

**Retirement Plan for the Firefighters
Of the Southern Manatee Fire & Rescue District**

**Actuarial Valuation
As of October 1, 2022**

**Determines the Contribution
For the 2022/23 Fiscal Year**



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February 12, 2023

Introduction

This report presents the results of the October 1, 2022 actuarial valuation for the Retirement Plan for the Firefighters of the Southern Manatee Fire & Rescue District. 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, 2022 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2022/23 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 2022/23 plan year. The minimum required contribution rate is 62.16% of covered payroll, which represents an increase of 37.51% of payroll from the prior valuation.

The normal cost rate is 60.02%, which is 36.22% of payroll greater 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 29.43% of payroll due to investment losses and increased by another 6.79% of payroll due to demographic experience. The market value of assets lost 13.04% during the 2021/22 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 District 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 District's 2022/23 minimum required contribution will be equal to 62.16% multiplied by the total pensionable earnings for the 2022/23 plan 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 2022/23 plan year.

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 \$72,801,324. As illustrated in Table I-A, current assets are sufficient to cover \$50,646,325 of this amount, the employer's 2022/23 expected contribution will cover \$3,334,333 of this amount, and future employee contributions are expected to cover \$1,220,739 of this amount, leaving \$17,599,927 to be covered by future employer funding beyond the 2022/23 fiscal year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

Advance Employer Contribution

The District has made contributions to the plan in excess of the minimum amount that was required to be contributed pursuant to Chapter 112. In this report, the excess contributions are referred to as an "advance employer contribution." As of October 1, 2022, the advance employer contribution is \$2,810,309, which reflects the advance employer contribution of \$2,332,858 as of October 1, 2021 plus \$477,451 in actual employer contributions above the minimum funding requirement for the 2021/22 plan year as shown in Table II-F.

The District may apply all or any portion of the advance employer contribution towards the minimum required contribution for the 2022/23 plan year or for any later plan year. The minimum required contribution for that plan year will be reduced dollar-for-dollar by the amount of the advance employer contribution that is applied in this manner.

Alternatively, at any time, the District may apply all or any portion of the advance employer contribution as an *extra* contribution in excess of the minimum required contribution. In this case, the immediate application of the entire balance of the advance employer contribution as of October 1, 2022 would reduce the normal cost rate to 51.96% of payroll and would reduce the minimum required contribution for the 2022/23 plan year to 51.21% of payroll.

Excess Chapter 175/185 Contributions

As of October 1, 2022, the plan has accumulated excess Chapter 175/185 contributions of \$78,562 as shown in Table II-F. This amount is equal to the accumulated excess Chapter 175/185 contribution balance as of October 1, 2021. The total Chapter 175/185 distribution received during the 2021/22 plan year was \$489,308, all of which was allowed to be used to offset the District's minimum required contribution. Table II-G provides a history of the Chapter 175/185 contributions and the portion that is allowed to be recognized.



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, 2022, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

Refund of Participant Contributions

It is our understanding that there are 10 participants who are due a refund of their contributions. We have estimated the accumulated amount of their refunds to be \$2,748 as of October 1, 2022. The average amount owed to these individuals is only \$250. If possible, we recommend that the accumulated contributions be distributed to these individuals in order to simplify the administration of the plan and to reduce future administrative costs.

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.

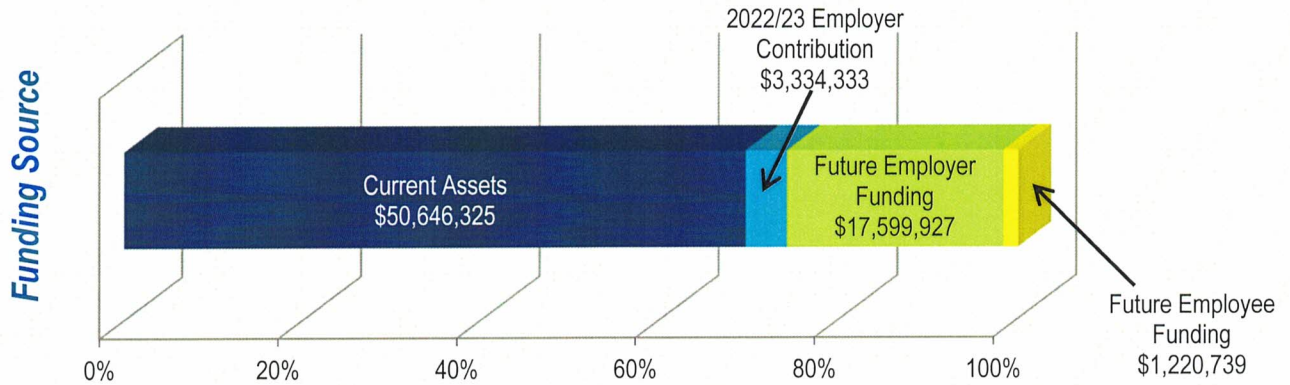
Enrolled Actuary No. 20-04927

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 2022/23 Plan Year

Present Value of Future Benefits	\$72,080,519
Present Value of Future Administrative Expenses	\$720,805
Actuarial Value of Assets	(\$50,646,325)
Present Value of Future Employee Contributions	(\$1,220,739)
Present Value of Future Normal Costs	\$20,934,260
Present Value of Future Payroll	÷ \$34,878,234
Normal Cost Rate	= 60.021%
Expected Payroll	x \$5,363,948
Normal Cost	\$3,219,494
Adjustment to Reflect Semi-Monthly Employer Contributions	\$114,839
Preliminary Employer Contribution for the 2022/23 Plan Year	\$3,334,333
Expected Payroll for the 2022/23 Plan Year	÷ \$5,363,948

Minimum Required Contribution Rate **62.16%**

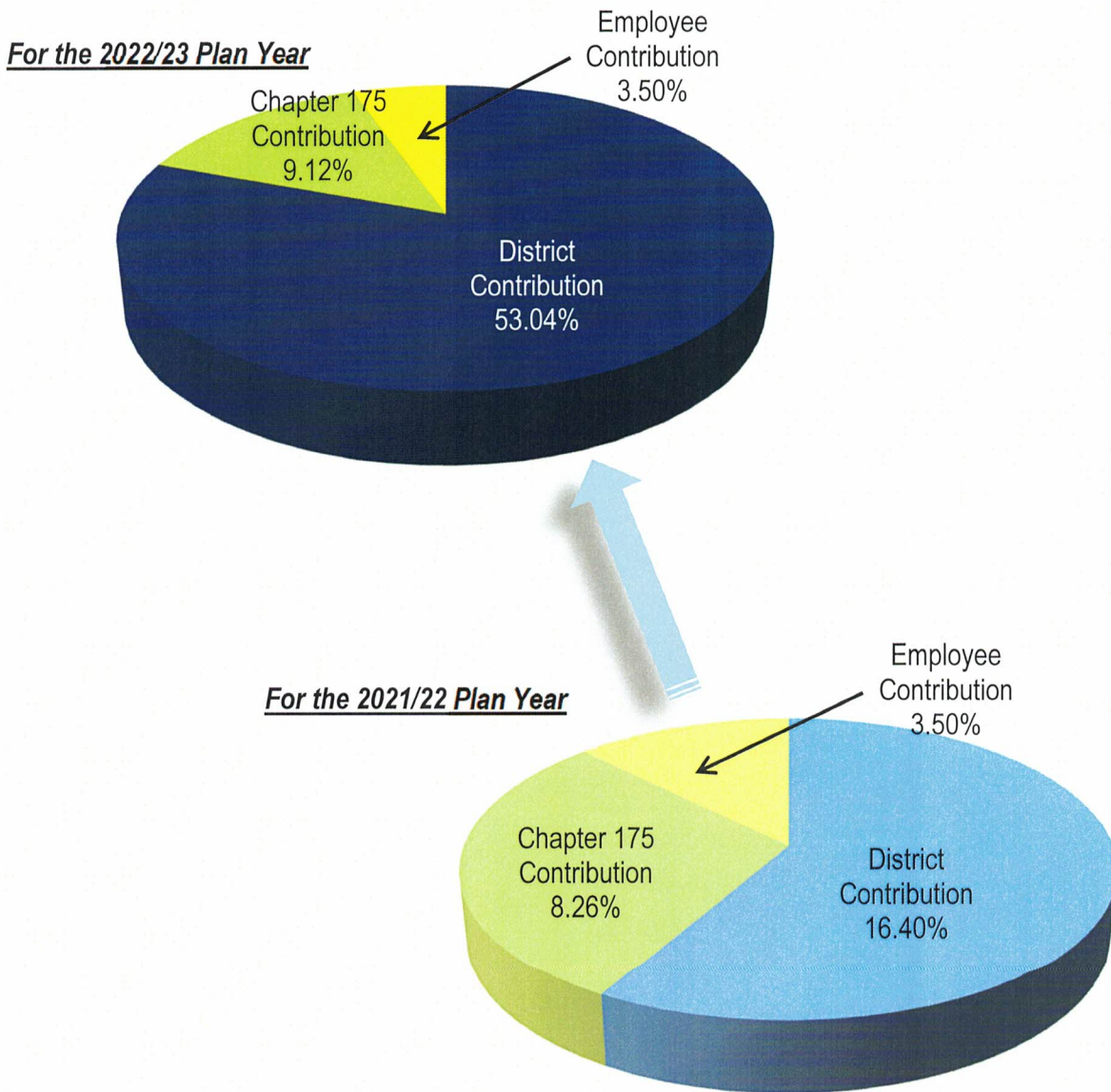
(The actual contribution should be based on the minimum required contribution rate multiplied by the actual payroll for the year.)



Minimum Required Contribution

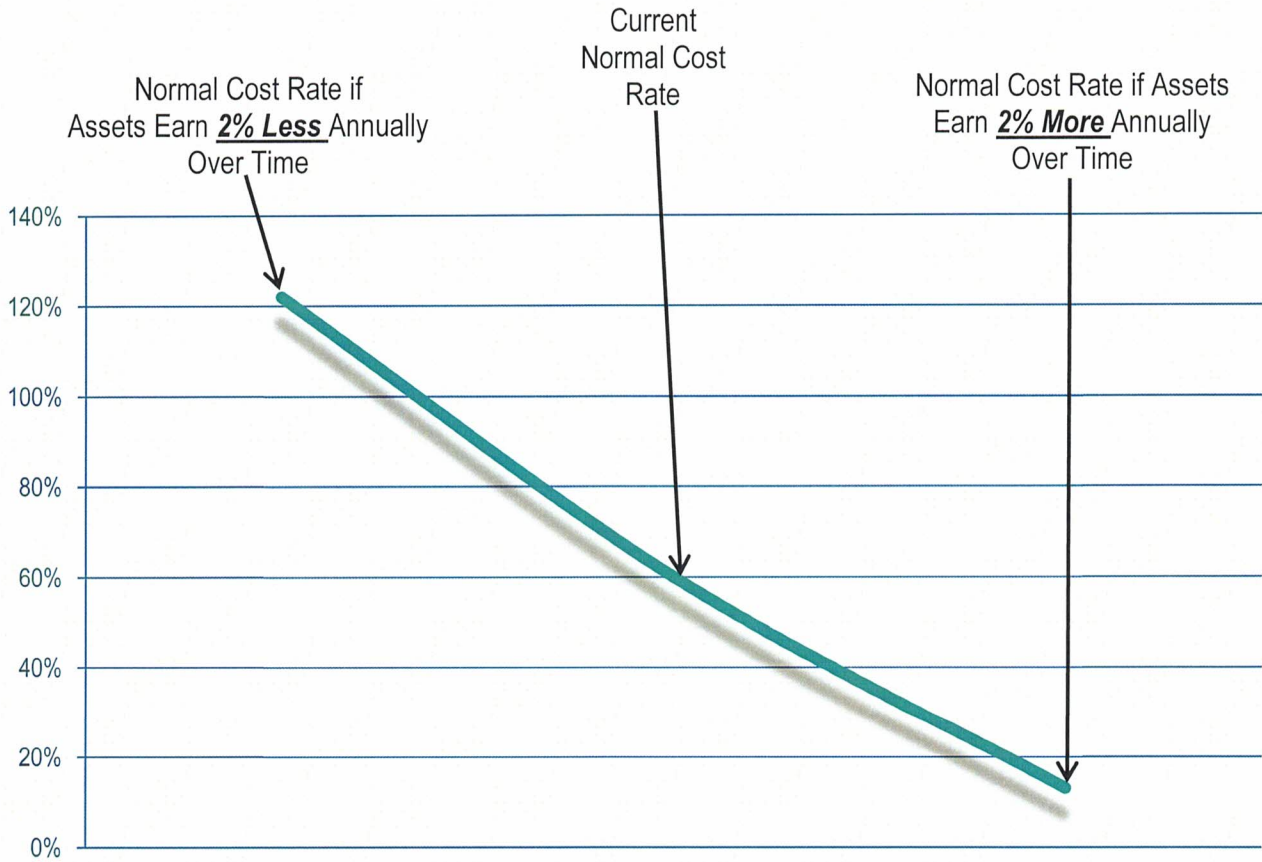
Table I-A
(continued)

The minimum required contribution rate of 62.16% includes both the District contribution and the allowable Chapter 175 contribution. In addition, employees are required to contribute 3.50% of pensionable earnings. The actual District contribution rate is expected to be approximately 53.04% based on the allowable Chapter 175 contribution for the previous year. The chart below shows the expected contribution rate by source for the 2022/23 plan year based on the expected payroll. A comparative chart shows the contribution rate by source for the previous 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	23.80%
Increase (decrease) due to investment gains and losses	29.43%
Increase (decrease) due to demographic experience	6.79%
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 normal cost rate	<u>60.02%</u>



Present Value of Future Benefits

Table I-D

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<i>Actively Employed Participants</i>			
Retirement benefits	\$41,649,545	\$41,649,545	\$41,649,545
Termination benefits	\$1,335,390	\$1,335,390	\$1,335,390
Disability benefits	\$1,489,562	\$1,489,562	\$1,489,562
Death benefits	\$438,297	\$438,297	\$438,297
Refund of employee contributions	\$74,879	\$74,879	\$74,879
Sub-total	\$44,987,673	\$44,987,673	\$44,987,673
<i>Deferred Vested Participants</i>			
Retirement benefits	\$198,615	\$198,615	\$198,615
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$198,615	\$198,615	\$198,615
<i>Due a Refund of Contributions</i>	\$2,748	\$2,748	\$2,748
<i>Deferred Beneficiaries</i>	\$0	\$0	\$0
<i>Retired Participants</i>			
Service retirements	\$9,279,128	\$9,279,128	\$9,279,128
Disability retirements	\$2,369,184	\$2,369,184	\$2,369,184
Beneficiaries receiving	\$872,683	\$872,683	\$872,683
DROP participants	\$14,370,488	\$14,370,488	\$14,370,488
Sub-total	\$26,891,483	\$26,891,483	\$26,891,483
<i>Grand Total</i>	<u>\$72,080,519</u>	<u>\$72,080,519</u>	<u>\$72,080,519</u>
Present Value of Future Payroll	\$34,878,234	\$34,878,234	\$34,878,234
Present Value of Future Employee Contribs.	\$1,220,739	\$1,220,739	\$1,220,739
Present Value of Future Employer Contribs.	\$20,934,260	\$20,934,260	\$20,934,260



Present Value of Accrued Benefits

Table I-E

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
<i>Actively Employed Participants</i>			
Retirement benefits	\$25,924,067	\$25,924,067	\$25,924,067
Termination benefits	\$788,347	\$788,347	\$788,347
Disability benefits	\$1,022,594	\$1,022,594	\$1,022,594
Death benefits	\$310,808	\$310,808	\$310,808
Refund of employee contributions	\$40,644	\$40,644	\$40,644
Sub-total	\$28,086,460	\$28,086,460	\$28,086,460
<i>Deferred Vested Participants</i>			
Retirement benefits	\$198,615	\$198,615	\$198,615
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$198,615	\$198,615	\$198,615
<i>Due a Refund of Contributions</i>	\$2,748	\$2,748	\$2,748
<i>Deferred Beneficiaries</i>	\$0	\$0	\$0
<i>Retired Participants</i>			
Service retirements	\$9,279,128	\$9,279,128	\$9,279,128
Disability retirements	\$2,369,184	\$2,369,184	\$2,369,184
Beneficiaries receiving	\$872,683	\$872,683	\$872,683
DROP participants	\$14,370,488	\$14,370,488	\$14,370,488
Sub-total	\$26,891,483	\$26,891,483	\$26,891,483
<i>Grand Total</i>	<u>\$55,179,306</u>	<u>\$55,179,306</u>	<u>\$55,179,306</u>
<i>Funded Percentage</i>	96.88%	96.88%	96.88%

(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>
<i><u>Actively Employed Participants</u></i>			
Retirement benefits	\$23,861,407	\$23,861,407	\$23,861,407
Termination benefits	\$679,878	\$679,878	\$679,878
Disability benefits	\$1,022,594	\$1,022,594	\$1,022,594
Death benefits	\$310,808	\$310,808	\$310,808
Refund of employee contributions	\$58,069	\$58,069	\$58,069
Sub-total	\$25,932,756	\$25,932,756	\$25,932,756
<i><u>Deferred Vested Participants</u></i>			
Retirement benefits	\$198,615	\$198,615	\$198,615
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$198,615	\$198,615	\$198,615
<i><u>Due a Refund of Contributions</u></i>	\$2,748	\$2,748	\$2,748
<i><u>Deferred Beneficiaries</u></i>	\$0	\$0	\$0
<i><u>Retired Participants</u></i>			
Service retirements	\$9,279,128	\$9,279,128	\$9,279,128
Disability retirements	\$2,369,184	\$2,369,184	\$2,369,184
Beneficiaries receiving	\$872,683	\$872,683	\$872,683
DROP participants	\$14,370,488	\$14,370,488	\$14,370,488
Sub-total	\$26,891,483	\$26,891,483	\$26,891,483
<i><u>Grand Total</u></i>	<u>\$53,025,602</u>	<u>\$53,025,602</u>	<u>\$53,025,602</u>



Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions <u>w/o Amendment</u>	Old Assumptions <u>w/ Amendment</u>	New Assumptions <u>w/ Amendment</u>
<i>Actively Employed Participants</i>			
Retirement benefits	\$33,184,251	\$33,184,251	\$33,184,251
Termination benefits	\$934,212	\$934,212	\$934,212
Disability benefits	\$1,122,287	\$1,122,287	\$1,122,287
Death benefits	\$325,381	\$325,381	\$325,381
Refund of employee contributions	\$43,528	\$43,528	\$43,528
Sub-total	\$35,609,659	\$35,609,659	\$35,609,659
<i>Deferred Vested Participants</i>			
Retirement benefits	\$198,615	\$198,615	\$198,615
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$198,615	\$198,615	\$198,615
<i>Due a Refund of Contributions</i>	\$2,748	\$2,748	\$2,748
<i>Deferred Beneficiaries</i>	\$0	\$0	\$0
<i>Retired Participants</i>			
Service retirements	\$9,279,128	\$9,279,128	\$9,279,128
Disability retirements	\$2,369,184	\$2,369,184	\$2,369,184
Beneficiaries receiving	\$872,683	\$872,683	\$872,683
DROP participants	\$14,370,488	\$14,370,488	\$14,370,488
Sub-total	\$26,891,483	\$26,891,483	\$26,891,483
<i>Grand Total</i>	<u>\$62,702,505</u>	<u>\$62,702,505</u>	<u>\$62,702,505</u>



Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2022	\$56,533,288
Minus DROP account balances	(\$2,998,092)
Minus advance employer contributions	(\$2,810,309)
Minus excess Chapter 175/185 contributions	(\$78,562)
Actuarial Value of Assets as of October 1, 2022	<u>\$50,646,325</u>

Historical Actuarial Value of Assets

October 1, 2013	\$21,754,439
October 1, 2014	\$24,788,582
October 1, 2015	\$25,839,564
October 1, 2016	\$29,496,972
October 1, 2017	\$35,412,405
October 1, 2018	\$40,946,547
October 1, 2019	\$44,538,280
October 1, 2020	\$48,748,730
October 1, 2021	\$59,604,917
October 1, 2022	\$50,646,325

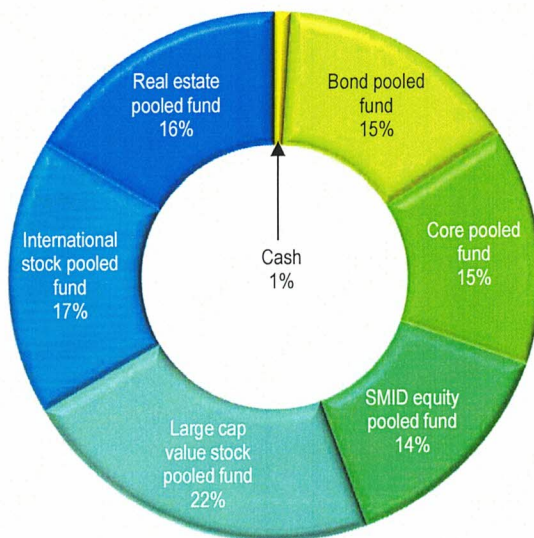


Market Value of Assets

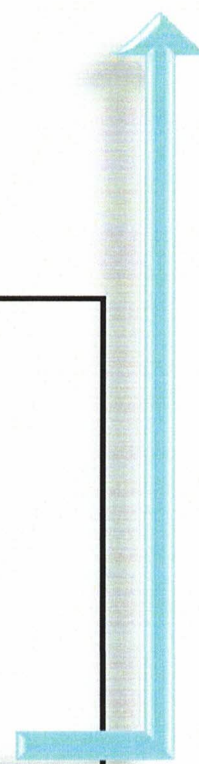
Table II-B

As of October 1, 2022

Market Value of Assets	<u>\$56,533,288</u>
Cash	\$565,333
Bond pooled fund	\$8,423,460
Core pooled fund	\$8,197,327
SMID equity pooled fund	\$7,914,660
Large cap value stock pooled fund	\$12,550,390
International stock pooled fund	\$9,554,126
Real estate pooled fund	\$9,327,992

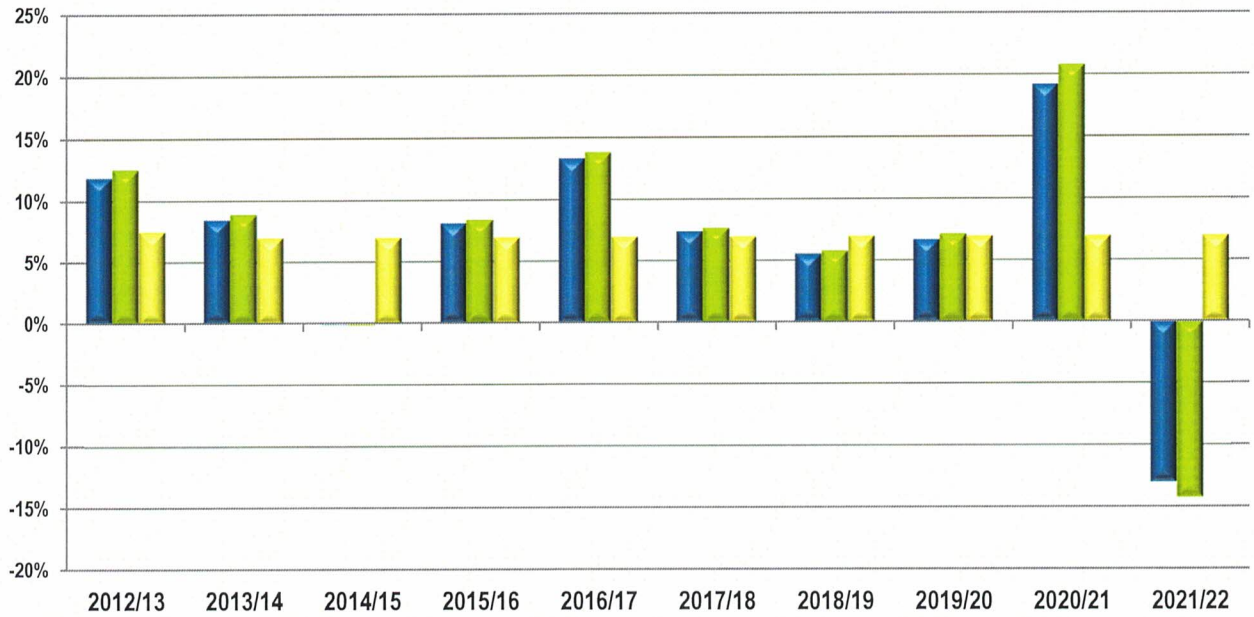


Historical Market Value of Assets	
October 1, 2013	\$22,836,219
October 1, 2014	\$26,085,813
October 1, 2015	\$26,747,732
October 1, 2016	\$30,527,026
October 1, 2017	\$36,627,689
October 1, 2018	\$42,564,666
October 1, 2019	\$46,829,732
October 1, 2020	\$52,435,551
October 1, 2021	\$64,108,867
October 1, 2022	\$56,533,288



Investment Return

Table II-C



Annual Investment Returns

- Market Value Return
- Actuarial Value Return
- Assumed Return

Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2012/13	11.92%	12.58%	7.50%
2013/14	8.45%	8.90%	7.00%
2014/15	-0.11%	-0.11%	7.00%
2015/16	8.14%	8.43%	7.00%
2016/17	13.33%	13.83%	7.00%
2017/18	7.41%	7.69%	7.00%
2018/19	5.53%	5.79%	7.00%
2019/20	6.70%	7.15%	7.00%
2020/21	19.20%	20.80%	7.00%
2021/22	-13.04%	-14.18%	7.00%
10yr. Avg.	6.42%	6.70%	7.05%



Asset Reconciliation

Table II-D

	<u>Market Value</u>	<u>Actuarial Value</u>
As of October 1, 2021	\$64,108,867	\$59,604,917
<i>Increases Due To:</i>		
Employer Contributions	\$1,449,460	\$1,449,460
Chapter 175/185 Contributions	\$489,308	\$489,308
Employee Contributions	\$207,435	\$207,435
Service Purchase Contributions	\$0	\$0
Total Contributions	<u>\$2,146,203</u>	<u>\$2,146,203</u>
Interest and Dividends	\$0	
Realized Gains (Losses)	\$0	
Unrealized Gains (Losses)	(\$8,413,841)	
Total Investment Income	<u>(\$8,413,841)</u>	(\$8,413,841)
Other Income	\$0	
Total Income	<u>(\$6,267,638)</u>	<u>(\$6,267,638)</u>
<i>Decreases Due To:</i>		
Monthly Benefit Payments	(\$1,219,360)	(\$1,219,360)
Refund of Employee Contributions	\$0	\$0
DROP Credits		(\$905,562)
Total Benefit Payments	<u>(\$1,219,360)</u>	<u>(\$2,124,922)</u>
Investment Expenses	\$0	
Administrative Expenses	(\$88,581)	(\$88,581)
Advance Employer Contribution		(\$477,451)
Excess Chapter 175/185 Contribution		\$0
Total Expenses	<u>(\$1,307,941)</u>	<u>(\$2,690,954)</u>
As of October 1, 2022	<u>\$56,533,288</u>	<u>\$50,646,325</u>



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>Realized</u>	<u>Unrealized</u>	<u>Other</u> <u>Income</u>
				<u>Purchase</u> <u>Contribs.</u>	<u>Interest /</u> <u>Dividends</u>	<u>Gains /</u> <u>Losses</u>	<u>Gains /</u> <u>Losses</u>	
2012/13	\$1,598,463	\$408,775	\$136,039	\$0	\$0	\$0	\$2,376,983	\$0
2013/14	\$1,267,372	\$448,192	\$143,926	\$0	\$0	\$0	\$1,982,480	\$0
2014/15	\$1,397,570	\$483,833	\$152,860	\$0	\$0	\$0	-\$28,475	\$0
2015/16	\$1,709,287	\$414,319	\$162,048	\$0	\$0	\$0	\$2,239,144	\$0
2016/17	\$2,133,651	\$403,971	\$170,272	\$0	\$0	\$0	\$4,197,202	\$0
2017/18	\$3,527,797	\$410,300	\$191,645	\$0	\$0	\$0	\$2,828,414	\$0
2018/19	\$2,612,470	\$449,109	\$200,695	\$0	\$0	\$0	\$2,404,265	\$0
2019/20	\$2,644,180	\$467,878	\$203,131	\$0	\$0	\$0	\$3,218,022	\$0
2020/21	\$1,723,980	\$511,702	\$213,863	\$59,102	\$0	\$0	\$10,207,720	\$0
2021/22	\$1,449,460	\$489,308	\$207,435	\$0	\$0	\$0	-\$8,413,841	\$0

Expenses

<u>Plan</u> <u>Year</u>	<u>Monthly</u>				<u>Other Actuarial Adjustments</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>DROP</u> <u>Credits</u>	<u>Advance</u> <u>Employer</u> <u>Contribs.</u>	<u>Excess</u> <u>Chapter</u> <u>Contribs.</u>
2012/13	\$1,041,946	\$1,101	\$50,368	\$0	-\$287,641	\$385,653	\$0
2013/14	\$526,686	\$6,682	\$59,008	\$0	\$249,206	-\$42,976	\$9,221
2014/15	\$1,279,900	\$201	\$63,768	\$0	-\$426,533	-\$7,392	\$44,862
2015/16	\$680,847	\$0	\$64,657	\$0	\$285,006	-\$163,120	\$0
2016/17	\$739,639	\$0	\$64,794	\$0	\$315,041	-\$129,811	\$0
2017/18	\$955,125	\$720	\$65,334	\$0	\$112,998	\$289,837	\$0
2018/19	\$1,297,023	\$21,863	\$82,587	\$0	-\$179,459	\$852,792	\$0
2019/20	\$851,857	\$0	\$75,535	\$0	\$519,489	\$875,880	\$0
2020/21	\$961,014	\$0	\$82,037	\$0	\$682,186	\$134,943	\$0
2021/22	\$1,219,360	\$0	\$88,581	\$0	\$905,562	\$477,451	\$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, 2021	\$2,332,858
Additional Employer Contribution	\$1,938,768
Minimum Required Contribution	(\$1,461,317)
Net Increase in Advance Employer Contribution	\$477,451
Advance Employer Contribution as of October 1, 2022	<u>\$2,810,309</u>

Excess Chapter 175/185 Contribution

Excess Chapter 175/185 Contribution as of October 1, 2021	\$78,562
Additional Chapter 175/185 Contribution	\$489,308
Allowable Chapter 175/185 Contribution	(\$489,308)
Net Increase in Excess Chapter 175/185 Contribution	\$0
Excess Chapter 175/185 Contribution as of October 1, 2022	<u>\$78,562</u>

DROP Account Reconciliation

DROP Balance as of October 1, 2021	\$2,092,530
DROP Benefit Credits	\$800,765
DROP Investment Credits	\$159,313
DROP Benefits Paid Out	(\$54,516)
Net DROP Credit	\$905,562
DROP Balance as of October 1, 2022	<u>\$2,998,092</u>



Historical Chapter 175/185 Contributions

Table II-G

Total Accumulated Excess Chapter 175/185 Contribution **\$78,562**

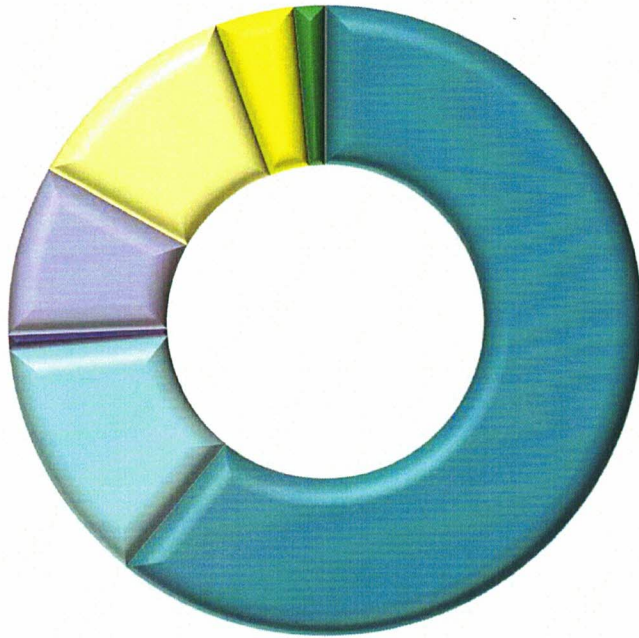
	Chapter 175 Regular <u>Distribution</u>	Chapter 175 Supplemental <u>Distribution</u>	Chapter 185 <u>Distribution</u>	Allowable <u>Amount</u>
1998 Distribution	\$38,443	\$0	\$0	(\$38,443)
1999 Distribution	\$49,368	\$0	\$0	(\$49,368)
2000 Distribution	\$76,102	\$0	\$0	(\$76,102)
2001 Distribution	\$99,756	\$0	\$0	(\$99,756)
2002 Distribution	\$132,354	\$0	\$0	(\$132,354)
2003 Distribution	\$158,638	\$0	\$0	(\$158,638)
2004 Distribution	\$196,521	\$0	\$0	(\$196,521)
2005 Distribution	\$239,425	\$0	\$0	(\$239,425)
2006 Distribution	\$273,425	\$4,264	\$0	(\$277,689)
2007 Distribution	\$297,089	\$135,382	\$0	(\$432,471)
2008 Distribution	\$329,717	\$133,733	\$0	(\$438,971)
2009 Distribution	\$324,870	\$100,595	\$0	(\$425,465)
2010 Distribution	\$324,070	\$74,392	\$0	(\$398,462)
2011 Distribution	\$333,648	\$95,991	\$0	(\$429,639)
2012 Distribution	\$304,728	\$104,047	\$0	(\$408,775)
2013 Distribution	\$315,742	\$132,450	\$0	(\$438,971)
2014 Distribution	\$348,350	\$135,483	\$0	(\$438,971)
2015 Distribution	\$356,502	\$57,817	\$0	(\$414,319)
2016 Distribution	\$380,171	\$23,800	\$0	(\$403,971)
2017 Distribution	\$407,121	\$3,179	\$0	(\$410,300)
2018 Distribution	\$449,109	\$0	\$0	(\$449,109)
2019 Distribution	\$467,878	\$0	\$0	(\$467,878)
2020 Distribution	\$511,702	\$0	\$0	(\$511,702)
2021 Distribution	\$489,308	\$0	\$0	(\$489,308)



Summary of Participant Data

Table III-A

As of October 1, 2022

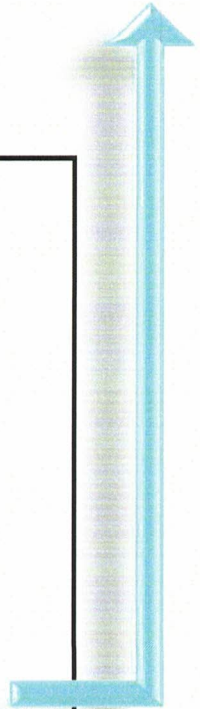


Participant Distribution by Status

<u>Actively Employed Participants</u>		
◆	Active Participants	76
◆	DROP Participants	16
<u>Inactive Participants</u>		
◆	Deferred Vested Participants	1
◆	Due a Refund of Contributions	11
◆	Deferred Beneficiaries	0
<u>Participants Receiving a Benefit</u>		
◆	Service Retirements	14
◆	Disability Retirements	5
◆	Beneficiaries Receiving	2
Total Participants		125

Number of Participants Included in Prior Valuations

	<i>Active</i>	<i>DROP</i>	<i>Inactive</i>	<i>Retired</i>	<i>Total</i>
October 1, 2013	74	3	25	12	114
October 1, 2014	72	4	15	12	103
October 1, 2015	73	4	13	14	104
October 1, 2016	71	6	13	14	104
October 1, 2017	73	5	13	15	106
October 1, 2018	83	4	10	16	113
October 1, 2019	79	6	11	17	113
October 1, 2020	77	10	11	18	116
October 1, 2021	76	11	12	19	118
October 1, 2022	76	16	12	21	125



Data Reconciliation

Table III-B

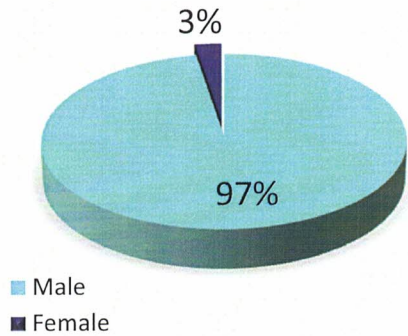
	<u>Active</u>	<u>DROP</u>	<u>Deferred Vested</u>	<u>Due a Refund</u>	<u>Def. Benef.</u>	<u>Service Retiree</u>	<u>Disabled Retiree</u>	<u>Benef. Rec'v.</u>	<u>Total</u>
<u>October 1, 2021</u>	76	11	1	11	0	13	4	2	118
<u>Change in Status</u>									
Re-employed									
Terminated									
Retired	(1)	(1)				1	1		
<u>Participation Ended</u>									
Transferred Out	(6)	6							
Cashed Out									
Died									
<u>Participation Began</u>									
Newly Hired	7								7
Transferred In									
New Beneficiary									
<u>Other Adjustment</u>									
<u>October 1, 2022</u>	76	16	1	11	0	14	5	2	125



Active Participant Data

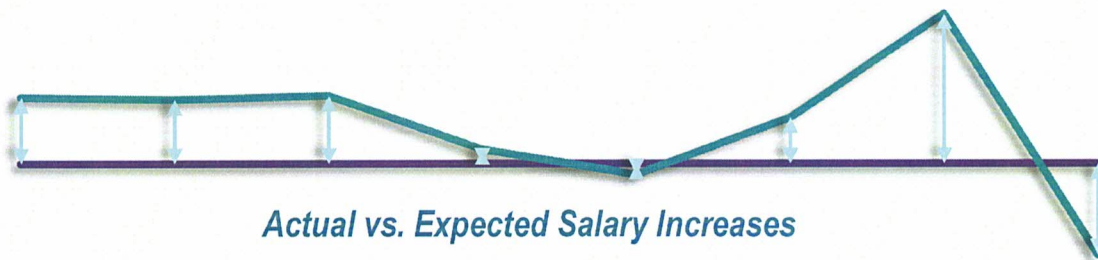
Table III-C

Gender Mix



As of October 1, 2022

Average Age	40.8 years
Average Service	13.7 years
Total Annualized Compensation for the Prior Year	\$5,730,545
Total Expected Compensation for the Current Year	\$5,363,948
Average Increase in Compensation for the Prior Year	1.22%
Expected Increase in Compensation for the Current Year	4.50%
Accumulated Contributions for Active Employees	\$2,035,802



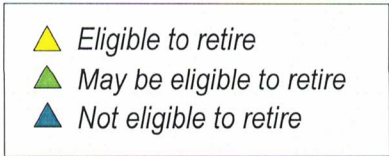
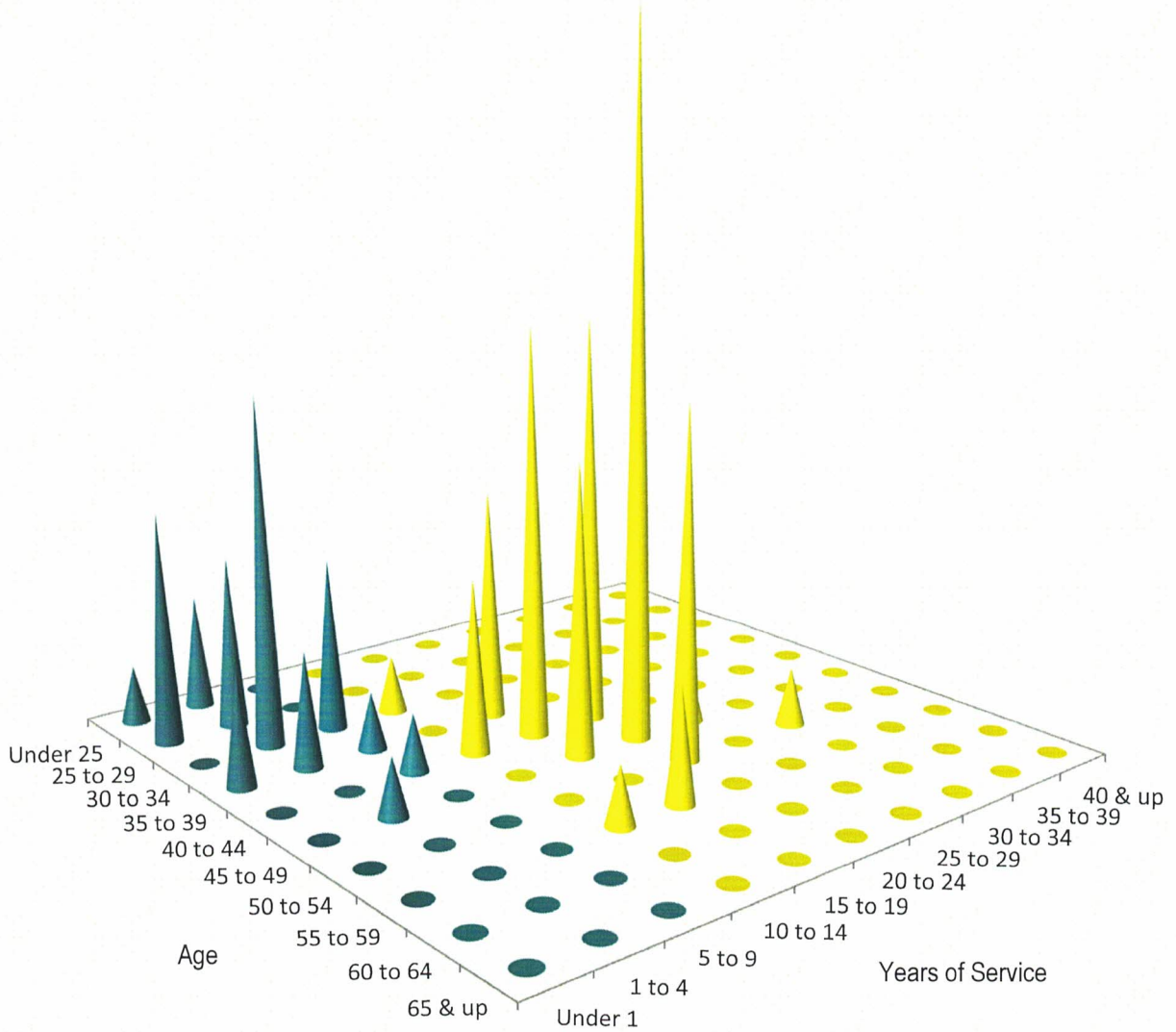
Active Participant Statistics From Prior Valuations

	Average Age	Average Service	Average Salary	Average Expected Salary Increase	Average Actual Salary Increase
October 1, 2013	39.3	11.7	\$52,471	5.12%	1.23%
October 1, 2014	40.2	12.7	\$56,296	4.50%	4.32%
October 1, 2015	40.6	13.0	\$58,976	4.50%	6.91%
October 1, 2016	41.3	13.8	\$63,870	4.50%	6.83%
October 1, 2017	42.0	14.4	\$67,478	4.50%	6.97%
October 1, 2018	41.1	13.5	\$67,560	4.50%	5.02%
October 1, 2019	41.6	14.1	\$70,247	4.50%	4.10%
October 1, 2020	41.7	14.0	\$72,546	4.50%	6.16%
October 1, 2021	42.0	14.7	\$79,119	4.50%	9.90%
October 1, 2022	40.8	13.7	\$75,402	4.50%	1.22%



Active Age-Service Distribution

Table III-D



Active Age-Service-Salary Table

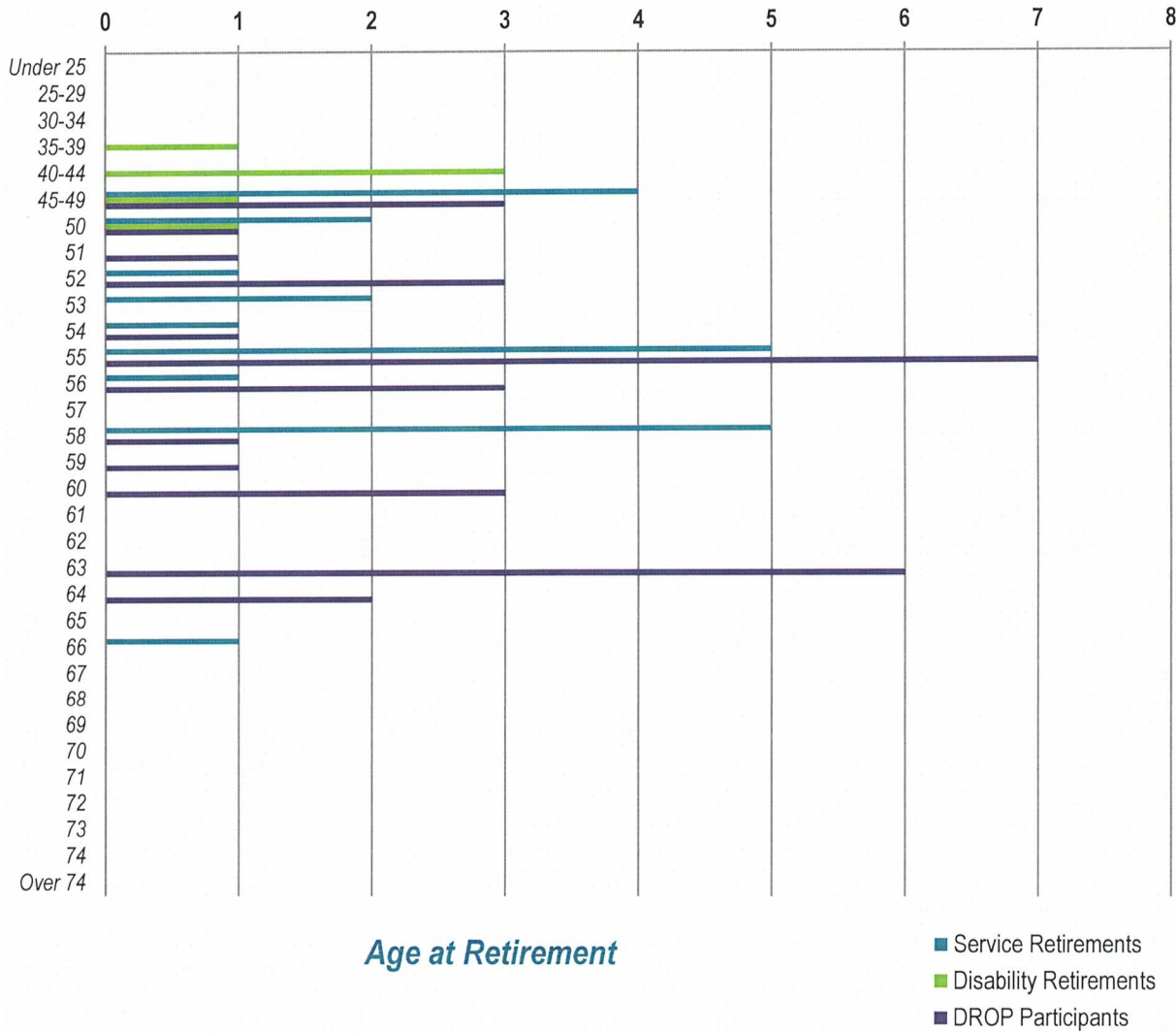
Table III-E

Attained Age	Completed Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	1	2	0	0	0	0	0	0	0	0	0	3
Avg.Pay	43,869	59,323	0	0	0	0	0	0	0	0	0	54,171
25 to 29	4	3	0	0	0	0	0	0	0	0	0	7
Avg.Pay	45,213	70,751	0	0	0	0	0	0	0	0	0	56,158
30 to 34	0	6	3	1	0	0	0	0	0	0	0	10
Avg.Pay	0	60,995	71,013	75,135	0	0	0	0	0	0	0	65,414
35 to 39	2	2	1	0	4	0	0	0	0	0	0	9
Avg.Pay	45,540	73,945	73,777	0	84,695	0	0	0	0	0	0	72,392
40 to 44	0	0	1	3	7	7	0	0	0	0	0	18
Avg.Pay	0	0	76,748	74,338	81,361	85,919	0	0	0	0	0	81,707
45 to 49	0	1	0	0	5	12	1	0	0	0	0	19
Avg.Pay	0	63,665	0	0	81,635	84,055	80,264	0	0	0	0	82,145
50 to 54	0	0	0	0	0	6	0	1	0	0	0	7
Avg.Pay	0	0	0	0	0	84,330	0	99,749	0	0	0	86,532
55 to 59	0	0	0	1	2	0	0	0	0	0	0	3
Avg.Pay	0	0	0	75,592	78,230	0	0	0	0	0	0	77,351
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
Total	7	14	5	5	18	25	1	1	0	0	0	76
Avg.Pay	45,114	64,887	72,713	74,748	81,830	84,643	80,264	99,749	0	0	0	75,402



Inactive Participant Data

Table III-F



Age at Retirement

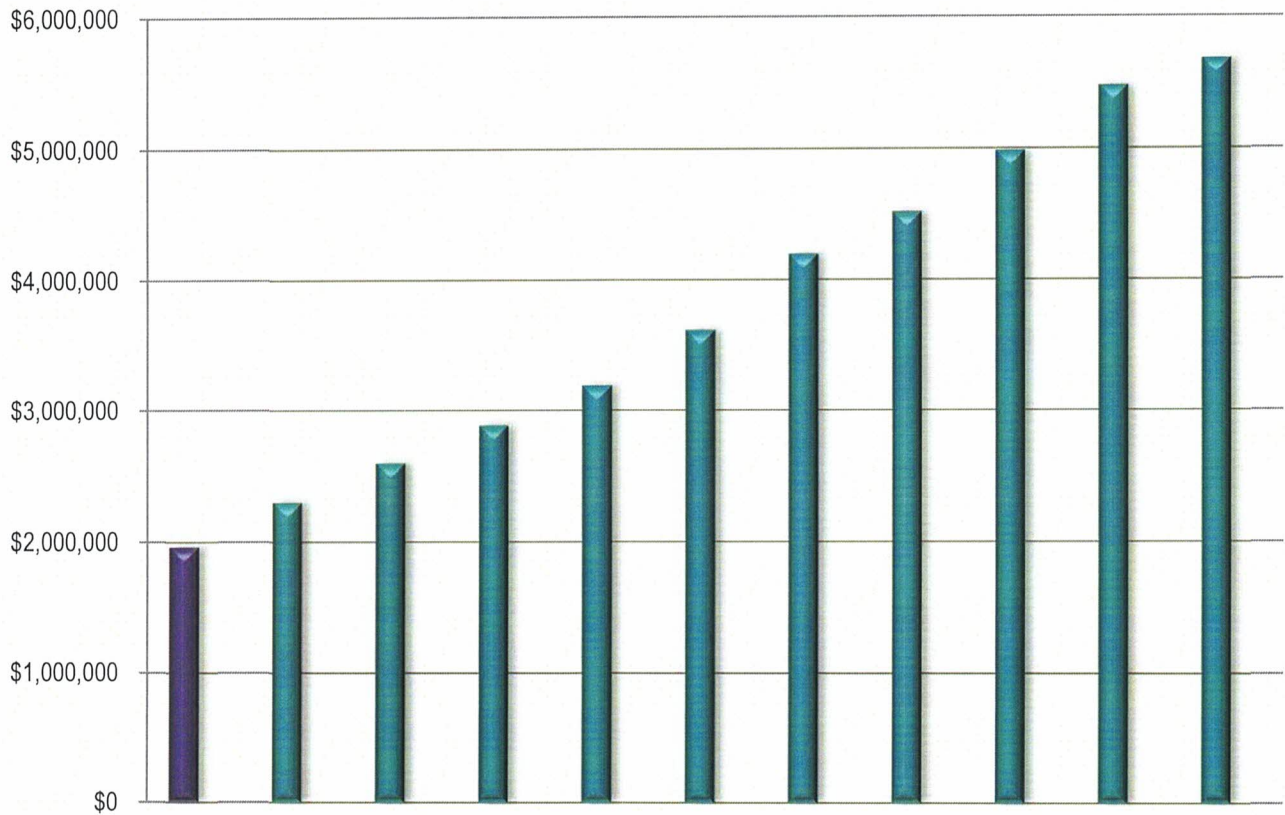
Average Monthly Benefit

Service Retirements	\$4,587.00
Disability Retirements	\$3,324.22
Beneficiaries Receiving	\$2,937.75
DROP Participants	\$5,872.62
Deferred Vested Participants	\$2,354.66
Deferred Beneficiaries	Not applicable



Projected Benefit Payments

Table III-G



Actual

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

\$1,965,609

Projected

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

\$2,304,528

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

\$2,602,502

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

\$2,890,668

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

\$3,191,441

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

\$3,615,709

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

\$4,197,649

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

\$4,518,659

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

\$4,982,035

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

\$5,478,851

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

\$5,683,076



Summary of Actuarial Methods and Assumptions

Table IV-A

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

1. **Actuarial Cost Method**

Aggregate cost method. Under this actuarial cost method, a funding cost is developed for the plan as a level percentage of payroll. The level funding percentage is calculated as the excess of the total future benefit liability over accumulated assets and future employee contributions, with this excess spread over the expected future payroll for current active participants. The normal cost is equal to the level funding percentage multiplied by the expected payroll for the year immediately following the valuation date. The actuarial accrued liability is equal to the accumulated assets. Therefore, under the aggregate cost method, no unfunded accrued liability is developed.

2. **Asset Method**

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

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

7.00% per annum

4. **Salary Increases**

Plan compensation is assumed to increase at the rate of 4.50% per annum, unless actual plan compensation is known for a prior plan year.

5. **Decrements**

- Pre-retirement mortality: Sex-distinct rates set forth in the 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
- 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



Summary of Actuarial Methods and Assumptions

Table IV-A

(continued)

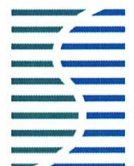
- **Disability:** Age- and gender-based rates of disability were assumed, ranging from 0.067% for males and 0.040% for females at age 25, 0.119% for males and 0.118% for females at age 35, 0.462% for males and 0.435% for females at age 45, and 1.000% for males and 0.840% for females at age 55; all disabilities are assumed to be service-related.
- **Termination:** With respect to participants with less than 10 years of service, the termination rates are both gender- and service-based, ranging from 15.00% for males and 10.01% for females with less than two years of service to 4.30% for males and 4.75% for females with between eight and 10 years of service; with respect to participants with at least 10 years of service, the termination rates are both gender- and age-based, ranging from 4.28% for males and 5.41% for females at age 25 to 0.00% for both genders at age 55.
- **Retirement:** For those participants who have met the age and service requirements to retire, retirement is assumed to occur at the rate of 10% per year during each of the three years prior to normal retirement age; alternatively, 40% of participants who reach their normal retirement age are assumed to retire immediately, with 20% assumed to retire during each of the next two years after the attainment of normal retirement age and 100% assumed to retire three years after the attainment of normal retirement age. No early retirements are assumed to occur prior to age 50.

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 1.00% 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

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, 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.*
- (2) *Effective October 1, 2018, the mortality basis was changed from the RP-2000 Combined Mortality Table to the RP-2000 Blue Collar Mortality Table, both with full generational improvements using Scale BB.*
- (3) *Effective October 1, 2016, the mortality basis was changed from a 2015 projection of the RP-2000 Mortality Table for annuitants to a full generational projection using Scale BB of the RP-2000 Combined Mortality Table as required by State law.*
- (4) *Effective October 1, 2013, the interest (or discount) rate was decreased from 7.50% per annum to 7.00% per annum.*
- (5) *Effective October 1, 2013, the assumed increase in future salaries was changed from a range of rates based on service (8.00% for employees with less than one year of service, 7.00% for employees with at least one but less than two years of service, 6.00% for employees with at least two but less than three years of service, 5.50% for employees with at least three but less than four years of service, and 5.20% for all other employees) to a flat 4.50% per year.*
- (6) *Effective October 1, 2013, the mortality basis was changed from the RP-2000 Mortality Table, projected to 2007 by Scale AA, to the RP-2000 Mortality Table, projected to 2015 by Scale AA, both as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430.*



Summary of Plan Provisions

Table V-A

1. Monthly Accrued Benefit

3.50% of Average Final Compensation multiplied by Credited Service

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

Age 55 with at least 10 years of Credited Service; or
Any age with at least 25 years of Credited Service

• Amount

Monthly Accrued Benefit

• 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); or
Any other actuarially equivalent form of payment approved by the Board other than a single lump sum payment

(Note: A participant may change his/her joint annuitant up to two times after retirement.)

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

Age 50 with at least 10 years of Credited Service

• Amount

Monthly Accrued Benefit (payable at Normal Retirement Age); or
Monthly Accrued Benefit reduced by 3% for each year by which the participant's Early Retirement Date precedes his/her Normal Retirement Date (payable at Early Retirement Age)

• Form of Payment

Same as for Normal Retirement



Summary of Plan Provisions

Table V-A

(continued)

4. Service Incurred Disability Eligibility and Benefit**• Eligibility**

The participant is eligible if his/her disability was incurred during the course of his/her employment with the District.

• Condition

The Board must find that the participant has a physical or mental condition resulting from bodily injury, disease, or a mental disorder which renders him/her incapable of employment as a firefighter.

• Amount Payable

A monthly 10-year certain and life annuity equal to the larger of (a) or (b), as follows, but offset as necessary to preclude the total of the participant's worker's compensation, disability benefit, and other District-provided disability compensation from exceeding his/her Average Final Compensation:

- (a) Monthly Accrued Benefit; or
- (b) 42% of Average Final Compensation

5. Non-Service Incurred Disability Eligibility and Benefit**• Eligibility**

The participant must have earned at least 10 years of Credited Service if his/her disability was incurred other than during the course of his/her employment with the District.

• Condition

Same as for a Service Incurred Disability Benefit

• Amount Payable

A monthly 10-year certain and life annuity equal to the larger of (a) or (b), as follows, but offset as necessary to preclude the total of the participant's worker's compensation, disability benefit, and other District-provided disability compensation from exceeding his/her Average Final Compensation:

- (a) Monthly Accrued Benefit; or
- (b) 25% of Average Final Compensation

6. Delayed Retirement Age and Benefit**• Age**

After Normal Retirement Age

• Amount

Monthly Accrued Benefit

• Form of Payment

Same as for Normal Retirement



Summary of Plan Provisions

Table V-A

(continued)

7. Deferred Vested Benefit

- **Age**
Any age with at least 10 years of Credited Service
- **Amount**
Monthly Accrued Benefit (payable at Normal Retirement Age); or
Monthly Accrued Benefit reduced by 3% for each year by which the participant's Early Retirement Date precedes his/her Normal Retirement Date (payable at Early Retirement Age)
- **Form of Payment**
Same as for Normal Retirement

8. Pre-Retirement Death Benefit

In the case of the death of a participant in the line of duty prior to retirement, his/her beneficiary will receive the greater of the participant's Monthly Accrued Benefit or 50% of the participant's salary payable for life. In the case of the death of a vested participant other than in the line of duty prior to retirement, his/her beneficiary will receive the participant's Monthly Accrued Benefit payable for 10 years beginning on the participant's early or normal retirement date. In the case of the death of a non-vested participant prior to retirement, his/her beneficiary will receive the participant's Accumulated Contributions in lieu of any other benefits payable from the plan.

9. Average Final Compensation

Average of the highest three years of Compensation out of the last 10 years of employment (or career average, if higher).

10. Compensation

Fixed monthly compensation or, in the case of voluntary firefighters, actual compensation for services rendered; annual compensation in excess of \$200,000 (as indexed) is excluded in accordance with IRC §401(a)(17).

11. Credited Service

The elapsed time from the participant's date of hire until his/her date of termination, retirement, or death, provided that the participant made all required contributions. In the case of a full-time firefighter, prior service earned before January 12, 2014 as a volunteer firefighter is counted for vesting and eligibility purposes only. In addition, Credited Service includes prior service with the Oneco-Tallevast and Samoset Fire Districts.



Summary of Plan Provisions

Table V-A

(continued)

12. Participation Requirement

All firefighters of the Southern Manatee Fire & Rescue District automatically become a participant in the plan on their date of hire.

13. Accumulated Contributions

The Employee Contributions accumulated with no interest; if the participant terminates his/her employment with less than 10 years of Credited Service, he/she receives his/her Accumulated Contributions in lieu of any other benefits payable from the plan.

14. Participant Contribution

3.50% of earnings

15. Definition of Actuarially Equivalent

- **Interest Rate**

7.00% per annum

- **Mortality Table**

Unisex mortality table promulgated by the Internal Revenue Service (IRS) for purposes of determining the amount of lump sum distributions pursuant to Internal Revenue Service (IRC) section 417(e)(3)

16. Plan Effective Date

March 11, 1997

17. Deferred Retirement Option Plan (DROP)

A participant who reaches his/her Normal Retirement Age is eligible to participate in the DROP for a period of up to 96 months. Interest is credited on the DROP accounts at the rate of 6.50% per annum.

18. Retiree Health Supplement

Participants who retire from active service with a normal or disability retirement benefit receive a monthly post-retirement health supplement equal to \$30 for each year of service, with a minimum monthly benefit of \$50 and a maximum monthly benefit of \$750. In addition, this monthly supplement is paid to the participant's eligible spouse during the period that a retirement benefit is payable to the spouse, provided that the participant was either receiving a normal or disability retirement benefit or was eligible for normal retirement at his/her death.



Summary of Plan Amendments

Table V-B

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

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

- (1) *During the 2020/21 fiscal year, Resolution 2021-04 was adopted. This resolution increased the monthly retiree health supplement from \$15.00 for each year of service (maximum of \$450.00) to \$30.00 for each year of service (maximum of \$750.00).*

