

**St. Lucie County Fire District**  
**Firefighters' Pension Trust Fund**  
Actuarial Valuation Report as of October 1, 2021

Annual Employer Contribution for the Fiscal Year  
Ending September 30, 2023







March 4, 2022

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, 2021 and Actuarial Disclosures**

Dear Board Members:

The results of the October 1, 2021 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, 2023. 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, 2021. 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 and prescribed by the Florida Statutes. The prescribed assumptions are the assumed mortality rates in accordance with Chapter 112.63, Florida Statutes. All actuarial assumptions used in this report are reasonable for the purposes of this

valuation. Additional information about the actuarial assumptions is included in the section of this report entitled Actuarial Assumptions and Methods.

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.

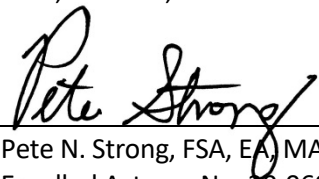
Pete N. Strong and Jeffrey Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

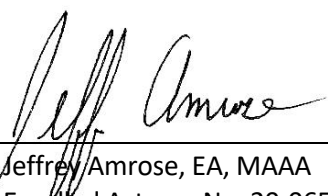
This actuarial valuation and/or cost determination was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable, 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

By   
Pete N. Strong, FSA, EA, MAAA, FCA  
Enrolled Actuary No. 20-06975

By   
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## SECTION A

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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 9/30/2023 Based on 10/1/2021 Valuation	For FYE 9/30/2022 Based on 10/1/2020 Valuation	Increase (Decrease)
Required Employer/State Contribution	\$ 17,707,539	\$ 17,623,957	\$ 83,582
As % of Covered Payroll	51.34 %	52.34 %	(1.00) %
Estimated State Contribution*	2,112,321	2,112,321	0
As % of Covered Payroll	6.12	6.27	(0.15)
Required Employer Contribution**	15,595,218 **	15,511,636	83,582
As % of Covered Payroll	45.22	46.07	(0.85)

\*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.

\*\*The District has a prepaid contribution of \$524,380 available to offset the employer contribution requirement. All or any portion of this prepaid contribution may be applied to reduce the required employer contribution shown above.

The required employer contribution has been adjusted for interest on the basis that the District contribution is made in full by January 1<sup>st</sup> (three months after the beginning of the fiscal year).

The minimum required employer contribution (District and State) for the fiscal year ending September 30, 2021 was \$17,694,455. The actual District and State contributions for the fiscal year ending September 30, 2021 were \$15,582,134 and \$2,112,321, respectively, for a total of \$17,694,455.

We note that total Member contributions reported during the year were \$2,270,932, which was comprised of \$1,896,228 in Member contributions from active members and \$374,704 in contributions from DROP members. In accordance with Resolution No. 674-19, contributions made by DROP members (\$374,704) were used to reduce the unfunded actuarial accrued liability (UAAL).

## Revisions in Benefits

- Effective October 1, 2021, for Firefighters not eligible for Normal Retirement, the definition of Final Average Salary was changed to mean 1/12 of the average salary of the 5 best years out of the last 10 years of credited service 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.

- The minimum line-of-duty-disability benefit was changed from 75% of Final Average Salary to 66 2/3% of Final Average Salary.
- The maximum Deferred Retirement Option Plan (DROP) participation period was increased from 5 to 6 years.
- 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.

These changes were reflected in the Actuarial Impact Statement dated June 7, 2021. The prior year results shown in this report (as of October 1, 2020) are from this Actuarial Impact Statement.

### **Revisions in Actuarial Assumptions or Methods**

The investment return assumption has been lowered from 7.5% to 7.4%, effective October 1, 2021. 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 \$520,810 or 1.51% of pay.

For this valuation a long-term average annual future net investment return assumption of 7.4%, or about 8.1% before investment expenses, was used. Based on the Plan's asset allocation, an assumed net rate of return of 6.25% to 6.75% would be more in line with projected expected returns over the next several years. We recommend consideration be given to lowering the investment return assumption to a rate in this range. If the investment return assumption is lowered, the required City contribution will increase 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 generate investment losses which will be funded by future taxpayers.

If actual experience matches the assumptions, including actual net investment returns equaling 7.4% 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 gain of \$5,878,819 since the last valuation, which means that actual experience was more favorable than expected. There was an experience gain of approximately \$7.3 million due to a higher than expected investment return on the actuarial value of assets during the year ending September 30, 2021 (10.0% actual versus 7.5% expected). The return on the market value of assets was 22.8%, but the majority of this return is being smoothed over the next four years. There was an offsetting experience loss of approximately \$1.4 million due to demographic experience. Demographic experience losses were primarily due to more retirements/DROP entries during the year than expected (19 actual versus 4 expected), fewer separations/terminations than expected (3 actual versus 5 expected), and higher





salary increases than expected from FY 2020 to FY 2021 (7.0% actual average increases versus 6.4% expected). The net actuarial experience gain caused the required employer contribution to decrease by \$562,199, or 1.63% of covered payroll.

### **Analysis of Change in Employer Contribution**

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

Contribution Rate Last Year	46.07 %
Plan Changes	0.00
Change in Assumptions	1.51
Experience (Gains) or Losses	(1.63)
Change in Employer Normal Cost Rate	(0.30)
Amortization of UAAL	(0.58)
State Contribution	0.15
Contribution Rate This Year	45.22 %

### **Funded Ratio**

This year’s funded ratio is 75.9% compared to 73.1% last year. Prior to recognizing the assumption change, this year’s funded ratio would have been 76.6%. 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 45.22% of payroll starting October 1, 2022. Under the asset smoothing method, market value gains and losses are recognized over five years. As of October 1, 2021, the market value of assets was \$32,404,818 more than the actuarial value of assets. Once all the gains and losses through September 30, 2021 have been fully recognized in the actuarial value of assets, the employer contribution rate will decrease by roughly 8.9% of payroll before reflecting any future plan or assumption changes, unless there are offsetting losses (by an approximate dollar amount of \$3.08 million).

### **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 36.28% (a dollar amount of \$12,511,747) and the funded ratio would have been 83.5%. The funded ratio on a market value basis was 72.0% 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.



## 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.

<b>Actuarial Confirmation of the Use of State Chapter Money</b>			
	<b>Fire</b>	<b>Supplement</b>	<b>Total</b>
1. Base Amount Previous Plan Year	\$ 2,266,661	\$ 0	\$ 2,266,661
2. Amount Received for Previous Plan Year	2,612,886	0	2,612,886
3. Benefit Improvements Made in Previous Plan Year	0	0	0
4. Excess Funds for Previous Plan Year *	500,565	0	500,565
5. Accumulated Excess at Beginning of Previous Year	368,597	0	368,597
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	2,112,321	0	2,112,321

\* The excess funds of \$500,565 this year are equal to the actual amount of State money received (\$2,612,886) less the base/frozen amount for fiscal year 2021 of \$2,112,321. The “base amount” for fiscal year 2020 was equal to all of the State money for one year only.

## **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;
2. 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>2021</u>	<u>2020</u>
Ratio of the market value of assets to covered payroll	10.63	8.75
Ratio of actuarial accrued liability to covered payroll	12.73	12.16
Ratio of actives to retirees and beneficiaries	1.37	1.45
Ratio of net cash flow to market value of assets	1.2%	1.0%

### 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.

**SECTION B**

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**VALUATION RESULTS**

<b>PARTICIPANT DATA</b>		
	October 1, 2021	October 1, 2020
<b>ACTIVE MEMBERS</b>		
Number	355	349
Payroll Under Assumed Ret. Age	\$ 33,486,143	\$ 32,691,321
Total Payroll	\$ 33,486,143	\$ 32,834,294
Average Payroll	\$ 94,327	\$ 94,081
Average Age	38.5	39.1
Average Past Service	11.8	12.3
Average Age at Hire	26.7	26.8
<b>RETIRES, BENEFICIARIES &amp; DROP</b>		
Number	241	222
Annual Benefits	\$ 19,263,158	\$ 17,706,419
Average Annual Benefit	\$ 79,930	\$ 79,759
Average Age	62.5	62.5
<b>DISABILITY RETIREES</b>		
Number	18	18
Annual Benefits	\$ 1,015,329	\$ 1,001,651
Average Annual Benefit	\$ 56,407	\$ 55,647
Average Age	57.5	57.6
<b>TERMINATED VESTED MEMBERS</b>		
Number	25	23
Annual Benefits	\$ 587,929	\$ 515,555
Average Annual Benefit	\$ 23,517	\$ 22,415
Average Age	44.0	43.6



**ACTUARIALLY DETERMINED CONTRIBUTION (ADC)**

	October 1, 2021 <i>After Assumption Change</i>	October 1, 2021 <i>Before Assumption Change</i>	October 1, 2020 <i>From Actuarial Impact Statement</i>
A. Valuation Date			
B. ADC to Be Paid During Fiscal Year Ending	9/30/2023	9/30/2023	9/30/2022
C. Assumed Dates of Employer Contributions	1/1/2023	1/1/2023	1/1/2022
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 9,083,102	\$ 8,795,812	\$ 9,294,658
E. Employer Normal Cost	7,795,282	7,584,743	7,500,531
F. ADC if Paid on the Valuation Date: D+E	16,878,384	16,380,555	16,795,189
G. ADC Adjusted for Timing of Payments	17,190,634	16,687,690	17,110,099
H. ADC as % of Covered Payroll	51.34 %	49.83 %	52.34 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	3.00 %	3.00 %	3.00 %
J. Covered Payroll as of Contribution Date	34,490,727	34,490,727	33,672,061
K. ADC for Contribution Year: H x J	17,707,539	17,186,729	17,623,957
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	15,595,218	15,074,408	15,511,636
N. REC as % of Covered Payroll in Contribution Year: M ÷ J	45.22 %	43.71 %	46.07 %





**ACTUARIAL VALUE OF BENEFITS AND ASSETS**

A. Valuation Date	October 1, 2021 <i>After Assumption Change</i>	October 1, 2021 <i>Before Assumption Change</i>	October 1, 2020 <i>From Actuarial Impact Statement</i>
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	\$ 226,695,435	\$ 222,302,723	\$ 218,694,964
b. Vesting Benefits	5,994,802	5,842,734	5,720,229
c. Disability Benefits	10,387,561	10,213,022	9,903,136
d. Preretirement Death Benefits	3,559,473	3,496,754	3,408,089
e. Return of Member Contributions	274,950	274,009	218,302
e. Total	<u>246,912,221</u>	<u>242,129,242</u>	<u>237,944,720</u>
2. Inactive Members			
a. Service Retirees & Beneficiaries	212,519,661	210,629,735	192,924,565
b. Disability Retirees	11,535,951	11,428,211	11,208,181
c. Terminated Vested Members	3,575,543	3,514,729	2,896,855
d. Excess State Monies Reserve	869,162	869,162	368,597
e. DROP Balances	47,863,010	47,863,010	42,085,618
f. Total	<u>276,363,327</u>	<u>274,304,847</u>	<u>249,483,816</u>
3. Total for All Members	523,275,548	516,434,089	487,428,536
C. Actuarial Accrued (Past Service) Liability per Entry Age Normal Method	426,116,831	422,007,874	397,425,814
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	379,862,011	376,185,991	352,754,887
E. Plan Assets			
1. Market Value	355,858,447	355,858,447	286,199,944
2. Actuarial Value	323,453,629	323,453,629	290,414,155
F. Unfunded Actuarial Accrued Liability (EAN Method): C - E2	102,663,202	98,554,245	107,011,659
G. Funded Ratio: E2 / C	75.9 %	76.6 %	73.1 %
H. Actuarial Present Value of Projected Covered Payroll	345,857,006	343,672,514	326,698,528
I. Actuarial Present Value of Projected Member Contributions	20,751,420	20,620,351	19,601,912
J. Accumulated Contributions of Active Members	7,750,695	7,750,695	6,503,815



**CALCULATION OF EMPLOYER NORMAL COST**

A. Valuation Date	October 1, 2021 <i>After Assumption Change</i>	October 1, 2021 <i>Before Assumption Change</i>	October 1, 2020 <i>From Actuarial Impact Statement</i>
B. Normal Cost for			
1. Service Retirement Benefits	\$ 8,159,031	\$ 7,974,040	\$ 7,825,508
2. Vesting Benefits	433,143	421,545	429,023
3. Disability Benefits	731,164	721,211	718,785
4. Preretirement Death Benefits	294,638	290,703	289,309
5. Return of Member Contributions	<u>36,522</u>	<u>36,460</u>	<u>27,683</u>
6. Total for Future Benefits	9,654,498	9,443,959	9,290,308
7. Assumed Amount for Administrative Expenses	<u>149,953</u>	<u>149,953</u>	<u>171,702</u>
8. Total Normal Cost	9,804,451	9,593,912	9,462,010
C. Expected Member Contribution	2,009,169	2,009,169	1,961,479
D. Employer Normal Cost: B8-C	7,795,282	7,584,743	7,500,531
E. Employer Normal Cost as a % of Covered Payroll	23.28 %	22.65 %	22.94 %



<b>DERIVATION OF CURRENT UAAL</b>	
1. Last Year's UAAL	\$ 107,011,659
2. Employer Normal Cost in Previous Year	7,500,531
3. Last Year's Contributions (including DROP members)	18,069,159
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	8,588,414
b. 3 from dates paid	<u>598,381</u>
c. a - b	7,990,033
5. This Year's Expected UAAL Prior to Revision: 1 + 2 - 3 + 4c	104,433,064
6. Change in UAAL Due to Plan Amendments and/or Changes in Actuarial Assumptions/Methods	4,108,957
7. This Year's Expected UAAL: 5 + 6	108,542,021
8. This Year's Actual UAAL	102,663,202
9. This Year's Gain (Loss): 7 - 8	5,878,819
10. Gain (Loss) due to Investments	7,298,615
11. Gain (Loss) due to Other Causes	(1,419,796)

**LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY**

<b>UAAL AMORTIZATION PERIOD AND PAYMENTS</b>						
<b>Original UAAL</b>			<b>Current UAAL</b>			
<b>Valuation Date</b>	<b>Source</b>	<b>Amortization Period (Years)</b>	<b>Years Remaining</b>	<b>Amount</b>	<b>Payment</b>	
					<b>After Assumption Change</b>	<b>Before Assumption Change</b>
10/1/2015	Fresh Start	23	17	\$ 85,859,566	\$ 7,188,056	\$ 7,234,107
10/1/2015	Benefit Change	30	24	1,412	119	120
10/1/2016	Assumption Changes	20	15	434,373	45,534	45,776
10/1/2016	Actuarial Loss	10	5	558,759	128,248	128,470
10/1/2017	Actuarial Loss	10	6	2,090,252	413,367	414,249
10/1/2017	Benefit Change	30	26	334	27	27
10/1/2018	Actuarial Loss	10	7	837,073	146,643	147,014
10/1/2019	(Gain)/Loss	20	18	4,240,761	403,943	406,438
10/1/2019	Benefit Change	30	28	(117,845)	(9,392)	(9,472)
10/1/2019	Assumption Changes	25	23	8,238,268	703,902	709,145
10/1/2020	(Gain)/Loss	20	19	3,912,271	363,086	365,428
10/1/2020	Assumption Changes	25	24	3,864,574	324,827	327,321
10/1/2020	Benefit Change	30	29	(5,486,734)	(432,616)	(436,377)
10/1/2021	(Gain)/Loss	20	20	(5,878,819)	(532,856)	(536,434)
10/1/2021	Assumption Change	25	25	<u>4,108,957</u>	<u>340,214</u>	<u>-</u>
				102,663,202	9,083,102	8,795,812



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:

<b>AMORTIZATION SCHEDULE</b>	
<b>Year</b>	<b>Expected UAAL</b>
2021	\$ 102,663,202
2022	100,505,050
2023	98,000,349
2024	95,118,955
2025	91,828,363
2026	88,093,550
2031	64,618,693
2036	25,369,385
2041	1,587,823
2046	0

**10- Year Growth in Covered Payroll**

	<b><u>Payroll</u></b>	<b><u>Growth</u></b>
10/1/2011	\$ 26,365,145	
10/1/2021	33,486,143	2.42%

### 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

### Actual and Assumed Rates of Return and Salary Increase

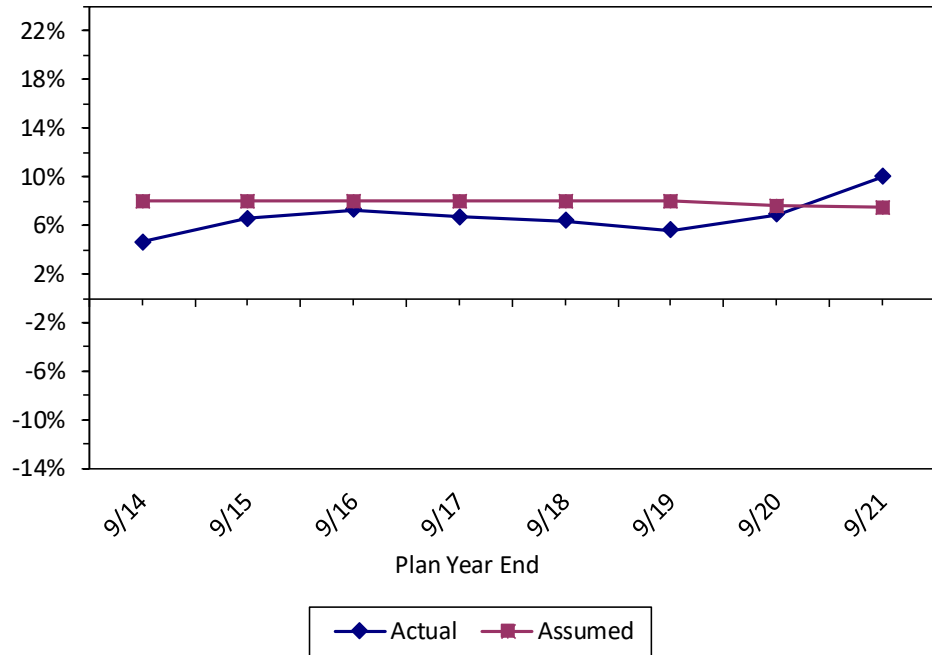
The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

Year Ending	Investment Return		Salary Increases	
	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
Averages	6.8	N/A	5.9	N/A

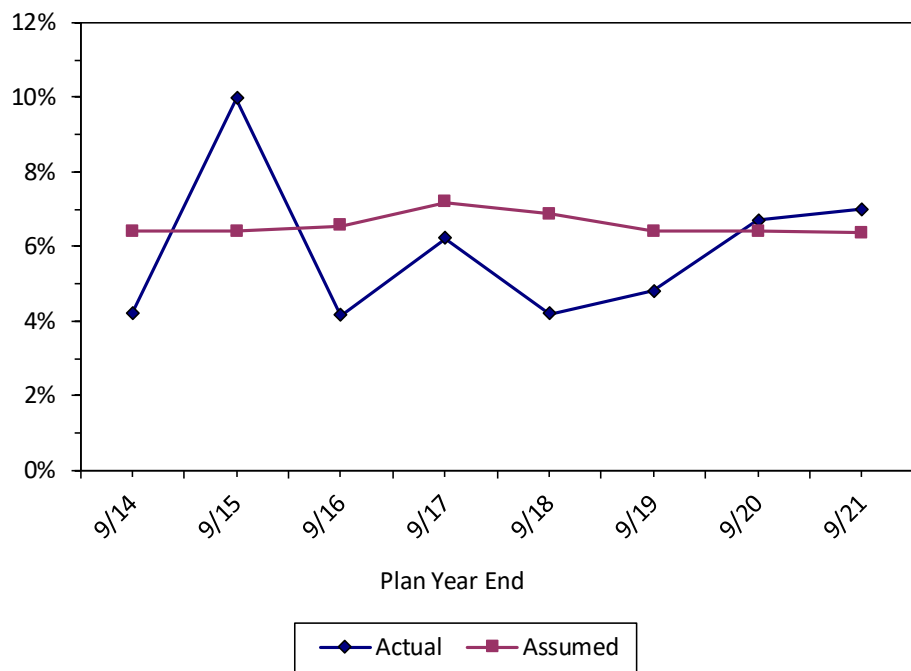


The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.

### 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 Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Death		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	Vested	Other	Totals		
											A	E	
9/30/2019	15	14	7	6	0	1	0	0	2	5	7	5	<b>354</b>
9/30/2020	21	26	22	8	2	1	0	0	2	0	2	5	<b>349</b>
9/30/2021	29	23	19	4	1	1	0	0	2	1	3	5	<b>355</b>
9/30/2022				3		1		0				5	
3 Yr Totals *	65	63	48	18	3	3	0	0	6	6	12	15	

\* Totals are through current Plan Year only





**RECENT HISTORY OF VALUATION RESULTS**

Valuation Date	Number of		Valuation Payroll	Actuarial Value of Assets	Unfunded Actuarial Liability	Employer Normal Cost	
	Active Members	Inactive Members*				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

\*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



**RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS**

Valuation	End of Year To Which Valuation Applies	Required Contributions						Actual Contributions		
		Employer & State		Estimated State		Net Employer		Employer	State	Total
		Amount	% of Payroll	Amount	% of Payroll	Amount	% of Payroll			
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	---	---	---
10/1/2021	9/30/2023	17,707,539	51.34	2,112,321	6.12	15,595,218	45.22	---	---	---



## 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:

- (i) 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 2.42%. 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 7.40% per year, compounded annually (net after investment expenses), previously 7.50%. 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 7.50% investment return rate translates to an assumed real rate of return over inflation of 5.00%.

**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 Credited Service	% Increase 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, 2020 Actuarial Valuation of the Florida Retirement System (FRS).

#### FRS Healthy Post-Retirement Mortality for Special Risk Class Members

Sample Attained Ages (in 2021)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.42 %	0.20 %	32.50	36.33
55	0.56	0.36	27.73	31.30
60	0.92	0.61	23.14	26.51
65	1.32	0.92	18.87	22.00
70	2.08	1.45	14.86	17.74
75	3.54	2.42	11.27	13.82
80	6.30	4.16	8.19	10.35

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 Attained Ages (in 2021)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.16 %	0.11 %	35.66	39.58
55	0.26	0.16	30.58	34.44
60	0.43	0.22	25.63	29.37
65	0.69	0.30	20.86	24.35
70	1.18	0.55	16.34	19.45
75	2.08	1.07	12.10	14.75
80	6.30	4.16	8.19	10.35

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, 2020 Actuarial Valuation of the Florida Retirement System (FRS).

### FRS Disabled Mortality for Special Risk Class Members

Sample Attained Ages (in 2021)	Probability of Dying Next Year		Future Life Expectancy (years)	
	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:

Age	Probability of Retirement
55	30.0%
56	40.0%
57	50.0%
58 & over	100.0%



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

<u>Years of Credited Service</u>	<u>Probability of Retirement</u>
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.

<u>Years of Credited Service</u>	<u>% of Active Members Separating Within Next Year</u>
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).

<u>Age</u>	<u>% Becoming Disabled Within Next Year</u>
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

<b><i>Administrative &amp; Investment Expenses</i></b>	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.
<b><i>Benefit Service</i></b>	Exact fractional service is used to determine the amount of benefit payable.
<b><i>Decrement Operation</i></b>	Disability and mortality decrements operate during retirement eligibility.
<b><i>Decrement Timing</i></b>	Decrements of all types are assumed to occur halfway through the year.
<b><i>Eligibility Testing</i></b>	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.
<b><i>Forfeitures</i></b>	For vested separations from service, it is assumed that 0% of members separating will withdraw their contributions and forfeit an employer financed benefit.
<b><i>Incidence of Contributions</i></b>	Employer contributions are assumed to be made in full on January 1 <sup>st</sup> (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.
<b><i>Marriage Assumption</i></b>	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.
<b><i>Normal Form of Benefit</i></b>	10-year certain and life annuity is the normal form of benefit.
<b><i>Pay Increase Timing</i></b>	Beginning of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
<b><i>Service Credit Accruals</i></b>	It is assumed that members accrue one year of service credit per year.



## GLOSSARY OF TERMS

<b><i>Actuarial Accrued Liability (AAL)</i></b>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<b><i>Actuarial Assumptions</i></b>	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.
<b><i>Actuarial Cost Method</i></b>	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.
<b><i>Actuarial Equivalent</i></b>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<b><i>Actuarial Present Value (APV)</i></b>	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.
<b><i>Actuarial Present Value of Future Benefits (APVFB)</i></b>	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.
<b><i>Actuarial Valuation</i></b>	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.
<b><i>Actuarial Value of Assets</i></b>	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).





<b><i>Actuarially Determined Contribution (ADC)</i></b>	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.
<b><i>Amortization Method</i></b>	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.
<b><i>Amortization Payment</i></b>	That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<b><i>Amortization Period</i></b>	The period used in calculating the Amortization Payment.
<b><i>Closed Amortization Period</i></b>	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.
<b><i>Employer Normal Cost</i></b>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<b><i>Equivalent Single Amortization Period</i></b>	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.
<b><i>Experience Gain/Loss</i></b>	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.



<b><i>Funded Ratio</i></b>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
<b><i>GASB</i></b>	Governmental Accounting Standards Board.
<b><i>GASB No. 67</i></b>	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.
<b><i>Normal Cost</i></b>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<b><i>Open Amortization Period</i></b>	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.
<b><i>Unfunded Actuarial Accrued Liability</i></b>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<b><i>Valuation Date</i></b>	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.

**SECTION C**

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**PENSION FUND INFORMATION**

## Statement of Plan Assets at Market Value

Item	September 30	
	2021	2020
A. Receivables:		
1. Member Contributions in Transit	\$ 173,780	\$ 77,104
2. From Broker for Investments Sold	192,247	162,001
3. State Contributions	-	2,266,661
4. Investment Income and Other Receivables	290,160	243,525
5. Prepaid Expenses	-	-
6. Total Receivables	<u>\$ 656,187</u>	<u>\$ 2,749,291</u>
B. Investments		
1. Short Term Investments	\$ 12,429,887	\$ 23,670,827
2. Fixed Income	73,576,077	56,795,276
3. Domestic Equities (Including Mutual Funds)	189,765,262	170,021,229
4. International Equities (Mutual Funds)	17,406,639	16,080,259
5. Real Estate	30,177,813	17,704,007
6. Alternatives	<u>32,835,775</u>	<u>-</u>
7. Total Investments	<u>\$ 356,191,453</u>	<u>\$ 284,271,598</u>
C. Liabilities		
1. Prior Refunds	\$ (14,363)	\$ (14,363)
2. Investment Expenses	(259,824)	(224,833)
3. Accrued Expenses and Other Payables	(190,626)	(57,369)
4. Prepaid Member Contribution	-	-
5. Prepaid District Contribution	<u>(524,380)</u>	<u>(524,380)</u>
6. Total Liabilities	<u>\$ (989,193)</u>	<u>\$ (820,945)</u>
D. Total Market Value of Assets Available for Benefits	\$ 355,858,447	\$ 286,199,944
E. Allocation of Investments		
1. Short Term Investments	3.5%	8.3%
2. Fixed Income	20.6%	20.0%
3. Domestic Equities (Including Mutual Funds)	53.3%	59.8%
4. International Equities (Mutual Funds)	4.9%	5.7%
5. Real Estate	8.5%	6.2%
6. Alternatives	<u>9.2%</u>	<u>0.0%</u>
7. Total Investments	<u>100.0%</u>	<u>100.0%</u>



## Reconciliation of Plan Assets

Item	September 30	
	2021	2020
A. Market Value of Assets at Beginning of Year	\$ 286,199,944	\$ 260,810,130
a. Adjustment to Match Financial Statements	-	865,960
b. Adjusted Market Value of Assets	286,199,944	261,676,090
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	\$ 2,270,932	\$ 2,191,673
b. Employer Contributions	15,582,134	14,048,387
c. State Contributions	2,612,886	2,266,661
d. Purchased Service Credit	239,384	45,841
e. Total	<u>\$ 20,705,336</u>	<u>\$ 18,552,562</u>
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 8,527,656	\$ 6,480,598
b. Net Realized/Unrealized Gains/(Losses)	59,476,582	15,902,421
c. Investment Expenses	<u>(2,162,407)</u>	<u>(635,192)</u>
d. Net Investment Income	\$ 65,841,831	\$ 21,747,827
3. Benefits and Refunds		
a. Regular Monthly Benefits	\$ (14,612,594)	\$ (13,414,302)
b. Refunds	-	(4,465)
c. Lump Sum Benefits	-	-
d. DROP Disbursements	<u>(2,126,117)</u>	<u>(2,186,066)</u>
e. Total	\$ (16,738,711)	\$ (15,604,833)
4. Administrative and Miscellaneous Expenses	\$ (149,953)	\$ (171,702)
5. Transfers	\$ -	\$ -
C. Market Value of Assets at End of Year	\$ 355,858,447	\$ 286,199,944



**ACTUARIAL VALUE OF ASSETS**

<b>Valuation Date – September 30</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
A. Actuarial Value of Assets Beginning of Year	\$ 269,350,211	\$ 290,938,535	\$ -	\$ -	\$ -	\$ -
B. Market Value End of Year	286,724,324	356,382,827	-	-	-	-
C. Market Value Beginning of Year	261,280,711	286,724,324	-	-	-	-
D. Non-Investment/Administrative Net Cash Flow	2,829,826	3,816,672				
E. Investment Income						
E1. Actual Market Total: B-C-D	22,613,787	65,841,831	-	-	-	-
E2. Assumed Rate of Return	7.60%	7.50%	7.40%	7.30%	7.20%	7.10%
E3. Assumed Amount of Return	19,964,867	21,647,450	-	-	-	-
E4. Amount Subject to Phase-In: E1-E3	2,648,920	44,194,381	-	-	-	-
F. Phase-In Recognition of Investment Income						
F1. Current Year: 0.2 x E4	529,784	8,838,876	-	-	-	-
F2. First Prior Year	(2,030,854)	529,784	8,838,876	-	-	-
F3. Second Prior Year	(478,328)	(2,030,854)	529,784	8,838,876	-	-
F4. Third Prior Year	715,873	(478,328)	(2,030,854)	529,784	8,838,876	-
F5. Fourth Prior Year	57,156	715,874	(478,330)	(2,030,855)	529,784	8,838,877
F6. Total Phase-Ins	(1,206,369)	7,575,352	6,859,476	7,337,805	9,368,660	8,838,877
<b>G. Actuarial Value of Assets End of Year</b>						
G1. Preliminary Actuarial Value of Assets:	\$ 290,938,535	\$ 323,978,009	\$ -	\$ -	\$ -	\$ -
G2. Upper Corridor Limit: 120%*B	344,069,189	427,659,392	-	-	-	-
G3. Lower Corridor Limit: 80%*B	229,379,459	285,106,262	-	-	-	-
G4. Funding Value End of Year	290,938,535	323,978,009	-	-	-	-
G5. Less: Prepaid Contributions	(524,380)	(524,380)	-	-	-	-
G6. Final Funding Value End of Year	290,414,155	323,453,629	-	-	-	-
H. Difference between Market & Actuarial Value	\$ (4,214,211)	\$ 32,404,818	\$ -	\$ -	\$ -	\$ -
<b>I. Actuarial Rate of Return</b>	6.9%	10.0%	0.0%	0.0%	0.0%	0.0%
<b>J. Market Value Rate of Return</b>	8.6%	22.8%	0.0%	0.0%	0.0%	0.0%
<b>K. Ratio of Actuarial Value to Market Value</b>	101.47%	90.91%	0.0%	0.0%	0.0%	0.0%



**Reconciliation of DROP Accounts**

<u>Year Ended 9/30</u>	<u>Beginning of Year Balance</u>	<u>Credits</u>	<u>Interest</u>	<u>Distributions</u>	<u>Adjustment</u>	<u>Balance at End of Year</u>
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

**Historical Investment Rates of Return**

<u>Year Ending September 30th</u>	<u>Actuarial Value Basis</u>	<u>Market Value Basis</u>
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
<b>Average Returns:</b>		
Last 5 Years	7.1 %	10.2 %
All Years	6.8 %	8.1 %

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.



## SECTION D

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### FINANCIAL ACCOUNTING INFORMATION



**FASB NO. 35 INFORMATION**

A. Valuation Date	October 1, 2021	October 1, 2020
B. Actuarial Present Value of Accumulated Plan Benefits		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 271,918,622	\$ 246,218,364
b. Terminated Vested Members	3,575,543	2,896,855
c. Other Members	86,945,271	88,155,817
d. Total	<u>362,439,436</u>	<u>337,271,036</u>
2. Non-Vested Benefits	17,422,575	15,483,851
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	379,862,011	352,754,887
4. Accumulated Contributions of Active Members	7,750,695	6,503,815
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits		
1. Total Value at Beginning of Year	352,754,887	325,795,173
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	(466,017)
b. Change in Actuarial Assumptions	3,676,020	3,452,672
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	40,169,815	39,577,892
d. Benefits Paid	<u>(16,738,711)</u>	<u>(15,604,833)</u>
e. Net Increase	27,107,124	26,959,714
3. Total Value at End of Period	379,862,011	352,754,887
D. Market Value of Assets	355,858,447	286,199,944
E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods		



## **SECTION E**

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### **MISCELLANEOUS INFORMATION**

<b>RECONCILIATION OF MEMBERSHIP DATA</b>		
	<b>From 10/1/20 To 10/1/21</b>	<b>From 10/1/19 To 10/1/20</b>
<b>A. Active Members</b>		
1. Number Included in Last Valuation	349	354
2. New Members Included in Current Valuation	29	21
3. Non-Vested Employment Terminations	(1)	0
4. Vested Employment Terminations	(2)	(2)
5. Service Retirements	(2)	(1)
6. DROP Retirements	(17)	(21)
7. Disability Retirements	(1)	(2)
8. Deaths	0	0
9. Rehires	0	0
10. Other	<u>0</u>	<u>0</u>
11. Number Included in This Valuation	355	349
<b>B. Terminated Vested Members</b>		
1. Number Included in Last Valuation	23	22
2. Additions from Active Members	2	2
3. Lump Sum Payments/Refunds	0	0
4. Payments Commenced	0	(1)
5. Deaths	0	0
6. Other	<u>0</u>	<u>0</u>
7. Number Included in This Valuation	25	23
<b>C. DROP Participation</b>		
1. Number Included in Last Valuation	52	39
2. Additions from Active Members	17	21
3. Payments Commenced	(15)	(8)
4. Deaths	(1)	0
5. Other	<u>0</u>	<u>0</u>
6. Number Included in This Valuation	53	52
<b>D. Service Retirees, Disability Retirees and Beneficiaries</b>		
1. Number Included in Last Valuation	188	178
2. Additions from Active Members	3	3
3. Additions from Terminated Vested Members	0	1
4. Additions from DROP	15	8
5. Deaths Resulting in No Further Payments	(1)	(2)
6. Deaths Resulting in New Survivor Benefits	1	0
7. End of Certain Period - No Further Payments	(1)	0
8. Other - Data Correction	<u>1</u>	<u>0</u>
9. Number Included in This Valuation	206	188



Schedule of Active Participant Data as of October 1, 2021

Age Group	Years of Service to Valuation Date								Earnings	
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	Total	Total	Average
< 25	7	10	-	-	-	-	-	17	\$ 856,171	\$ 50,363
25-29	10	25	9	-	-	-	-	44	2,732,752	62,108
30-34	9	16	29	6	-	-	-	60	4,431,180	73,853
35-39	3	10	10	17	28	1	-	69	7,067,601	102,429
40-44	-	3	12	19	33	16	-	83	9,090,820	109,528
45-49	-	2	2	5	16	30	1	56	6,441,344	115,024
50-54	-	-	3	2	5	13	-	23	2,483,310	107,970
55-59	-	-	-	-	3	-	-	3	382,965	127,655
60-64	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>29</b>	<b>66</b>	<b>65</b>	<b>49</b>	<b>85</b>	<b>60</b>	<b>1</b>	<b>355</b>	<b>33,486,143</b>	<b>94,327</b>

## Schedule of Inactive Benefits as of October 1, 2021

Age	<u>Terminated Vested</u>		<u>Disabled</u>		<u>Retired</u>		<u>Beneficiaries</u>		<u>Grand Total</u>	
	<u>Number</u>	<u>Benefits</u>	<u>Number</u>	<u>Benefits</u>	<u>Number</u>	<u>Benefits</u>	<u>Number</u>	<u>Benefits</u>	<u>Number</u>	<u>Benefits</u>
Under 30	0	0	0	0	0	0	0	0	0	0
30 - 34	2	32,565	0	0	0	0	0	0	2	32,565
35 - 39	4	53,323	0	0	0	0	0	0	4	53,323
40 - 44	6	185,149	3	200,603	0	0	0	0	9	385,752
45 - 49	10	259,004	4	258,219	9	947,322	1	53,994	24	1,518,539
50 - 54	3	57,888	0	0	46	4,354,678	0	0	49	4,412,566
55 - 59	0	0	4	307,543	58	4,987,768	3	210,230	65	5,505,541
60 - 64	0	0	2	59,250	38	3,425,187	3	158,044	43	3,642,481
65 - 69	0	0	3	109,837	34	2,722,466	1	50,634	38	2,882,937
70 - 74	0	0	1	37,927	15	928,554	1	6,906	17	973,387
75 - 79	0	0	1	41,950	14	657,495	6	230,079	21	929,524
80 - 84	0	0	0	0	6	318,466	0	0	6	318,466
85 - 89	0	0	0	0	3	154,474	1	4,356	4	158,830
90 & Over	0	0	0	0	1	38,967	1	13,538	2	52,505
<b>Total</b>	<b>25</b>	<b>587,929</b>	<b>18</b>	<b>1,015,329</b>	<b>224</b>	<b>18,535,377</b>	<b>17</b>	<b>727,781</b>	<b>284</b>	<b>20,866,416</b>
Average Age:		44.0		57.5		61.9		70.6		60.5
Avg. Annual Benefit:		23,517		56,407		82,747		42,811		73,473



## **SECTION F**

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### **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

- Effective October 1, 2021, for Firefighters not eligible for Normal Retirement, the definition of Final Average Salary was changed to mean 1/12 of the average salary of the 5 best years out of the last 10 years of credited service 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.
- The minimum line-of-duty disability benefit was changed from 75% of Final Average Salary to 66 2/3% of Final Average Salary.
- The maximum Deferred Retirement Option Plan (DROP) participation period is increased from 5 to 6 years.
- 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.