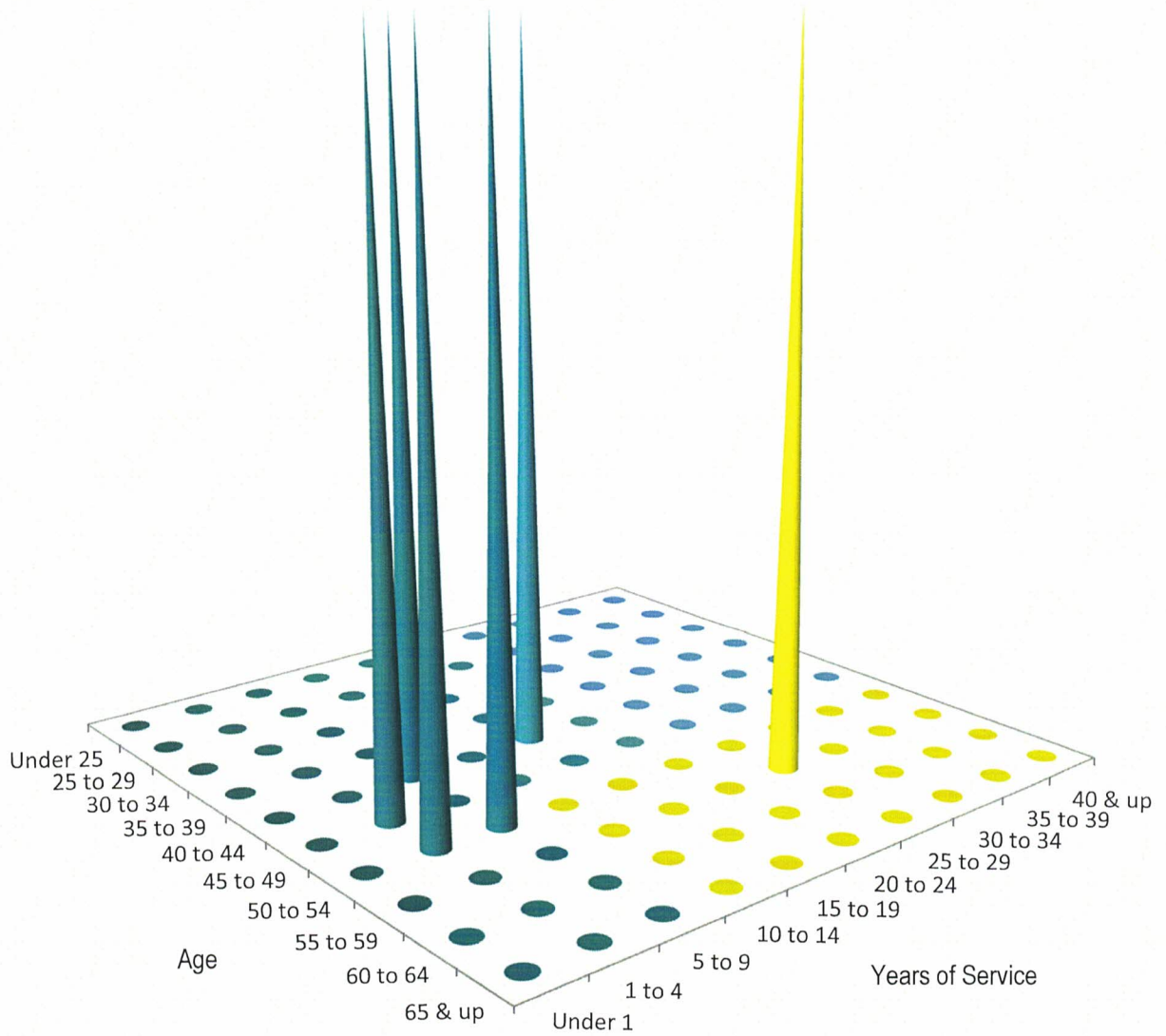
	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
October 1, 2011	N/A	N/A	N/A	7.50%	0.40%
October 1, 2012	N/A	N/A	N/A	7.50%	-0.60%
October 1, 2013	49.8	11.9	\$46,828	7.50%	0.80%
October 1, 2014	50.6	9.8	\$42,450	5.50%	1.53%
October 1, 2015	N/A	N/A	N/A	4.00%	4.81%
October 1, 2016	45.0	7.2	\$42,527	4.00%	15.87%
October 1, 2017	N/A	N/A	N/A	4.00%	2.65%
October 1, 2018	45.7	7.7	\$45,395	4.00%	8.82%
October 1, 2019	N/A	N/A	N/A	4.00%	8.13%
October 1, 2020	49.0	9.0	\$44,119	4.00%	1.99%





# Active Age-Service Distribution

Table III-D



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



## Active Age-Service-Salary Table

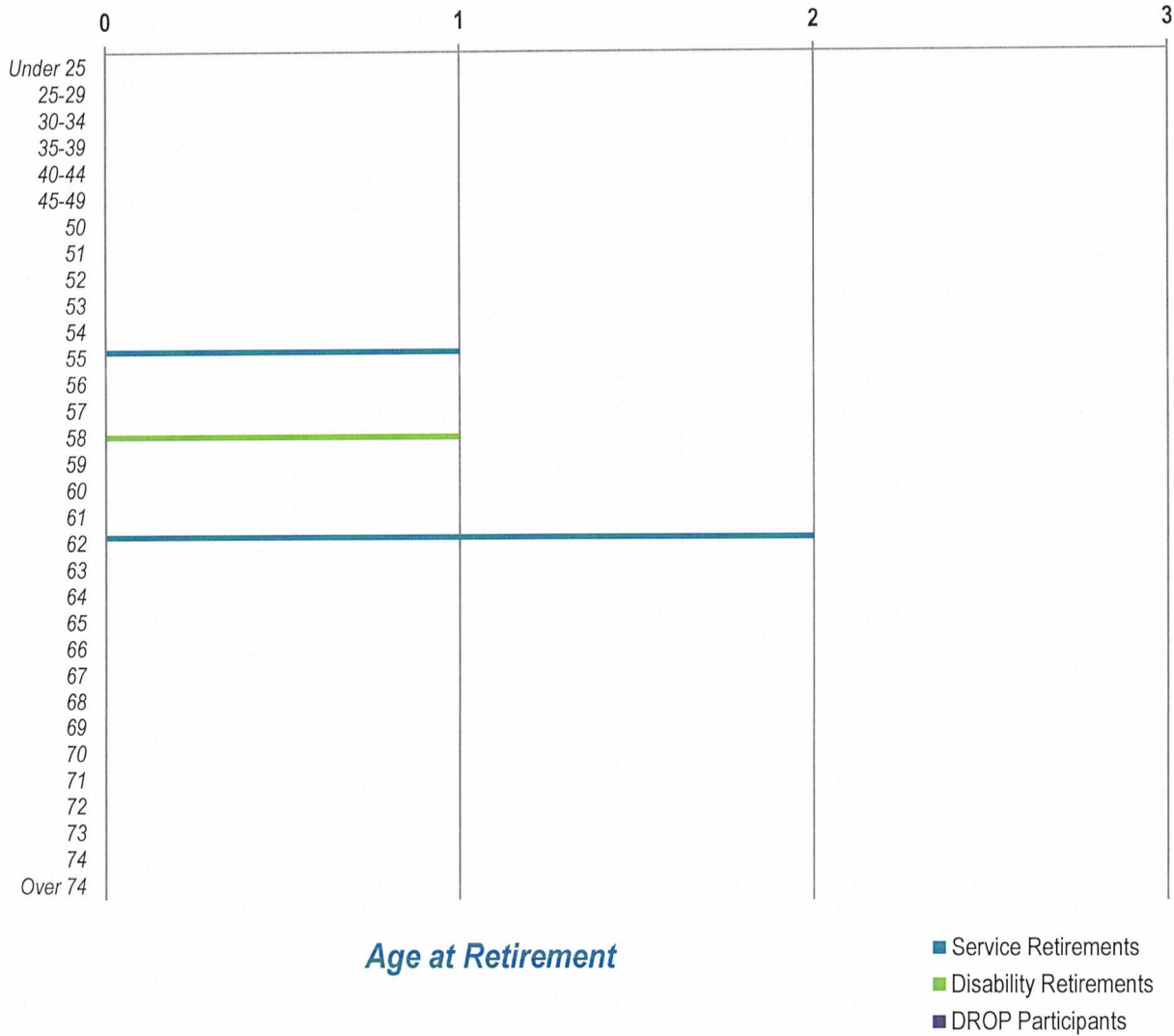
Table III-E

Attained Age	Completed Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	0	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	1	0	1	0	0	0	0	0	0	2
Avg.Pay	0	0	45,730	0	15,152	0	0	0	0	0	0	30,441
45 to 49	0	1	0	0	0	0	0	0	0	0	0	1
Avg.Pay	0	38,031	0	0	0	0	0	0	0	0	0	38,031
50 to 54	0	1	1	0	0	0	0	0	0	0	0	2
Avg.Pay	0	46,336	53,312	0	0	0	0	0	0	0	0	49,824
55 to 59	0	0	0	0	0	0	1	0	0	0	0	1
Avg.Pay	0	0	0	0	0	0	66,151	0	0	0	0	66,151
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0	0
65 & up	0	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>
Avg.Pay	0	42,184	49,521	0	15,152	0	66,151	0	0	0	0	44,119



Inactive Participant Data

Table III-F



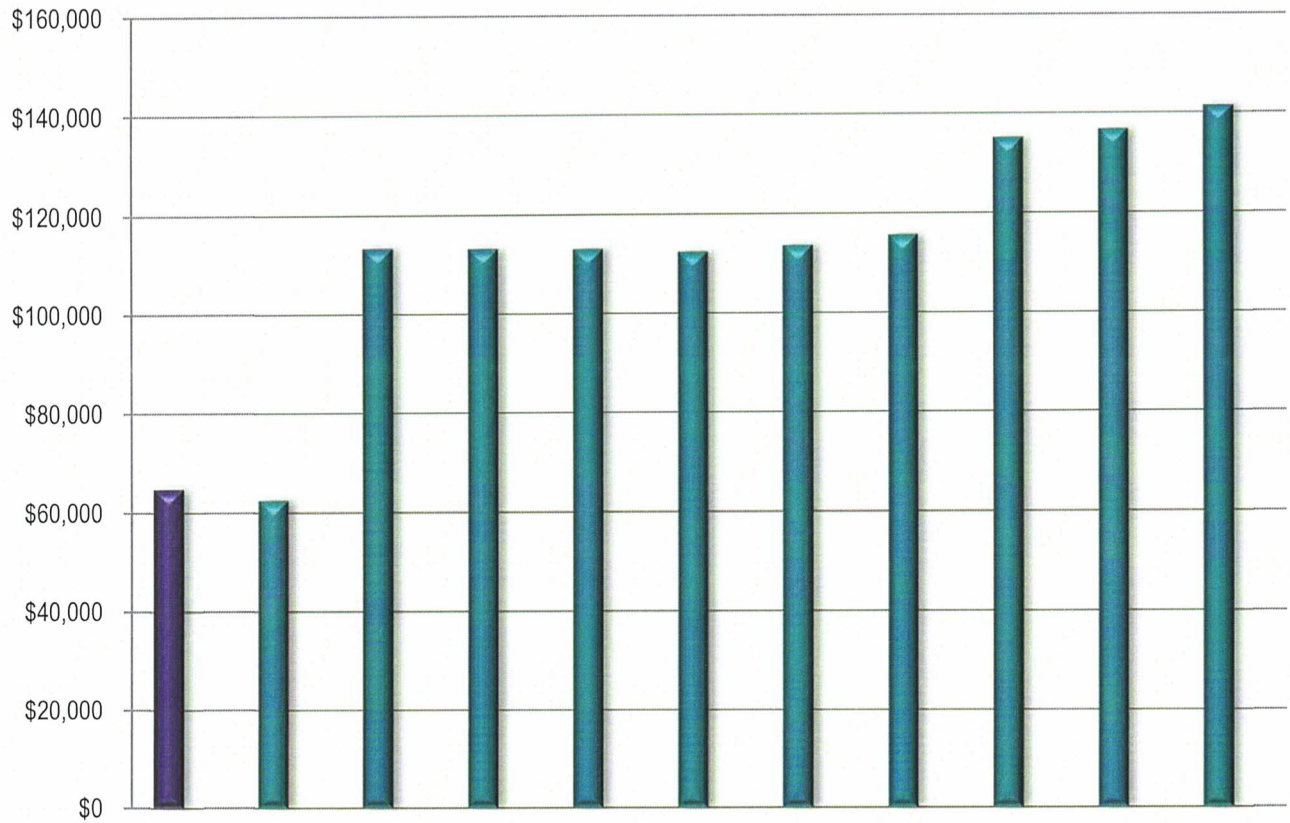
Average Monthly Benefit

Service Retirements	\$1,219.83
Disability Retirements	\$1,558.01
Beneficiaries Receiving	<i>Not applicable</i>
DROP Participants	<i>Not applicable</i>
Deferred Vested Participants	<i>Not applicable</i>
Deferred Beneficiaries	<i>Not applicable</i>



Projected Benefit Payments

Table III-G



Actual

For the period October 1, 2019 through September 30, 2020 \$64,734

Projected

For the period October 1, 2020 through September 30, 2021 \$62,524  
 For the period October 1, 2021 through September 30, 2022 \$113,326  
 For the period October 1, 2022 through September 30, 2023 \$113,214  
 For the period October 1, 2023 through September 30, 2024 \$113,084  
 For the period October 1, 2024 through September 30, 2025 \$112,456  
 For the period October 1, 2025 through September 30, 2026 \$113,696  
 For the period October 1, 2026 through September 30, 2027 \$115,720  
 For the period October 1, 2027 through September 30, 2028 \$135,066  
 For the period October 1, 2028 through September 30, 2029 \$136,767  
 For the period October 1, 2029 through September 30, 2030 \$141,488



## 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**

6.00% per annum

**4. Salary Increases**

Plan 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: For non-disabled retirees, sex-distinct rates set forth in the PUB-2010 Headcount-Weighted Healthy Retiree Mortality Table for public safety employees (Below Median table for males), with full generational improvements in mortality using Scale MP-2018 and with ages set forward one year; for disabled retirees, sex-distinct rates set forth in the PUB-2010 Headcount-Weighted Disabled Retiree Mortality Table (80% general employee rates plus 20% public safety employee rates), with full generational improvements in mortality using Scale MP-2018
- Disability: None is assumed.



## Summary of Actuarial Methods and Assumptions

## Table IV-A

(continued)

- Termination: None is assumed.
- Retirement: Retirement is assumed to occur at the rate of 5% at each of ages 50 through 54 if the participant is eligible for early retirement or at the rate of 10% at each age after age 54 if the participant is eligible for normal retirement; alternatively, 100% retirement is assumed at age 58 with at least 13 years of service or at age 55 with at least 28 years of service; no retirement decrement is assumed during the first year after the valuation date.

**6. Form of Payment**

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

**7. Expenses**

The total projected benefit liability has been loaded by 6.00% to account for anticipated administrative expenses. In addition, the interest rate set forth in item 3. above is assumed to be net of investment expenses and commissions.



## Changes in Actuarial Methods and Assumptions

## Table IV-B

Since the completion of the previous valuation, the mortality basis was changed from the RP-2000 Blue Collar 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 and the interest (or discount) rate was decreased from 7.00% per annum to 6.00% per annum.

*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, 2014, the assumed increase in future salaries was changed from service-based rates ranging from 5.50% to 10.00% per year, plus a 5.00% load to account for non-regular compensation, to a flat 4.00% per year.*
- (3) Effective October 1, 2014, the termination and disability decrements were eliminated.*
- (4) Effective October 1, 2014, the mortality basis was changed from the unprojected RP-2000 Mortality Table to the RP-2000 Mortality Table projected to 2015 by Scale AA.*
- (5) Effective October 1, 2014, the administrative expense assumption was changed from the actual average of administrative expenses for the past three years to 6.00% of the projected benefit liability.*



## Summary of Plan Provisions

## Table V-A

**1. Benefit Formula**

3.00% of Average Monthly Earnings multiplied by Credited Service

**2. Service Retirement**

Normal retirement: Age 55 with at least 10 years of credited service; or

Age 52 with at least 25 years of credited service

Early retirement: Age 50 with at least 10 years of credited service

*Note: The early retirement benefit is reduced by 3% for each year (prorated for portions of a year) by which the participant's early retirement date precedes his normal retirement date.*

**3. Disability Retirement**

The disability benefit is a monthly 10-year certain and life annuity equal to the accrued normal retirement benefit, but no less than 42% of average monthly earnings in the case of a service-connected disability. A participant must have earned at least 10 years of Credited Service unless his disability is service-connected. The participant may convert his disability benefit into any of the optional forms of payment that are otherwise available under the plan.

**4. Deferred Vested Retirement**

A vested participant who terminates employment before becoming eligible for retirement receives a deferred vested retirement pension equal to the accrued monthly benefit payable at the participant's normal retirement age (unreduced) or early retirement age (reduced by 3% for each year or portions thereof by which the early retirement date precedes the normal retirement date).

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

**5. Vesting**

An employee becomes 100% vested upon the attainment of 10 years of Credited Service





## Summary of Plan Provisions

## Table V-A

(continued)

**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 accrued normal retirement benefit, reduced for early retirement if applicable, and payable at the participant's early or normal retirement date; alternatively, an actuarially equivalent 10-year certain annuity is payable immediately upon the death of the participant; if the beneficiary is not the participant's spouse, the early retirement reduction is replaced by an actuarial reduction if the participant was not eligible for early or normal retirement at the time of his death.

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

**7. Form of Payment**

Actuarially increased single life annuity (*optional*);

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

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

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

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

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

Actuarially equivalent social security level income annuity (*optional*);

Single lump sum payment equal to 10%, 15%, 20%, or 25% of the actuarially equivalent value of the normal form of payment plus a monthly annuity equal to the remaining value payable in any of the forms of annuity available under the plan (*optional*);

Actuarially equivalent single lump sum distribution (*optional at the discretion of the pension board and only available if the single sum value of the participant's benefit is less than or equal to \$1,000*)

(*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 highest five years of compensation out of the 10 years immediately preceding the determination date. Earnings includes total W-2 compensation, but excludes overtime in excess of 300 hours per year after July 1, 2011 and payments for unused sick and annual leave that accrues after July 1, 2011. 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; subject to certain limitations, a participant may purchase additional service credit for previous employment with the Town, for previous employment as a police officer in another jurisdiction, or for military service.

**10. Employee Contribution**

Employees must contribute 5.00% of pensionable earnings. Employee contributions are accumulated without interest.

**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 police officers of the Town of Howie-in-the-Hills automatically become participants in the plan on their date of hire.

**13. Actuarial Equivalence**

Based on 8.00% interest per annum and the RP-2000 Combined Healthy Mortality Table (Unisex)



## Summary of Plan Amendments

Table V-B

There were no significant plan changes since the completion of the previous valuation.

