

CITY OF GAINESVILLE  
GENERAL EMPLOYEES PENSION PLAN

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2018

CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2020



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

June 6, 2019

Board of Trustees  
City of Gainesville  
General Employees Pension Plan  
200 East University Avenue  
Gainesville, FL 33617

Re: City of Gainesville General Employees Pension Plan

Dear Board Members:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Gainesville General Employees Pension Plan. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. Use of the results for other purposes may not be applicable and may produce significantly different results.

The 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, and reflects laws and regulations issued to date pursuant to the provisions of Chapter 112, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

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

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


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

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


Respectfully submitted,

Foster & Foster, Inc.

By:

  
\_\_\_\_\_  
Joseph Griffin, ASA, EA, MAAA  
Enrolled Actuary #17-6938

By:

  
\_\_\_\_\_  
Timothy Bowen, EA, MAAA, FCA  
Enrolled Actuary #17-7204

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the Gainesville General Employees Pension Plan, performed as of October 1, 2018, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2020.

The contribution requirements, compared with those set forth in the October 1, 2017 actuarial valuation report completed by Conduent, are as follows:

Valuation Date Applicable to Fiscal Year Ending	New Assmup 10/1/2018 <u>9/30/2020</u>	Old Assump 10/1/2018 <u>9/30/2020</u>	10/1/2017 <u>9/30/2019</u>
Minimum Required Contribution % of Projected Annual Payroll	23.82%	22.65%	23.40%
Member Contributions (Est.) % of Projected Annual Payroll	5.00%	5.00%	5.00%
City Required Contribution <sup>2</sup> % of Projected Annual Payroll	18.82%	17.65%	18.40%

The City's required contribution increased by 0.42% of payroll compared to the result determined in the October 1, 2017 actuarial valuation report. Changes in assumptions, which included a decrease in the investment rate of return assumption from 8.0% to 7.9% and a decrease in the payroll growth assumption used to amortize unfunded liabilities from 4.50% to 3.85%, increased the contribution requirement by 1.17% of payroll. This increase was partially offset by actuarial gains. The investment return on the Actuarial Value of Assets was 10.84% compared to the assumed rate of return of 8.0%. This resulted in a decrease in contribution requirements of 0.63%. The gain associated with favorable investment performance was partially offset by actuarial losses primarily related to transition of actuarial services from Conduent to Foster & Foster. A complete reconciliation of the change in contribution requirements can be found on page 7 of this report.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

There have been no changes in benefits since the prior valuation.

### Actuarial Assumption/Method Changes

- The assumed investment return rate has been decreased from 8.00% to 7.90% for this valuation.
- The assumed payroll growth rate has been decreased from 4.50% to 3.85% for this valuation.

This assumption reflects the City's proposed changes to future payroll growth rates as outlined in our letter regarding *Payroll Growth Assumption – City of Gainesville General Employees' Pension Plan and Consolidated Police Officers' and Firefighters' Retirement Plan* to Keith Brinkman, dated February 21, 2019.

## CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2017	18.40%
(2) Summary of Contribution Impact by component:	
Change in Normal Cost Rate	-0.75%
Change in Administrative Expense Percentage	0.09%
Payroll Change Effect on UAAL Amortization	0.16%
Investment Return (Actuarial Asset Basis)	-0.63%
Salary Increases	-0.04%
Active Decrements	0.03%
Inactive Mortality	-0.02%
Assumption Change	1.17%
Other	0.41%
Total Change in Contribution	0.42%
(3) Contribution Determined as of October 1, 2018	18.82%

## COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2018</u>	Old Assump <u>10/1/2018</u>	<u>10/1/2017</u>
A. Participant Data			
Actives	1,553	1,553	1,514
Service Retirees	1,139	1,139	1,123
DROP Retirees	45	45	40
Beneficiaries	128	128	113
Disability Retirees	40	40	40
Terminated Vested	<u>428</u>	<u>428</u>	<u>441</u>
Total	3,333	3,333	3,271
Total Annual Payroll	\$88,540,570	\$88,540,570	\$86,102,369
Payroll Under Assumed Ret. Age	88,443,898	88,443,898	86,078,469
Annual Rate of Payments to:			
Service Retirees	29,850,116	29,850,116	28,800,122
DROP Retirees	2,047,834	2,047,834	1,781,517
Beneficiaries	2,084,070	2,084,070	1,806,092
Disability Retirees	226,781	226,781	231,179
Terminated Vested	2,755,335	2,755,335	2,807,245
B. Assets			
Actuarial Value (AVA) <sup>1</sup>	399,538,409	399,538,409	372,844,666
Market Value (MVA) <sup>1</sup>	432,508,135	432,508,135	396,313,562
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	198,603,129	195,032,379	193,084,001
Disability Benefits	5,655,006	5,575,395	6,068,065
Death Benefits	3,865,999	3,805,529	2,891,844
Vested Benefits	7,401,522	7,209,617	6,605,052
Refund of Contributions	818,274	817,014	1,318,307
Service Retirees	348,153,328	345,047,818	360,819,962
DROP Retirees <sup>1</sup>	32,640,014	32,349,830	Included Above
Beneficiaries	21,017,078	20,852,117	18,222,021
Disability Retirees	1,767,336	1,755,274	1,876,198
Terminated Vested	<u>11,628,075</u>	<u>11,448,009</u>	<u>11,402,146</u>
Total	631,549,761	623,892,982	602,287,596



C. Liabilities - (Continued)	New Assump <u>10/1/2018</u>	Old Assump <u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	713,050,804	708,955,420	688,844,113
Present Value of Future Member Contributions	35,652,540	35,447,771	34,442,206
Normal Cost (Retirement)	6,468,197	6,318,704	6,754,072
Normal Cost (Disability)	410,119	405,151	429,871
Normal Cost (Death)	178,715	175,877	109,308
Normal Cost (Vesting)	676,121	659,967	639,912
Normal Cost (Refunds)	<u>400,320</u>	<u>402,316</u>	<u>437,600</u>
Total Normal Cost	8,133,472	7,962,015	8,370,763
Present Value of Future Normal Costs	63,047,039	61,338,353	63,552,250
Accrued Liability (Retirement)	148,714,567	146,597,474	142,036,708
Accrued Liability (Disability)	2,460,049	2,437,832	2,748,527
Accrued Liability (Death)	2,478,597	2,447,994	2,191,254
Accrued Liability (Vesting)	1,923,016	1,897,839	(561,470)
Accrued Liability (Refunds)	(2,279,338)	(2,279,558)	0
Accrued Liability (Inactives) <sup>1</sup>	<u>415,205,831</u>	<u>411,453,048</u>	<u>392,320,327</u>
Total Actuarial Accrued Liability (EAN AL)	568,502,722	562,554,629	538,735,346
Unfunded Actuarial Accrued Liability (UAAL)	168,964,313	163,016,220	165,890,680
Funded Ratio (AVA / EAN AL)	70.3%	71.0%	69.2%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2018</u>	Old Assump <u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits			
Inactives <sup>1</sup>	415,205,831	411,453,048	392,320,327
Actives	53,513,121	52,224,535	53,255,750
Member Contributions	<u>35,383,548</u>	<u>35,383,548</u>	<u>34,695,119</u>
Total	504,102,500	499,061,131	480,271,196
Non-vested Accrued Benefits	<u>24,062,776</u>	<u>23,701,902</u>	<u>21,717,320</u>
Total Present Value Accrued Benefits (PVAB)	528,165,276	522,763,033	501,988,516
Funded Ratio (MVA / PVAB)	81.9%	82.7%	78.9%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	5,402,243	0	
New Accrued Benefits	0	15,046,433	
Benefits Paid	0	(33,106,728)	
Interest	0	38,834,812	
Other	<u>0</u>	<u>0</u>	
Total	5,402,243	20,774,517	

Valuation Date	New Assump 10/1/2018	Old Assump 10/1/2018	10/1/2017
Applicable to Fiscal Year Ending	<u>9/30/2020</u>	<u>9/30/2020</u>	<u>9/30/2019</u>

#### E. Pension Cost

Normal Cost (with interest) % of Total Annual Payroll <sup>2</sup>	9.56	9.36	10.11
Administrative Expenses (with interest) % of Total Annual Payroll <sup>2</sup>	0.82	0.82	0.73
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2018, with interest) % of Total Annual Payroll <sup>2</sup>	13.44	12.47	12.56
Minimum Required Contribution % of Total Annual Payroll <sup>2</sup>	23.82	22.65	23.40
Expected Member Contributions % of Total Annual Payroll <sup>2</sup>	5.00	5.00	5.00
Expected City Contribution % of Total Annual Payroll <sup>2</sup>	18.82	17.65	18.40

#### F. Past Contributions

Plan Years Ending:	<u>9/30/2018</u>
Total Required Contribution	20,690,082
City Requirement	16,372,679
Actual Contributions Made:	
Members (excluding buyback)	4,317,403
City	16,372,689
Total	20,690,092

#### G. Net Actuarial (Gain)/Loss

(4,139,406)

<sup>1</sup> The asset values and liabilities include accumulated DROP Plan Balances as of 9/30/2018 and 9/30/2017.

<sup>2</sup> Contributions developed as of 10/1/2018 are expressed as a percentage of total annual payroll at 10/1/2018 of \$88,443,898.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2018	168,964,313
2019	169,976,750
2020	170,594,246
2027	159,068,142
2034	99,663,616
2041	4,950,608
2048	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2018	4.08%	3.96%
Year Ended 9/30/2017	3.42%	5.50%
Year Ended 9/30/2016	12.39%	5.32%
Year Ended 9/30/2015	2.74%	5.56%
Year Ended 9/30/2014	2.74%	5.64%

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

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2018	12.63%	10.84%	8.00%
Year Ended 9/30/2017	16.86%	11.79%	8.10%
Year Ended 9/30/2016	12.01%	13.77%	8.20%
Year Ended 9/30/2015	-0.17%	9.81%	8.30%
Year Ended 9/30/2014	11.46%	13.16%	8.40%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2018	\$88,443,898
	10/1/2008	76,546,090
(b) Total Increase		15.54%
(c) Number of Years		10.00
(d) Average Annual Rate		1.46%

## STATEMENT BY ENROLLED ACTUARY

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



Timothy G. Bowen, EA, MAAA  
Enrolled Actuary #14-7204

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

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

# RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2017	\$165,890,680
(2) Sponsor Normal Cost developed as of October 1, 2017	4,066,840
(3) Expected administrative expenses for the year ended September 30, 2018	604,905
(4) Expected interest on (1), (2) and (3)	13,620,798
(5) Sponsor contributions to the System during the year ended September 30, 2018	16,372,689
(6) Expected interest on (5)	654,908
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2018 (1)+(2)+(3)+(4)-(5)-(6)	167,155,626
(8) Change to UAAL due to Assumption Change	5,948,093
(9) Change to UAAL due to Actuarial (Gain)/Loss	(4,139,406)
(10) Unfunded Actuarial Accrued Liability as of October 1, 2018	168,964,313

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2018 <u>Amount</u>	Amortization <u>Amount</u>
2004 Fresh Start	10/1/2004	16	10,149,782	832,178
Actuarial Losses	10/1/2006	18	7,461,035	562,643
Actuarial Gains	10/1/2007	19	(2,686,302)	(195,183)
Actuarial Losses	10/1/2008	20	20,678,089	1,451,463
Actuarial Losses	10/1/2009	21	43,311,868	2,944,054
Assumption Change	10/1/2009	21	34,490,581	2,344,441
Actuarial Losses	10/1/2010	22	1,322,824	87,261
Assumption Change	10/1/2010	22	(9,799,026)	(646,397)
Actuarial Losses	10/1/2011	23	41,831,660	2,683,161
Assumption Change	10/1/2011	23	(9,755,805)	(625,756)
Actuarial Losses	10/1/2012	24	25,737,025	1,608,036
Actuarial Gains	10/1/2013	25	(2,281,059)	(139,051)
Assumption Change	10/1/2013	25	4,956,068	302,116
Actuarial Gains	10/1/2014	26	(13,234,214)	(788,278)
Assumption Change	10/1/2014	26	18,288,779	1,089,346
Actuarial Gains	10/1/2015	27	(5,023,373)	(292,761)
Assumption Change	10/1/2015	27	5,088,107	296,534
Actuarial Gains	10/1/2016	28	(12,914,201)	(737,341)
Assumption Change	10/1/2016	28	20,777,304	1,186,288
Actuarial Gains	10/1/2017	29	(16,958,049)	(949,650)
Assumption Change	10/1/2017	29	5,714,533	320,014
Actuarial Gain	10/1/2018	30	(4,139,406)	(227,604)
Assump Change	10/1/2018	30	<u>5,948,093</u>	<u>327,054</u>
			168,964,313	11,432,568

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2017	\$165,890,680
(2) Expected UAAL as of October 1, 2018	167,155,626
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(10,412,399)
Salary Increases	(654,780)
Active Decrements	543,644
Inactive Mortality	(330,709)
Other (Including Actuarial Transition)	<u>6,714,838</u>
Increase in UAAL due to (Gain)/Loss	(4,139,406)
Assumption Changes	<u>5,948,093</u>
(4) Actual UAAL as of October 1, 2018	\$168,964,313

## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

**Female:** RP2000 Generational, 100% Combined Healthy White Collar, Scale BB

**Male:** RP2000 Generational, 50% Combined Healthy White Collar / 50% Combined Healthy Blue Collar, Scale BB

#### *Healthy Inactive Lives:*

**Female:** RP2000 Generational, 100% Annuitant White Collar, Scale BB

**Male:** RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB

#### *Disabled Lives:*

**Female:** 100% RP2000 Disabled Female set forward two years

**Male:** 100% RP2000 Disabled Male setback four years

The assumed rates of mortality are mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2018 FRS actuarial valuation report for non-special risk lives. We feel this assumption sufficiently accommodates future mortality improvements.

### Interest Rate

7.9% (prior year 8.0%) per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

### Salary Increase Rate

Salaries are assumed to increase annual based on years of service as shown in the table below:

Service	Rate
Less than 7	5.0%
7 – 11	4.0%
More than 11	3.0%

### Payroll Growth

3.85% (prior year 4.50%) for determining amortization payments towards the unfunded accrued liability.

### Administrative Expenses

Administrative expenses are assumed to equal the prior year's actual administrative expenses adjusted for interest and assumed payroll increases.



### Marital Assumptions

100% of active members are assumed to be married with males 2 years older than females.

### Retirement Rates

#### Hired Before October 2, 2007

<u>Age</u>	<u>Years of Service</u>					
	<u>10–14</u>	<u>15–19</u>	<u>20</u>	<u>21–24</u>	<u>25–26</u>	<u>27+</u>
< 57	0.0%	7.5%	20.0%	5.0%	10.0%	25.0%
57 – 59	0.0%	7.5%	30.0%	7.5%	10.0%	25.0%
60 – 64	0.0%	7.5%	30.0%	30.0%	10.0%	25.0%
65+	33.0%	33.0%	50.0%	30.0%	20.0%	100.0%

#### Hired October 2, 2007 Through October 1, 2012

<u>Age</u>	<u>Years of Service</u>				
	<u>10–14</u>	<u>15–24</u>	<u>25</u>	<u>26–29</u>	<u>30+</u>
< 57	0.0%	5.0%	20.0%	10.0%	25.0%
57 – 59	0.0%	5.0%	30.0%	10.0%	25.0%
60 – 64	0.0%	5.0%	30.0%	10.0%	25.0%
65+	33.0%	33.0%	50.0%	20.0%	100.0%

#### Hired On or After October 2, 2012

<u>Age</u>	<u>Years of Service</u>			
	<u>10–14</u>	<u>15–19</u>	<u>20–29</u>	<u>30+</u>
< 57	0.0%	5.0%	5.0%	25.0%
57 – 59	0.0%	5.0%	5.0%	25.0%
60 – 61	0.0%	5.0%	5.0%	25.0%
62	0.0%	7.5%	15.0%	50.0%
63 – 64	0.0%	5.0%	5.0%	50.0%
65+	33.0%	33.0%	33.0%	100.0%

### Disability Rates

Sample rates of disability are shown below.

<u>Age</u>	<u>Male</u>	<u>Female</u>
25	0.0300%	0.0100%
30	0.0580%	0.0250%
35	0.0730%	0.0480%
40	0.1020%	0.0750%
45	0.1880%	0.1650%
50	0.3130%	0.2850%
55	0.5230%	0.4780%
60	0.6860%	0.5990%
65	0.2390%	0.1500%

33.3% of disablements are assumed to be service related and 30% of all disablements are assumed to qualify for Social Security benefits.

### Termination Rates

For members with less than 5 years of service

<u>Service</u>	<u>Males</u>	<u>Females</u>
0	14.0%	22.0%
1	12.0%	16.0%
2	8.0%	13.0%
3	6.0%	11.0%
4	5.0%	10.0%

For members with at least 5 years of service

<u>Age</u>	<u>Males</u>	<u>Females</u>
< 30	4.0%	7.0%
30 – 34	3.0%	5.0%
35 – 39	2.5%	4.0%
40 – 64	2.0%	3.0%
65+	0.0%	0.0%

Non vested members are assumed to withdraw their contributions and vested members are assumed to commence an annuity at age 65.

### Accumulated Sick Leave

Service at termination was increased by 0.15 years for employees in the paid-time-off (PTO) program and 0.25 years for all other employees to recognize any accumulated unused sick leave.

### Vacation Payout upon Termination

The final year of earnings is increased at termination for vacation payouts based on the following:

<u>Service</u>	<u>Rate</u>
< 7	2.0%
7 – 12	4.0%
13 – 17	6.0%
18 – 23	8.0%
> 24	10.0%

Final earnings are not adjusted for PTO employees.

### Funding Method

Entry Age Normal Actuarial Cost Method.

### Actuarial Asset Method

Assets are smoothed by recognizing investment gains or losses ratably over a five-year period. The investment gain or loss is determined based on the difference between the actual investment return for the year and the expected investment return by applying the assumed rate of return to the beginning of year market value of assets and cash flows during the year. The resulting asset value is constrained to no less than 80% nor greater than 120% of the market value of assets.

### Amortization Periods

Changes in unfunded liability are amortized on a level percentage of payroll basis over 30 years.

## GLOSSARY

**Actuarial Accrued Liability (AAL)** is the portion of the Present Value of Future Benefits determined under the Individual Entry Age Normal Actuarial Cost Method that is not provided for by future normal costs.

**Individual Entry Age Normal Actuarial Cost Method** (Level Percent of Compensation) is the method used to determine required contributions under the Plan. The use of this method involves the systematic funding of the Normal Cost and the Unfunded Actuarial Accrued Liability.

**Normal Cost (NC)** is the portion of the Present Value of Future Benefits that is allocated to the upcoming year. Under the Individual Entry Age Normal Actuarial Cost Method it is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

**Present Value of Accumulated Plan Benefits (PVAB)** is the single sum value on the valuation date of the benefits earned based on past service to be paid to current active Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

**Present Value of Future Benefits (PVFB)** is the single sum value on the valuation date of all future benefits to be paid to current active Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

**Present Value of Future Normal Costs (PVFNC)** is the single sum value on the valuation date of all future benefits to be paid to current active Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations less the Actuarial Accrued Liability.

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

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Equity in Pooled Cash	1,822,406.00	1,822,406.00
Cash	431,395.33	431,395.33
Total Cash and Equivalents	2,253,801.33	2,253,801.33
Investments:		
U. S. Bonds and Bills	9,125,784.09	9,400,446.18
Federal Agency Guaranteed Securities	3,982,460.02	4,102,321.60
Corporate Bonds	6,821,096.00	7,026,393.05
MLP/Alternative	24,322,118.25	22,536,866.16
Equities	165,024,847.49	226,399,010.09
Pooled/Common/Commingled Funds:		
Equity	42,863,315.62	119,687,856.12
Real Estate	21,844,919.48	41,558,007.14
Total Investments	273,984,540.95	430,710,900.34
Total Assets	276,238,342.28	432,964,701.67
<u>LIABILITIES</u>		
Payables:		
Accrued Expenses/Payroll	456,565.00	456,565.00
Total Liabilities	456,565.00	456,565.00
NET POSITION RESTRICTED FOR PENSIONS	275,781,777.28	432,508,136.67

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2018  
Market Value Basis

**ADDITIONS**

Contributions:

Member	4,317,403
Buy-Back	89,300
City	16,372,689
Employee - Through DROP	1,991,746

Total Contributions		22,771,138
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Net Increase in Fair Value of Investments	46,305,668
Interest & Dividends	5,339,000
Less Investment Expense <sup>1</sup>	(2,424,875)

Net Investment Income		49,219,793
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Total Additions		71,990,931
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**DEDUCTIONS**

Distributions to Members:

Benefit Payments - Regular Pension	31,178,343
Retiree DROP Monthly Additions	1,991,746
Benefit Payments - Disability Pension	225,982
Lump Sum DROP Distributions	1,350,077
Refunds of Member Contributions	352,326

Total Distributions		35,098,474
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Administrative Expense		697,884
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Total Deductions		35,796,358
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Net Increase in Net Position		36,194,573
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**NET POSITION RESTRICTED FOR PENSIONS**

Beginning of the Year		396,313,562
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End of the Year		432,508,135
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<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION  
September 30, 2018

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

Plan Year Ending	Gain/(Loss)	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
09/30/2014	8,266,792	0	0	0	0	0
09/30/2015	(27,504,055)	(5,500,811)	0	0	0	0
09/30/2016	13,339,875	5,335,950	2,667,975	0	0	0
09/30/2017	31,016,544	18,609,926	12,406,617	6,203,308	0	0
09/30/2018	18,155,826	<u>14,524,661</u>	<u>10,893,496</u>	<u>7,262,331</u>	<u>3,631,166</u>	<u>0</u>
Total		32,969,726	25,968,088	13,465,639	3,631,166	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, 09/30/2017, net of DROP Balance	392,285,470
Contributions Less Benefit Payments & Admin Expenses	(13,666,889)
Expected Investment Earnings*	30,846,679
Actual Net Investment Earnings	49,002,505
2018 Actuarial Investment Gain/(Loss)	<u>18,155,826</u>

\*Expected Investment Earnings =  $392,285,470 * 0.08 + [(13,666,889) * [1+0.08]^0.5 - (13,666,889)]$

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2018	432,508,135
(2) Gains/(Losses) Not Yet Recognized	<u>32,969,726</u>
(3) Actuarial Value of Assets, 09/30/2018, (1) - (2)	<u>399,538,409</u>
(A) 09/30/2017 Actuarial Assets, including DROP Balances:	372,844,666
(I) Net Investment Income:	
1. Interest and Dividends	5,339,000
2. Change in Actuarial Value	36,804,838
3. Investment Expenses	<u>(2,424,875)</u>
Total	<u>39,718,963</u>
(B) 09/30/2018 Actuarial Assets, including DROP Balances:	399,538,409
Actuarial Assets Rate of Return = $2I/(A+B-I)$ :	10.84%
Market Value of Assets Rate of Return:	12.63%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	10,412,399
10/01/2018 Limited Actuarial Assets, including DROP Accounts:	399,538,409

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
SEPTEMBER 30, 2018  
Actuarial Asset Basis

REVENUES

Contributions:		
Member	4,317,403	
Buy-Back	89,300	
City	16,372,689	
Employee - Through DROP	1,991,746	
Total Contributions		22,771,138
Earnings from Investments:		
Interest & Dividends	5,339,000	
Change in Actuarial Value	36,804,838	
Total Earnings and Investment Gains		42,143,838

EXPENDITURES

Distributions to Members:		
Benefit Payments - Regular Pension	31,178,343	
Retiree DROP Monthly Additions	1,991,746	
Benefit Payments - Disability Pension	225,982	
Lump Sum DROP Distributions	1,350,077	
Refunds of Member Contributions	352,326	
Total Distributions		35,098,474
Expenses:		
Investment related <sup>1</sup>	2,424,875	
Administrative	697,884	
Total Expenses		3,122,759
Change in Net Assets for the Year		26,693,743
Net Assets Beginning of the Year		372,844,666
Net Assets End of the Year <sup>2</sup>		399,538,409

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

<sup>2</sup>Net Assets may be limited for actuarial consideration.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2017 to September 30, 2018

Beginning of the Year Balance	4,028,092
Plus Additions	1,991,746
Investment Return Earned	217,288
Less Distributions	(1,350,077)
End of the Year Balance	4,887,049



## STATISTICAL DATA

	<u>10/1/2015</u>	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>
<u>Actives</u>				
Number	1,465	1,519	1,514	1,553
Average Current Age	46.6	46.2	46.3	46.1
Average Age at Employment	36.7	36.6	36.6	36.7
Average Past Service	9.9	9.6	9.7	9.4
Average Annual Salary	\$52,240	\$57,419	\$56,871	\$57,013
<u>Service Retirees</u>				
Number	1,188	1,122	1,123	1,139
Average Current Age		66.5	67.3	67.6
Average Annual Benefit	\$24,915	\$26,298	\$25,646	\$26,207
<u>DROP Retirees</u>				
Number	<i>Included Above</i>	<i>Included Above</i>	40	45
Average Current Age			58.6	59.1
Average Annual Benefit			\$44,538	\$45,507
<u>Beneficiaries</u>				
Number	<i>Included Above</i>	105	113	128
Average Current Age		72.4	72.1	72.4
Average Annual Benefit		\$15,684	\$15,983	\$16,282
<u>Disability Retirees</u>				
Number	37	39	40	40
Average Current Age		62.9	63.7	62.6
Average Annual Benefit	\$5,431	\$5,792	\$5,779	\$5,670
<u>Terminated Vested (including limited participants)</u>				
Number	431	428	441	428
Average Current Age <sup>1</sup>			60.7	50.1
Average Annual Benefit <sup>2</sup>	\$6,052	\$6,235	\$6,366	\$6,854

<sup>1</sup> Effective 10/1/2018, the Average Current Age excludes participants awaiting a refund of contributions.

<sup>2</sup> The Average Annual Benefit excludes participants awaiting a refund of contributions.

# AGE AND SERVICE DISTRIBUTION

## PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	1											1
20 - 24	24	7	4	2								37
25 - 29	35	20	10	12	7	11	2					97
30 - 34	25	23	29	17	9	26	18					147
35 - 39	35	16	18	11	7	37	54	19				197
40 - 44	23	10	21	11	8	38	37	40	12			200
45 - 49	16	13	13	13	3	40	53	50	27	4		232
50 - 54	13	16	14	11	9	36	51	44	30	16	2	242
55 - 59	10	12	14	5	6	31	40	42	24	11	2	197
60 - 64	4	16	6	4	2	19	35	27	18	10	1	142
65+	3	1	1	3	4	8	21	14	5		1	61
Total	189	134	130	89	55	246	311	236	116	41	6	1,553

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2017	1,514
b. Terminations	
i. Vested (partial or full) with deferred benefits	(49)
ii. Non-vested or full lump sum distribution received	(56)
c. Deaths	
i. Beneficiary receiving benefits	(1)
ii. No future benefits payable	(2)
d. Disabled	0
e. Retired	(35)
f. DROP	<u>(13)</u>
g. Continuing participants	1,358
h. New entrants	196
i. Data Corrections	<u>(1)</u>
j. Total active life participants in valuation	1,553

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

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested Deferred	<u>Total</u>
a. Number prior valuation	1,123	40	113	40	441	1,757
Retired	51	(8)	0	(2)	(6)	35
DROP	0	13	0	0	0	13
Vested Deferred	0	0	0	0	49	49
Death, With Survivor	(16)	0	17	0	0	1
Death, No Survivor	(20)	0	(3)	(2)	(3)	(28)
Disabled	0	0	0	3	(3)	0
Refund of Contributions	0	0	0	0	(26)	(26)
Rehires	0	0	0	0	(3)	(3)
Expired Annuities	0	0	0	0	0	0
Data Corrections	1	0	1	1	(21)	(18)
b. Number current valuation	1,139	45	128	40	428	1,780

## SUMMARY OF CURRENT PLAN

### Eligibility

Any full-time regular employee of the City or Gainesville Gas Company (excluding police officers and firefighters)

### Credited Service

Credited Service means the total number of months of service with the City, expressed in terms of full and fractional years. Credited Service will include unused sick leave credits and personal critical leave bank (PLCB) credits. For service earned on or after October 1, 2012, no service shall be credited for unused sick leave or PLCB credits earned on or after October 1, 2012. In calculating credited service on or after October 1, 2012, the lesser number of months between the additional months of service credited for unused sick leave or PLCB credits earned on or before September 30, 2012 and months of unused sick leave or PLCB credits available to a member at the time of his or her retirement shall be used.

Employees who previously chose to participate in the City's 457 plan or defined contribution plan and elect to transfer to this Plan may purchase Credited Service for periods of employment during which they participated in the previous plan.

### Limited Participant Service

Service worked for the City as an ineligible member of the plan will be counted for any purpose of the Plan, except for the purpose of determining the member's accrued benefit and vesting.

### Earnings

Pay received by a member as compensation for services to the City, including vacation termination pay, overtime pay, longevity pay and certain other specified pay. For members with hire dates on or before October 1, 2012, no more than 300 hours of overtime pay earned after October 1, 2012 will be included, nor will termination vacation pay. For members with hire dates on or after October 2, 2012, no more than 150 hours of overtime pay earned after October 1, 2012 will be included, nor will termination vacation pay.

### Final Average Earnings (FAE)

Final Average Earnings mean average earnings for the highest 36 consecutive months for those hired on or before October 1, 2007, highest 48 consecutive months for members hired from October 2, 2007 through October 1, 2012, and highest 60 consecutive months for members hired on or after October 2, 2012.

### Monthly Accrued Benefit

For those hired on or before October 1, 2012:  
2.0% times FAE times Credited Service

For those hired after October 1, 2012:  
1.8% times FAE times Credited Service

For Gainesville Gas Company Employees, a monthly benefit payable for life starting at Normal Retirement Age, equal to:

- (i) the accrued benefit earned under the Gainesville Gas Company Employees' Pension Plan ("predecessor plan") as of January 10, 1990; plus
- (ii) 2% of Final Average Earnings times Credited Service earned after January 10, 1990; plus
- (iii) for each year of service earned after January 10, 1990, an additional 2% of Final Average Earnings will be credited, not to exceed the service years earned under the accrued benefit formula under the predecessor plan; less
- (iv) for each year of predecessor plan service credited under (iii) above, the portion of the accrued benefit determined under (i) above based on such years.

### Member Contributions

Members are required to contribute 5.0% of earnings.

### Vesting

Schedule

100% after 5 years of Credited Service.

Benefit Amount

Members that terminate employment with 5 or more years of Credited Service, the Monthly Accrued Benefit is payable unreduced at age 65.

Members that terminate employment with less than 5 years of service will receive a refund of Member contributions without interest.

### Normal Retirement

Date

First day of the month coincident with or following the earlier of:

- (1) Age 65 with 10 years of Credited Service
- (2) 20 or more years of Credited Service for those hired on or before October 1, 2007
- (3) 25 or more years of Credited Service for those hired from October 2, 2007 through October 1, 2012
- (4) 30 or more years of Credited Service for those hired after October 1, 2012

Benefit

Monthly Accrued Benefit

### Early Retirement

Date	Age 55 with 15 or more years of Credited Service for those hired on or before October 1, 2012
	Age 60 with 20 or more years of Credited Service for those hired after October 1, 2012
Benefit	Monthly Accrued Benefit reduced actuarially by 5.0% per year benefits commence prior to age 65.

### Deferred Retirement Option Plan (“DROP”)

Eligibility	A Member who has earned at least 27 years of Credited Service.
Participation	Members may participate for a maximum of 60 months or the attainment of 35 years of service.
Rate of Return	<p>DROP benefits accumulate with interest as follows:</p> <ul style="list-style-type: none"><li>• For those who enter DROP on or before October 1, 2012 - 6.0% per year.</li><li>• For those who enter DROP after October 1, 2012 - 2.25% per year.</li><li>• For those who enter DROP on or after May 1, 2016 - One-time election for interest to accrue at (1) 2.25% per year or (2) a variable rate between 0.0% and 4.5% per year based on the plan’s actual return for the previous plan year.</li></ul>
Distribution	Lump sum and/or rollover to qualified retirement plan(s) at termination of employment.

### Death Benefits

#### Pre-Retirement

Eligibility	Death prior to retirement.
Benefit	If the Member dies prior to eligibility for normal or early retirement, the beneficiary will receive the member’s contributions without interest. If the Member dies subsequent to normal or early retirement, the beneficiary will receive the benefit payable in the form selected by the Member as though the Member had retired the day before his or her death. If no option is selected, beneficiaries of married members will receive the survivor portion of the joint and survivor option and beneficiaries of members not married receive contributions without interest.

#### Post-Retirement

Benefits payable to beneficiary in accordance with option selected at retirement provided that amounts contributed by members in excess of retirement benefits paid to the member under the normal form shall be paid to the beneficiary without interest.

## Disability

### Eligibility

Service Incurred	Permanent and totally disabled in the line of duty.
Non-Service Incurred	Permanent and totally disabled not in the line of duty after completion of 5 years of credited service.

### Disability Benefit Percentage

Service Incurred	The greater of 2.0% times Credited Service, but not less than 42%.
Non-Service Incurred	The greater of 2.0% times Credited Service, but not less than 25% of Final Average Earnings.

### Disability Benefit

Benefit Amount	Disability Benefit Percentage times Final Average Earnings.
Offset	Disability Benefit Percentage (up to a maximum of 50%) times Social Security primary insurance amount (PIA).

### Maximum

In no event shall the disability benefit payable by the city to a disabled employee exceed the lesser of \$3,750.00 per month or an amount equal to his/her maximum benefit percent, less any reductions for offsets and the initially determined wage replacement benefit made to the employee under workers' compensation laws. The deductions for workers' compensation payments shall not be made if the board determines that the disability for which benefits are payable is not, directly or indirectly, related to the injury for which workers' compensation payments were made. Unless otherwise provided by law, the reduction attributable to workers' compensation payments shall not reduce the disability benefit below the amount which, when such is combined with Social Security disability and workers' compensation benefits received by the employee, equals 80 percent of the employee's AWW or 80 percent of the employee's ACE (on a weekly basis), whichever is greater. A disabled employee's maximum benefit percent will be 80 percent if the employee's disability is due to a job-related injury in the course of employment with the city resulting in payment of workers' compensation, and otherwise shall be 70 percent.

Normal Form of Payment

Life Annuity

Optional Forms of Payment

Actuarial Equivalence

Interest rate: 9.5%

Mortality Table: 1994 Group Annuity Mortality Basic Table-Unisex 50/50

Form of Payment

Life Annuity

66 2/3% Joint and Last Survivor

66 2/3% Joint and Survivor

Social Security Option

Joint and Last Survivor reduces upon death of the Member or Beneficiary. Joint and Survivor reduces only upon death of the Member. All forms above guarantee the Member will receive the Member's contributions.

Cost of Living Adjustment ("COLA")

Retired prior to October 1, 2000 receive a 2.0% increase each October 1st following age 62.

For members with at least 25 years of Credited Service and 20 years of Credited Service on or before October 1, 2012, receive a 2% per year increase for retired members and their beneficiaries, commencing October 1 following member's age 60.

For members with less than 25 years of Credited Service and 20 years of Credited Service on or before October 1, 2012, receive a 2% per year increase for retired members and their beneficiaries, commencing October 1 following member's age 62.

For members hired on or before October 1, 2012 who do not have 20 years of Credited Service on or before October 1, 2012; members who retire with 25 years of Credited Service receive a 2% per year increase for retired members and their beneficiaries commencing October 1 following member's age 65.

For new members hired after October 1, 2012; members who retire with 30 years of Credited Service receive a 2% per year increase for retired members and their beneficiaries commencing October 1 following the member's age 65.

Cost-of-living increases do not apply during the DROP period.