

ST. AUGUSTINE  
POLICE OFFICERS' RETIREMENT SYSTEM

2019 ACTUARIAL VALUATION

FEBRUARY 2020

ACTUARIAL VALUATION AS OF OCTOBER 1, 2019  
FOR THE PLAN YEAR BEGINNING OCTOBER 1, 2019  
TO DETERMINE CONTRIBUTIONS TO BE PAID  
IN THE FISCAL YEAR BEGINNING OCTOBER 1, 2020

February 17, 2020

Board of Trustees  
St. Augustine Police Officers' Retirement System  
P.O. Box 1950  
St. Augustine, Florida 32085

Board of Trustees:

This report presents the results of the 2019 actuarial valuation of the City of St. Augustine Police Officers' Retirement System. Actuarial Concepts was retained by the Board to perform the actuarial valuation and prepare this report. This actuarial valuation 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 and, in our opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112 and Chapter 185, 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 provided for in the valuation. All known events or trends that require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

The use of the valuation results for financial or administrative purposes, other than those outlined in the report, is not recommended without an advance review by Actuarial Concepts of the appropriateness of such application.

Members of our staff are available to discuss this report and related issues.

Very truly yours,

ACTUARIAL CONCEPTS



By: \_\_\_\_\_

Michael J. Tierney  
ASA, MAAA, FCA, EA #17-1337

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SECTION 1  
**KEY VALUATION RESULTS SUMMARY**

The 2019 valuation of the City of St. Augustine Police Officers' Retirement System ("Plan") presents a statement of the estimated financial position of the Plan as of October 1, 2019. Information in the report provides bases for determining contribution requirements and current funded status.

**Key Results Synopsis**

The major conclusions of the report are:

- The total Plan contribution for the 2019-2020 plan year is \$874,617. The required net City contribution (including City contributions by Ordinance) after premium tax refunds of \$252,471 and expected member contributions of \$195,188 is \$249,515. (Total City contribution, including Ordinance required contribution, is \$426,958.)
- The total Plan contribution for the 2020-2021 plan year is \$774,439. The required net City contribution (including City contributions by Ordinance) after estimated premium tax refunds of \$252,471 and expected member contributions of \$203,320 is \$133,812. (Total City contribution, including Ordinance required contribution, is \$318,648.)
- Premium tax refunds available for use to offset the total City contribution requirements can be limited due to application of the restrictions contained in Chapter 185, Florida Statutes, as interpreted by the State's administrative guidelines. Note that the law for premium tax use was recently changed by the Florida Legislature. Currently there are accumulated premium tax refunds held in an account for employees share plan of \$11,129, for future allocation.
- The Plan experienced an actuarial loss of approximately \$204,844. Most of the loss was due to greater salaries than assumed and a lower yield on assets than anticipated. These losses were partially offset by favorable demographic experience.
- The Plan is 96% funded on a projected liability basis.

### **Changes Since Last Valuation**

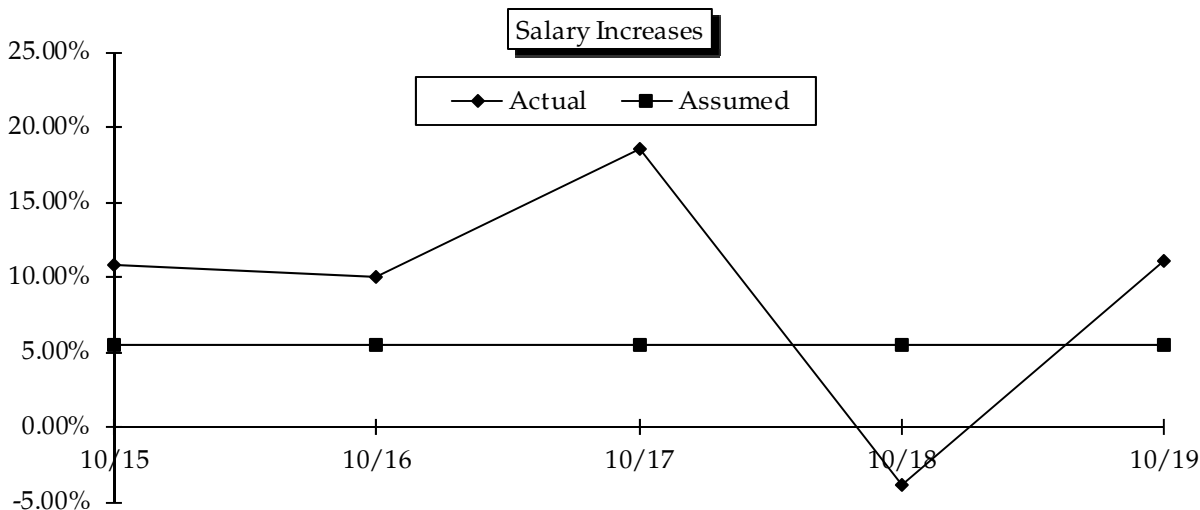
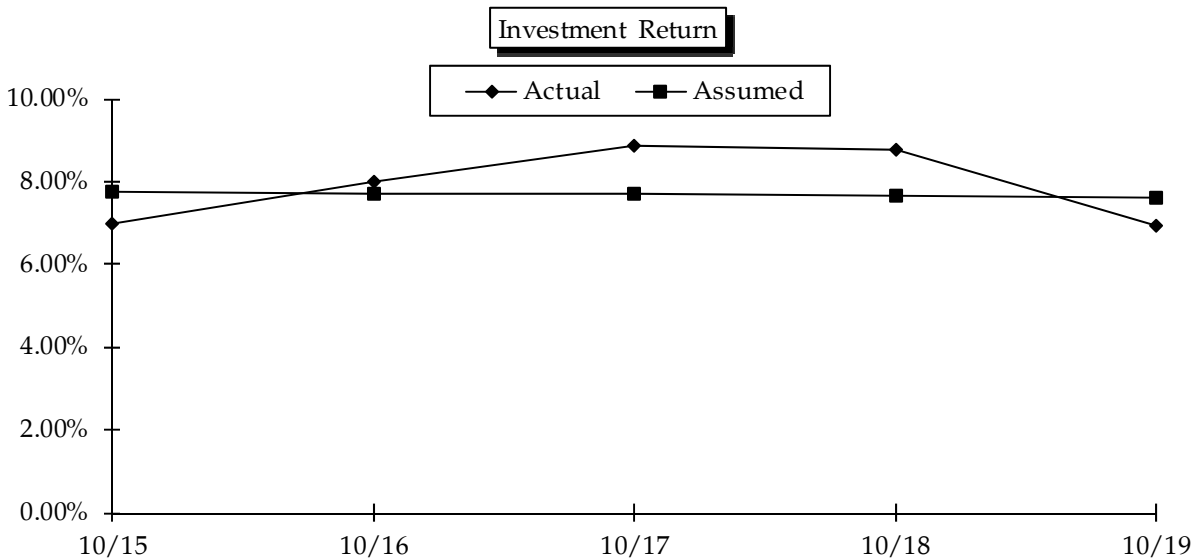
There have been no changes to the plan provisions or actuarial cost method since the last valuation. There has, however, been changes to the retirement and termination rates and the discount rate was lowered from 7.6% to 7.5%. See Appendix B for details.

The valuation assumes a 0% funded annual future cost-of-living increase for current active members. Pre-2000 retirees receive a guaranteed CPI cost-of-living increase up to 2% and no ad hoc cost-of-living increase. Post-2000 retirees receive no ad hoc increase, as there is not enough remaining cumulative actuarial gains in excess of prior ad hoc payments made. See Page B-7.

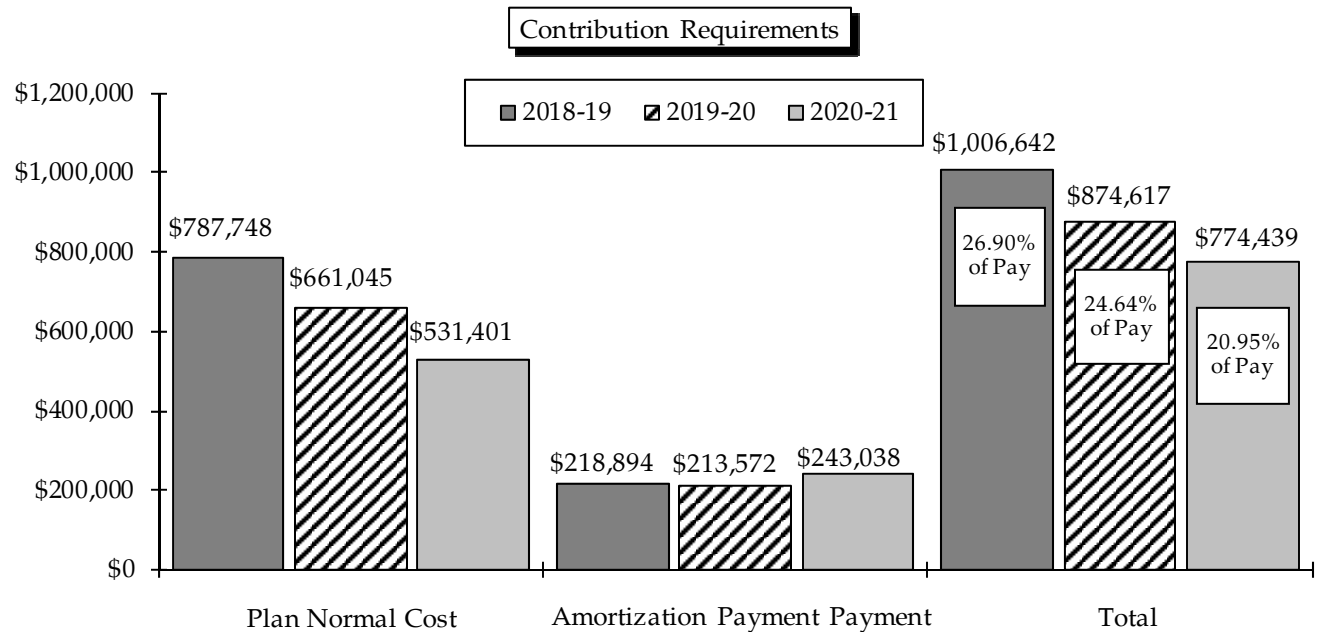
A summary of current Plan provisions is included in Appendix A. Actuarial assumptions and cost method are summarized in Appendix B.

**Plan Experience**

For the 12 months ended September 30, 2019, Plan experience has been less favorable than expected, resulting in a net actuarial loss of approximately \$205,000. Most of the loss is attributable to the greater than expected increases in salary of Plan members. Asset losses also contributed to the unfavorable experience. These losses were partially offset by favorable demographic experience.



## Contribution Requirements



Contribution Type*	2018-19	2019-20	2020-21
Total Plan Contributions Required	\$ 1,006,642	\$ 874,617	\$ 774,439
Expected Member Contributions	205,836	195,188	203,320
Expected Chapter 185 Contributions	245,002	252,471 **	252,471
Net City Contributions	555,805	426,958	318,648 ***

\* Payments start one year from valuation date; based on assumed monthly payments.

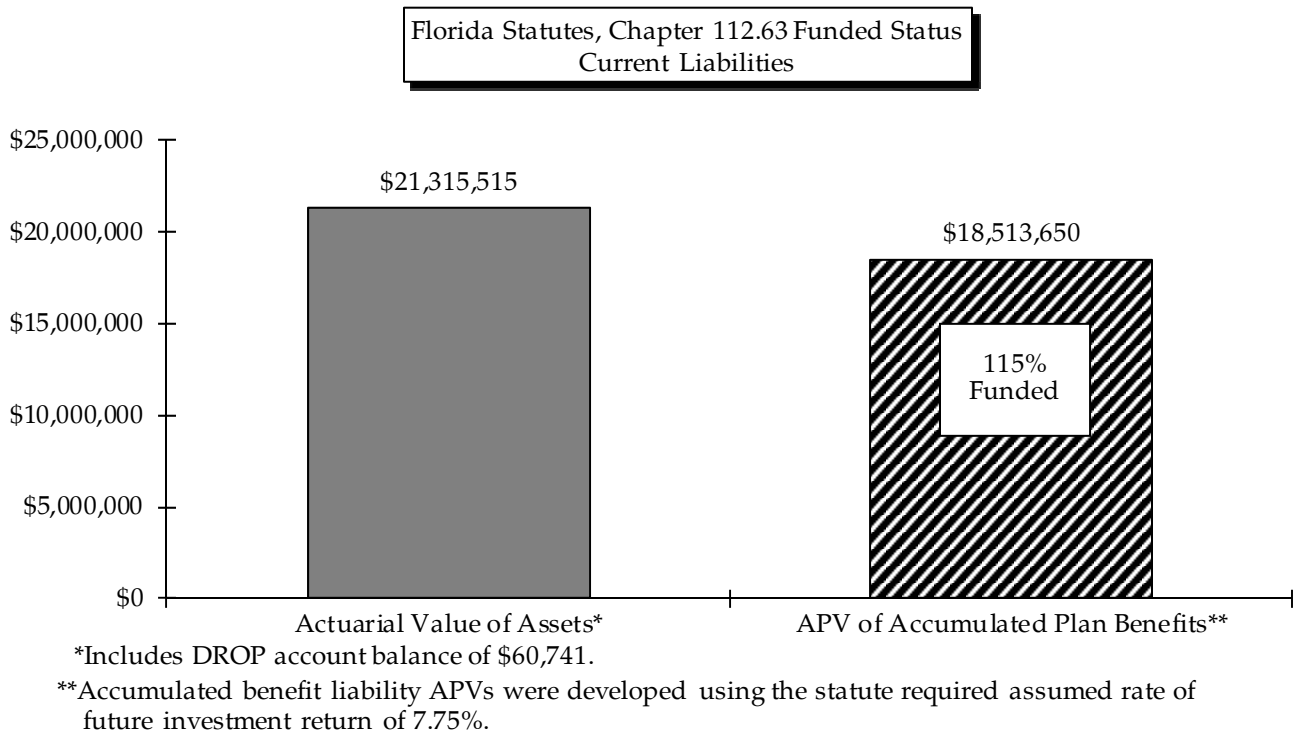
\*\* Contribution requirement for 2019-20 revised from prior report to reflect actual 2017 Chapter 185 Premium Tax Refunds available to reduce City contributions.

\*\*\* Includes estimated City contributions by Ordinance of \$184,836.

Contribution requirements have decreased in dollar amount and as a percentage of payroll since the last valuation, due to changes in the demographic assumptions of retirement rates and withdrawal rates.

Post-2000 retirees will receive no ad hoc increase, as there is not enough remaining cumulative actuarial gains in excess of prior ad hoc payments made. See Page B-7.

## Florida Statutes, Chapter 112.63 Funded Status – Current Liabilities



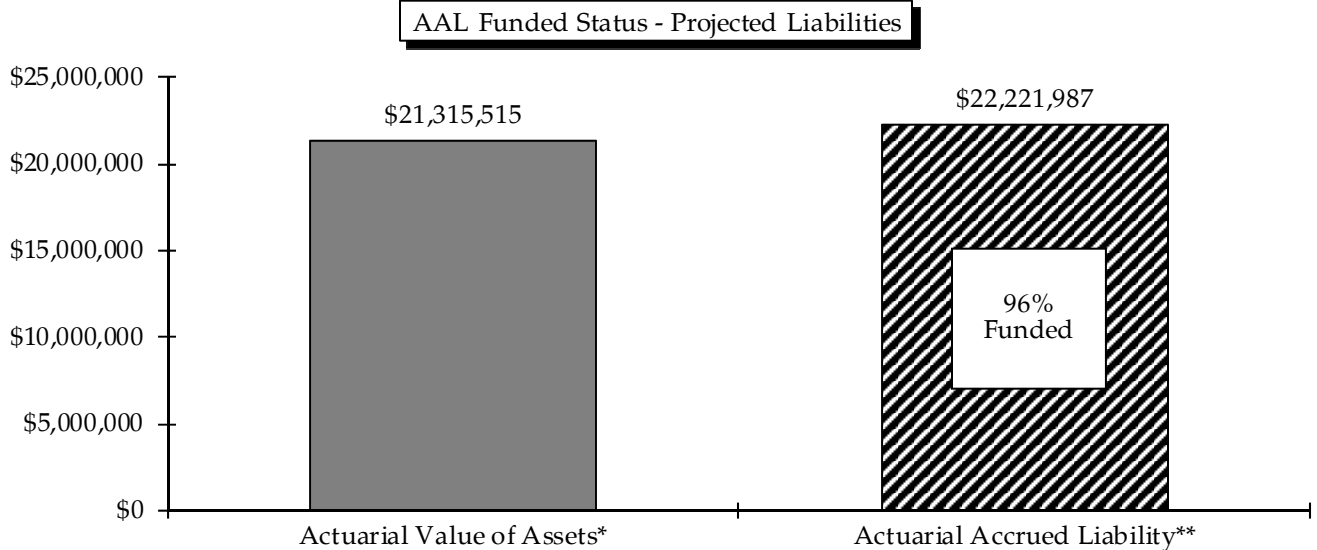
A comparison of current actuarial value of assets of the fund with the current actuarial present value (APV) of benefits accrued based on credited service and salary to date is now a required disclosure under Florida Statutes, Chapter 112.63. This measurement is often used as a surrogate for the liability if the Plan were to stop future benefit accruals. It is called "current liability" since it is based only on current earned benefits, even though the actual payment of those benefits extends many years into the future.

The current liability is normally expected to be more than 100% funded for an ongoing plan since the plan will ultimately be liable for a greater accrued benefit (the credited-projected benefit).

The Plan's current liability funded status is 115%.



## AAL Funded Status - Projected Liabilities



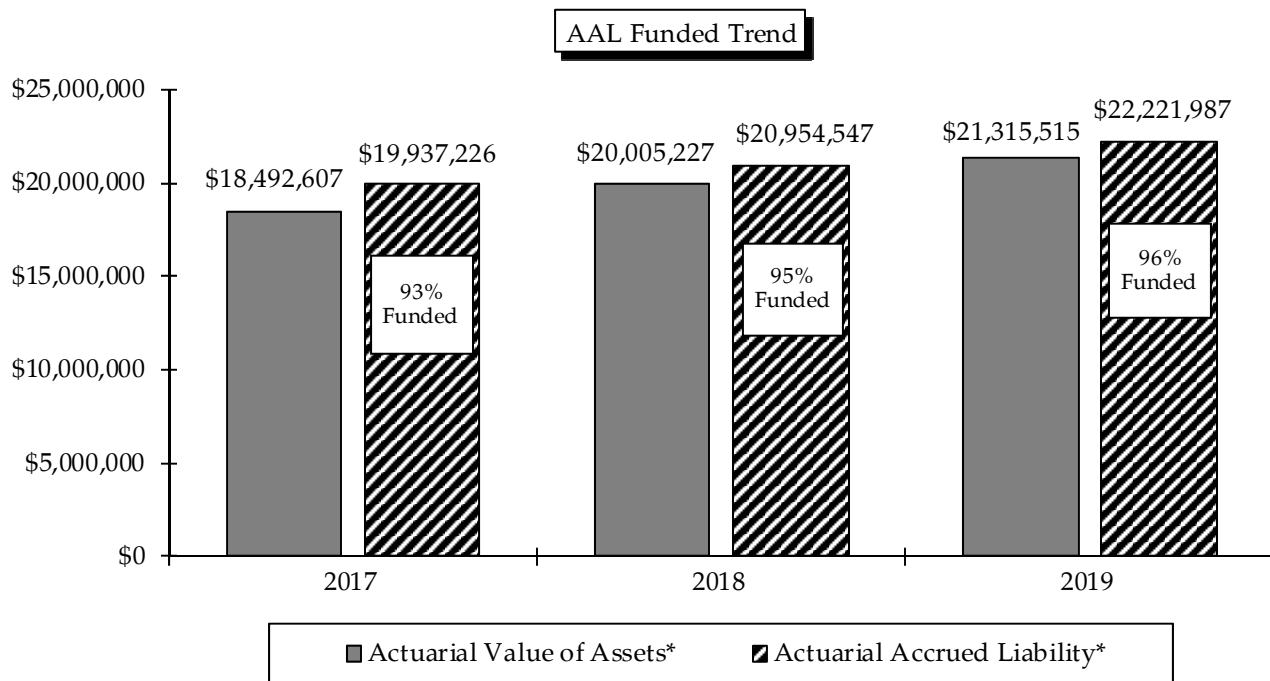
\*Includes DROP account balance of \$60,741.

\*\*AAL APVs were developed using an assumed rate of interest discount of 7.50%.

A comparison of assets with the actuarial present value (APV) of benefits accrued based on credited service to date, but projected salary at retirement (referred to as credited-projected benefits), is often used to judge the progress to date of funding the "ultimate" liability associated with service earned to date. The credited-projected benefit liability is not normally expected to be 100% funded, but a maturing plan's funded ratio should increase over time.

The Plan's AAL projected funded status is 96%.

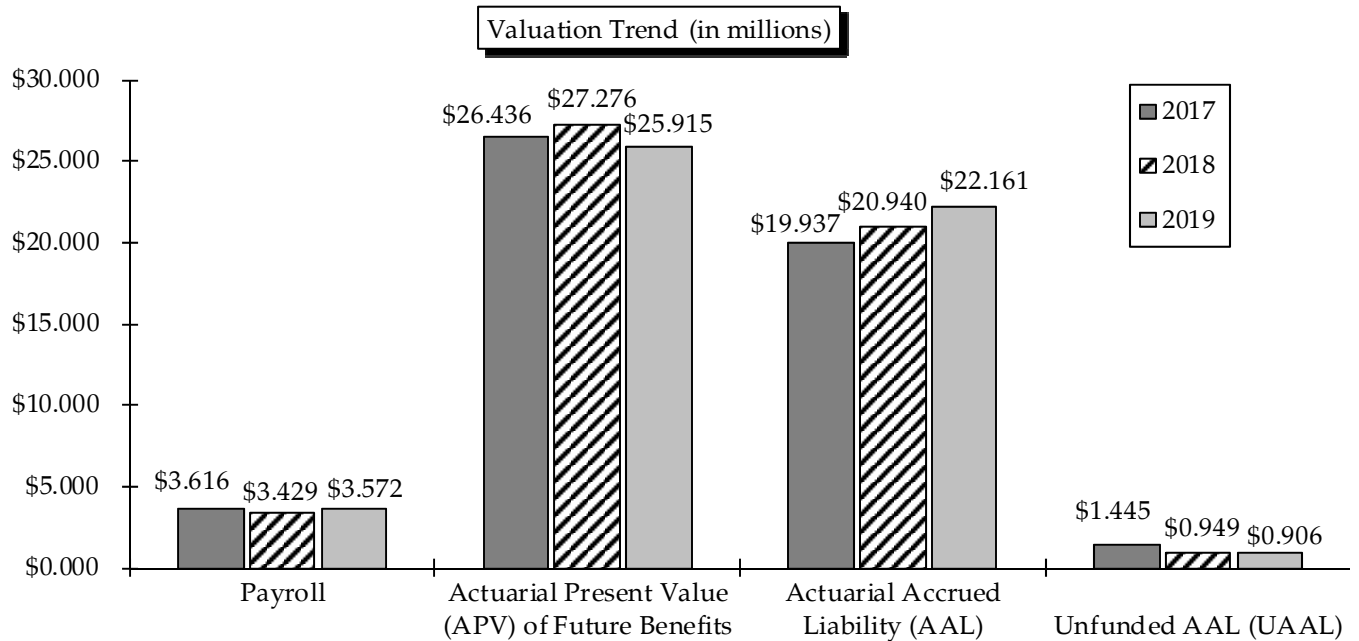
**AAL Funded Trend**



\*Includes DROP account balance of \$60,741.

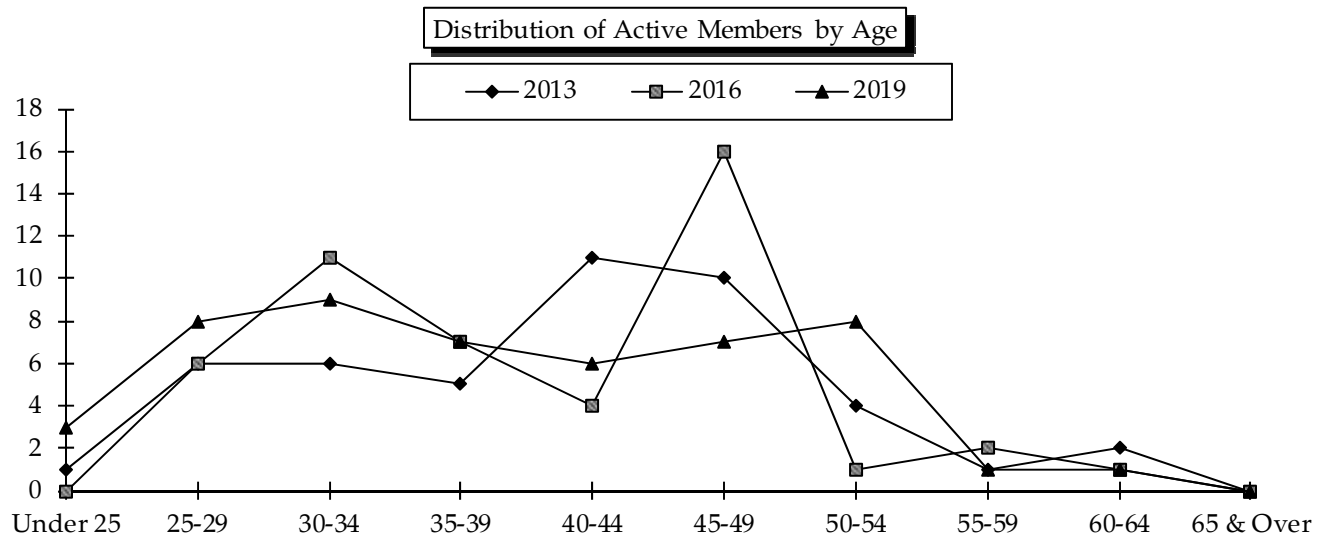
The projected liability funded percentage has increased slightly since last year, due mostly to the decrease in AAL from changes to the retirement assumptions.

## Valuation Trend



Payroll has remained relatively stable since last year. Present value of benefits have decreased somewhat in large part due to the change in the decrement assumptions. But the AAL has increased because the assumption changes shifted more of the liability to past periods (the AAL), and less to future periods. Since the future period liability has dropped, so has the Normal Cost.

## Participation Trend



## True Costs

It should be noted that the true costs of a retirement plan cannot be determined until its future unfolds. No one can precisely predict the interest earnings on fund assets, member termination rates, future salary levels, mortality experience, etc. Estimates based on experience with similar groups, along with the judgment of the actuary and the Plan sponsor, can provide a reasonable approximation of this true cost. As actual experience emerges under the Plan, it will be necessary to study the continued appropriateness of the techniques and assumptions used and to adjust the contribution rate as necessary.

SECTION 2  
**ACTUARIAL VALUATION DEVELOPMENT**

**Date and Basis of Valuation**

Estimated liabilities for the benefits provided by the City of St. Augustine Police Officers' Retirement System and the contributions required to fund these liabilities have been determined as of October 1, 2019, based upon:

1. the provisions of the Plan, as in effect on October 1, 2019, as summarized in Appendix A;
2. the actuarial assumptions and actuarial cost method, as summarized in Appendix B;
3. the statement of trust fund assets at October 1, 2019, provided by the City, as summarized in Appendix C; and
4. the member data as of October 1, 2019, provided by the Board of Trustees, as summarized in Appendix D.

The trust fund asset information has been supplied by the City. The member data has been supplied by the Board and provided as representative of the current participating group. While the asset and member information was reviewed for overall reasonableness, Actuarial Concepts has relied on the City and the Board for this information and does not assume responsibility for either its accuracy or completeness.

**Member Reconciliation**

	Members					
	Actives	Retirees and Beneficiaries	DROP Retirees	Disabled Retirees	Vested Terminateds	Pending Refunds
Members at 10/01/18	52	27	1	3	8	2
Increase (Decrease) Due to:						
Retirements	(1)	3	1	-	(3)	-
Vested Terminations	-	-	-	-	-	-
Nonvested Terminations	(2)	-	-	-	-	2
New Entrants	3	-	-	-	-	-
Deaths	-	(1)	-	-	-	-
Disabled	(1)	1	-	1	-	-
To LP Status	(1)	-	-	-	-	1
Contribution Refunded	-	-	-	-	-	(2)
Members at 10/01/19	50	30	2	4	5	3

**Valuation Financial Values**

<b>1. Participation</b>					
(a) Number of Active Members					50
(b) Number of DROP Members					2
(c) Number of Inactive Members					42
(d) Total Members					94
(e) Total Valuation Payroll					\$ 3,571,718
<b>2. Actuarial Present Value (APV) of Future Benefits as of 10/01/19</b>					
(a) Active Members					
(1) Retirement					9,557,730
(2) Withdrawal					2,573,884
(3) Disability					642,152
(4) Death					253,786
(5) Refund of Contributions					101,228
(6) Total					<u>\$ 13,128,780</u>
(b) DROP Retirees					1,280,014
(c) Retirees and Beneficiaries					9,977,771
(d) Disabled Retirees					862,689
(e) Vested Terminated and Pending Refunds					666,182
(f) Pending Retirees					0
(g) Total APV Future Benefits					<u>\$ 25,915,436</u>
<b>3. APV Apportionment of line 2*</b>					
(a) APV of Total Future Normal Costs					3,754,190
(b) Actuarial Accrued Liability [(2f)-(3a)]					22,161,246
(c) Actuarial Value of Assets					21,254,774
(d) Unfunded AAL (UAAL) [(3b)-(3c)]					<u>\$ 906,472</u>
<b>4. Breakdown of UAAL on line 3(d)</b>					
(a) UAAL [3(d)]					906,472
(b) Change in UAAL Due to Mortality Table Updates and Assumption Change					44,950
(c) UAAL Before Change [(4a)-(4b)]					<u>\$ 861,522</u>
(d) Expected UAAL					656,678
(e) Actuarial (Gain) Loss [(4c)-(4d)]					<u>\$ 204,844</u>
<b>5. Contribution Requirements Due**</b>					
	End of Month	Oct-20	Equiv. Annual \$ Amount	Percentage of Payroll	
(a) Plan Normal Cost Excluding Expenses			\$ 452,723	12.25%	
(b) Expense Normal Cost			78,678	<u>2.13%</u>	
(c) Total Plan Normal Cost			\$ 531,401	14.38%	
(d) Amortization of UAAL			243,038	<u>6.57%</u>	
(e) Total Required Plan Contribution [(5c)+(5d)]			\$ 774,439	20.95%	
(f) Estimated Member Contributions			203,320	5.50%	
(g) Estimated Chapter 185 Contribution***			252,471	<u>6.83%</u>	
(h) Net City Contribution****			\$ 318,648	8.62%	

\* Calculated in accordance with the Individual Entry Age Actuarial Cost Method.

\*\* Payments start one year from valuation date; based on assumed monthly payments.

\*\*\* Reflects maximum refunds available.

\*\*\*\* Includes estimated City contributions by Ordinance of \$184836

## **Explanation of Financial Values**

### Actuarial Present Value of Future Benefits (line 2g)

The actuarial present value (APV) of future benefits is determined by first measuring the benefit amount that would be available for each member at various future dates (assuming future service credits earned and future salary increases awarded) under each of the events provided for by the Plan (retirement, disability, death, termination of employment). Then the future value of those benefit entitlements is determined by multiplying the various benefit amounts by the then current value of the annuities associated with those amounts. Finally, the APV of those future benefit values is determined by applying discounts to recognize the time value of money and probabilities of death, disability, termination of employment, etc.

### APV of Total Future Normal Costs (line 3a)

The APV of total future normal costs is that portion of the total APV of future benefits, as described above, that is assigned to future plan years by the Individual Entry Age Actuarial Cost Method (described in Appendix B).

### Actuarial Accrued Liability (line 3b) and

### Unfunded Actuarial Accrued Liability (line 3d)

The actuarial accrued liability (AAL) and the unfunded AAL (UAAL) (the AAL less the actuarial value of assets) are actuarial values generated under the Individual Entry Age Actuarial Cost Method, as described in Appendix B. The AAL is not the APV of benefits accrued to date by members but is an actuarially determined amount based on the accrual of Individual Entry Age normal cost amounts due prior to the valuation date. The liability for benefits accrued to date (the APV of accumulated benefits) is provided in Section 3.

### Total Plan Normal Cost Amount (line 5c)

The Plan normal cost for the 12-month period beginning on the valuation date has been determined by first calculating for each member an individual yearly normal cost (that changes in dollar amount as pay increases, but is constant as a percent of each individual's pay), then adding together to obtain the Plan normal cost amount as of the beginning of the year. This preliminary total is then adjusted for interest credits assuming contributions are made monthly and an amount to allow for expected annual expenses.



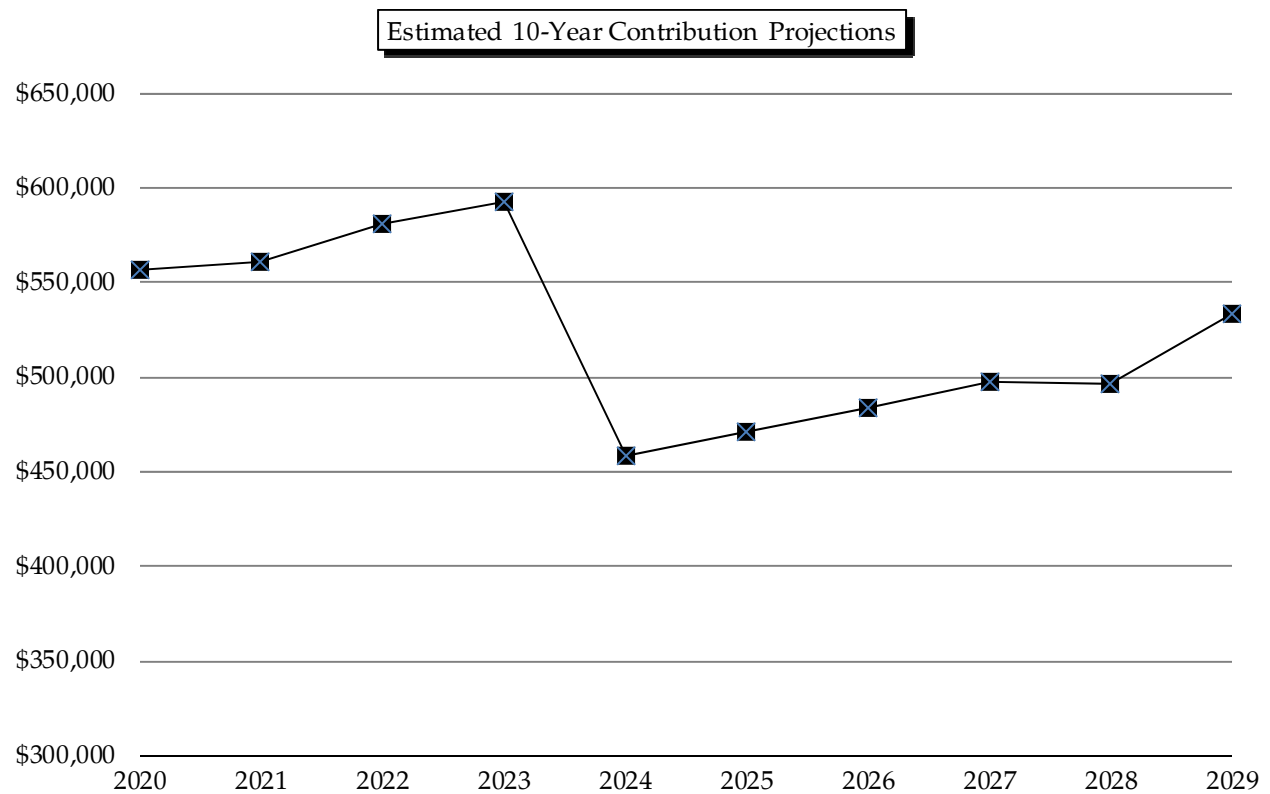
### Amortization of UAAL (line 5d)

UAAL bases established prior to October 1, 2012 have been consolidated into a single debit base and amortized over 15 years starting October 1, 2012. UAAL bases established on and after October 1, 2012 due to increases or decreases in liabilities attributable to changes in plan provisions, actuarial assumptions, and/or actuarial gains or losses will be amortized over 15 years as a level dollar amount from inception.

### Net City Contribution (line 5h)

The required net City contribution for the plan year is determined by subtracting the estimated member contributions (line 5f) and estimated available Chapter 185 contributions (line 5g) from the required Plan contributions.

### Estimated 10-Year Contribution Projections



**Market Value of Assets vs. Expected Retirement Benefits**

Year	Market Value of Assets with Expected Interest Less Retirement Benefits	Expected Retirement Benefits of Current and Emerging Retirees
2019	\$ 21,316,643	\$ 1,205,322
2020	21,710,069	1,208,103
2021	22,130,221	1,226,929
2022	22,563,059	1,378,779
2023	22,876,509	1,492,715
2024	23,099,533	1,604,633
2025	23,227,365	1,754,133
2026	23,215,284	1,828,579
2027	23,127,851	1,897,244
2028	22,965,196	1,930,282
2029	22,757,304	1,967,878
2030	22,496,224	2,053,682
2031	22,129,758	2,076,836
2032	21,712,654	2,114,263
2033	21,226,840	2,152,639
2034	20,666,214	2,269,220
2035	19,946,960	2,335,169
2036	19,107,813	2,372,010
2037	18,168,889	2,421,750
2038	17,109,806	2,503,545
2039	15,889,497	2,542,148
2040	14,539,061	2,569,855
2041	13,059,635	2,637,577

**Sensitivity Study - Estimated Valuation Financial Values at 5.50% interest**

<b>1. Participation</b>					
(a) Number of Active Members					50
(b) Number of DROP Members					2
(c) Number of Inactive Members					42
(d) Total Members					94
(e) Total Valuation Payroll				\$	3,571,718
<b>2. Actuarial Present Value (APV) of Future Benefits as of 10/01/19</b>					
(a) Active Members					
(1) Retirement					14,324,381
(2) Withdrawal					4,110,008
(3) Disability					888,621
(4) Death					369,358
(5) Refund of Contributions					105,364
(6) Total				\$	19,797,732
(b) DROP Retirees					1,595,474
(c) Retirees and Beneficiaries					11,956,496
(d) Disabled Retirees					1,010,194
(e) Vested Terminated and Pending Refunds					914,052
(f) Pending Retirees					0
(g) Total APV Future Benefits				\$	35,273,948
<b>3. APV Apportionment of line 2*</b>					
(a) APV of Total Future Normal Costs					6,939,881
(b) Actuarial Accrued Liability [(2f)-(3a)]					28,334,067
(c) Actuarial Value of Assets					21,254,774
(d) Unfunded AAL (UAAL) [(3b)-(3c)]				\$	7,079,293
<b>4. Breakdown of UAAL on line 3(d)</b>					
(a) UAAL [3(d)]					7,079,293
(b) Change in UAAL Due to Assumption Changes					6,172,821
(c) UAAL Before Change [(4a)-(4b)]				\$	906,472
(d) Expected UAAL					656,678
(e) Actuarial (Gain) Loss [(4c)-(4d)]				\$	249,794
<b>5. Contribution Requirements Due**</b>					
	End of Month	Oct-20	Annual \$		Percentage of
			Amount		Payroll
(a) Plan Normal Cost Excluding Expenses			\$ 771,317		20.86%
(b) Expense Normal Cost			79,335		2.15%
(c) Total Plan Normal Cost			\$ 850,652		23.01%
(d) Amortization of UAAL			428,883		11.60%
(e) Total Required Plan Contribution [(5c)+(5d)]			\$ 1,279,535		34.61%
(f) Estimated Member Contributions			203,320		5.50%
(g) Estimated Chapter 185 Contribution***			252,471		6.99%
(h) Net City Contribution			\$ 823,744		22.12%

\* Calculated in accordance with the Individual Entry Age Actuarial Cost Method.

\*\* Payments start one year from valuation date; based on assumed monthly payments.

\*\*\* Adjusted from expected July payment date to monthly equivalent; reflects maximum refunds available.

\*\*\*\* Includes estimated City contributions by Ordinance of \$184836

**Derivation of Current UAAL**

Development of UAAL as of Valuation Date		
1. Unfunded Actuarial Accrued Liability (UAAL) as of 10/01/18	\$	949,320
2. Plan Normal Cost Including Member Portion & Excluding Expenses		555,212
3. Interest Accrued on (1) and (2)		114,344
4. Plan Contributions Made Including Member Contributions & Excluding Expenses		933,339
5. Interest Accrued on (4)		28,859
6. Expected UAAL at Valuation Date [(1)+(2)+(3)-(4)-(5)]		656,678
7. Changes due to:		
(a) Plan Changes		-
(b) Assumption Changes		44,950
(c) Retiree Prefunded COLA Assumption		-
(d) Retiree Ad Hoc Benefit Increases		-
(e) Actuarial (Gain)/Loss		204,844
(f) Total	\$	249,794
8. UAAL at Valuation Date [(6)+(7f)]		906,472

## SECTION 3

### ANALYSIS OF VALUATION RESULTS

#### Discussion of Valuation Results

The Board of Trustees wishes to provide ongoing cost-of-living increases for its retirees; however, the City will not approve any permanent cost-of-living provision that risks additional City contribution requirements. The Board considers ad hoc cost-of-living increases each year for retirees, but wishes to have the valuation take into account (i.e., assume) the greatest future cost-of-living adjustments possible without incurring additional City costs. This way the Board may continue to accumulate funds intended for future cost-of-living increases, thus making progress toward the pre-funding of a permanent cost-of-living feature.

The valuation assumes a 0% funded annual future cost-of-living increase for current active members. Pre-2000 retirees receive a guaranteed CPI cost-of-living increase up to 2% and no ad hoc cost-of-living increase. Post-2000 retirees receive no ad hoc increase, as there is not enough remaining cumulative actuarial gains in excess of prior ad hoc payments made. See Page B-7.

If the participating group remained unchanged and all the actuarial assumptions were realized, the Plan's experience would be as anticipated, and there would be no actuarial gain or loss. If the experience were less favorable than anticipated, an actuarial loss would result; if more favorable, an actuarial gain would result.

For the 12 months ended September 30, 2019, Plan experience has been less favorable than expected, resulting in a net actuarial loss of approximately \$205,000. Most of the loss is attributable to the greater than expected increases in salary of Plan members. Asset losses also contributed to the unfavorable experience. These losses were partially offset by favorable demographic experience.

Future valuations will monitor the Plan's experience to determine whether actuarial gains or losses have occurred since the previous valuation.

It should be noted that the true costs of a retirement plan cannot be determined until its future unfolds. No one can precisely predict the interest earnings on retirement fund

assets, mortality rates to be experienced, member termination rates, future salary levels, etc. Estimates based on experience with similar groups, along with the judgment of the actuary and the Plan sponsor, can provide a reasonable approximation of this true cost. As actual experience emerges under the Plan, it will be necessary to study the continued appropriateness of the techniques and assumptions employed and to adjust the contribution rate as necessary.

**Valuation Comparison Table**

	10/01/18	10/1/2019 Before Assumption Change	10/1/2019 After Assumption Change
<b>1. Member Data</b>			
(a) Active Members Under Normal Retirement Age (NRA)	52	50	50
(b) Active Members Over NRA	-	-	-
(c) Pending Retirees	-	-	-
(d) DROP Retirees	1	2	2
(e) Retirees, Beneficiaries and Disableds	30	34	34
(f) Vested Terminated and Pending Refunds	10	8	8
(g) Total Anticipated Valuation Payroll for Next 12 Months	\$ 3,428,854	\$ 3,571,718	\$ 3,571,718
(h) Actuarial Present Value (APV) of Future Valuation Payroll	31,937,508	33,255,485	26,234,980
(i) Total Annual Benefit Payments	1,190,943	1,257,085	1,257,085
<b>2. Assets</b>			
(a) Market Value	20,640,804	21,316,643	21,316,643
(b) Actuarial Value	19,990,554	21,254,774	21,254,774
<b>3. Liabilities</b>			
(a) APV of Future Benefits			
(1) Active Members Under NRA			
--Retirement	14,136,117	14,668,806	9,557,730
--Withdrawal	193,336	222,357	2,573,884
--Disability	706,453	710,538	642,152
--Death	278,390	284,164	253,786
--Refund of Contributions	48,797	52,047	101,228
--Total	\$ 15,363,093	\$ 15,937,912	\$ 13,128,780
(2) DROP Retirees	546,850	1,267,184	1,280,014
(3) Retirees and Beneficiaries	9,506,646	9,894,910	9,977,771
(4) Disabled Members	499,000	856,442	862,689
(5) Vested Terminated and Limited Members	1,360,140	656,383	666,182
(6) Total	27,275,729	28,612,831	25,915,436
(b) APV of Vested Accrued Benefits	17,094,407	18,288,761	18,168,451
(c) APV of All Accrued Benefits	18,277,990	19,219,684	18,959,347
(d) Actuarial Accrued Liability (AAL)			
(1) Retirement	8,584,414	8,979,810	7,278,254
(2) Withdrawal	45,156	62,618	1,572,869
(3) Disability	263,942	272,087	348,627
(4) Death	118,403	122,689	153,867
(5) Refund of Contributions	15,323	4,173	20,973
(6) Inactives	11,912,636	12,674,919	12,786,656
(7) Total	\$ 20,939,874	\$ 22,116,296	\$ 22,161,246
(e) Unfunded AAL (UAAL)	949,320	861,522	906,472
<b>4. Breakdown of Plan Normal Costs</b>			
(a) Retirement	506,599	545,210	244,304
(b) Withdrawal	14,482	14,948	133,870
(c) Disability	53,593	54,318	46,093
(d) Death	18,150	18,371	14,383
(e) Refund of Contributions	4,946	4,183	14,072
(f) Expense	63,275	78,601	78,678
(g) Total	\$ 661,045	\$ 715,632	\$ 531,401
<b>5. Contribution Requirements** for Year Ended</b>	<b>09/30/20</b>	<b>09/30/21</b>	<b>09/30/21</b>
(a) Plan Normal Cost*	661,045	715,632	531,401
(b) Amortization Payment	213,572	237,533	243,038
(c) Total Plan Requirements**	\$ 874,617	\$ 953,165	\$ 774,439
(d) Total Plan Requirements with Interest EOY Adjusted***	904,680	986,420	800,713
(e) Estimated Member Contributions with Interest EOY Adjusted***	201,897	210,413	210,218
(f) Estimated City Contribution By Ordinance with Interest EOY Adjusted***	183,542	191,189	191,012
(g) Estimated Chapter 185 Contribution with Interest EOY Adjusted***	252,471	252,471	252,471
(h) Total City Additional Requirement with Interest EOY Adjusted***	266,770	332,347	147,012
(i) Total City Requirement with Interest EOY Adjusted***	702,783	776,007	590,495

\* Includes expense normal cost: included in contributions paid under line 5 of

\$63,275      \$78,601      \$78,678

\*\* Assumed payable at the end of each month as determined from prior actuarial valuation.

\*\*\* Interest EOY adjusted includes interest adjustments at the valuation interest rate on amounts to end of year.

**Valuation Comparison Table (continued)**

6. Contribution Requirements for Year Ended	10/01/19
(a) Plan Normal Cost****	\$787,748
(b) Amortization Payment***	<u>218,894</u>
(c) Total Plan Requirements	\$ 1,006,642
(d) Total Plan Requirement with Interest EOY Adjusted****	1,041,468
(e) Estimated Member Contributions with Interest EOY Adjusted****	212,957
(f) Estimated City Contribution By Ordinance with Interest EOY Adjusted****	193,597
(g) Estimated Chapter 185 Contribution with Interest EOY Adjusted***	245,002
(g) Total City Additional Requirements with Interest EOY Adjusted****	389,913
(h) Total City Requirements with Interest EOY Adjusted****	828,511

\*\*\* Interest EOY adjusted includes interest adjustments at the valuation interest rate on amounts to end of year.

\*\*\*\* Includes expense normal cost: included in contributions paid under line 5 of \$52,764

**Development of Past Excess Contributions (PEC)**

PEC for Year Ended 9/30/19	Assumed payable monthly	With Interest Adjustment to EOY
(a) PEC Beginning of Year *		\$ 311,184
Interest on PEC		23,650
(b) (1) Contribution Required by City	\$ 800,806	828,511
(2) Contribution Required by Members	<u>205,836</u>	<u>212,957</u>
(3) Total Contribution Requirements	\$ 1,006,642	\$ 1,041,468
(c) (1) Actual City Contributions Paid **	827,533	849,385
(2) Actual Member Contributions Paid	<u>184,388</u>	<u>191,395</u>
(3) Total Contributions Paid	\$ 1,011,921	\$ 1,040,780
(4) Adjustment to balance UAAL with Outst. Balance***		86,414
(d) PEC End of Year		442,122

\* Corrected due to error in interest calculation since the 2018 valuation.

\*\* Includes expense normal cost amount of \$46,955.

Use of payment delay method, along with the gain/loss disparity with member contributions, requires adjustment to balance the actual UAAL with the outstanding amortization bases based on minimum required funding.

\*\*\* Verification of PEC balance:

Theoretical UAAL based on minimum funding (page 3-5)	1,348,594
Actual UAAL (page 2-3)	906,472
Excess	442,122



### **Effect of Amortization Policy on Contribution Requirements**

UAAL bases established prior to October 1, 2012 have been consolidated into a single debit base and amortized over 15 years starting October 1, 2012. UAAL bases established on and after October 1, 2012 due to increases or decreases in liabilities attributable to changes in plan provisions, actuarial assumptions, and/or actuarial gains or losses will be amortized over 15 years as a level dollar amount from inception.

UAAL Bases		Initial Amount	Date of First Charge/(Credit)	Years Remaining	Beginning of Year Annual Amortization Payments	Outstanding Balance at Valuation Date
2012	UAAL Fresh Start Loss Bases less than 15 years	\$ 1,590,322	10/01/12	5	\$ 191,250	\$ 833,970
2012	UAAL Fresh Start Bases greater than 15 years	(907,567)	10/01/12	5	(109,143)	(475,931)
2012	2012-13 Actuarial (Gain)/Loss & 2012 Adhoc & Assm Dec	495,876	10/01/12	5	59,633	260,039
2013	2013 Actuarial (Gain)/Loss	126,267	10/01/13	9	14,874	102,263
2014	2013-14 Actuarial (Gain)/Loss and Assumption Update	(190,701)	10/01/14	10	(22,464)	(166,136)
2015	2014-15 Actuarial (Gain)/Loss and Mortality Update	(11,302)	10/01/15	11	(1,331)	(10,490)
2016	2015-16 Actuarial (Gain)/Loss and Mortality Update	332,317	10/01/16	12	39,146	289,509
2017	2016-17 Actuarial (Gain)/Loss and Assumption Update	656,814	10/01/17	13	77,371	676,701
2018	2017-18 Actuarial (Gain)/Loss and Assumption Update	(382,087)	10/01/18	14	(45,009)	(411,126)
2019	2018-19 Actuarial (Gain)/Loss and Assumption Update	249,794	10/01/19	15	29,425	249,794
Total					\$ 233,752	\$ 1,348,594

**UAAL Repayment Schedule**

Valuation Year	UAAL Balance	Amortization Payment
10/01/19	\$ 1,348,594	\$ 243,038
10/01/20	1,266,715	243,038
10/01/21	1,110,435	243,038
10/01/22	942,434	243,038
10/01/23	761,832	243,038
10/01/24	567,685	95,667
10/01/25	511,349	95,667
10/01/26	450,787	95,667
10/01/27	385,684	95,667
10/01/28	315,697	80,202
10/01/29	256,451	103,558
10/01/30	168,612	104,943
10/01/31	72,754	64,242
10/01/32	11,788	(16,203)
10/01/33	29,425	30,594
10/01/34	(0)	-

**Documentation of Premium Tax Refund (PTR) Use**

Current PTR received prior year	\$ 261,770
2002 original PTR base amount	243,172
Current incremental amount	<u>\$ 18,598</u>
Portion to be used to fund future member benefits as defined in the Chapter plan for plan year ending 9/30/19	9,299
Available for use to pay City contribution requirements	9,299

Period Ended	Premium Tax Refunds Received for Prior Year	Premium Tax Refunds Usable in Current Year	Portion Used to Fund future "share" plan as Defined in the Chapter
09/30/98	\$ 172,625	\$ 172,625	N/A
09/30/99	175,762	175,762	N/A
09/30/00	177,138	177,138	N/A
09/30/01	184,828	184,828	N/A
09/30/02	207,123	207,123	N/A
09/30/03	243,172	208,567	N/A
09/30/04	249,401	208,567	N/A
09/30/05	251,979	242,201	N/A
09/30/06	271,723	271,723	N/A
09/30/07	251,979	251,979	N/A
09/30/08	251,979	251,979	N/A
09/30/09	215,933	215,933	N/A
09/30/10	193,739	193,739	N/A
09/30/11	194,147	194,147	N/A
09/30/12	167,250	167,250	N/A
09/30/13	161,296	161,296	N/A
09/30/14	167,880	167,880	N/A
09/30/15	181,087	181,087	N/A
09/30/16	175,835	175,835	-
09/30/17	194,937	194,937	-
09/30/18	246,831	245,002	1,830
09/30/19	261,770	252,471	9,299

**Current Liabilities, Plan Asset Comparison\*****Accumulated Plan Benefits**

	<u>10/1/18</u>	<u>10/1/19</u>
1. Actuarial Present Value** (APV) of Vested Accrued Benefits		
(a) Vested Terminated Participants	\$ 1,335,263	\$ 642,059
(b) Retirees and Beneficiaries	10,338,120	11,868,655
(c) DROP Retirees Account Balances	14,673	60,741
(d) Active Participants	5,159,147	5,184,166
(e) Total APV of Vested Accrued Benefits	<u>\$ 16,847,203</u>	<u>\$ 17,755,621</u>
2. APV of Nonvested Accrued Benefits	<u>1,150,466</u>	<u>758,029</u>
3. APV of Accumulated Plan Benefits [(1)+(2)]	\$ 17,997,669	\$ 18,513,650
4. Actuarial Value of Assets***	20,005,227	21,315,515
5. Excess (if any) of APV of Accumulated Plan Benefits over the Actuarial Value of Assets [(3)-(4)]	-	-
6. Percent Funded [(4)/(3)]	111%	115%

**Statement of Changes in Accumulated Plan Benefits**

1. APV of Accumulated Plan Benefits at	10/1/18	\$ 17,997,669
2. Increase (Decrease) During the Year Attributable to:		
(a) Plan Amendment		-
(b) Change in Actuarial Assumptions		44,950
(c) System Changes		-
(d) DROP Retiree Account Changes		(60,741)
(e) Benefit Payments		(1,045,032)
(f) Change in Benefits and APV Factors		<u>1,576,804</u>
3. APV of Accumulated Plan Benefits at	10/1/19	\$ 18,513,650

\* Per Florida Statute 112.63 funded status.

\*\* Based on 7.75% interest, FRS Mortality Table and other assumed decrements as described in Appendix B.

\*\*\* Includes DROP account balance of \$60741 for 2019 and \$14673 for 2018.

**Comparison of Actual and Assumed Salary Increases**

Period Ended	Actual Rate of Increase	Assumed Rate of Increase
09/30/10	-2.00%	5.78%
09/30/11	4.02%	0.00%
09/30/12	-0.01%	0.00%
09/30/13	5.71%	5.44%
09/30/14	4.28%	5.48%
09/30/15	10.83%	5.44%
09/30/16	9.99%	5.53%
09/30/17	18.55%	5.46%
09/30/18	-3.86%	5.51%
09/30/19	11.07%	5.43%

**Comparison of Actual and Assumed Investment Returns**

Period Ended	Actual Rate of Return*	Assumed Rate of Return
09/30/10	3.52%	8.00%
09/30/11	1.36%	7.75%
09/30/12	-0.04%	7.75%
09/30/13	6.03%	7.75%
09/30/14	8.56%	7.75%
09/30/15	6.98%	7.75%
09/30/16	7.98%	7.70%
09/30/17	8.86%	7.70%
09/30/18	8.79%	7.65%
09/30/19	6.94%	7.60%

\* Rates of return based on actuarial value of assets.

**Calculation of the Actual Rate of Investment Return**

Plan Year Ended September 30, 2019	
R	= $\frac{2I}{M1+M2-I}$ , where
I	= \$ 1,382,052 the interest, dividends, plus appreciation or (depreciation)
M1	= 19,981,538 beginning actuarial value
M2	= 21,254,774 ending actuarial value
R	= $\frac{\$ 2,764,104}{\$ 39,854,260}$
R	= 6.94%

**Additional Disclosures**

There are no additional disclosures required under Rules 22D-1.003(4)(f) and (g) of the State of Florida, Department of Management Services, Division of Retirement.

## ST. AUGUSTINE POLICE OFFICERS' RETIREMENT SYSTEM

**SUMMARY OF PLAN PROVISIONS THAT AFFECT THE VALUATION****Definitions**

- |                          |  |
|--------------------------|--|
| 1. Ordinances:           | Original Ordinance: Article 10 of the St. Augustine Code.  |
|                          | Amendments: #2000-05<br>#2000-24<br>#2004-19<br>#2006-02<br>#2006-29<br>#2010-33   |
| 2. Member:               | All full-time police officers employed by the City are eligible for membership in the Plan upon date of hire.  |
| 3. Contributions:        | 5.5% of Salary contributed by Members.   |
| 4. Creditable Service:   | The number of full and fractional years worked from date of hire to date of termination or retirement. Up to three years of certain military and prior law enforcement service may be purchased at full actuarial cost and credited as Creditable Service.   |
| 5. Salary:               | Total cash remuneration paid to a police officer for services rendered during a particular year, including base salary, overtime limited to 300 hours, special incentive pay and sick leave or vacation leave taken during the year. Salary shall not include lump-sum payments for accrued leave not taken. |
| 6. Final Average Salary: | One-twelfth of the average of a Member's annual Salary for the five highest years of the last 10 years of Creditable Service, as of the date of benefit determination.   |

7. **Accrued Benefit:** A monthly benefit payable for life, with 120 monthly payments guaranteed, starting at Normal Retirement Age, equal to 2.5% of Final Average Salary times Creditable Service earned prior to October 1, 2005, plus 3% of Final Average Salary times Creditable Service earned after October 1, 2005.
- For current active Members with less than 20 years of Creditable Service on October 1, 2005, an upgrade of two years of past service from 2.5% to 3% for each year of future service after October 1, 2005. For current active Members with 20 or more years of Creditable Service on October 1, 2005, an additional upgrade of two more years of past service from 2.5% to 3% for each of the first two years of service worked after October 1, 2005.
8. **Normal Retirement:** Eligibility Date - The earlier of age 55 and 10 years of Creditable Service or 25 years of Creditable Service regardless of age.
- Benefit - Accrued Benefit payable as of the Normal Retirement Date.
9. **Early Retirement:** Eligibility Date - Age 50 and 10 years of Creditable Service.
- Benefit - A monthly benefit payable for life, with 120 monthly payments guaranteed, starting at the Early Retirement Date, equal to 2% of Final Average Salary times Credited Service, reduced by 3% for each year by which the Early Retirement Date precedes the Normal Retirement Date.
10. **Disability Benefit:** Accrued Benefit payable as of the Disability Retirement Date. Minimum benefit is 42% of Final Average Salary, if disability occurs in the line of duty, and 25% of Final Average Salary if disability occurs other than in the line of duty.



11. Delayed Retirement: Eligibility Date - After Normal Retirement Date.  
Benefit - Accrued Benefit payable as of the Delayed Retirement Date.
12. Death Benefit before Retirement: If a Member dies before retirement, the beneficiary is entitled to the Accrued Benefit payable for a period of the lesser of 120 months or the life expectancy of the beneficiary.
13. Death Benefit after Retirement: Subject to the terms of the optional benefit form (if any) elected.
14. Termination Benefit: If a Member terminates prior to completing 10 years of Creditable Service, the Member is entitled to a refund, without interest, of the Member Contributions. After completion of 10 years of Creditable Service, a Member is entitled to a benefit equal to the Accrued Benefit payable at Normal Retirement Date.
15. Cost-of-Living Increases: Increase on January 1 of each year for current retirees, if approved by the Pension Board, provided the increase does not exceed 3%.  
Members who retired on or before March 1, 2000, are guaranteed an annual increase of actual Consumer Price Index increases up to 2%.
16. DROP: A Member eligible for normal retirement may elect to retire from the Plan under the deferred retirement option program (DROP) and continue to work for the Police Department for an additional five years. At the end of the five-year period, the Member must retire; he is then entitled to a monthly benefit determined at date of DROP election plus a lump sum equal to the accumulation of monthly benefits not paid to him during the five-year DROP period including interest earnings at 6.5% annually, compounded monthly.

Any Member who completes 25 years of Creditable Service before attaining age 52 may defer entry into the DROP until attainment of age 52, with no reduction to the five-year DROP period.

ST. AUGUSTINE POLICE OFFICERS' RETIREMENT SYSTEM

**ACTUARIAL ASSUMPTIONS AND ACTUARIAL COST METHOD SUMMARY**

**Actuarial Assumptions**

- 1. Investment Return:  
 7.50% per annum, compounded annually\*; net of investment expense  
 \*Underlying long-term rate of inflation of 2.75% per annum.

- 2. Salary Increase Rate:

<u>Service</u>	<u>Rate</u>
<6	7.0%
6-8	6.0%
9-12	5.0%
13-19	4.0%
20+	3.5%

- 3. Healthy Mortality Rates:

	Male (Special Risk): RP2000 Generational, 10% Annuitant White Collar/90% Annuitant Blue Collar	RP-2014 White Collar- Female Scale BB
<u>Age</u>	<u>Male</u>	<u>Female</u>
25	0.04%	0.02%
30	0.07%	0.03%
35	0.10%	0.05%
40	0.13%	0.06%
45	0.17%	0.10%
50	0.24%	0.16%
55	0.41%	0.26%
60	0.80%	0.47%

## 4. Disabled Mortality Rates:

<u>Age</u>	RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback	60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no
	<u>Male</u>	<u>Female</u>
25	1.37%	0.46%
30	1.37%	0.46%
35	1.38%	0.47%
40	1.39%	0.47%
45	1.41%	0.58%
50	1.51%	0.87%
55	1.95%	1.22%
60	2.43%	1.63%

## 5. Retirement Rates:

<u>Age</u>	<u>Service</u>	
	<u>10-24</u>	<u>25+</u>
46-51	0%	10%
52-54	0%	20%
55-56	25%	50%
57-59	50%	50%
60+	100%	100%

## 6. Termination Rates:

<u>Age</u>	<u>Service</u>					
	<u>Male</u>			<u>Female</u>		
	<u>0-3</u>	<u>3-5</u>	<u>5+</u>	<u>0-3</u>	<u>3-5</u>	<u>5+</u>
<25	20.00%	20.00%	3.00%	33.00%	2.00%	2.00%
25-29	20.00%	20.00%	3.00%	33.00%	2.00%	2.00%
30-34	20.00%	20.00%	3.00%	33.00%	2.00%	2.00%
35-39	20.00%	20.00%	3.00%	33.00%	2.00%	10.00%
40-44	5.00%	5.00%	5.00%	15.00%	2.00%	2.00%
45-49	5.00%	5.00%	5.00%	15.00%	2.00%	10.00%
50-54	5.00%	5.00%	5.00%	15.00%	2.00%	2.00%
55+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

## 7. Disability Incidence Rates:

<u>Age</u>	<u>Male</u>	<u>Female</u>
25	0.07%	0.04%
35	0.15%	0.12%
45	0.36%	0.28%
55	1.18%	0.83%

8. Actuarial Value of Assets:  
5 year moving market9. Plan Expenses:  
Actual plan expenses.10. Underlying Inflation Rate:  
3% per annum, compounded annually.

### **Long-Term Expected Rate of Return**

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These estimates 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 arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation are summarized in the following table:

	Development of Long Term Discount Rate					
	Inflation	Real Risk		Total Expected Return	Policy Allocation	Policy Return
		Free Return	Risk Premium			
Domestic Equity*	2.75%	2.0%	4.5%	9.5%	55.0%	5.23%
Foreign Equity*	2.75%	2.0%	5.5%	10.5%	10.0%	1.05%
Corporate Bonds	2.75%	2.0%	0.5%	5.5%	20.0%	1.10%
Real Estate	2.75%	2.0%	2.5%	7.5%	15.0%	1.13%
U.S. Treasuries and Gov't Agencies	2.75%	2.0%	0.0%	5.0%	0.0%	0.00%
Cash	2.75%	0.0%	0.0%	1.0%	0.0%	0.00%
Total					100.0%	8.50%

\*Total equity 65%.

### **Actuarial Value of Assets**

To determine the Plan's contribution requirements, the actuarial value of assets is determined by adjusting the expected value of assets as of any valuation date by a portion of the cumulative differences of the market value of assets and the expected actuarial value of assets starting from October 1, 1990. Each difference is fully recognized over a period not to exceed five years. The expected actuarial value of assets as of any valuation date is determined by applying actual Plan contributions and disbursements and the assumed investment yield to the previous year's expected actuarial value of assets adjusted for any fully recognized cumulative differences. The adjustment is further modified, if necessary, by an amount sufficient to ensure that the actuarial value of assets is not less than 80% nor more than 120% of market value.

**Actuarial Cost Method**

To determine the Plan's contribution requirements, the Individual Entry Age Actuarial Cost Method was used. Under this method, the cost of each member's projected retirement benefit is funded through a series of annual payments, determined as a level percentage of each year's earnings from age at hire to assumed exit age. This level percentage, known as normal cost, is thus computed as though the Plan had always been in effect. A yearly normal cost for each member is individually determined by multiplying each member's level percentage by the applicable yearly earnings, then adding together to obtain the normal cost amount for the Plan for that year. The accrued value of normal cost payments due prior to the valuation date is termed the actuarial accrued liability (AAL). This amount minus the actuarial value of assets is known as the unfunded actuarial accrued liability (UAAL). The annual cost of a plan consists of two components: normal cost and an amortization payment, which may vary between prescribed limits, toward the UAAL.

It is intended that any negative UAAL be amortized over a 15-year period from valuation date (each valuation will restart a 15-year amortization of the then current balance of the surplus).

UAAL bases established prior to October 1, 2012 have been consolidated into a single debit base and amortized over 15 years starting October 1, 2012. UAAL bases established on and after October 1, 2012 due to increases or decreases in liabilities attributable to changes in plan provisions, actuarial assumptions, and/or actuarial gains or losses will be amortized over 15 years as a level dollar amount from inception.

**Miscellaneous Valuation Procedures**

1. Projected retirement benefits were limited to IRC Section 415 benefit limits applicable to the current plan year (for fiscal year 2019-2020, \$225,000), payable as a life annuity, beginning at or after age 62, reduced as applicable for earlier benefit commencement with assumed increases equal to the assumed long-term rate of inflation.
2. Projected earnings were limited to IRC Section 401(a)(17) compensation limits applicable to the current plan year (for fiscal year 2019-2020, \$280,000) with assumed increases equal to the assumed long-term rate of inflation.
3. Annual covered payroll is the amount of total pensionable earnings paid during the prior fiscal year for employees who are currently active members in the Plan (that does not include employees still working but retired under the DROP provisions). Valuation payroll is payroll expected to be paid during the current fiscal year, determined using prior-year covered payroll and the salary increase assumption by individual member. Annual valuation payroll for the 2019-20 fiscal year was determined using expected valuation payroll for 2018-19 projected for one year using the Plan's payroll growth assumption.
4. The effect of member contributions on the funding requirements has been recognized through subtracting the expected member contributions from the total Plan contribution requirement to determine the net City portion.
5. Member information is current as of October 1, 2019.
6. No liability was recognized in the valuation for nonvested employees who have terminated, whether or not a break in service has occurred as of the valuation date, since any potential liability for this group is not significant. Note that upon rehire, any applicable prior employment service credits will be fully recognized in the valuation.
7. Although early retirement benefits are payable on a more favorable basis than actuarial equivalent values, it has been assumed that early retirement elections



are infrequent and any additional APV would be small. Therefore no APV was recognized for subsidized early retirement in the valuation.

8. The contribution requirement includes an amount to recognize the Plan's anticipated administrative expenses based on actual prior experience (see assumptions). This amount is reflected in the required normal cost.
9. Premium tax refunds paid pursuant to Florida Statutes, Chapter 185, expected to be received in the current fiscal year were assumed to be the same as the amount available for the prior year.
10. It was assumed that 100% of future deaths and disablements will occur in the line of duty.
11. The future annual cost-of-living increase was assumed to be 0% per year for post-March 2000 current and future retirees (pre-year 2000 retirees receive a guaranteed minimum 2% per year increase); however, this is independent of the granting of ad hoc cost-of-living increases—see description of procedures below.
12. Ad hoc benefit increases for current retirees of up to 3.0% may be granted by the Board if "sufficient" funds are available (Consumer Price Index increase up to 2.0% is guaranteed for retirees as of March 1, 2000). For purposes of this determination, the APV of the ad hoc increase that would otherwise be applicable based on experience for the fiscal year ending on the valuation date for retirees in payment status was compared to the accumulated actuarial gains that have been experienced since the adoption of this procedure (October 1, 1990) net of prior ad hoc cost-of-living increases granted, accumulated to the valuation date. If the net accumulated gains exceed the APV, the assets are judged "sufficient" for this purpose. The accumulated gains and accumulated prior ad hoc increases are presented below:

<u>Interest</u>	<u>Year Ended</u>	<u>(Gains)/Losses</u>		<u>Ad hoc Increases</u>	
		<u>Accrued</u>	<u>Accumulated</u>	<u>Accrued</u>	<u>Accumulated</u>
9%	9/30/91	\$ 20,000	\$ 20,000	\$ 23,405	\$ 23,405
9%	9/30/92	(161,000)	(139,200)	45,245	70,756
9%	9/30/93	(196,000)	(347,728)	42,542	119,666
9%	9/30/94	(161,000)	(540,024)	44,349	173,589
8%	9/30/95	(151,000)	(734,225)	40,548	228,024
8%	9/30/96	(2,400)	(795,363)	48,396	294,662
8%	9/30/97	(839,000)	(1,697,992)	40,665	358,899
8%	9/30/98	(166,000)	(1,999,831)	27,837	415,449
8%	9/30/99	(441,000)	(2,600,817)	46,563	495,248
8%	9/30/00	(161,965)	(2,970,847)	34,887	569,755
8%	9/30/01	310,452	(2,898,063)	20,622	635,957
8%	9/30/02	(274,387)	(3,404,295)	23,633	710,467
8%	9/30/03	465,231	(3,211,407)	10,087	777,391
8%	9/30/04	362,750	(3,105,570)	36,544	876,126
8%	9/30/05	738,235	(2,615,781)	34,011	980,227
8%	9/30/06	(20,211)	(2,845,254)	39,801	1,098,446
8%	9/30/07	(97,338)	(3,170,212)	106,505	1,292,827
8%	9/30/08	108,200	(3,315,629)	136,471	1,532,724
8%	9/30/09	628,134	(2,952,745)	-	1,655,342
8%	9/30/10	374,174	(2,814,791)	51,617	1,839,387
7.75%	9/30/11	526,124	(2,513,850)	156,651	2,138,590
7.75%	9/30/12	558,335	(2,150,338)	-	2,304,331
7.75%	9/30/13	82,221	(2,234,768)	-	2,482,917
7.75%	9/30/14	(190,701)	(2,598,664)	-	2,675,343
7.70%	9/30/15	(99,201)	(2,899,261)	-	2,882,682
7.70%	9/30/16	(81,557)	(3,204,061)	16,227	3,120,875
7.65%	9/30/17	548,685	(2,900,487)	-	3,359,622
7.65%	9/30/18	(584,548)	(3,706,922)	87,298	3,703,931
7.60%	9/30/19	204,844	(3,783,804)	-	3,985,430

## ST. AUGUSTINE POLICE OFFICERS' RETIREMENT SYSTEM

**DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS****Expected Value**

	<u>10/01/19</u>
Previous Year's:	
1. Expected Value	\$ 19,583,487
2. Previous Years' Fully Recognized Difference	910,292
3. Interest on (1) and (2)	1,557,527
4. Contributions with Interest	1,040,780
5. Benefit Payments with Interest	1,084,743
6. Administrative Expenses with Interest	<u>78,582</u>
Current Year's:	
7. Expected Value [(1)+(2)+(3)+(4)-(5)-(6)]	\$ 21,928,761

**Cumulative Differences**

1. Market Value	21,316,643	
2. Expected Value	<u>21,928,761</u>	
3. Cumulative Difference [(1)-(2)]	\$ (612,118)	
4. Original Differences by Year		Interest-adjusted
	Initial	Amount
Year	Amount	
<u>2015</u>	<u>-1,181,531</u>	\$ (1,587,460)
2016	352,783	440,098
2017	835,815	968,136
2018	311,763	335,457
2019	-768,349	(768,349)

**Actuarial Value**

1. Market Value	\$ 21,316,643
2. Expected Value	21,928,761
3. Current Year's Difference	(768,349)
4. 20% of Current Difference [(3)x0.2]	(153,670)
5. Previous Years' Cumulative Adjustments	(520,317) *
6. Preliminary Actuarial Value [(2)+(4)+(5)]	21,254,774
7. 80% of Market Value [(1)x0.8]	17,053,314
8. 120% of Market Value [(1)x1.2]	25,579,972
9. Actuarial Value within 20% Market Value Corridor	21,254,774

\*From "Cumulative Differences" [(0.4 x (4u)) + (0.6 x (4t)) + (0.8 x (4s)) + (1.0 x (4r))]

## CITY OF ST. AUGUSTINE POLICE OFFICERS' RETIREMENT SYSTEM

<b>TRUST FUND BALANCE AS OF</b>	<b>10/01/19</b>
Cash	\$ 790,331
Fixed Income Mutual Funds	3,546,230
Equity Mutual Funds	-
Equity Securities - Domestic	10,969,267
Equity Securities - International	2,070,649
Real Estate	4,031,385
Other	-
Total Assets	<u>\$ 21,407,862</u>
Accounts Receivable	-
Accrued Income	-
Accrued Interest	-
Due From State of Florida	-
Accounts Payable	(19,349)
Refunds Payable	-
Due from Brokers	-
Trust Assets at Market Value before Premium Tax Refund Restriction	<u>\$ 21,388,513</u>
Premium Taxes not Countable	11,129
DROP Account Balances	60,741
Assets Available for Pensions	<u>\$ 21,316,643</u>

Asset Percentage Weightings

Cash	3.69%
Equity	60.91%
Bond	16.57%
Real Estate	18.83%
Other	<u>0.00%</u>
Total	100.00%

## CITY OF ST. AUGUSTINE POLICE OFFICERS' RETIREMENT SYSTEM

**ANALYSIS OF CHANGE IN MARKET VALUE OF ASSETS\***

1. Market Value of Assets as of	10/01/18	\$ 20,655,477
Correction		(1,830)
Market Value of Assets as of	10/01/18	\$ 20,653,647
2. Additions		
Cash Contributions		1,011,921
Interest & Dividend Income		428,159
Other Receipts		
Gains (losses)		476,457
Accounts (Payable)/Receivable		-
Total Additions		<u>\$ 1,916,537</u>
3. Deduct:		
Benefit Payments		1,026,058
Termination Distributions		18,974
DROP payments		-
Administrative Expenses		75,705
Investment Expenses		72,063
Total Deductions		<u>\$ 1,192,800</u>
4. Market Value of Assets ** as of	10/01/19	\$ 21,377,384
* Includes DROP Account balances.		
** Includes Accumulated Member Contributions of	\$1,319,061	

## ST. AUGUSTINE POLICE OFFICERS' RETIREMENT SYSTEM

**RECONCILIATION OF PLAN MEMBERS**      **10/01/18 - 09/30/19**

	Active Members	Retirees and Beneficiaries	DROP Retirees	Disabled Members	Vested Terminated Members	Pending Refunds
10/1/18 Members	52	27	1	3	8	2
Increase (Decrease) Due to:						
Retirements	(1)	3	1	-	(3)	-
Vested Terminations	-	-	-	-	-	-
Nonvested Terminations	(2)	-	-	-	-	2
New Entrants	3	-	-	-	-	-
Deaths	-	(1)	-	-	-	-
Disableds	(1)	1	-	1	-	-
To LP Status	(1)	-	-	-	-	1
Contribution Refunded	-	-	-	-	-	(2)
9/30/19 Members	50	30	2	4	5	3

**INACTIVE MEMBERS AT**      **09/30/19**

	Number	Annual Benefit Amount
DROP Retirees	2	\$ 101,531
Retirees and Beneficiaries Currently Receiving Payments	30	957,309
Disabled Members Currently Receiving Payments	4	102,585
Vested Terminated Members Entitled to Future Benefits	5	\$89,838
Members Entitled to Pending Refunds *	3	N/A
Total	44	\$ 1,251,263

\* Annuities not applicable; refunds total      \$5,822

CITY OF ST. AUGUSTINE POLICE OFFICERS' RETIREMENT SYSTEM

**2019 RECONCILIATION OF DROP ACCOUNT**

Name	Value as of <u>9/30/18</u>	Payments Credited to <u>Account</u>	Investment Earnings <u>Credited</u>	<u>Withdrawals</u>	Value as of <u>9/30/19</u>
Whitehead, JL	\$ 14,673.26	\$ 43,595.40	\$ 2,472.69	\$ -	\$ 60,741.35
McCaulley, PV	-	-	-	-	-
<hr/>					
Totals	\$ 14,673.26	\$ 43,595.40	\$ 2,472.69	\$ -	\$ 60,741.35

## CITY OF ST. AUGUSTINE POLICE OFFICERS' RETIREMENT SYSTEM

**DISTRIBUTION OF ACTIVE PARTICIPANTS UNDER NORMAL RETIREMENT AGE  
BY ATTAINED AGE AND COMPLETED YEARS OF SERVICE AS OF 10/01/19**

Attained Age	Completed Years of Service													
	Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		Total	
	#	Avg Comp	#	Avg Comp	#	Avg Comp	#	Avg Comp	#	Avg Comp	#	Avg Comp	#	Avg Comp
Under 25	1	\$ 50,640	2	\$ 52,824	-	\$ -	-	\$ -	-	\$ -	-	\$ -	3	\$ 52,096
25-29	-	-	7	56,967	1	68,649	-	-	-	-	-	-	8	58,427
30-34	1	45,445	5	60,594	2	62,134	1	68,979	-	-	-	-	9	60,185
35-39	-	-	1	56,785	1	62,845	5	69,280	-	-	-	-	7	66,576
40-44	-	-	1	66,152	-	-	2	71,779	3	76,156	-	-	6	73,030
45-49	-	-	1	60,147	-	-	3	76,511	2	79,948	1	87,200	7	76,682
50-54	-	-	-	-	2	60,019	-	-	2	83,124	3	87,725	8	83,370
55-59	-	-	-	-	1	55,599	-	-	-	-	-	-	1	55,599
60-64	-	-	-	-	1	58,849	-	-	-	-	-	-	1	58,849
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	96,085	17	353,469	8	368,095	11	286,549	7	239,228	4	174,925	50	67,755