

CITY OF PENSACOLA
FIREFIGHTERS' RELIEF AND PENSION FUND

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2021

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2023

GASB 67/68 DISCLOSURE INFORMATION
AS OF SEPTEMBER 30, 2021



FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

February 23, 2022

Board of Trustees
City of Pensacola
Firefighters' Pension Board

Re: City of Pensacola Firefighters' Relief and Pension Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Pensacola Firefighters' Relief and Pension Fund. Included are the related results for GASB Statements No. 67 and No. 68. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Chapters 112 and 175, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuations, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuations, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Pensacola, financial reports prepared by the custodian bank, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

Additionally, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models that apply the funding and accounting rules to generate the results. All internally developed models are reviewed as part of the valuation process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2020. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2021 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.

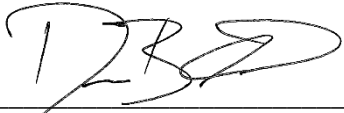
The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.


To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Pensacola, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Relief and Pension Fund. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By: 
Drew D. Ballard, ASA, EA, MAAA
Enrolled Actuary #20-8193

By: 
Tyler A. Koftan, EA, MAAA
Enrolled Actuary #20-8685

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Pensacola Firefighters' Relief and Pension Fund, performed as of October 1, 2021, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2023.

The contribution requirements, compared with those set forth in the February 23, 2022 actuarial impact statement, are as follows:

Valuation Date	10/1/2021	10/1/2020
Applicable to Fiscal Year Ending	<u>9/30/2023</u>	<u>9/30/2022</u>
Minimum Required Contribution	\$2,033,691	\$2,639,710
Member Contributions (Est.)	690,985	660,208
City And State Required Contribution	1,342,706	1,979,502
State Contribution (Est.) ¹	573,129	573,129
City Required Contribution ²	\$769,577	\$1,406,373

¹ As requested by the Division of Retirement, the required contribution from the combination of City and State sources for the year ending September 30, 2022 is \$1,979,502. The City and State contribution for the fiscal year ending September 30, 2023 is \$1,342,706 based on the City's policy of contributing on October 1st. This approach saves approximately \$50,000 over the prior approach of contributing uniformly over the year.

As you can see, the Minimum Required Contribution shows a decrease when compared to the results determined in the February 23, 2022 actuarial impact statement. The decrease is attributable to net favorable experience realized during the year, as described below.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial gain included an investment return of 11.45% (Actuarial Asset Basis) which exceeded the 7.75% assumption and inactive mortality experience. There were no significant sources of actuarial loss.

CHANGES SINCE PRIOR VALUATION

Plan Changes

Since the prior valuation, Ordinance 11-21 amended the plan to provide for the following benefit changes. The impact of these changes was set forth in the Actuarial Impact Statement dated February 23, 2022.

- Change the normal form of benefit for all married Firefighters to a 75% joint and survivor annuity (previously a ten-year certain and life annuity for Firefighters hired on or after June 10, 2015).
- Survivor benefits no longer cease or reduce upon remarriage of the widow or widower.
- Salary included in pension calculations now include basic life support (BLS) and up to 300 hours of annual overtime pay.

Actuarial Assumption/Method Changes

There have been no assumption or method changes since the prior valuation.

CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2020	1,406,373
<i>(As set forth in the February 23, 2022 Actuarial Impact Statement)</i>	
(2) Summary of Contribution Impact by component:	
Change in Normal Cost	75,354
Change in Administrative Expense	(4,338)
COLAs Lower Than Expected	(17,462)
Investment Return (Actuarial Asset Basis)	(512,608)
Salary Increases	21,566
Active Decrements	(10,429)
Inactive Mortality	(147,147)
Change in Expected Member Contributions	(30,777)
Assumption Change	0
Other	<u>(10,954)</u>
Total Change in Contribution	(636,796)
(3) Contribution Determined as of October 1, 2021	769,577

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2021</u>	<u>10/1/2020</u>
A. Participant Data		
Actives	111	110
Service Retirees	96	99
DROP Retirees	11	12
Beneficiaries	31	30
Disability Retirees	44	49
Terminated Vested	<u>3</u>	<u>3</u>
Total	296	303
Total Annual Payroll	\$6,213,497	\$5,810,133
Payroll Under Assumed Ret. Age	5,935,070	5,660,563
Annual Rate of Payments to:		
Service Retirees	5,722,148	5,705,481
DROP Retirees	618,084	653,614
Beneficiaries	993,154	947,171
Disability Retirees	1,570,719	1,692,451
Terminated Vested	47,923	47,923
B. Assets		
Actuarial Value (AVA) ¹	133,604,842	125,614,142
Market Value (MVA) ¹	149,229,764	126,722,487
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	34,988,864	31,538,734
Disability Benefits	2,927,814	2,797,109
Death Benefits	350,096	335,829
Vested Benefits	595,818	578,083
Refund of Contributions	148,414	150,542
Service Retirees	75,675,081	76,206,388
DROP Retirees ¹	11,227,898	11,421,896
Beneficiaries	9,450,399	8,746,703
Disability Retirees	16,630,556	18,115,314
Terminated Vested	<u>475,382</u>	<u>470,892</u>
Total	152,470,322	150,361,490

C. Liabilities - (Continued)	<u>10/1/2021</u>	<u>10/1/2020</u>
Present Value of Future Salaries	62,214,118	60,658,267
Present Value of Future Member Contributions	6,843,553	6,672,409
Normal Cost (Retirement)	1,292,232	1,231,603
Normal Cost (Disability)	192,749	181,446
Normal Cost (Death)	24,164	23,131
Normal Cost (Vesting)	32,029	31,951
Normal Cost (Refunds)	25,733	24,899
Total Normal Cost	1,566,907	1,493,030
Present Value of Future Normal Costs	15,819,562	15,452,743
Accrued Liability (Retirement)	21,724,579	18,624,131
Accrued Liability (Disability)	1,081,830	971,421
Accrued Liability (Death)	102,797	91,681
Accrued Liability (Vesting)	225,954	174,212
Accrued Liability (Refunds)	56,284	86,109
Accrued Liability (Inactives) ¹	113,459,316	114,961,193
Total Actuarial Accrued Liability (EAN AL)	136,650,760	134,908,747
Unfunded Actuarial Accrued Liability (UAAL)	3,045,918	9,294,605
Funded Ratio (AVA / EAN AL)	97.8%	93.1%

D. Actuarial Present Value of
Accrued Benefits

	<u>10/1/2021</u>	<u>10/1/2020</u>
Vested Accrued Benefits		
Inactives ¹	113,459,316	114,961,193
Actives	6,526,631	4,843,024
Member Contributions	<u>4,855,700</u>	<u>4,252,144</u>
Total	124,841,647	124,056,361
Non-vested Accrued Benefits	<u>4,571,446</u>	<u>4,286,739</u>
Total Present Value		
Accrued Benefits (PVAB)	129,413,093	128,343,100
Funded Ratio (MVA / PVAB)	115.3%	98.7%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	(49,309)	
Benefits Paid	(8,497,991)	
Interest	9,617,293	
Other	<u>0</u>	
Total	1,069,993	

Valuation Date	10/1/2021	10/1/2020
Applicable to Fiscal Year Ending	<u>9/30/2023</u>	<u>9/30/2022</u>

E. Pension Cost

Normal Cost ²	\$1,658,414	\$1,583,060
Administrative Expenses ²	74,332	78,670
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 17 years (as of 10/1/2021) ²	300,945	977,980
Minimum Required Contribution	2,033,691	2,639,710
Expected Member Contributions ²	690,985	660,208
Expected City and State Contribution	1,342,706	1,979,502

F. Past Contributions

Plan Years Ending:	<u>9/30/2021</u>
City and State Requirement	1,837,352
Actual Contributions Made:	
City	1,324,930
State	<u>573,129</u>
Total	1,898,059

G. Net Actuarial (Gain)/Loss

(5,977,937)

¹ The asset values and liabilities include accumulated DROP Plan Balances as of 9/30/2021 and 9/30/2020.

² Contributions developed as of 10/1/2021 displayed above have been adjusted to account for assumed salary increases.

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2021	3,045,918
2022	2,975,601
2023	2,899,833
2027	2,533,316
2031	2,039,275
2034	1,559,064
2038	0

I. (i) 5 Year Comparison of Actual and Assumed Salary Increases

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2021	6.82%	5.79%
Year Ended 9/30/2020	9.14%	5.88%
Year Ended 9/30/2019	6.74%	5.79%
Year Ended 9/30/2018	2.80%	5.67%
Year Ended 9/30/2017	7.62%	7.04%

(ii) 5 Year Comparison of Investment Return on Market Value and Actuarial Value

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2021	22.94%	11.45%	7.75%
Year Ended 9/30/2020	11.12%	8.61%	7.75%
Year Ended 9/30/2019	2.83%	6.26%	7.75%
Year Ended 9/30/2018	9.20%	7.87%	7.75%
Year Ended 9/30/2017	11.14%	8.54%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2021	\$5,935,070
	10/1/2011	4,695,857
(b) Total Increase		26.39%
(c) Number of Years		10.00
(d) Average Annual Rate		2.37%

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.



Drew D. Ballard, ASA, EA, MAAA
Enrolled Actuary #20-8193

Please let us know when the report is approved by the Board and unless otherwise directed we will provide copies of the report to the following offices to comply with Chapter 112 Florida Statutes:

Mr. Keith Brinkman
Bureau of Local
Retirement Systems
Post Office Box 9000
Tallahassee, FL 32315-9000

Mr. Steve Bardin
Municipal Police and Fire
Pension Trust Funds
Division of Retirement
Post Office Box 3010
Tallahassee, FL 32315-3010

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2020	\$9,294,605
(2)	Sponsor Normal Cost developed as of October 1, 2020	870,368
(3)	Expected administrative expenses for the year ended September 30, 2021	74,196
(4)	Expected interest on (1), (2) and (3)	790,661
(5)	Sponsor contributions to the System during the year ended September 30, 2021	1,898,060
(6)	Expected interest on (5)	107,915
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2021 (1)+(2)+(3)+(4)-(5)-(6)	9,023,855
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(5,977,937)
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2021	3,045,918

Type of Base	Date Established	Years Remaining	10/1/2021 Amount	Amortization Amount
Fresh Start	10/1/2018	17	7,764,121	776,830
Benefits Change	10/1/2018	12	1,261	153
Actuarial Loss	10/1/2019	13	1,241,128	143,738
Actuarial Gain	10/1/2020	14	(2,004,153)	(222,347)
Assump Change	10/1/2020	14	1,622,854	180,045
Benefits Change	10/1/2020	14	398,644	44,227
Actuarial Gain	10/1/2021	15	(5,977,937)	(638,306)
			<u>3,045,918</u>	<u>284,340</u>

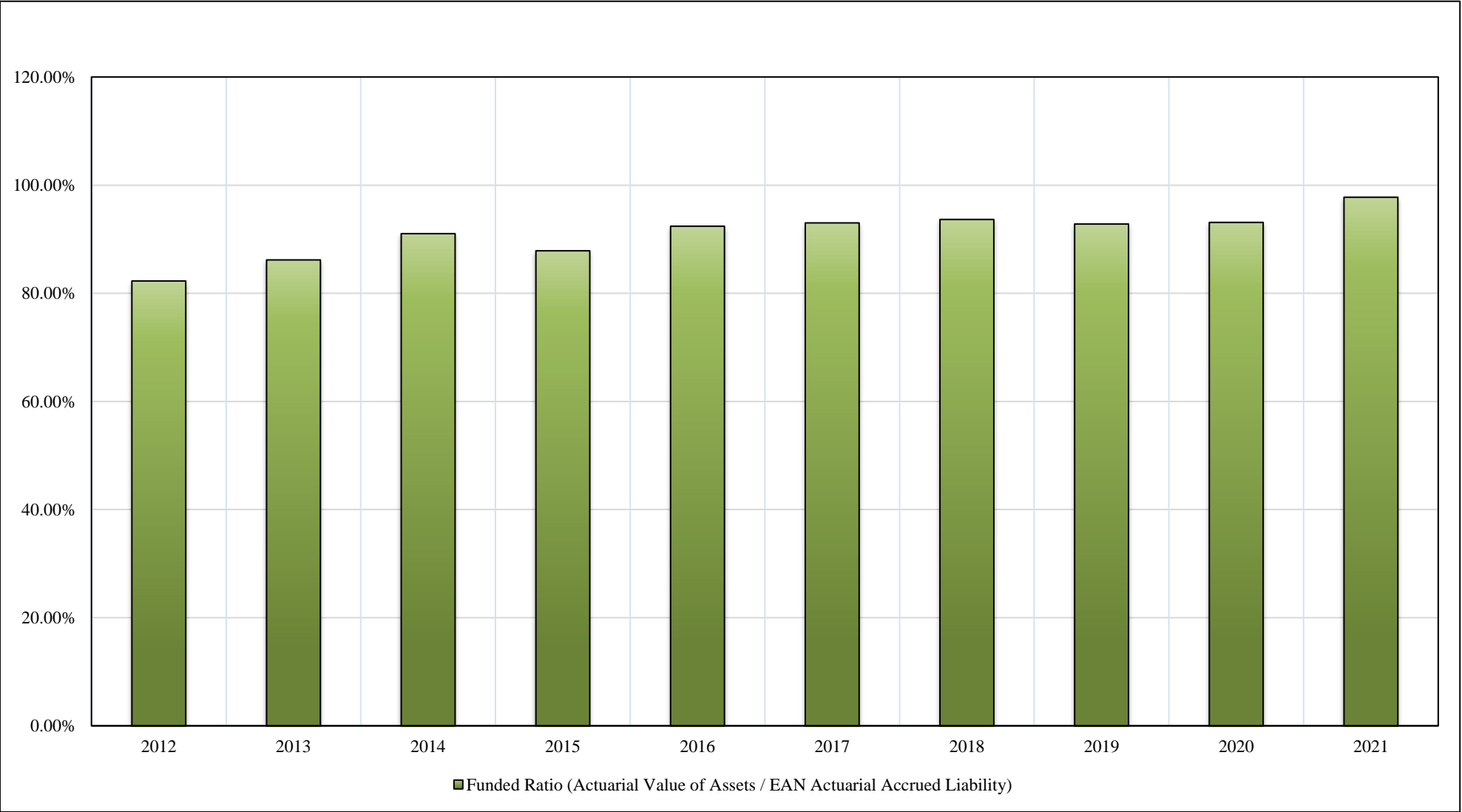
DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2020	\$9,294,605
(2) Expected UAAL as of October 1, 2021	9,023,855
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(4,535,842)
Salary Increases	190,826
Active Decrements	(92,283)
Inactive Mortality	(1,302,041)
COLAs Lower Than Expected	(154,514)
Other	<u>(84,083)</u>
Increase in UAAL due to (Gain)/Loss	(5,977,937)
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2021	\$3,045,918

PROJECTED UNFUNDED ACTUARIAL ACCRUED LIABILITY

<u>Plan Year</u>	<u>Fiscal Year</u>	<u>Expected UAAL</u>	<u>Expected Amortization Payment UAAL</u>	<u>Expected UAAL on 9/30</u>
9/30/2021	9/30/2023	3,045,918	284,340	2,975,601
9/30/2022	9/30/2024	2,975,601	284,340	2,899,833
9/30/2023	9/30/2025	2,899,833	284,340	2,818,194
9/30/2024	9/30/2026	2,818,194	284,340	2,730,228
9/30/2025	9/30/2027	2,730,228	284,340	2,635,445
9/30/2026	9/30/2028	2,635,445	284,340	2,533,316
9/30/2027	9/30/2029	2,533,316	284,340	2,423,272
9/30/2028	9/30/2030	2,423,272	284,340	2,304,699
9/30/2029	9/30/2031	2,304,699	284,340	2,176,937
9/30/2030	9/30/2032	2,176,937	284,340	2,039,275
9/30/2031	9/30/2033	2,039,275	284,340	1,890,943
9/30/2032	9/30/2034	1,890,943	284,348	1,731,107
9/30/2033	9/30/2035	1,731,107	284,179	1,559,064
9/30/2034	9/30/2036	1,559,064	140,434	1,528,574
9/30/2035	9/30/2037	1,528,574	138,517	1,497,786
9/30/2036	9/30/2038	1,497,786	776,830	776,830
9/30/2037	9/30/2039	776,830	776,830	0

HISTORY OF FUNDING PROGRESS



ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

Healthy Active Lives:

Female: PubS.H-2010 (Below Median) for Employees, set forward one year.

Male: PubS.H-2010 (Below Median) for Employees, set forward one year.

Healthy Retiree Lives:

Female: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Beneficiary Lives:

Female: PubG.H-2010 (Above Median) for Healthy Retirees.

Male: PubG.H-2010 (Above Median) for Healthy Retirees, set back one year.

Disabled Lives:

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2021 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

Interest Rate

7.75% per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Salary Increases

See table later in this section. This is based on the experience study dated October 9, 2017.

<u>Payroll Growth</u>	0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.
<u>Cost-of-Living Adjustment</u>	1.25% for those hired on or after June 20, 2015. 2.00% for those retiring after June 10, 2015 and hired before that date. 2.875% per year for those retiring prior to June 10, 2015.
<u>Administrative Expenses</u>	\$70,231 annually, based on the average of actual expenses incurred in the prior two fiscal years.
<u>Termination Rates</u>	See table later in this section. This is based on the experience study dated October 9, 2017.
<u>Disability Rates</u>	See table later in this section. This is based on the experience study dated October 9, 2017. 90.0% of disabilities are assumed to be In Line of Duty (ILOD).
<u>Assumed Retirement Age</u>	See table later in this section. This is based on the experience study dated October 9, 2017.
<u>Marriage</u>	100% are assumed married with husbands 3 years older than wives.
<u>Actuarial Asset Method</u>	All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected actuarial value investment return) over a five-year period.
<u>Funding Method</u>	Entry Age Normal Actuarial Cost Method. A load based on the salary increase at the current 5.84% assumption is used to develop the dollar funding requirements. There is no interest adjustment to reflect the October 1 st deposit.
<u>Amortization Method</u>	New UAAL amortization bases are amortized over 15 years.

Assumption Tables

% Terminating During the Year		% Becoming Disabled During the Year		Salary Scale	
Service	Rate	Age	Rate	Service	Rate
0	10.0%	20	0.12%	0 - 1	8.00%
1	8.0%	25	0.13%	2 - 9	6.50%
2	6.0%	30	0.15%	10 - 19	5.00%
3	4.0%	35	0.25%	20+	4.00%
4-5	2.0%	40	0.36%		
6	1.8%	45	1.06%		
7	1.5%	50	1.76%		
8	1.3%	55	2.10%		
9	1.0%	60	2.44%		
10+	0.50%				

% Retiring During the Year (10-23 Years of Service)		% Retiring During the Year (24 - 26 Years of Service)	
Age	Rate	Age	Rate
50	5.0%	<=55	80.0%
51	10.0%	56+	100.0%
52 - 55	25.0%		
56+	100.0%		

% Retiring During the Year (>=27 Years of Service)	
Age	Rate
Any	100.0%

GLOSSARY

Actuarial Value of Assets is the asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals:

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Market Value of Assets is the fair market value of plan assets as of the valuation date. This amount may be adjusted to produce an Actuarial Value of Assets for plan funding purposes.

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded. Under the Entry Age Normal cost method, it is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current plan participants.

Total Annual Payroll is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the Actuarial Value of Assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has increased from 52.0% on October 1, 2011 to 60.3% on October 1, 2021, indicating that the plan has experienced a significant growth in active population.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 83.0%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has increased from 84.8% on October 1, 2011 to 97.8% on October 1, 2021.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from -3.1% on October 1, 2011 to -4.1% on October 1, 2021. The current Net Cash Flow Ratio of -4.1% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks in this section as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2011</u>	<u>10/1/2016</u>	<u>10/1/2020</u>	<u>10/1/2021</u>
<u>Support Ratio</u>				
Total Actives	93	88	110	111
Total Inactives ¹	179	189	192	184
Actives / Inactives ¹	52.0%	46.6%	57.3%	60.3%

Asset Volatility Ratio

Market Value of Assets (MVA)	84,408,126	113,883,891	126,722,487	149,229,764
Total Annual Payroll	4,695,857	4,164,100	5,810,133	6,213,497
MVA / Total Annual Payroll	1,797.5%	2,734.9%	2,181.1%	2,401.7%

Accrued Liability (AL) Ratio

Inactive Accrued Liability	85,309,165	107,280,464	114,961,193	113,459,316
Total Accrued Liability (EAN)	113,273,781	125,659,508	134,908,747	136,650,760
Inactive AL / Total AL	75.3%	85.4%	85.2%	83.0%

Funded Ratio

Actuarial Value of Assets (AVA)	96,039,185	116,121,744	125,614,142	133,604,842
Total Accrued Liability (EAN)	113,273,781	125,659,508	134,908,747	136,650,760
AVA / Total Accrued Liability (EAN)	84.8%	92.4%	93.1%	97.8%

Net Cash Flow Ratio

Net Cash Flow ²	(2,601,012)	(4,742,687)	(7,215,673)	(6,045,958)
Market Value of Assets (MVA)	84,408,126	113,883,891	126,722,487	149,229,764
Ratio	-3.1%	-4.2%	-5.7%	-4.1%

¹ Excludes terminated participants awaiting a refund of member contributions.

² Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

Received During <u>Fiscal Year</u>	<u>Amount</u>	Increase from <u>Previous Year</u>
1998	435,288.82	_____%
1999	446,175.43	2.5%
2000	430,632.86	-3.5%
2001	398,542.75	-7.5%
2002	467,483.17	17.3%
2003	426,820.13	-8.7%
2004	587,798.91	37.7%
2005	579,685.92	-1.4%
2006	674,181.18	16.3%
2007	766,923.14	13.8%
2008	799,134.89	4.2%
2009	530,169.21	-33.7%
2010	638,919.66	20.5%
2011	635,647.22	-0.5%
2012	667,019.50	4.9%
2013	666,509.03	-0.1%
2014	742,106.25	11.3%
2015	698,091.40	-5.9%
2016	628,070.73	-10.0%
2017	538,659.52	-14.2%
2018	546,910.96	1.5%
2019	518,103.44	-5.3%
2020	526,021.01	1.5%
2021	573,129.28	9.0%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2021

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Checking Account	61,101.19	61,101.19
Money Market	4,175,404.83	4,175,404.83
Cash	(623,534.47)	(623,534.47)
Total Cash and Equivalents	3,612,971.55	3,612,971.55
Receivables:		
Member Contributions in Transit	22,199.18	22,199.18
City Contributions in Transit	201.86	201.86
Investment Income	261,040.81	261,040.81
Total Receivable	283,441.85	283,441.85
Investments:		
U. S. Bonds and Bills	7,348,464.03	7,212,721.33
Federal Agency Guaranteed Securities	7,074,926.61	7,252,355.82
Corporate Bonds	31,938,113.97	34,247,324.14
Equities	39,645,059.57	66,588,219.02
Mutual Funds:		
Infrastructure	2,013,543.50	2,098,573.44
Equity	6,661,993.77	8,462,398.36
Pooled/Common/Commingled Funds:		
Equity	10,361,534.41	12,571,931.27
Real Estate	5,981,942.01	7,103,281.83
Total Investments	111,025,577.87	145,536,805.21
Total Assets	114,921,991.27	149,433,218.61
<u>LIABILITIES</u>		
Payables:		
Investment Expenses	187,238.56	187,238.56
Administrative Expenses	5,250.00	5,250.00
To General Employees' Trust Fund	10,966.16	10,966.16
Total Liabilities	203,454.72	203,454.72
NET POSITION RESTRICTED FOR PENSIONS	114,718,536.55	149,229,763.89

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2021
Market Value Basis

ADDITIONS

Contributions:

Member	619,230.48
City	1,324,930.38
State	573,129.28

Total Contributions	2,517,290.14
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Investment Income:

Miscellaneous Income	16.40	
Net Realized Gain (Loss)	13,833,890.41	
Unrealized Gain (Loss)	12,658,600.50	
Net Increase in Fair Value of Investments	26,492,507.31	
Interest & Dividends	2,817,663.07	
Less Investment Expense ¹	(756,935.76)	

Net Investment Income	28,553,234.62
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Total Additions	31,070,524.76
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DEDUCTIONS

Distributions to Members:

Benefit Payments	8,237,124.70
Lump Sum DROP Distributions	245,140.82
Refunds of Member Contributions	15,725.88

Total Distributions	8,497,991.40
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Administrative Expense	65,256.66
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Total Deductions	8,563,248.06
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Net Increase in Net Position	22,507,276.70
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NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	126,722,487.19
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End of the Year	149,229,763.89
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¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION

September 30, 2021

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2021	2022	2023	2024	2025
09/30/2017	3,696,630	0	0	0	0	0
09/30/2018	1,835,358	367,070	0	0	0	0
09/30/2019	(5,795,160)	(2,318,064)	(1,159,032)	0	0	0
09/30/2020	3,889,966	2,333,980	1,555,987	777,994	0	0
09/30/2021	19,052,420	15,241,936	11,431,452	7,620,968	3,810,484	0
Total		15,624,922	11,828,407	8,398,962	3,810,484	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, 09/30/2020	126,722,487
Actuarial Value of Assets, 09/30/2020	125,614,142
Contributions Less Benefit Payments & Admin Expenses	(6,045,958)
Expected Investment Earnings on Actuarial Value*	9,500,815
Actual Net Investment Earnings	28,553,235
2021 Actuarial Investment Gain/(Loss)	<u>19,052,420</u>

*Expected Investment Earnings = $0.0775 * [125,614,142 + 0.5 * (6,045,958)]$

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2021	149,229,764
(2) Gains/(Losses) Not Yet Recognized	<u>15,624,922</u>
(3) Actuarial Value of Assets, 09/30/2021, (1) - (2)	<u>133,604,842</u>
(A) 09/30/2020 Actuarial Assets:	125,614,142
(I) Net Investment Income:	
1. Interest, Dividends and Miscellaneous Income	2,817,679
2. Realized Gain (Loss)	13,833,890
3. Unrealized Gain (Loss)	12,658,601
4. Change in Actuarial Value	(14,516,577)
5. Investment Expenses	<u>(756,936)</u>
Total	<u>14,036,658</u>
(B) 09/30/2021 Actuarial Assets:	133,604,842
Actuarial Asset Rate of Return = $2I/(A+B-I)$:	11.45%
Market Value of Assets Rate of Return:	22.94%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	4,535,842
10/01/2021 Limited Actuarial Assets:	133,604,842

REVENUES

DEFERRED RETIREMENT OPTION PLAN ACTIVITY
October 1, 2020 to September 30, 2021

Beginning of the Year Balance	1,645,221.67
Plus Additions	641,303.55
Investment Return Earned	25,032.27
Less Distributions	(245,140.82)
End of the Year Balance	2,066,416.67

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2021

(1) Required City and State Contributions	\$1,837,352.00
(2) Less Allowable State Contribution	<u>(573,129.28)</u>
(3) Required City Contribution for Fiscal 2021	1,264,222.72
(4) Less 2020 Prepaid Contribution	0.00
(5) Less Actual City Contributions	<u>(1,324,930.38)</u>
(6) City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2021	(\$60,707.66)

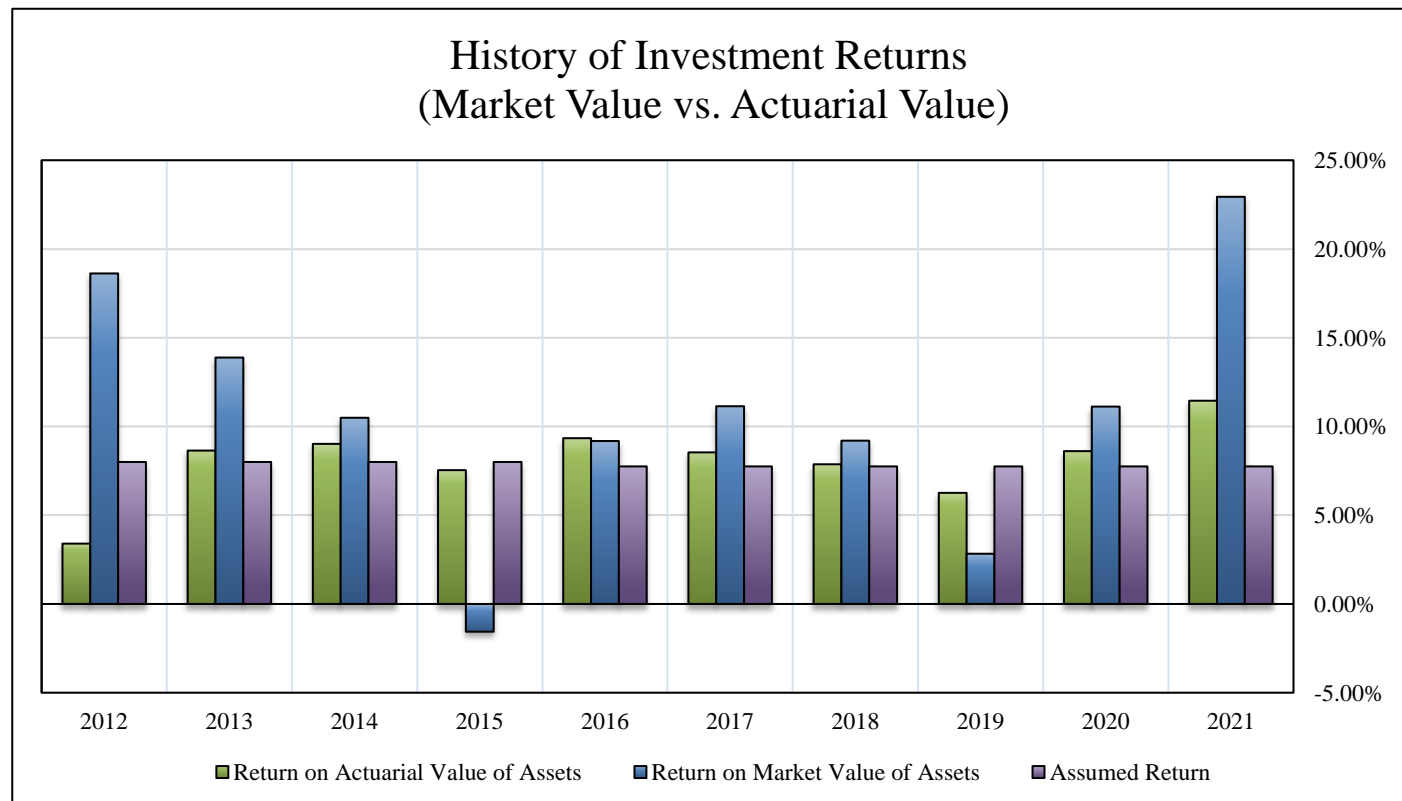
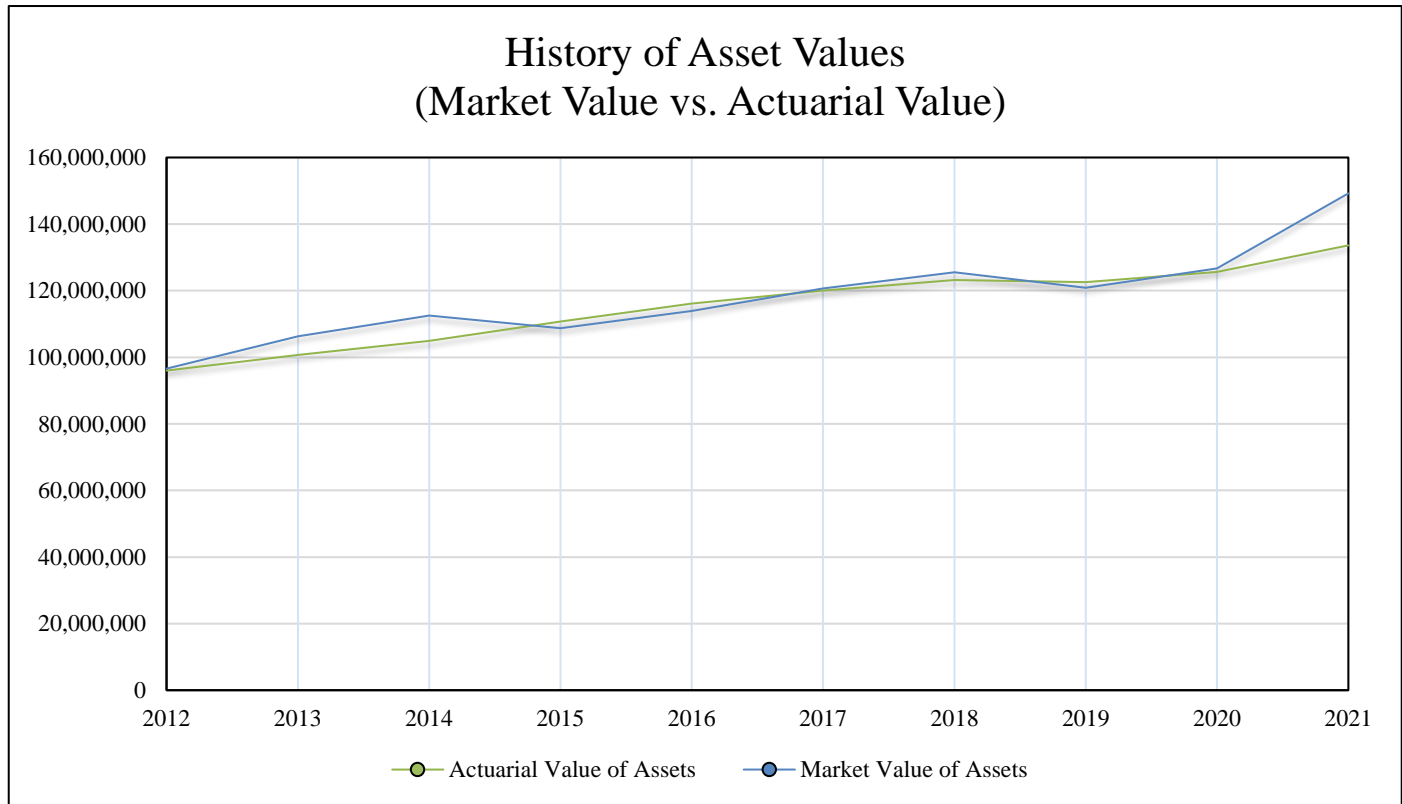
City of Pensacola
Firefighters' Relief and Pension Fund

RECENT COMPENSATION AND INVESTMENT EXPERIENCE

Valuation Date	Compensation		Investment Return*		
	% Increase (Decrease)	Assumed Increase	Market Value	Actuarial Value	Assumed
10/1/2021	6.82%	5.79%	22.94%	11.45%	7.75%
10/1/2020	9.14%	5.88%	11.12%	8.61%	7.75%
10/1/2019	6.74%	5.79%	2.83%	6.26%	7.75%
10/1/2018	2.80%	5.67%	9.20%	7.87%	7.75%
10/1/2017	7.62%	7.04%	11.14%	8.54%	7.75%
10/1/2016	(3.74%)	7.15%	9.18%	9.34%	7.75%
10/1/2015	11.22%	7.16%	(1.56%)	7.54%	8.00%
10/1/2014	5.98%	6.86%	10.49%	9.02%	8.00%
10/1/2013	(4.15%)	6.62%	13.88%	8.64%	8.00%
10/1/2012	6.19%	6.58%	18.62%	3.40%	8.00%
Last 5 Years	6.60%	6.03%	11.26%	8.53%	7.75%
Last 10 Years	4.75%	6.45%	10.58%	8.05%	7.85%

*Computed as $2I/(A+B-I)$, where A is beginning value, B is ending value and I is investment return

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2018</u>	<u>10/1/2019</u>	<u>10/1/2020</u>	<u>10/1/2021</u>
<u>Actives</u>				
Number	102	101	110	111
Average Current Age	35.6	34.9	35.1	36.0
Average Age at Employment	26.3	26.4	26.4	26.4
Average Past Service	9.3	8.5	8.7	9.6
Average Annual Salary	\$46,444	\$47,622	\$52,819	\$55,977
<u>Service Retirees</u>				
Number	87	95	99	96
Average Current Age	66.5	66.5	66.5	67.0
Average Annual Benefit	\$56,094	\$57,095	\$57,631	\$59,606
<u>DROP Retirees</u>				
Number	19	17	12	11
Average Current Age	52.9	51.4	52.9	53.5
Average Annual Benefit	\$54,530	\$52,560	\$54,468	\$56,189
<u>Beneficiaries</u>				
Number	29	30	30	31
Average Current Age	76.4	76.4	77.2	76.3
Average Annual Benefit	\$31,588	\$32,865	\$31,572	\$32,037
<u>Disability Retirees</u>				
Number	55	52	49	44
Average Current Age	70.6	71.3	71.8	72.3
Average Annual Benefit	\$34,489	\$34,402	\$34,540	\$35,698
<u>Terminated Vested</u>				
Number	2	3	3	3
Average Current Age ¹	50.2	45.0	46.0	47.0
Average Annual Benefit ¹	\$31,115	\$23,962	\$23,962	\$23,962

¹ The Average Current Age and Average Annual Benefit exclude participants awaiting a refund of contributions.

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24	1	3	2	1	1							8
25 - 29	3	2	3	4	4	3						19
30 - 34		2	5	6	6	6	2					27
35 - 39	1	1	1		3	3	4	9				22
40 - 44			1				4	3	2			10
45 - 49					1	1	1	7	7	1		18
50 - 54								1	2	1		4
55 - 59									2	1		3
60 - 64												0
65+												0
Total	5	8	12	11	15	13	11	20	13	3	0	111

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2020	110
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution received	(4)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	0
g. Continuing participants	106
h. New entrants	5
i. Total active life participants in valuation	111

2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	99	12	30	49	2	1	193
Retired	1	(1)	0	0	0	0	0
DROP	0	0	0	0	0	0	0
Vested (Deferred Annuity)	0	0	0	0	0	0	0
Vested (Due Refund)	0	0	0	0	0	0	0
Hired/Terminated in Same Year	0	0	0	0	0	0	0
Death, With Survivor	(2)	0	4	(2)	0	0	0
Death, No Survivor	(2)	0	(3)	(3)	0	0	(8)
Disabled	0	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0
b. Number current valuation	96	11	31	44	2	1	185

SUMMARY OF CURRENT PLAN
(Through Ordinance 11-21)

<u>Eligibility</u>	Employees who are classified as full-time Firefighters shall participate in the System as a condition of employment.
<u>Credited Service</u>	Complete years of service. For vested members, service also includes major fractional parts of a year.
<u>Salary</u>	<p>Regular wages, longevity pay, station or watch captain pay, special duty pay, bonuses, lump-sum payments not made at termination, inclusive of certain elective deferrals, deferred compensation or tax-sheltered annuity programs, and any other payments required by law to be included in pension calculations.</p> <p>Additionally, Salary includes basic life support (BLS) pay and a maximum of 300 hours of overtime pay per plan year.</p>
<u>Average Final Compensation</u>	<p>Average Salary for the best 2 years out of the last 5 years of Credited Service for Members with 20 or more years of Credited Service as of June 10, 2015.</p> <p>Average Salary for the last 5 years of Credited Service for Members with less than 20 years of Credited Service as of June 10, 2015.</p>
<u>Member Contributions</u>	11.00% of Salary.
<u>City and State Contributions</u>	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.
<u>Normal Retirement</u>	
Date	Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service.
Benefit	At 25 years of service, the retirement benefit is 75% of average final compensation. Otherwise, the benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years.

Form of Benefit	If single, single life annuity (options available). If married, 75% joint and survivor annuity.
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Early Retirement

Eligibility	Age 50 and 10 Years of Credited Service.
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Benefit	Accrued benefit, reduced 3% per year.
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Vesting

Schedule	100% after 10 years of Credited Service.
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Benefit Amount	Accrued benefit multiplied by the number of years of service at termination (maximum 25 years) divided by 25 years. Payable at age 52.
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Disability

Eligibility	Total and permanent disability.
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Benefit

Service Incurred	The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 1% for each of the first 18 years, 2% for the next year and 4% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 42% of AFC.
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Non-Service Incurred	The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 25% of AFC.
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Duration	Payable as a 75% joint and survivor benefit. Options available.
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Death Benefits

Pre-Retirement

Vested 75% of monthly accrued benefit payable to designated beneficiary for life.

Non-Vested Refund of accumulated contributions without interest.

Post-Retirement Benefits payable to beneficiary in accordance with option selected at retirement.

Board of Trustees

- a. Two City Council appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other 4 appointed by City Council.

Deferred Retirement Option Plan

Eligibility Satisfaction of Normal Retirement requirements (Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service).

Participation Not to exceed 60 months.

Rate of Return 1.3% annually.

Form of Distribution Cash lump sum (options available) at termination of employment.

Cost-of-Living Adjustment

Eligibility All members in payment status.

Increase Increased annually based on Consumer Price Index, limited to 3.00% per year for retirees who retired prior to June 10, 2015. The limit is 2.00% per year for retirees who are hired before June 10, 2015 and retire after June 10, 2015. The limit is 1.25% per year for Members who are hired on or after June 10, 2015.

No increases are provided during DROP participation for Members who were hired after July 1, 1999 and enter DROP after June 10, 2015.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2021

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	61,101
Money Market	4,175,405
Cash	(623,534)
Total Cash and Equivalents	3,612,972
Receivables:	
Member Contributions in Transit	22,199
City Contributions in Transit	202
Investment Income	261,041
Total Receivable	283,442
Investments:	
U. S. Bonds and Bills	7,212,721
Federal Agency Guaranteed Securities	7,252,356
Corporate Bonds	34,247,324
Equities	66,588,219
Mutual Funds:	
Infrastructure	2,098,574
Equity	8,462,398
Pooled/Common/Commingled Funds:	
Equity	12,571,931
Real Estate	7,103,282
Total Investments	145,536,805
Total Assets	149,433,219
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	187,239
Administrative Expenses	5,250
To General Employees' Trust Fund	10,966
Total Liabilities	203,455
NET POSITION RESTRICTED FOR PENSIONS	149,229,764

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2021
Market Value Basis

ADDITIONS

Contributions:

Member	619,231	
City	1,324,931	
State	573,129	
Total Contributions		2,517,291
Investment Income:		
Net Increase in Fair Value of Investments	26,492,507	
Interest & Dividends	2,817,663	
Less Investment Expense ¹	(756,936)	
Net Investment Income		28,553,234
Total Additions		31,070,525

DEDUCTIONS

Distributions to Members:

Benefit Payments	8,237,125	
Lump Sum DROP Distributions	245,141	
Refunds of Member Contributions	15,726	
Total Distributions		8,497,992
Administrative Expense		65,256
Total Deductions		8,563,248
Net Increase in Net Position		22,507,277
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		126,722,487
End of the Year		149,229,764

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2021)

Plan Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two City Council appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other four appointed by City Council.

Plan Membership as of October 1, 2020:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	190
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3
Active Plan Members	110
	303

Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2020 Actuarial Valuation Report for the City of Pensacola Firefighters' Relief and Pension Fund prepared by Foster & Foster Actuaries and Consultants.

Incorporated are the benefit changes for measurement date September 30, 2021 as noted under the Notes to Schedule of Changes in Net Pension Liability and Ratios.

Contributions

Member Contributions: 11.00% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII Chapter 112, Florida Statutes.

Investment Policy:

The following was the Board's adopted asset allocation policy as of September 30, 2021:

Asset Class	Target Allocation
Domestic Equity	37.0%
International Equity	15.0%
Bonds	25.0%
Convertibles	10.0%
Private Real Estate	8.0%
Infrastructure	5.0%
Total	100.0%

Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

Rate of Return:

For the year ended September 30, 2021, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 22.94 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

Eligibility: Satisfaction of Normal Retirement requirements (Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service).

Participation: Not to exceed 60 months.

Rate of Return: 1.3% annually.

The DROP balance as September 30, 2021 is \$2,066,417.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2021 were as follows:

Total Pension Liability	\$ 137,847,311
Plan Fiduciary Net Position	\$ (149,229,764)
Sponsor's Net Pension Liability	<u>\$ (11,382,453)</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	108.26%

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2020 updated to September 30, 2021 using the following actuarial assumptions:

Inflation	2.70%
Salary Increases	Service based
Discount Rate	7.75%
Investment Rate of Return	7.75%

Mortality Rate Healthy Active Lives:

Female: PubS.H-2010 (Below Median) for Employees, set forward one year.

Male: PubS.H-2010 (Below Median) for Employees, set forward one year.

Mortality Rate Healthy Retiree Lives:

Female: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Mortality Rate Beneficiary Lives:

Female: PubG.H-2010 (Above Median) for Healthy Retirees.

Male: PubG.H-2010 (Above Median) for Healthy Retirees, set back one year.

Mortality Rate Disabled Lives:

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2020 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

The most recent actuarial experience study used to review the other significant assumptions was dated October 9, 2017.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2021 the inflation rate assumption of the investment advisor was 2.30%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2021 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return ¹
Domestic Equity	8.3%
International Equity	4.1%
Bonds	3.1%
Convertibles	7.8%
Private Real Estate	5.5%
Infrastructure	7.0%

¹ Source: Burgess Chambers

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.75 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	1% Decrease	Current Discount Rate	1% Increase
	6.75%	7.75%	8.75%
Sponsor's Net Pension Liability	\$ 4,408,596	\$ (11,382,453)	\$ (24,467,466)

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 2 Fiscal Years

	09/30/2021	09/30/2020
Total Pension Liability		
Service Cost	1,497,129	1,258,728
Interest	10,322,867	9,985,729
Changes of benefit terms	411,685	-
Differences between Expected and Actual Experience	(1,424,849)	(511,791)
Changes of assumptions	-	1,918,859
Benefit Payments, including Refunds of Employee Contributions	(8,497,992)	(9,404,872)
Net Change in Total Pension Liability	2,308,840	3,246,653
Total Pension Liability - Beginning	135,538,471	132,291,818
Total Pension Liability - Ending (a)	<u>\$ 137,847,311</u>	<u>\$ 135,538,471</u>
Plan Fiduciary Net Position		
Contributions - Employer	1,324,931	1,194,940
Contributions - State	573,129	526,021
Contributions - Employee	619,231	543,443
Net Investment Income	28,553,234	13,110,520
Benefit Payments, including Refunds of Employee Contributions	(8,497,992)	(9,404,872)
Administrative Expense	(65,256)	(75,205)
Net Change in Plan Fiduciary Net Position	22,507,277	5,894,847
Plan Fiduciary Net Position - Beginning	126,722,487	120,827,640
Plan Fiduciary Net Position - Ending (b)	<u>\$ 149,229,764</u>	<u>\$ 126,722,487</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (11,382,453)</u>	<u>\$ 8,815,984</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	108.26%	93.50%
Covered Payroll	\$ 5,629,353	\$ 4,939,900
Net Pension Liability as a percentage of Covered Payroll	-202.20%	178.46%

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Changes in benefit terms:

For Measurement date 09/30/2021, Ordinance 11-21 amended the plan to provide for the following benefit changes:

1. Change the normal form of benefit for all married Firefighters to a 75% joint and survivor annuity (previously a ten-year certain and life annuity for Firefighters hired on or after June 10, 2015).
2. Survivor benefits no longer cease or reduce upon remarriage of the widow or widower.
3. Salary included in pension calculations now include basic life support (BLS) and up to 300 hours of annual overtime pay.

Changes of assumptions:

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2021	\$ 1,837,352	\$ 1,898,060	\$ (60,708)	\$ 5,629,353	33.72%
09/30/2020	\$ 1,711,806	\$ 1,720,961	\$ (9,155)	\$ 4,939,900	34.84%

Notes to Schedule:

Valuation Date: 10/01/2019

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates can be found in the October 1, 2019 Actuarial Valuation for the City of Pensacola Firefighters' Relief and Pension Fund prepared by Foster & Foster Actuaries and Consultants.

SCHEDULE OF INVESTMENT RETURNS
Last 2 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2021	22.94%
09/30/2020	11.12%

NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2022)

Plan Description

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two City Council appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other four appointed by City Council.

Employees who are classified as full-time Firefighters shall participate in the System as a condition of employment.

Plan Membership as of October 1, 2020:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	190
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3
Active Plan Members	110
	303

Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2020 Actuarial Valuation Report for the City of Pensacola Firefighters' Relief and Pension Fund prepared by Foster & Foster Actuaries and Consultants.

Incorporated are the benefit changes for measurement date September 30, 2021 as noted under the Notes to Schedule of Changes in Net Pension Liability and Ratios.

Contributions

Member Contributions: 11.00% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII Chapter 112, Florida Statutes.

Net Pension Liability

The measurement date is September 30, 2021.

The measurement period for the pension expense was October 1, 2020 to September 30, 2021.

The reporting period is October 1, 2021 through September 30, 2022.

The Sponsor's Net Pension Liability was measured as of September 30, 2021.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2020 updated to September 30, 2021 using the following actuarial assumptions:

Inflation	2.70%
Salary Increases	Service based
Discount Rate	7.75%
Investment Rate of Return	7.75%

Mortality Rate Healthy Active Lives:

Female: PubS.H-2010 (Below Median) for Employees, set forward one year.

Male: PubS.H-2010 (Below Median) for Employees, set forward one year.

Mortality Rate Healthy Retiree Lives:

Female: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Mortality Rate Beneficiary Lives:

Female: PubG.H-2010 (Above Median) for Healthy Retirees.

Male: PubG.H-2010 (Above Median) for Healthy Retirees, set back one year.

Mortality Rate Disabled Lives:

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2020 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

The most recent actuarial experience study used to review the other significant assumptions was dated October 9, 2017.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2021 the inflation rate assumption of the investment advisor was 2.30%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2021 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return ¹
Domestic Equity	37.0%	8.3%
International Equity	15.0%	4.1%
Bonds	25.0%	3.1%
Convertibles	10.0%	7.8%
Private Real Estate	8.0%	5.5%
Infrastructure	5.0%	7.0%
Total	100.0%	

¹ Source: Burgess Chambers

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.75 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2021	\$ 135,538,471	\$ 126,722,487	\$ 8,815,984
Changes for a Year:			
Service Cost	1,497,129	-	1,497,129
Interest	10,322,867	-	10,322,867
Differences between Expected and Actual Experience	(1,424,849)	-	(1,424,849)
Changes of assumptions	-	-	-
Changes of benefit terms	411,685	-	411,685
Contributions - Employer	-	1,324,931	(1,324,931)
Contributions - State	-	573,129	(573,129)
Contributions - Employee	-	619,231	(619,231)
Net Investment Income	-	28,553,234	(28,553,234)
Benefit Payments, including Refunds of Employee Contributions	(8,497,992)	(8,497,992)	-
Administrative Expense	-	(65,256)	65,256
Net Changes	2,308,840	22,507,277	(20,198,437)
Reporting Period Ending at September 30, 2022	\$ 137,847,311	\$ 149,229,764	\$ (11,382,453)

Sensitivity of the Net Pension Liability to changes in the Discount Rate.

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.75%	7.75%	8.75%
Sponsor's Net Pension Liability	\$ 4,408,596	\$ (11,382,453)	\$ (24,467,466)

Pension Plan Fiduciary Net Position.

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

**FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED
INFLOWS OF RESOURCES RELATED TO PENSIONS**
FISCAL YEAR SEPTEMBER 30, 2021

For the year ended September 30, 2021, the Sponsor has recognized a Pension Expense of \$320,182.

On September 30, 2021, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	65,009	461,836
Changes of assumptions	1,535,088	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	1,129,850
Employer and State Contributions subsequent to the measurement date	1,898,060	-
Total	<u>\$ 3,498,157</u>	<u>\$ 1,591,686</u>

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date has been recognized as a reduction of the Net Pension Liability in the year ended September 30, 2021. Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:

2022	\$ (415,141)
2023	\$ 294,494
2024	\$ 652,841
2025	\$ (523,783)
2026	\$ -
Thereafter	\$ -

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2022**

For the year ended September 30, 2022, the Sponsor will recognize a Pension Expense of \$(2,402,422).

On September 30, 2022, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	-	1,481,890
Changes of assumptions	1,151,316	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	15,558,970
Employer and State Contributions subsequent to the measurement date	TBD	-
Total	<u>TBD</u>	<u>\$ 17,040,860</u>

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2022. Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2023	\$ (3,783,780)
2024	\$ (3,425,433)
2025	\$ (4,602,057)
2026	\$ (4,078,274)
2027	\$ -
Thereafter	\$ -

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 2 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2022 09/30/2021	09/30/2021 09/30/2020
Total Pension Liability		
Service Cost	1,497,129	1,258,728
Interest	10,322,867	9,985,729
Changes of benefit terms	411,685	-
Differences between Expected and Actual Experience	(1,424,849)	(511,791)
Changes of assumptions	-	1,918,859
Benefit Payments, including Refunds of Employee Contributions	(8,497,992)	(9,404,872)
Net Change in Total Pension Liability	2,308,840	3,246,653
Total Pension Liability - Beginning	135,538,471	132,291,818
Total Pension Liability - Ending (a)	<u>\$137,847,311</u>	<u>\$135,538,471</u>
Plan Fiduciary Net Position		
Contributions - Employer	1,324,931	1,194,940
Contributions - State	573,129	526,021
Contributions - Employee	619,231	543,443
Net Investment Income	28,553,234	13,110,520
Benefit Payments, including Refunds of Employee Contributions	(8,497,992)	(9,404,872)
Administrative Expense	(65,256)	(75,205)
Net Change in Plan Fiduciary Net Position	22,507,277	5,894,847
Plan Fiduciary Net Position - Beginning	126,722,487	120,827,640
Plan Fiduciary Net Position - Ending (b)	<u>\$149,229,764</u>	<u>\$126,722,487</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (11,382,453)</u>	<u>\$ 8,815,984</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	108.26%	93.50%
Covered Payroll	\$ 5,629,353	\$ 4,939,900
Net Pension Liability as a percentage of Covered Payroll	-202.20%	178.46%

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Changes in benefit terms:

For Measurement date 09/30/2021, Ordinance 11-21 amended the plan to provide for the following benefit changes:

1. Change the normal form of benefit for all married Firefighters to a 75% joint and survivor annuity (previously a ten-year certain and life annuity for Firefighters hired on or after June 10, 2015).
2. Survivor benefits no longer cease or reduce upon remarriage of the widow or widower.
3. Salary included in pension calculations now include basic life support (BLS) and up to 300 hours of annual overtime pay.

Changes of assumptions:

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2021	\$ 1,837,352	\$ 1,898,060	\$ (60,708)	\$ 5,629,353	33.72%
09/30/2020	\$ 1,711,806	\$ 1,720,961	\$ (9,155)	\$ 4,939,900	34.84%

Notes to Schedule

Valuation Date: 10/01/2019

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates can be found in the October 1, 2019 Actuarial Valuation for the City of Pensacola Firefighters' Relief and Pension Fund prepared by Foster & Foster Actuaries and Consultants.

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

The following information is not required to be disclosed but is provided for informational purposes.

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2021

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 11,464,178	\$ 3,892,524	\$ 6,869,311	\$ -
Employer and State Contributions made after 09/30/2020	-	-	1,898,060	-
Total Pension Liability Factors:				
Service Cost	1,258,728	-	-	1,258,728
Interest	9,985,729	-	-	9,985,729
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(511,791)	511,791	-	-
Current year amortization of experience difference	-	(980,409)	(65,009)	(915,400)
Change in assumptions about future economic or demographic factors or other inputs	1,918,859	-	1,918,859	-
Current year amortization of change in assumptions	-	-	(625,735)	625,735
Benefit Payments, including Refunds of Employee Contributions	(9,404,872)	-	-	-
Net change	<u>3,246,653</u>	<u>(468,618)</u>	<u>3,126,175</u>	<u>10,954,792</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,194,940	-	(1,194,940)	-
Contributions - State	526,021	-	(526,021)	-
Contributions - Employee	543,443	-	-	(543,443)
Projected Net Investment Income	9,084,535	-	-	(9,084,535)
Difference between projected and actual earnings on Pension Plan investments	4,025,985	4,025,985	-	-
Current year amortization	-	(2,275,929)	(1,194,092)	(1,081,837)
Benefit Payments, including Refunds of Employee Contributions	(9,404,872)	-	-	-
Administrative Expenses	(75,205)	-	-	75,205
Net change	<u>5,894,847</u>	<u>1,750,056</u>	<u>(2,915,053)</u>	<u>(10,634,610)</u>
Ending Balance	<u>\$ 8,815,984</u>	<u>\$ 5,173,962</u>	<u>\$ 7,080,433</u>	<u>\$ 320,182</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2022

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 8,815,984	\$ 5,173,962	\$ 7,080,433	\$ -
Employer and State Contributions made after 09/30/2021	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	1,497,129	-	-	1,497,129
Interest	10,322,867	-	-	10,322,867
Changes in benefit terms	411,685	-	-	411,685
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(1,424,849)	1,424,849	-	-
Current year amortization of experience difference	-	(404,795)	(65,009)	(339,786)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(383,772)	383,772
Benefit Payments, including Refunds of Employee Contributions	(8,497,992)	-	-	-
Net change	<u>2,308,840</u>	<u>1,020,054</u>	<u>(448,781)</u>	<u>12,275,667</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,324,931	-	(1,324,931)	-
Contributions - State	573,129	-	(573,129)	-
Contributions - Employee	619,231	-	-	(619,231)
Projected Net Investment Income	9,586,712	-	-	(9,586,712)
Difference between projected and actual earnings on Pension Plan investments	18,966,522	18,966,522	-	-
Current year amortization	-	(5,731,494)	(1,194,092)	(4,537,402)
Benefit Payments, including Refunds of Employee Contributions	(8,497,992)	-	-	-
Administrative Expenses	(65,256)	-	-	65,256
Net change	<u>22,507,277</u>	<u>13,235,028</u>	<u>(3,092,152)</u>	<u>(14,678,089)</u>
Ending Balance	<u>\$ (11,382,453)</u>	<u>\$ 19,429,044</u>	<u>TBD</u>	<u>\$ (2,402,422)</u>

* Employer and State Contributions subsequent to the measurement date made after September 30, 2021 but made on or before September 30, 2022 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan
Investments

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029
2021	\$ (18,966,522)	5	\$ -	\$ (3,793,306)	\$ (3,793,304)	\$ (3,793,304)	\$ (3,793,304)	\$ (3,793,304)	\$ -	\$ -	\$ -
2020	\$ (4,025,985)	5	\$ (805,197)	\$ (805,197)	\$ (805,197)	\$ (805,197)	\$ (805,197)	\$ -	\$ -	\$ -	\$ -
2019	\$ 5,970,460	5	\$ 1,194,092	\$ 1,194,092	\$ 1,194,092	\$ 1,194,092	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (1,791,736)	5	\$ (358,347)	\$ (358,347)	\$ (358,347)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (3,873,220)	5	\$ (774,644)	\$ (774,644)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (1,688,706)	5	\$ (337,741)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (1,081,837)	\$ (4,537,402)	\$ (3,762,756)	\$ (3,404,409)	\$ (4,598,501)	\$ (3,793,304)	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020	\$ 1,918,859	5	\$ 383,771	\$ 383,772	\$ 383,772	\$ 383,772	\$ 383,772	\$ -	\$ -	\$ -	\$ -
2017	\$ 967,856	4	\$ 241,964	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 625,735	\$ 383,772	\$ 383,772	\$ 383,772	\$ 383,772	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029
2021	\$ (1,424,849)	5	\$ -	\$ (284,969)	\$ (284,970)	\$ (284,970)	\$ (284,970)	\$ (284,970)	\$ -	\$ -	\$ -
2020	\$ (511,791)	5	\$ (102,359)	\$ (102,358)	\$ (102,358)	\$ (102,358)	\$ (102,358)	\$ -	\$ -	\$ -	\$ -
2019	\$ (87,339)	5	\$ (17,468)	\$ (17,468)	\$ (17,468)	\$ (17,468)	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 260,034	4	\$ 65,009	\$ 65,009	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (3,442,328)	4	\$ (860,582)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (915,400)	\$ (339,786)	\$ (404,796)	\$ (404,796)	\$ (387,328)	\$ (284,970)	\$ -	\$ -	\$ -