

CITY OF LAKE WORTH BEACH POLICE OFFICERS RETIREMENT SYSTEM

ACTUARIAL VALUATION REPORT AS OF OCTOBER 1, 2021

ANNUAL EMPLOYER CONTRIBUTION IS DETERMINED BY
THIS VALUATION FOR THE PLAN YEAR ENDING
SEPTEMBER 30, 2023





May 2, 2022

Board of Trustees
City of Lake Worth Beach Police Officers
Retirement System
Lake Worth, Florida

**Re: City of Lake Worth Beach Police Officers Retirement System
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 City of Lake Worth Beach Police Officers Retirement System are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System 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 System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2023, and to report the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the fiscal year ending September 30, 2021. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2022. 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 more 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 the 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 and other information through September 30, 2021. The valuation was based upon information furnished by the Plan Administrator concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability 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.

This report was prepared using certain assumptions approved by the Board as authorized under Florida Statutes and prescribed by the Florida Statutes as described in the section of this report entitled Actuarial Assumptions and Cost Method. The investment return assumption was prescribed by the Board and the assumed mortality rates detailed in the Actuarial Assumptions and Cost Method section were prescribed by the Florida Statutes in accordance with Florida Statutes Chapter 112.63. All actuarial assumptions used in this report are reasonable for purposes of this valuation.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

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 City of Lake Worth Beach Police Officers Retirement System 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.

Peter N. Strong and Nicolas Lahaye are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

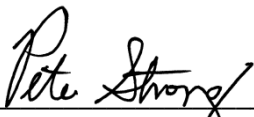
The signing actuaries are independent of the plan sponsor.

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 and Report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

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

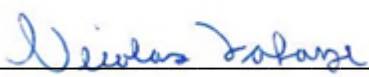

Nicolas Lahaye, FSA, EA, MAAA, FCA
Enrolled Actuary No. 20-07775



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SECTION A

DISCUSSION OF VALUATION RESULTS

DISCUSSION OF VALUATION RESULTS

Closed Plan

In reviewing this Report, it is important for the reader to keep in mind that this System has been closed to new members since 2008. One consequence of this closure is that the annual payment on the unfunded accrued liability will have a tendency to increase as a percentage of covered payroll, as such payroll decreases from year to year. Therefore, the overall cost as a percentage of covered payroll will be increasing each year in the absence of significant actuarial gains.

Comparison of Required Employer Contributions

The required employer contribution developed in this year's valuation is compared below to last year's result. The contribution policy of the City is to contribute the dollar amount of the required contribution determined as of the valuation date.

	Required Contribution		
	For FYE 9/30/23 Based on 10/1/2021 Valuation	For FYE 9/30/22 Based on 10/1/2020 Valuation	Increase (Decrease)
Required City Contribution*	\$ 3,668,163	\$ 3,626,864	\$ 41,299
As % of Covered Payroll	386.04 %	350.89 %	35.15 %
Estimated Chapter 185 Revenue	283,405	283,405	0
As % of Covered Payroll	29.83 %	27.42 %	2.41 %
Total Required Contribution	3,951,568	3,910,269	41,299
As % of Covered Payroll	415.87 %	378.31 %	37.56 %

* This is the total amount due from the City inclusive of any amounts received from the Palm Beach County Sheriff's Office. Based on current payroll and FRS employer contribution rates for Special Risk Employees, it is estimated that the Palm Beach County Sheriff's Office will reimburse the City for approximately \$250,000 of this contribution amount during FY 2022 and FY 2023.

As noted by the headings, the current year's valuation results apply to the fiscal year ending September 30, 2023. The amounts listed are net of estimated Chapter 185 revenue allocated from the Division 2 Share Plan to fund Chapter 185 minimum benefits. The amount of Chapter 185 revenue is assumed to be \$283,405, which was the amount allocated to the Pension Plan for the fiscal year ending September 30, 2021.

The actual employer contribution (including State contributions and Sheriff's office contributions), for the year ending September 30, 2021 was \$3,834,596. This met the funding requirement of \$3,834,596 for the year.



Revisions in Benefits

There have been no revisions in benefits since the last valuation.

Revisions in Actuarial Assumptions or Methods

The assumed investment return has been reduced by 0.15% from 6.85% per year to 6.70% per year. This assumption will be reduced by 0.15% per year each year until a target of 6.5% is reached.

The impact of the above assumption change is an \$85,138 increase in the required contribution.

Actuarial Experience

There was a net actuarial gain of \$329,569 for the year which means that actual experience was more favorable than expected. The gain is primarily due to a higher than expected return on assets. The return on the net actuarial value of assets (net of DROP and Share accounts) was 7.6% against an assumed rate of return of 6.85%. The return on the gross actuarial value of assets was 9.4% and the return on the gross market value of assets was 16.9%.

Additionally, favorable benefits-weighted mortality experience among inactive members contributed to the net actuarial gain. Approximately \$73,000 in annual benefit payments ceased due to actual mortality experience during the year, versus an expected annual benefits reduction of approximately \$56,000. In addition, actual salary increases were lower than assumed (3.8% versus 6.5% expected), which caused a small liability-related experience gain (although this impact was minor since there are only 8 active members remaining in the Plan).

The actuarial experience resulted in a decrease in the required contribution of \$45,180.

Cost of Living Adjustment (COLA)

The Plan provides that a COLA is payable on June 1st if there is an actuarial gain for the previous year and a cumulative experience gain overall. There is no COLA payable June 1, 2022 because the Plan has a cumulative experience loss since this provision went into effect.

Funded Ratio

The funded ratio, one measure of the Plan's financial health, is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability. The funded ratio was 66.4% this year (after reflecting the assumption change) versus 61.9% last year. The funded ratio was 67.4% prior to reflecting the assumption change.

Relationship to Market Value

If market value had been the basis for the valuation, the estimated required City/County contribution would have been \$3,245,042 and the funded ratio would have been 72.8%. This funded ratio (on a market value basis) is up from 62.7% last year.



Analysis of Change in Total Required Contribution

The following table shows the components of change in required contributions for Police Officers:

Analysis of the Change in Total Required Contribution	
Total Required Contribution Last Year	\$ 3,910,269
Increase/(Decrease) Due to Change In:	
Actuarial Experience	(45,180)
Administrative Expenses	(1,642)
Change in Actuarial Assumptions	85,138
Amortization of UAL	15,181
Method Change	-
COLA/13th Check	-
Change in Total Benefits-Related Normal Cost	(18,299)
Expected Change in Member Contributions	6,101
Total Required Contribution This Year	\$ 3,951,568

Variability of Future Contribution Rates

The total current calculated contribution requirement is \$3,951,568 starting October 1, 2022 (the net City/County contribution is \$3,668,163). For future planning purposes, continued reductions in the investment return assumption toward 6.5% will have an increasing effect on the required contribution, but there are unrecognized gains in the market value of assets that may have an offsetting decreasing impact. If plan assets earn the assumed rate of return, the required contribution may decrease.

Conclusion

It is important to note that system assets are not sufficient to cover the liabilities for current retirees. As of October 1, 2021, the shortfall on a market value basis is approximately \$7 million. The funded ratio is currently 66.4%, whereas it was over 100% in 2000. Steps have been taken to address these issues, such as strengthening the actuarial assumptions and shortening the amortization period. This will result in higher contributions in the short-term for the City. For every additional \$1,000,000 contributed, the funded ratio will increase by approximately 2.1%.

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

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 computed 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 Measures

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 total payroll	37.1	29.2
Ratio of actuarial accrued liability to payroll	51.0	46.6
Ratio of actives to retirees and beneficiaries	0.1	0.1
Ratio of net cash flow to market value of assets (Net of DROP and Share Plan)	0.2%	-1.0%
Duration of the actuarial accrued liability	10.1	10.1

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.



Duration of Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

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

VALUATION RESULTS

PARTICIPANT DATA		
	October 1, 2021	October 1, 2020
ACTIVE MEMBERS		
Number	8	9
Covered Annual Payroll	\$ 950,193	\$ 1,033,615
Average Annual Payroll	\$ 118,774	\$ 114,846
Average Age	46.0	44.8
Average Past Service	18.0	17.2
Average Age at Hire	28.0	27.6
RETIREES & BENEFICIARIES & DROP		
Number	85	86
Annual Benefits	\$ 3,595,021	\$ 3,564,753
Average Annual Benefit	\$ 42,294	\$ 41,451
Average Age	63.7	63.4
DISABILITY RETIREES		
Number	7	9
Annual Benefits	\$ 163,561	\$ 192,874
Average Annual Benefit	\$ 23,366	\$ 21,430
Average Age	64.0	63.5
TERMINATED VESTED MEMBERS		
Number	0	0
Annual Benefits	\$ 0	\$ 0
Average Annual Benefit	\$ 0	\$ 0
Average Age	0.0	0.0

ACTUARIALLY DETERMINED CONTRIBUTION (ADC)			
A. Valuation Date	October 1, 2021 <i>New Assumptions</i> <i>i = 6.70%</i>	October 1, 2021 <i>Old Assumptions</i> <i>i = 6.85%</i>	October 1, 2020
B. ADC to Be Paid During Fiscal Year Ending	9/30/2023	9/30/2023	9/30/2022
C. Assumed Dates of Employer Contributions	Monthly	Monthly	Monthly
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 3,560,169	\$ 3,482,031	\$ 3,511,004
E. Employer Normal Cost	256,963	250,159	263,520
F. ADC if Paid on the Valuation Date: D+E	3,817,132	3,732,190	3,774,524
G. ADC Adjusted for Frequency of Payments	3,951,535	3,866,454	3,910,311
H. ADC as % of Covered Payroll	415.87 %	406.91 %	378.31 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	0.00 %	0.00 %	0.00 %
J. Covered Payroll for Contribution Year	950,193	950,193	1,033,615
K. ADC for Contribution Year: H x J	3,951,568	3,866,430	3,910,269
L. Estimated Chapter 185 Revenue Allocated to Pension Plan*	283,405	283,405	283,405
M. Required City Contribution in Contribution Year **	3,668,163	3,583,025	3,626,864
N. Required City Contribution as a % of Covered Payroll in Contribution Year: M ÷ J **	386.04%	377.08%	350.89%

* Assumes state revenue will equal amount derived from approval of 2020 report (\$563,299). An agreement with Division 2 allows a portion of state revenue to be used for funding of the pension plan.

** This is the total amount due from the City inclusive of any amounts received from the Palm Beach County Sheriff's Office. Based on current payroll and FRS employer contribution rates for Special Risk Employees, it is estimated that the Palm Beach County Sheriff's Office will reimburse the City for approximately \$250,000 of this contribution amount during FY 2022 and FY 2023.



ACTUARIAL VALUE OF BENEFITS AND ASSETS			
A. Valuation Date	October 1, 2021 <i>New Assumptions</i> <i>i = 6.70%</i>	October 1, 2021 <i>Old Assumptions</i> <i>i = 6.85%</i>	October 1, 2020
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	\$ 6,367,423	\$ 6,247,213	\$ 6,533,927
b. Vesting Benefits	340,076	333,133	527,485
c. Disability Benefits	132,246	130,219	153,421
d. Preretirement Death Benefits	40,199	39,513	47,047
e. Return of Member Contributions	-	-	-
f. Total	6,879,944	6,750,078	7,261,880
2. Inactive Members			
a. Service Retirees & Beneficiaries	40,699,383	40,158,328	39,994,190
b. Disability Retirees	1,554,011	1,536,706	1,818,075
c. Terminated Vested Members	-	-	-
d. Total	42,253,394	41,695,034	41,812,265
3. Total for All Members	49,133,338	48,445,112	49,074,145
C. Actuarial Accrued (Past Service) Liability	48,421,822	47,756,854	48,187,235
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	47,712,702	47,054,198	47,042,065
E. Plan Assets			
1. Market Value	35,273,374	35,273,374	30,205,975
2. Actuarial Value	32,167,322	32,167,322	29,839,544
F. Unfunded Actuarial Accrued Liability: C - E2	16,254,500	15,589,532	18,347,691
G. Actuarial Present Value of Projected Covered Payroll	3,029,505	3,022,582	3,947,551
H. Actuarial Present Value of Projected Member Contributions	213,883	213,394	278,697

CALCULATION OF EMPLOYER NORMAL COST			
A. Valuation Date	October 1, 2021 <i>New Assumptions</i> <i>i=6.70%</i>	October 1, 2021 <i>Old Assumptions</i> <i>i=6.85%</i>	October 1, 2020
B. Normal Cost for			
1. Service Retirement Benefits	\$ 148,313	\$ 143,396	\$ 153,635
2. Vesting Benefits	40,919	39,477	44,404
3. Disability Benefits	17,777	17,439	18,410
4. Preretirement Death Benefits	6,704	6,573	6,776
5. Return of Member Contributions	<u>12,745</u>	<u>12,769</u>	<u>14,094</u>
6. Total for Future Benefits	226,458	219,654	237,319
7. Assumed Amount for Administrative Expenses	<u>97,589</u>	<u>97,589</u>	<u>99,174</u>
8. Total Normal Cost	324,047	317,243	336,493
C. Expected Member Contribution	67,084	67,084	72,973
D. Employer Normal Cost: B8-C	256,963	250,159	263,520
E. Employer Normal Cost as a % of Covered Payroll	27.04%	26.33%	25.49%

LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

AMORTIZATION PERIOD AND PAYMENTS					
Date Established	Original Amount	Amortization Period (Years)*	Years Left	Remaining Amount	Annual Payment
10/1/2003	\$ 522,519	25	5	\$ 491,542	\$ 111,454
10/1/2004	149,986	25	5	98,444	22,321
10/1/2004	8,156,954	25	5	5,144,709	1,166,527
10/1/2005	(1,093,470)	25	5	(663,898)	(150,534)
10/1/2005	1,400,438	25	5	850,275	192,794
10/1/2006	346,092	25	5	211,641	47,988
10/1/2007	(612,759)	25	5	(365,923)	(82,971)
10/1/2008	1,860,263	25	5	1,131,399	256,537
10/1/2009	589,730	25	5	356,727	80,885
10/1/2009	806,599	25	5	487,915	110,631
10/1/2010	814,304	24	5	492,868	111,754
10/1/2010	1,738,204	24	5	1,052,070	238,550
10/1/2011	2,928,207	23	5	1,770,692	401,492
10/1/2011	905,237	23	5	547,399	124,119
10/1/2012	1,478,949	22	5	891,308	202,098
10/1/2012	924,035	22	5	556,881	126,269
10/1/2013	524,472	20	5	318,422	72,200
10/1/2013	937,751	20	5	569,338	129,093
10/1/2014	(814)	18	5	(501)	(114)
10/1/2015	(648,649)	16	5	(411,341)	(93,269)
10/1/2015	650,649	16	5	412,609	93,556
10/1/2016	(513,858)	14	5	(338,633)	(76,783)
10/1/2016	313,560	14	5	206,636	46,853
10/1/2017	228,349	12	5	158,277	35,888
10/1/2017	675,312	12	5	468,084	106,135
10/1/2018	144,738	10	7	116,782	20,097
10/1/2018	686,751	10	7	554,106	95,355
10/1/2019	338,990	10	8	297,547	46,159
10/1/2019	694,129	10	8	609,271	94,518
10/1/2020	583,629	10	9	543,343	77,165
10/1/2020	(686,258)	10	9	(638,888)	(90,734)
10/1/2021	(329,569)	10	10	(329,569)	(43,369)
10/1/2021	664,968	10	10	664,968	87,505
	<u>25,179,438</u>			<u>16,254,500</u>	<u>3,560,169</u>

*Reduced to 25 years per Board action in 2009 (with scheduled reductions by 1 in each subsequent year), and further reduced by 1 extra year in each valuation through 2019 per Board action beginning in 2012. Per Board action in 2018, all bases established on or after October 1, 2018 will be amortized over 10 years.

The UAAL is being amortized as a level dollar amount over the number of years remaining in the amortization period. The following schedule illustrates the expected amortization of the UAAL:

Amortization Schedule	
Date	UAAL
10/1/2021	\$ 16,254,500
10/1/2022	13,544,845
10/1/2023	10,653,649
10/1/2024	7,568,743
10/1/2025	4,277,149
10/1/2026	765,017
10/1/2027	510,369
10/1/2028	238,659
10/1/2029	71,932
10/1/2030	44,136
10/1/2031	0

ACTUARIAL GAINS AND LOSSES

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. 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. The net actuarial gain (loss) for the past year is computed as follows:

1. Last Year's UAAL	\$ 18,347,691
2. Two Years' Ago Employer Normal Cost	261,091
3. Last Year's Contributions	3,834,596
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	1,274,702
b. 3 from dates paid	<u>129,787</u>
c. a - b	1,144,915
5. This Year's Expected UAAL: 1 + 2 - 3 + 4c	15,919,101
6. This Year's Actual UAAL (Before any changes in benefits and/or assumptions)	15,589,532
7. Net Actuarial Gain (Loss): (5) - (6)	329,569
8. Gain (Loss) Due to Investments (Net AVA basis)	234,693
9. Gain (Loss) Due to Other Sources	94,876

Net actuarial Gain (Loss) in previous years have been as follows:

Year Ending 9/30	Change in Employer Cost Rate	Net Actuarial Gain (Loss)
1981	1.06 %	\$ (123,238)
1982	1.44	(181,021)
1983	(4.01)	527,451
1984	0.90	(141,458)
1985	0.04	(6,436)
1986	(0.68)	139,926
1987	(2.18)	448,034
1988	3.31	(705,414)
1989	(2.93)	694,012
1990	2.40	(626,323)
1991	(0.18)	46,533
1992	(0.43)	105,063
1993	(1.45)	317,915
1994	8.19	(2,099,269)
1995	(3.22)	881,478
1996	(2.01)	534,742
1997	(1.94)	551,653
1998	(1.77)	463,205
1999	(1.26)	326,059
2000	(2.27)	570,485
2001	5.04	(1,462,401)
2002	6.70	(1,898,828)
2003	2.35	(564,021)
2004	9.59	(2,766,101)
2005	2.57	(1,400,438)
2006	0.70	(346,092)
2007	(2.05)	612,759
2008	4.67	(1,860,263)
2009	2.12	(589,730)
2010	9.41	(1,738,204)
2011	17.38	(2,928,207)
2012	9.61	(1,478,949)
2013	3.54	(524,472)
2014	(0.01)	814
2015	(5.39)	648,649
2016	(5.27)	513,858
2017	2.99	(228,349)
2018	2.02	(144,738)
2019	4.37	(338,990)
2020	7.79	(583,629)
2021	(4.75)	329,569

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 tables on the following pages show the actual fund earnings and salary increase rates compared to the assumed rates in previous years:

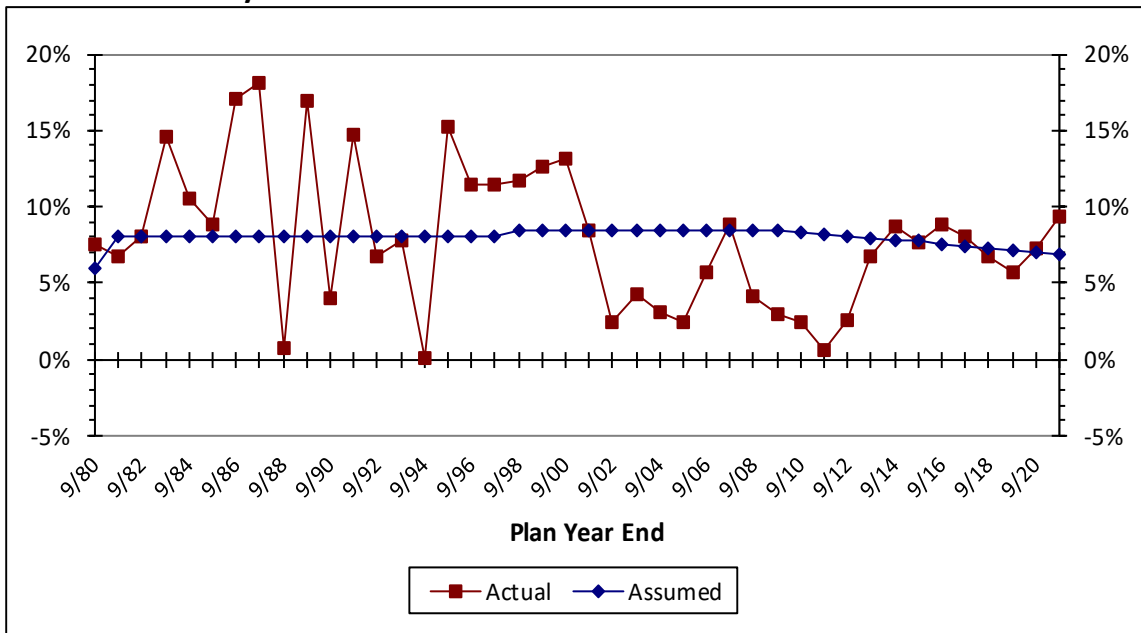
Year Ending	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
9/30/80	7.6 %	6.00 %	9.7 %	4%-5%
9/30/81	6.8	8.00	6.9	8.0
9/30/82	8.1	8.00	9.3	8.0
9/30/83	14.6	8.00	8.8	8.0
9/30/84	10.5	8.00	12.9	8.0
9/30/85	8.8	8.00	7.3	8.0
9/30/86	17.1	8.00	17.2	8.0
9/30/87	18.1	8.00	5.3	8.0
9/30/88	0.8	8.00	18.5	8.0
9/30/89	17.0	8.00	2.6	8.0
9/30/90	4.0	8.00	13.8	8.0
9/30/91	14.7	8.00	11.5	8.0
9/30/92	6.8	8.00	(2.2) *	8.0
9/30/93	7.8	8.00	0.7	8.0
9/30/94	0.1	8.00	17.0	6.5
9/30/95	15.2	8.00	2.7	6.5
9/30/96	11.5	8.00	3.9	6.5
9/30/97	11.5	8.00	2.5	6.5
9/30/98	11.7	8.50	7.0	6.5
9/30/99	12.6	8.50	6.4	6.5
9/30/00	13.2	8.50	4.5	6.5
9/30/01	8.5	8.50	18.0	6.5
9/30/02	2.5	8.50	5.2	6.5
9/30/03	4.3	8.50	4.0	6.5
9/30/04	3.1	8.50	24.4	6.5
9/30/05	2.5	8.50	3.7	6.5
9/30/06	5.7	8.50	3.4	6.5
9/30/07	8.8	8.50	1.7	6.5
9/30/08	4.2	8.50	19.8	6.5
9/30/09	3.0	8.50	(3.7)	6.5
9/30/10	2.5	8.35	10.0	6.5
9/30/11	0.6	8.20	7.3	6.5
9/30/12	2.5	8.05	4.4	6.5
9/30/13	6.7	7.90	6.4	6.5
9/30/14	8.7	7.75	7.2	6.5
9/30/15	7.7	7.75	7.0	6.5
9/30/16	8.8	7.60	6.9	6.5
9/30/17	8.0	7.45	4.7	6.5
9/30/18	6.8	7.30	5.4	6.5
9/30/19	5.7	7.15	7.4	6.5
9/30/20	7.3	7.00	8.1	6.5
9/30/21	9.4	6.85	3.8	6.5
Average	7.9	---	7.5	---

* This decrease results partly from the fact that annual salaries reported for the year ending 9/30/91 included 27 biweekly pay periods.

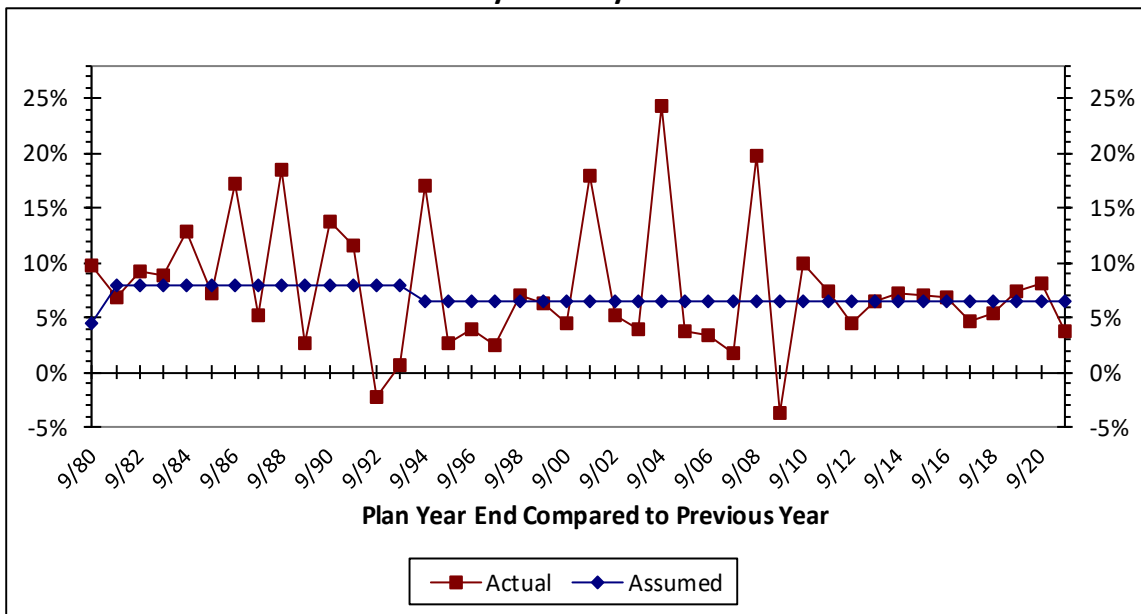
The actual investment return rates shown on the previous page and below are based on the actuarial value of assets. The investment return based on the market value of assets is shown later in this Report.

The actual salary increase rates shown on the previous page and below are the increases received by those active members who were included in the actuarial valuation both at the beginning and the end of each period.

History of Investment Return Based on Actuarial Value of Assets



History of Salary Increases



COST OF LIVING ADJUSTMENT

The Police Officers System provides a COLA on June 1st to those who have been retired for at least three years. One-half of the net actuarial gain for the previous year is used to fund the COLA. The rate of increase is limited by the change in the CPI for the previous calendar year.

	10/1/2021	10/1/2020
(1) Actuarial gain (loss) for previous year	\$ 329,569	\$ (583,629)
(2) One-half of gain	164,785	NA
(3) Florida Admin. Code limit ¹	0 ¹	0 ¹
(4) Lesser of (2) & (3)	0	NA
(5) Actuarial present value of benefits for those retired at least 3 years	NA	NA
(6) Potential COLA: (4)÷(5)	NA	NA
(7) CPI increase in last calendar year	NA	NA
(8) Final COLA: lesser of (6) or (7)	NA	NA

¹ The Florida Administrative Code limitation is \$0 because the Plan has experienced a cumulative loss since 1999. Please see the exhibit on the following page for details.

There is a limitation on COLA's tied to actuarial gains provided in the Florida Administrative Code. The cumulative amount used to pay for COLA's may not exceed the cumulative amount of actuarial gains. The following table shows the limits of the Code.

Cumulative Actuarial Gains (Losses)				
Year Ending 9/30	Balance at Beginning of Year	Gain (Loss) for Year	COLA	Balance at End of Year
1999	\$ 0	\$ 326,059	\$ 163,030	\$ 163,029
2000	163,029	570,485	285,243	448,271
2001	448,271	(1,462,401)	0	(1,014,130)
2002	(1,014,130)	(1,898,828)	0	(2,912,958)
2003	(2,912,958)	(564,021)	0	(3,476,979)
2004	(3,476,979)	(2,766,101)	0	(6,243,080)
2005	(6,243,080)	(1,400,438)	0	(7,643,518)
2006	(7,643,518)	(346,092)	0	(7,989,611)
2007	(7,989,611)	612,759	0	(7,376,851)
2008	(7,376,851)	(1,860,263)	0	(9,237,114)
2009	(9,237,114)	(589,730)	0	(9,826,844)
2010	(9,826,844)	(1,738,204)	0	(11,565,048)
2011	(11,565,048)	(2,928,207)	0	(14,493,255)
2012	(14,493,255)	(1,478,949)	0	(15,972,204)
2013	(15,972,204)	(52,472)	0	(16,024,676)
2014	(16,024,676)	814	0	(16,023,862)
2015	(16,023,862)	648,649	0	(15,375,213)
2016	(15,375,213)	513,858	0	(14,861,355)
2017	(14,861,355)	(228,349)	0	(15,089,704)
2018	(15,089,704)	(144,738)	0	(15,234,442)
2019	(15,234,442)	(338,990)	0	(15,573,432)
2020	(15,573,432)	(583,629)	0	(16,157,061)
2021	(16,157,061)	329,569	0	(15,827,492)

Actual (A) Compared to Expected (E) Decrements													
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	
9/30/2002	6	6	0	3	0	0	0	0	1	5	6	7	92
9/30/2003	8	16	6	3	0	0	0	0	0	10	10	7	84
9/30/2004	18	14	0	2	1	0	0	0	0	13	13	6	88
9/30/2005	14	18	5	4	0	0	0	0	0	13	13	6	84
9/30/2006	7	13	3	6	1	0	0	0	1	8	9	6	78
9/30/2007	19	11	0	4	2	0	0	0	0	9	9	6	86
9/30/2008	0	40	6	7	0	0	0	0	0	34	34	6	46
9/30/2009	0	0	4	6	0	0	0	0	0	2	2	2	40
9/30/2010	0	0	12	6	0	0	0	0	1	0	1	2	27
9/30/2011	1	0	8	5	0	0	0	0	0	0	0	1	20
9/30/2012	0	0	2	1	0	0	0	0	0	0	0	1	18
9/30/2013	0	0	1	0	0	0	0	0	0	0	0	1	17
9/30/2014	0	0	3	1	0	0	0	0	0	0	0	1	14
9/30/2015	0	0	0	0	0	0	0	0	0	0	0	1	14
9/30/2016	0	0	2	0	0	0	0	0	0	0	0	1	12
9/30/2017	0	0	2	1	0	0	0	0	0	0	0	1	10
9/30/2018	0	0	0	0	0	0	0	0	0	0	0	1	10
9/30/2019	0	0	0	0	0	0	0	0	0	0	0	1	10
9/30/2020	0	0	1	0	0	0	0	0	0	0	0	0	9
9/30/2021	0	0	1	1	0	0	0	0	0	0	0	0	8
9/30/2022		0		2		0		0				0	
20 Yr Totals	73	118	56	50	4	0	0	0	3	94	97	57	

RECENT HISTORY OF VALUATION RESULTS									
Valuation Date	Number of		Covered Annual Payroll	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Employer Normal Cost	
	Active Members	Inactive Members						Amount	% of Payroll
10/1/91	112	37	3,674,682	8,836,295	9,784,119	947,824	90.3	531,603	14.47
10/1/92	113	38	3,580,586	9,752,348	10,676,581	924,233	91.3	521,807	14.57
10/1/93	106	40	3,250,579	10,804,037	11,567,473	763,436	93.4	375,549	11.55
10/1/94	112	47	3,686,249	10,897,375	11,423,738	526,363	95.4	712,190	19.32
10/1/95	118	49	3,813,080	12,373,585	13,168,859	795,274	94.0	599,882	15.73
10/1/96	113	50	3,841,328	14,004,551	14,440,595	436,044	97.0	522,526	13.60
10/1/97	111	50	3,832,596	15,690,202	15,915,045	224,843	98.6	451,872	11.79
10/1/98	101	50	3,763,759	17,379,065	17,432,134	53,069	99.7	393,031	10.44
10/1/99	97	51	3,840,448	19,296,742	19,208,918	(87,824)	100.5	351,378	9.15
10/1/00	93	55	3,775,993	21,286,307	21,099,355	(186,952)	100.9	354,972	9.40
10/1/01	94	63	4,180,292	22,415,505	23,739,500	1,323,995	94.4	598,248	14.31
10/1/02	92	65	4,255,362	22,032,804	25,443,409	3,410,605	86.6	893,713	21.00
10/1/03	84	71	3,819,162	22,194,654	27,293,096	5,098,442	81.3	1,069,199	28.00
10/1/04	88	67	4,808,730	22,500,081	30,949,284	8,449,204	72.7	521,221	10.84
10/1/05	84	69	4,679,513	22,734,299	32,208,121	9,473,822	70.6	516,636	11.04
10/1/06	78	73	4,427,671	23,626,275	33,711,879	10,085,604	70.1	497,729	11.24
10/1/07	86	74	4,883,436	25,388,486	35,103,779	9,715,293	72.3	555,480	11.37
10/1/08	46	79	3,504,813	26,107,595	37,488,750	11,381,155	69.6	407,351	11.62
10/1/09	40	82	2,885,722	25,634,799	38,438,528	12,803,729	66.7	363,176	12.59
10/1/10	27	93	2,037,850	25,331,745	40,679,243	15,347,498	62.3	291,349	14.30
10/1/11	20	98	1,553,664	23,728,194	42,922,206	19,194,012	55.3	266,634	17.16
10/1/12	18	99	1,460,425	22,548,900	44,209,567	21,660,667	51.0	259,744	17.79
10/1/13	17	100	1,445,490	22,590,332	45,553,757	22,963,425	49.6	270,139	18.69
10/1/14	14	102	1,206,774	23,317,813	45,920,391	22,602,578	50.8	252,360	20.91
10/1/15	14	100	1,291,648	24,331,629	46,317,910	21,986,281	52.5	264,509	20.48
10/1/16	12	98	1,117,134	25,723,721	46,680,488	20,956,767	55.1	245,562	21.98
10/1/17	10	99	951,154	26,698,120	47,526,591	20,828,471	56.2	226,003	23.76
10/1/18	10	97	1,002,100	27,505,993	48,027,645	20,521,652	57.3	238,620	23.81
10/1/19	10	95	1,075,955	28,333,489	48,532,903	20,199,414	58.4	261,091	24.27
10/1/20	9	95	1,033,615	29,839,544	48,187,235	18,347,691	61.9	263,520	25.49
10/1/21	8	92	950,193	32,167,322	48,421,822	16,254,500	66.4	256,963	27.04

Note: Before reduction for Chapter 185 revenue used for minimum benefit.

RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS				
Valuation Date	End of Year To Which Valuation Applies	Required Contributions		Actual Employer Contribution for Year to Which Valuation Applies
		Amount	% of Payroll	
10/1/1991	9/30/1993	684,086	18.62	684,086
10/1/1992	9/30/1994	678,839	18.96	678,850
10/1/1993	9/30/1995	523,177	16.09	523,180
10/1/1994	9/30/1996	874,082	23.71	874,100
10/1/1995	9/30/1997	791,009	20.74	791,010
10/1/1996	9/30/1998	655,617	17.07	655,625
10/1/1997	9/30/1999	550,381	14.36	550,400
10/1/1998	9/30/2000	455,164	12.09	455,175
10/1/1999	9/30/2001	380,221	9.90	380,225
10/1/2000	9/30/2002	359,336	9.52	359,350
10/1/2001	9/30/2003	621,485	14.87	623,195
10/1/2002	9/30/2004	903,703	20.42	1,096,449
10/1/2003	9/30/2005	1,117,701	28.14	1,117,701
10/1/2004	9/30/2006	1,064,230	21.28	1,064,250
10/1/2005	9/30/2007	1,134,913	23.32	1,134,930
10/1/2006	9/30/2008	1,496,092	32.49	1,496,092
10/1/2007	9/30/2009	1,452,892	30.21	1,452,892
10/1/2008	9/30/2010	1,453,457	42.19	1,453,457
10/1/2009	9/30/2011	1,569,833	54.40	1,569,833
10/1/2010	9/30/2012	1,733,395	85.06	1,733,395
10/1/2011	9/30/2013	2,071,189	133.31	2,071,189
10/1/2012	9/30/2014	2,341,353	160.32	2,341,353
10/1/2013	9/30/2015	2,548,833	176.33	2,564,159
10/1/2014	9/30/2016	2,615,683	216.75	2,673,733
10/1/2015	9/30/2017	2,696,961	208.80	2,778,366
10/1/2016	9/30/2018	2,742,005	245.45	2,823,410
10/1/2017	9/30/2019	2,962,654	311.48	2,962,654
10/1/2018	9/30/2020	3,408,802	340.17	3,408,802
10/1/2019	9/30/2021	3,834,596	356.39	3,834,596
10/1/2020	9/30/2022	3,910,269	378.31	NA
10/1/2021	9/30/2023	3,951,568	415.87	NA

ACTUARIAL ASSUMPTIONS AND COST METHOD

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 (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) dollar contributions over a reasonable period of future years. This period is 10 years for bases established on or after as of October 1, 2018. For all bases established prior to October 1, 2018 the period is currently 5 years.

Actuarial Value of Assets - The Actuarial Value of Assets phase in the difference between the expected investment earnings and actual investment earnings 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.

Economic Assumptions

The **investment return rate** assumed in the valuation is 6.70% per year, compounded annually (net after investment expenses). This rate was 6.85% in the previous valuation.

The **Inflation Rate** assumed in this valuation was 2.5% per year.

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 6.70% investment return rate translates to an assumed real rate of return over inflation of 4.20%.

The **rate of salary increase** used for individual members is 6.5% per year. Part of the assumption is for productivity, merit and/or seniority increases, and 2.5% recognizes inflation. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.



Demographic Assumptions

The mortality tables used in the valuation are based on the PUB-2010 Headcount Weighted Mortality Tables described below, with mortality improvements projected for healthy lives to all future years after 2010 using Scale MP-2018. No mortality improvement is projected for disabled lives.

	Pre-Retirement PUB-2010 Table	Post-Retirement PUB-2010 Table
Female Healthy	Headcount Weighted Safety Employee Female Table, set forward 1 year	Headcount Weighted Safety Healthy Retiree Female Table, set forward 1 year
Male Healthy	Headcount Weighted Safety Below Median Employee Male Table, set forward 1 year	Headcount Weighted Safety Below Median Healthy Retiree Male Table, set forward 1 year
Female Disabled	N/A	80% Headcount Weighted General Disabled Retiree Female Table; 20% Headcount Weighted Safety Disabled Retiree Female Table
Male Disabled	N/A	80% Headcount Weighted General Disabled Retiree Male Table; 20% Headcount Weighted Safety Disabled Retiree Male Table

These are the same rates as used for Special Risk Class members in the July 1, 2020 Actuarial Valuation of the Florida Retirement System (FRS). Florida Statutes Chapter 112.63(1)(f) mandates the use of the mortality tables used in either of the two most recently published actuarial valuation reports of FRS.

The following table presents post-retirement mortality rates and life expectancies at illustrative ages. These assumptions are used to measure the probabilities of each benefit payment being made after retirement.

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

The following table presents pre-retirement mortality rates and life expectancies at illustrative ages. These assumptions are used to measure the probabilities of active members dying prior to retirement (75% of deaths are assumed to be service-connected).

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

The following table presents disabled post-retirement mortality rates and life expectancies at illustrative ages.

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 are as follows:

Number of Years After First Eligibility for Normal Retirement	Probability of Normal Retirement
0	70 %
1	40 %
2	40 %
3	40 %
4	40 %
5+	100 %

It was assumed that the probability of early retirement is 5% for every year of eligibility.

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.

Sample Ages	% of Active Members Separating Within Next Year
20	15.0%
25	12.3%
30	10.8%
35	9.1%
40	6.3%
45	2.5%

Rates of disability among active members (75% of disabilities are assumed to be service-connected).

Sample Ages	% Becoming Disabled within Next Year
20	0.14 %
25	0.15 %
30	0.18 %
35	0.23 %
40	0.30 %
45	0.51 %
50	1.00 %
55	1.55 %

Miscellaneous and Technical Assumptions

Administrative & Investment Expenses	The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the average of the prior two years' expenses. Assumed administrative expenses are added to the Normal Cost.
Benefit Service	Exact fractional service is used to determine the amount of benefit payable.
Decrement Operation	Disability and mortality decrements operate during retirement eligibility.
Decrement Timing	Decrements of all types are assumed to occur at the beginning of the year.
Eligibility Testing	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Forfeitures	For vested separations from service, it is assumed that 0% of members separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or the member's accumulated contributions.
Incidence of Contributions	Employer contributions are assumed to be made in equal installments at the end of each month. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Marriage Assumption	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Normal Form of Benefit	A ten year certain and life annuity is the normal form of benefit.
Pay Increase Timing	Middle of fiscal year.
Service Credit Accruals	It is assumed that members accrue one year of service credit per year.

GLOSSARY

Actuarial Accrued Liability (AAL)	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
Actuarial Assumptions	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
Actuarial Cost Method	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
Actuarial Equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV)	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
Actuarial Present Value of Future Benefits (APVFB)	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.
Actuarial Value of Assets	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution (ADC).
Amortization Method	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is

equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.

Amortization Payment	That portion of the plan contribution or ADC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
Amortization Period	The period used in calculating the Amortization Payment.
Actuarially Determined Contribution (ADC)	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB. The ADC consists of the Employer Normal Cost and Amortization Payment.
Closed Amortization Period	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
Employer Normal Cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Equivalent Single Amortization Period	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
Experience Gain/Loss	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.
Funded Ratio	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
GASB	Governmental Accounting Standards Board.
GASB No. 67 and GASB No. 68	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. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.



Normal Cost	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
Open Amortization Period	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
Unfunded Actuarial Accrued Liability	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
Valuation Date	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

SECTION C

PENSION FUND INFORMATION

SUMMARY OF ASSETS AT MARKET VALUE

Item	September 30	
	2021	2020
A. Cash and Cash Equivalents (Operating Cash)	\$ 2,080,151	\$ 836,378
B. Receivables:		
1. Member Contributions	\$ -	\$ -
2. City Contributions	-	3,059,130
3. State Contributions	-	623,454
4. Due for Securities sold	-	-
5. Investment Income and Other Receivables	77,598	56,205
6. Total Receivables	\$ 77,598	\$ 3,738,789
C. Investments		
1. Short-Term Investments	\$ -	\$ -
2. Domestic Equities	27,168,376	20,936,635
3. International Equities	-	-
4. Domestic Fixed Income	7,503,514	6,137,754
5. International Fixed Income	-	-
6. Real Estate	5,324,765	4,742,788
7. Private Equity	-	-
8. Total Investments	\$ 39,996,655	\$ 31,817,177
D. Liabilities		
1. Benefits Payable	\$ -	\$ -
2. Accrued Expenses and Other Payables	(32,024)	(27,275)
3. Due to Broker for Securities Purchased	-	-
4. Prepaid City Contribution	(577,367)	-
5. Total Liabilities	\$ (609,391)	\$ (27,275)
E. Total Market Value of Assets Available for Benefits	\$ 41,545,013	\$ 36,365,069
F. Reserves		
1. State Contribution Reserve	\$ -	\$ -
2. DROP Accounts	(40,399)	(628,375)
3. Share Plan Benefits (Division 2)	(6,231,240)	(5,530,719)
4. Total Reserves	\$ (6,271,639)	\$ (6,159,094)
G. Market Value Net of Reserves	\$ 35,273,374	\$ 30,205,975
H. Allocation of Investments		
1. Short-Term Investments	0.0%	0.0%
2. Domestic Equities	67.9%	65.8%
3. International Equities	0.0%	0.0%
4. Domestic Fixed Income	18.8%	19.3%
5. International Fixed Income	0.0%	0.0%
6. Real Estate	13.3%	14.9%
7. Private Equity	0.0%	0.0%
8. Total Investments	100.0%	100.0%



RECONCILIATION OF PLAN ASSETS

Item	September 30	
	2021	2020
A. Market Value of Assets at Beginning of Year	\$ 36,365,069	\$ 33,305,790
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	\$ 128,159	\$ 75,013
b. Employee Contributions (Buy-backs)	-	-
c. City Contributions (including Sheriff's office)	3,551,191	3,125,397
d. State Contributions (allocated to Share Plan)	279,894	340,049
e. State Contributions (allocated to Pension)	283,405	283,405
f. Miscellaneous Income	-	-
g. Total	\$ 4,242,649	\$ 3,823,864
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 1,445,928	\$ 1,049,402
b. Realized Gains/(Losses)	3,436,619	1,260,455
c. Unrealized Gains/(Losses)	1,356,972	987,695
d. Investment Expenses	(167,243)	(162,403)
e. Miscellaneous Income	1,134	2,626
f. Net Investment Income	\$ 6,073,410	\$ 3,137,775
3. Benefits and Refunds		
a. DROP Distributions	\$ (734,418)	\$ -
b. Share Plan Distributions	(634,128)	(246,499)
c. Regular Monthly Benefits	(3,670,049)	(3,558,204)
d. Refunds of Contributions	-	-
e. Total	\$ (5,038,595)	\$ (3,804,703)
4. Administrative and Miscellaneous Expenses	\$ (97,520)	\$ (97,657)
C. Market Value of Assets at End of Year	\$ 41,545,013	\$ 36,365,069
D. Reserves		
1. State Contribution Reserve	\$ -	\$ -
2. DROP Accounts	(40,399)	(628,375)
3. Share Plan Benefits (Division 2)	(6,231,240)	(5,530,719)
4. Total Reserves	\$ (6,271,639)	\$ (6,159,094)
E. Market Value Net of Reserves	\$ 35,273,374	\$ 30,205,975



CALCULATION OF ACTUARIAL VALUE OF ASSETS

Valuation Date - September 30,	2020	2021	2022	2023	2024	2025
A. Actuarial Value of Assets Beginning of Year	\$ 33,761,778	\$ 35,998,638				
B. Market Value End of Year	36,365,069	41,545,013				
C. Market Value Beginning of Year	33,305,790	36,365,069				
D. Non-Investment/Administrative Net Cash Flow	(78,496)	(893,466)				
E. Investment Income						
E1. Actual Market Total: B-C-D	3,137,775	6,073,410				
E2. Assumed Rate of Return	7.00%	6.85%	6.70%	6.55%	6.50%	6.50%
E3. Assumed Amount of Return	2,231,687	2,435,305				
E4. Amount Subject to Phase-In: E1-E3	906,088	3,638,105				
F. Phase-In Recognition of Investment Income						
F1. Current Year: 0.20 x E4	181,218	727,621				
F2. First Prior Year	(169,571)	181,218	727,621			
F3. Second Prior Year	(8,940)	(169,571)	181,218	727,621		
F4. Third Prior Year	168,155	(8,940)	(169,571)	181,218	727,621	
F5. Fourth Prior Year	(87,193)	168,156	(8,941)	(169,572)	181,216	727,621
F6. Total Phase-Ins	83,669	898,484	730,327	739,267	908,837	727,621
G. Actuarial Value of Assets End of Year						
G1. Preliminary Actuarial Value of Assets:						
A + D + E3 + F6	\$ 35,998,638	\$ 38,438,961				
G2. Upper Corridor Limit: 120%*B	43,638,083	49,854,016				
G3. Lower Corridor Limit: 80%*B	29,092,055	33,236,010				
G4. Actuarial Value End of Year	35,998,638	38,438,961				
G5. Less: DROP Account and Share Account	6,159,094	6,271,639				
G6. Net Actuarial Value End of Year	29,839,544	32,167,322				
H. Difference between Market & Actuarial Value	\$ 366,431	\$ 3,106,052				
I. Actuarial Rate of Return	7.26%	9.38%				
J. Market Value Rate of Return	9.98%	16.91%				
K. Ratio of Actuarial Value of Assets to Market Value	98.99%	92.52%				



RECONCILIATION OF DEFERRED RETIREMENT OPTION PLAN ACCOUNTS AND SHARE PLAN ACCOUNTS

DROP ACCOUNTS	
Balance - Beg. Of Year	\$ 628,375
Additions	138,350
Earnings	8,092
Distributions	<u>(734,418)</u>
Balance - End of Year	40,399
SHARE PLAN ACCOUNTS	
Balance - Beg. Of Year	\$ 5,530,719
Additions	279,894
Earnings	1,054,755
Distributions	<u>(634,128)</u>
Balance - End of Year	6,231,240
Adjustment of Actuarial Value of Assets	
Actuarial Value of Assets Before Reserves (Previous Page)	\$ 38,438,961
DROP Account Balance	(40,399)
Share Plan Account Balance	<u>(6,231,240)</u>
Adjusted Asset Value	32,167,322

INVESTMENT RATE OF RETURN

Year Ending	Investment Rate of Return	
	Market Value	Actuarial Value
12/31/1972	18.2 %	7.3 %
12/31/1973	(6.3)	8.7
12/31/1974	(11.7)	4.3
12/31/1975	16.4	4.6
12/31/1976	21.8	5.2
12/31/1977	2.1	5.0
12/31/1978	2.7	5.2
9/30/1979 (9 mos.)	7.3	4.5
9/30/1980	6.1	7.6
9/30/1981	(1.3)	6.8
9/30/1982	21.5	8.1
9/30/1983	16.0	14.6
9/30/1984	7.8	10.5
9/30/1985	16.8	8.8
9/30/1986	20.8	17.1
9/30/1987	12.8	18.1
9/30/1988	1.5	0.8
9/30/1989	18.2	17.0
9/30/1990	1.8	4.0
9/30/1991	17.0	14.7
9/30/1992	6.2	6.8
9/30/1993	9.4	7.8
9/30/1994	(0.7)	0.1
9/30/1995	18.6	15.2
9/30/1996	12.3	11.5
9/30/1997	22.1	11.5
9/30/1998	8.5	11.7
9/30/1999	13.8	12.6
9/30/2000	13.1	13.2
9/30/2001	(9.3)	8.5
9/30/2002	(4.2)	2.5
9/30/2003	11.5	4.3
9/30/2004	8.1	3.1
9/30/2005	9.9	2.5
9/30/2006	7.2	5.7
9/30/2007	11.7	8.8
9/30/2008	(12.4)	4.2
9/30/2009	0.4	3.0
9/30/2010	8.2	2.5
9/30/2011	(0.8)	0.6
9/30/2012	18.6	2.5
9/30/2013	14.0	6.7
9/30/2014	9.7	8.7
9/30/2015	1.5	7.7
9/30/2016	6.1	8.8
9/30/2017	10.6	8.0
9/30/2018	7.2	6.8
9/30/2019	4.5	5.7
9/30/2020	10.0	7.3
9/30/2021	16.9	9.4
Average Compounded Rate of Return for Number of Years Shown	8.1 %	7.6 %
Average Compounded Rate of Return for Last 5 Years	9.8 %	7.4 %

SECTION D

FINANCIAL ACCOUNTING INFORMATION

FASB NO. 35 INFORMATION		
A. Valuation Date	10/1/2021	10/1/2020
B. Actuarial Present Value of Accumulated Plan Benefits		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 42,253,394	\$ 41,812,265
b. Terminated Vested Members	0	0
c. Active Members	5,459,308	5,229,800
d. Total	47,712,702	47,042,065
2. Non-Vested Benefits	0	0
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	47,712,702	47,042,065
4. Accumulated Contributions of Active Members	783,598	756,717
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits		
1. Total Value at Beginning of Year	47,042,065	47,229,843
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	0
b. Change in Actuarial Assumptions/Methods	658,504	(686,011)
c. Latest Member Data, Benefits Accumulated, and Decrease in the Discount Period	3,820,532	4,193,222
d. Benefits Paid (Net basis)	(3,808,399)	(3,694,989)
e. Net Increase	670,637	(187,778)
3. Total Value at End of Period	47,712,702	47,042,065
D. Market Value of Assets	35,273,374	30,205,975

SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

GASB Statement No. 67

Fiscal year ending September 30,	2022*	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service Cost	\$ 219,654	\$ 231,542	\$ 233,461	\$ 210,912	\$ 193,882	\$ 229,634	\$ 255,209	\$ 238,693	\$ 280,511
Interest	3,544,414	3,648,567	3,711,037	3,702,052	3,661,397	3,713,027	3,837,201	3,902,610	3,915,664
Benefit Changes	-	-	-	-	-	-	-	-	-
Difference between actual & expected experience	616,756	666,011	(144,036)	24,508	434,141	(97,978)	(655,445)	287,033	115,847
Assumption Changes	638,300	(806,211)	672,851	666,720	656,642	266,889	635,049	-	-
Benefit Payments	(3,855,329)	(5,038,595)	(3,804,703)	(3,680,593)	(3,678,987)	(4,422,363)	(5,427,902)	(5,567,874)	(3,923,670)
Refunds	-	-	-	-	-	-	-	-	-
Other (Additions to Share Plan and Buybacks)	279,894	339,815	340,049	270,932	295,992	235,027	209,050	209,050	202,603
Net Change in Total Pension Liability	1,443,689	(958,871)	1,008,659	1,194,531	1,563,067	(75,764)	(1,146,838)	(930,488)	590,955
Total Pension Liability - Beginning	53,451,276	54,410,147	53,401,488	52,206,957	50,643,890	50,719,654	51,866,492	52,796,980	52,206,025
Total Pension Liability - Ending (a)	\$ 54,894,965	\$ 53,451,276	\$ 54,410,147	\$ 53,401,488	\$ 52,206,957	\$ 50,643,890	\$ 50,719,654	\$ 51,866,492	\$ 52,796,980
Plan Fiduciary Net Position									
Contributions - Employer (from City)	\$ 3,626,864	\$ 3,652,061	\$ 3,024,527	\$ 2,679,249	\$ 2,540,005	\$ 2,494,961	\$ 2,138,029	\$ 2,091,989	\$ 1,883,177
Contributions - Employer (from State)	563,299	563,299	623,454	554,337	579,397	518,432	469,100	426,376	404,603
Contributions - Non-Employer Contributing Entity (from PBSO)	-	-	-	-	-	-	275,654	254,844	256,176
Contributions - Employee (including buyback contributions)	67,084	128,159	75,013	73,571	68,521	73,533	169,346	102,916	208,801
Net Investment Income	2,774,840	6,073,410	3,137,775	1,451,429	2,189,338	3,021,517	1,744,263	449,322	2,906,179
Benefit Payments	(3,855,329)	(5,038,595)	(3,804,703)	(3,680,593)	(3,678,987)	(4,422,363)	(5,427,902)	(5,567,874)	(3,923,670)
Refunds	-	-	-	-	-	-	-	-	-
Administrative Expense	(97,589)	(97,520)	(97,657)	(100,691)	(91,941)	(91,961)	(94,732)	(89,064)	(96,476)
Other	-	-	-	-	-	-	-	-	-
Net Change in Plan Fiduciary Net Position	3,079,169	5,280,814	2,958,409	977,302	1,606,333	1,594,119	(726,242)	(2,331,491)	1,638,790
Plan Fiduciary Net Position - Beginning	41,545,013	36,264,199	33,305,790	32,328,488	30,722,155	29,128,036	29,854,278	32,185,769	30,546,979
Plan Fiduciary Net Position - Ending (b)	\$ 44,624,182	\$ 41,545,013	\$ 36,264,199	\$ 33,305,790	\$ 32,328,488	\$ 30,722,155	\$ 29,128,036	\$ 29,854,278	\$ 32,185,769
Net Pension Liability - Ending (a) - (b)	10,270,783	11,906,263	18,145,948	20,095,698	19,878,469	19,921,735	21,591,618	22,012,214	20,611,211
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	81.29 %	77.73 %	66.65 %	62.37 %	61.92 %	60.66 %	57.43 %	57.56 %	60.96 %
Covered Payroll	\$ 950,193	\$ 966,547	\$ 1,071,183	\$ 1,042,087	\$ 970,555	\$ 1,041,543	\$ 1,275,960	\$ 1,250,989	\$ 1,333,456
Net Pension Liability as a Percentage of Covered Payroll	1,080.92 %	1,231.83 %	1,694.01 %	1,928.41 %	2,048.15 %	1,912.71 %	1,692.19 %	1,759.58 %	1,545.70 %

* These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY

GASB Statement No. 67

<u>FY Ending September 30,</u>	<u>Total Pension Liability</u>	<u>Plan Fiduciary Net Position</u>	<u>Net Pension Liability</u>	<u>Plan Fiduciary Net Position as a % of Total Pension Liability</u>	<u>Covered Payroll</u>	<u>Net Pension Liability as a % of Covered Payroll</u>
2014	\$ 52,796,980	\$ 32,185,769	\$ 20,611,211	60.96%	\$ 1,333,456	1,545.70 %
2015	51,866,492	29,854,278	22,012,214	57.56%	1,250,989	1,759.58 %
2016	50,719,654	29,128,036	21,591,618	57.43%	1,275,960	1,692.19 %
2017	50,643,890	30,722,155	19,921,735	60.66%	1,041,543	1,912.71 %
2018	52,206,957	32,328,488	19,878,469	61.92%	970,555	2,048.15 %
2019	53,401,488	33,305,790	20,095,698	62.37%	1,042,087	1,928.41 %
2020	54,410,147	36,264,199	18,145,948	66.65%	1,071,183	1,694.01 %
2021	53,451,276	41,545,013	11,906,263	77.73%	966,547	1,231.83 %
2022*	54,894,965	44,624,182	10,270,783	81.29%	950,193	1,080.92 %

* These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



NOTES TO NET PENSION LIABILITY

GASB Statement No. 67 (for Fiscal Year Ending September 30, 2022)

Valuation Date: October 1, 2021
Measurement Date: September 30, 2022

Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method	Entry Age Normal
Inflation	2.50%
Salary Increases	6.5%, including inflation
Investment Rate of Return	6.70%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	The same versions of Pub-2010 Headcount-Weighted Mortality Tables as used by the Florida Retirement System (FRS) for Special Risk employees in their July 1, 2020 actuarial valuation (with mortality improvements projected for non-disabled lives to all future years after 2010 using Scale MP-2018). Florida Statutes Chapter 112.63(1)(f) mandates the use of mortality tables from one of the two most recently published FRS actuarial valuation reports.

Other Information:

Notes See Discussion of Valuation Results on Page 1

The following change is reflected in the Total Pension Liability measured as of September 30, 2022:

- Effective October 1, 2021, the investment return assumption was changed from 6.85% to 6.70%.



SCHEDULE OF CONTRIBUTIONS

GASB Statement No. 67

<u>FY Ending September 30,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll</u>	<u>Actual Contribution as a % of Covered Payroll</u>
2014	\$ 2,341,353	\$ 2,341,353	\$ -	\$ 1,333,456	175.59%
2015	2,548,833	2,564,159	(15,326)	1,250,989	204.97%
2016	2,615,683	2,673,733	(58,050)	1,275,960	209.55%
2017	2,696,961	2,778,366	(81,405)	1,041,543	266.75%
2018	2,742,005	2,823,410	(81,405)	970,555	290.91%
2019	2,962,654	2,962,654	-	1,042,087	284.30%
2020	3,307,932	3,307,932	-	1,071,183	308.81%
2021	3,935,466 **	3,935,466 **	-	966,547	407.17%
2022*	3,910,269	3,910,269	-	950,193	411.52%

* These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

** Reflects interest accrued through September 30, 2020 on the receivable employer contributions in the amount of \$100,870.



NOTES TO SCHEDULE OF CONTRIBUTIONS
GASB Statement No. 67 (for Fiscal Year Ending September 30, 2022)

Valuation Date: October 1, 2020
Notes Actuarially determined contributions are calculated as of the October 1st which is two years prior to the end of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	10 years
Asset Valuation Method	5-year smoothed market
Inflation	2.5%
Salary Increases	6.5%, including inflation
Investment Rate of Return	6.85%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	The same versions of Pub-2010 Headcount-Weighted Mortality Tables as used by the Florida Retirement System (FRS) for Special Risk employees in their July 1, 2020 actuarial valuation (with mortality improvements projected for non-disabled lives to all future years after 2010 using Scale MP-2018). Florida Statutes Chapter 112.63(1)(f) mandates the use of mortality tables from one of the two most recently published FRS actuarial valuation reports.

Other Information:

Notes See Discussion of Valuation Results on Page 1 of the October 1, 2020 Actuarial Valuation Report.



SINGLE DISCOUNT RATE AND SENSITIVITY ANALYSIS

GASB Statement No. 67

A single discount rate of 6.70% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 6.70%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these 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 (6.70%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 6.70%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption*

1% Decrease		Current Single Discount Rate Assumption		1% Increase	
5.70%		6.70%		7.70%	
\$	14,976,409	\$	10,270,783	\$	6,301,579

* These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

SECTION E

MISCELLANEOUS INFORMATION

RECONCILIATION OF MEMBERSHIP DATA		
	From 10/1/2020 to 10/1/2021	From 10/1/2019 to 10/1/2020
A. Active Members		
1. Number Included in Last Valuation	9	10
2. New Employees	0	0
3. Non-Vested Employment Terminations	0	0
4. Vested Employment Terminations	0	0
5. Service Retirements	0	(1)
6. DROP Retirement	(1)	0
7. Disability Retirements	0	0
8. Deaths	0	0
9. Other	0	0
10. Number Included in This Valuation	8	9
B. Terminated Vested Members		
1. Number Included in Last Valuation	0	0
2. Additions from Active Members	0	0
3. Lump Sum Payments/Refund of Contributions	0	0
4. Payments Commenced	0	0
5. Deaths	0	0
6. Other	0	0
7. Number Included in This Valuation	0	0
C. DROP Retirement		
1. Number Included in Last Valuation	2	2
2. Additions from Active Members	1	0
3. Payments Commenced	(2)	0
4. Deaths Resulting in No Further Payments	0	0
5. Number Included in This Valuation	1	2
D. Service Retirees, Disability Retirees and Beneficiaries		
1. Number Included in Last Valuation	93	93
2. Additions from Active Members	0	1
3. Additions from Terminated Vested Members	0	0
4. Additions from DROP	2	0
5. Deaths	(5)	(3)
6. New Survivor Benefits Added	1	2
7. End of Certain Period - No Further Payments	0	0
8. Other	0	0
9. Number Included in This Valuation	91	93

Schedule of Active Participant Data

Years of Service to Valuation Date										
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20 & Up	Totals
Age Group										
18-24 NO.	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
25-29 NO.	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
30-34 NO.	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
35-39 NO.	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
40-44 NO.	0	0	0	0	0	0	0	5	0	5
TOT PAY	0	0	0	0	0	0	0	597,936	0	597,936
AVG PAY	0	0	0	0	0	0	0	119,587	0	119,587
45-49 NO.	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
50-54 NO.	0	0	0	0	0	0	0	1	0	1
TOT PAY	0	0	0	0	0	0	0	116,642	0	116,642
AVG PAY	0	0	0	0	0	0	0	116,642	0	116,642
55-59 NO.	0	0	0	0	0	0	0	2	0	2
TOT PAY	0	0	0	0	0	0	0	205,706	0	205,706
AVG PAY	0	0	0	0	0	0	0	102,853	0	102,853
60 & Up	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
TOT NO.	0	0	0	0	0	0	0	8	0	8
TOT AMT	0	0	0	0	0	0	0	920,284	0	920,284
AVG AMT	0	0	0	0	0	0	0	115,036	0	115,036

SCHEDULE OF NON-ACTIVE PARTICIPANTS DATA								
Age	Vested		Disabled		Retired		Surviving Beneficiaries	
	Nbr	Benefits	Nbr	Benefits	Nbr	Benefits	Nbr	Benefits
Under 20								
20 - 24								
25 - 29								
30 - 34								
35 - 39								
40 - 44					1	70,681		
45 - 49					2	145,591		
50 - 54			1	20,693	14	712,258	1	44,986
55 - 59			2	71,777	16	731,068	1	42,035
60 - 64			1	13,177	13	587,391	2	39,415
65 - 69			1	15,495	12	548,018		
70 - 74			1	35,504	9	333,468	3	66,070
75+			1	6,915	8	215,507	3	58,533
Total	0	0	7	163,561	75	3,343,982	10	251,039
Average Age		0		64		63		70

SECTION F

SUMMARY OF PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS

A. Ordinances

Plan established under the Code of Ordinances for the City of Lake Worth Beach, Florida, Chapter 16, Article IV, Division 1, and was most recently amended under Ordinance No. 2014-21. The Plan is also governed by certain provisions of Chapter 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

Not provided

C. Plan Year

October 1 through September 30

D. Type of Plan

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

E. Eligibility Requirements

Regular full time police officers participate in the plan. The plan is closed to new entrants since 2008.

F. Credited Service

Service is measured as the period of continuous service with the City from the date of employment to the date of termination or retirement. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation

Total compensation excluding payments for overtime, compensatory time and accumulated leave time. For members hired prior to October 1, 1979, payments for overtime, compensatory time and accumulated leave time are included.

H. Average Final Compensation (AFC)

The average of Compensation over the highest 2 consecutive years within the last 10 years of Credited Service immediately preceding termination or retirement.



I. Normal Retirement

Eligibility:	A member may retire on the first day of the month coincident with or next following the earlier of: <ul style="list-style-type: none">(1) 20 years of Credited Service regardless of age, or(2) age 55 and 10 years of Credited Service, or(3) the date when the member's age (in full months) plus Credited Service (in full months) equals 75 years, provided the member has at least 10 years of Credited Service.
Benefit:	3.0% of AFC multiplied by Credited Service.
Annual Adjustment:	On October 1st of each year monthly benefits are increased by \$2.50 for each full year from the member's date of retirement until that October 1st.
Normal Form of Benefit:	10 Years Certain and Life thereafter; other options are also available.
COLA:	One half of the actuarial gain realized for the prior fiscal year is used to increase benefits on June 1st of each year for members who have been retired for at least 3 years. The increase is limited to the change in the CPI over the preceding calendar year. If there was no actuarial gain realized for the prior fiscal year, then no cost of living adjustment is provided.

J. Early Retirement

Eligibility:	A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 50 and 10 years of Credited Service.
Benefit:	The Normal Retirement Benefit is reduced by 3.0% for each year by which the Early Retirement date precedes the Normal Retirement date.
Annual Adjustment:	On October 1st of each year monthly benefits are increased by \$2.50 for each full year from the member's date of retirement until that October 1st.
Normal Form of Benefit:	10 Years Certain and Life thereafter; other options are also available.
COLA:	One half of the actuarial gain realized for the prior fiscal year is used to increase benefits on June 1st of each year for members who have been retired for at least 3 years. The increase is limited to the change in the CPI over the preceding calendar year. If there was no actuarial gain realized for the prior fiscal year, then no cost of living adjustment is provided.

K. Delayed Retirement

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

L. Service Connected Disability

Eligibility: Any member who becomes totally and permanently disabled and unable to render useful and efficient service as a police officer as a result from an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit: The greater of:

- (1) Accrued Normal Retirement Benefit taking into account compensation earned and service credited until the date of disability without reduction for Early Retirement.
- (2) Accrued pension benefit calculated as though the member had 20 years of Credited Service on the date of disability without reduction for Early Retirement.

Annual

Adjustment: On October 1st of each year monthly benefits are increased by \$2.50 for each full year from the member's date of retirement until that October 1st.

Earned Income

Offset: If the disabled retiree is gainfully employed, the disability benefit may be adjusted each year so that the total of his disability and employment income does not exceed his compensation at the time of disability, adjusted for pay changes subsequent to the disability retirement date.

Normal Form

of Benefit: Payable for 10 Years Certain and Life thereafter; other options are also available.

COLA: One half of the actuarial gain realized for the prior fiscal year is used to increase benefits on June 1st of each year for members who have been retired for at least 3 years. The increase is limited to the change in the CPI over the preceding calendar year. If there was no actuarial gain realized for the prior fiscal year, then no cost of living adjustment is provided.

M. Non-Service Connected Disability

Eligibility: Any member with 10 years of Credited Service who becomes totally and permanently disabled and unable to render useful and efficient service as a police officer is eligible for a disability benefit.

Benefit: Accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of disability without reduction for Early Retirement.



Annual

Adjustment: On October 1st of each year monthly benefits are increased by \$2.50 for each full year from the member's date of retirement until that October 1st.

Earned Income

Offset: If the disabled retiree is gainfully employed, the disability benefit may be adjusted each year so that the total of his disability and employment income does not exceed his compensation at the time of disability, adjusted for pay changes subsequent to the disability retirement date.

Normal Form

of Benefit: Payable for 10 Years Certain and Life thereafter; other options are also available.

COLA: One half of the actuarial gain realized for the prior fiscal year is used to increase benefits on June 1st of each year for members who have been retired for at least 3 years. The increase is limited to the change in the CPI over the preceding calendar year. If there was no actuarial gain realized for the prior fiscal year, then no cost of living adjustment is provided.

N. Death in the Line of Duty

Eligibility: Any member whose death is determined to be the result of a service incurred injury is eligible for survivor benefits regardless of Credited Service.

Benefit: The member's accumulated contributions are refunded to the member's designated beneficiary and a monthly pension is payable as follows:

- (1) 50% of final compensation is paid to the spouse.
- (2) 25% of final compensation is distributed among the unmarried children. If the spouse dies or remarries, 25% is paid to each child with an overall maximum of 50% for all children.
- (3) If there is no spouse or eligible children, 16 2/3% of final compensation is payable to each dependent parent, if any.

In lieu of the spouse's and children's benefits described above, the surviving spouse may elect to receive the death benefit described under Other Pre-Retirement Death below.

Annual

Adjustment: On October 1st of each year monthly benefits are increased by \$2.50 for each full year from the member's date of retirement until that October 1st.

Normal Form

of Benefit: Spouse's and dependent parent's benefits are payable for life; children's benefits are payable until age 18 (age 23 if a full-time student), marriage or death.

COLA: One half of the actuarial gain realized for the prior fiscal year is used to increase benefits on June 1st of each year for members who have been retired for at



least 3 years. The increase is limited to the change in the CPI over the preceding calendar year. If there was no actuarial gain realized for the prior fiscal year, then no cost of living adjustment is provided.

O. Other Pre-Retirement Death

- Eligibility: Any member with 10 years of Credited Service is eligible for survivor benefits.
- Benefit: The member's spouse will receive the actuarial equivalent of the member's accrued Normal Retirement benefit taking into account compensation earned and service credited until the date of death. Benefit is paid as though the member had retired on the date of death and selected the 100% Joint and Survivor annuity option.
- Annual Adjustment: On October 1st of each year monthly benefits are increased by \$2.50 for each full year from the member's date of retirement until that October 1st.
- Normal Form of Benefit: Paid for the life of the spouse.
- COLA: One half of the actuarial gain realized for the prior fiscal year is used to increase benefits on June 1st of each year for members who have been retired for at least 3 years. The increase is limited to the change in the CPI over the preceding calendar year. If there was no actuarial gain realized for the prior fiscal year, then no cost of living adjustment is provided.

The designated beneficiary of any plan member who dies while employed by the City will receive a refund of the member's accumulated contributions regardless of Credited Service.

P. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.

Q. 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 the 50%, 66 2/3%, 75% and 100% Joint and Survivor Annuity options.

R. Vested Termination/Severance Benefits

- Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service provided they elect to leave their accumulated contributions in the fund.
- Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit is payable at the member's Normal Retirement date.



Annual

Adjustment: On October 1st of each year monthly benefits are increased by \$2.50 for each full year from the member's date of retirement until that October 1st.

Normal Form

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

COLA: One half of the actuarial gain realized for the prior fiscal year is used to increase benefits on June 1st of each year for members who have been retired for at least 3 years. The increase is limited to the change in the CPI over the preceding calendar year. If there was no actuarial gain realized for the prior fiscal year, then no cost of living adjustment is provided.

Members terminating employment with less than 10 years of Credited Service will receive a refund of their own accumulated contributions.

S. Refunds

Eligibility: All members terminating employment with less than 10 years of Credited Service are eligible. Optionally, vested members may elect a refund in lieu of the vested benefits otherwise due.

Benefit: Refund of the member's contributions.

T. Member Contributions

7.06% of Compensation

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

One half of the actuarial gain realized for the prior fiscal year is used to increase benefits on June 1st of each year for members who have been retired for at least 3 years. The increase is limited to the change in the CPI over the preceding calendar year. If there was no actuarial gain realized for the prior fiscal year, then no cost of living adjustment is provided.

W. 13th Check

Not Applicable

X. Deferred Retirement Option Plan

Eligibility:	Plan members who have met one of the following criteria are eligible for the DROP: <ul style="list-style-type: none">(1) 20 years of Credited Service regardless of age, or(2) age 55 and 10 years of Credited Service, or(3) the date when the member's age (in full months) plus Credited Service (in full months) equals 75 years, provided the member has at least 10 years of Credited Service.
Benefit:	The member's Credited Service and AFC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and AFC.
Annual Adjustment:	On October 1st of each year monthly benefits are increased by \$2.50 for each full year from the member's date of retirement until that October 1st. The number of years is limited to the number of years of Credited Service at the member's date of retirement.
Maximum DROP Period:	60 months
Interest Credited:	The member's DROP account is credited or debited quarterly at either the interest rate realized by the plan for that quarter, or if so elected in advance, at a fixed rate of return established by the Plan Administrator.
Normal Form of Benefit:	Lump Sum
COLA:	One half of the actuarial gain realized for the prior fiscal year is used to increase benefits on June 1st of each year for members who have been retired for at least 3 years. The increase is limited to the change in the CPI over the preceding calendar year. If there was no actuarial gain realized for the prior fiscal year, then no cost of living adjustment is provided.

Y. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Lake Worth Beach Police Retirement System liability if continued beyond the availability of funding by the current funding source.

Z. Changes from Previous Valuation

There have been no changes since the previous valuation.