Retirement Plan for the Firefighters and Police Officers of the City of Longwood

Actuarial Valuation
As of October 1, 2021

Determines the Contribution
For the 2022/23 Fiscal Year

SOUTHERN ACTUARIAL SERVICES

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May 23, 2022

Introduction

This report presents the results of the October 1, 2021 actuarial valuation of the Retirement Plan for the Firefighters and Police Officers of the City of Longwood. 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, 2021 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 minimum required contribution 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 21.71% of covered payroll, which represents a decrease of 1.11% of payroll from the prior valuation.

The normal cost rate is 21.84% of payroll, which is 0.94% of payroll less than the normal cost rate that was developed in the prior valuation. Table I-C provides a breakdown of the sources of change in the normal cost rate. Significantly, the rate decreased by 8.58% of payroll due to investment gains, decreased by another 0.03% of payroll due to demographic experience, and increased by 7.67% of payroll due to the assumption change that is described below. The market value of assets earned 19.06% during the 2020/21 plan year, whereas a 7.00% annual investment return was required to maintain a stable contribution rate.

Chapter 112, Florida Statutes, sets forth the rules concerning the minimum required contribution for public pension plans within the state. Essentially, the City must contribute an amount equal to the annual normal cost of the plan plus an adjustment as necessary to reflect interest on any delayed payment of the contribution beyond the valuation date. On this basis, the City's 2022/23 minimum required contribution will be equal to 21.71% 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 $32,224,546. As illustrated in Table I-A, current assets are sufficient to cover $24,392,492 of this amount, the employer's 2021/22 expected contribution will cover $1,008,950 of this amount, the employer's 2022/23 expected contribution will cover $998,124 of this amount, and future employee contributions are expected to cover $342,968 of this amount, leaving $5,482,012 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.

DRAGO Fund

Any Chapter 175/185 contributions received in excess of the "base amount" are deposited into the Defined Retirement Accumulation Group Obligation (DRAGO) Fund. As of October 1, 2021, the "base amount" is $302,812, which is equal to the portion of the annual Chapter 175/185 contributions that the City may apply towards the minimum required contribution. In addition, the DRAGO Fund is credited with interest at the valuation rate of 7.00% as of each September 30, whereby the interest rate is applied to the balance in the DRAGO Fund as of the preceding October 1. DRAGO Fund assets are comingled with the pension fund assets. Upon retirement from active employment, the retiree is entitled to receive a pro-rata share of the DRAGO Fund balance as of his date of retirement, where his pro-rata share is determined by dividing the retiree's credited service as of the October 1 preceding his last day of employment by the total credited service for all active employees on that date.

As of October 1, 2021, the DRAGO Fund balance is $2,875,625, which reflects the DRAGO Fund balance of $2,636,829 as of October 1, 2020 plus Chapter 175/185 contributions of $54,218 plus investment earnings of $184,578 as shown in Table II-F.

Advance Employer Contribution

The City has made contributions to the plan in excess of the minimum amount that was required to be contributed pursuant to Chapter 112. In this report, the excess contributions are referred to as an "advance employer contribution." As of October 1, 2021, the advance employer contribution is $168,145, which reflects the advance employer contribution of $271,359 as of October 1, 2020 less $103,214 to cover the shortfall between actual City contributions and the minimum required contribution for the 2020/21 plan year as shown in Table II-F.

The City may apply all or any portion of the advance employer contribution towards the minimum required contribution for the 2021/22 plan year or for any later plan year. The minimum required contribution for that plan year will be reduced dollar-for-dollar by the amount of the advance employer contribution that is applied in this manner.

Alternatively, at any time, the City may apply all or any portion of the advance employer contribution as an *extra* contribution in excess of the minimum required contribution.

Actuarial Assumption Change

Since the completion of the previous valuation, the assumed interest (or discount) rate was decreased from 7.00% per annum to 6.50% per annum. The impact of this assumption change was to increase the normal cost rate by 7.67% of payroll.

Identification and Assessment of Risk

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

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

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

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

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

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

The Trustees have adopted the 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. Specifically, Table II-A shows the development of the actuarial value of assets, which is based on the market value of assets. 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, 2021, 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 44 participants who are due a refund of their contributions. We have estimated the accumulated amount of their refunds to be $25,182 as of October 1, 2021. The average amount owed to these individuals is $572 each. We recommend that the accumulated contributions be distributed to these individuals if possible 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/cz

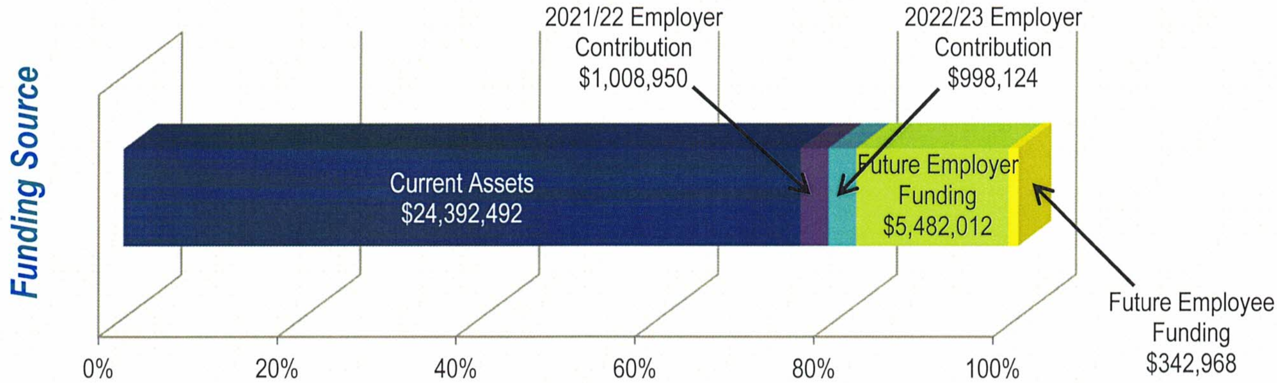
Charles T. Carr
Consulting Actuary
Southern Actuarial Services Company, Inc.

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	$31,285,967
Present Value of Future Administrative Expenses	$938,579
Actuarial Value of Assets	($24,392,492)
Present Value of Future Employee Contributions	($342,968)
Present Value of Future Normal Costs	$7,489,086
Present Value of Future Payroll	*÷ $34,296,845*
Normal Cost Rate	*= 21.8361%*
Expected Payroll	*x $4,421,342*
Normal Cost	$965,448
Adjustment to Reflect Monthly Employer Contributions	$33,337
Expected Employer Contribution for the 2021/22 Plan Year	($1,008,950)
Remaining Contribution Due/(Credit) for the 2021/22 Plan Year	($10,165)
	x 0.065
One Year's Interest Charge/(Credit) on the Remaining Contribution	($661)
Preliminary Employer Contribution for the 2022/23 Plan Year	$998,124
Expected Payroll for the 2022/23 Plan Year	*÷ $4,598,196*
Minimum Required Contribution Rate	**21.71%**

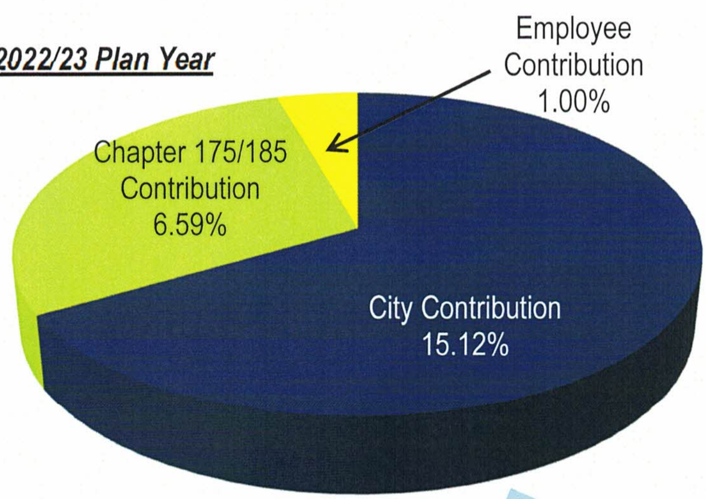
(The actual contribution should be based on the minimum required contribution rate multiplied by the actual payroll for the year.)

Minimum Required Contribution

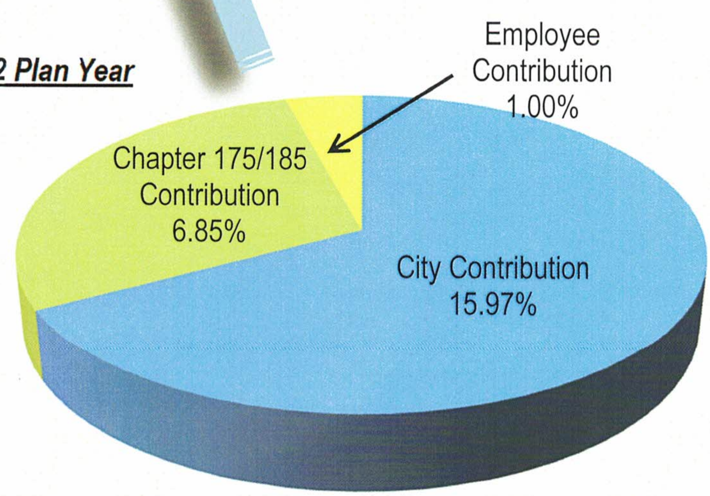
Table I-A
(continued)

The minimum required contribution rate of 21.71% includes both the City contribution and the allowable Chapter 175/185 contribution. In addition, employees are required to contribute 1.00% of pensionable earnings. The actual City contribution rate is expected to be approximately 15.12% based on the allowable Chapter 175/185 contribution for the 2021/22 plan 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.

For the 2022/23 Plan Year

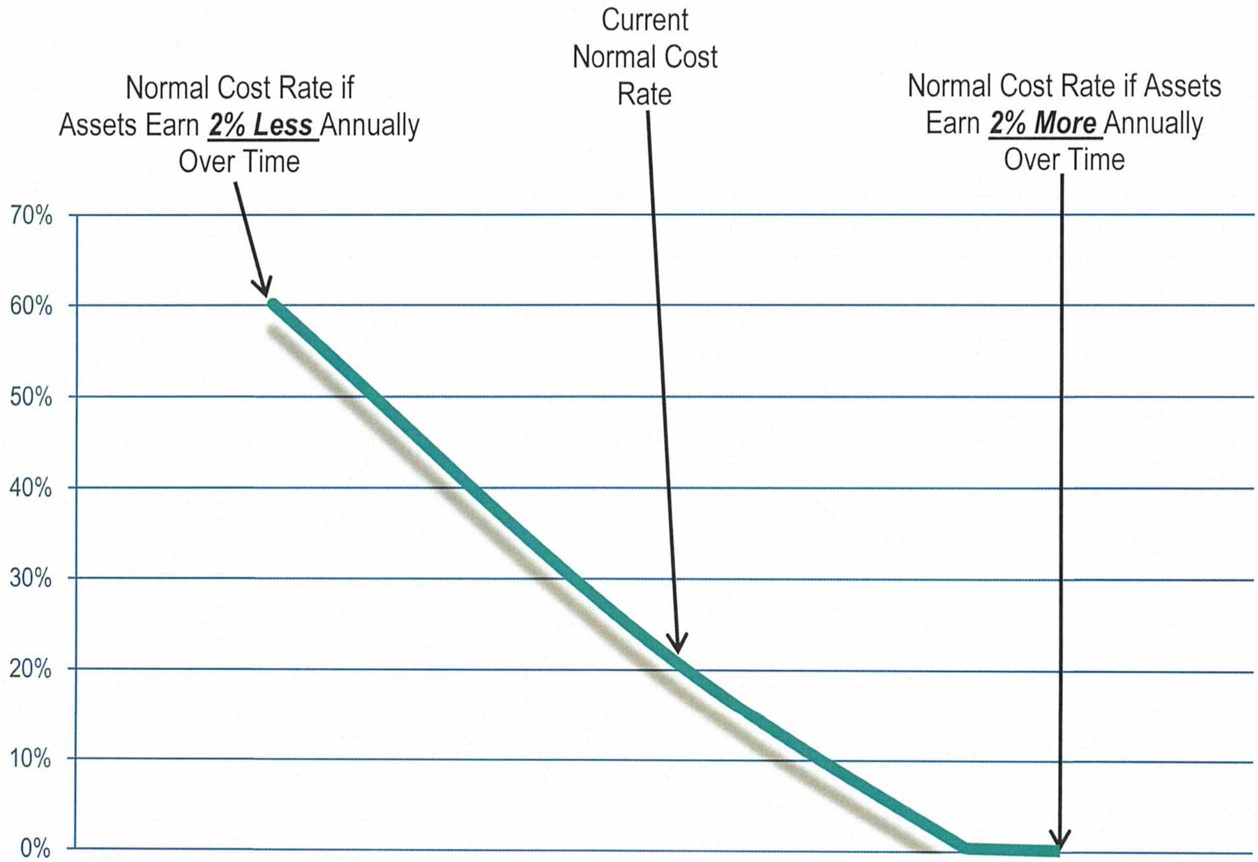


For the 2021/22 Plan Year



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	22.78%
Increase (decrease) due to investment gains and losses	-8.58%
Increase (decrease) due to demographic experience	-0.03%
Increase (decrease) due to plan amendments	0.00%
Increase (decrease) due to actuarial assumption changes	7.67%
Increase (decrease) due to actuarial method changes	0.00%
Current normal cost rate	21.84%

Present Value of Future Benefits

Table I-D

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	$19,252,510	$19,252,510	$21,197,729
Termination benefits	$1,842,065	$1,842,065	$2,070,939
Disability benefits	$639,187	$639,187	$695,432
Death benefits	$87,738	$87,738	$94,008
Refund of employee contributions	$63,650	$63,650	$64,998
Sub-total	**$21,885,150**	**$21,885,150**	**$24,123,106**
Deferred Vested Participants			
Retirement benefits	$3,011,312	$3,011,312	$3,275,837
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$3,011,312**	**$3,011,312**	**$3,275,837**
Due a Refund of Contributions	**$25,182**	**$25,182**	**$25,182**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$2,610,514	$2,610,514	$2,751,228
Disability retirements	$587,465	$587,465	$615,584
Beneficiaries receiving	$468,668	$468,668	$495,030
DROP participants	$0	$0	$0
Sub-total	**$3,666,647**	**$3,666,647**	**$3,861,842**
Grand Total	**$28,588,291**	**$28,588,291**	**$31,285,967**
Present Value of Future Payroll	$33,312,549	$33,312,549	$34,296,845
Present Value of Future Employee Contribs.	$333,129	$333,129	$342,968
Present Value of Future Employer Contribs.	$4,720,319	$4,720,319	$7,489,086

Present Value of Accrued Benefits

Table I-E

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	$9,281,327	$9,281,327	$10,010,857
Termination benefits	$886,661	$886,661	$979,762
Disability benefits	$493,355	$493,355	$534,018
Death benefits	$53,784	$53,784	$56,621
Refund of employee contributions	$33,720	$33,720	$34,132
Sub-total	**$10,748,847**	**$10,748,847**	**$11,615,390**
Deferred Vested Participants			
Retirement benefits	$3,011,312	$3,011,312	$3,275,837
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0

Present Value of Vested Benefits

Table I-F

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	$9,281,327	$9,281,327	$10,010,857
Termination benefits	$861,811	$861,811	$950,566
Disability benefits	$493,355	$493,355	$534,018
Death benefits	$51,686	$51,686	$54,289
Refund of employee contributions	$34,817	$34,817	$35,305
Sub-total	**$10,722,996**	**$10,722,996**	**$11,585,035**
Deferred Vested Participants			
Retirement benefits	$3,011,312	$3,011,312	$3,275,837
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$3,011,312**	**$3,011,312**	**$3,275,837**
Due a Refund of Contributions	**$25,182**	**$25,182**	**$25,182**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$2,610,514	$2,610,514	$2,751,228
Disability retirements	$587,465	$587,465	$615,584
Beneficiaries receiving	$468,668	$468,668	$495,030
DROP participants	$0	$0	$0
Sub-total	**$3,666,647**	**$3,666,647**	**$3,861,842**
Grand Total	**$17,426,137**	**$17,426,137**	**$18,747,896**

Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	$12,974,316	$12,974,316	$13,946,273
Termination benefits	$1,203,977	$1,203,977	$1,323,674
Disability benefits	$411,802	$411,802	$440,045
Death benefits	$56,744	$56,744	$59,637
Refund of employee contributions	$38,247	$38,247	$38,564
Sub-total	**$14,685,086**	**$14,685,086**	**$15,808,193**
Deferred Vested Participants			
Retirement benefits	$3,011,312	$3,011,312	$3,275,837
Termination benefits	$0	$0	$0
Disability benefits	$0	$0	$0
Death benefits	$0	$0	$0
Refund of employee contributions	$0	$0	$0
Sub-total	**$3,011,312**	**$3,011,312**	**$3,275,837**
Due a Refund of Contributions	**$25,182**	**$25,182**	**$25,182**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$2,610,514	$2,610,514	$2,751,228
Disability retirements	$587,465	$587,465	$615,584
Beneficiaries receiving	$468,668	$468,668	$495,030
DROP participants	$0	$0	$0
Sub-total	**$3,666,647**	**$3,666,647**	**$3,861,842**
Grand Total	**$21,388,227**	**$21,388,227**	**$22,971,054**

Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2021	$27,436,262
Minus DRAGO account balances	($2,875,625)
Minus advance employer contributions	($168,145)
Minus excess Chapter 175/185 contributions	$0
Actuarial Value of Assets as of October 1, 2021	**$24,392,492**

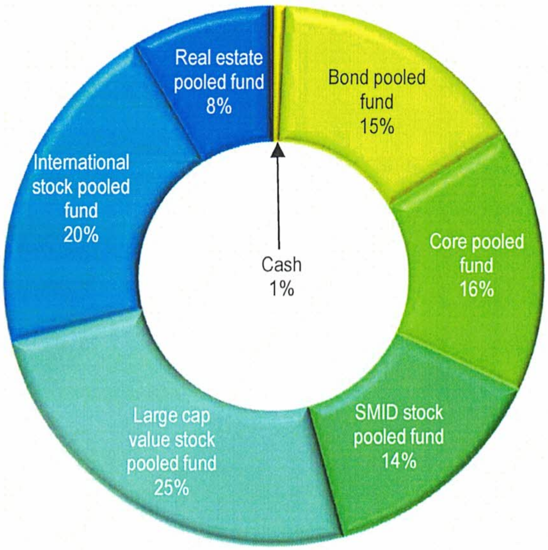
Historical Actuarial Value of Assets

October 1, 2012	$6,337,454
October 1, 2013	$7,990,635
October 1, 2014	$9,257,516
October 1, 2015	$9,649,781
October 1, 2016	$11,046,422
October 1, 2017	$13,778,290
October 1, 2018	$15,793,749
October 1, 2019	$17,473,378
October 1, 2020	$19,391,912
October 1, 2021	$24,392,492

Market Value of Assets

Table II-B

	As of October 1, 2021
Market Value of Assets	**$27,436,262**
Cash	$191,609
Bond pooled fund	$4,242,774
Core pooled fund	$4,324,892
SMID stock pooled fund	$3,804,811
Large cap value stock pooled fund	$6,925,302
International stock pooled fund	$5,584,038
Real estate pooled fund	$2,299,310
Employer contribution receivable	$61,403
Employee contribution receivable	$2,123

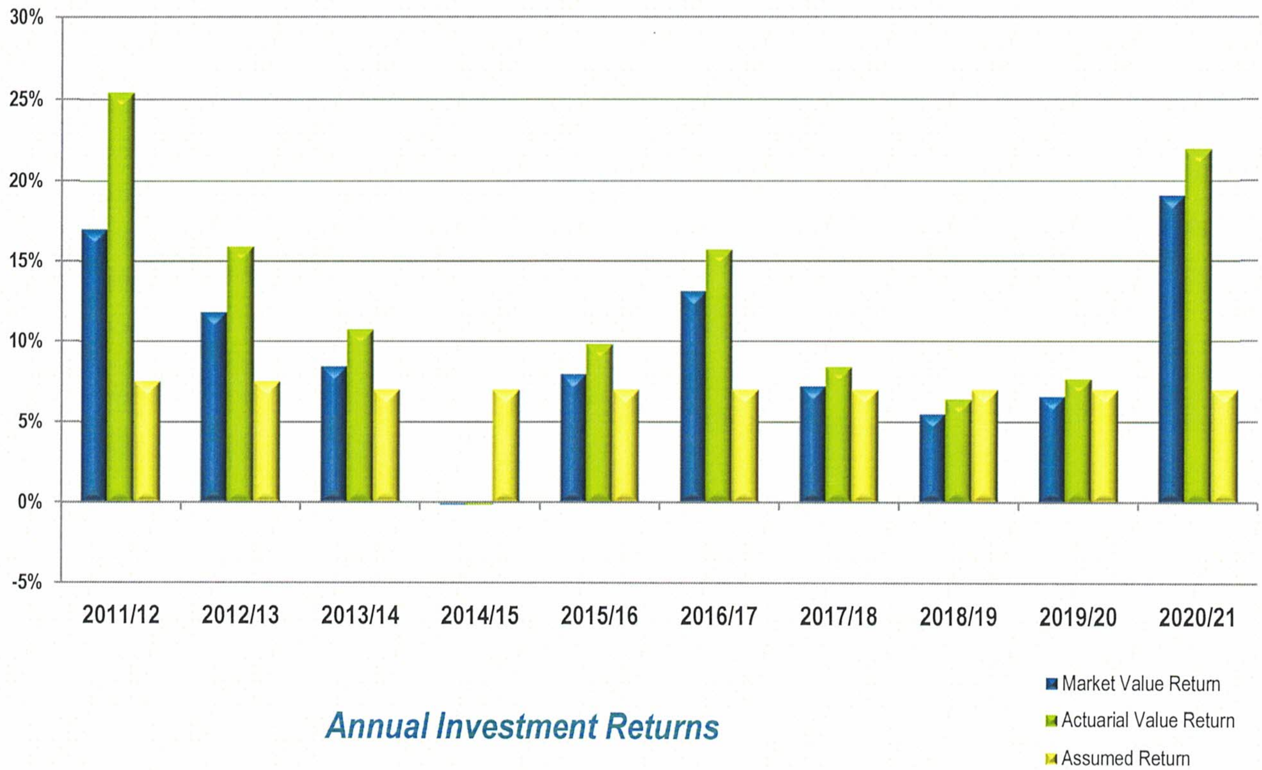


Historical Market Value of Assets

October 1, 2012	$8,673,088
October 1, 2013	$10,200,434
October 1, 2014	$11,470,748
October 1, 2015	$11,919,195
October 1, 2016	$13,376,938
October 1, 2017	$16,011,672
October 1, 2018	$18,173,775
October 1, 2019	$20,226,436
October 1, 2020	$22,300,100
October 1, 2021	$27,436,262

Investment Return

Table II-C



Annual Investment Returns

Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
2011/12	16.98%	25.41%	7.50%
2012/13	11.84%	15.90%	7.50%
2013/14	8.45%	10.73%	7.00%
2014/15	-0.08%	-0.10%	7.00%
2015/16	7.97%	9.83%	7.00%
2016/17	13.12%	15.72%	7.00%
2017/18	7.25%	8.42%	7.00%
2018/19	5.53%	6.41%	7.00%
2019/20	6.60%	7.66%	7.00%
2020/21	19.06%	21.94%	7.00%
10yr. Avg.	9.54%	11.96%	7.10%

Asset Reconciliation

Table II-D

	Market Value	Actuarial Value
As of October 1, 2020	**$22,300,100**	**$19,391,912**
Increases Due To:		
Employer Contributions	$734,518	$734,518
Chapter 175/185 Contributions	$357,030	$357,030
Employee Contributions	$51,492	$51,492
Service Purchase Contributions	$0	$0
Total Contributions	$1,143,040	$1,143,040
Interest and Dividends	$0	
Realized Gains (Losses)	$0	
Unrealized Gains (Losses)	$4,327,805	
Total Investment Income	$4,327,805	$4,327,805
Other Income	$0	
Total Income	**$5,470,845**	**$5,470,845**
Decreases Due To:		
Monthly Benefit Payments	($270,271)	($270,271)
Lump Sum Distributions	$0	$0
DRAGO Credits		($238,796)
Total Benefit Payments	($270,271)	($509,067)
Investment Expenses	$0	
Administrative Expenses	($64,412)	($64,412)
Advance Employer Contribution		$103,214
Excess Chapter 175/185 Contribution		$0
Total Expenses	**($334,683)**	**($470,265)**
As of October 1, 2021	**$27,436,262**	**$24,392,492**

Historical Trust Fund Detail

Table II-E

Income

Plan Year	Employer Contribs.	Chapter Contribs.	Employee Contribs.	Service Purchase Contribs.	Interest / Dividends	Realized Gains / Losses	Unrealized Gains / Losses	Other Income
2011/12	$177,290	$263,829	$29,128	$0	$0	$0	$1,227,569	$0
2012/13	$220,073	$276,919	$31,080	$0	$0	$0	$1,055,248	$0
2013/14	$203,639	$312,175	$30,855	$0	$0	$0	$878,167	$0
2014/15	$226,408	$279,152	$34,304	$0	$0	$0	-$9,679	$0
2015/16	$267,486	$288,494	$40,529	$0	$0	$0	$969,227	$0
2016/17	$879,207	$2,252	$41,578	$0	$0	$0	$1,808,976	$0
2017/18	$596,990	$621,877	$41,442	$0	$0	$0	$1,195,204	$0
2018/19	$1,003,693	$344,255	$45,730	$0	$0	$0	$1,032,587	$0
2019/20	$621,751	$353,595	$48,810	$0	$0	$0	$1,359,066	$0
2020/21	$734,518	$357,030	$51,492	$0	$0	$0	$4,327,805	$0

Expenses / *Other Actuarial Adjustments*

Plan Year	Monthly Benefit Payments	Lump Sum Distribs.	Admin. Expenses	Invest. Expenses	DRAGO Credits	Advance Employer Contribs.	Excess Chapter Contribs.
2011/12	$0	$1,400	$33,419	$0	$113,639	-$236,982	$0
2012/13	$0	$2,631	$53,343	$0	$122,162	-$247,997	$0
2013/14	$23,310	$63,724	$67,488	$0	$72,114	-$68,681	$0
2014/15	$37,140	$0	$44,598	$0	$127,617	-$71,435	$0
2015/16	$51,945	$1,429	$54,619	$0	$136,551	-$75,449	$0
2016/17	$51,944	$1,491	$43,844	$0	$146,109	-$243,243	$0
2017/18	$237,405	$9,773	$46,232	$0	$105,391	$41,253	$0
2018/19	$296,556	$7,480	$69,568	$0	$78,092	$294,940	$0
2019/20	$243,680	$499	$65,379	$0	$219,964	-$64,834	$0
2020/21	$270,271	$0	$64,412	$0	$238,796	-$103,214	$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

DRAGO* Account Reconciliation

DRAGO Fund Balance as of October 1, 2020	$2,636,829
DRAGO Fund Contribution	$54,218
DRAGO Fund Investment Return	$184,578
DRAGO Fund Benefits Paid	$0
Net DRAGO Fund Credit	$238,796
DRAGO Fund Balance as of October 1, 2021	$2,875,625

Advance Employer Contribution

Advance Employer Contribution as of October 1, 2020	$271,359
Additional Employer Contribution	$1,037,330
Minimum Required Contribution	($1,140,544)
Net Increase in Advance Employer Contribution	($103,214)
Advance Employer Contribution as of October 1, 2021	$168,145

Excess Chapter 175/185 Contribution

Excess Chapter 175/185 Contribution as of October 1, 2020	$0
Additional Chapter 175/185 Contribution	$357,030
Allowable Chapter 175/185 Contribution	($302,812)
Transfer to DRAGO Fund	($54,218)
Net Increase in Excess Chapter 175/185 Contribution	$0
Excess Chapter 175/185 Contribution as of October 1, 2021	$0

** Defined Retirement Accumulation Group Obligation*

Historical Chapter 175/185 Contributions

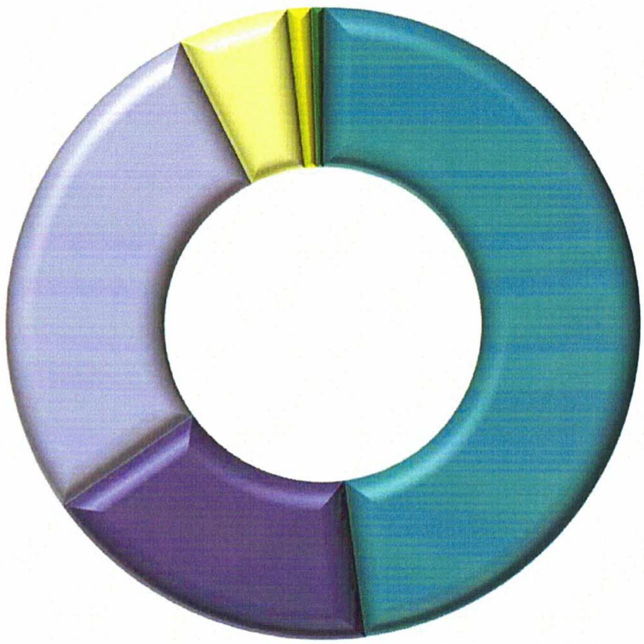
Table II-G

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

	Chapter 175 Regular Distribution	Chapter 175 Supplemental Distribution	Chapter 185 Distribution	Allowable Amount
1998 Distribution	$70,510	$0	$144,758	($215,268)
1999 Distribution	$54,190	$16,685	$212,828	($283,703)
2000 Distribution	$126,870	$30,920	$175,880	($333,670)
2001 Distribution	$0	$66,667	$193,561	($260,228)
2002 Distribution	$66,623	$0	$229,657	($296,280)
2003 Distribution	$63,805	$37,122	$241,584	($342,511)
2004 Distribution	$79,077	$44,423	$244,933	($368,433)
2005 Distribution	$94,044	$45,671	$244,933	($384,648)
2006 Distribution	$96,983	$56,433	$244,933	($398,349)
2007 Distribution	$100,801	$82,598	$244,933	($428,332)
2008 Distribution	$88,274	$79,120	$179,810	($347,204)
2009 Distribution	$82,165	$47,018	$148,173	($277,356)
2010 Distribution	$82,301	$39,376	$146,012	($267,689)
2011 Distribution	$85,023	$32,402	$146,404	($263,829)
2012 Distribution	$96,118	$36,905	$143,896	($276,919)
2013 Distribution	$107,701	$58,799	$145,675	($306,831)
2014 Distribution	$110,502	$15,115	$153,535	($279,152)
2015 Distribution	$121,049	$0	$167,445	($288,494)
2016 Distribution	$0	$2,252	$0	($2,252)
2017 Distribution	$255,555	$3,269	$363,053	($603,372)
2018 Distribution	$129,060	$0	$215,195	($302,812)
2019 Distribution	$151,720	$0	$201,875	($302,812)
2020 Distribution	$148,352	$0	$208,678	($302,812)
To DRAGO Fund				($170,293)

Summary of Participant Data

Table III-A



Participant Distribution by Status

As of October 1, 2021

Actively Employed Participants	
Active Participants	77
DROP Participants	0
Inactive Participants	
Deferred Vested Participants	28
Due a Refund of Contributions	44
Deferred Beneficiaries	0
Participants Receiving a Benefit	
Service Retirements	9
Disability Retirements	2
Beneficiaries Receiving	1
Total Participants	**161**

Number of Participants Included in Prior Valuations

	Active	*DROP*	*Inactive*	*Retired*	*Total*
October 1, 2012	58	0	26	0	84
October 1, 2013	65	0	30	0	95
October 1, 2014	67	0	35	1	103
October 1, 2015	68	0	48	2	118
October 1, 2016	67	0	52	2	121
October 1, 2017	65	0	63	2	130
October 1, 2018	76	0	65	5	146
October 1, 2019	77	0	60	7	144
October 1, 2020	81	0	63	11	155
October 1, 2021	77	0	72	12	161

Data Reconciliation

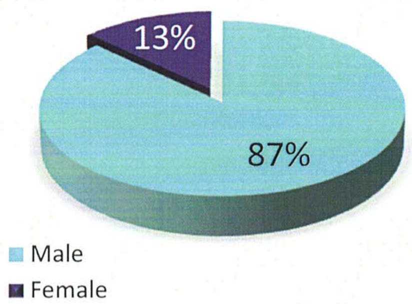
Table III-B

	Active	DROP	Deferred Vested	Due a Refund	Def. Benef.	Service Retiree	Disabled Retiree	Benef. Rec'v.	Total
October 1, 2020	81	0	26	37	0	8	2	1	**155**
Change in Status									
Re-employed									
Terminated	(10)		3	7					
Retired			(1)			1			
Participation Ended									
Transferred Out									
Cashed Out									
Died									
Participation Began									
Newly Hired	6								**6**
Transferred In									
New Beneficiary									
Other Adjustment									
October 1, 2021	77	0	28	44	0	9	2	1	**161**

Active Participant Data

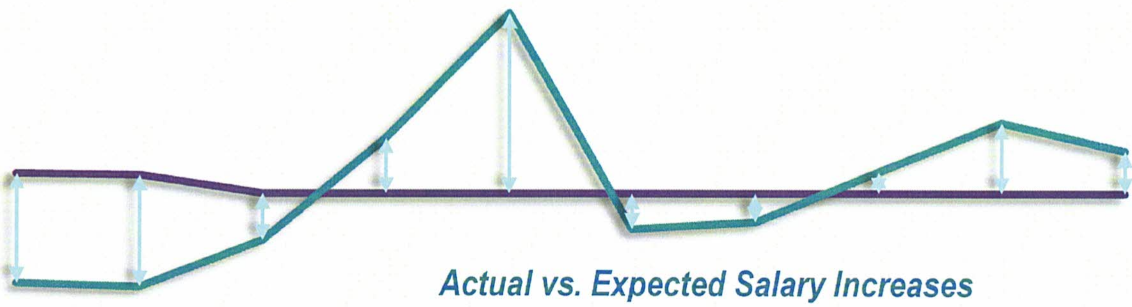
Table III-C

Gender Mix



As of October 1, 2021

Average Age	35.9 years
Average Service	8.0 years
Total Annualized Compensation for the Prior Year	$4,970,737
Total Expected Compensation for the Current Year	$4,421,342
Average Increase in Compensation for the Prior Year	7.15%
Expected Increase in Compensation for the Current Year	4.00%



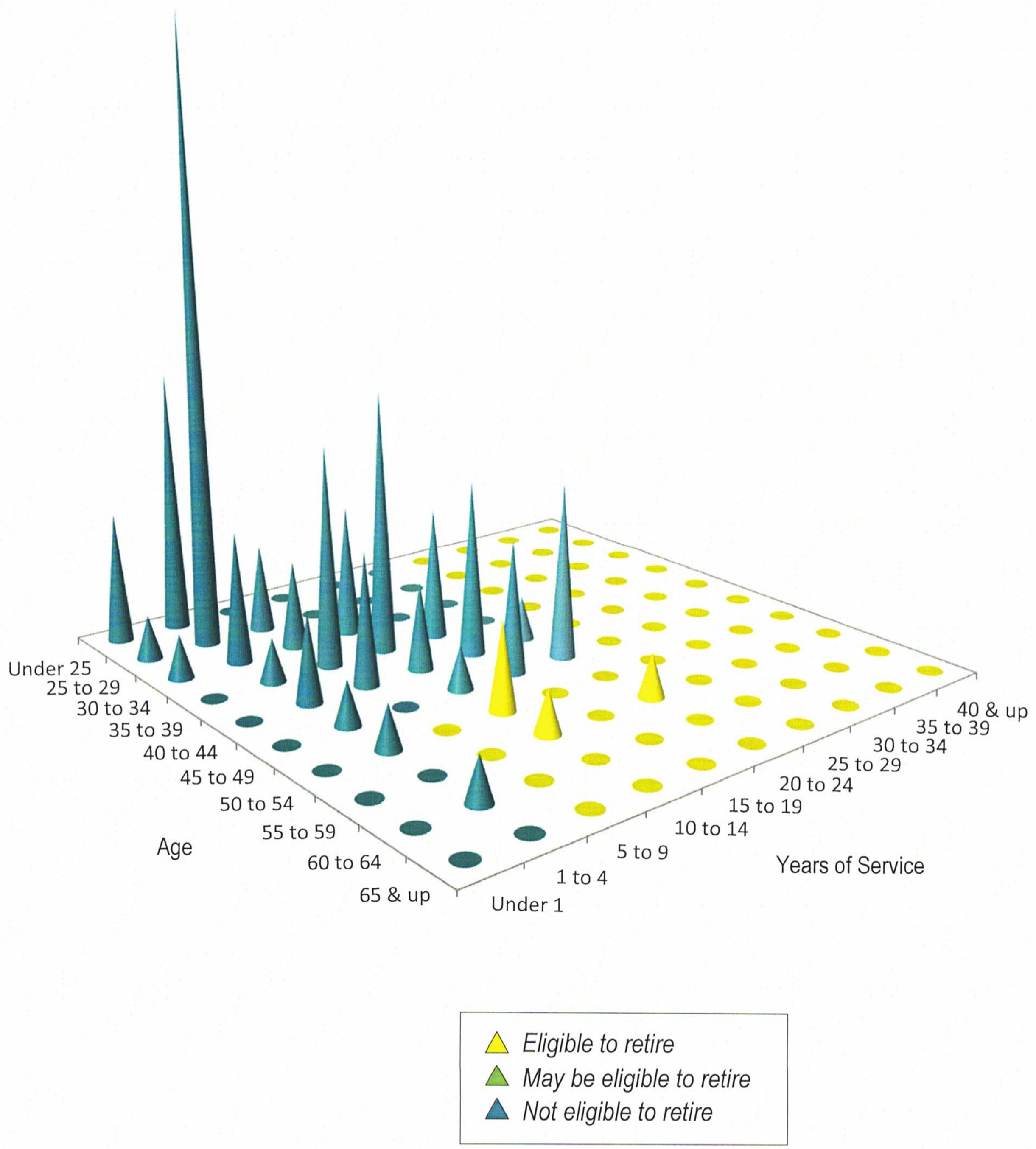
Actual vs. Expected Salary Increases

Active Participant Statistics From Prior Valuations

	Average Age	*Average Service*	*Average Salary*	*Average Expected Salary Increase*	*Average Actual Salary Increase*
October 1, 2012	33.9	6.4	$50,216	5.47%	-2.80%
October 1, 2013	34.0	6.2	$47,080	5.37%	-3.06%
October 1, 2014	33.8	6.2	$46,746	4.00%	0.48%
October 1, 2015	34.6	6.3	$49,145	4.00%	8.15%
October 1, 2016	35.1	7.1	$60,698	4.00%	17.56%
October 1, 2017	35.7	7.5	$60,668	4.00%	1.36%
October 1, 2018	34.4	6.4	$55,837	4.00%	1.88%
October 1, 2019	35.0	7.0	$59,398	4.00%	5.60%
October 1, 2020	35.1	7.1	$60,276	4.00%	9.26%
October 1, 2021	35.9	8.0	$64,555	4.00%	7.15%

Active Age-Service Distribution

Table III-D



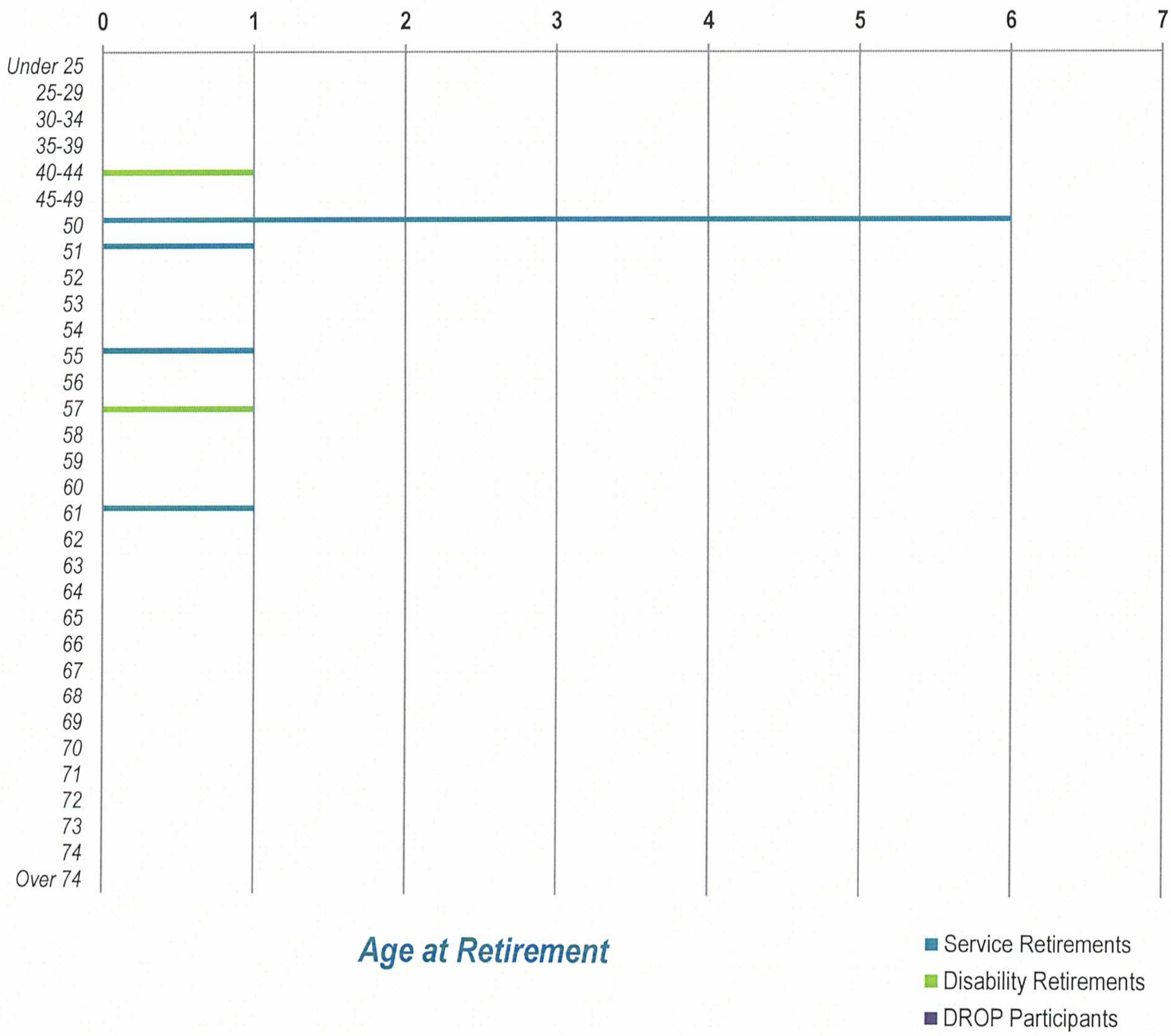
Active Age-Service-Salary Table

Table III-E

Attained Age	Completed Years of Service									
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total

Inactive Participant Data

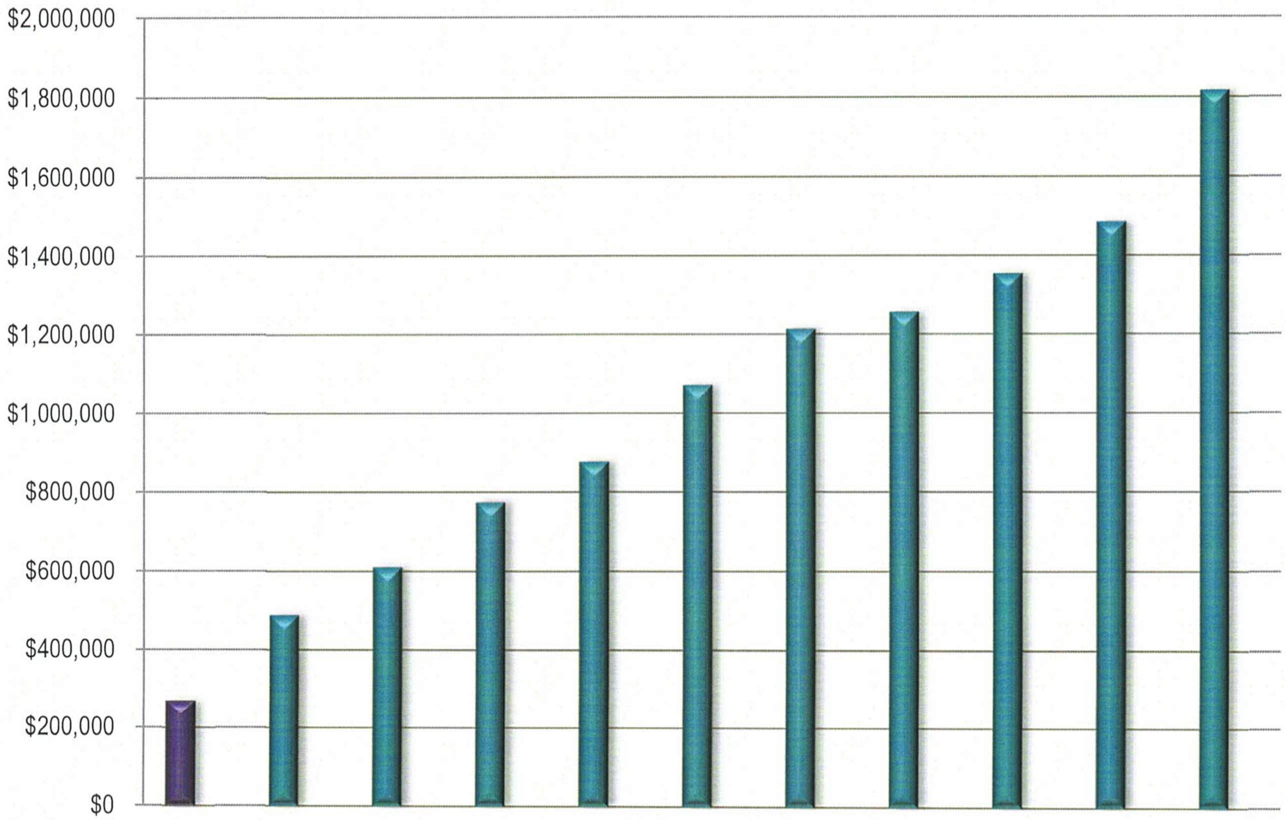
Table III-F



	Average Monthly Benefit
Service Retirements	$1,906.34
Disability Retirements	$2,164.35
Beneficiaries Receiving	$2,960.70
DROP Participants	Not applicable
Deferred Vested Participants	$1,182.56
Deferred Beneficiaries	Not applicable

Projected Benefit Payments

Table III-G



Actual	
For the period October 1, 2020 through September 30, 2021	$270,271
Projected	
For the period October 1, 2021 through September 30, 2022	$489,624
For the period October 1, 2022 through September 30, 2023	$611,698
For the period October 1, 2023 through September 30, 2024	$775,396
For the period October 1, 2024 through September 30, 2025	$877,829
For the period October 1, 2025 through September 30, 2026	$1,072,156
For the period October 1, 2026 through September 30, 2027	$1,213,503
For the period October 1, 2027 through September 30, 2028	$1,257,143
For the period October 1, 2028 through September 30, 2029	$1,354,573
For the period October 1, 2029 through September 30, 2030	$1,485,184
For the period October 1, 2030 through September 30, 2031	$1,816,915

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, reduced by the DRAGO Fund balance and any accumulated excess employer contributions.

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

   6.50% per annum

4. **Salary Increases**

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

5. **Decrements**

   - Pre-retirement mortality: 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: 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: Retirement is assumed to occur upon the attainment of normal retirement age.

6. **Form of Payment**

Future retirees have been assumed to select the 10-year certain and life annuity, except that participants who terminate their service with less than 15 years of service or prior to age 40 are assumed to receive a refund of their accumulated employee contributions.

7. **Expenses**

The total projected benefit liability has been loaded by 3.00% to account for anticipated administrative expenses. In addition, the interest rate set forth in item 3. above is assumed to be net of investment expenses and commissions.

Changes in Actuarial Methods and Assumptions — Table IV-B

Since the completion of the previous valuation, the interest (or discount) rate was decreased from 7.00% per annum to 6.50% per annum.

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, 2016, the mortality basis was changed from a 2015 projection of the RP-2000 Mortality Table for annuitants to a full generational projection using Scale BB of the RP-2000 Blue Collar Mortality Table as required by State law.

(3) Effective October 1, 2013, the assumed interest (or discount) rate was decreased from 7.50% per annum to 7.00% per annum.

(4) 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 5.00% for all other employees) to a flat 4.00% per year.

(5) Effective October 1, 2013, the 3.00% loading to account for non-recurring compensation payments was removed.

(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% of Average Final Compensation multiplied by Credited Service

2. **Normal Retirement Age and Benefit**

   - **Age**
     Age 50 with at least five 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 66⅔% joint and contingent annuity (optional);
     Actuarially reduced 75% joint and contingent annuity (optional);
     Actuarially reduced 100% joint and contingent annuity (optional);
     Any other actuarially equivalent form of payment approved by the Board; or
     Actuarially equivalent lump sum distribution (automatic if the single sum value of the participant's benefit is less than or equal to $5,000 or the monthly annuity is less than $100)

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

3. **Service Incurred Disability Eligibility and Benefit**

   - **Eligibility**
     The participant is eligible if his disability was incurred during the course of his employment with the City.
   - **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 incapable of employment as a firefighter or police officer.
   - **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 City-provided disability compensation from exceeding his Average Final Compensation:
     (a) Monthly Accrued Benefit based on a 2% benefit formula multiplier; or
     (b) 50% of Average Final Compensation
   - **Form of Payment**
     Same as for Normal Retirement

Summary of Plan Provisions

Table V-A

(continued)

4. Non-Service Incurred Disability Eligibility and Benefit

- **Eligibility**
  The participant must have earned at least 10 years of Credited Service if his disability was incurred other than during the course of his employment with the City.
- **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 City-provided disability compensation from exceeding his Average Final Compensation:
  (a) Monthly Accrued Benefit based on a 2% benefit formula multiplier; or
  (b) 25% of Average Final Compensation
- **Form of Payment**
  Same as for Normal Retirement

5. Delayed Retirement Age and Benefit

- **Age**
  After Normal Retirement Age
- **Amount**
  Monthly Accrued Benefit
- **Form of Payment**
  Same as for Normal Retirement

6. Deferred Vested Benefit

- **Age**
  Any age with at least five years of Credited Service
- **Amount**
  Monthly Accrued Benefit (payable at Normal Retirement Age)
- **Form of Payment**
  Same as for Normal Retirement

Summary of Plan Provisions

Table V-A

(continued)

7. **Pre-Retirement Death Benefit**

In the case of the death of a vested participant prior to retirement, his beneficiary will receive the participant's Monthly Accrued Benefit payable at normal retirement age for 10 years certain plus an immediate $50,000 lump sum payment. In the case of the death of a non-vested participant prior to retirement, his beneficiary will receive the participant's Accumulated Contributions plus an immediate $50,000 lump sum payment.

8. **Average Final Compensation**

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

9. **Compensation**

Total cash remuneration, excluding overtime in excess of 300 hours per year after the effective date of the first collective bargaining agreement that comes into effect after June 30, 2011, excluding payments for extra duty or special detail work performed on behalf of a second party employer, and excluding lump sum payments for accrued annual leave and sick leave; annual compensation in excess of $200,000 (as indexed) is excluded in accordance with Internal Revenue Code (IRC) §401(a)(17).

10. **Credited Service**

The elapsed time from the participant's date of hire until his date of termination, retirement, or death, provided that the participant made all required contributions.

11. **Participation Requirement**

All police officers and full-time firefighters of the City of Longwood automatically become a participant in the plan on their date of hire; however, the police chief, fire chief, and public safety director are not eligible to participate.

12. **Accumulated Contributions**

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

Summary of Plan Provisions

Table V-A

(continued)

13. Participant Contribution

1.00% of earnings

14. Definition of Actuarially Equivalent

- **Interest Rate**
  6.50% per annum
- **Mortality Table**
  Unisex mortality table promulgated by the Secretary of the Treasury for purposes of determining lump sum distributions under Internal Revenue Code (IRC) section 417(e)(3)

15. Plan Effective Date

January 1, 1996

Summary of Plan Amendments

Table V-B

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