

City of Satellite Beach  
Police Officers' and Firefighters'  
Retirement System

Actuarial Valuation  
As of October 1, 2023

Determines the Contribution  
For the 2024/25 Fiscal Year



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January 27, 2024

## Introduction

This report presents the results of the October 1, 2023 actuarial valuation of the City of Satellite Beach Police Officers' and Firefighters' Retirement System. The report is based on the participant data and asset information provided by the pension plan administrator and, except for a cursory review for reasonableness including a comparison to the data provided for the previous valuation, we have not attempted to verify the accuracy of this information.

The primary purpose of this report is to provide a summary of the funded status of the plan as of October 1, 2023 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2024/25 plan year. In addition, this report provides a projection of the long-term funding requirements of the plan, statistical information concerning the assets held in the trust, statistical information concerning the participant population, and a summary of any recent plan changes.

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

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

## Minimum Required Contribution

Table I-A shows the development of the minimum required contribution for the 2024/25 plan year. The minimum required contribution rate is 38.99% of covered payroll, which represents an increase of 3.51% of payroll from the prior valuation.

Table I-C provides a breakdown of the sources of change in the contribution rate. Significantly, the rate increased by 1.40% of payroll due to investment shortfalls and increased by another 2.11% of payroll due to demographic experience. The market value of assets earned 8.59% during the 2022/23 plan year. However, the actuarial value of assets is based on a four-year average of the market value returns. On this basis, the actuarial value of assets only earned 4.89% during the 2022/23 plan year, whereas a 6.80% 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 amortization payment towards the unfunded liability, where the amortization period is no longer than 30 years and where both 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 City's 2024/25 minimum required contribution will be equal to 38.99% multiplied by the total pensionable earnings for the 2024/25 fiscal year for the active employees who are covered by the plan and reduced by the portion of the Chapter 175/185 contribution that is allowed to be recognized during the 2024/25 plan year. With respect to the 2022/23 plan year, the allowable portion of the Chapter 175/185 contribution is 50% of the distribution. Future years' use of the Chapter 175/185 contribution after the 2022/23 plan year is subject to collective bargaining.

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 \$33,675,530. As illustrated in Table I-A, current assets are sufficient to cover \$24,802,905 of this amount, the employer's 2023/24 expected contribution will cover \$908,963 of this amount, the employer's 2024/25 expected contribution will cover \$1,046,391 of this amount, and future employee contributions are expected to cover \$1,490,842 of this amount, leaving \$5,426,429 to be covered by future employer funding beyond the 2024/25 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. We recommend a 10-year amortization period for amortization components that arise after October 1, 2008. However, it is our understanding that the Board of Trustees has adopted a 30-year amortization period for this purpose and this report reflects the Board's decision. Table I-I shows the various components of the unfunded liability and the respective funding period for each component.

#### 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 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-H 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 four-year average return on the market value of assets in order to provide a more stable and predictable contribution rate for the employer. Tables 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, 2023, 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, except as noted in Table IV-A, item 4. 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. 23-04927

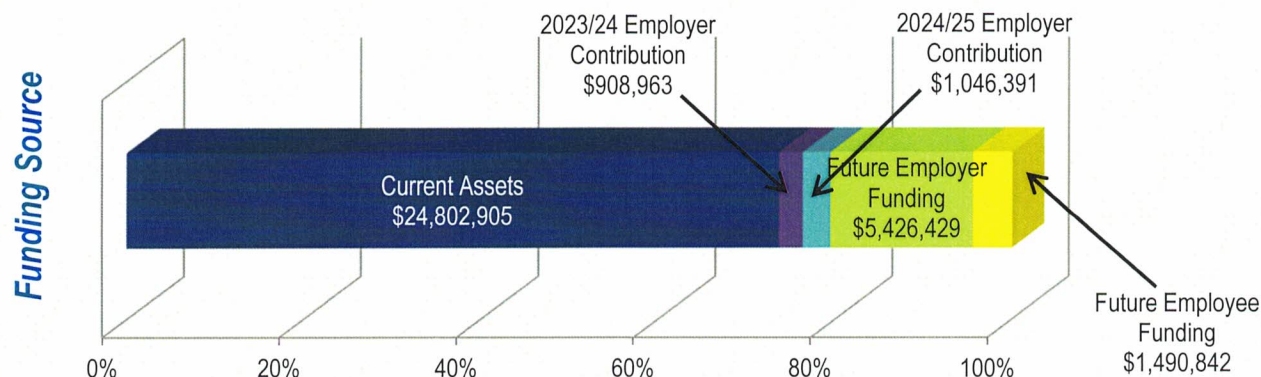
*The individual above is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.*





# Minimum Required Contribution

Table I-A



## For the 2024/25 Plan Year

Entry Age Normal Cost for the 2023/24 Plan Year	\$807,848
Unfunded Liability Amortization Payment for the 2023/24 Plan Year	\$365,683
Expense Allowance for the 2023/24 Plan Year	\$32,024
Expected Employee Contribution for the 2023/24 Plan Year	(\$209,545)
	\$996,010
Adjustment to Reflect End-of-Quarter Employer Contributions	\$41,631
Expected Employer Contribution for the 2023/24 Plan Year	(\$908,963)
Remaining Contribution Due/(Credit) for the 2023/24 Plan Year	\$128,678
	x 0.068
One Year's Interest Charge/(Credit) on the Remaining Contribution	\$8,750
Preliminary Employer Contribution for the 2024/25 Plan Year	\$1,046,391
Expected Payroll for the 2024/25 Plan Year	÷ \$2,683,593

**Minimum Required Contribution Rate** **38.99%**

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

## Additional Disclosures

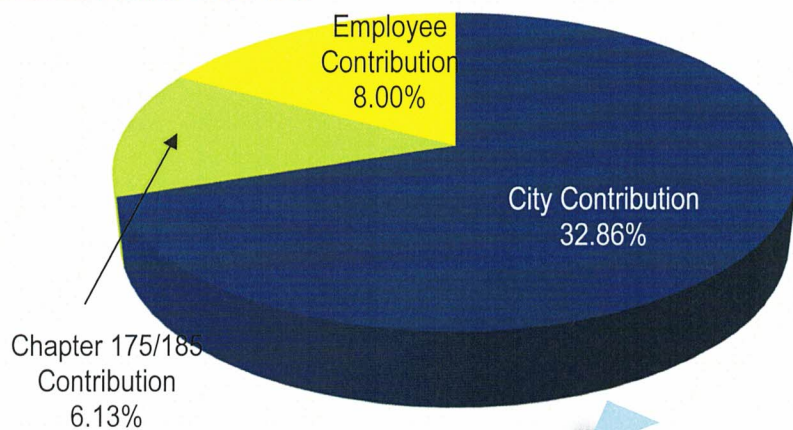
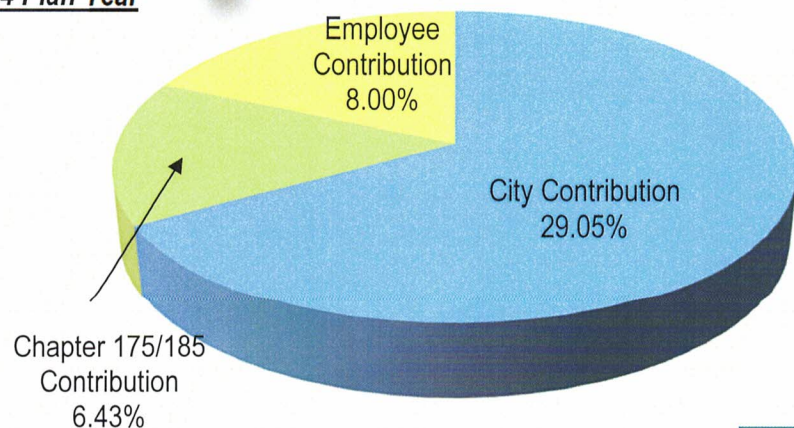
Present Value of Future Compensation	\$18,635,558
Present Value of Future Employer Contributions	\$7,381,783
Present Value of Future Employee Contributions	\$1,490,842



## Minimum Required Contribution

Table I-A  
(continued)

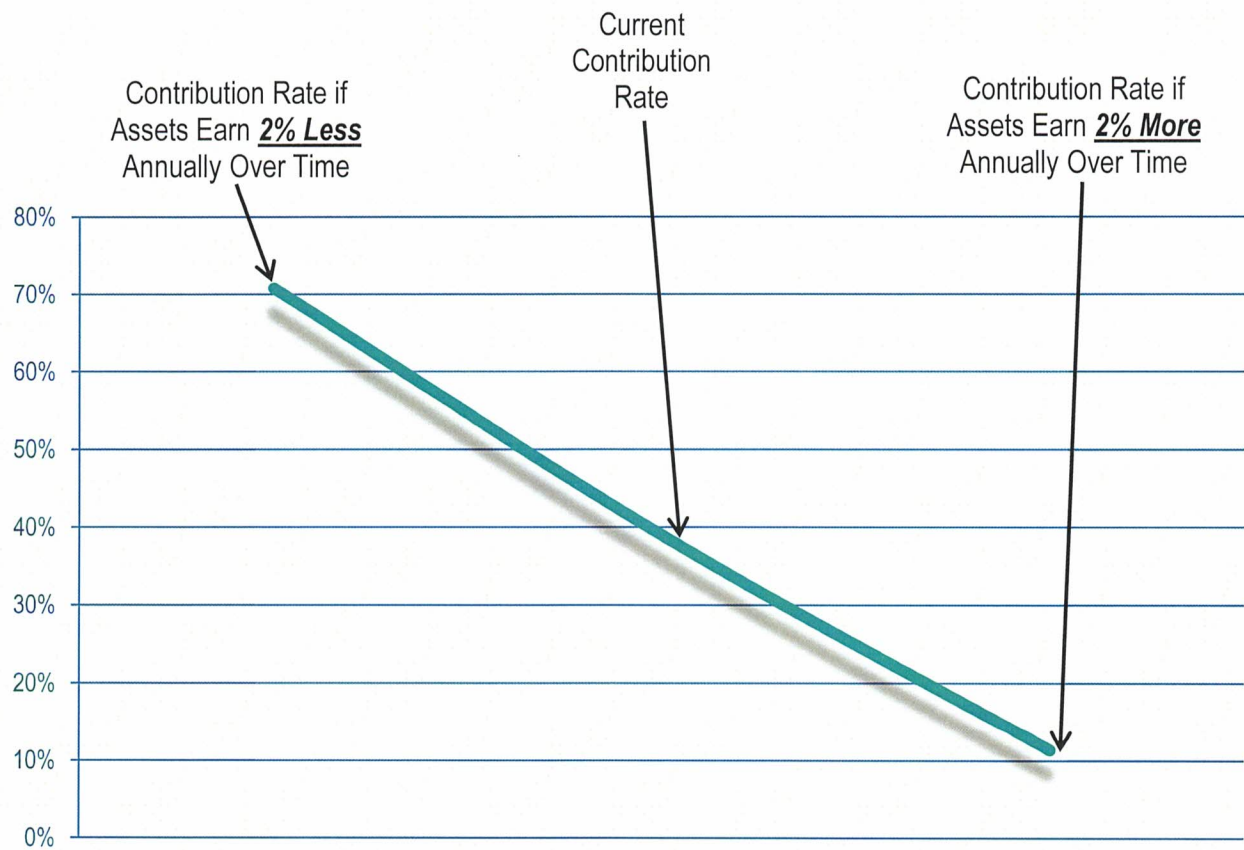
The minimum required contribution rate of 38.99% includes both the City contribution and the allowable Chapter 175/185 contribution. In addition, employees are required to contribute 8.00% of pensionable earnings. The actual City contribution rate is expected to be approximately 32.86% based on the allowable Chapter 175/185 contribution for the previous year. The chart below shows the expected contribution rate by source for the 2024/25 plan year based on the expected payroll. A comparative chart shows the contribution rate by source for the previous plan year.

**For the 2024/25 Plan Year****For the 2023/24 Plan Year**



## 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	35.48%
Increase (decrease) due to investment gains and losses	1.40%
Increase (decrease) due to demographic experience	2.11%
Increase (decrease) due to plan amendments	0.00%
Increase (decrease) due to actuarial assumption changes	0.00%
Increase (decrease) due to actuarial method changes	0.00%
Current minimum required contribution rate	<u>38.99%</u>

**Source of Change in the Unfunded Liability**

Previous unfunded liability	\$2,443,455
Increase due to employer normal cost for the prior year	\$629,923
Increase due to interest on normal cost and unfunded liability	\$208,990
Decrease due to employer contributions	(\$992,793)
Decrease due to interest on employer contributions	(\$33,200)
Expected unfunded liability	<u>\$2,256,375</u>
Increase (decrease) due to plan experience	\$1,123,242
Increase (decrease) due to plan amendments	\$0
Increase (decrease) due to actuarial assumption changes	\$0
Increase (decrease) due to actuarial method changes	\$0
Current unfunded liability	<u>\$3,379,617</u>





## Present Value of Future Benefits

Table I-D

	Old Assumptions <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<i><u>Actively Employed Participants</u></i>			
Retirement benefits	\$14,294,852	\$14,294,852	\$14,294,852
Termination benefits	\$512,650	\$512,650	\$512,650
Disability benefits	\$1,077,831	\$1,077,831	\$1,077,831
Death benefits	\$49,419	\$49,419	\$49,419
Refund of employee contributions	\$21,336	\$21,336	\$21,336
Sub-total	<b>\$15,956,088</b>	<b>\$15,956,088</b>	<b>\$15,956,088</b>
<i><u>Deferred Vested Participants</u></i>			
Retirement benefits	\$749,286	\$749,286	\$749,286
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>\$749,286</b>	<b>\$749,286</b>	<b>\$749,286</b>
<i><u>Due a Refund of Contributions</u></i>	<b>\$34,062</b>	<b>\$34,062</b>	<b>\$34,062</b>
<i><u>Deferred Beneficiaries</u></i>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Retired Participants</u></i>			
Service retirements	\$8,575,604	\$8,575,604	\$8,575,604
Disability retirements	\$2,259,356	\$2,259,356	\$2,259,356
Beneficiaries receiving	\$230,969	\$230,969	\$230,969
DROP participants	\$5,637,221	\$5,637,221	\$5,637,221
Sub-total	<b>\$16,703,150</b>	<b>\$16,703,150</b>	<b>\$16,703,150</b>
<i><u>Grand Total</u></i>	<b><u>\$33,442,586</u></b>	<b><u>\$33,442,586</u></b>	<b><u>\$33,442,586</u></b>
Present Value of Future Payroll	\$18,635,558	\$18,635,558	\$18,635,558
Present Value of Future Employee Contribs.	\$1,490,842	\$1,490,842	\$1,490,842
Present Value of Future Employer Contribs.	\$7,381,783	\$7,381,783	\$7,381,783



## Present Value of Accrued Benefits

Table I-E

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$7,635,745	\$7,635,745	\$7,635,745
Termination benefits	\$176,313	\$176,313	\$176,313
Disability benefits	\$691,725	\$691,725	\$691,725
Death benefits	\$23,256	\$23,256	\$23,256
Refund of employee contributions	\$10,635	\$10,635	\$10,635
Sub-total	<b>\$8,537,674</b>	<b>\$8,537,674</b>	<b>\$8,537,674</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$749,286	\$749,286	\$749,286
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>\$749,286</b>	<b>\$749,286</b>	<b>\$749,286</b>
<u>Due a Refund of Contributions</u>	<b>\$34,062</b>	<b>\$34,062</b>	<b>\$34,062</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$8,575,604	\$8,575,604	\$8,575,604
Disability retirements	\$2,259,356	\$2,259,356	\$2,259,356
Beneficiaries receiving	\$230,969	\$230,969	\$230,969
DROP participants	\$5,637,221	\$5,637,221	\$5,637,221
Sub-total	<b>\$16,703,150</b>	<b>\$16,703,150</b>	<b>\$16,703,150</b>
<u>Grand Total</u>	<b><u>\$26,024,172</u></b>	<b><u>\$26,024,172</u></b>	<b><u>\$26,024,172</u></b>

Funded Percentage

85.01%

85.01%

85.01%

(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 <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<u>Actively Employed Participants</u>			
Retirement benefits	\$7,608,406	\$7,608,406	\$7,608,406
Termination benefits	\$143,680	\$143,680	\$143,680
Disability benefits	\$691,725	\$691,725	\$691,725
Death benefits	\$21,854	\$21,854	\$21,854
Refund of employee contributions	\$29,284	\$29,284	\$29,284
Sub-total	<b>\$8,494,949</b>	<b>\$8,494,949</b>	<b>\$8,494,949</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$749,286	\$749,286	\$749,286
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>\$749,286</b>	<b>\$749,286</b>	<b>\$749,286</b>
<u>Due a Refund of Contributions</u>	<b>\$34,062</b>	<b>\$34,062</b>	<b>\$34,062</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$8,575,604	\$8,575,604	\$8,575,604
Disability retirements	\$2,259,356	\$2,259,356	\$2,259,356
Beneficiaries receiving	\$230,969	\$230,969	\$230,969
DROP participants	\$5,637,221	\$5,637,221	\$5,637,221
Sub-total	<b>\$16,703,150</b>	<b>\$16,703,150</b>	<b>\$16,703,150</b>
<u>Grand Total</u>	<b><u>\$25,981,447</u></b>	<b><u>\$25,981,447</u></b>	<b><u>\$25,981,447</u></b>



## Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<u>Actively Employed Participants</u>			
Retirement benefits	\$9,809,566	\$9,809,566	\$9,809,566
Termination benefits	\$239,376	\$239,376	\$239,376
Disability benefits	\$606,012	\$606,012	\$606,012
Death benefits	\$29,967	\$29,967	\$29,967
Refund of employee contributions	\$11,103	\$11,103	\$11,103
Sub-total	<b>\$10,696,024</b>	<b>\$10,696,024</b>	<b>\$10,696,024</b>
<u>Deferred Vested Participants</u>			
Retirement benefits	\$749,286	\$749,286	\$749,286
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>\$749,286</b>	<b>\$749,286</b>	<b>\$749,286</b>
<u>Due a Refund of Contributions</u>	<b>\$34,062</b>	<b>\$34,062</b>	<b>\$34,062</b>
<u>Deferred Beneficiaries</u>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<u>Retired Participants</u>			
Service retirements	\$8,575,604	\$8,575,604	\$8,575,604
Disability retirements	\$2,259,356	\$2,259,356	\$2,259,356
Beneficiaries receiving	\$230,969	\$230,969	\$230,969
DROP participants	\$5,637,221	\$5,637,221	\$5,637,221
Sub-total	<b>\$16,703,150</b>	<b>\$16,703,150</b>	<b>\$16,703,150</b>
<u>Grand Total</u>	<b><u>\$28,182,522</u></b>	<b><u>\$28,182,522</u></b>	<b><u>\$28,182,522</u></b>
less Actuarial Value of Assets	(\$24,802,905)	(\$24,802,905)	(\$24,802,905)
<u>Unfunded Accrued Liability</u>	<b><u>\$3,379,617</u></b>	<b><u>\$3,379,617</u></b>	<b><u>\$3,379,617</u></b>





## Entry Age Normal Cost

Table I-H

	Old Assumptions <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<i><u>Actively Employed Participants</u></i>			
Retirement benefits	\$673,896	\$673,896	\$673,896
Termination benefits	\$42,939	\$42,939	\$42,939
Disability benefits	\$82,980	\$82,980	\$82,980
Death benefits	\$2,615	\$2,615	\$2,615
Refund of employee contributions	\$5,418	\$5,418	\$5,418
Sub-total	<b>\$807,848</b>	<b>\$807,848</b>	<b>\$807,848</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	\$0	\$0	\$0
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<i><u>Grand Total</u></i>	<b><u>\$807,848</u></b>	<b><u>\$807,848</u></b>	<b><u>\$807,848</u></b>



## Unfunded Liability Bases

Table I-I

<u>Description</u>	<u>Original Amount</u>	<u>Outstanding Balance</u>	<u>Amortization Payment</u>	<u>Years Rem.</u>
	<b>Total</b>	<b>\$3,379,617</b>	<b>\$365,683</b>	
		↓	↓	
Initial Unfunded Liability	\$2,458,670	\$1,701,971	\$210,406	11
2005 Combined Base	\$129,407	\$101,644	\$11,855	12
2005/06 Experience Gain	(\$200,230)	(\$160,664)	(\$17,796)	13
2006/07 Experience Gain	(\$208,490)	(\$177,684)	(\$18,796)	14
2007/08 Experience Loss	\$393,490	\$337,653	\$34,275	15
2008/09 Experience Loss	\$335,935	\$255,414	\$24,982	16
10/1/2009 Assumption Change	\$806,677	\$613,321	\$59,988	16
2009/10 Experience Loss	\$310,935	\$252,649	\$23,895	17
2010/11 Experience Loss	\$54,064	\$44,581	\$4,090	18
7/1/2011 Amendment	\$385,205	\$317,628	\$29,140	18
2011/12 Experience Gain	(\$128,845)	(\$106,576)	(\$9,511)	19
2012/13 Experience Gain	(\$534,105)	(\$452,212)	(\$39,349)	20
2013/14 Experience Gain	\$470,403	(\$410,706)	(\$34,922)	21
2014/15 Experience Gain	(\$244,295)	(\$218,781)	(\$18,214)	22
10/1/2015 Assumption Change	\$391,339	\$350,470	\$29,177	22
2015/16 Experience Loss	\$521,014	\$476,484	\$38,906	23
10/1/2016 Assumption Change	\$1,070,143	\$978,679	\$79,911	23
2016/17 Experience Gain	(\$147,164)	(\$136,808)	(\$10,973)	24
10/1/2017 Assumption Change	\$249,173	\$231,636	\$18,579	24
2017/18 Experience Gain	(\$300,855)	(\$282,414)	(\$22,284)	25
10/1/2018 Assumption Change	\$262,555	\$246,463	\$19,447	25
2018/19 Experience Gain	(\$639,464)	(\$605,781)	(\$47,082)	26
10/1/2019 Assumption Change	\$272,670	\$258,308	\$20,076	26
2019/20 Experience Loss	\$29,697	\$28,549	\$2,188	27
10/1/2020 Assumption Change	(\$813,475)	(\$782,596)	(\$59,981)	27
2020/21 Experience Gain	(\$1,020,266)	(\$989,984)	(\$74,904)	28
10/1/2021 Assumption Change	\$835,955	\$811,143	\$61,373	28
2021/22 Experience Gain	(\$435,884)	(\$426,012)	(\$31,851)	29
2022/23 Experience Loss	\$1,123,242	\$1,123,242	\$83,058	30





## Actuarial Value of Assets

Table II-A

Market Value Rate of Return

For the 2019/20 plan year	6.55%
For the 2020/21 plan year	21.06%
For the 2021/22 plan year	-13.59%
For the 2022/23 plan year	8.59%



Average return for the preceding four years  
4.89%

Actuarial Value of Assets as of October 1, 2022	\$24,040,949
Plus contributions for the 2022/23 plan year	\$1,236,565
Minus benefit payments and administrative expenses for the 2022/23 plan year	(\$1,116,059)
Minus DROP account credits	(\$495,423)
Minus advance employer contribution	(\$28,972)
Minus excess Chapter 175/185 contribution	\$0
Adjustment for interest at the average rate shown above, but restricted to an amount that keeps the actuarial value of assets within an 80%-120% corridor of the market value	\$1,165,845

**Actuarial Value of Assets as of October 1, 2023**

**\$24,802,905**

Historical Actuarial Value of Assets

October 1, 2014	\$13,724,189
October 1, 2015	\$15,163,385
October 1, 2016	\$16,318,310
October 1, 2017	\$17,650,201
October 1, 2018	\$19,062,355
October 1, 2019	\$20,549,416
October 1, 2020	\$21,793,176
October 1, 2021	\$23,365,025
October 1, 2022	\$24,040,949
October 1, 2023	\$24,802,905

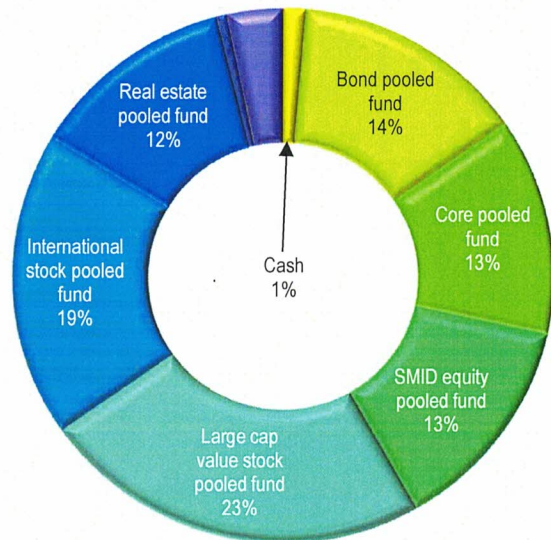


## Market Value of Assets

Table II-B

As of October 1, 2023**Market Value of Assets****\$23,819,971**

Cash	\$343,398
Bond pooled fund	\$3,581,155
Core pooled fund	\$3,335,870
SMID equity pooled fund	\$3,409,456
Large cap value stock pooled fund	\$5,984,944
International stock pooled fund	\$4,733,992
Real estate pooled fund	\$3,139,642
Employer contribution receivable	\$159,355
Share plan assets	(\$867,841)

**Historical Market Value of Assets**

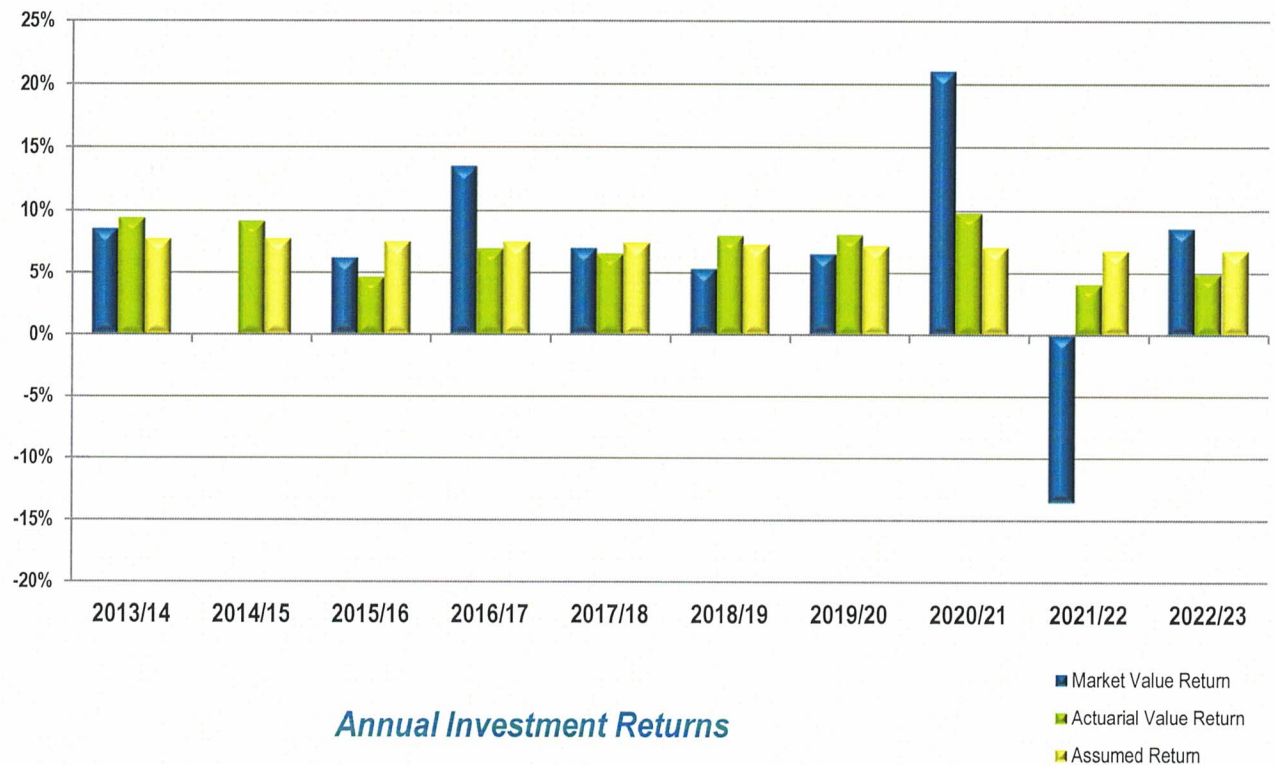
October 1, 2014	\$13,423,754
October 1, 2015	\$13,640,167
October 1, 2016	\$14,703,110
October 1, 2017	\$17,272,112
October 1, 2018	\$18,845,669
October 1, 2019	\$20,034,323
October 1, 2020	\$20,894,773
October 1, 2021	\$25,318,572
October 1, 2022	\$21,820,739
October 1, 2023	\$23,819,971





## Investment Return

Table II-C

*Annual Investment Returns*

Plan	Market Value	Actuarial Value	Assumed
<u>Year</u>	<u>Return</u>	<u>Return</u>	<u>Return</u>
2013/14	8.57%	9.41%	7.75%
2014/15	-0.04%	9.15%	7.75%
2015/16	6.21%	4.63%	7.50%
2016/17	13.50%	6.95%	7.50%
2017/18	7.02%	6.56%	7.40%
2018/19	5.32%	7.97%	7.30%
2019/20	6.55%	8.05%	7.20%
2020/21	21.06%	9.81%	7.10%
2021/22	-13.59%	4.09%	6.80%
2022/23	8.59%	4.89%	6.80%
10yr. Avg.	5.96%	7.13%	7.31%



## Asset Reconciliation

Table II-D

	<u>Market Value</u>	<u>Actuarial Value</u>
<b>As of October 1, 2022</b>	<b>\$21,820,739</b>	<b>\$24,040,949</b>
<b><i>Increases Due To:</i></b>		
Employer Contributions	\$857,161	\$857,161
Chapter 175/185 Contributions	\$164,604	\$164,604
Employee Contributions	\$211,909	\$211,909
Service Purchase Contributions	\$2,891	\$2,891
Total Contributions	<u>\$1,236,565</u>	<u>\$1,236,565</u>
Interest and Dividends	\$0	
Realized Gains (Losses)	\$0	
Unrealized Gains (Losses)	<u>\$1,878,726</u>	
Total Investment Income	\$1,878,726	\$1,165,845
Other Income	\$0	
<b>Total Income</b>	<u><b>\$3,115,291</b></u>	<u><b>\$2,402,410</b></u>
<b><i>Decreases Due To:</i></b>		
Monthly Benefit Payments	(\$1,050,560)	(\$1,050,560)
Refund of Employee Contributions	(\$3,136)	(\$3,136)
DROP Benefit Payments / Credits		(\$495,423)
Total Benefit Payments	<u>(\$1,053,696)</u>	<u>(\$1,549,119)</u>
Investment Expenses	\$0	
Administrative Expenses	(\$62,363)	(\$62,363)
Advance Employer Contribution		(\$28,972)
Excess Chapter 175/185 Contribution		\$0
<b>Total Expenses</b>	<u><b>(\$1,116,059)</b></u>	<u><b>(\$1,640,454)</b></u>
<b>As of October 1, 2023</b>	<u><b>\$23,819,971</b></u>	<u><b>\$24,802,905</b></u>





## Historical Trust Fund Detail

Table II-E

**Income**

Plan	Employer	Chapter	Employee	Service		Realized	Unrealized	
<u>Year</u>	<u>Contribs.</u>	<u>Contribs.</u>	<u>Contribs.</u>	<u>Purchase</u>	<u>Interest /</u>	<u>Gains /</u>	<u>Gains /</u>	<u>Other</u>
				<u>Contribs.</u>	<u>Dividends</u>	<u>Losses</u>	<u>Losses</u>	<u>Income</u>
2013/14	\$312,623	\$226,179	\$165,766	\$4,593	\$0	\$0	\$1,071,547	\$0
2014/15	\$511,600	\$243,714	\$169,730	\$4,593	\$0	\$0	-\$5,385	\$0
2015/16	\$486,422	\$246,530	\$184,625	\$4,593	\$0	\$0	\$1,141,505	-\$288,492
2016/17	\$870,225	\$215,523	\$195,465	\$4,593	\$0	\$0	\$2,022,209	\$0
2017/18	\$718,269	\$220,026	\$193,860	\$4,593	\$0	\$0	\$1,225,382	\$0
2018/19	\$677,791	\$228,466	\$187,949	\$4,593	\$0	\$0	\$1,007,781	\$0
2019/20	\$868,399	\$124,561	\$196,216	\$4,593	\$0	\$0	\$1,298,434	\$0
2020/21	\$747,789	\$99,690	\$180,363	\$2,891	\$0	\$0	\$4,402,761	\$0
2021/22	\$713,233	\$103,280	\$185,624	\$2,891	\$0	\$0	-\$3,437,858	\$0
2022/23	\$857,161	\$164,604	\$211,909	\$2,891	\$0	\$0	\$1,878,726	\$0

**Expenses**

Plan	Monthly				<u><b>Other Actuarial Adjustments</b></u>		
<u>Year</u>	<u>Benefit</u>	<u>Contrib.</u>	<u>Admin.</u>	<u>Invest.</u>	<u>DROP</u>	<u>Advance</u>	<u>Excess</u>
	<u>Payments</u>	<u>Refunds</u>	<u>Expenses</u>	<u>Expenses</u>	<u>Credits</u>	<u>Employer</u>	<u>Chapter</u>
2013/14	\$952,875	\$34,912	\$36,101	\$0	-\$271,135	-\$289,696	\$55,405
2014/15	\$670,595	\$0	\$37,244	\$0	\$36,221	-\$63,180	\$72,940
2015/16	\$671,112	\$4,247	\$36,881	\$0	\$55,431	\$0	-\$288,492
2016/17	\$699,053	\$0	\$39,960	\$0	\$66,461	\$288,845	\$0
2017/18	\$730,975	\$15,563	\$42,035	\$0	\$97,772	\$4,853	\$0
2018/19	\$811,555	\$53,304	\$53,067	\$0	\$208,084	\$2,928	\$0
2019/20	\$1,579,307	\$0	\$52,446	\$0	-\$37,103	-\$5,999	\$0
2020/21	\$954,357	\$4,263	\$51,075	\$0	\$561,223	\$0	\$0
2021/22	\$985,617	\$16,059	\$63,327	\$0	\$214,180	\$0	\$0
2022/23	\$1,050,560	\$3,136	\$62,363	\$0	\$495,423	\$28,972	\$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, 2022	\$1,202,269
DROP Benefit Credits	\$449,995
DROP Investment Credits	\$109,842
DROP Benefits Paid Out	(\$64,414)
Net DROP Credit	\$495,423
DROP Balance as of October 1, 2023	<u>\$1,697,692</u>

**Advance Employer Contribution**

Advance Employer Contribution as of October 1, 2022	\$290,627
Additional Employer Contribution	\$1,021,765
Minimum Required Contribution	(\$992,793)
Net Increase in Advance Employer Contribution	\$28,972
Advance Employer Contribution as of October 1, 2023	<u>\$319,599</u>

**Excess Chapter 175/185 Contribution**

Excess Chapter 175/185 Contribution as of October 1, 2022	\$0
Additional Chapter 175/185 Contribution	\$340,560
Allowable Chapter 175/185 Contribution	(\$164,604)
Transfer to Share Plan	(\$175,956)
Net Increase in Excess Chapter 175/185 Contribution	\$0
Excess Chapter 175/185 Contribution as of October 1, 2023	<u>\$0</u>



## Historical Chapter 175/185 Contributions

Table II-G

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

	Chapter 175 Regular <u>Distribution</u>	Chapter 175 Supplemental <u>Distribution</u>	Chapter 185 <u>Distribution</u>	Allowable <u>Amount</u>
1998 Distribution	\$28,094	\$0	\$60,060	(\$97,181)
1999 Distribution	\$33,941	\$15,339	\$56,457	(\$93,578)
2000 Distribution	\$31,740	\$19,366	\$58,257	(\$95,378)
2001 Distribution	\$37,929	\$16,678	\$67,811	(\$98,013)
2002 Distribution	\$41,006	\$21,026	\$71,249	(\$98,013)
2003 Distribution	\$43,820	\$22,849	\$82,900	(\$98,013)
2004 Distribution	\$49,580	\$26,317	\$84,223	(\$104,387)
2005 Distribution	\$57,269	\$28,635	\$85,357	(\$354,853)
2006 Distribution	\$67,822	\$31,885	\$85,124	(\$170,774)
2007 Distribution	\$83,675	\$57,762	\$84,791	(\$170,774)
2008 Distribution	\$68,416	\$65,678	\$75,217	(\$170,774)
2009 Distribution	\$68,791	\$21,629	\$75,609	(\$166,029)
2010 Distribution	\$63,479	\$22,142	\$77,772	(\$163,393)
2011 Distribution	\$65,192	\$27,640	\$80,373	(\$170,774)
2012 Distribution	\$101,389	\$35,399	\$83,167	(\$170,774)
2013 Distribution	\$114,037	\$22,671	\$89,471	(\$170,774)
2014 Distribution	\$113,359	\$35,056	\$95,299	(\$170,774)
2015 Distribution	\$123,692	\$24,066	\$98,772	(\$246,530)
2016 Distribution	\$108,870	\$13,246	\$93,407	(\$215,523)
2017 Distribution	\$119,601	\$0	\$100,425	(\$220,026)
2018 Distribution	\$122,772	\$609	\$105,085	(\$228,466)
2019 Distribution	\$141,674	\$0	\$107,448	(\$124,561)
2020 Distribution	\$112,024	\$0	\$87,357	(\$99,690)
2021 Distribution	\$117,296	\$0	\$89,263	(\$103,280)
2022 Distribution	\$143,845	\$127,417	\$69,298	(\$164,604)
Transfer to Share Plan				(\$791,979)

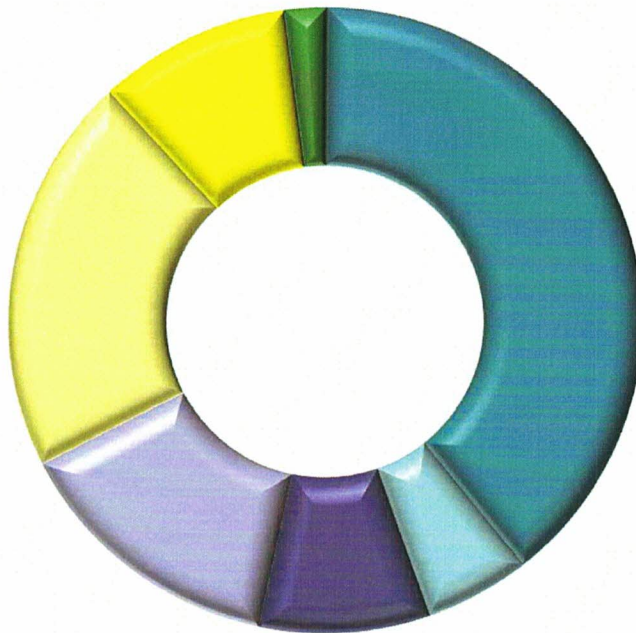




## Summary of Participant Data

Table III-A

As of October 1, 2023

Actively Employed Participants

Active Participants	36
DROP Participants	5

Inactive Participants

Deferred Vested Participants	8
Due a Refund of Contributions	13
Deferred Beneficiaries	0

Participants Receiving a Benefit

Service Retirements	19
Disability Retirements	9
Beneficiaries Receiving	2

**Total Participants 92**Number of Participants Included in Prior Valuations

	<i>Active</i>	<i>DROP</i>	<i>Inactive</i>	<i>Retired</i>	<i>Total</i>
October 1, 2014	34	0	7	21	62
October 1, 2015	36	1	8	22	67
October 1, 2016	37	1	9	22	69
October 1, 2017	36	1	10	23	70
October 1, 2018	36	2	10	24	72
October 1, 2019	39	3	10	24	76
October 1, 2020	38	3	13	27	81
October 1, 2021	38	5	17	27	87
October 1, 2022	37	5	18	27	87
October 1, 2023	36	5	21	30	92



## 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, 2022</u>	37	5	8	10	0	16	9	2	87
<u>Change in Status</u>									
Re-employed									
Terminated	(5)		1	4					
Retired	(2)	(1)	(1)			3	1		
<u>Participation Ended</u>									
Transferred Out	(1)	1							
Cashed Out				(1)					(1)
Died							(1)		(1)
<u>Participation Began</u>									
Newly Hired	7								7
Transferred In									
New Beneficiary									
<u>Other Adjustment</u>									
<u>October 1, 2023</u>	36	5	8	13	0	19	9	2	92

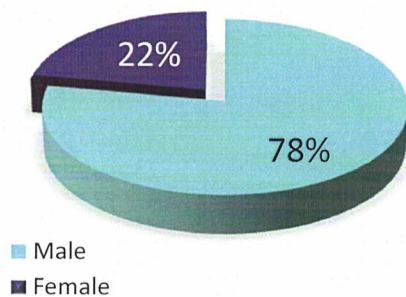


## Active Participant Data

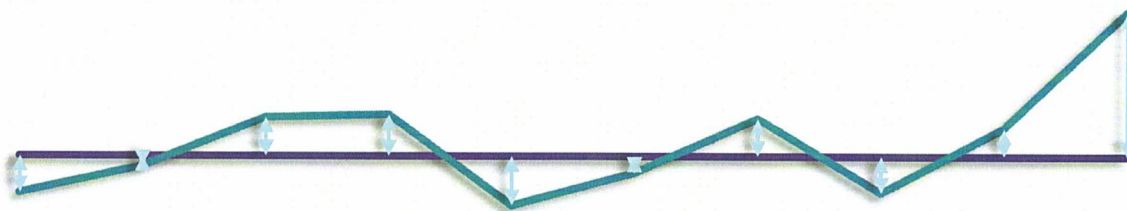
## Table III-C

As of October 1, 2023

## Gender Mix



Average Age	39.4 years
Average Service	8.9 years
Total Annualized Compensation for the Prior Year	\$2,531,727
Total Expected Compensation for the Current Year	\$2,561,903
Average Increase in Compensation for the Prior Year	15.72%
Expected Increase in Compensation for the Current Year	4.75%
Accumulated Contributions for Active Employees	\$2,314,813



## Actual vs. Expected Salary Increases

## Active Participant Statistics From Prior Valuations

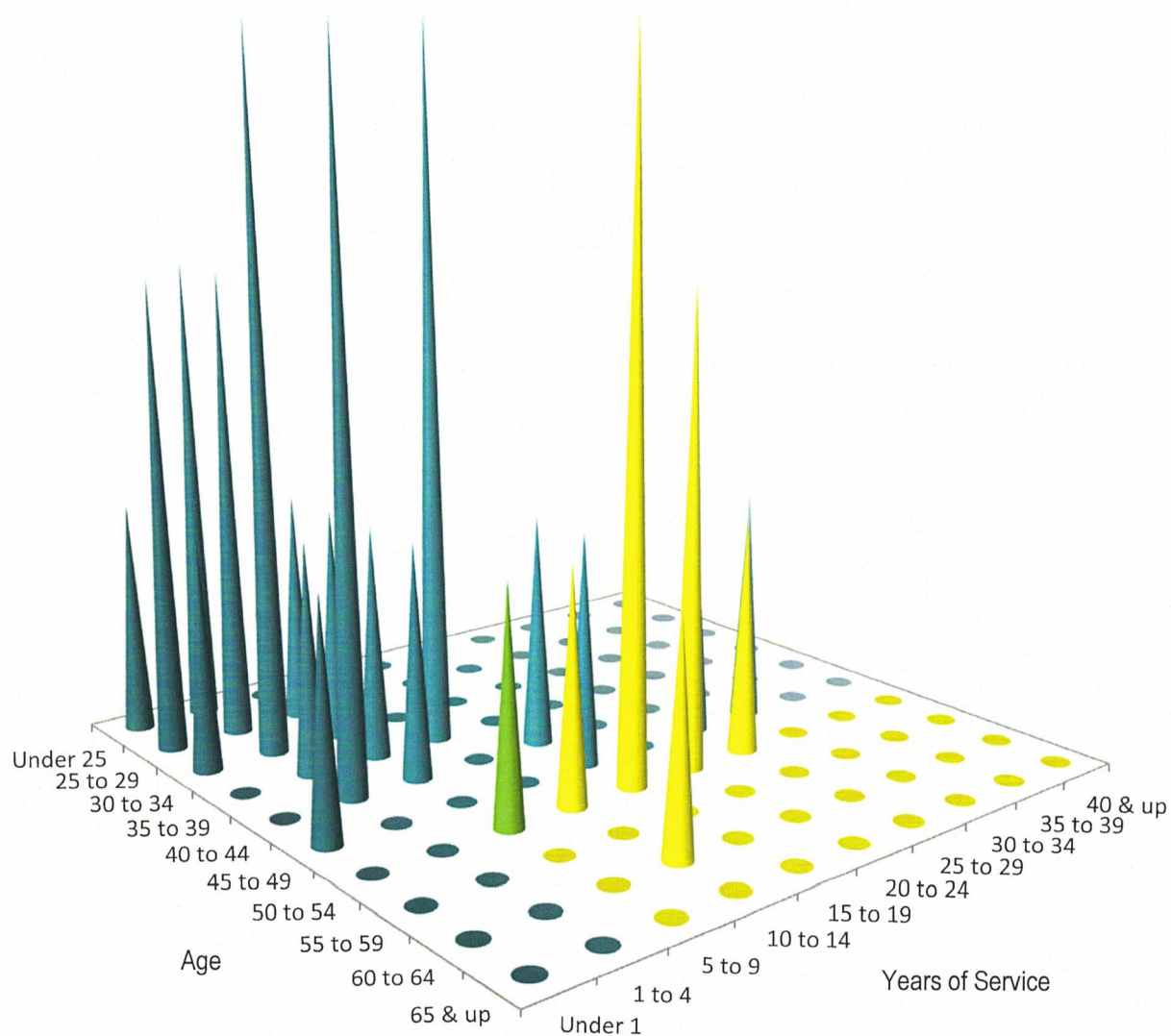
	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
October 1, 2014	41.2	11.5	\$58,428	4.75%	1.97%
October 1, 2015	40.1	11.0	\$57,527	4.75%	3.98%
October 1, 2016	41.1	11.6	\$62,975	4.75%	7.66%
October 1, 2017	41.3	11.9	\$66,181	4.75%	7.89%
October 1, 2018	41.1	10.9	\$62,799	4.75%	1.03%
October 1, 2019	40.5	10.2	\$62,277	4.75%	3.48%
October 1, 2020	40.2	9.3	\$62,436	4.75%	7.60%
October 1, 2021	39.8	8.6	\$58,397	4.75%	2.01%
October 1, 2022	40.2	8.7	\$62,647	4.75%	6.89%
October 1, 2023	39.4	8.9	\$70,326	4.75%	15.72%





## Active Age-Service Distribution

Table III-D



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



Active Age-Service-Salary Table

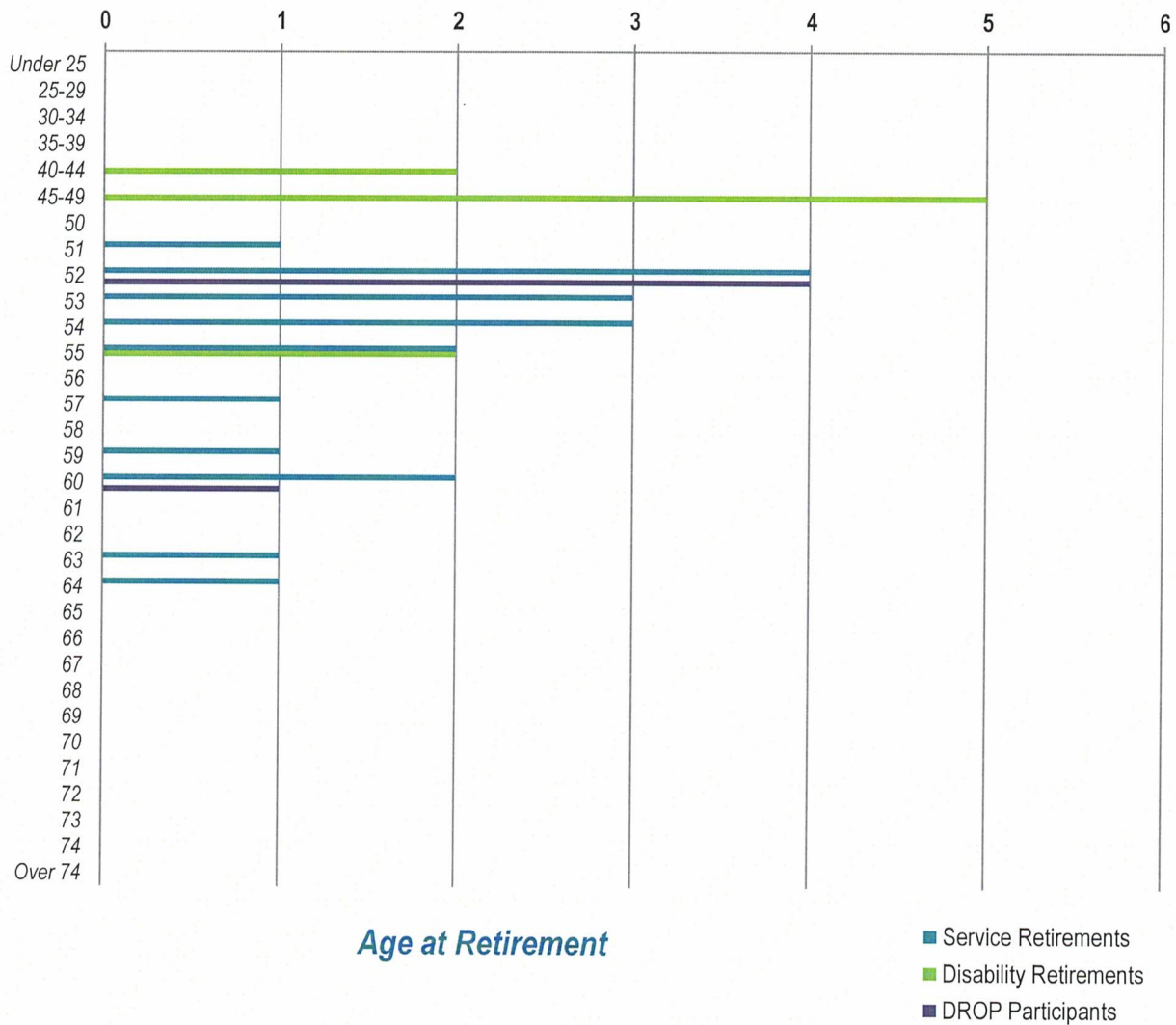
Table III-E

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	
<b>Under 25</b>	1	2	0	0	0	0	0	0	0	0	3
Avg.Pay	50,662	58,011	0	0	0	0	0	0	0	0	55,561
<b>25 to 29</b>	2	2	1	0	0	0	0	0	0	0	5
Avg.Pay	50,377	59,465	64,976	0	0	0	0	0	0	0	56,932
<b>30 to 34</b>	1	3	1	0	0	0	0	0	0	0	5
Avg.Pay	39,485	59,909	58,118	0	0	0	0	0	0	0	55,466
<b>35 to 39</b>	0	1	1	3	0	0	0	0	0	0	5
Avg.Pay	0	55,923	69,070	76,411	0	0	0	0	0	0	70,845
<b>40 to 44</b>	0	3	1	0	1	0	0	0	0	0	5
Avg.Pay	0	65,083	66,792	0	76,041	0	0	0	0	0	67,617
<b>45 to 49</b>	1	0	0	0	1	0	1	1	0	0	4
Avg.Pay	50,395	0	0	0	109,408	0	109,901	101,965	0	0	92,917
<b>50 to 54</b>	0	0	1	1	3	2	1	0	0	0	8
Avg.Pay	0	0	60,449	60,987	79,317	96,554	106,667	0	0	0	82,395
<b>55 to 59</b>	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
<b>60 to 64</b>	0	0	0	1	0	0	0	0	0	0	1
Avg.Pay	0	0	0	79,916	0	0	0	0	0	0	79,916
<b>65 &amp; up</b>	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	5	11	5	5	5	2	2	1	0	0	36
Avg.Pay	48,259	60,532	63,881	74,027	84,680	96,554	108,284	101,965	0	0	70,326



## Inactive Participant Data

Table III-F

Average Monthly Benefit

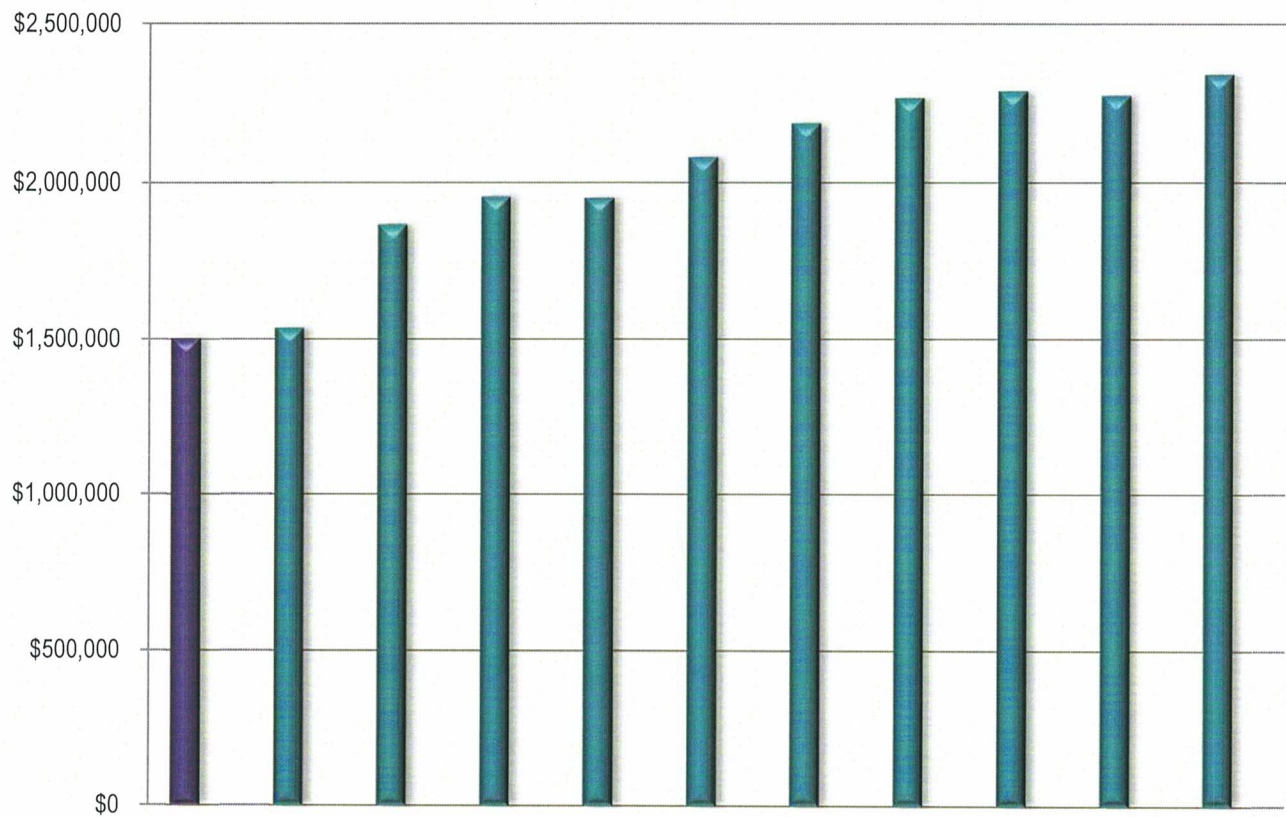
Service Retirements	\$3,314.87
Disability Retirements	\$2,253.90
Beneficiaries Receiving	\$2,516.78
DROP Participants	\$7,200.68
Deferred Vested Participants	\$1,315.11
Deferred Beneficiaries	Not applicable





## Projected Benefit Payments

Table III-G

Actual

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

\$1,503,691

Projected

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

\$1,537,445

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

\$1,867,811

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

\$1,956,914

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

\$1,953,327

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

\$2,078,736

For the period October 1, 2028 through September 30, 2029

\$2,185,403

For the period October 1, 2029 through September 30, 2030

\$2,265,927

For the period October 1, 2030 through September 30, 2031

\$2,286,770

For the period October 1, 2031 through September 30, 2032

\$2,272,595

For the period October 1, 2032 through September 30, 2033

\$2,339,273



## 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 ends 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 period of up to 30 years.

3. **Asset Method**

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

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

6.80% per annum

5. **Salary Increases**

Plan compensation is assumed to increase at the rate of 4.75% per annum, unless actual plan compensation is known for a prior plan year. In addition, average monthly earnings have been adjusted for each active participant to reflect the anticipated payment of the number of hours of accrued sick leave and annual leave that were accumulated as of June 30, 2011.

6. **Decrement**

- Pre-retirement mortality: Sex-distinct rates set forth in the PUB-2010 Headcount-Weighted Employee 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



## Summary of Actuarial Methods and Assumptions

## Table IV-A

(continued)

- 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: Sex-distinct rates set forth in the Wyatt 1985 Disability Study (Class 4); All disabilities are assumed to be service-related.
- Termination: Sex-distinct rates set forth in the Scale 155 Table
- Retirement: Retirement is assumed to occur upon the attainment of age 52 with at least five years of service, except that those participants who have attained their normal retirement age as of the valuation date are assumed to retire one year after the valuation date. Alternatively, participants who have attained age 50 with at least 10 years of service are assumed to retire at the rate of 2.50% per annum.

## 7. Form of Payment

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

## 8. Beneficiary Age and Gender

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

## 9. Expenses

Administrative expenses are assumed to be 1.25% of future payroll. In addition, the interest rate set forth in item 4. above is assumed to be net of investment expenses and commissions.





## Changes in Actuarial Methods and Assumptions

## Table IV-B

There were no assumption or method changes since the completion of the previous valuation.

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

- (1) Effective October 1, 2021, the interest (or discount) rate was changed from 7.10% per annum to 6.80% per annum.*
- (2) Effective October 1, 2020, the interest (or discount) rate was changed from 7.20% per annum to 7.10% per annum.*
- (3) Effective October 1, 2020, 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.*
- (4) Effective October 1, 2019, the interest (or discount) rate was decreased from 7.30% per annum to 7.20% per annum.*
- (5) Effective October 1, 2018, the interest (or discount) rate was decreased from 7.40% per annum to 7.30% per annum.*
- (6) Effective October 1, 2017, the interest (or discount) rate was decreased from 7.50% per annum to 7.40% per annum.*
- (7) Effective October 1, 2016, the mortality basis was changed from a 2007 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.*
- (8) Effective October 1, 2015, the interest (or discount) rate was decreased from 7.75% per annum to 7.50% per annum.*



## Summary of Plan Provisions

## Table V-A

**1. Benefit Formula**

3% of Average Monthly Earnings multiplied by Credited Service

**2. Service Retirement**

Normal retirement: Age 52 with at least five years of participation

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

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

**3. Disability Retirement**

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

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 City-financed disability or salary continuation benefit (excluding social security benefits) from exceeding his average monthly earnings. A partial month's payment is made to cover the period between the date of the Board's approval and the end of the month.

*(A participant is disabled if he is found to be mentally or physically incapacitated so as to be wholly unable to properly perform his duties as a police officer or firefighter and is likely to remain so disabled continuously and permanently. However, a participant will not be eligible for a disability benefit if his disability is caused by excessive and habitual use of drugs, intoxicants, or narcotics; by injury or disease sustained while serving in the armed forces; by injury or disease sustained while willfully and illegally participating in fights, riots, or civil insurrections, or while committing a crime; by injury or disease sustained after termination of employment; or by a self-inflicted injury.)*



## Summary of Plan Provisions

## Table V-A

(continued)

**4. Deferred Vested Retirement**

A vested participant who terminates employment before becoming eligible for retirement receives a deferred vested retirement benefit payable at the participant's early or normal retirement age. If the benefit is payable prior to normal retirement age, then the benefit is actuarially reduced to account for the earlier commencement of the benefit.

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

**5. Vesting**

A participant becomes 100% vested upon the attainment of five years of credited service. For this purpose, service includes service earned under the City of Satellite Beach General Employees' Retirement System.

**6. Pre-Retirement Death Benefit**

If a vested participant dies prior to retirement, the participant's beneficiary receives a 10-year certain annuity equal to the participant's monthly accrued benefit payable beginning at the participant's early or normal retirement age. At the beneficiary's election and upon approval by the Board of Trustees, an actuarially equivalent benefit is payable at any time following the participant's death. In any event, the pre-retirement death benefit guarantees at least the return of the participant's accumulated contributions.

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

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

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

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





## Summary of Plan Provisions

## Table V-A

(continued)

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

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

8. **Average Monthly Earnings**

Average monthly earnings during the highest three years out of the 10 years immediately preceding the determination. Earnings include base pay, commissions, bonuses, maintenance pay, overtime pay, payments for accrued sick leave, and vacation pay, although payment for accrued sick and annual leave are limited to the number of hours accumulated as of June 30, 2011 multiplied by the pay rate that is in effect at the time of employment termination. Earnings cannot exceed the maximum amount allowed under IRC section 401(a)(17).

9. **Credited Service**

The service, expressed in years and completed months, from the participant's date of hire until his date of termination, retirement, or death, excluding periods during which the participant does not make the required employee contribution. Participants may also purchase up to five years of credited service for benefit accrual purposes only for previous full-time employment as a police officer or full-time or volunteer employment as a firefighter with any federal, state, county, or city government, including military service, by paying into the plan the full actuarial cost thereof, provided that no other retirement benefit is paid for such service. Payment for purchased service must be made within a period of time equal to the length of service being purchased.

10. **Employee Contribution**

Employees must contribute 8.00% of earnings and such contributions are accumulated with interest at the rate of 5.50% per annum.

11. **City Contribution**

The City is required to make quarterly contributions as determined in the most recent actuarial valuation of the retirement system.



## Summary of Plan Provisions

## Table V-A

(continued)

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

A DROP is available to those participants who have attained their normal retirement age, whereby the participant's monthly retirement benefit is accumulated on his behalf in a DROP account while he continues in active employment with the City. Individuals may participate in the DROP for a period of 12 to 84 months and neither earn additional benefits nor make the required employee contribution during the period of their DROP participation. DROP participants are considered to be retired for all other purposes under the plan and are not eligible for disability or pre-retirement death benefits. DROP accounts earn interest equal to the investment return realized by the market value of assets or the investment return realized by a stable return investment vehicle (as elected by the participant from time to time).

**13. Participant Requirement**

All full-time firefighters and sworn police officers of the City of Satellite Beach, Florida, excluding civilian members of the fire and police departments and temporary and contract employees, are mandated to participate in the plan.

**14. Actuarial Equivalence**

- **Interest Rate**

6.80% per annum

- **Mortality Table**

The unisex mortality table promulgated by the Secretary of the Treasury for purposes of Internal Revenue Code (IRC) section 417(e)(3)

**15. Retiree Increases**

Retirement benefits in payment status on October 1, 1997 were increased by 1.00%.

**16. Plan Effective Date**

The plan was originally effective on May 22, 1973.



## Summary of Plan Amendments

## Table V-B

There were no significant plan changes 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) During the 2021/22 plan year, the plan was amended to extend the maximum DROP participation period from five years to seven years and to change the definition of actuarial equivalence from 8.00% interest and the 1984 Uninsured Pensioner Mortality Table to the interest rate and mortality table described above.*
- (2) Effective June 6, 2018, a share plan was adopted. (Ordinance No. 1161)*
- (3) Effective July 20, 2016, a share plan was created to receive excess Chapter 175/185 contributions. (Ordinance No. 1120)*
- (4) Effective January 15, 2014, the 0.1875% daily administrative charge on the DROP accounts was eliminated retroactively for the period December 6, 2004 through July 3, 2013. (Ordinance No. 1083)*

