



Actuarial Valuation Report

General Employees' Pension Plan for the City of Tampa

Funding Results for the Year Ending September 30, 2018

Accounting Results for the Year Ending September 30, 2017

Measurement Date January 1, 2017

Introduction

This report documents the results of the actuarial valuation for the of the General Employees' Pension Plan for the City of Tampa for the plan sponsor and for the Board of the General Employees' Pension Plan. The results presented are for fiscal year ending September 30, 2017 for accounting and fiscal year ending September 30, 2018 for funding. The plan is a single-employer plan and does not issue a separate financial statement. As a result, all reporting requirements are included in the employer's financial statement. These results are based on a Measurement Date of January 1, 2017. The information provided in this report is intended strictly for documenting information relating to city and plan disclosure and reporting requirements and plan funding.

Determinations for purposes other than the financial accounting requirements may be significantly different from the results in this report. Thus, the use of this report for purposes other than those expressed here may not be appropriate.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. In addition, the valuation results are based on our understanding of the financial accounting and reporting requirements under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 68 (GASB 68) including any guidance or interpretations provided by the Company and/or its audit partners prior to the issuance of this report. The information in this report is not intended to supersede or supplant the advice and interpretations of the Company's auditors.

Future actuarial measurements may differ significantly from the current measurements presented in this report due (but not limited to) to such factors as the following:

- Plan experience differing from that anticipated by the economic or demographic assumptions;
- Changes in actuarial methods or in economic or demographic assumptions;
- 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); and
- Changes in plan provisions or applicable law.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

Funded status measurements shown in this report are determined based on various measures of plan assets and liabilities. For entity and plan disclosure and reporting purposes, funded status is determined using plan assets measured at market value. Plan liabilities are measured based on the interest rates and other assumptions summarized in the Actuarial Assumptions and Methods section of this report.

These funded status measurements may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, and funded status measurements for the City of Tampa and plan disclosure and reporting purposes may not be appropriate for assessing the need for or the amount of future contributions.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by City of Tampa as of the valuation date. While we cannot verify the accuracy of all the information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results.

The actuarial assumptions and methods used in this valuation are described in the Actuarial Assumptions and Methods section of this report. City of Tampa selected the economic and demographic assumptions and prescribed them for use for purposes of compliance with GASB 68. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience.

The undersigned is familiar with the near-term and long-term aspects of pension valuations and collectively meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. The information provided in this report is dependent upon various factors as documented throughout this report, which may be subject to change. Each section of this report is considered to be an integral part of the actuarial opinions.

To our knowledge, no colleague of Aon providing services to City of Tampa has any material direct or indirect financial interest in the City of Tampa. Thus, we believe there is no relationship existing that might affect our capacity to prepare and certify this actuarial report for the City of Tampa.

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



Stephen Lambert-Oswald, FSA, EA
Aon
1.813.636.3084
Stephen.lambert.oswald@aonhewitt.com

June 15, 2017

Note - On March 9, 2018, page 20 was corrected to show the correct amortization amounts for 2019 and 2020

Table of Contents

Discussion of Results	1
Funding Requirements	
Calculation Details and Recommended Contribution	5
Projected Unfunded Actuarial Accrued Liability	8
Past Excess Contributions Account	9
Market Value of Assets	10
Actuarial Value of Assets	13
Reconciliation of DROP	14
Accounting Requirements	
Development of Net Pension Expense	16
Gain/Loss	18
Deferred Outflows/Inflows	19
Reconciliation of Net Pension Liability	21
Sensitivity	22
Disclosure—Changes in Net Pension Liability and Related Ratios	23
State Requirements	26
Appendix	
Participant Data	32
Asset Allocation	37
Actuarial Assumptions and Methods	39
Actuarial Assumptions and Methods—Discussion	43
Plan Provisions	45

Discussion of Results

The results of the actuarial valuation of the City of Tampa General Employees' Pension Plan as of January 1, 2017, are contained in this report. The actuarial valuation is based upon census data and trust fund financial statements provided to us by the City.

Assumption Changes

None.

Plan Changes

No plan changes were recognized this year.

Required Contribution

The State minimum required contribution is developed on pages 5 and 6. The required contribution increased from \$18,520,923 to \$20,190,042, i.e., an increase of \$1,669,119. These figures are net of Past Excess Contributions, i.e., contributions actually made for prior years above or below the required levels.

	Plan Year Ended		
	09/30/2016	09/30/2017	09/30/2018
State Minimum Required Contribution Paid Quarterly ¹	\$ 13,254,983	\$18,520,923	\$20,190,042
Percent of Participants' Compensation	10.3%	13.6%	14.3%
State Minimum Required Contribution Paid at Beginning of the Year ¹	\$12,754,619	\$17,821,775	\$19,427,886
Percent of Participants' Compensation	9.9%	13.0%	13.8%

One component of change each year in the minimum required contribution is the reimbursement of plan expenses. The actual expenses for the year ended December 31, 2016, were \$4,107,109. This becomes the estimated expense provision for fiscal year end 2018. The make-up provision was an additional \$554,109. Thus the total provision for expenses is \$4,661,218, which is more than the fiscal year end 2017 expense. The minimum required contribution also increased this year due to the change in the past excess contribution.

Actuarial Experience

The investment return on the Actuarial Value of Assets was 8.3% for the year ended December 31, 2016 – compared to the assumed rate of return of 8.0% annually. The market value return was 6.8%. Investment experience compounded over the last 5 years has been approximately 9.0% per year. Compensation for continuing participants increased 3.7% on average – compared to the assumed graded salary increase that averages approximately 4.5% annually. Compensation increases compounded over the last 5 years have been approximately 2.6% per year.

¹ The City has adopted the "Percentage Method" rather than the "Dollar Method." This means that the actual required contribution is not this number, which is based on projected Participants' Compensation Below Maximum Assumed Retirement Age (age 70). Rather it is to be based on the percent shown and actual Participants' Compensation Below Maximum Assumed Retirement Age for that Plan Year.

The following table summarizes the factors which affected the valuation results, along with their approximate impact:

	Impact on Present Value of Benefits or Actuarial Value of Assets (000's)	Impact on Required Contribution (000's)
Expected Increase due to Expected Payroll Increase	N/A	\$ 495
Investment Performance greater than Expected	\$ 2,157	(317)
Compensation Increases less than Expected	(1,921)	(282)
Change in Plan Expenses and Make-up	N/A	789
Change in Past Excess Contributions	N/A	2,040
Updating Assumptions	0	0
All Other Experience	(7,184)	<u>(1,056)</u>
		\$ 1,669

Funded Status

A traditional measure of the Funded Status (the method required under GASB 67/68) uses the Entry Age Normal Accrued Liability. This accrued liability equals the Present Value of Benefits less the Present Value of Future Entry Age Normal Costs. (See the description of the entry age normal method on the "Actuarial Cost Method" pages herein.) This accrued liability is independent of the actual plan assets and therefore may be a more reasonable "mile post" of how funded the Plan should be. It recognizes future compensation increases and is a measure of where the level of assets should be to date if all participants are proportionately funded over their individual careers as a level percentage of each participant's compensation. Table below shows the funded status comparing the Entry Age Normal liability to both the Market Value and Actuarial Value of Assets:

	01/01/2016	01/01/2017
Entry Age Normal Accrued Liability	\$ 740,288,368	\$ 751,364,846
Market Value of Assets	\$ 657,493,326	\$ 665,837,528
Funded Ratio	88.8%	88.6%
Actuarial Value of Assets	\$ 680,403,789	\$ 700,320,299
Funded Ratio	91.9%	93.2%

Another measure of the Funded Status of a defined benefit plan is the level of funding of the Accumulated Plan Benefits and Vested Benefits. Accumulated Plan Benefits are those future benefit payments that are attributable to employees' service rendered prior to the valuation date based on employees' actual pay histories (or estimates thereof). This measurement of benefits does not take into account the effect of potential future salary increases. Vested Benefits are those benefits which become non-forfeitable after 6 years of Service or which are attributable to employee contributions.

	01/01/2016¹	01/01/2017¹
Actuarial Value of Assets	\$ 680,403,789	\$ 700,320,299
Actuarial Present Value of Accumulated Plan Benefits		
Total Vested Benefits	\$ 679,907,478	\$ 688,557,329
Percent Funded	100.1%	101.7%
Total Actuarial Present Value of Accumulated Plan Benefits	\$ 683,502,274	\$ 693,783,551
Percent Funded	99.5%	100.9%

¹ Includes DROP Balance.

Funding Requirements

Development of Normal Cost

	01/01/2016	01/01/2017
1. Number of Participants		
Active Members	2,329	2,367
Terminated Members with Vested Benefits	558	580
Retired Members and Beneficiaries	2,090	2,118
Disabled Members	<u>78</u>	<u>81</u>
TOTAL	5,055	5,146
2. Participants' Compensation		
a. Under Maximum Assumed Retirement Age	\$ 133,927,257	\$ 138,394,848
b. Beyond Maximum Assumed Retirement Age	<u>395,063</u>	<u>614,124</u>
c. Total Compensation	\$ 134,322,320	\$ 139,008,972
3. Present Value of Benefits		
Active Members	\$ 242,619,624	\$ 249,105,448
Terminated Members with Vested Benefits	30,738,951	33,866,661
Retired Members and Beneficiaries	486,343,977	489,902,260
Disabled Members	11,099,280	11,332,123
DROP Balances	<u>16,245,568</u>	<u>15,321,225</u>
TOTAL	\$ 787,047,401	\$ 799,527,717
4. Unfunded Frozen Initial Liability	\$ 5,546,696	\$ 6,879,836
5. Actuarial Value of Assets	\$ 680,403,789	\$ 700,320,299
6. Present Value of Future Employee Contributions	\$ 42,965	\$ 18,624
7. Present Value of Future City Normal Costs = (3) – (4) – (5) – (6) (Not less than \$0)	\$ 101,053,950	\$ 92,308,958
8. Present Value of Future Compensation	\$ 973,753,200	\$ 998,016,499
9. Normal Cost Rate = (7) ÷ (8) x 1.03923	10.78%	9.61%
10. Projected Participants' Compensation for the Upcoming Plan Year = (2a) x 1.02	\$ 136,605,802	\$ 141,162,745
11. City Normal Cost Payable Quarterly = (9) x (10)	\$ 14,726,105	\$ 13,565,740

State Minimum Required Contribution

	<u>Plan Year Ending</u>		
	<u>09/30/2016</u>	<u>09/30/2017</u>	<u>09/30/2018</u>
1. Normal Cost Payable Quarterly	\$ 9,467,408	\$ 14,726,105	\$ 13,565,740
2. Annual Amortization of Frozen Initial Liability Payable Quarterly	\$ 1,206,211	\$ 1,206,211	\$ 1,206,211
3. Expenses			
Current Year Estimate (Equal to the Second Prior Calendar Year's Actual Expenses)	\$ 3,553,000	\$ 3,570,999	\$ 4,107,109
4. Make up for Shortfall in Second Prior Plan Year's Estimate	<u>468,000</u>	<u>300,999</u>	<u>554,109</u>
Total	\$ 4,021,000	\$ 3,871,998	\$ 4,661,218
5. Subtotal	\$ 14,694,619	\$ 19,804,314	\$ 19,433,169
% of Pay	11.4%	14.5%	13.8%
6. Past Excess Contributions Account, plus Interest	\$ 1,439,636	\$ 1,283,391	\$ (756,873)
7. Minimum Required Contribution by City for Fiscal Year if Paid Quarterly = (5) – (6), not less than \$0	\$ 13,254,983	\$ 18,520,923	\$ 20,190,042
% of Pay	10.3%	13.6%	14.3%
8. Minimum Required Contribution by City for Fiscal Year if Paid at Beginning of the Year	\$ 12,754,619	\$ 17,821,775	\$ 19,427,886
% of Pay	9.9%	13.0%	13.8%

History of Unfunded Frozen Initial and Supplemental Liabilities

	Initial Date	Initial Amount to be Amortized	Beginning Amortization Period	Original Amortization Period (Years)	Years Remaining	Plan Year Beginning Annual Amortization Amount	Unamortized Balance at Valuation Date
Benefit Improvement ¹	01/01/04	\$ 577,178	10/01/04	15.0000	2.7500	\$ 66,146	\$ 178,066
Benefit Improvement ²	01/01/05	4,908,273	10/01/05	17.1566	5.1566	525,506	2,633,603
Benefit Improvement ³	01/01/06	5,365,251	10/01/06	17.5000	7.2500	<u>569,025</u>	3,311,294
						\$1,160,677	

- | | |
|---|------------------|
| 1. Unamortized Balance as of 01/01/17 | \$ 6,122,963 |
| 2. Past Excess Contributions Account | <u>(756,873)</u> |
| 3. Remaining Unfunded Liabilities = (1) – (2) | \$ 6,879,836 |

¹ Decreased vesting requirements for Division B participants from 10 years to 6 years and increased the cost-of-living adjustment from 2% to 2.2% for Division A participants and from 1% to 1.2% for Division B participants.

² Increased benefit multiplier for Division B participants from 1.1% to 1.15%.

³ Increased benefit multiplier for Division B participants from 1.15% to 1.20%.

Schedule Illustrating the Amortization of Unfunded Liabilities Existing this Date—Projected Unfunded Actuarial Accrued Liability

January 1	Liability
2017	\$ 6,879,836
2018	\$ 5,359,269
2019	\$ 4,534,479
2020	\$ 3,651,312
2021	\$ 2,761,324
2022	\$ 1,800,137
2023	\$ 746,334
2024	\$ 191,494
2025	\$ 0

The first figure is the Unfunded Actuarial Accrued Liability as of the current valuation date. For each year thereafter, the preceding year's Unfunded Liability is reduced by the annual amortization payment and adjusted with interest at 8.00% per annum.

Past Excess Contributions Account

	09/30/2015	09/30/2016
CHARGES		
Required City Contribution, per State ¹	\$ 17,971,964	\$ 15,807,667
Interest	<u>705,040</u>	<u>620,135</u>
TOTAL CHARGES	\$ 18,677,004	\$ 16,427,802
 CREDITS		
Excess Contribution Brought Forward	\$ 1,412,202	\$ 1,258,934
City Contribution ²	17,047,000	13,264,540
Interest	<u>1,476,736</u>	<u>1,161,878</u>
TOTAL CREDITS	\$ 19,935,938	\$ 15,685,352
 PROJECTION TO NEXT VALUATION DATE		
Balance as of 09/30	\$ 1,258,934	\$ (742,450)
Interest on Balance for One Quarter	<u>24,457</u>	<u>(14,423)</u>
Balance as of 12/31	\$ 1,283,391	\$ (756,873)

¹ Required contribution shown is the amount required before past excess contribution credit is applied.

² Employer contribution made beginning of the year.

Market Value of Assets

	01/01/16	01/01/17
Assets		
Cash & Cash Equivalents	\$ 16,238,377	\$ 11,760,561
Interest and Dividends Receivable	1,207,728	1,344,927
Debt and Other Interest Bearing Investments	175,695,090	180,764,719
Equity Securities	426,872,564	432,354,444
Real Estate Investments	38,351,895	40,345,283
Accounts Receivable	115,947	466,598
Receivable Contribution	<u>0</u>	<u>0</u>
Total Assets	\$658,481,601	\$667,036,532
Liabilities and Fund Balance		
Liabilities:		
Accounts Payable	\$ 988,276	\$ 1,165,731
Accrued Liabilities	<u>0</u>	<u>33,273</u>
Total Liabilities	\$ 988,276	\$ 1,199,004
Total Fund Balances	<u>\$657,493,325</u>	<u>\$665,837,528</u>
Total Liabilities and Fund Balances	\$658,481,601	\$667,036,532

Reconciliation of Assets

January 1, 2016 – December 31, 2016

	Actuarial Value	Market Value
Revenues		
City Contributions	\$ 17,000,000	\$ 17,000,000
Employee Contributions	38,435	38,435
Interest and Dividends	10,653,976	10,653,976
Unrealized Gains (Losses)	17,251,170	5,678,862
Realized Gains (Losses)	<u>26,885,959</u>	<u>26,885,959</u>
Total Revenues	\$ 71,829,540	\$ 60,257,232
Expenses		
Pension Payments	\$ 47,805,921	\$ 47,805,921
Administrative Expenses	<u>4,107,109</u>	<u>4,107,109</u>
Total Expenses	\$ 51,913,030	\$ 51,913,030
Net Income	\$ 19,916,510	\$ 8,344,202
Fund Balances, beginning of plan year	\$ 680,403,789	\$ 657,493,326
Fund Balances, end of plan year	\$ 700,320,299	\$ 665,837,528

Investment Gain /(Loss)

1. Date of Actuarial Value of Assets:	1/1/2017	1/1/2016	1/1/2015	1/1/2014
2. Market Value as of Prior Year (including receivable contributions)	\$657,493,325	\$692,569,516	\$687,504,000	\$585,179,000
3. Receivable Contribution included above	\$ 0	\$ 0	\$ 0	\$ 0
4. Market Value Excluding Receivable (2) - (3)	\$657,493,325	\$692,569,516	\$687,504,000	\$585,179,000
5. Employer & Employee Contributions (made for the year, i.e., excluding the receivable contribution, item (3), but including contributions made after the end of the year with no expected return thereon)	\$ 17,038,435	\$ 13,326,410	\$ 19,065,000	\$ 41,735,000
6. Benefit Distributions	\$ 47,805,921	\$ 45,411,498	\$ 45,790,842	\$ 45,223,000
7. Administrative Expenses	\$ 4,107,109	\$ 3,570,999	\$ 3,553,000	\$ 3,366,000
8. Expected Return %	8.00%	8.00%	8.00%	8.00%
a. Item (4) for 1 year	\$ 52,599,466	\$ 55,405,561	\$ 55,000,320	\$ 46,814,320
b. Item (3) & (5) for partial year	1,361,508	1,063,590	1,521,896	1,637,284
c. Item (6) for 1/2 year	(1,875,449)	(1,781,515)	(1,796,397)	(1,774,120)
d. Item (7) for 1/2 year	<u>(161,124)</u>	<u>(140,092)</u>	<u>(139,386)</u>	<u>(132,050)</u>
	\$ 51,924,401	\$ 54,547,544	\$ 54,586,433	\$ 46,545,434
9. Expected Market Value (2)+(5)-(6)-(7)+(8)	\$674,543,131	\$711,460,973	\$711,811,591	\$624,870,434
10. Actual Market Value this Year (including receivable contributions)	\$665,837,528	\$657,493,325	\$692,569,516	\$687,504,000
11. Investment Gain/(Loss) from Experience	\$(8,705,603)	\$(53,967,648)	\$(19,242,075)	\$ 62,633,566

Actuarial Value of Assets

5 -year Smoothed Market Value without Phase-in

January 1, 2017

1. Market Value of Assets				\$ 665,837,528
2. Investment Gains/(Losses) for Four Prior Years				
a. Jan-16				\$ (8,705,603)
b. Jan-15				(53,967,648)
c. Jan-14				(19,242,075)
d. Jan-13				62,633,566
3. Unrecognized Investment Gains/(Losses)				
a. Jan-16	80%	of (2)(a)		\$ (6,964,482)
b. Jan-15	60%	of (2)(b)		(32,380,589)
c. Jan-14	40%	of (2)(c)		(7,664,413)
d. Jan-13	20%	of (2)(d)		<u>12,526,713</u>
e. Total:		(a)+(b)+(c)+(d)		\$ (34,482,771)
4. Preliminary Actuarial Value of Assets = (1) - (3)(e)				\$ 700,320,299
5. Adjustment to be within 20% of market value				\$ -
6. Actuarial Value of Assets = (4) + (5)				\$ 700,320,299

Reconciliation of DROP Participants and Assets

		Division A	Division B
Participants as of	1/1/2016	43	142
New DROP Members		3	36
New DROP's, Withdrew during Year		0	0
All Other Withdrawals		(11)	(39)
Corrections		0	0
Participants as of	1/1/2017	35	139
		Total	
Assets as of	1/1/2016	\$16,245,568	
	Payments into DROP	4,401,927	
	Earnings	792,411	
	Distributions	(6,119,661)	
	Expenses	(3,270)	
	Adjustments	<u>4,250</u>	
Assets as of	1/1/2017	\$15,321,225	

Accounting Requirements

Development of GASB 68 Net Pension Expense¹

Calculation Details

The following table illustrates the Net Pension Liability under GASB 68.

	Fiscal Year End 09/30/2016	Fiscal Year End 09/30/2017
(1) Total Pension Liability	\$740,042,522	\$751,141,662
(2) Plan Fiduciary Net Position	<u>657,493,325</u>	<u>665,837,528</u>
(3) Net Pension Liability	\$82,549,197	\$85,304,134
(4) Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	88.85%	88.64%

The following table illustrates the pension expense under GASB 68.

	Fiscal Year Ending September 30, 2016	Fiscal Year Ending September 30, 2017
(1) Service Cost	\$ 6,178,852	\$ 6,751,373
(2) Interest Cost	\$ 54,397,153	\$ 57,831,275
(3) Expected Investment Return	\$ (53,713,986)	\$ (50,864,482)
(4) Employee Contributions	\$ (61,870)	\$ (38,435)
(5) Admin Expense	\$ 3,570,999	\$ 4,107,109
(6) Plan Changes	\$ 0	\$ 0
(7) Amortization of Unrecognized		
(a) Liability (Gain)/Loss	\$ (5,028,403)	\$ (6,522,505)
(b) Asset (Gain)/Loss	13,845,402	15,374,539
(c) Assumption Changes	<u>8,961,800</u>	<u>8,961,800</u>
(8) Total Expense	\$ 28,149,947	\$ 35,600,674

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

Expense Component Development¹

Shown below are details regarding the calculation of Service and Interest Cost components of the Expense.

	Fiscal Year End 09/30/2016	Fiscal Year End 09/30/2017
(1) Development of Service Cost:		
(a) Normal Cost at Measurement Date	\$ 6,178,852	\$ 6,751,373
(2) Development of Interest Cost:		
(a) Total Pension Liability at Measurement Date	\$ 696,491,313	\$ 740,042,522
(b) Normal Cost at Measurement Date	\$ 6,178,852	\$ 6,751,373
(c) Actual Benefit Payments	\$ 45,411,498	\$ 47,805,921
(d) Discount Rate	<u>8.00%</u>	<u>8.00%</u>
(e) Interest Cost	\$ 54,397,153	\$ 57,831,275
(3) Development of Expected Investment Return:		
(a) Plan Fiduciary Net Position at Measurement Date	\$ 692,569,000	\$ 657,493,325
(b) Actual Contributions—Employer	\$ 13,264,540	\$ 17,000,000
(c) Actual Contributions—Employee	\$ 61,870	\$ 38,435
(d) Actual Benefit Payments	\$ 45,411,498	\$ 47,805,921
(e) Administrative Expenses	\$ 3,570,999	\$ 4,107,109
(f) Other	\$ 0	\$ 0
(g) Expected Return on Assets	<u>8.00%</u>	<u>8.00%</u>
(h) Expected Return	\$ 53,713,986	\$ 50,864,482

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

Liability (Gain)/Loss¹

The following table illustrates the liability gain/loss under GASB 68.

	Fiscal Year End September 30, 2016	Fiscal Year End September 30, 2017
(1) Pension Liability Prior Measurement Date	\$ 696,491,313	\$ 740,042,522
(2) Service Cost	\$ 6,178,852	\$ 6,751,373
(3) Interest Cost	\$ 54,397,153	\$ 57,831,275
(4) Plan Changes	\$ 0	\$ 0
(5) Assumption Changes	\$ 29,092,119	\$ 0
(6) Benefit Payments	\$ 45,411,498	\$ 47,805,921
(7) Expected Pension Liability	\$ 740,747,939	\$ 756,819,249
(8) Actual Pension Liability	<u>740,042,522</u>	<u>751,141,662</u>
(9) Pension Liability (Gain)/Loss	\$ (705,417)	\$ (5,677,587)
(10) Average Future working Life Expectancy	<u>3.85</u>	<u>3.80</u>
(11) Pension Liability (Gain)/Loss Amortization	\$ (183,225)	\$ (1,494,102)

Asset (Gain)/Loss¹

The following table illustrates the asset gain loss under GASB 68.

	Fiscal Year End September 30, 2016	Fiscal Year End September 30, 2017
(1) Pension Asset Prior Measurement Date	\$ 692,569,000	\$ 657,493,325
(2) Contributions—Employer and Employee	\$ 13,326,410	\$ 17,038,435
(3) Expected Investment Income	\$ 53,713,986	\$ 50,864,482
(4) Benefit Payments	\$ 45,411,498	\$ 47,805,921
(5) Administrative Expense	\$ 3,570,999	\$ 4,107,109
(6) Other	\$ 0	\$ 0
(7) Expected Pension Asset	\$ 710,626,899	\$ 673,483,212
(8) Actual Pension Asset	<u>657,493,325</u>	<u>665,837,528</u>
(9) Pension Asset (Gain)/Loss	\$ 53,133,574	\$ 7,645,684
(10) Amortization Factor	<u>5</u>	<u>5</u>
(11) Pension Asset (Gain)/Loss Amortization	\$ 10,626,715	\$ 1,529,137

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

Deferred Outflows/Inflows¹

The following table illustrates the Deferred Inflows and Outflows at the end of the fiscal year under GASB 68.

	Deferred Outflows	Deferred Inflows
(1) Difference between actual and expected experience		
(a) Measurement Date January 1, 2015	\$ 0	\$ (4,457,563)
(b) Measurement Date January 1, 2016	\$ 0	\$ (338,967)
(c) Measurement Date January 1, 2017	\$ 0	\$ (4,183,485)
(2) Assumption Changes		
(a) Measurement Date January 1, 2015	\$ 1,292,973	\$ 0
(b) Measurement Date January 1, 2016	\$ 13,979,329	\$ 0
(c) Measurement Date January 1, 2017	\$ 0	\$ 0
(3) Net Difference Between Expected and Actual Earnings on Pension Plan Investments		
(a) Measurement Date January 1, 2015	\$ 6,437,375	\$ 0
(b) Measurement Date January 1, 2016	\$ 31,880,144	\$ 0
(c) Measurement Date January 1, 2017	\$ 6,116,547	\$ 0
(4) Total	\$ 59,706,368	\$ (8,980,015)

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

Amortization of Deferred Inflows/Outflows¹

The table below lists the amortization bases included in the deferred inflows/outflows as of September 30, 2017.

Date Established	Type of Base	Period		Balance		Annual Payment
		Original	Remaining	Original	Remaining	
10/01/2014	Liability (Gain)/Loss	3.92	0.92	\$(18,993,096)	\$ (4,457,563)	\$ (4,845,178)
10/01/2015	Liability (Gain)/Loss	3.85	1.85	\$ (705,417)	(338,967)	(183,225)
10/01/2016	Liability (Gain)/Loss	3.80	2.80	\$ (5,677,587)	(4,183,485)	(1,494,102)
10/01/2014	Assumption Changes (Gain)/Loss	3.92	0.92	\$ 5,509,188	1,292,973	1,405,405
10/01/2015	Assumption Changes (Gain)/Loss	3.85	1.85	\$ 29,092,119	13,979,329	7,556,395
10/01/2014	Asset (Gain)/Loss	5.00	2.00	\$ 16,093,437	6,437,375	3,218,687
10/01/2015	Asset (Gain)/Loss	5.00	3.00	\$ 53,133,574	31,880,144	10,626,715
10/01/2016	Asset (Gain)/Loss	5.00	4.00	\$ 7,645,684	<u>6,116,547</u>	<u>1,529,137</u>
Total Charges					\$50,726,353	\$ 17,813,835

Amounts Recognized in the deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in the pension expense as follows:

Year Ended September 30²:

2018	\$18,089,016
2019	\$20,147,630
2020	\$10,960,570
2021	\$ 1,529,137
2022	\$ 0
Thereafter	\$ 0

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

² Corrected March 9, 2018

Reconciliation of Net Pension Liability¹

Shown below are details regarding the Total Pension Liability, Plan Fiduciary Net Position, and Net Pension Liability for the Measurement Period from January 1, 2016 to January 1, 2017

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (c) = (a) - (b)
Balance recognized at 10/1/2016 (based on 1/1/2016 Measurement Date)	\$ 740,042,522	\$ 657,493,325	\$ 82,549,197
Changes recognized for the fiscal year:			
Service Cost	6,751,373	N/A	6,751,373
Interest on the total pension liability	57,831,275	N/A	57,831,275
Changes of benefit terms	0	N/A	0
Differences between expected and actual experience	(5,677,587)	N/A	(5,677,587)
Changes of assumptions	0	N/A	0
Contributions from the employer	N/A	17,000,000	(17,000,000)
Contributions from the employee	N/A	38,435	(38,435)
Net investment income	N/A	43,218,798	(43,218,798)
Benefit payments	(47,805,921)	(47,805,921)	0
Administrative expense	N/A	(4,107,109)	4,107,109
Net Changes	<u>11,099,140</u>	<u>8,344,203</u>	<u>2,754,937</u>
Balance recognized at 9/30/2017 (based on 1/1/2017 Measurement Date)	\$ 751,141,662	\$ 665,837,528	\$ 85,304,134

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

Sensitivity¹ GASB Requirements

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2016:

	1% Decrease (7.00%)	Current Rate (8.00%)	1% Increase (9.00%)
(1) Total Pension Liability	\$823,265,059	\$740,042,522	\$670,318,130
(2) Plan Fiduciary Net Position	<u>657,493,326</u>	<u>657,493,326</u>	<u>657,493,326</u>
(3) Net Pension Liability	\$165,771,733	\$82,549,196	\$12,824,804

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2017:

	1% Decrease (7.00%)	Current Rate (8.00%)	1% Increase (9.00%)
(1) Total Pension Liability	\$834,962,486	\$751,141,662	\$680,821,386
(2) Plan Fiduciary Net Position	<u>665,837,528</u>	<u>665,837,528</u>	<u>665,837,528</u>
(3) Net Pension Liability	\$169,124,958	\$85,304,134	\$14,983,858

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

Disclosure—Changes in the Net Pension Liability and Related Ratios¹

Changes in the Net Pension Liability and Related Ratios – RP2000, 8.0% Interest

GASB 68 is effective for fiscal year ending September 30, 2015. The follow exhibit is a 10 year history of change in Net Pension Liability.

	Fiscal Year Ending									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Pension Liability										
Service Cost	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 5,622,896	\$ 6,178,852	\$ 6,751,373
Interest Cost	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 54,286,720	\$ 54,397,153	\$ 57,831,275
Changes of Benefit Terms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 0	\$ 0	\$ 0
Differences Between Expected and Actual Experiences	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$(18,993,096)	\$ (705,417)	\$ (5,677,587)
Changes of Assumptions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 5,509,188	\$ 29,092,119	\$ 0
Benefit Payments, Including Refunds of Member Contributions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$(45,791,000)	\$(45,411,498)	\$(47,805,921)
Net Change in Total Pension Liability	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 634,708	\$ 43,551,209	\$ 11,099,140
Total Pension Liability (Beginning)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$695,856,605	\$696,491,313	\$740,042,522
Total Pension Liability (Ending)	N/A	N/A	N/A	N/A	N/A	N/A	\$695,856,605	\$696,491,313	\$740,042,522	\$751,141,662
Plan Fiduciary Net Position										
Contributions—Employer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 17,047,000	\$ 13,264,540	\$ 17,000,000
Contributions—Member	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 81,000	\$ 61,870	\$ 38,435
Net Investment Income	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 37,277,445	\$ 580,412	\$ 43,218,798
Benefit Payments, Including Refunds of Member Contributions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$(45,791,000)	\$(45,411,498)	\$(47,805,921)
Administrative Expense	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ (3,549,445)	\$ (3,570,999)	\$ (4,107,109)
Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 0	\$ 0	\$ 0
Net Change in Plan Fiduciary Net Position	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 5,065,000	\$(35,075,675)	\$ 8,344,203
Plan Fiduciary Net Position (Beginning)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$687,504,000	\$692,569,000	\$657,493,325
Plan Fiduciary Net Position (Ending)	N/A	N/A	N/A	N/A	N/A	N/A	\$687,504,000	\$692,569,000	\$657,493,325	\$665,837,528
Net Pension Liability (Ending)	N/A	N/A	N/A	N/A	N/A	N/A	\$8,352,605	\$ 3,922,313	\$ 82,549,197	\$ 85,304,134
Net Position as a % of Pension Liability	N/A	N/A	N/A	N/A	N/A	N/A	98.80%	99.44%	88.85%	88.64%
Covered-Employee Payroll	N/A	N/A	N/A	N/A	N/A	N/A	\$124,594,728	\$127,097,787	\$138,663,748	\$141,162,745
Net Pension Liability as a % of Payroll	N/A	N/A	N/A	N/A	N/A	N/A	6.70%	3.09%	59.53%	60.43%

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

Disclosure—Contribution Schedule¹

Contributions – 8.0% Interest

GASB 68 is effective for fiscal year ending September 30, 2015. The follow exhibit is a 10 year history of Contributions.

	Fiscal Year Ending									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Actuarially Determined Contribution	N/A	N/A	N/A	N/A	N/A	N/A	\$24,369,057	\$16,757,642	\$13,927,551	N/A
Contributions made in Relation to the Actuarially Determined Contribution	N/A	N/A	N/A	N/A	N/A	N/A	\$24,627,660	\$17,047,000	\$13,264,540	\$17,000,000
Contribution Deficiency (excess)	N/A	N/A	N/A	N/A	N/A	N/A	\$ (258,603)	\$(289,358)	\$663,011	N/A
Covered-Employee Payroll	N/A	N/A	N/A	N/A	N/A	N/A	\$124,594,728	\$127,097,787	\$138,663,748	\$141,162,745 ²
Contributions as a % of Payroll	N/A	N/A	N/A	N/A	N/A	N/A	19.77%	13.41%	9.57%	12.04%

Notes to Schedule:

Valuation Date: Actuarially determined contribution rates are calculated as of January 1, 1 year 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 with Frozen Initial Liability

Asset Valuation Method: Actuarial Value – 5-year smoothed market value.

IRS Limit Increases: 4.5%

Salary Increases: Graded by age – see assumptions section for rates.

Investment Rate of Return: 8.00%, net of pension plan investment expense, including inflation.

Retirement Age: Graded by age and Division – see assumption section for rates.

Mortality: RP-2000 Healthy Annuitant Mortality Table for Males (50% White Collar and 50% Blue Collar) or Females (100% White Collar), as appropriate, with generational projections for mortality improvements based on Scale BB.

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

² Projected

State Requirements

Sensitivity¹

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2016:

	2% Decrease (6.00%)	Current Rate (8.00%)	FRS Interest (7.65%)
(1) Total Pension Liability	\$923,465,768	\$ 740,042,522	\$767,476,121
(2) Plan Fiduciary Net Position	<u>657,493,326</u>	<u>657,493,326</u>	<u>657,493,326</u>
(3) Net Pension Liability	\$265,972,442	\$ 82,549,196	\$109,982,795

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2017:

	2% Decrease (6.00%)	Current Rate (8.00%)	FRS Interest (7.60%)
(1) Total Pension Liability	\$935,735,982	\$ 751,141,662	\$782,876,763
(2) Plan Fiduciary Net Position	<u>665,837,528</u>	<u>665,837,528</u>	<u>665,837,528</u>
(3) Net Pension Liability	\$269,898,454	\$ 85,304,134	\$117,039,235

Adequacy of Assets

The following table illustrates the number of years and fractions for which the Market Value of Assets are adequate to sustain expected retirement benefits.

Assumptions	Years and Fractions
RP 2000 Mortality and 8.0% Interest	19.58
RP 2000 Mortality and 6.0% Interest	15.67

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

State Required Disclosure—Changes in the Net Pension Liability and Related Ratios¹

Changes in the Net Pension Liability and Related Ratios – 6.0% Interest

GASB 68 is effective for fiscal year ending September 30, 2015. The follow exhibit is a 10 year history of change in Net Pension Liability.

	Fiscal Year Ending									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Pension Liability										
Service Cost	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 9,288,710	\$ 10,172,963	\$ 11,198,194
Interest Cost	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 50,846,033	\$ 50,926,078	\$ 54,645,660
Changes of Benefit Terms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 0	\$ 0	\$ 0
Differences Between Expected and Actual Experiences	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$(24,204,488)	\$ 1,823,341	\$(5,767,719)
Changes of Assumptions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 10,120,838	\$ 44,654,126	\$ 0
Benefit Payments, Including Refunds of Member Contributions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$(45,791,000)	\$(45,411,498)	\$(47,805,921)
Net Change in Total Pension Liability	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 260,093	\$ 62,165,010	\$ 12,270,214
Total Pension Liability (Beginning)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 861,040,665	\$ 861,300,758	\$ 923,465,768
Total Pension Liability (Ending)	N/A	N/A	N/A	N/A	N/A	N/A	\$ 861,040,665	\$ 861,300,758	\$ 923,465,768	\$ 935,735,982
Plan Fiduciary Net Position										
Contributions—Employer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 17,047,000	\$ 13,264,540	\$ 17,000,000
Contributions—Member	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 81,000	\$ 61,870	\$ 38,435
Net Investment Income	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 37,277,445	\$ 580,412	\$ 43,218,798
Benefit Payments, Including Refunds of Member Contributions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$(45,791,000)	\$(45,411,498)	\$(47,805,921)
Administrative Expense	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$(3,549,445)	\$(3,570,999)	\$(4,107,109)
Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 0	\$ 0	\$ 0
Net Change in Plan Fiduciary Net Position	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 5,065,000	\$(35,075,675)	\$ 8,344,203
Plan Fiduciary Net Position (Beginning)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 687,504,000	\$ 692,569,000	\$ 657,493,325
Plan Fiduciary Net Position (Ending)	N/A	N/A	N/A	N/A	N/A	N/A	\$ 687,504,000	\$ 692,569,000	\$ 657,493,325	\$ 665,837,528
Net Pension Liability (Ending)	N/A	N/A	N/A	N/A	N/A	N/A	\$ 173,536,665	\$ 168,731,758	\$ 265,972,443	\$ 269,898,454
Net Position as a % of Pension Liability	N/A	N/A	N/A	N/A	N/A	N/A	79.85%	80.41%	71.20%	71.16%
Covered-Employee Payroll	N/A	N/A	N/A	N/A	N/A	N/A	\$ 124,594,728	\$ 127,097,787	\$ 138,663,748	\$ 141,162,745
Net Pension Liability as a % of Payroll	N/A	N/A	N/A	N/A	N/A	N/A	139.28%	132.76%	191.81%	191.20%

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

State Required Disclosure—Contribution Schedule¹

Contributions – 6.0% Interest

GASB 68 is effective for fiscal year ending September 30, 2015. The follow exhibit is a 10 year history of Contributions.

	Fiscal Year Ending									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Actuarially Determined Contribution	N/A	N/A	N/A	N/A	N/A	N/A	\$24,369,057	\$16,757,642	\$13,927,551	N/A
Contributions made in Relation to the Actuarially Determined Contribution	N/A	N/A	N/A	N/A	N/A	N/A	\$24,627,660	\$17,047,000	\$13,264,540	\$17,000,000
Contribution Deficiency (excess)	N/A	N/A	N/A	N/A	N/A	N/A	\$ (258,603)	\$(289,358)	\$663,011	N/A
Covered-Employee Payroll	N/A	N/A	N/A	N/A	N/A	N/A	\$124,594,728	\$127,097,787	\$138,663,748	\$141,162,745 ²
Contributions as a % of Payroll	N/A	N/A	N/A	N/A	N/A	N/A	19.77%	13.41%	9.57%	12.04%

Notes to Schedule:

Valuation Date: Actuarially determined contribution rates are calculated as of January 1, 1 year 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 with Frozen Initial Liability

Asset Valuation Method: Actuarial Value – 5-year smoothed market value.

IRS Limit Increases: 4.5%

Salary Increases: Graded by age – see assumptions section for rates.

Investment Rate of Return: 6.00%, net of pension plan investment expense, including inflation.

Retirement Age: Graded by age and Division – see assumption section for rates.

Mortality: RP-2000 Healthy Annuitant Mortality Table for Males (50% White Collar and 50% Blue Collar) or Females (100% White Collar), as appropriate, with generational projections for mortality improvements based on Scale BB.

¹ The plan uses a 9 month lookback for GASB 68 reporting. As a result, figures shown as of September 30 are for the period January 1 through December 31.

² Projected

Actuarial Present Value of Accrued Benefits

	01/01/16	01/01/17
Vested Benefits		
Participants Currently Receiving Payments	\$ 497,443,258	\$501,234,383
DROP Balances	16,245,568	15,321,225
All Other Participants	<u>166,218,652</u>	<u>172,001,721</u>
Total Vested Benefits	\$ 679,907,478	\$ 688,557,329
Nonvested Benefits	<u>3,594,796</u>	<u>5,226,222</u>
Total Actuarial Present Value of Accumulated Plan Benefits	\$ 683,502,274	\$ 693,783,551
Statement of Changes in Total Accrued Benefits		
Accrued Benefits at January 1, 2016		\$ 683,502,274
Increase (Decrease) attributable to		
Plan Amendments		\$ 0
Changes in Actuarial Assumptions		\$ 0
Increase for Interest, Probability of Payment Due to		
Decrease in Discount Period and Benefits Accrued/(Forfeited)		\$ 59,011,541
Benefits Paid		\$ (47,805,921)
DROP Balances		\$ (924,343)
Other Changes (Transfers)		\$ 0
Net Increase (Decrease)		\$ 10,281,277
Accrued Benefits at January 1, 2017		\$ 693,783,551

15 Year Projection of Emerging Liabilities
January 1 **Expected Benefit Payments**

2017	\$48,527,613
2018	\$50,419,412
2019	\$52,220,231
2020	\$53,940,552
2021	\$55,789,530
2022	\$57,657,747
2023	\$59,481,990
2024	\$61,199,785
2025	\$63,100,608
2026	\$64,987,089
2027	\$66,724,575
2028	\$68,215,726
2029	\$69,773,830
2030	\$71,146,487
2031	\$72,244,934

Appendix

Participant Data

The actuarial valuation was based on personnel information from City of Tampa records as of January 1, 2017. Following are some of the pertinent characteristics from the personnel data as of that date. Prior year characteristics are also provided for comparison purposes. Both age and service have been determined using years and months as of the valuation date.

	January 1, 2016	January 1, 2017
Actives Participants		
Number	2,329	2,367
Average Current Age	47.0	46.8
Average Years of Service	13.3	12.9
Average Compensation	\$ 53,488	\$ 54,599
Inactives with Deferred Benefits		
Number	558	580
Average Current Age	50.3	50.5
Average Monthly Benefit ¹	\$ 698	\$ 725
Inactives Receiving Payment		
Number	2,168	2,199
Average Current Age	71.7	71.9
Average Monthly Benefit	\$ 1,760	\$ 1,763
Total Participants		
Number	5,055	5,145

¹ Before adjustment for assumed retirement age.

Participant Data Summary

Reconciliation – Division A

	Active	DROP	Terminated Vested	Disabled	Retired	Beneficiaries	Total
January 1, 2016	9	43	2	22	752	371	1,199
Changes During Year							
New Participants							
Retirements		(11)	(2)		13		
Disabilities							
Non-Vested Terminations							
Vested Terminations							
DROP Enrollments	(3)	3					
Deaths					(38)	(22)	(60)
New Beneficiaries						17	17
Benefits Expired						(1)	(1)
Other			3		(1)	1	3
January 1, 2017	6	35	3	22	726	366	1,158
Average Age	58.5	60.3	65.5	73.0	73.8	79.4	

Reconciliation – Division B

	Active	DROP	Terminated Vested	Disabled	Retired	Beneficiaries	Total
January 1, 2016	2,320	142	556	56	670	112	3,856
Changes During Year							
New Participants	233		(3)				230
Retirements	(20)	(39)	(19)		78		
Disabilities	(6)		(1)	7			
Non-Vested Terminations	(78)						(78)
Vested Terminations	(50)		50				
DROP Enrollments	(36)	36					
Deaths	(2)		(2)	(4)	(17)	(5)	(30)
New Beneficiaries						13	13
Benefits Expired							
Other			(1)		(1)	2	0
January 1, 2017	2,361	139	580	59	730	122	3,991
Average Age	46.8	64.6	50.6	57.2	69.9	68.4	

Reconciliation - Total

	Active	DROP	Terminated Vested	Disabled	Retired	Beneficiaries	Total
January 1, 2016	2,329	185	558	78	1,422	483	5,055
Changes During Year							
New Participants	233		(3)				230
Retirements	(20)	(50)	(21)		91		
Disabilities	(6)		(1)	7			
Non-Vested Terminations	(78)						(78)
Vested Terminations	(50)		50				
DROP Enrollments	(39)	39					
Deaths	(2)		(2)	(4)	(55)	(27)	(90)
New Beneficiaries						30	30
Benefits Expired						(1)	(1)
Other			2		(2)	3	3
January 1, 2017	2,367	174	583	81	1,456	488	5,149
Average Age	46.8	63.7	50.7	61.5	71.9	76.7	

Active Participants Age / Years of Service Distribution

Shown below is the distribution of active participants based on age and years of service since their hire date.

Age	Years of Service as of 01/01/2017							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
Under 25	98	1						99
25-29	82	28	6					117
30-34	93	46	44	5				188
35-39	97	41	58	24	3			223
40-44	93	54	66	51	25			289
45-49	72	38	85	68	52	44	2	361
50-54	80	46	83	87	51	70	65	482
55-59	52	28	58	56	54	57	76	381
60-64	18	28	34	30	25	16	31	182
65 and over	10	11	9	6	2	1	6	45
Total	695	322	443	327	212	188	180	2,367

Asset Allocation

The following table illustrates the allocation of the Plan Fiduciary Net Position as of December 31, 2016:

Asset Class	Total Allocation
Bonds	27%
Equity	65%
Real Estate	6%
Cash	2%
Total	100%

The following table illustrates the expected rate of return for each of the asset classes in Plan Fiduciary Net Position as of December 31, 2016:

Asset Class	Expected Nominal Return	Expected Real Rate of Return
Bonds	5.3%	2.8%
Equity	7.1%	4.6%
Real Estate	5.7%	3.2%
Cash	3.1%	0.6%

Five Year History of Asset Returns and Portfolio Percentages

Year Ended December 31,	Assumed Return	Actual Return	Percentage of Bonds	Percentage of Stocks	Percentage of Real Estate	Percentage of Cash
2012	8.0%	14.5%	30%	62%	5%	3%
2013	8.0%	18.8%	26%	66%	5%	3%
2014	8.0%	5.6%	29%	65%	5%	1%
2015	8.0%	0.1%	27%	65%	6%	2%
2016	8.0%	6.8%	27%	65%	6%	2%

The actual experience figures are the approximate time-weighted rates of return for the particular year. Income includes dividends, interest, and unrealized and realized gains (losses), based upon statements of Fund Balances. The time-weighted balance reflects estimated transaction dates for income, employer contributions, expenses, and disbursements.

Five Year History of Actual verses Assumed Salary Increases

Year Ended December 31,	Assumed Increases	Actual Increases
2012	6.0%	3.4%
2013	6.0%	2.2%
2014	Graded ¹	3.7%
2015	Graded ¹	0.0%
2016	Graded ¹	3.7%

Each figure is the rate of increase in the average compensation from the prior year (“weighted” by each individual participant’s compensation), as reported for the actuarial valuations. The average includes only continuing active employees who have a full year of compensation in both the current and prior years, based on their reported dates of employment.

¹ Assumed salary increase is a graded scale going from 10.0% per year at age 15 to 2.0% at age 70.

Actuarial Assumptions and Methods

Expected Return on Assets 8.00%.

Discount Rate 8.00%¹.

Salary Increases Sample Rates

Age	Rate
15	10.0%
20	9.0%
25	8.0%
30	7.0%
35	6.0%
40	5.0%
45	4.5%
50	4.0%
55	3.5%
60	3.0%
65	2.5%
70	2.0%

Payroll Growth For purposes of projecting Total Participants' Compensation (under maximum assumed retirement age) from the calendar year forward nine months to the plan year beginning October 1, a 2% increase assumption is applied.

General Inflation 2.5%

Benefit and Compensation Limits N/A.

Maximum Compensation Compensation is limited to \$265,000 per year, projected to increase at the rate of 4.5% per year.

Maximum Benefit The maximum accrued benefit payable as a life annuity (the value of the Plan's Survivor Annuity is not subject to this limitation) commencing between ages 62 and 65 is \$210,000, projected to increase at the rate of 4.5% per year.

Mortality Rates RP-2000 Fully Generational Scale BB. Male – 50% Annuitant White Collar/ 50% Annuitant Blue Collar. Female – 100% Annuitant White Collar

¹ Based on the employer's funding policy, projected assets are projected to always be sufficient to cover projected benefit payments, so the EROA is used as the discount rate.

Post-Disablement Mortality

RP-2000 Disabled Male setback 4 years and Disabled Female set forward 2 years

Withdrawal Rates

Sample Rates

Age	Years of Service			
	1	2	3	4+
20	38.6%	38.6%	38.6%	19.3%
30	19.4%	19.4%	19.4%	9.7%
40	9.0%	9.0%	9.0%	4.5%
50	10.0%	10.0%	10.0%	5.0%
60	10.0%	10.0%	10.0%	5.0%

Disability Rates

Sample Rates

Age	Rate
20	.09%
30	.11%
40	.15%
50	.33%
60	1.18%

Actuarial Value of Assets

Assets are valued using 5-year smoothed market value without phase-in.

Decrement Timing

Middle of year decrements, with 100% retirement occurring at beginning of year.

Timing of Contribution

The contribution is assumed to be made at the beginning of the fiscal year.

Employees Covered

All Participants as of the actuarial valuation date.

Administrative Expenses

Expenses for the current plan year are assumed to equal actual expenses for the second prior plan year. If actual expenses for the second prior plan year differ from the second prior plan year's estimate, a make-up contribution or credit is included.

Marital Status

70% of all active male participants are assumed to be married; 55% of all active female participants are assumed to be married. The marital status of a terminated vested participant who has not yet elected a form of benefit payment is assumed to be that reported by the participant at his or her date of termination and recorded in the Pension Office.

Spouse's Ages

Unless actual data has been provided, male spouses are assumed to be three years older than female spouses.

Remarriage

Sample Rates

<u>Age</u>	<u>Rate</u>
25	8.755%
30	6.280%
35	4.107%
40	2.614%
45	1.768%
50	1.178%
55	.744%
60	.469%
65	.290%
70	.198%

Using the October 1, 2001, valuation results, an analysis was made of the impact of the reduction in the Survivor Annuity from 75% to 50% upon remarriage (Division A). Based on these remarriage rates, the analysis showed that the impact was equivalent to valuing (1) a 73.63% Survivor Annuity for active, terminated vested, retired and disabled participants and (2) a benefit equal to 99.16% of the actual monthly benefit for beneficiaries already receiving the Survivor Annuity.

Actuarial Cost Method

Entry Age Normal with Frozen Initial Liability – Changes in plan provisions, to the extent unfunded, are reflected in a supplemental component of the Unfunded Frozen Initial Liability. Changes in actuarial assumptions are reflected in future Normal Costs.

Fiscal Year End

September 30, 2017.

Measurement Date

January 1, 2017.

Measurement Period

January 1, 2016 to January 1, 2017.

Valuation Date

January 1, 2017.

Census Data

As of January 1, 2017.

Completeness of Assumptions

All benefits and expenses to be provided by the Plan are recognized in the valuation. All known events are taken into account; no current trends are assumed to discontinue in the future.

Changes in Methods/Assumptions Since the Prior Year

Method Changes

None

Assumption Changes

None

Actuarial Assumptions and Methods

Discussion of Actuarial Assumptions and Methods

City of Tampa selected the economic and demographic assumptions and prescribed them for use for purposes of compliance with GASB 68. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience.

Calculation of Normal Costs and Liabilities

The method used to calculate the service cost and projected benefit obligation for determining pension expense is the entry age normal cost method. Under this cost method, the actuarial accrued liability is based on a prorated portion of the present value of all benefits earned to date over expected future working life time as defined by GASB. The proration is determined so that the cost with respect to service accrued from date of hire is recognized as a level percentage of pay each year. The Normal Cost is equal to the prorated cost for the year of the valuation.

Accounting Information Under GASB 68

Benefit obligations and expense/(income) are calculated under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 68.

The total pension liability represents the actuarial present value of benefits based on the entry age normal cost method as of the measurement date. The service cost represents the actuarial present value of benefits that are attributed to the 2017 fiscal year, reflecting the effect of assumed future pay increases.

The pension expense is the annual amount to be recognized in the income statement as the cost of pension benefits for this plan for the period ending September 30, 2017.

Description of Actuarial Cost Method for Funding

The Entry Age Normal with Frozen Initial Liability cost method spreads the funding of a portion of the pension benefits over the future service of all active Members and the balance is funded in a separate amortization schedule.

The Frozen Initial Liability is determined and fixed in the first year the cost method is adopted, although it may be redetermined or a supplemental piece added when the Plan is amended. The Frozen Initial Liability is the excess of the Present Value of Benefits over the sum of (a) the Present Value of Future Entry Age Normal Costs, (b) the Present Value of Future Employee Contributions, and (c) the Actuarial Value of Assets in the Trust Fund. The Entry Age Normal Cost is the annual cost determined by assuming the current Plan was always in effect and calculating the amount needed to produce level funding of benefits for all current Members from the date they would have entered the Plan. The Frozen Initial Liability may be amortized over as many as 40 years.

In each subsequent year, the order of steps is reversed. The Present Value of Future Normal Costs is calculated as the excess of the Present Value of Benefits over the sum of (a) the unfunded portion of the Frozen Initial Liability, (b) the Actuarial Value of Assets and (c) the Present Value of Future Employee Contributions.

The Normal Cost is developed by spreading the Present Value of Future City Normal Costs over the future compensation of all Members as a level percentage of pay, i.e., by dividing it by the Present Value

of Future Compensation to get the Normal Cost Rate. The Normal Cost Rate is presumed to remain constant from the January 1 valuation date to the following Plan Year, October 1 through September 30. The Normal Cost is the product of the Normal Cost Rate and the current Members' Compensation, after the latter is projected forward nine months with a payroll growth assumption. Actuarial gains or losses are included in the Present Value of Future Normal Costs, and are reflected in the Normal Cost Rate and thereby spread over the remaining future service of the Members in the Normal Cost. The Frozen Initial Liability is not adjusted for actuarial gains or losses.

Plan Provisions

Effective Date	Created as Chapter 23559, Laws of Florida of 1945. Restated in its present form as of October 1, 1981. Summary includes all amendments through Chapter 2004-431, Special Act of 2004. Summary also includes the amendment passed by the 2005 Florida Legislature, which became effective October 1, 2005, the amendment passed by the 2006 Florida Legislature, which became effective October 1, 2006, and the amendment passed by the 2011 Florida Legislature, which became effective October 1, 2011.
Plan Year	October 1 to September 30.
Eligibility	All permanent employees including elective officers, department heads, and appointive officers, who are not covered by another pension plan. Those hired before October 1, 1981, shall be in Division A. Those hired on or after October 1, 1981, and those Division A employees who elect to change, shall be in Division B.
Current Employee Contributions	
Division A	7.00% of Compensation.
Division B	None after October 1, 1981.
Compensation	Wages and salaries earned by an employee including regular longevity bonuses, overtime and shift premiums, but excluding other premiums, allowances, special payments or any casual nonrecurring or unpredictable bonuses; payments for unused accrued bona fide sick, vacation, or other leave; payments received by an employee pursuant to a nonqualified unfunded deferred salary or wages plan; and severance pay that is paid after an employee severs employment with the City. However, salaries or wages earned but not paid to the employee by the employee's severance date with the City shall be considered Compensation for Plan purposes. Compensation shall also include elective amounts that are excludible from the employee's gross income under Sections 125 (including amounts that are not available to the employee in cash in lieu of group health coverage because the employee is unable to certify that he or she has other health coverage, but only if the employer does not request or collect information regarding the employee's other health coverage as part of the enrollment for the health plan); 403(b) (tax-sheltered annuity); 457 (Section 457 plan); and 132(f)(4) of the Internal Revenue Code of 1986, as amended, and the regulations thereunder. Compensation shall be limited to the cap under Section 401(a)(17) if the Code, as adjusted by the IRS for changes in the cost of living.

Average Monthly Compensation	The total Compensation received during the 3 years out of the last 6 years of Continuous Service which produces the highest average, divided by 36.
Accrued Pension	The amount determined by applying the benefit formula to an employee's Average Monthly Compensation and Service at the date of termination of employment.
Continuous Service (Service)	Unbroken service by an employee. Temporary interruptions of service caused by military service, illness or involuntary severance through no fault of the employee, provided he is reinstated, shall not be deemed to be breaks in continuous service. Also, certain time spent on authorized leave of absence shall be recognized (subject to payment of employee contributions). Under certain conditions specified in the Plan provisions, a terminated or retired employee who is rehired may have his prior Service reinstated.

Retirement and Death Benefits—Division A

- a. Eligibility (Normal Retirement Date) Completion of at least 6 years of Service and the attainment of age 55.
- b. Normal Retirement Benefit A monthly pension commencing on or after Normal Retirement Date payable for life equal to 2% of Average Monthly Compensation times years of Service, plus an additional .5% of Average Monthly Compensation times years of Service in excess of 15 years, for years served after January 1, 1975. A maximum of 30 years of Service is recognized.
- c. Early Retirement Benefit None.
- d. Postretirement Death Benefit The spouse of a deceased retired participant shall receive a monthly benefit equal to 75% of the participant's benefit, paid as a Survivor Annuity. Dependent children under 18 of a deceased participant shall receive a benefit of \$100 per month. The total benefit payable to the spouse and children shall not exceed the amount being received by the deceased participant. Orphaned children under 18 shall receive the spouse's benefit. The Survivor Annuity ceases upon death of the spouse or upon marriage or attainment of age 18 by the dependent/orphaned children; it reduces to 50% of the participant's benefit upon remarriage of the spouse. Dependent parents shall receive the spouse's benefit, if there is no spouse or children, until their death. Dependent parents may elect to withdraw employee contributions in a lump sum in lieu of the monthly benefit. (Upon the death of a terminated vested participant, the same Survivor Annuity is payable on or after the date age 55 would have been attained by the participant.) If a retired participant dies and is not survived by a spouse, children, or dependent parents, the excess, if any, of such participant's total contributions without interest over the total benefits received until death shall be paid in a lump sum to the legal heirs.

- e. Preretirement Death Benefit Before completing 6 years of Service, the full amount of the deceased participant's contributions, without interest, shall be paid to the legal heirs. After completing 6 years of Service, the spouse, children, or dependent parents of a participant who dies prior to retiring shall receive the immediate Survivor Annuity described above, payable as of the date of death. However, if the participant is not survived by a spouse, children, or dependent parents, the full amount of contributions, without interest, shall be paid to the legal heirs.
- f. Cost-of-Living Adjustment On January 1, 2005, and each January 1 thereafter, the pension benefit being paid to each retiree or beneficiary (whether attributable to retirement, termination, death or disability benefits) will be increased annually by 2.2%.

Retirement and Death Benefits—Division B

- a. Eligibility (Normal Retirement Date) Completion of at least 6 years of Service and the attainment of age 62.
- b. Normal Retirement Benefit A monthly pension commencing on or after Normal Retirement Date payable for life equal to 1.20% of Average Monthly Compensation multiplied by years of Service. (The minimum benefit under Section 8(B)(2) for participants who elected to be in Division B is presumed to be no longer controlling.)
- c. Early Retirement Benefit After the completion of at least 6 years of Service and the attainment of age 55, an active participant may elect to retire and receive a reduced benefit. The reduced benefit is the Accrued Pension reduced 5/12 of one percent for each month by which the benefit commencement date precedes the Normal Retirement Date.
- d. Postretirement Death Benefit The spouse of a deceased retired participant shall receive a monthly benefit equal to 50% of the participant's benefit, paid as a Survivor Annuity. (Upon the death of a terminated vested participant, the same Survivor Annuity is payable to the spouse on or after the date age 62 would have been attained by the participant.) No Survivor Annuity is payable unless the spouse and the participant were married on the date of retirement of the Participant. Former Division A participants shall also have a lump sum benefit equal to their contributions, without interest, less benefits paid.
- e. Preretirement Death Benefit Upon the death of an active employee after completing at least 6 years of Service, a lump sum equal to the annual salary is paid to the legal heirs. Also, a surviving spouse shall receive a monthly benefit equal to 50% of the participant's Accrued Pension, payable as of the employee's Normal Retirement Date, or as of his Early Retirement Date with the 5/12 of one percent per month reduction.
- f. Cost-of-Living Adjustment On January 1, 2005, and each January 1 thereafter, the pension benefit being paid to each retiree or beneficiary (whether attributable to retirement, termination, death or disability benefits) will be increased annually by 1.2%.

Disability Benefit

- a. Eligibility Total and permanent disability after the completion of at least 6 years of Service.
- b. Disability Benefit The participant's Accrued Pension, payable immediately.
- c. Form of Benefit A monthly annuity for the life of the participant, subject to a requirement to resume employment and discontinue the Disability Benefit in the case of recovery. After the participant's death, a Survivor Annuity is provided as described above for the applicable Division A or B benefit, beginning at the date of death.

Vested Termination

- a. Eligibility Completion of 6 years of Service.
- b. Termination Benefit The participant's Accrued Pension payable as of his Normal Retirement Date, provided Employee Contributions are not refunded. No Early Retirement Benefit is available.
- c. Form of Benefit A monthly annuity for the life of the participant. After the participant's death, a Survivor Annuity is provided as described above for the applicable Division A or B benefit, beginning at the latter of the participant's Normal Retirement Date or date of death.

Non-Vested Termination

- a. Eligibility Any actively employed Division A participant.
- b. Benefit Refund of Employee Contributions without interest.
- c. Form of Benefit Lump sum.

Deferred Retirement Option Program (DROP)

- a. Eligibility Completion of at least 6 years of Service and the attainment of age 55.
- b. Benefit Amount The participant's Accrued Normal or Early Retirement Pension calculated as of the beginning of the DROP period, accumulated annually with interest (whether positive or negative) and annual cost-of-living adjustments, as described above for the applicable Division A or B benefit, during the DROP period. Prior to each Plan Year, DROP Members elect to have interest accumulate annually during the DROP calculation period at either (i) a rate reflecting the Fund's net investment performance, as determined by the Board of Trustees, or (ii) a rate reflective of a low risk variable rate selected annually by the Board of Trustees, in its sole discretion, that minimizes exposure to market fluctuations. The Trustees are expected to select an actual, separate investment vehicle that will provide the return for option (ii).

c. Form of Benefit

When the DROP period ends (maximum 7 years), the employee must terminate employment. At that time, the accumulated DROP benefits will be distributed to the participant, or if deceased, such participant's designated beneficiary. In addition, the monthly annuity, including COLA adjustments, will continue to the participant as provided above.

d. Other Provisions

Employee Contributions are no longer collected and Continuous Service and Average Monthly Compensation are frozen as of the date of entry into DROP. A participant in DROP is no longer eligible for Disability Benefits. If the participant dies while in the DROP period, the balance of the DROP account will be paid to the designated beneficiary. If the participant has a joint and survivor annuity, the applicable portion will continue to the survivor, otherwise benefits will cease.

Ad Hoc Cost-of-Living Adjustment

Effective October 1, 1999, a single adjustment was made to the benefits being paid retirees or their beneficiaries who retired before January 1, 1975, from active service, equal to 1% per year, compounded annually from the date of retirement to January 1, 1999.

Officers

Elective officers, department heads and appointive officers shall also participate in the Plan in the same manner as permanent employees, except for special break-in-service rules explained in the statute.

Maximum Benefit

IRC Section 415 limits, as in effect prior to EGTRRA (i.e., based on a dollar limitation of \$90,000 per year, indexed), apply as modified for governmental plans.

Plan Changes Since the Prior Year

The funding and financial accounting valuation does not reflect any plan changes.