St. Lucie County Fire District Firefighters' Pension Trust Fund

Actuarial Valuation Report as of October 1, 2023

Annual Employer Contribution for the Fiscal Year Ending September 30, 2025







March 22, 2024

Board of Trustees St. Lucie County Fire District Firefighters' Pension Trust Fund 5160 N.W. Milner Dr. Port St. Lucie, FL 34983

Re: St. Lucie County Fire District Firefighters' Pension Trust Fund
Actuarial Valuation as of October 1, 2023 and Actuarial Disclosures

Dear Board Members:

The results of the October 1, 2023 Annual Actuarial Valuation of the St. Lucie County Fire District (the District) Firefighter's Pension Trust Fund are presented in this report.

This report was prepared at the request of the Board and is intended for use by the District and those designated or approved by the Board. This report may be provided to parties other than the District only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the District's funding progress and determine the employer contribution rate for the fiscal year ending September 30, 2025. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section B of this report. This report includes risk metrics in Section A, but does not include a robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the plan sponsor to make contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The findings in this report are based on data or other information through September 30, 2023. The valuation was based upon information furnished by the Plan Administrator and the District concerning Retirement Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator and the District.

This report was prepared using certain assumptions approved by the Board as authorized under Florida Statutes and certain assumptions prescribed by the Florida Statutes, as described in the section of this report entitled Actuarial Assumptions and Methods. The investment return assumption was prescribed by

Board of Trustees St. Lucie County Fire District Firefighters' Pension Trust Fund March 22, 2024 Page ii

the Board and the assumed mortality rates detailed in the Actuarial Assumptions and Methods section were prescribed by the Florida Statutes in accordance with Chapter 112.63. All actuarial assumptions used in this report are reasonable for purposes of this valuation. The combined effect of the assumptions is expected to have no significant bias (i.e., not significantly optimistic or pessimistic).

This report was prepared using ProVal's valuation model, a software product of Winklevoss Technologies. We are relying on the ProVal model. We performed tests of the ProVal model with this assignment and made a reasonable attempt to understand the developer's intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of the ProVal model. In our professional judgment, the ProVal valuation model has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the St. Lucie County Fire District Firefighter's Pension Trust fund as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and with applicable statutes.

Pete N. Strong and Jeffrey Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. 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 increase in plan costs or required contribution rates have been taken into account in the valuation.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

Pete N. Strong, FSA, HA, MAAA, FCA

Enrolled Actuary No. 23-06975

Ву

Jeffrey Amrose, EA, MAAA

Enrolled Actuary No. 23-06599



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DISCUSSION OF VALUATION RESULTS

DISCUSSION OF VALUATION RESULTS

Comparison of Required Employer Contributions

A comparison of the required employer contribution developed in this year's actuarial valuation and the previous valuation is as follows:

	For FYE 9/30/2025 Based on 10/1/2023 Valuation		Based on 10/1/2023 Based on 10/1/2022		Increase (Decrease)				
Required Employer/State Contribution As % of Covered Payroll	\$	20,714,238 55.69	%	\$	18,818,902 54.71	%	\$	1,895,336 0.98	%
Estimated State Contribution* As % of Covered Payroll		2,112,321 5.68	%		2,112,321 6.14	%		0 (0.46)	%
Required Employer Contribution** As % of Covered Payroll		18,601,917 50.01	** %		16,706,581 48.57	%		1,895,336 1.44	%

^{*} The "Frozen Amount" for estimated state contributions is \$2,112,321, and all contributions over that amount will be added to the Excess State Contribution Reserve. For the fiscal years ending 2022 and 2023, the District and Union agreed that all state money received would be used to offset the required employer contribution, but this reverted back to the "Frozen Amount" of \$2,112,321 for fiscal year 2024.

** The District has an advance prepaid contribution available to offset the employer contribution requirements. This year's excess contribution of \$828,576 (\$18,536,115 - \$17,707,539) increased the District's prepaid contribution from \$1,124,563 as of October 1, 2022 to \$1,953,139 as of October 1, 2023. Any portion of this advance prepaid contribution (currently \$1,953,139) may be used to reduce the required employer contribution amounts shown above.

The required employer contribution has been adjusted for interest on the basis that the District contribution will be deposited in full by January 1st (three months after the beginning of the fiscal year).

The minimum required employer contribution (District and State) for the fiscal year ending September 30, 2023 was \$17,707,539. The actual District and State contributions for the fiscal year ending September 30, 2023 were \$15,595,218 and \$2,940,897, respectively, for a total of \$18,536,115. The excess contribution of \$828,576 was added to the District's prepaid contribution balance.

We note that total Member contributions reported during the year were \$2,526,870, which was comprised of \$1,998,925 in Member contributions from active members and \$527,945 in contributions from DROP members. In accordance with Resolution No. 674-19, contributions made by DROP members (\$527,945) were used to reduce the unfunded actuarial accrued liability (UAAL).



Revisions in Benefits

There were no changes in benefits since the last valuation.

Revisions in Actuarial Assumptions or Methods

The investment return assumption has been lowered from 7.3% to 7.2%, effective October 1, 2023. This assumption will be lowered by 0.10% each year until 7.0% is reached.

This assumption change caused the required contribution to increase by \$572,812 or 1.54% of pay.

For this valuation, a long-term average annual future net investment return assumption of 7.2%, or about an 8.0% gross return assumption (before investment expenses), was used. Based on the Plan's asset allocation, an assumed net rate of return of 6.50% to 7.00% would be more in line with projected expected returns over the next several years. We recommend continuing to lower the investment return assumption until it reaches a rate in this range. When the investment return assumption is lowered, the required City contribution increases in the short term, but there will be a higher probability the Plan will meet or exceed its assumed return in future years. In other words, there will be a lower probability the Plan will incur investment losses which would need to be funded by future taxpayers.

If actual experience matches the assumptions, including actual net investment returns equaling 7.2% per year, the UAL is expected to decrease over time. On the other hand, if actual investment returns are less than assumed each year, the UAL will increase over time even if the actuarially determined contributions are made and there are no other actuarial gains or losses.

Actuarial Experience

There was a net actuarial experience loss of \$7,735,026 since the last valuation, which means that actual experience was less favorable than expected. The majority of this experience loss was due to phasing in previous years' investment losses (particularly the -11.9% return during fiscal year 2022) into the actuarial value of assets. There was an experience loss of approximately \$6.2 million due to realizing a lower than assumed investment return on the actuarial value of assets during the year ending September 30, 2023 (5.5% actual versus 7.3% expected). The net return on the market value of assets was 7.8%.

There were also demographic experience losses of approximately \$1.5 million. Average salary increases from FY 2022 to FY 2023 were higher than expected (averaging 8.9% versus 6.7% expected), there were more retirements than expected (10 actual retirements versus 5 expected), and mortality experience amount retirees was lower than expected (4 deaths were reported versus approximately 5 expected; and the average benefits for deceased retirees were lower than average).

The net actuarial experience loss caused the required employer contribution to increase by \$729,034, or 1.96% of covered payroll.

Another factor contributing to the increase in the required employer contribution was the increase in covered payroll. Covered payroll increased by 8.1% (from \$33.4 million to \$36.1 million). The employer normal cost (the cost of benefit accruals each year) remains approximately level as a percentage of covered payroll from one year to the next (currently at about 24%), so the increase in covered payroll caused the dollar amount of the normal cost to increase by approximately \$600,000.



Analysis of Change in Employer Contribution

The components of change in the actuarially required employer contribution are as follows:

Contribution Rate Last Year	48.57 %
Plan Changes	0.00
Change in Assumptions	1.54
Experience (Gains) or Losses	1.96
Change in Employer Normal Cost Rate	(0.18)
Amortization of UAAL	(2.34)
State Contribution	0.46
Contribution Rate This Year	50.01 %

Note: The -2.34% change associated with the amortization of the UAAL was primarily caused by an 8.1% increase in covered payroll from October 1, 2022 to October 1, 2023.

Funded Ratio

This year's funded ratio is 75.3% compared to 75.8% last year. Prior to recognizing the assumption change, this year's funded ratio would have been 76.0%. The ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability.

Required Contributions in Later Years

The current calculated District contribution requirement is 50.01% of payroll starting October 1, 2024. Under the asset smoothing method, market value gains and losses are recognized over five years. As of October 1, 2023, the market value of assets was \$22,553,615 less than the actuarial value of assets. Once all the gains and losses through September 30, 2023 have been fully recognized in the actuarial value of assets, the employer contribution rate will increase by roughly 5.7% of payroll (by an approximate dollar amount of \$2.12 million) before reflecting any future plan or assumption changes, unless there are offsetting gains.

Relationship to Market Value

If the Market Value of Assets had been the basis for this valuation, the required District contribution rate would have been 55.70% (a dollar amount of \$20,718,347) and the funded ratio would have been 70.6%. The funded ratio on a market value basis was 69.6% last year.

Conclusion

The remainder of this Report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.

We note that it has been 8 years since the last experience study was completed for this Plan (the last one was completed in 2016 by the previous actuary). It is recommended for pension plans the size of the St. Lucie County Firefighters' Pension Trust Fund to have an experience study performed once every 5 to 7 years to evaluate and adjust the assumptions used to calculate the actuarial liabilities and Plan costs. We recommend an experience study be performed in advance of the next actuarial valuation.



STATE CONTRIBUTION RESERVE

Increments in Chapter revenue over that received in 1998 must first be used to fund the cost of compliance with minimum benefits. As of the valuation date, there were no cost-related changes needed to be made to comply with minimum benefits.

Actuarial Confirmation of the Use of State Chapter Money						
	Fire	Supplement	Total			
Base Amount Previous Plan Year	\$ 2,112,321	\$ 0	\$ 2,112,321			
2. Amount Received for Previous Plan Year	2,940,897	0	2,940,897			
3. Benefit Improvements Made in Previous Plan Year	0	0	0			
4. Excess Funds for Previous Plan Year *	0	0	0			
5. Accumulated Excess at Beginning of Previous Year	869,162	0	869,162			
6. Prior Excess Used in Previous Plan Year	0	0	0			
7. Accumulated Excess as of Valuation Date (Available for Benefit Improvements): (4) + (5) - (6)	869,162	0	869,162			
8. Base Amount This Plan Year	2,940,897	0	2,940,897			

^{*} The District and Union agreed that all Chapter Money received during fiscal years 2022 and 2023 would be used to offset the required employer contribution.



RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

- 1. Investment risk actual investment returns may differ from the expected returns;
- Contribution risk actual contributions may differ from expected future contributions. For
 example, actual contributions may not be made in accordance with the plan's funding policy or
 material changes may occur in the anticipated number of covered employees, covered payroll,
 or other relevant contribution base;
- 3. Salary and Payroll risk actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
- 4. Longevity risk members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
- 5. Other demographic risks members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The required contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



Plan Maturity Values

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	<u>2023</u>	2022
Ratio of the market value of assets to covered payroll	9.45	9.44
Ratio of actuarial accrued liability to covered payroll	13.38	13.57
Ratio of actives to retirees and beneficiaries	1.28	1.30
Ratio of net cash flow to market value of assets	0.5%	0.9%

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time. The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.



Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.



LOW-DEFAULT-RISK OBLIGATION MEASURE

Actuarial Standards of Practice No. 4 (ASOP No. 4) was revised and reissued in December 2021 by the Actuarial Standards Board (ASB). It includes a new calculation called a low-default-risk obligation measure (LDROM) to be prepared and issued annually for defined benefit pension plans. The transmittal memorandum for ASOP No. 4 includes the following explanation:

"The ASB believes that the calculation and disclosure of this measure provides appropriate, useful information for the intended user regarding the funded status of a pension plan. The calculation and disclosure of this additional measure is not intended to suggest that this is the "right" liability measure for a pension plan. However, the ASB does believe that this additional disclosure provides a more complete assessment of a plan's funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date."

The following information has been prepared in compliance with this new requirement. Unless otherwise noted, the measurement date, actuarial cost methods, and assumptions used are the same as for the funding valuation covered in this actuarial valuation report.

- A. Low-default-risk Obligation Measure of benefits earned as of the measurement date: \$636,844,742
- B. Discount rate used to calculate the LDROM: <u>4.63% based on Fidelity's "20-Year Municipal GO AA Index" as of September 29, 2023</u>
- C. Other significant assumptions that differ from those used for the funding valuation: none
- D. Actuarial cost method used to calculate the LDROM: Individual Entry-Age Actuarial Cost Method
- E. Valuation procedures to value any significant plan provisions that are difficult to measure using traditional valuation procedures, and that differ from the procedures used in the funding valuation: none
- F. Commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of participant benefits: The LDROM is a market-based measurement of the pension obligation. It estimates the amount the plan would need to invest in low risk securities to provide the benefits with greater certainty. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation.

The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by taking on the risk in a diversified portfolio.



SECTION B

VALUATION RESULTS

PARTICIPANT DATA					
	October 1, 2023 October 1, 2022				
ACTIVE MEMBERS					
Number Payroll Under Assumed Ret. Age Total Payroll Average Payroll	\$ \$ \$	372 36,112,248 36,112,248 97,076	\$ \$ \$	367 33,395,684 33,532,013 91,368	
Average Age Average Past Service Average Age at Hire		37.6 10.6 27.0		37.4 10.5 26.9	
RETIREES, BENEFICIARIES & DROP					
Number Annual Benefits Average Annual Benefit Average Age	\$	271 22,325,878 82,383 62.1	\$	264 21,553,960 81,644 61.8	
DISABILITY RETIREES					
Number Annual Benefits Average Annual Benefit Average Age	\$	19 1,095,457 57,656 59.0	\$ \$	18 1,015,329 56,407 58.5	
TERMINATED VESTED MEMBERS					
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	27 711,813 26,363 45.0	\$	28 745,329 26,619 44.3	



	ACTUARIALLY DETERMINED CONTRIBUTION (ADC)						
Α.	Valuation Date	October 1, 2023 After Assumption Change	October 1, 2023 Before Assumption Change	October 1, 2022			
В.	ADC to Be Paid During Fiscal Year Ending	9/30/2025	9/30/2025	9/30/2024			
C.	Assumed Dates of Employer Contributions	1/1/2025	1/1/2025	1/1/2024			
D.	Annual Payment to Amortize Unfunded Actuarial Liability	\$ 10,921,105	\$ 10,605,568	\$ 9,934,163			
E.	Employer Normal Cost	8,835,064	8,597,717	8,010,250			
F.	ADC if Paid on the Valuation Date: D+E	19,756,169	19,203,285	17,944,413			
G.	ADC Adjusted for Timing of Payments	20,111,780	19,553,745	18,271,899			
Н.	ADC as % of Covered Payroll	55.69 %	54.15 %	54.71 %			
1.	Assumed Rate of Increase in Covered Payroll to Contribution Year	3.00 %	3.00 %	3.00 %			
J.	Covered Payroll as of Contribution Date	37,195,615	37,195,615	34,397,555			
K.	ADC for Contribution Year: H x J	20,714,238	20,141,426	18,818,902			
L.	Estimate of State Revenue in Contribution Year	2,112,321	2,112,321	2,112,321			
M.	Required Employer Contribution (REC) in Contribution Year	18,601,917	18,029,105	16,706,581			
N.	REC as % of Covered Payroll in Contribution Year: M ÷ J	50.01 %	48.47 %	48.57 %			



	ACTUARIAL VALUE OF BENEFITS AND ASSETS					
A.	Valuation Date	October 1, 2023 After Assumption	October 1, 2023 Before Assumption	October 1, 2022		
В.	Actuarial Present Value of All Projected Benefits for	Change	Change			
	 Active Members a. Service Retirement Benefits b. Vesting Benefits 	\$ 246,553,808 7,006,756	\$ 241,477,476 6,822,570	\$ 224,836,263 6,458,762		
	c. Disability Benefits	12,044,409	11,830,159	10,991,510		
	d. Preretirement Death Benefits	4,090,652	4,015,207	3,769,154		
	e. Return of Member Contributions	428,902	427,352	359,875		
	e. Total	270,124,527	264,572,764	246,415,564		
	2. Inactive Members					
	a. Service Retirees & Beneficiaries	252,567,726	250,265,970	242,161,899		
	b. Disability Retirees	12,510,115	12,393,195	11,541,588		
	c. Terminated Vested Members	5,193,909	5,112,597	5,088,186		
	d. Excess State Monies Reserve	869,162	869,162	869,162		
	e. DROP Balances	61,255,274	61,255,274	54,430,094		
	f. Total	332,396,186	329,896,198	314,090,929		
	3. Total for All Members	602,520,713	594,468,962	560,506,493		
C.	Actuarial Accrued (Past Service) Liability per Entry Age Normal Method	483,059,569	478,443,305	453,069,478		
D.	Actuarial Value of Accumulated Plan Benefits per FASB No. 35	431,445,412	427,338,440	405,548,823		
E.	Plan Assets 1. Market Value 2. Actuarial Value	341,201,676 363,755,291	341,201,676 363,755,291	315,349,740 343,636,843		
F.	Unfunded Actuarial Accrued Liability (EAN Method): C - E2	119,304,278	114,688,014	109,432,635		
G.	Funded Ratio: E2 / C	75.3 %	76.0 %	75.8 %		
Н.	Actuarial Present Value of Projected Covered Payroll	409,257,065	406,442,366	374,283,895		
I.	Actuarial Present Value of Projected Member Contributions	24,555,424	24,386,542	22,457,034		
J.	Accumulated Contributions of Active Members	10,046,716	10,046,716	8,598,646		



	CALCULATION OF EMPLOYER NORMAL COST								
	Valuation Date Normal Cost for	October 1, 2023 After Assumption Change		After Assumption			October 1, 2023 Infore Assumption Change	0	ctober 1, 2022
	 Service Retirement Benefits Vesting Benefits Disability Benefits Preretirement Death Benefits Return of Member Contributions Total for Future Benefits Assumed Amount for Administrative Expenses Total Normal Cost 	\$ -	9,149,802 502,772 793,029 316,993 62,302 10,824,898 176,901 11,001,799	\$	8,941,386 489,267 782,005 312,698 62,195 10,587,551 176,901 10,764,452	\$ -	8,300,537 458,314 729,902 293,248 49,775 9,831,776 182,215 10,013,991		
C.	Expected Member Contribution		2,166,735		2,166,735		2,003,741		
D.	Employer Normal Cost: B8-C		8,835,064		8,597,717		8,010,250		
E.	Employer Normal Cost as a % of Covered Payroll		24.47 %		23.81 %		23.99 %		



DERIVATION OF CURRENT UAAL

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long-term experience reveals consistent derivation from what has been expected, and that derivation is expected to continue, the assumptions should be modified. The net actuarial gain (loss) for the past year is computed as follows:

	DERIVATION OF CURRENT UAAL						
1.	Last Year's UAAL	\$ 109,432,635					
2.	Employer Normal Cost in Previous Year	8,010,250					
3.	Last Year's Contributions (including contributions from DROP members, but not including excess employer contributions allocated to prepaid contributions)	18,235,484					
4.	Interest at the Assumed Rate on: a. 1 and 2 for one year b. 3 from dates paid c. a - b	8,573,331 827,744 7,745,587					
5.	This Year's Expected UAAL Prior to Revision: 1 + 2 - 3 + 4c	106,952,988					
6.	Change in UAAL Due to Plan Amendments and/or Changes in Actuarial Assumptions/Methods	4,616,264					
7.	This Year's Expected UAAL: 5 + 6	111,569,252					
8.	This Year's Actual UAAL	119,304,278					
9.	This Year's Gain (Loss): 7 - 8	(7,735,026)					
10.	Gain (Loss) due to Investments	(6,217,011)					
11.	Gain (Loss) due to Other Causes	(1,518,015)					



LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

	UAAL AMORTIZATION PERIOD AND PAYMENTS							
	Original UAAL		Current UAAL					
Valuation		Amortization Period	Years			ment Before Assumption		
Date	Source	(Years)	Remaining	Amount	Change	Change		
10/1/2015	Fresh Start	23	15	\$ 82,368,018	\$ 7,156,733	\$ 7,198,559		
10/1/2015	Benefit Change	30	22	1,355	116	117		
10/1/2016	Assumption Changes	20	13	396,543	44,763	44,974		
10/1/2016	Actuarial Loss	10	3	352,406	125,724	125,836		
10/1/2017	Actuarial Loss	10	4	1,467,587	405,999	406,534		
10/1/2017	Benefit Change	30	24	322	27	27		
10/1/2018	Actuarial Loss	10	5	630,377	144,186	144,436		
10/1/2019	(Gain)/Loss	20	16	3,964,169	396,656	398,897		
10/1/2019	Benefit Change	30	26	(114,355)	(9,188)	(9,263)		
10/1/2019	Assumption Changes	25	21	7,885,841	689,846	694,701		
10/1/2020	(Gain)/Loss	20	17	3,678,978	356,396	358,515		
10/1/2020	Assumption Changes	25	22	3,711,558	318,219	320,538		
10/1/2020	Benefit Change	30	27	(5,334,974)	(423,054)	(426,614)		
10/1/2021	(Gain)/Loss	20	18	(5,557,394)	(522,832)	(526,091)		
10/1/2021	Assumption Changes	25	23	3,958,077	333,167	335,676		
10/1/2022	(Gain)/Loss	20	19	5,252,832	481,227	484,360		
10/1/2022	Assumption Changes	25	24	4,291,648	355,203	357,961		
10/1/2023	(Gain)/Loss	20	20	7,735,026	691,716	696,405		
10/1/2023	Assumption Changes	25	25	<u>4,616,264</u>	<u>376,201</u>	<u>0</u>		
				119,304,278	10,921,105	10,605,568		



The UAAL is being amortized as a level percent of pay for bases created before October 1, 2016 and as a level dollar for bases created on and after October 1, 2016 over the number of years remaining in each amortization period. The following schedule illustrates the expected amortization of the UAAL:

AMORTIZATION SCHEDULE					
Year	Expected UAAL				
2023	\$ 119,304,278				
2024	116,186,767				
2025	112,614,629				
2026	108,548,232				
2027	104,079,653				
2028	99,473,065				
2033	67,406,102				
2038	13,458,999				
2043	2,693,992				
2048	0				

10- Year Growth in Covered Payroll

	<u>Payroll</u>	Growth*
10/1/2013	\$ 26,696,002	
10/1/2023	36,112,248	3.07%

^{*} Capped at 3.0%



Actuarial Gains and Losses

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. If significant long-term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified.

Net actuarial gains/(losses) in previous years have been as follows:

Year Ending 9/30	Net Gain (Loss)
2018	(1,069,446)
2019	(4,435,786)
2020	(4,029,561)
2021	5,878,819
2022	(5,370,296)
2023	(7,735,026)

Actual and Assumed Rates of Return and Salary Increase

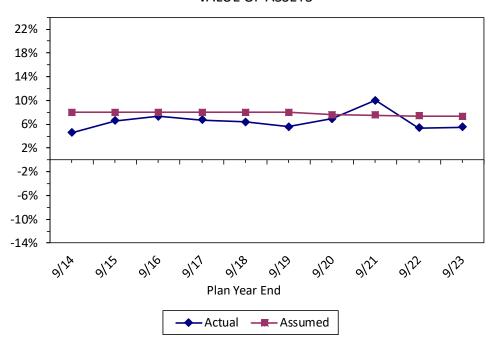
The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

	Investment	Return	Salary In	creases
Year Ending	Actual	Assumed	Actual	Assumed
9/30/2014	4.6 %	8.0 %	4.2 %	6.4 %
9/30/2015	6.6	8.0	10.0	6.4
9/30/2016	7.3	8.0	4.2	6.6
9/30/2017	6.7	8.0	6.2	7.2
9/30/2018	6.4	8.0	4.2	6.9
9/30/2019	5.6	8.0	4.8	6.4
9/30/2020	6.9	7.6	6.7	6.4
9/30/2021	10.0	7.5	7.0	6.4
9/30/2022	5.4	7.4	5.4	6.5
9/30/2023	5.5	7.3	8.9	6.7
Averages	6.5	N/A	6.1	N/A

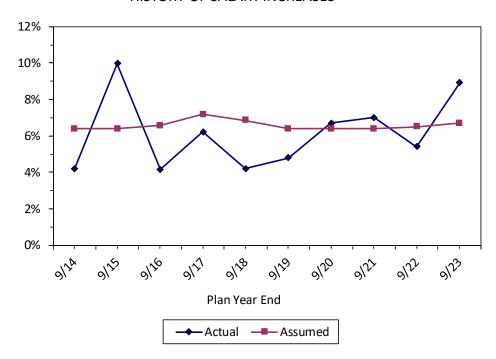


The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.

HISTORY OF INVESTMENT RETURN BASED ON ACTUARIAL VALUE OF ASSETS



HISTORY OF SALARY INCREASES





Actual (A) Compared to Expected (E) Decrements Among Active Employees

Year	Add Dui	nber ded ring ear		ce & OP ement		bility ement	De	ath	Vested	Termir Other		tals	Active Members End of
Ended	Α	E	Α	E	Α	E	Α	E	Α	Α	Α	E	Year
			_		_						_	_	
9/30/2019	15	14	7	6	0	1	0	0	2	5	7	5	354
9/30/2020	21	26	22	8	2	1	0	0	2	0	2	5	349
9/30/2021	29	23	19	4	1	1	0	0	2	1	3	5	355
9/30/2022	44	32	27	5	0	1	0	0	4	1	5	5	367
9/30/2023	26	21	10	5	1	1	0	0	0	10	10	6	372
9/30/2024				2		1		0				6	
5 Yr Totals *	135	116	85	28	4	5	0	0	10	17	27	26	

^{*} Totals are through current Plan Year only



Cumulative Actuarial Gains (Losses)

The Plan provides for a discretionary cost-of-living adjustment (COLA) using investment returns of the fund in excess of the assumed investment return if there is a cumulative net actuarial gain starting from the year ending September 30, 2006 (when this provision went into effect). The cumulative value of COLA's granted under this provision may not exceed the cumulative net actuarial gains since the year ending September 30, 2006. Since the cumulative total is negative (as shown below), no COLA may be paid under this provision at this time.

	Cumulative Actuarial Gains (Losses)									
Year	Balance at		Value of Cost							
Ending	Beginning of	Gain (Loss)	of Living	Balance at						
9/30	Year	for Year	Adjustment	End of Year						
2006	\$ -	\$ 2,118,259	\$ -	\$ 2,118,259						
2007	2,118,259	(276,356)	(668,573)	1,173,330						
2008	1,173,330	(8,099,853)	-	(6,926,523)						
2009	(6,926,523)	(6,869,046)	-	(13,795,569)						
2010	(13,795,569)	4,777,095	-	(9,018,474)						
2011	(0.010.171)	(47.640.706)		(25,522,272)						
2011	(9,018,474)	` ' ' '	-	(26,638,270)						
2012	(26,638,270)		-	(6,987,963)						
2013	(6,987,963)	` ' ' '	-	(27,526,109)						
2014	(27,526,109)		-	(31,184,822)						
2015	(31,184,822)	(8,323,731)	-	(39,508,553)						
2016	(39,508,553)	(917,784)	_	(40,426,337)						
2017	(40,426,337)		-	(43,413,318)						
2018	(43,413,318)	(1,069,446)	-	(44,482,764)						
2019	(44,482,764)	(4,435,786)	-	(48,918,550)						
2020	(48,918,550)		-	(52,948,111)						
2024	(52.040.444)	F 070 040		(47.000.202)						
2021	(52,948,111)		-	(47,069,292)						
2022	(47,069,292)			(52,439,588)						
2023	(52,439,588)	(7,735,026)	-	(60,174,614)						



RECENT HISTORY OF VALUATION RESULTS

	Num	ber of		Actuarial	Unfunded		
Valuation	Active	Inactive	Valuation	Value of	Actuarial	Employer No	ormal Cost
Date	Members	Members*	Payroll	Assets	Liability	Amount	% of Payroll
10/1/2017	345	223	\$ 31,114,789	\$ 235,393,178	\$ 92,404,184	\$ 6,887,184	22.13 %
10/1/2018	353	230	31,906,504	252,105,896	93,756,209	6,768,471	21.21
10/1/2019	354	239	32,499,211	268,879,630	105,548,304	7,589,027	23.35
10/1/2020	349	263	32,691,321	290,414,155	107,011,659	7,500,531	22.94
10/1/2021	355	284	33,486,143	323,453,629	102,663,202	7,795,282	23.28
10/1/2022	367	310	33,395,684	343,636,843	109,432,635	8,010,250	23.99
10/1/2023	372	317	36,112,248	363,755,291	119,304,278	8,835,064	24.47

^{*}Inactive counts have been adjusted to remove DROP members being counted as two different inactive records.

RECENT HISTORY OF UAAL AND FUNDED RATIO

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) - Entry Age (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL As % of Covered Payroll (b-a)/(c)
10/1/2017	\$ 235,393,178	\$ 327,797,362	\$ 92,404,184	71.8 %	\$ 31,241,424	295.8 %
10/1/2018	252,105,896	345,862,105	93,756,209	72.9	32,038,980	292.6
10/1/2019	268,879,630	374,427,934	105,548,304	71.8	32,834,609	321.5
10/1/2020	290,414,155	397,425,814	107,011,659	73.1	32,834,294	325.9
10/1/2021	323,453,629	426,116,831	102,663,202	75.9	33,486,143	306.6
10/1/2022 10/1/2023	343,636,843 363,755,291	453,069,478 483,059,569	109,432,635 119,304,278	75.8 75.3	33,532,013 36,112,248	326.4 330.4



	RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS											
	End of Year To			Required Cont								
	Which	Employer	& State	Estimated	State	Net Empl	loyer	Actual Contributions				
	Valuation % of				% of		% of					
Valuation	Applies	Amount	Payroll	Amount	Payroll	Amount	Payroll	Employer	State	Total		
10/1/2017	9/30/2019	15,273,245	45.96	2,112,321	6.36	13,160,924	39.60	13,160,924	2,112,321	15,273,245		
10/1/2018	9/30/2020	16,315,048	47.84	2,212,862	6.49	14,102,186	41.35	14,048,387	2,266,661	16,315,048		
10/1/2019	9/30/2021	17,694,455	52.86	2,112,321	6.31	15,582,134	46.55	15,582,134	2,112,321	17,694,455		
10/1/2020	9/30/2022	17,623,957	52.34	2,112,321	6.27	15,511,636	46.07	14,911,453	2,712,504	17,623,957		
10/1/2021	9/30/2023	17,707,539	51.34	2,712,504	7.86	14,995,035	43.48	14,766,642	2,940,897	17,707,539		
10/1/2022	9/30/2024	18,818,902	54.71	2,112,321	6.14	16,706,581	48.57					
10/1/2023	9/30/2025	20,714,238	55.69	2,112,321	5.68	18,601,917	50.01					



ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Methods

Actuarial Cost Method - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Financing of Unfunded Actuarial Accrued Liabilities - Unfunded Actuarial Accrued Liabilities were amortized as a level (principal & interest combined) percent of payroll over a prescribed period of future years. For bases created on and after October 1, 2016, the unfunded actuarial accrued liabilities are amortized as a level dollar amount over a prescribed period of future years. For the amortization of bases as a level percent of payroll, the actual payroll growth average over the last 10 years was 3.07%. This is compared to the assumed rate of 3.0%. Florida administrative code requires using the lesser of the two rates for purposes of amortizing unfunded liabilities as a level percent of pay, but not less than zero.

Actuarial Value of Assets - The Actuarial Value of Assets phase in the difference between the expected return on actuarial value and actual return on market value of assets at the rate of 20% per year. The Actuarial Value of Assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the Market Value of plan assets and whose upper limit is 120% of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this Section. The decrement assumptions were established following the Experience Study, prepared by Foster & Foster dated September 12, 2016.

Economic Assumptions

The investment return rate assumed in the valuation is 7.20% per year, compounded annually (net after investment expenses), previously 7.30%. This assumption will be lowered by 0.10% each year until 7.00% is reached.



The *Inflation Rate* assumed in this valuation is 2.50% per year. The Inflation Rate is defined to be the expected long-term rate of increases in the prices of goods and services.

The assumed *real rate of return* over inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 7.20% investment return rate translates to an assumed real rate of return over inflation of 4.70%.

The rate of salary increase for individual active members is shown in the table below. Salary increases are a combination of merit, seniority and productivity increases plus annual inflation of 2.50%. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

Years of	% Increase
Credited Service	in Salary
Less than 1	25.0%
1 - 3	10.0%
4 - 9	7.5%
10 - 14	6.0%
15 & over	5.5%

Demographic Assumptions

The mortality table is the PUB-2010 Headcount Weighted Safety Below Median Employee Male Table (pre-retirement), the PUB-2010 Headcount Weighted Safety Employee Female Table (pre-retirement), the PUB-2010 Headcount Weighted Safety Below Median Healthy Retiree Male Table (post-retirement) and the PUB-2010 Safety Healthy Retiree Female Table (post-retirement). These tables use ages set forward one year and mortality improvements to all future years after 2010 using Scale MP-2018. These are the same rates used for the Special Risk Class members in the July 1, 2022 Actuarial Valuation of the Florida Retirement System (FRS).

FRS Healthy Post-Retirement Mortality for Special Risk Class Members

Sample	Probabili	ty of	Future Life			
Attained	Dying Nex	ct Year	Expectancy (years)			
Ages (in 2023)	Men	Women	Men	Women		
50	0.42 %	0.20 %	32.69	36.52		
55	0.55	0.35	27.91	31.48		
60	0.91	0.60	23.31	26.68		
65	1.31	0.92	19.03	22.15		
70	2.07	1.43	14.99	17.88		
75	3.49	2.38	11.38	13.95		
80	6.19	4.08	8.29	10.46		

This assumption is used to measure the probabilities of each year's benefit payments being made after retirement.



FRS Healthy Pre-Retirement Mortality for Special Risk Class Members

Sample	Probability of		Future	e Life
Attained	Dying Nex	t Year	Expectano	cy (years)
Ages (in 2023)	Men	Women	Men	Women
50	0.16 %	0.10 %	35.82	39.73
55	0.25	0.16	30.74	34.59
60	0.42	0.22	25.78	29.51
65	0.68	0.30	21.00	24.49
70	1.17	0.54	16.46	19.58
75	2.05	1.05	12.21	14.87
80	6.19	4.08	8.29	10.46

This assumption is used to measure the probabilities of active members dying prior to retirement (85% of pre-retirement deaths are assumed to be service-connected).

For disabled retirees, the male mortality tables are 80% of the PUB-2010 Headcount Weighted General Disabled Retiree Male Table and 20% of the Headcount Weighted Safety Disabled Retiree Male Table, and the female mortality tables are 80% of the PUB-2010 Headcount Weighted General Disabled Retiree Female Table and 20% of the Headcount Weighted Safety Disabled Retiree Female Table, both with no provision being made for future mortality improvements. These are the same rates used for the Special Risk Class members in the July 1, 2022 Actuarial Valuation of the Florida Retirement System (FRS).

FRS Disabled Mortality for Special Risk Class Members

Sample	Probabili	-	Futur	
Attained	Dying Nex	xt Year	Expectan	cy (years)
Ages (in 2023)	Men	Women	Men	Women
50	1.45 %	1.25 %	24.04	26.84
55	1.91	1.50	20.88	23.54
60	2.37	1.81	17.92	20.32
65	3.00	2.22	15.07	17.17
70	3.91	2.90	12.39	14.10
75	5.30	4.13	9.87	11.22
80	7.66	6.21	7.60	8.67

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

For members eligible for retirement with less than 25 years of credited service:

Probability
of Retirement
30.0%
40.0%
50.0%
100.0%



For members eligible for retirement with 25 or more years of credited service:

Years of	Probability
Credited Service	of Retirement
25	40.0%
26	40.0%
27	40.0%
28	40.0%
29	40.0%
30	40.0%
31 & over	100.0%

For those eligible for early retirement, 10% each year.

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members separating from employment for reasons other than death, disability or retirement.

Years of	% of Active Members
Credited Service	Separating Within Next Year
Less than 3	3.0%
3 - 9	2.0%
10 & over	1.0%

Rates of disability among active members (85% of disabilities are assumed to be service-connected).

	% Becoming Disabled
Age	Within Next Year
20	0.07%
25	0.09%
30	0.10%
35	0.14%
40	0.21%
45	0.32%
50	0.52%
55	0.92%
60	1.53%
65	1.65%



Miscellaneous and Technical Assumptions

Administrative & Investment

Expenses

The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the prior year's expenses. Assumed administrative expenses are added to the Normal Cost.

Benefit Service Exact fractional service is used to determine the amount of benefit

payable.

Decrement Operation Disability and mortality decrements operate during retirement

eligibility.

Decrement Timing Decrements of all types are assumed to occur halfway through the

year.

Eligibility Testing Eligibility for benefits is determined based upon the age nearest

birthday and service nearest whole year on the date the decrement

is assumed to occur.

For vested separations from service, it is assumed that 0% of

members separating will withdraw their contributions and forfeit an

employer financed benefit.

Incidence of Contributions Employer contributions are assumed to be made in full on January

1st (three months into the fiscal year). Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the

actual payroll payable at the time contributions are made.

Marriage Assumption 100% of males and 100% of females are assumed to be married for

purposes of death-in-service benefits. Male spouses are assumed to

be three years older than female spouses for active member

valuation purposes.

Normal Form of Benefit 10-year certain and life annuity is the normal form of benefit.

Pay Increase TimingBeginning of fiscal year. This is equivalent to assuming that reported

pays represent amounts paid to members during the year ended on

the valuation date.

Service Credit Accruals It is assumed that members accrue one year of service credit per

year.



GLOSSARY OF TERMS

Actuarial Accrued Liability (AAL)

The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.

Actuarial Assumptions

Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.

Actuarial Cost Method

A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.

Actuarial Equivalent

Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value (APV)

The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.

Actuarial Present Value of Future Benefits (APVFB)

The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.

Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.

Actuarial Value of Assets

The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution (ADC).



Actuarially Determined Contribution (ADC)

The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ARC consists of the Employer Normal Cost and Amortization Payment.

Amortization Method

A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.

Amortization Payment

That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Amortization Period

The period used in calculating the Amortization Payment.

Closed Amortization Period

A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 25 years, it is 24 years at the end of one year, 23 years at the end of two years, etc.

Employer Normal Cost

The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

Equivalent Single
Amortization Period

For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.

Experience Gain/Loss

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.



Funded Ratio The ratio of the Actuarial Value of Assets to the Actuarial Accrued

Liability.

GASB Governmental Accounting Standards Board.

GASB No. 67 These are the governmental accounting standards that set the

accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 67 sets accounting rules

for the public retirement systems.

Normal Cost The annual cost assigned, under the Actuarial Cost Method, to the

current plan year.

Open Amortization Period An open amortization period is one which is used to determine the

Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to

covered payroll.

Unfunded Actuarial Accrued

Liability

The difference between the Actuarial Accrued Liability and Actuarial

Value of Assets.

Valuation Date The date as of which the Actuarial Present Value of Future Benefits are

determined. The benefits expected to be paid in the future are

discounted to this date.





PENSION FUND INFORMATION

Statement of Plan Assets at Market Value

		September 30				
	Item	_	2023	2022		
A. Rec	eivables:					
1.	Member Contributions in Transit	\$	192,323	\$	112,417	
2.	Due From Brokers for Investments Sold		250,930		115,715	
3.	State Contributions		-		-	
4.	Investment Income and Other Receivables		329,136		220,930	
5.	Prepaid Expenses		<u>-</u>		<u>-</u>	
6.	Total Receivables	\$	772,389	\$	449,062	
B. Inve	estments					
1.	Short Term Investments	\$	4,321,072	\$	8,666,198	
2.	Fixed Income		81,755,067		74,424,596	
3.	Domestic Equities (Including Mutual Funds)		139,940,519		122,512,727	
4.	International Equities (Mutual Funds)		30,538,720		25,256,075	
5.	Real Estate		38,718,347		51,718,976	
6.	Alternatives		47,572,809		33,912,155	
7.	Total Investments	\$	342,846,534	\$	316,490,727	
C. Liak	pilities					
1.	Refunds Payable	\$	(14,363)	\$	(14,363)	
2.	Accrued Expenses		(197,884)		(240,129)	
3.	Due to Brokers for Investments Purchased		(251,861)		(210,994)	
4.	Prepaid Member Contribution		-		-	
5.	Prepaid District Contribution		(1,953,139)		(1,124,563)	
6.	Total Liabilities	\$	(2,417,247)	\$	(1,590,049)	
D. Tot	al Market Value of Assets Available for Benefits	\$	341,201,676	\$	315,349,740	
E. Allo	ocation of Investments					
1.	Short Term Investments		1.3%		2.7%	
2.	Fixed Income		23.8%		23.5%	
3.	Domestic Equities (Including Mutual Funds)		40.8%		38.7%	
4.	International Equities (Mutual Funds)		8.9%		8.0%	
5.	Real Estate		11.3%		16.4%	
6.	Alternatives		13.9%	_	10.7%	
7.	Total Investments		100.0%		100.0%	



Reconciliation of Plan Assets

			September 30			
		Item	_	2023		2022
A.	Market Value of Assets at Beginning of Year a. Adjustment to Match Financial Statements		\$	315,349,740	\$	355,858,447
	b.	Adjusted Market Value of Assets		315,349,740		355,858,447
В.	Revenue	s and Expenditures				
	1. Con	tributions				
	a.	Employee Contributions	\$	2,526,870	\$	2,386,674
	b.	Employer Contributions		14,766,642		14,911,453
	c.	State Contributions		2,940,897		2,712,504
	d.	Purchased Service Credit		228,374		45,828
	e.	Total	\$	20,462,783	\$	20,056,459
	2. Inve	stment Income				
	a.	Interest, Dividends, and Other Income	\$	7,787,499	\$	10,122,758
	b.	Net Realized/Unrealized Gains/(Losses)		20,016,135		(50,444,513)
	c.	Investment Expenses		(2,878,242)		(2,692,899)
	d.	Net Investment Income	\$	24,925,392	\$	(43,014,654)
	3. Bene	efits and Refunds				
	a.	Regular Monthly Benefits	\$	(16,205,600)	\$	(15,475,005)
	b.	Refunds		(42,591)		-
	c.	Lump Sum Benefits		-		-
	d.	DROP Disbursements		(3,111,147)		(1,893,292)
	e.	Total	\$	(19,359,338)	\$	(17,368,297)
	4. Administrative and Miscellaneous Expenses		\$	(176,901)	\$	(182,215)
	5. Transfers		\$	-	\$	-
C.	Market \	/alue of Assets at End of Year	\$	341,201,676	\$	315,349,740



ACTUARIAL VALUE OF ASSETS

Valuation Date – September 30	2022	2023	2024	2025	2026	2027
A. Actuarial Value of Assets Beginning of Year	\$ 323,978,009	\$ 344,761,406	\$ -	\$ -	\$ -	\$ -
B. Market Value End of Year	316,474,303	343,154,815	-	-	-	-
C. Market Value Beginning of Year	356,382,827	316,474,303	-	-	-	-
D. Non-Investment/Administrative Net Cash Flow	3,106,130	1,755,120				
E. Investment Income						
E1. Actual Market Total: B-C-D	(43,014,654)	24,925,392	-	-	-	-
E2. Assumed Rate of Return	7.40%	7.30%	7.20%	7.10%	7.00%	7.00%
E3. Assumed Amount of Return	24,275,902	25,408,915	-	-	-	-
E4. Amount Subject to Phase-In: E1–E3	(67,290,556)	(483,523)	-	-	-	-
F. Phase-In Recognition of Investment Income						
F1. Current Year: 0.2 x E4	(13,458,111)	(96,705)	-	-	-	-
F2. First Prior Year	8,838,876	(13,458,111)	(96,705)	-	-	-
F3. Second Prior Year	529,784	8,838,876	(13,458,111)	(96,705)	-	-
F4. Third Prior Year	(2,030,854)	529,784	8,838,876	(13,458,111)	(96,705)	-
F5. Fourth Prior Year	(478,330)	(2,030,855)	529,784	8,838,877	(13,458,112)	(96,703)
F6. Total Phase-Ins	(6,598,635)	(6,217,011)	(4,186,156)	(4,715,939)	(13,554,817)	(96,703)
G. Actuarial Value of Assets End of Year						
G1. Preliminary Actuarial Value of Assets:	\$ 344,761,406	\$ 365,708,430	\$ -	\$ -	\$ -	\$ -
G2. Upper Corridor Limit: 120%*B	379,769,164	411,785,778	-	-	-	-
G3. Lower Corridor Limit: 80%*B	253,179,442	274,523,852	-	-	-	-
G4. Funding Value End of Year	344,761,406	365,708,430	-	-	-	-
G5. Less: Prepaid Contributions	(1,124,563)	(1,953,139)	-	-	-	-
G6. Final Funding Value End of Year	343,636,843	363,755,291	-	-	-	-
H. Difference between Market & Actuarial Value	\$ (28,287,103)	\$ (22,553,615)	\$ -	\$ -	\$ -	\$ -
I. Actuarial Rate of Return	5.4%	5.5%	0.0%	0.0%	0.0%	0.0%
J. Market Value Rate of Return	-11.9%	7.8%	0.0%	0.0%	0.0%	0.0%
K. Ratio of Actuarial Value to Market Value	108.94%	106.57%	0.0%	0.0%	0.0%	0.0%



Reconciliation of DROP Accounts

Year Ended	Beginning of					Balance at	
9/30	Year Balance	Credits	Interest	Distributions	Adjustment	End of Year	
2018	30,577,010	2,899,046	2,421,518	(2,038,936)	-	33,858,637	
2019	33,858,637	3,084,358	2,699,122	(1,713,864)	147	37,928,400	
2020	37,928,400	3,366,099	2,991,037	(2,175,020)	(24,898)	42,085,618	
2021	42,085,618	4,666,849	3,269,325	(1,938,901)	(219,881)	47,863,010	
2022	47,863,010	4,956,613	3,503,763	(1,893,292)	-	54,430,094	
2023	54,430,094	5,955,812	3,980,515	(3,111,147)	-	61,255,274	

Historical Investment Rates of Return

Year Ending September 30th	Actuarial Value Basis	Market Value Basis
2014	4.6 %	8.8 %
2015	6.6	(2.4)
2016	7.3	8.0
2017	6.7	9.6
2018	6.4	6.9
2019	5.6	3.9
2020	6.9	8.6
2021	10.0	22.8
2022	5.4	(11.9)
2023	5.5	7.8
Average Returns:		
Last 5 Years	6.7 %	5.6 %
Last 10 Years	6.5 %	5.9 %
All Years	6.5 %	5.9 %

The above rates are based on the retirement systems financial information reported to the actuary. They may differ from figures that the investment consultant reports, in part because of differences in the handling of administrative and investment expenses, and in part because of differences in the handling of cash flows.





FINANCIAL ACCOUNTING INFORMATION

	FASB NO. 35 INFORMATION								
Α.	Valuation Date	October 1, 2023			October 1, 2022				
В.	Actuarial Present Value of Accumulated Plan Benefits								
	1. Vested Benefits								
	 a. Members Currently Receiving Payments b. Terminated Vested Members c. Other Members d. Total 2. Non-Vested Benefits 3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	\$ _	326,333,115 5,193,909 80,809,053 412,336,077 19,109,335 431,445,412	\$	308,133,581 5,088,186 76,165,729 389,387,496 16,161,327 405,548,823				
C.	 Accumulated Contributions of Active Members Changes in the Actuarial Present Value of Accumulated Plan Benefits 		10,046,716		8,598,646				
	 Total Value at Beginning of Year Increase (Decrease) During the Period Attributable to: 		405,548,823		379,862,011				
	 a. Plan Amendment b. Change in Actuarial Assumptions c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period d. Benefits Paid e. Net Increase 	_	0 4,106,972 41,148,955 (19,359,338) 25,896,589	_	0 3,884,484 39,170,625 (17,368,297) 25,686,812				
	3. Total Value at End of Period		431,445,412		405,548,823				
D.	Market Value of Assets		341,201,676		315,349,740				
E.	Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods								





MISCELLANEOUS INFORMATION

RECONCILIATION OF MEMBERSHIP DATA								
		From 10/1/22 To 10/1/23	From 10/1/21 To 10/1/22					
A.	Active Members							
1.	Number Included in Last Valuation	367	355					
2.	New Members Included in Current Valuation	26	43					
3.	Non-Vested Employment Terminations	(10)	(1)					
4.	Vested Employment Terminations	0	(4)					
5.		(1)	0					
6.	DROP Retirements	(9)	(27)					
7.	Disability Retirements	(1)	o o					
8.		0	0					
9.	Rehires	0	1					
10.	Other	0	0					
11.	Number Included in This Valuation	372	367					
В.	Terminated Vested Members							
1.	Number Included in Last Valuation	28	25					
2.	Additions from Active Members	0	4					
3.	Lump Sum Payments/Refunds	0	0					
	Payments Commenced	(1)	0					
5.	Deaths	0	0					
6.	Rehires	0	(1)					
7.	Number Included in This Valuation	27	28					
C.	DROP Participation							
1.	Number Included in Last Valuation	74	53					
2.	Additions from Active Members	9	27					
3.	Payments Commenced	(13)	(6)					
4.	Deaths	0	0					
5.	Other	0	0					
6.	Number Included in This Valuation	70	74					
D.	Service Retirees, Disability Retirees and Beneficiaries							
1.	Number Included in Last Valuation	208	206					
2.	Additions from Active Members	2	0					
3.	Additions from Terminated Vested Members	1	0					
4.	Additions from DROP	13	6					
5.	Deaths Resulting in No Further Payments	(4)	(4)					
6.	Deaths Resulting in New Survivor Benefits	0	0					
7.	End of Certain Period - No Further Payments	0	0					
8.	Other - Data Correction	0	0					
9.	Number Included in This Valuation	220	208					



Schedule of Active Participant Data as of October 1, 2023

Age	,	Years of S	Earnings							
Group	0-1	1-4	5-9	10-14	15-19	20-24	25-29	Total	Total	Average
< 25	9	14	-	-	-	-	-	23	\$ 1,513,607	\$ 65,809
25-29 30-34	11 4	36 31	13 25	8	-	-	-	60 68	4,236,000 5,405,592	70,600 79,494
35-39	-	16	17	5	19	-	-	57	5,553,589	97,431
40-44	1	1	13	7	54	23	-	99	11,659,923	117,777
45-49	-	-	5	1	21	14	1	42	5,108,334	121,627
50-54	1	-	2	3	4	10	1	21	2,365,713	112,653
55-59	-	-	-	-	1	-	1	2	269,490	134,745
60-64	-	-	-	-	-	-	-	-	-	-
Total	26	98	75	24	99	47	3	372	36,112,248	97,076



Schedule of Inactive Benefits as of October 1, 2023

	Terminated Vested		ted Disabled		Retired		Benefi	ciaries	Grand Total		
		Total		Total		Total		Total		Total	
<u>Age</u>	<u>Number</u>	Benefits	<u>Number</u>	Benefits	<u>Number</u>	<u>Benefits</u>	<u>Number</u>	Benefits	<u>Number</u>	<u>Benefits</u>	
Under 30	0	0	0	0	0	0	0	0	0	0	
30 - 34	1	20,565	0	0	0	0	0	0	1	20,565	
35 - 39	5	98,012	0	0	0	0	0	0	5	98,012	
40 - 44	7	251,719	3	200,603	0	0	0	0	10	452,322	
45 - 49	9	272,745	2	135,610	13	1,389,660	1	54,765	25	1,852,780	
50 - 54	5	68,772	3	202,737	58	5,398,971	0	0	66	5,670,480	
55 - 59	0	0	2	163,098	62	5,377,957	0	0	64	5,541,055	
60 - 64	0	0	2	144,444	46	4,312,242	5	335,062	53	4,791,748	
65 - 69	0	0	3	95,991	28	2,281,708	3	107,788	34	2,485,487	
70 - 74	0	0	3	111,024	23	1,676,588	1	50,634	27	1,838,246	
75 - 79	0	0	1	41,950	11	550,865	5	94,687	17	687,502	
80 - 84	0	0	0	0	5	209,153	5	222,640	10	431,793	
85 - 89	0	0	0	0	3	196,875	0	0	3	196,875	
90 & Over	0	0	0	0	1	61,927	1	4,356	2	66,283	
Total	27	711,813	19	1,095,457	250	21,455,946	21	869,932	317	24,133,148	
Average A	ge:	45.0		59.0		61.3		72.4		60.5	
Avg. Annual Benefit:		26,363		57,656		85,824		41,425		76,130	



SECTION **F**

SUMMARY OF PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS

A. Ordinances

The St. Lucie County Fire District Firefighters' Pension Trust Fund was most recently amended by Resolution 714-21. The Fund is also governed by certain provisions of Chapters 175 and 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes (F.S.) and the Internal Revenue Code.

B. Plan Year

October 1 through September 30

C. Type of Plan

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

D. Eligibility Requirements

All full-time firefighters are eligible for membership on the date of employment.

E. Credited Service

Service is measured as the total number of years and fractional parts of years of service with the District as a firefighter. No service is credited for any periods of employment for which the member received a refund of employee contributions.

F. Compensation

Total salary or wages, including lump sum payments. For members who enter into the DROP with less than ten consecutive years of service, payments for accumulated sick leave, and vacation leave payments that exceed twice the annual accrual, are not included.

G. Final Average Salary (FAS)

For Firefighters eligible for Normal Retirement as of October 1, 2021 and for all Firefighters retiring or entering the DROP prior to October 1, 2021, Final Average Salary is the average of Compensation during the highest 4 years out of the last 10 years prior to retirement.

Effective October 1, 2021, for Firefighters not eligible for Normal Retirement as of that date, Final Average Salary is the average of Compensation during 5 highest years out of the last 10 years prior to retirement. The calculated benefit will be the greater of the accrued benefit using the 4-year Final Average Salary on September 30, 2021 or the 5-year Final Average Salary at the time of retirement.



H. Normal Retirement

Eligibility: Firefighters hired prior to October 1, 2014 may retire on the first day of the month

coincident with or next following the earliest of:

(1) age 55 with 5 years of Credited Service, or

(2) 25 years of Credited Service regardless of age.

Firefighters hired on or after October 1, 2014 may retire on the first day of the

month coincident with or next following the earliest of:

(1) age 55 with 10 years of Credited Service, or

(2) 25 years of Credited Service regardless of age.

Benefit: 3.00% of FAS multiplied by Credited Service.

Normal Form

of Benefit: 10-Year Certain and Life Annuity. Other options are also available.

COLA: None

I. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon

attainment of age 50 with 5 years of Credited Service (10 years for those hired on

or after October 1, 2014).

Benefit: The Normal Retirement Benefit is reduced by 3.0% for each year by which the

Early Retirement date precedes the Normal Retirement date.

Normal Form

of Benefit: 10-Year Certain and Life Annuity. Other options are also available.

COLA: None

J. Delayed Retirement

Same as Normal Retirement considering compensation earned and service credited until the date of actual retirement.

K. Service Connected Disability

Eligibility: Any member who becomes totally and permanently disabled and unable to

render useful and efficient service to the District as a result of an act occurring in the performance of service for the District is immediately eligible for a disability

benefit.

Benefit: Greater of the accrued benefit and 66 2/3% of FAS during the disability period.



Normal Form

of Benefit: 10-Year Certain and Life Annuity. Other options are also available.

COLA: None

L. Non-Service Connected Disability

Eligibility: Any member with 5 or more years of Credited Service (10 years for those hired on

or after October 1, 2014) who becomes totally and permanently disabled and unable to render useful and efficient service to the District is immediately eligible

for a disability benefit.

Benefit: Accrued benefit.

Normal Form

of Benefit: 10-Year Certain and Life Annuity. Other options are also available.

COLA: None

M. Death in the Line of Duty

Eligibility: Members who die as a direct result of the performance of the member's duties

are eligible for survivor benefits regardless of Credited Service.

Benefit: The survivor benefit payable to the designated beneficiary is the greater of the

accrued benefit and 75% of FAS.

Normal Form

of Benefit: 10 Years Certain and Life thereafter. Other options are also available.

COLA: None

N. Other Pre-Retirement Death

Eligibility: Any member who dies with 5 or more years of Credited Service (10 years for

those hired on or after October 1, 2014) is eligible for survivor benefits.

Benefit: Accrued benefit.

Normal Form

of Benefit: 10 Years Certain and Life thereafter. Other options are also available.

COLA: None

O. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.



P. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a Single Life Annuity or a 50%, 66 2/3%, 75% or 100% Joint and Survivor Annuity with Pop-Up options.

Q. Vested Termination

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion

of 5 years of Credited Service (10 years of Credited Service for those hired on or

after October 1, 2014).

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of

termination. Benefit begins on the member's earliest Normal Retirement date. Alternatively, members with 5 or more years of Credited Service (10 years of credited service for those hired on or after October 1, 2014) may elect to receive benefits any time after age 50. The benefit will be reduced for Early Retirement,

when applicable.

Normal Form

of Benefit: 10-Year Certain and Life Annuity. Other options are also available.

COLA: None

R. Refunds

Eligibility: All members terminating employment with less than 5 years of Credited Service

(10 years of Credited Service for those hired on or after October 1, 2014) are eligible. Optionally, vested members may elect a refund in lieu of the vested

benefits otherwise due.

Benefit: Refund of the member's accumulated contributions without interest.

S. Member Contributions

4% of Compensation prior to October 1, 2018. Effective October 1, 2018, 5% of Compensation (including members entering the DROP on and after October 1, 2018). Effective October 1, 2019, 6% of Compensation (including members entering the DROP on and after October 1, 2019).

T. State Contributions

Chapter 175 Premium Tax Refunds

U. Employer Contributions

Any additional amount determined by the actuary needed to fund the plan properly according to State laws.



V. Cost of Living Increases

Not Applicable

W. Supplemental Benefit

Eligibility: 5 years of Credited Service (10 years of credited service for those hired on or after

October 1, 2014).

Benefit: Age-based Pension Factor for each year of Credited Service, including years of

service while participating in the DROP. The Pension Factor ranges from \$12 at age 40, up to \$44 for ages 55 and older at the time benefits commence. For Plan members participating in the DROP, this benefit commences after DROP exit.

Normal Form

of Benefit: Single Life Annuity. Other options are also available.

COLA: None

X. Deferred Retirement Option Plan

Eligibility: Plan members are eligible for the DROP upon the attainment of Normal or Early

Retirement requirements.

Benefit: The member's Credited Service and FAS are frozen upon entry into the DROP.

The monthly retirement benefit as described under Normal and Early Retirement

is calculated based upon the frozen Credited Service and FAS.

Maximum

DROP Period: 6 years.

Interest

Credited: The member's DROP account is credited with interest based upon one of the

following options chosen by the member.

(1) the actual net investment return realized by the Fund each fiscal quarter, or

(2) actuarial rate of return provided for in the most recent actuarial valuation.

Members who enter the DROP subsequent to June 9, 2021 will earn an interest rate on their DROP accounts equal to 0.5% (50 basis points) below the assumed

rate of return.

Normal Form

of Benefit: Lump Sum at termination of employment; other options are available.

COLA: None



Y. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a St. Lucie County Fire District Firefighters' Pension Trust Fund liability if continued beyond the availability of funding by the current funding source.

Z. Changes from Previous Valuation

None.

