AGENDA

Gainesville Retirement Plan A Board Meeting
Tuesday, November 13, 2018, 10:00 AM
Administration Building, Board Room
300 Henry Ward Way, 3rd Floor
Chairman or Vice Chairman Presides

REPORTS:

• Fiscal Year 2018 Actuarial Valuation	Malichi Waterman, Segal
• Third Quarter 2018 Investment Report	Jeff Swanson, SEAS
• Wells Fargo Quarterly Executive Summary	Marsha Petzel, Wells Fargo

ORGANIZATIONAL MEETING:

• 2019 Proposed RPA Board Meeting Calendar	Karen Rojas

NEW BUSINESS:

• Proposal to Purchase Laptop Computer	Karen Rojas

EXECUTIVE SESSION:

- Personnel Matters

REGULAR BUSINESS:

• New Disbursements Report	Karen Rojas
• New Benefits Report	Karen Rojas
• Minutes: October 9, 2018 Meeting	Karen Rojas
• Executive Session Minutes: October 9, 2018 Meeting	Karen Rojas

ADJOURNMENT:

Final: Thursday, November 8, 2018, 5:08 PM

NEXT SCHEDULED MEETING
DECEMBER 11, 2018, 10:00 AM

CITY OF GAINESVILLE

AGENDA REQUEST

Date Submitted: 11/7/2018

Presenter: Malichi Waterman, Segal

Item of Business: Fiscal Year 2018 Actuarial Valuation

Meeting Date: 11/13/2018

Purpose of Request:
The purpose of this request is to receive the Fiscal Year 2018 Actuarial Valuation report from Segal Consulting.

History/Background:
Retirement Plan A submits data to the actuarial firm on an annual basis for the purpose of preparing an Actuarial Valuation and GASB Reports.

Facts & Issues for Consideration:
The actuary provided a memorandum summarizing the valuation report. The next step is to present the report to the governing body.

Department Recommendation:

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?

Amount Requested: **Source of Funds**:

Finance Comments:

Administrative Comments:

ATTACHMENTS:

Description	Type
FY 2018 Actuarial Valuation	Report

City of Gainesville
Retirement Plan A

Actuarial Valuation and Review as of July 1, 2018

Segal Consulting

This report has been prepared at the request of the Board of Trustees to assist in administering the Retirement Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

Segal Consulting
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T 678.306.3100 www.segalco.com

November 2, 2018

Board of Trustees
City of Gainesville Retirement Plan A
300 Henry Ward Way
Gainesville, GA 30503-2496

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2018. It summarizes the actuarial data used in the valuation, analyzes the 2017-2018 year's experience, and establishes the funding requirements for fiscal 2020.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement Plan. The census information and financial information on which our calculations were based was prepared by the staff of the City of Gainesville. That assistance is gratefully acknowledged.

The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in my opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Retirement Plan.

The actuary hereby certifies that the City of Gainesville Retirement Plan A has been funded in conformity with the minimum funding standards specified in Code Section 47-20-10 of the Official Code of Georgia Annotated known as the Public Retirement Systems Standards Law. This certification covers the 2017-2018 plan year.

I look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By: Malichi Waterman

Malichi S. Waterman, FCA, MAAA, ASA
Consulting Actuary
Enrolled Actuary No. 17-7141

Table of Contents

City of Gainesville Retirement Plan A Actuarial Valuation and Review as of July 1, 2018

Section 1: Actuarial Valuation Summary

Purpose and Basis

This report was prepared by Segal Consulting to present a valuation of the City of Gainesville Retirement Plan A as of July 1, 2018. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The measurements shown in this actuarial valuation may not be applicable for other purposes. In particular, the measures herein are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

Certain disclosure information required by GASB Statements No 67 and 68 as of June 30, 2018 for the Retirement Plan is provided in a separate report.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Retirement Plan, as administered by the Board;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of June 30, 2018, provided by the City;
- The assets of the Plan as of June 30, 2018, provided by the City;
- Economic assumptions regarding future salary increases and investment earnings;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. and
- The funding policy adopted by the City.

Significant Issues

1. Segal Consulting ("Segal") strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance. The funding policy adopted by the Board meets this standard.
2. The recommended contribution for the fiscal year ending June 30, 2019 is $8,934,682, an increase of $615,530 from last year. The contribution as a percentage of payroll increased from 33.96% of payroll to 35.17% of payroll, based on a 22.75-year level percent-of-payroll amortization of the unfunded actuarial accrued liability.
3. The funding of the Plan is the joint responsibility of the employer and the employees. City and employee contributions combined are 26.40% of payroll, which is 8.77% less than the recommended contribution. As stated above, for fiscal year-end 2020, the recommended contribution is $8,934,682. This amount is the total normal cost plus the sum of the amortization payments for bases as determined under Georgia law. The average period for the bases in the determination of the recommended contribution is 11.5 years. The current contribution rate of 26.40% of pay is amortizing the unfunded actuarial accrued liability over an effective period of 22.8 years. The longest amortization period currently allowed by state law is 30 years, and therefore the Plan is in compliance.
4. Actual contributions made during the fiscal year ending June 30, 2018 were $6,419,248. In the prior fiscal year, actual contributions were $6,212,133.
5. The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 65.90%, compared to the prior year funded ratio of 63.31%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio is 65.90%, compared to 64.81% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of Retirement Plan assets to cover the estimated cost of settling the Retirement Plan's benefit obligation or the need for or the amount of future contributions.
6. The employer normal cost is 11.76% of payroll and is fully covered by the 13.20% contribution rate. The effective amortization period for the unfunded actuarial accrued liability is 22.8 years.
7. The unfunded actuarial accrued liability is $51,531,066, which is a decrease of $170,179 since the prior valuation.
8. The actuarial gain/loss from investment and other experience is $4,361,401, or 2.95% of actuarial accrued liability.
9. The net experience gain/loss from sources other than investment experience was 3.08% of the actuarial accrued liability prior to reflection of assumption and method changes. This gain/loss was primarily due to greater salary increases the expected and retirement at earlier ages than expected.
10. The rate of return on the market value of assets was 11.94% for the July 1, 2017 to June 30, 2018 plan year. The return on the actuarial value of assets was 7.47% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial gain when measured against the assumed rate of return of 7.25% in effect for the prior valuation. This actuarial investment gain decreased the recommended contribution rate by 0.07% of pay. Given the low fixed income interest rate environment, target asset

allocation and expectations of future investment returns for various classes, the Board lowered the expected investment return assumption to 7.00% for this valuation.

11. The following actuarial assumptions were approved by the Board in October, 2018 and changed with this valuation:
    - The investment return assumption was lowered from 7.25% to 7.00%.
    - The inflation assumption was lowered from 3.00% to 2.75%.
    - The payroll growth rate assumption was decreased from 3.00% to 2.75%.
    - The age-based salary scale assumption table was modified to reflect the decrease in the underlying inflation component to 2.75%.
    - The administrative expense assumption of $130,000 was increased to $190,000 for the year beginning July 1, 2018.

    As a result of these assumption changes, the employer normal cost increased by $107,084 and the actuarial accrued liability increased by $3,511,941. The total impact was an increase in the recommended contribution of $294,935, or 1.32% of payroll.
12. The following method change is included for the first time in this valuation:
    - The actuarial asset method was modified to reflect a decrease in the smoothing period from ten years to five years as well as a reduction from 30% to 20% in the corridor around market value. The method change was implemented prospectively and the actuarial value of assets was set to market value this year.

    As a result of this method change, there was a decrease in the recommended contribution of $378,570, or 1.55% of payroll.
13. The Retirement Plan uses the Entry Age Cost Method with the normal cost determined on a "replacement life" basis. This methodology allows changes in the plan of benefits for new hires to be reflected in the normal cost for current employees even though the plan of benefits for current employees is unchanged. As a result, the actuarial accrued liability increases to offset the decrease in normal cost, and the recommended contribution is less than it would be if the "replacement life" approach was not used.
14. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution under the Plan's funding policy and measuring the progress of that funding policy. The Net Pension Liability (NPL) and Pension Expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the plan and employer's financial statements as of June 30, 2018, were released to the City's Finance Department on October 19, 2018. The accounting disclosures utilize different methodologies from those employed in the funding valuation, as required by the GASB. However, the recommended contribution in this valuation is expected to be used as the actuarially determined contribution (ADC) for GASB financial reporting.

15. This actuarial report as of July 1, 2018 is based on financial and demographic data as of that date. Changes subsequent to that date are not reflected and will affect future actuarial costs of the plan. We are prepared to work with the City to model the effects of these and other subsequent developments.
16. Since the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have included a discussion of various risks that may affect the plan in Section 2.

Summary of Key Valuation Results

		2019	2018
Contributions for fiscal year beginning July 1:	• Recommended total contributions	$8,934,682	$8,319,152
	• Recommended total contributions as a percent of payroll	35.17%	33.96%
	• Actual contribution rate	26.40%	26.40%
Plan Year Beginning:		**July 1, 2018**	**July 1, 2017**
Actuarial accrued liability for plan year beginning July 1:	• Retired participants and beneficiaries	$83,865,944	$77,269,135
	• Inactive vested participants	1,678,627	1,451,708
	• Active participants	65,369,971	61,948,972
	• Inactive participants due a refund of employee contributions	223,340	225,220
	• Total	151,137,882	140,895,035
	• Normal cost including administrative expenses for plan year beginning July 1	2,907,427	2,678,809
Assets for plan year beginning July 1:	• Market value of assets (MVA)	$99,606,816	$91,311,628
	• Actuarial value of assets (AVA)	99,606,816	89,193,790
	• Actuarial value of assets as a percentage of market value of assets	100.00%	97.68%
Funded status for plan year beginning July 1:	• Unfunded actuarial accrued liability on market value of assets	$51,531,066	$49,583,407
	• Funded percentage on MVA basis	65.90%	64.81%
	• Unfunded actuarial accrued liability on actuarial value of assets	$51,531,066	$51,701,245
	• Funded percentage on AVA basis	65.90%	63.31%
Key assumptions:	• Effective amortization period on an AVA basis	22.8 years	23.0 years
	• Net investment return	7.00%	7.25%
	• Inflation rate	2.75%	3.00%
	• Payroll increase	2.75%	3.00%
Demographic data for plan year beginning July 1	• Number of retired participants and beneficiaries	277	265
	• Number of inactive vested participants	12	10
	• Number of active participants	489	486
	• Number of inactive participants entitled to a refund of employee contributions	34	25
	• Projected total payroll	$24,721,900	$23,784,772
	• Projected average payroll	50,556	48,940
	• Projected payroll for fiscal year	$25,401,752	$24,498,315

Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by the City. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the market value of assets as of the valuation date, as provided by the City. The City uses an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Retirement Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- Actuarial results in this report are not rounded, but that does not imply precision.
- If the City is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Retirement Board should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Retirement Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Retirement Plan.

Section 2: Actuarial Valuation Results

Participant Data

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, inactive vested participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in *Section 3, Exhibits A, B, and C*.

PARTICIPANT POPULATION: 2009 – 2018

Year Ended June 30	Active Participants	Inactive Vested Participants*	Retired Participants and Beneficiaries	Total Non-Actives	Ratio of Non-Actives to Actives
2009	471	7	189	196	0.42
2010	472	9	197	206	0.44
2011	477	11	202	213	0.45
2012	484	11	210	221	0.46
2013	487	13	217	230	0.47
2014	476	15	230	245	0.51
2015	488	25	239	264	0.54
2016	489	29	247	276	0.56
2017	486	35	265	300	0.62
2018	489	46	277	323	0.66

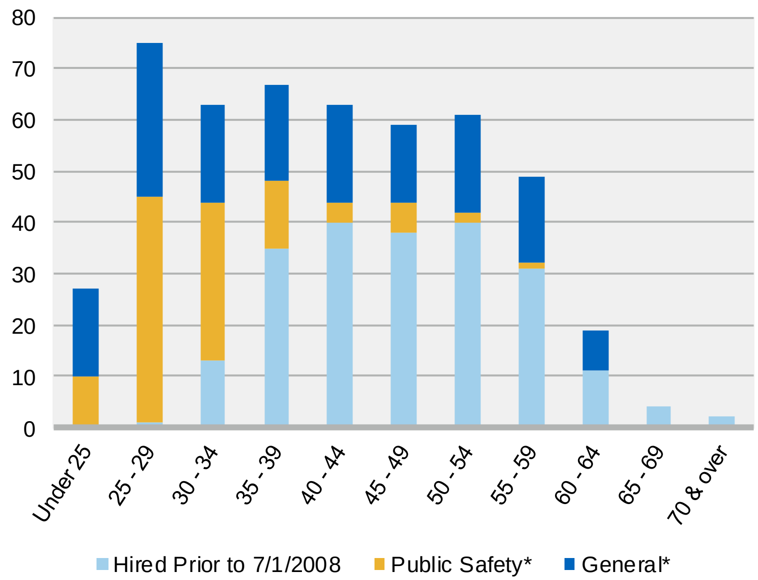
*Includes terminated participants due a refund of employee contributions

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 489 active participants with an average age of 41.6, average years of benefit service of 9.3 years and average payroll of $50,556. The 486 active participants in the prior valuation had an average age of 42.2, average benefit service of 9.3 years and average payroll of $48,940.

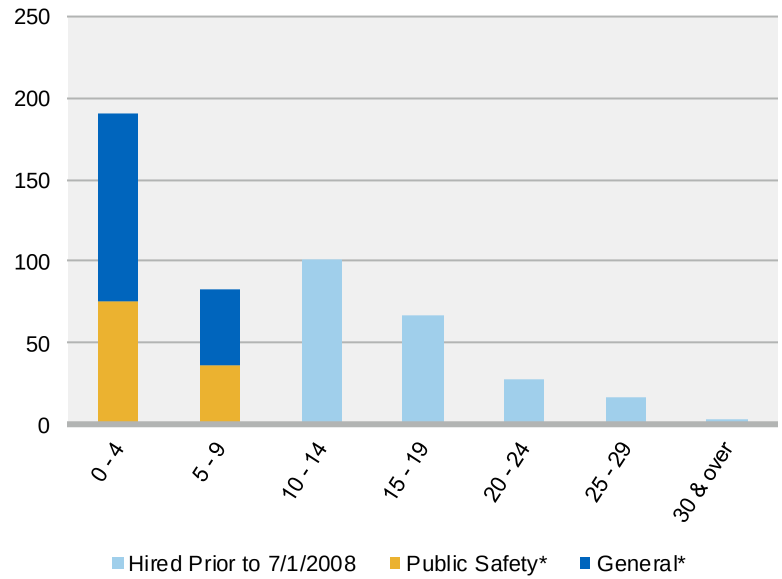
Distribution of Active Participants as of June 30, 2018

ACTIVES BY AGE



*Hired on or after 7/1/2008

ACTIVES BY YEARS OF SERVICE



*Hired on or after 7/1/2008

Inactive Participants

In this year's valuation, there were 12 participants with a vested right to a deferred or immediate vested benefit. In addition, there were 34 participants entitled to a return of their employee contributions.

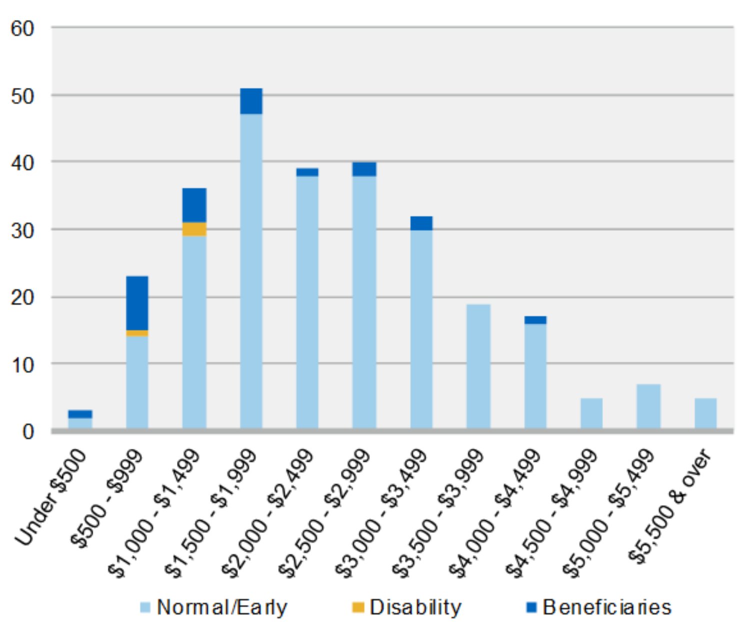
Retired Participants and Beneficiaries

As of June 30, 2018, 253 retired participants and 24 beneficiaries were receiving total monthly benefits of $692,655. For comparison, in the previous valuation, there were 242 retired participants and 23 beneficiaries receiving monthly benefits of $650,270.

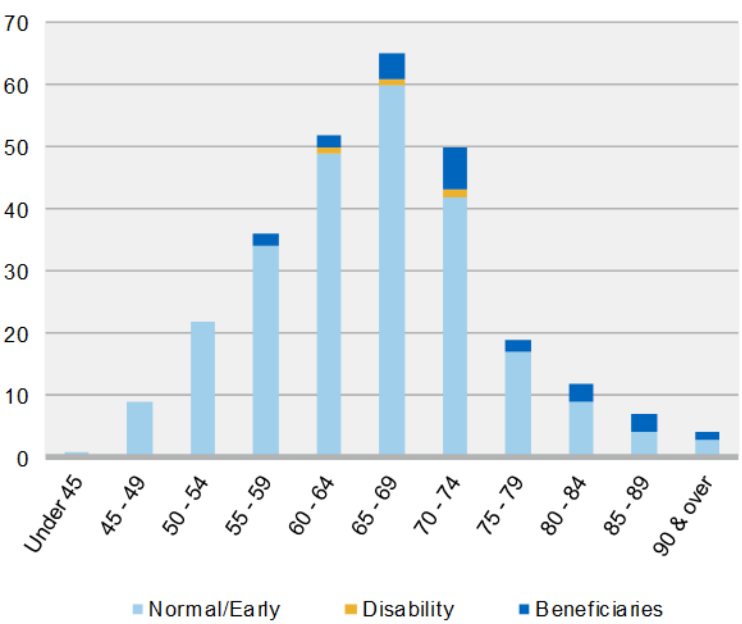
As of June 30, 2018, the average monthly benefit for retired participants and beneficiaries is $2,501, compared to $2,454 in the previous valuation. The average age for retired participants and beneficiaries is 66.3 in the current valuation, compared with 66.0 in the prior valuation.

Distribution of Pensioners and Beneficiaries as of June 30, 2018

PENSIONERS BY TYPE AND MONTHLY AMOUNT



PENSIONERS BY TYPE AND AGE



Historical Plan Population

The chart below demonstrates the stability of the active population over the last ten years. The chart also shows the growth among the retired population over the same time period.

PARTICIPANT DATA STATISTICS: 2009 – 2018

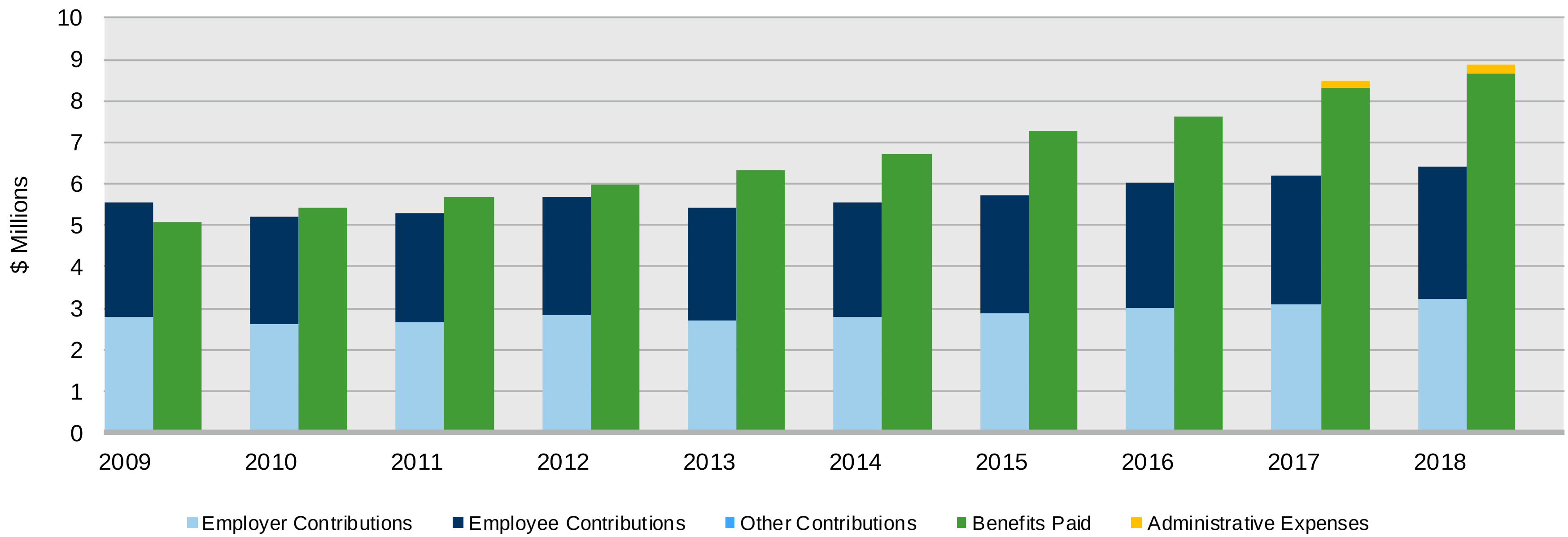
	Active Participants			Retired Participants and Beneficiaries		
Year Ended June 30	Count	Average Age	Average Benefit Service	Count	Average Age	Average Monthly Amount
2009	471	41.2	8.9	189	64.4	$2,059
2010	472	41.4	9.0	197	64.7	2,138
2011	477	41.9	9.1	202	64.5	2,211
2012	484	42.3	9.3	210	64.5	2,250
2013	487	42.7	9.5	217	64.9	2,290
2014	476	42.8	9.8	230	65.3	2,308
2015	488	42.3	9.5	239	65.3	2,372
2016	489	42.7	9.6	247	65.7	2,413
2017	486	42.2	9.3	265	66.0	2,454
2018	489	41.6	9.3	277	66.3	2,501

Financial Information

Retirement plan funding anticipates that, over the long term, both contributions (less administrative expenses) and investment earnings (less investment fees) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components.

Additional financial information, including a summary of transactions for the valuation year, is presented in *Section 3, Exhibits D, E* and *F*.

COMPARISON OF CONTRIBUTIONS MADE WITH BENEFITS AND EXPENSES PAID FOR YEARS ENDED JUNE 30, 2009 – 2018



Prior to the year ended June 30, 2017, administrative expenses were treated as an offset to investment income for valuation purposes.

The negative cash flow position means that the Retirement Plan is becoming more dependent on investment returns to meet benefit payments. This trend can be expected to continue as the retiree population grows.

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

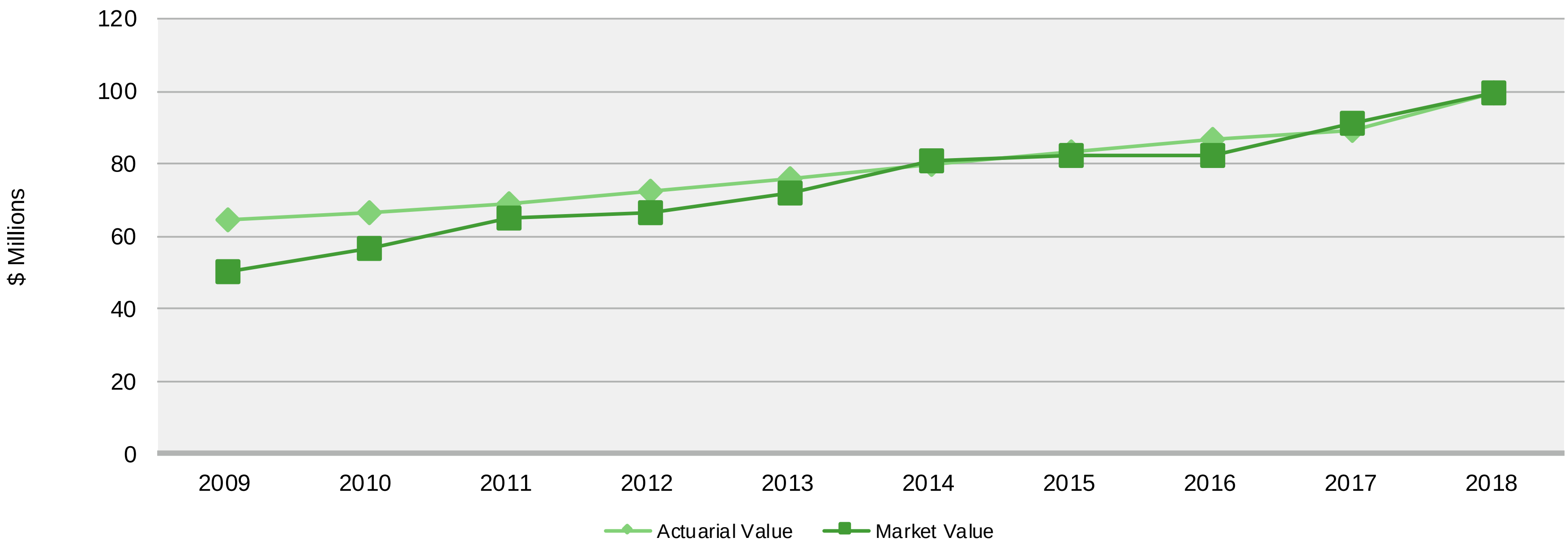
With this valuation, the asset method was revised from a ten-year to a five-year smoothing method. The corridor around the market value of assets was also changed from 30% to 20%. The revised method will be implemented prospectively, and in the current valuation the actuarial value of assets is equal to the market value of assets, with future market value gains and losses recognized over a five-year period.

DETERMINATION OF ACTUARIAL VALUE OF ASSETS FOR YEAR ENDED JUNE 30, 2018

1.	Market value of assets, June 30, 2018	$99,606,816
2.	Final actuarial value of assets as of June 30, 2018:	99,606,816
3.	Actuarial value as a percentage of market value: **(2) ÷ (1)**	100.00%
4.	Amount deferred for future recognition: **(1) - (2)**	$0

Both the actuarial value and market value of assets are representations of the Retirement Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Retirement Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

ACTUARIAL VALUE OF ASSETS VS. MARKET VALUE OF ASSETS AS OF JUNE 30, 2009 – 2018



Actuarial Experience

To calculate any recommended contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), any contribution requirement will decrease from the previous year. On the other hand, any contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss is $4,361,401, which includes $192,207 from investment gains, $1,707,445 in losses from the shortfall of actual contributions relative to the recommended contribution, and $2,846,163 in losses from all other sources. The net experience variation from individual sources other than investments was 1.9% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

ACTUARIAL EXPERIENCE FOR YEAR ENDED JUNE 30, 2018

1	Net gain/(loss) from investments*	$192,207
2	Net gain/(loss) from administrative expenses	-92,564
3	Net gain/(loss) from contribution shortfall	-1,707,445
4	Net gain/(loss) from other experience	-2,753,599
5	Net experience gain/(loss): **1 + 2 + 3 + 4**	-$4,361,401

*Details on next page.

Investment Experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Retirement Plan's investment policy. The rate of return on the market value of assets was 11.94% for the year ended June 30, 2018.

For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.00%. However, the gain is measured against the 7.25% assumption that was in place for last year. The actual rate of return on an actuarial basis for the 2018 plan year was 7.47%. Since the actual return for the year was greater than the assumed return, the Retirement Plan experienced an actuarial gain during the year ended June 30, 2018 with regard to its investments.

INVESTMENT EXPERIENCE

		Year Ended June 30, 2018		Year Ended June 30, 2017	
		Market Value	Actuarial Value*	Market Value	Actuarial Value
1	Net investment income	$10,757,165	$6,569,510	$11,348,553	$4,819,702
2	Average value of assets	90,080,640	87,962,802	81,090,498	85,501,511
3	Rate of return: 1 ÷ 2	11.94%	7.47%	13.99%	5.64%
4	Assumed rate of return	7.25%	7.25%	7.25%	7.25%
5	Expected investment income: 2 x 4	6,530,846	6,377,303	5,879,061	6,198,860
6	Actuarial gain/(loss): 1 – 5	$4,226,319	$192,207	$5,469,492	-$1,379,158

*Prior to method change. After the method change, the net investment income on the actuarial value of assets is $12,875,003, or a rate of return of 14.64%.

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Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the actual market value investment return for the last 20 years, including averages over select time periods.

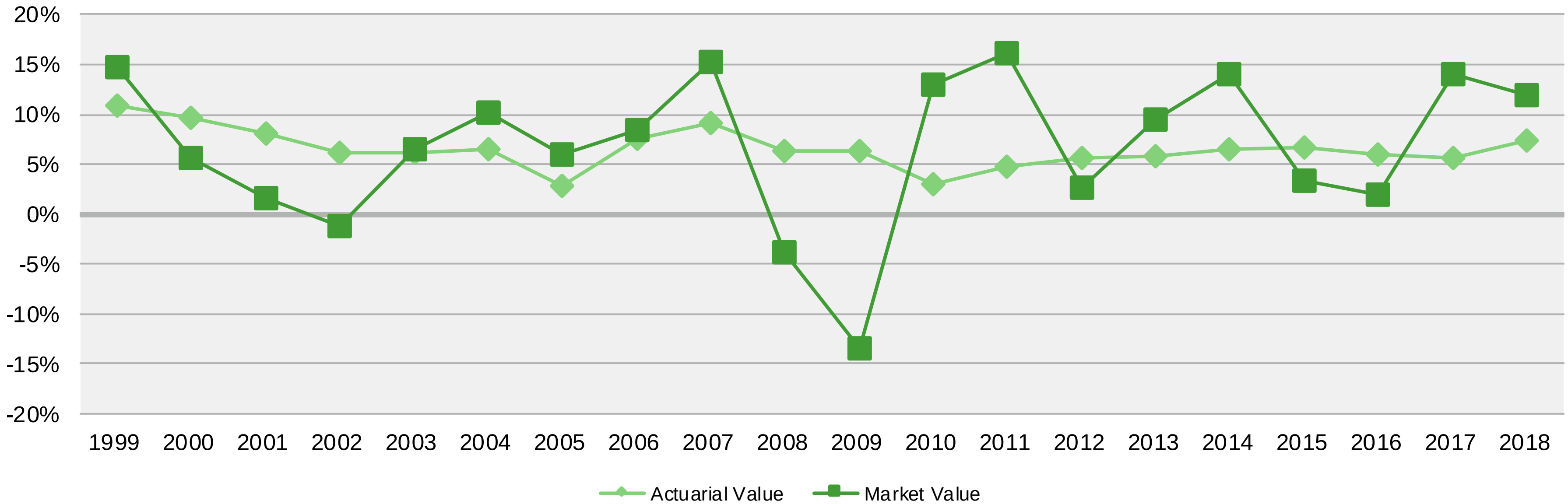
INVESTMENT RETURN – ACTUARIAL VALUE VS. MARKET VALUE: 1999 - 2018

Year Ended June 30	Actuarial Value Investment Return		Market Value Investment Return		Year Ended June 30	Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent		Amount	Percent	Amount	Percent
1999	$3,529,639	10.83%	$5,119,243	14.76%	2009	$3,813,918	6.31%	-$7,822,179	-13.53%
2000	3,442,889	9.71	2,174,186	5.55	2010	1,988,431	3.09	6,509,428	13.00
2001	3,047,108	8.00	631,692	1.56	2011	3,182,793	4.82	9,108,468	16.18
2002	2,483,031	6.17	-469,295	-1.17	2012	3,878,386	5.63	1,779,127	2.74
2003	2,603,212	6.20	2,531,446	6.49	2013	4,140,011	5.74	6,298,042	9.51
2004	2,864,351	6.52	4,156,258	10.16	2014	4,897,014	6.50	10,066,981	14.08
2005	1,280,348	2.86	2,886,018	5.91	2015	5,293,030	6.71	2,740,115	3.42
2006	3,569,024	7.53	4,000,983	8.51	2016	4,887,490	5.92	1,651,839	2.03
2007	4,621,770	9.06	7,773,002	15.22	2017	4,819,702	5.64	11,348,553	13.99
2008	3,556,073	6.32	-2,293,335	-3.86	2018	12,875,003*	14.64	10,757,165	11.94
					Total	$80,773,223		$78,947,737	
			Most recent five-year average return				7.99%		9.05%
			Most recent ten-year average return				6.71%		7.49%
			Most recent 15-year average return				6.66%		7.28%
			Most recent 20-year average return				6.88%		6.92%

Note: Each year’s yield is weighted by the average asset value in that year.
*Includes change in actuarial asset method.

Subsection B described the actuarial asset valuation method that gradually recognizes fluctuations in the market value rate of return. The goal of this is to stabilize the actuarial rate of return and to produce more level pension plan costs.

MARKET AND ACTUARIAL RATES OF RETURN FOR YEARS ENDED JUNE 30, 1999 - 2018



Administrative Expenses

Administrative expenses for the year ended June 30, 2018 totaled $219,595 compared to the assumption of $130,000. This resulted in a loss of $92,564 when adjusted for timing. Because it is expected that these expenses will continue to increase, we have changed the assumption from $130,000 to $190,000 for the current year.

Contributions

Contributions for the year ended June 30, 2018 totaled $6,419,248, compared to the recommended amount of $8,319,152. This resulted in a loss of $1,707,445 for the year, when adjusted for timing.

Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among participants,
- retirement experience (earlier or later than projected),
- mortality (more or fewer deaths than projected),
- the number of disability retirements (more or fewer than projected), and
- salary increases (greater or smaller than projected).

The net loss from this other experience for the year ended June 30, 2018 amounted to $2,753,599, which is 1.9% of the actuarial accrued liability. This loss was primarily due to greater salary increases than expected and retirement at earlier ages than expected.

Changes in the Actuarial Accrued Liability

The actuarial accrued liability as of July 1, 2018 is $151,137,882, an increase of $10,242,847, or 7.3%, from the actuarial accrued liability as of the prior valuation date. The liability is expected to grow each year with normal cost and interest, and to decline due to benefit payments made. Additional fluctuations can occur due to actual experience that differs from expected (as discussed in the previous subsection).

Actuarial Assumptions

- The assumption changes reflected in this report are:
- The investment return assumption was lowered from 7.25% to 7.00%.
- The inflation assumption was lowered from 3.00% to 2.75%.
- The payroll growth rate assumption was decreased from 3.00% to 2.75%.
- The age-based salary scale assumption table was modified to reflect the decrease in the underlying inflation component to 2.75%
- Administrative expenses increased to $190,000 for the year beginning July 1, 2018.
- These changes increased the actuarial accrued liability by $3,511,941 and increased the employer normal cost by $107,084.
- Details on actuarial assumptions and methods are in *Section 4, Exhibit I*.

Plan Provisions

- There were no changes in plan provisions since the prior valuation.
- A summary of plan provisions is in *Section 4, Exhibit II*.

Development of Unfunded Actuarial Accrued Liability

DEVELOPMENT FOR YEAR ENDED JUNE 30, 2018

1	Unfunded actuarial accrued liability at beginning of year		$51,701,245
2	Normal cost at beginning of year		2,678,809
3	Total contributions		-6,419,248
4	Interest		
	• For whole year on 1 + 2	$3,942,554	
	• For half year on 3	-232,698	
	Total interest		3,709,856
5	Expected unfunded actuarial accrued liability		$51,670,662
6	Changes due to:		
	• (Gain)/loss	2,653,956	
	• Assumptions	3,511,941	
	• Asset method	-6,305,493	
	Total changes		-$139,596
7	Unfunded actuarial accrued liability at end of year		$51,531,066

Note: If the exact recommended contribution determined in the prior valuation had been paid during the year ended June 30, 2018, the expected unfunded actuarial accrued liability would have been $49,963,217, a reduction of $1,707,445 from the amount shown on line 5.

Recommended Contribution

The amount of annual contribution required to fund the Plan is comprised of a normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 35.17% of payroll.

The City has adopted financing periods of 15 years for experience gains and losses, 30 years for assumption and method changes, 20 years for benefit improvements affecting active employees and 10 years for benefit improvements affecting inactive employees. The current average period for the bases in the determination of the recommended contribution is 11.5 years.

The total contribution rate of 26.40% of pay is amortizing the unfunded actuarial accrued liability over an effective period of 22.8 years. This is a reasonable amortization period and complies with the funding requirements of Georgia state laws.

The contribution requirement as of July 1, 2018 are based on the data previously described, the actuarial assumptions and Plan provisions described in *Section 4*, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

RECOMMENDED CONTRIBUTION FOR YEAR BEGINNING JULY 1

		2019		2018	
		Amount	% of Projected Payroll	Amount	% of Projected Payroll
1.	Normal cost	$2,723,194	10.72%	$2,553,203	10.42%
2.	Administrative expenses	184,233	0.73%	125,606	0.51%
3.	Employer normal cost: (1) + (2)	$2,907,427	11.45%	$2,678,809	10.93%
4.	Actuarial accrued liability	151,137,882		140,895,035	
5.	Actuarial value of assets	99,606,816		89,193,790	
6.	Unfunded actuarial accrued liability: (4) - (5)	51,531,066		51,701,245	
7.	Payment on projected unfunded actuarial accrued liability	5,494,075	21.63%	5,115,494	20.88%
8.	Total recommended contribution: (3) + (7), adjusted for timing*	$8,934,682	35.17%	$8,319,152	33.96%
9.	Valuation payroll projected to fiscal year	$25,401,752		$24,498,315	

*Fiscal year contributions are based on the valuation liabilities and assets determined one year prior.

Reconciliation of Recommended Contribution

The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

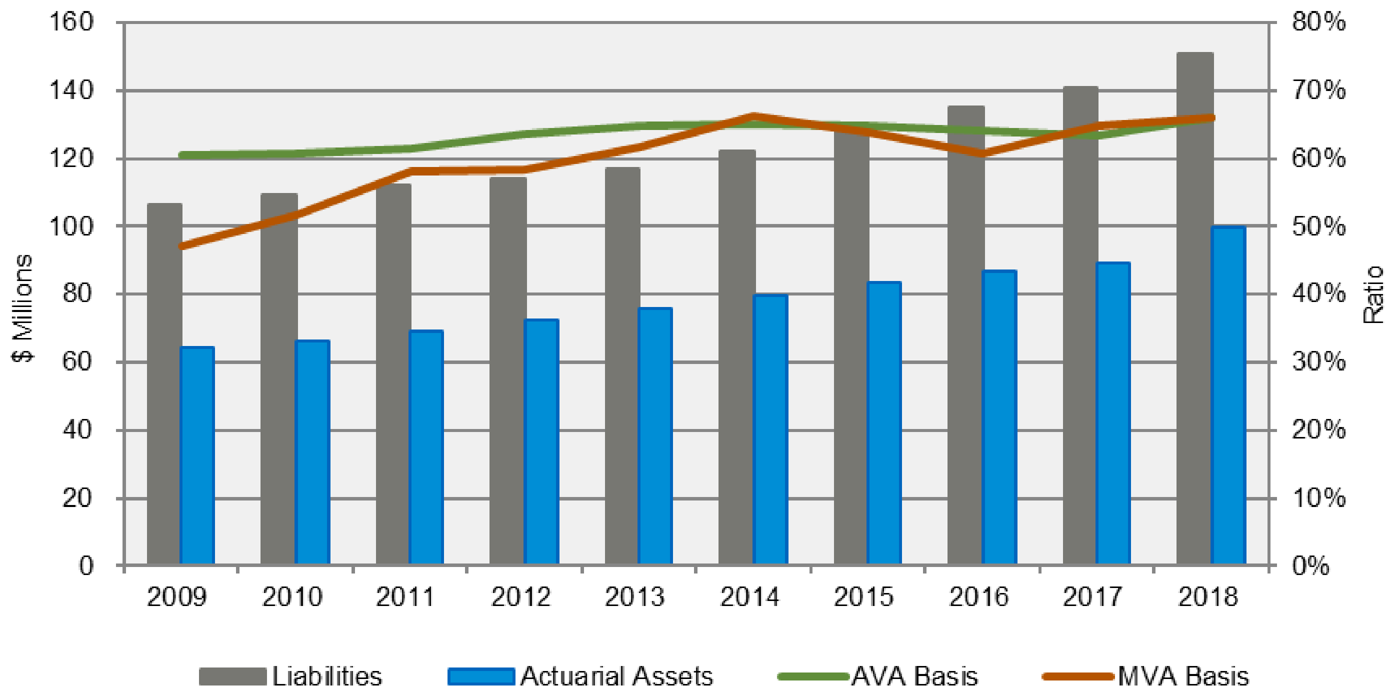
RECONCILIATION OF RECOMMENDED CONTRIBUTION FROM JULY 1, 2018 TO JULY 1, 2019

	Amount	% of Payroll
Recommended Contribution as of July 1, 2018	$8,319,152	33.96%
• Effect of change in asset method	-378,570	-1.55%
• Effect of expected change in amortization payment due to payroll growth	163,799	0.67%
• Effect of change in administrative expense assumption	62,348	0.25%
• Effect of change in other actuarial assumptions	232,587	0.95%
• Effect of contributions (more)/less than recommended contribution	158,808	0.65%
• Effect of investment (gain)/loss	-17,877	-0.07%
• Effect of other gains and losses on accrued liability	264,718	1.08%
• Net effect of other changes, including composition and number of participants	129,717	0.53%
Total change	615,530	2.51%
Total change in percentage due to compensation change		-1.30%
Recommended Contribution as of July 1, 2019	$8,934,682	35.17%

Funded Ratio

A critical piece of information regarding the Retirement Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

The chart below depicts a history of the funded ratios for this plan. Funded ratios are shown on both an actuarial value (AVA) and a market value (MVA) basis.



Risk

Since the actuarial valuation results are dependent on a given set of assumptions and data as of a specific date, there is a risk that emerging results may differ significantly as actual experience differs from the assumptions.

This report does not contain a detailed analysis of the potential range of future measurements, but does include a brief discussion of some risks that may affect the Retirement Plan. Upon request, a more detailed assessment of the risks can be provided to enable a better understanding of the risks specific to your Retirement Plan.

- Investment Risk (the risk that returns will be different than expected)

  If the actual return on market value for the next plan year were 1% different from the assumed (either higher or lower), the projected unfunded actuarial liability would change by 2.3%, or about $1.1 million.

  Since the Plan's assets are much larger than contributions, investment performance may create volatility in contribution requirements. For example, for each 1% difference in return from the assumed return, the recommended contribution would increase or decrease by $100,000 (0.4% of payroll).

  The market value rate of return over the last 20 years has ranged from a low of -13.53% to a high of 16.18%.

- Longevity Risk (the risk that mortality experience will be different than expected)

  The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the recommended contribution.

- Contribution Risk (the risk that actual contributions will be different from recommended contribution)

  The Retirement Plan's funding policy requires payment of the recommended contribution. As long as this policy is adhered to, contribution risk is negligible.

  Plan contribution rates are set by the Retirement Board. Periodic projections comparing expected contributions with the projected recommended contributions may be developed to determine if the contribution amounts are sufficient to fund the Retirement Plan and to ensure the payment of promised benefits.

  If contributions remain at current level and future experience matches the current assumptions, we project the unfunded actuarial accrued liability will be paid off in 22.8 years rather than the Board's recommended amortization policy of 11.5 years.

- Demographic Risk (the risk that participant experience will be different than assumed)

  Examples of this risk include:

- Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that apply.
- More or less active participant turnover than assumed.

➤ Actual Experience Over the Last ten years and Implications for the Future

Past experience can help demonstrate the sensitivity of key results to the Retirement Plan's actual experience. Over the past ten years:

The investment gain(loss) for a year has ranged from a loss of $4,978,500 to a gain of $192,207. If all investment returns were equal to the assumed return over the last ten years, the market value of assets as of the current valuation date would be approximately $90,402,579 as opposed to the actual value of $99,606,816.

The non-investment gain(loss) for a year has ranged from a loss of $2,846,163 to a loss of $3,249,673.

The funded percentage on the actuarial value of assets has ranged from a low of 60.6% to a high of 65.9% since 2009.

➤ Maturity Measures

As pension plans mature, the cash need to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Retirement Plan's asset allocation is aligned to meet emerging pension liabilities.

Currently the Retirement Plan has a non-active to active participant ratio of 0.66. For the prior year benefits paid were $2,242,382 more than contributions received. As the Retirement Plan matures, more cash will be needed from the investment portfolio to meet benefit payments.

GFOA Solvency Test

The Actuarial Accrued Liability represents the present value of benefits earned, calculated using the plan's actuarial cost method. The Actuarial Value of Assets reflects the financial resources available to liquidate the liability. The portion of the liability covered by assets reflects the extent to which accumulated plan assets are sufficient to pay future benefits, and is shown for liabilities associated with employee contributions, pensioner liabilities, and other liabilities. The Government Finance Officers Association (GFOA) recommends that the funding policy aim to achieve a funded ratio of 100 percent.

GFOA SOLVENCY TEST AS OF JUNE 30

	2018	2017
Actuarial accrued liability (AAL)		
• Active member contributions	$24,117,954	$22,878,446
• Retirees and beneficiaries	83,865,944	77,269,135
• Active and inactive members (employer-financed)	43,153,984	40,747,454
Total	$151,137,882	$140,895,035
Actuarial value of assets	$99,606,816	$89,193,790
Cumulative portion of AAL covered		
• Active member contributions	100.00%	100.00%
• Retirees and beneficiaries	90.01%	85.82%
• Active and inactive members (employer-financed)	0.00%	0.00%

Volatility Ratios

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measurement since it is based on the current level of assets.

The current AVR is about 4.0. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 4.0% of one-year's payroll. Since actuarial gains and losses are amortized over 15 years, there would be a 0.4% of payroll decrease/(increase) in the required contribution for each 1% asset gain or loss. The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions. The current LVR is about 6.1. This is about (53%) higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long term.

VOLATILITY RATIOS FOR YEARS ENDED 2009 - 2018

Year Ended June 30	Asset Volatility Risk	Liability Volatility Risk
2009	2.4	5.0
2010	2.8	5.4
2011	3.2	5.4
2012	3.0	5.1
2013	3.4	5.4
2014	3.7	5.7
2015	3.6	5.6
2016	3.5	5.7
2017	3.8	5.9
2018	4.0	6.1

State Minimum Requirements

The Plan is subject to minimum funding standards of the Public Retirement Systems Standards Law (Georgia Code Section 47-20-10). This minimum contribution is determined as the sum of 1) the normal cost (including administrative expenses), 2) the 30-year level percentage of payroll amortization of the unfunded actuarial accrued liability or the 10-year level percentage of payroll amortization of the surplus, and 3) interest on these amounts from the valuation date to the date contributions are paid (assumed monthly). The Retirement Board has adopted an actuarial funding policy that requires a different funding level than the estimated minimum annual contribution to minimize fluctuations in annual contribution amounts and to accumulate sufficient funds to secure benefits under the Plan. If the City contributes the recommended contribution developed under the actuarial funding policy each year, the Plan will meet applicable state funding standards.

Section 3: Supplemental Information

EXHIBIT A – TABLE OF PLAN COVERAGE

Category	Year Ended June 30 2018	2017	Change From Prior Year
Active participants in valuation:			
• Number	489	486	0.6%
• Average age	41.6	42.2	-0.6
• Average years of eligibility service	9.7	9.7	0.0
• Average years of benefit service	9.3	9.3	0.0
• Projected total payroll	$24,721,900	$23,784,772	3.9%
• Projected average payroll	50,556	48,940	3.3%
• Account balances	24,117,954	22,878,446	5.4%
• Total active vested participants	234	223	4.9%
Inactive vested participants	12	10	20.0%
Inactive nonvested participants due a refund	34	25	36.0%
Retired participants:			
• Number in pay status	250	239	4.6%
• Average age	65.6	65.2	0.4
• Average monthly benefit	$2,607	$2,553	2.1%
Disabled participants:			
• Number in pay status	3	3	0.0%
• Average age	67.5	66.5	1.0
• Average monthly benefit	$1,053	$1,053	0.0%
Beneficiaries:			
• Number in pay status	24	23	4.3%
• Average age	74.2	73.7	0.5
• Average monthly benefit	$1,571	$1,610	-2.4%

EXHIBIT B – PARTICIPANTS IN ACTIVE SERVICE AS OF JUNE 30, 2018
BY AGE, YEARS OF SERVICE, AND AVERAGE PAYROLL

		Years of Service						
Age	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & over
Under 25	27	27	- -	- -	- -	- -	- -	- -
	$33,437	$33,437	- -	- -	- -	- -	- -	- -
25 - 29	75	69	5	1	- -	- -	- -	- -
	38,488	37,794	$47,017	$43,696	- -	- -	- -	- -
30 - 34	63	29	21	12	1	- -	- -	- -
	47,671	42,981	49,635	54,565	$59,693	- -	- -	- -
35 - 39	67	16	16	28	7	- -	- -	- -
	49,765	40,165	47,980	54,113	58,395	- -	- -	- -
40 - 44	63	15	8	14	23	3	- -	- -
	60,360	56,837	56,711	56,953	65,548	$63,836	- -	- -
45 - 49	59	12	9	8	10	12	8	- -
	60,595	41,119	56,485	64,173	60,009	69,496	$78,240	- -
50 - 54	61	11	10	13	13	8	5	1
	54,312	44,801	44,021	51,794	54,487	65,224	71,664	$118,252
55 - 59	49	9	9	15	8	2	4	2
	54,788	51,417	50,268	53,405	58,233	49,404	55,247	91,346
60 - 64	19	3	5	6	3	2	- -	- -
	49,168	45,789	38,280	49,219	66,478	55,339	- -	- -
65 - 69	4	- -	- -	2	2	- -	- -	- -
	53,074	- -	- -	52,864	53,284	- -	- -	- -
70 & over	2	- -	- -	2	- -	- -	- -	- -
	36,546	- -	- -	36,546	- -	- -	- -	- -
Total	489	191	83	101	67	27	17	3
	$50,556	$41,040	$49,291	$54,187	$60,542	$65,064	$70,896	$100,314

EXHIBIT C – RECONCILIATION OF PARTICIPANT DATA

	Active Participants	Inactive Vested Participants	Inactives Due Refund	Disableds	Retired Participants	Beneficiaries	Total
Number as of July 1, 2017	**486**	**10**	**25**	**3**	**239**	**23**	**786**
• New participants	67	N/A	7	N/A	N/A	N/A	74
• Terminations – with vested rights	-2	2	N/A	0	0	0	0
• Terminations – without vested rights	-7	N/A	7	N/A	N/A	N/A	0
• Retirements	-15	0	0	N/A	15	N/A	0
• New disabilities	0	0	0	0	N/A	N/A	0
• Return to work	0	0	0	0	0	N/A	0
• Deceased	0	0	0	0	-4	0	-4
• New beneficiary	0	0	0	0	0	1	1
• Lump sum cash-outs	-40	0	-5	0	0	0	-45
• Data adjustments	0	0	0	0	0	0	0
Number as of July 1, 2018	**489**	**12**	**34**	**3**	**250**	**24**	**812**

EXHIBIT D – SUMMARY STATEMENT OF INCOME AND EXPENSES ON A MARKET VALUE BASIS

		Year Ended June 30, 2018		Year Ended June 30, 2017
Net assets at market value at the beginning of the year		$91,311,628		$82,217,921
Contribution income:				
• City contributions	$3,209,624		$3,079,855	
• Member contributions	3,209,624		3,132,278	
• Less administrative expenses	-219,595		-165,260	
Net contribution income		*$6,199,653*		*$6,046,873*
Investment income:				
• Interest, dividends and other income	$1,621,214		$1,516,628	
• Asset appreciation	9,135,951		9,831,925	
Net investment income		*$10,757,165*		*$11,348,553*
Total income available for benefits		**$16,956,818**		**$17,395,426**
Less benefit payments:				
• Benefit payments	-$8,022,423		-$7,616,626	
• Refunds	-639,207		-685,093	
Net benefit payments		*-$8,661,630*		*-$8,301,719*
Change in reserve for future benefits		**$8,295,188**		**$9,093,707**
Net assets at market value at the end of the year		**$99,606,816**		**$91,311,628**

EXHIBIT E – SUMMARY STATEMENT OF PLAN ASSETS

		Year Ended June 30, 2018		Year Ended June 30, 2017
Cash equivalents		$2,821,498		$829,193
Investments:				
• Equities	$63,863,861		$61,252,507	
• Fixed Income	28,601,077		25,194,368	
• Other	4,351,920		4,062,432	
Total investments at market value		$96,816,858		$90,509,307
Total assets		$99,638,356		$91,338,500
Total accounts payable		-31,540		-26,872
Net assets at market value		**$99,606,816**		**$91,311,628**
Net assets at actuarial value		**$99,606,816**		**$89,193,790**

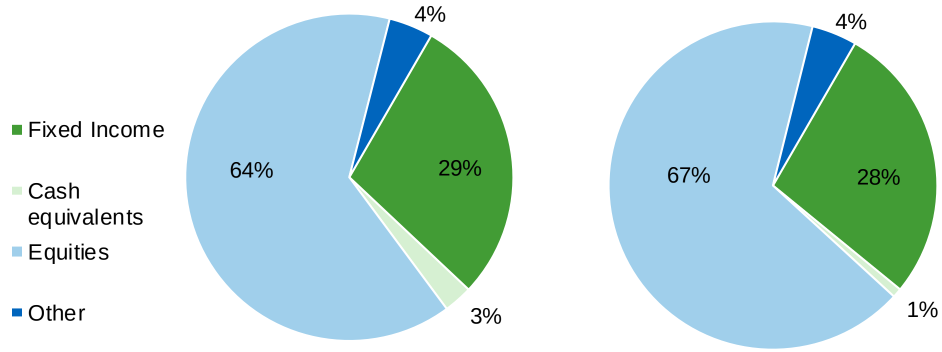


EXHIBIT F – DEVELOPMENT OF THE FUND THROUGH JUNE 30, 2018

Year Ended June 30	City Contributions	Employee Contributions	Net Investment Return[1]	Admin. Expenses	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2009	$2,767,985	$2,767,985	-$7,822,179	$0	$5,090,420	$50,200,218	$64,498,076	128.5%
2010	2,599,539	2,599,539	6,509,428	0	5,419,654	56,489,070	66,265,931	117.3%
2011	2,637,591	2,637,591	9,108,468	0	5,667,926	65,204,794	69,055,980	105.9%
2012	2,829,095	2,829,095	1,779,127	0	5,969,131	66,672,980	72,623,425	108.9%
2013	2,720,450	2,720,450	6,298,042	0	6,313,184	72,098,738	75,891,152	105.3%
2014	2,766,404	2,766,404	10,066,981	0	6,715,366	80,983,161	79,605,608	98.3%
2015	2,862,539	2,862,539	2,740,115	0	7,282,407	82,165,947	83,341,309	101.4%
2016	3,021,182	3,021,182	1,651,839	0	7,642,229	82,217,921	86,628,934	105.4%
2017	3,079,855	3,132,278	11,348,553	165,260	8,301,719	91,311,628	89,193,790	97.7%
2018	3,209,624	3,209,624	10,757,165	219,595	8,661,630	99,606,816	99,606,816	100.0%

[1]On a market basis, net of investment fees. Years prior to 2017 are also net of administrative expenses.

EXHIBIT G – TABLE OF AMORTIZATION BASES

Type[1]	Date Established	Initial Period	Initial Amount	Annual Payment[2]	Years Remaining	Outstanding Balance
Method Change	07/01/2005	30	$32,986,302	$2,855,783	17	$35,800,225
Experience Loss	07/01/2006	15	1,026,061	132,362	3	381,523
Experience Loss[3]	07/01/2007	15	2,683,283	334,844	4	1,261,670
Experience Loss	07/01/2008	15	1,981,229	239,161	5	1,104,510
Plan Amendment	07/01/2008	20	2,971,384	294,383	10	2,469,695
Experience Loss	07/01/2009	15	6,539,294	763,586	6	4,149,964
Change in Asset Method	07/01/2009	30	-4,257,814	-322,461	21	-4,652,415
Experience Loss	07/01/2010	15	649,697	73,384	7	456,374
Experience Loss	07/01/2011	15	1,822,083	199,075	8	1,387,940
Change in Assumptions	07/01/2011	30	-1,863,464	-131,984	23	-2,014,698
Experience Gain	07/01/2012	15	-1,960,521	-207,191	9	-1,594,337
Plan Amendment	07/01/2012	20	455,797	39,521	14	430,844
Experience Gain	07/01/2013	15	-764,499	-78,148	10	-655,614
Experience Loss	07/01/2014	15	1,624,012	160,570	11	1,454,150
Experience Loss	07/01/2015	15	2,710,071	259,170	12	2,513,029
Experience Loss	07/01/2016	15	2,150,436	198,908	13	2,050,999
Change in Assumptions	07/01/2016	30	1,077,026	64,503	28	1,101,899
Experience Loss	07/01/2017	15	4,409,885	396,034	14	4,317,459
Experience Loss	07/01/2018	15	4,361,401	380,286	15	4,361,401
Change in Assumptions	07/01/2018	30	3,511,941	198,268	30	3,511,941
Change in Asset Method	07/01/2018	30	-6,305,493	-355,979	30	-6,305,493
Total				**$5,494,075**		**$51,531,066**

[1]Experience gain/loss bases established on or after July 1, 2017 include the impact of resetting the credit balance to $0 and subsequent losses due to contributions lower than the recommended contribution.

[2]Level percentage of payroll.

[3]Includes impact of change in valuation systems from prior to current actuary.

EXHIBIT H – HISTORY OF CONTRIBUTION RATES

Fiscal Year Ended June 30	Member Percentage of Pay	City Percentage of Pay	Total Policy Percentage	Recommended Contribution Percentage
1998	9.50%	9.50%	19.00%	18.90%
1999	9.50%	9.50%	19.00%	19.60%
2000	9.50%	9.50%	19.00%	19.20%
2001	9.50%	9.50%	19.00%	19.30%
2002	9.50%	9.50%	19.00%	19.50%
2003	9.50%	9.50%	19.00%	19.80%
2004	10.50%	10.50%	21.00%	21.10%
2005	10.50%	10.50%	21.00%	22.10%
2006	10.50%	10.50%	21.00%	22.10%
2007	13.20%	13.20%	26.40%	26.40%
2008	13.20%	13.20%	26.40%	26.80%
2009	13.20%	13.20%	26.40%	26.24%
2010	13.20%	13.20%	26.40%	25.07%
2011	13.20%	13.20%	26.40%	27.26%
2012	13.20%	13.20%	26.40%	28.98%
2013	13.20%	13.20%	26.40%	29.32%
2014	13.20%	13.20%	26.40%	28.12%
2015	13.20%	13.20%	26.40%	28.97%
2016	13.20%	13.20%	26.40%	30.22%
2017	13.20%	13.20%	26.40%	30.88%
2018	13.20%	13.20%	26.40%	31.80%
2019	13.20%	13.20%	26.40%	33.96%
2020	13.20%	13.20%	26.40%	35.17%

EXHIBIT I – DEFINITION OF PENSION TERMS

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability for Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability for Pensioners and Beneficiaries:	The single-sum value of lifetime benefits to existing pensioners and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial Cost Method:	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the recommended contribution.
Actuarial Gain or Loss:	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield in actuarial liabilities that are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.
Actuarially Equivalent:	Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV):	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Actuarial Present Value of Future Plan Benefits:	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation:	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).
Actuarial Value of Assets (AVA):	The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.
Actuarially Determined:	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.
Actuarially Determined Contribution (ADC):	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization Method:	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization Payment:	The portion of the pension plan contribution, or ADC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Assumptions or Actuarial Assumptions:	The estimates upon which the cost of the Fund is calculated, including: Investment return - the rate of investment yield that the Fund will earn over the long-term future; Mortality rates - the death rates of employees and pensioners; life expectancy is based on these rates; Retirement rates - the rate or probability of retirement at a given age or service; Disability rates – the probability of disability retirement at a given age; Withdrawal rates - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; Salary increase rates - the rates of salary increase due to inflation and productivity growth.
Closed Amortization Period:	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined Benefit Plan:	A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.
Defined Contribution Plan:	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer Normal Cost:	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience Study:	A periodic review and analysis of the actual experience of the Fund that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.
Funded Ratio:	The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA.

GASB 67 and GASB 68:	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment Return:	The rate of earnings of the Fund from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Net Pension Liability (NPL):	The Net Pension Liability is equal to the Total Pension Liability minus the Plan Fiduciary Net Position.
Normal Cost:	That portion of the Actuarial Present Value of pension plan benefits and expenses allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated.
Open Amortization Period:	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period with level percentage of payroll is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never decrease, but will become smaller each year, in relation to covered payroll, if the actuarial assumptions are realized.
Plan Fiduciary Net Position:	Market value of assets.
Total Pension Liability (TPL):	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded Actuarial Accrued Liability:	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.
Valuation Date or Actuarial Valuation Date:	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.

Section 4: Actuarial Valuation Basis

EXHIBIT I – ACTUARIAL ASSUMPTIONS AND ACTUARIAL COST METHOD

Rationale for Assumptions:	The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the Experience Study Report for the five-year period ended June 30, 2015. Current data is reviewed in conjunction with each annual valuation. Changes from the prior year are listed at the end of this exhibit.
Net Investment Return:	7.00%, net of investment expenses The net investment return assumption was chosen by the Retirement Plan's Board of Trustees, with input from the actuary. This assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the Retirement Plan's target asset allocation.
Administrative Expenses:	$190,000 payable mid-year, equivalent to $184,233 at the beginning of the year.
Salary Increases:	

Service	Rate (%)
0-1	13.75%
1-2	5.75%
2-4	4.75%
5-14	3.75%
15-24	3.25%
25+	2.75%

Above rates reflect a 2.75% inflation assumption.

The salary scale assumption is based on the City's pay plan, along with analysis completed in conjunction with an Experience Study Report for the five-year period ended June 30, 2015.

Inflation Rate:	2.75%
Payroll Growth:	2.75%
Cost-of-Living Adjustments:	0.00%

Mortality Rates:

Pre-retirement: RP-2014 Employee Mortality Table

Healthy annuitants: RP-2014 Blue Collar Healthy Annuitant Mortality Table with rates multiplied by 120%, set forward two years for males only

Disabled annuitants: RP-2014 Disabled Retiree Mortality Table

The tables above, with adjustments shown, reasonably reflect the mortality experience of the Retirement Plan as of the measurement date. The mortality tables were then adjusted to future years using generational projection under Scale MP-2015 to reflect future mortality improvement.

Annuitant Mortality Rates:

	Rate (%)			
	Healthy[1]		Disabled[1]	
Age	Male	Female	Male	Female
55	0.83	0.48	2.34	1.45
60	1.18	0.69	2.66	1.70
65	1.80	1.05	3.17	2.09
70	2.84	1.68	4.03	2.82
75	4.60	2.76	5.43	4.10
80	7.64	4.58	7.66	6.10
85	12.84	7.80	11.33	9.04
90	21.32	13.42	17.30	13.27

[1]*Rates shown do not include generational projection.*

Mortality and Disability Rates before Retirement:

Age	Rate (%)		
	Mortality[1]		Disability
	Male	Female	Male and Female
20	0.04	0.02	0.02
25	0.05	0.02	0.03
30	0.05	0.02	0.03
35	0.05	0.03	0.03
40	0.06	0.04	0.04
45	0.10	0.07	0.05
50	0.17	0.11	0.08
55	0.28	0.17	0.15
60	0.47	0.24	0.30

[1] *Rates shown do not include generational projection.*

On the Job Disability:

Employees hired prior to July 1, 2008: 100%

General Employees hired on or after July 1, 2008: 30%

Public Safety Employees hired on or after July 1, 2008: 80%

Termination Rates before Retirement:

Age	Employees hired prior to July 1, 2008	General Employees hired on or after July 1, 2008	Years of Service	Public Safety Employees hired on or after July 1, 2008
20	24.61	29.51	0-1	18.00%
25	15.00	22.48	1-2	16.00
30	8.15	16.28	2-3	14.00
35	5.07	12.64	3-4	12.00
40	4.04	10.07	4-5	10.00
45	3.24	8.07	5-6	8.00
50	2.58	6.44	6-7	6.00
55	2.03	5.06	7-10	4.00
60	1.55	3.86	11-19	2.00
65	1.13	2.81	20+	0.00

Retirement Rates:

Employees hired before July 1, 2008		General Employees hired on or after July 1, 2008		Public Safety Employees hired on or after after July 1, 2008	
Age	Rate%	Age	Rate%	Age	Rate%
40-49	15.0%	50-59	5%	50-54	5%
50-59	12.5%	60-64	30%	55-59	10%
60	15.0%	65	100%	60-64	30%
61	20.0%			65	100%
62	40.0%				
63	35.0%				
64	20.0%				
65-69	35.0%				
70	100.0%				

Note: Rates are increased an additional 30% at age when participant first becomes eligible for unreduced benefits.

Retirement Age for Inactive Vested Participants:	Earliest eligibility for Normal Retirement, but not before age 60
Weighted Average Retirement Age:	Age 58.3, determined as follows: The weighted average retirement age for each participant is calculated as the sum of the product of each potential current or future retirement age times the probability of surviving from current age to that age and then retiring at that age, assuming no other decrements. The overall weighted retirement age is the average of the individual retirement ages based on all the active participants included in the July 1, 2018 actuarial valuation.
Form of payment	Life annuity
Percent Married:	90%
Age of Spouse:	Females two years younger than males
Unknown Data for Participants:	Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.
Actuarial Value of Assets:	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary, with Normal Cost determined as if the current benefit accrual rate had always been in effect.
Justification for Change in Actuarial Assumptions and methods:	The following assumption changes were proposed by the actuary and subsequently were approved by the Board in October, 2018. These changes are reflected for the first time in this valuation. ➤ The investment return assumption was lowered from 7.25% to 7.00%. ➤ The inflation assumption was lowered from 3.00% to 2.75%. ➤ The payroll growth assumption decreased from 3.00% to 2.75%. ➤ The age-based salary scale table was modified to reflect the decrease in the underlying inflation component to 2.75%. ➤ The administrative expense assumption was increased from $130,000 to $190,000. ➤ The asset method was modified to reflect a five-year smoothing method with a 20% corridor around the market value of assets. The actuarial value of assets was set equal to market value for the current valuation. Market value gains/losses will be recognized prospectively over a five-year period.

EXHIBIT II – SUMMARY OF PLAN PROVISIONS

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year:	July 1 through June 30
Normal Retirement:	
Employees hired prior to July 1, 2008	
Eligibility Requirement	The later of age 60 and the completion of 10 years of service, or any age and the completion of 25 years of service, if earlier. (If hired on or after age 55, participant is eligible for Normal Retirement after 5 years of participation.)
Amount	3% of Average Monthly Compensation times years of service (maximum 99%)
Average Monthly Compensation	Based on total compensation for the 60 consecutive completed service months that yield the highest average
Employees hired on or after July 1, 2008	
Eligibility Requirement	
General Employees	The later of age 65 and the completion of 10 years of service, or age 60 and the completion of 25 years of service, if earlier
Public Safety Employees	The later of age 65 and the completion of 10 years of service, or age 50 and the completion of 25 years of service, if earlier
Amount	2.5% of Average Monthly Compensation times years of service (maximum 82.5%)
Average Monthly Compensation	Based on total compensation for the 60 consecutive completed service months that yield the highest average.

Early Retirement:	
Employees hired before July 1, 2008	
Eligibility Requirement	Any age and the completion of 20 years of service
Amount	Normal pension accrued reduced by 2% for each year by which the benefit commencement date precedes the normal retirement date
Employees hired on or after July 1, 2008	
Eligibility Requirement	Any age and the completion of 20 years of service
Amount	Normal pension accrued reduced by 5% for each year by which the benefit commencement date precedes the normal retirement date
Disability:	
Employees hired before July 1, 2008	
Eligibility Requirement	Any age and one year of credited service, and either eligible for benefits under the Social Security Act or determined to be disabled by the Pension Board.
Amount	50% of average monthly compensation, but not less than the unreduced normal pension accrued
Employees hired on or after July 1, 2008	
On-the-job	
Eligibility Requirement	Any age and one year of credited service, and either eligible for benefits under the Social Security Act or determined to be disabled by the Pension Board
Amount	50% of average monthly compensation, but not less than the unreduced normal pension accrued
Not-on-the-job	
Eligibility Requirement	Any age and 10 years of credited service, and either eligible for benefits under the Social Security Act or determined to be disabled by the Pension Board.
Amount	The unreduced normal pension accrued

Termination Benefits:	
Within the first ten years of eligibility service (five years if hired on or after age 55)	The participant's contributions will be returned without interest.
After ten years of eligibility service	The participant who terminates employment prior to their Normal Retirement Date and elects to leave contributions in the fund shall receive a monthly benefit to commence at age 60. The benefit payable is based on credited service and average monthly compensation as of the date of termination.
Pre-Retirement Death Benefit:	
A. Less than 25 years of Eligibility Service	
Requirement	Death prior to termination of employment and completion of at least 10 years but less than 25 years of eligibility service.
Amount	50% of accrued Normal Retirement benefit payable.
B. At least 25 years of Eligibility Service	
Requirement	Death prior to termination of employment and after completion of at least 25 years of eligibility service.
Amount	The amount of pension computed as if the decedent had retired under the normal retirement provision and elected a 100% Joint and Survivor option. Note: For all participants, the minimum death benefit is equal to the Participant's contributions converted to an actuarially equivalent life time pension.
Post-Retirement Death Benefits:	If married, pension benefits are paid in the form of a joint and survivor annuity unless this form is rejected by the participant and spouse. If not rejected, the benefit amount otherwise payable is reduced to reflect the joint and survivor coverage. If not rejected, and the spouse predeceases the employee, the employee's benefit amount will subsequently be increased to the unreduced amount payable had the joint and survivor coverage been rejected. If rejected, or if not married, benefits are payable for the life of the employee, or in any other available optional form elected by the employee in an actuarially equivalent amount.

Participation:	Any person who performs a service for the City of Gainesville, Georgia who is not covered by Social Security is eligible to participate. Independent contractors, "leased employees" and temporary, casual or part-time employees are not eligible to participate in this plan.
Contributions:	Each participant contributes 13.2% of pay. The City contributes 13.2% as well, for a total of 26.4%.
Changes in Plan Provisions:	There have been no changes in plan provisions since the last valuation.

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CITY OF GAINESVILLE

AGENDA REQUEST

Date Submitted: 11/7/2018

Presenter: Jeff Swanson, SEAS

Item of Business: Third Quarter 2018 Investment Report

Meeting Date: 11/13/2018

Purpose of Request:
To allow Southeastern Advisory Services to present the quarterly report for the period ending September 30, 2018.

History/Background:
The Plan's investment consultant is Southeastern Advisory Services (SEAS). The quarterly report summarizes the activities of the Plan's portfolio.

Facts & Issues for Consideration:

Department Recommendation:

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?
No

Amount Requested:

Source of Funds:

Finance Comments:

Administrative Comments:

ATTACHMENTS:

	Description	Type
🗋	3rd Quarter Performance Report	Report

CITY OF GAINESVILLE
EMPLOYEES' RETIREMENT SYSTEM PLAN A

INVESTMENT PERFORMANCE ANALYSIS

THIRD QUARTER 2018

Note: For a copy of Southeastern Advisory Services, Inc.'s most recent Form ADV Brochure Part 2A, please write: Southeastern Advisory Services, Inc., 12 Piedmont Center, Suite 202, Atlanta, GA 30305, or e-mail your request to cooper@seadvisory.com. Form ADV Brochure Part 2A will be mailed within seven (7) days upon receipt of the request.

Only the executive summary portion of our reporting is provided herein. If you would like an electronic copy of the back-up pages to this executive summary, send your request to jeff@seadvisory.com.

Jeffrey Swanson, Senior Consultant

Southeastern Advisory Services, Inc.
Twelve Piedmont Center, Suite 202
Atlanta, Georgia 30305
TEL: (404) 237-3156
FAX: (404) 237-2650

CITY OF GAINESVILLE
EMPLOYEES' RETIREMENT SYSTEM PLAN A

INVESTMENT PERFORMANCE ANALYSIS

SEPTEMBER 30, 2018

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Executive Summary

CITY OF GAINESVILLE EMPLOYEES' RETIREMENT SYSTEM PLAN A

Quarter Ending September 30, 2018

I. PORTFOLIO SUMMARY

- As of September 30, 2018, the Total Plan (including R&D) had a market value of $103,727,500. For the quarter, the fund's net withdrawals were -$306,035 and total investment gains were $4,395,177 for a total increase in value of $4,394,872 from the previous quarter end.
- As of September 30, 2018, 65.2% of the Plan (including R&D) was invested in equities, 27.7% in fixed income/absolute return funds and 6.2% in real estate.
- For the quarter ending September 30, 2018, the portfolio was up 4.4%. For the one year period, the portfolio was up 12.9% and for the three year period the portfolio was up 13.1%

II. MARKET ENVIRONMENT

Index	Third Quarter	1 Year	3 Year
Standard & Poor's 500 Index	7.7%	17.9%	17.3%
MSCI EAFE Index (Net)	1.4%	2.7%	9.2%
NCREIF Property Index	1.7%	7.2%	7.8%
Credit Suisse Hedge Index	0.6%	3.5%	3.1%
BbgBarc U.S. Aggregate	0.0%	-1.2%	1.3%
91 Day Treasury Bills	0.5%	1.6%	0.8%
Consumer Price Index (NSA)	0.2%	2.3%	2.0%

Strong corporate earnings reports and a vast majority of U.S. public companies beat consensus earnings estimates to push the U.S. stock market to the strongest quarter in nearly five years. Economic data continues to be strong including the largest increase in real GDP in four years at 4.2%. Although global trade and tariffs continue to be a major issue, the U.S. made positive strides during the quarter with a preliminary, renegotiated trade deal with the European Commission and a finalized deal with South Korea, the first completed pact under the current administration. Most of the major components of economic growth contributed although private investment was down slightly on inventory drawdowns. A major drop in net exports contributed more than 1% to real growth as imports fell and exports moved higher. Government spending was up, as well, and personal consumption added 2.6% to real economic growth during the quarter.

Equities: The U.S. stock market, represented by the S&P 500, was up 7.7% for the third quarter of 2018, the best quarter since the fourth quarter of 2013. Large capitalization stocks far outperformed small caps as the Wilshire US Large-Cap Index was up 7.7% versus a gain of 3.7% for the Wilshire US Small-Cap Index. The large-cap segment of the market leads small-caps for the past twelve months, as well. Growth stocks have been generally outpacing value both the recent quarter and for the past twelve months. Nearly all of the eleven major sectors were in positive territory during the third quarter. The best performing sector was Healthcare (14.0%) with Information Technology (12.9%) and Industrials (9.2%) making significant gains.

Fixed Income: The U.S. Treasury yield curve rose across all maturities during the quarter with the biggest increases occurring in the short to intermediate segment of the curve. The bellwether 10-year Treasury yield ended the quarter at 3.1%, up .2% from June. The Federal Open Market Committee decided to increase its overnight rate by .25% in September to a range of 2.00% to 2.25%. The committee expects to raise rates one more time this year and Fed chair Jerome Powell said it was a "particularly bright moment" for the U.S. economy. Credit spreads tightened during the quarter within both the investment grade and high yield markets. Consumer prices continue to move higher during 2018. The Consumer Price Index was up 0.2% for the three months ending August and 2.7% for the one-year period.

Alternatives: Hedge fund performance drove total industry capital to a net increase of $8.4 billion, ending the quarter at a record $3.24 trillion. The HFRI Fund Weighted Composite Index® (FWC) gained 0.55% in Q3 2018, with strongest performance coming from technology and event-driven strategies. *Hedge Week 10/19/18*

III. Live Universe Comparisons and Reporting

Wilshire Public Plan Sponsor Universe	
Number of Plans	252
Median Size	$316.9 Million
Total Assets	$2.6 Trillion
Total Plans over $1 Billion	93
Total Plans between $100 - $1,000 Million	88
Total Plans between $20 Million - $100 Million	42
Total Plans under $20 Million	29

About Wilshire Associates

The Wilshire Cooperative is collaboration between Wilshire Associates and more than 60 independent investment consulting firms. Wilshire provides advanced performance measurement and attribution reporting systems to participating firms while Cooperative members provide asset and performance data for their sponsor clients. These are then pooled into peer groups for comparative purposes. Today, the Wilshire Cooperative is the standard utilized by over 1300 plan sponsors with assets over $743 billion dollars.

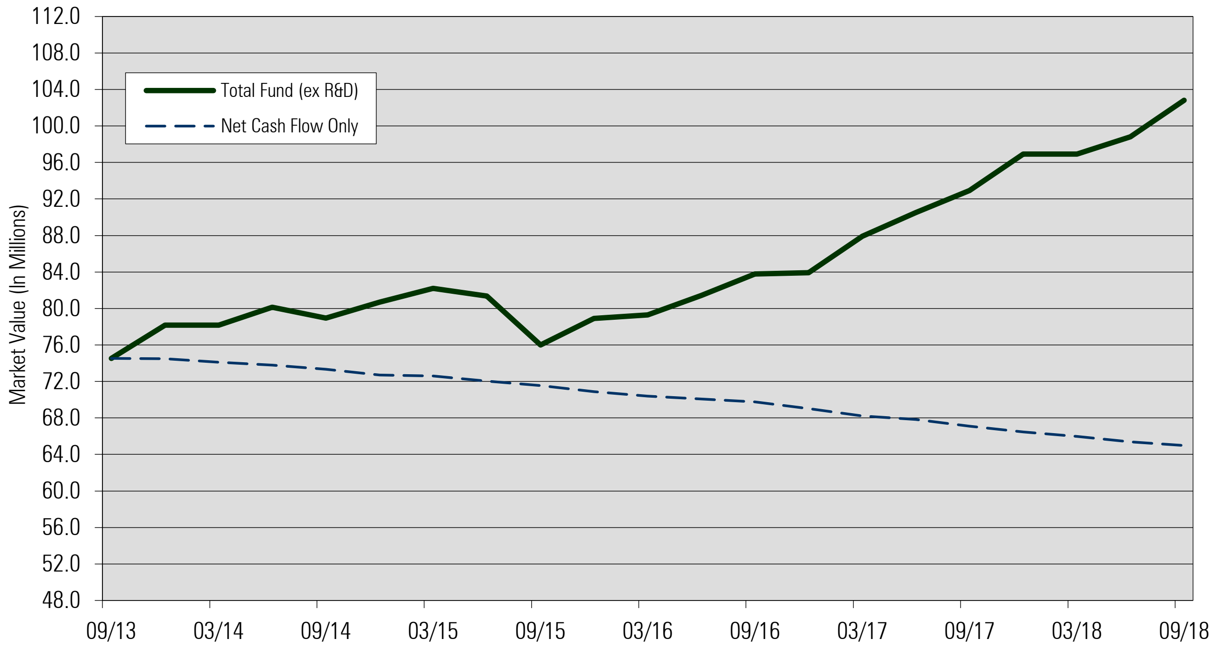
Our Universe Comparisons

As a Wilshire affiliate, we are granted access to large and diverse peer comparisons, including total fund, portfolio-level, and style-based universes. The Wilshire Public Fund Universe (above) includes the actual, live results of over 250 public pension systems across the country. These are real public funds who face similar investment restrictions and guidelines to your own. These peer-to-peer performance comparisons are critical to the evaluation process.

Our Reporting

Unique to Southeastern Advisory Services is our customized reporting platform. We have the ability to accurately calculate performance against virtually any benchmark, comparison or metric. These industry-leading tools include sophisticated attribution analyses and holdings-based style and characteristic analysis. Our goal is to deliver a clear, easily-understood picture of performance that fairly assesses the effectiveness of your investment policy, strategy and managers. Each performance report is fully-customized based on your input. We welcome your requests and suggestions.

IV. PORTFOLIO GROWTH- PERIOD ENDED SEPTEMBER 30, 2018

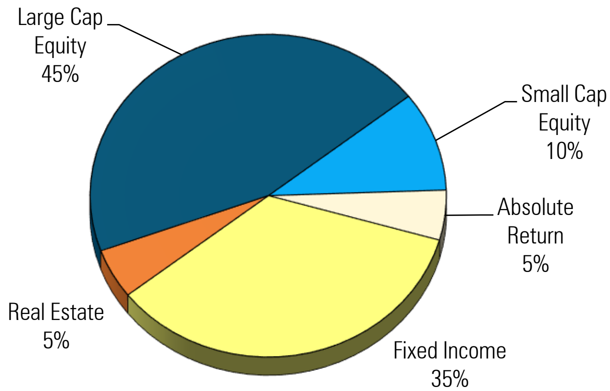


Period Ending	Beginning Value $(000)	Net Cash Flow	Net Gain/Loss	Ending Value $(000)	Quarterly Return	Fiscal Yr Return
Dec-13	74,526	-19	3,668	78,176	5.3%	
Mar-14	78,176	-399	407	78,184	0.5%	
Jun-14	78,184	-329	2,280	80,135	2.9%	14.3%
Sep-14	80,135	-446	-756	78,933	-0.9%	
Dec-14	78,933	-635	2,411	80,710	3.1%	
Mar-15	80,710	-99	1,580	82,190	2.0%	
Jun-15	82,190	-547	-284	81,359	-0.4%	3.7%
Sep-15	81,359	-509	-4,848	76,002	-6.0%	
Dec-15	76,002	-657	3,579	78,924	4.4%	
Mar-16	78,924	-486	838	79,276	1.0%	
Jun-16	79,276	-330	2,473	81,419	3.1%	2.2%
Sep-16	81,419	-301	2,660	83,778	3.3%	
Dec-16	83,778	-757	912	83,933	1.1%	
Mar-17	83,933	-806	4,770	87,898	5.7%	
Jun-17	87,898	-392	3,003	90,509	3.5%	14.2%
Sep-17	90,509	-717	3,134	92,926	3.5%	
Dec-17	92,926	-635	4,637	96,928	5.0%	
Mar-18	96,928	-496	509	96,941	0.5%	
Jun-18	96,941	-595	2,472	98,817	2.6%	12.0%
Sep-18	98,817	-392	4,393	102,818	4.4%	
Total	**74,526**	**-9,546**	**37,838**	**102,818**	**54.2%**	
Absolute Return Objective*:						**7.25%**

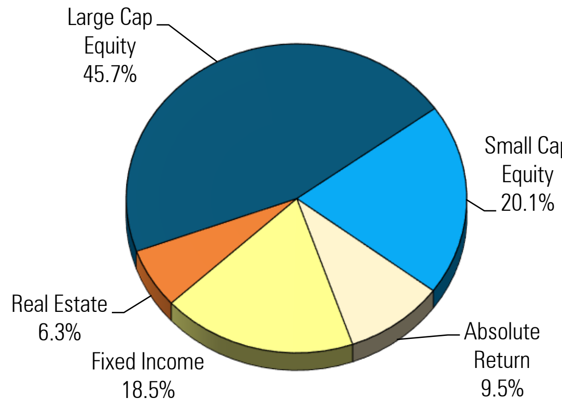
*Table above excludes R&D account

V. ALLOCATION OF ASSETS: Total Fund (ex R&D)

Policy Allocation

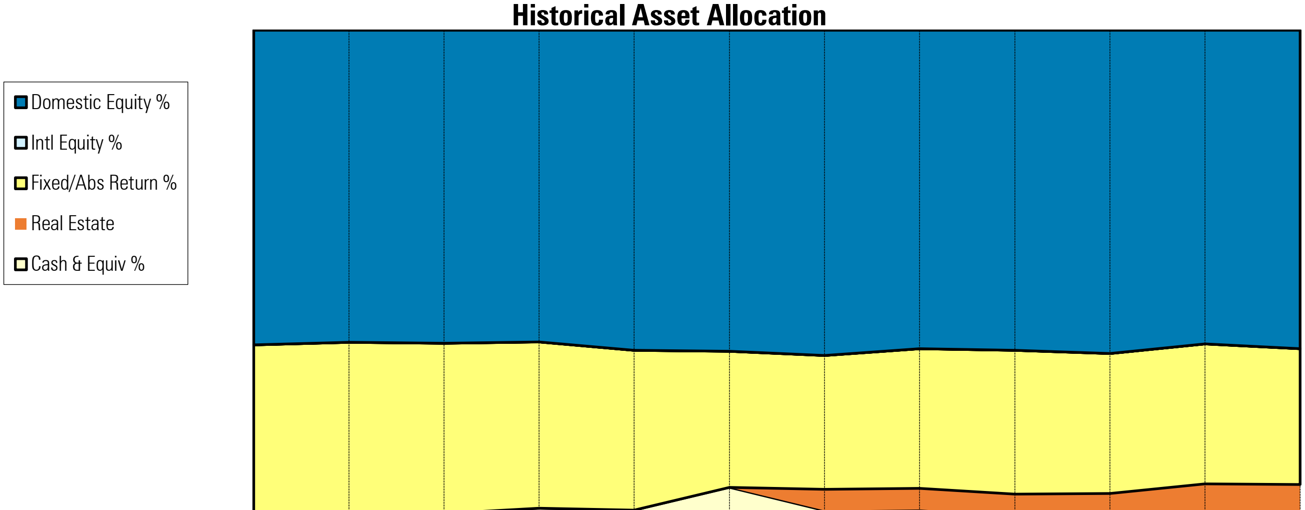


Current Allocation



Asset Class	Target Allocation	Quarter End Allocation	Median Public Plan
Domestic Equity	55%	65.8%	50.1 %
International Equity	0%	0.0%	13.4%
Fixed Income/Absolute Return	40%	28.0%	22.7%
Real Estate	5%	6.3%	5.3%
Cash Equivalents	0%	0.0%	0.7%

Historical Asset Allocation



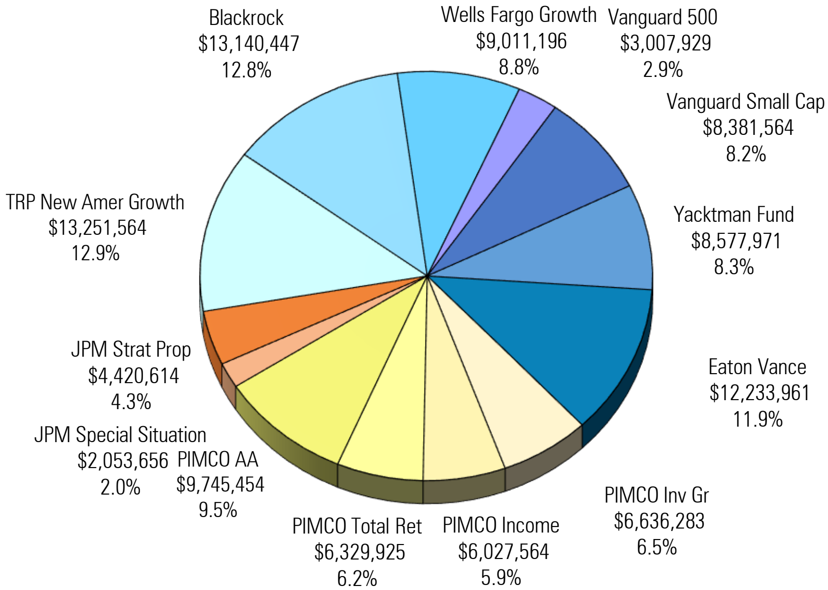
	12/15	03/16	06/16	09/16	12/16	03/17	06/17	09/17	12/17	03/18	06/18	09/18
Domestic Equity %	64.9	64.4	64.6	64.3	66.0	66.2	67.1	65.7	66.0	66.7	64.7	65.8
Intl Equity %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fixed/Abs Return %	34.8	35.3	35.1	34.3	33.0	28.1	27.6	28.8	29.7	28.9	28.9	28.0
Real Estate	0.0	0.0	0.0	0.0	0.0	0.0	4.4	4.4	4.3	4.4	6.4	6.3
Cash & Equiv %	0.3	0.3	0.3	1.4	1.0	5.7	0.9	1.1	0.0	0.0	0.0	0.0

Manager	Dom Equity	Intl Equity	Fixed Income	Real Estate	Cash
Blackrock Equity Dividend	100.0%	0.0%	0.0%	0.0%	0.0%
Eaton Vance	100.0%	0.0%	0.0%	0.0%	0.0%
Yacktman Fund	100.0%	0.0%	0.0%	0.0%	0.0%
Vanguard Small Cap	100.0%	0.0%	0.0%	0.0%	0.0%
TRP New America Growth	100.0%	0.0%	0.0%	0.0%	0.0%
Wells Fargo Growth Fund	100.0%	0.0%	0.0%	0.0%	0.0%
PIMCO All Asset	0.0%	0.0%	100.0%	0.0%	0.0%
PIMCO Income	0.0%	0.0%	100.0%	0.0%	0.0%
PIMCO Total Return	0.0%	0.0%	100.0%	0.0%	0.0%
PIMCO Inv Grade Corp	0.0%	0.0%	100.0%	0.0%	0.0%
JP Morgan Strategic Prop	0.0%	0.0%	0.0%	100.0%	0.0%
JP Morgan Special Situation	0.0%	0.0%	0.0%	100.0%	0.0%
Total Fund	**65.8%**	**0.0%**	**28.0%**	**6.3%**	**0.0%**

O.C.G.A. Section 47-20-82(c) Compliance				
Equity Value, As of	3Q18	2Q18	1Q18	4Q17
Yacktman Fund	$ 7,281,954	$ 7,281,954	$ 10,007,108	$ 10,007,108
Blackrock Equity Dividend	$ 9,317,803	$ 9,267,019	$ 9,213,389	$ 9,213,389
Eaton Vance AC SMID	$ 5,662,938	$ 5,662,938	$ 5,662,938	$ 5,662,938
TRP New America Growth	$ 8,843,165	$ 8,843,165	$ 8,843,165	$ 8,843,165
Vanguard 500	$ 2,142,546	$ 2,129,028	$ 2,116,113	$ 2,104,087
Vanguard Small Cap	$ 5,850,905	$ 5,817,710	$ 5,798,135	$ 5,774,887
Wells Fargo Growth Fund	$ 7,583,735	$ 7,915,326	$ 8,386,773	$ 8,386,773
Total Cost Value	$ 46,683,046	$ 46,917,140	$ 50,027,621	$ 49,992,347
Total Market Value, All Assets	$ 103,727,500	$ 99,638,358	$ 97,719,236	$ 97,916,970
Cost Value vs Market Total	*45.0%*	*47.1%*	*51.2%*	*51.1%*

* Domestic mutual funds may hold foreign securities. Compliance with O.C.G.A. Section 47-20-82(c) requires that those Ga funds that are not classified as "Large Retirement Systems" (over 75% funded ratio if assets are less than $50MM and over 70% funded ratio if total assets exceed $500MM) maintain less than 55% in equity securities based on historical cost basis. The PIMCO All Asset Fund holds predominantly fixed income assets and is classified as such for compliance purposes. The PIMCO All Asset fund may hold underlying equity securities /and or equity fund funds. The PIMCO All Asset Fund is an absolute return strategy but is included as part of the fixed income allocation in the table above."

VI. MANAGER ALLOCATION AND CASH FLOWS- Quarter ending September 30, 2018

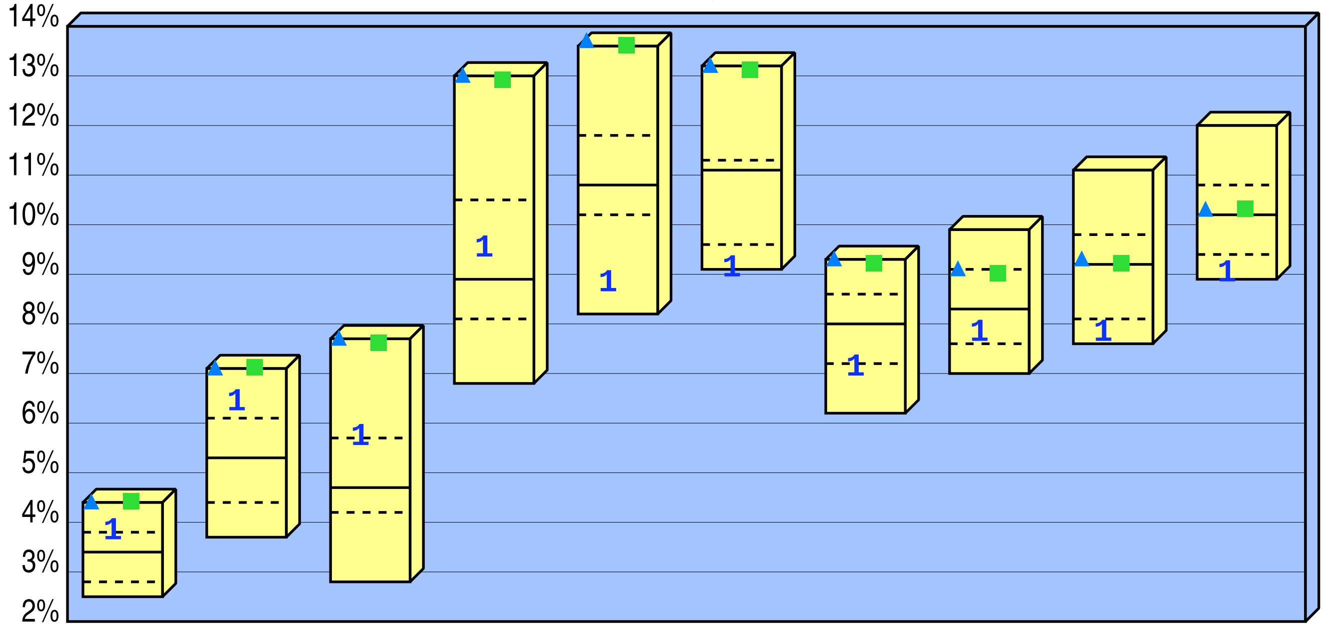


Manager	Beginning Value	% Alloc	Cash In	Cash Out	Gain/Loss	Ending Value	% Alloc
Blackrock Equity Dividend (LCV)	$12,375,433	12.5%	$0	$0	$765,014	$13,140,447	12.8%
TRP New America Growth (LCG)	$12,360,820	12.5%	$0	$0	$890,744	$13,251,564	12.9%
Wells Fargo Growth Fund (LCG)	$8,730,043	8.8%	$0	($380,053)	$661,206	$9,011,196	8.8%
Vanguard 500 (Passive)	$2,792,888	2.8%	$0	$0	$215,041	$3,007,929	2.9%
Yacktman Fund (Contrarian/ARE)	$8,268,474	8.4%	$0	$0	$309,497	$8,577,971	8.3%
Total Large Cap Equity	**$44,527,658**	**45.1%**	**$0**	**($380,053)**	**$2,841,502**	**$46,989,107**	**45.7%**
Eaton Vance (SMID Growth)	$11,336,440	11.5%	$0	$0	$897,521	$12,233,961	11.9%
Vanguard Small Cap (Passive)	$7,999,763	8.1%	$0	$0	$381,801	$8,381,564	8.2%
Total Small/Mid Cap Equity	**$19,336,203**	**19.6%**	**$0**	**$0**	**$1,279,322**	**$20,615,525**	**20.1%**
PIMCO All Asset	$9,711,177	9.8%	$0	$0	$34,277	$9,745,454	9.5%
Total Real Return/Real Asset	**$9,711,177**	**9.8%**	**$0**	**$0**	**$34,277**	**$9,745,454**	**9.5%**
PIMCO Income	$5,991,712	6.1%	$0	$0	$35,852	$6,027,564	5.9%
PIMCO Inv Grade Corp	$6,575,129	6.7%	$0	$0	$61,154	$6,636,283	6.5%
PIMCO Total Return	$6,323,059	6.4%	$0	$0	$6,866	$6,329,925	6.2%
Total Fixed Income	**$18,889,900**	**19.1%**	**$0**	**$0**	**$103,872**	**$18,993,772**	**18.5%**
JP Morgan Strategic Property	$4,351,922	4.4%	$0	($10,697)	$79,389	$4,420,614	4.3%
JP Morgan Special Situation	$2,000,000	2.0%	$0	($497)	$54,153	$2,053,656	2.0%
Total Real Estate	**$6,351,922**	**6.4%**	**$0**	**($11,194)**	**$133,542**	**$6,474,270**	**6.3%**
Cash in Mutual Fund Ledger	*$247*	*0%*	*$0*	*($576)*	$329	*$0*	*0.0%*
Total Fund	**$98,817,107**	**94%**	**$0**	**($391,823)**	**$4,392,844**	**$102,818,128**	**100%**
Receipts & Disbursements Acct.	*$821,251*		*$2,225,303*	*($2,139,515)*	*$2,332*	*$909,371*	
Total Fund + R&D Acct.	***$99,638,358***		***$2,225,303***	***($2,531,338)***	***$4,395,176***	***$103,727,499***	

For this report, all performance and asset allocation information for the Total Fund does not include the Receipts & Disbursements Account.

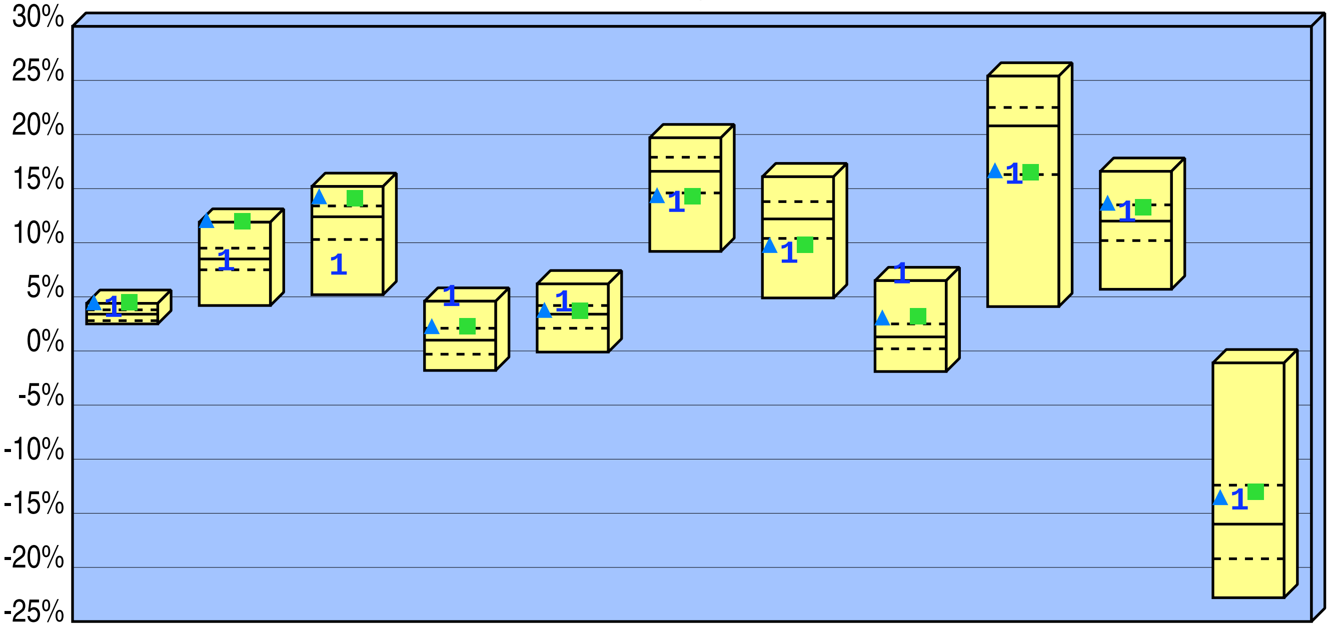
* Wells Fargo is to maintain an R&D balance between $600K and $750K and is directed to rebalance on a monthly basis on the 15th of each month. Balances above $750K are to be applied towards the PIMCO Total Return Bond Fund. Cash needs are to be met through redemptions in the Wells Fargo Growth Fund.

Gainesville Employees' Retirement System A
Cumulative Performance Comparison
Total Returns of Total Fund Public Sponsors
Periods Ending 9/18



	Last Qtr	Last 2 Qtrs	Last 3 Qtrs	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years
High	4.4	7.1	7.7	13.0	13.6	13.2	9.3	9.9	11.1	12.0
1st Qt	3.8	6.1	5.7	10.5	11.8	11.3	8.6	9.1	9.8	10.8
Median	3.4	5.3	4.7	8.9	10.8	11.1	8.0	8.3	9.2	10.2
3rd Qt	2.8	4.4	4.2	8.1	10.2	9.6	7.2	7.6	8.1	9.4
Low	2.5	3.7	2.8	6.8	8.2	9.1	6.2	7.0	7.6	8.9
▲ Total Fund (ex R&D)										
Return	4.4	7.1	7.7	13.0	13.7	13.2	9.3	9.1	9.3	10.3
Rank	5	5	5	1	1	5	5	25	42	39
1 Policy Index										
Return	3.8	6.4	5.7	9.5	8.8	9.1	7.1	7.8	7.8	9.0
Rank	21	15	25	43	85	95	75	64	87	87
■ Total Fund (incl R&D)										
Return	4.4	7.1	7.6	12.9	13.6	13.1	9.2	9.0	9.2	10.3
Rank	12	9	9	9	9	9	9	32	46	46

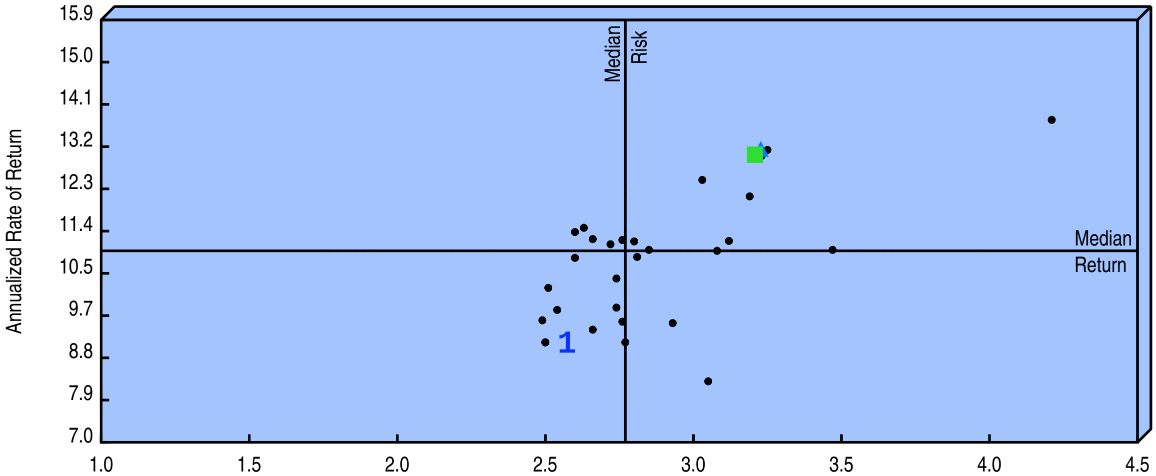
Gainesville Employees' Retirement System A
Fiscal Year Performance Comparison
Total Returns of Total Fund Public Sponsors
Years Ending June



	9/30/18 FYTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
High	4.4	11.9	15.2	4.6	6.2	19.7	16.1	6.5	25.4	16.6	-1.1
1st Qt	3.8	9.5	13.4	2.1	4.2	17.9	13.8	2.5	22.5	13.5	-12.4
Median	3.4	8.5	12.4	1.0	3.4	16.6	12.2	1.3	20.8	12.0	-16.0
3rd Qt	2.8	7.5	10.3	-0.3	2.1	14.6	10.4	0.2	16.3	10.2	-19.2
Low	2.5	4.2	5.2	-1.8	-0.1	9.2	4.9	-1.9	4.1	5.7	-22.8
▲ Total Fund (ex R&D)											
Return	4.4	12.0	14.2	2.2	3.7	14.3	9.7	3.0	16.6	13.6	-13.6
Rank	5	4	14	22	40	77	81	18	73	24	33
1 Policy Index											
Return	3.8	8.1	7.7	4.8	4.3	13.5	8.8	6.9	16.1	12.6	-14.0
Rank	21	64	88	4	22	82	85	3	76	40	35
■ Total Fund (incl R&D)											
Return	4.4	11.9	14.0	2.2	3.6	14.2	9.7	3.1	16.4	13.2	-13.1
Rank	12	5	17	23	41	78	81	17	74	31	29

Gainesville Employees' Retirement System A
Return vs Risk
Total Returns of Total Fund Public Sponsors

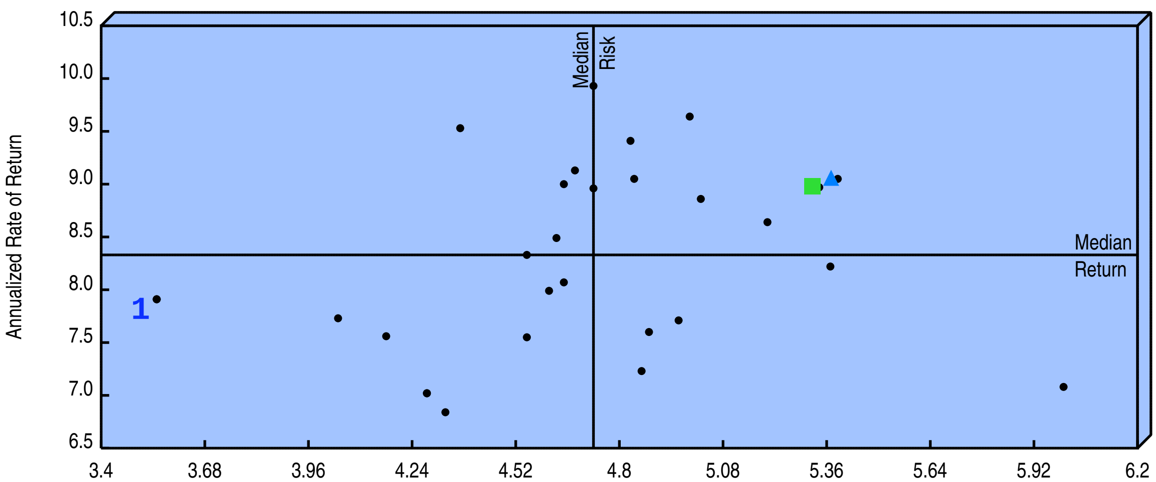
3 Years Ending 9/30/18



Historical Standard Deviation of Return

		Annualized Return		Standard Deviation	
		Value	Rank	Value	Rank
▲	Total Fund (ex R&D)	13.2	5	3.3	92
1	Policy Index	9.1	95	2.6	14
■	Total Fund (incl R&D)	13.1	9	3.2	86
	Median	11.1		2.8	

5 Years Ending 9/30/18



Historical Standard Deviation of Return

		Annualized Return		Standard Deviation	
		Value	Rank	Value	Rank
▲	Total Fund (ex R&D)	9.1	25	5.4	92
1	Policy Index	7.8	64	3.5	1
■	Total Fund (incl R&D)	9.0	32	5.3	86
	Median	8.3		4.7	

VII. TOTAL FUND PERFORMANCE COMPARISONS

Fiscal Year Returns -v- Objectives	Last Qtr	1 Year	3 Year	5 Year
Total Fund (inc R&D)-Gross of Fees	**4.4%**	**12.9%**	**13.1%**	**9.0%**
Total Fund (inc R&D)-Net of Fees	**4.4%**	**12.9%**	**13.1%**	**9.0%**
Total Fund (ex R&D)-Gross of Fees	**4.4%**	**13.0%**	**13.2%**	**9.1%**
Total Fund (ex R&D)-Net of Fees	**4.4%**	**13.0%**	**13.2%**	**9.1%**
Target Index	3.8%	9.5%	9.1%	7.8%
Absolute Return Objective (7.25%)	1.8%	7.3%	7.3%	7.3%
Wilshire Public Fund Ranking	12	9	9	32
Total Domestic Equities	**6.5%**	**20.0%**	**17.6%**	**12.4%**
Russell 3000	7.1%	17.6%	17.1%	13.5%
Russell 1000	7.4%	17.8%	17.1%	13.7%
Russell 2000	3.6%	15.2%	17.1%	11.1%
vs. Equity Returns of Public Funds	53	12	17	75
Total Real Estate	**2.1%**	**8.3%**	**n/a**	**n/a**
NCREIF Property Index	1.7%	7.2%	n/a	n/a
vs. Real Estate Returns of Public Funds	57	46	n/a	n/a
Total Fixed Income/Absolute Return	**0.5%**	**-0.4%**	**5.0%**	**3.1%**
Barclays US Aggregate	0.0%	-1.2%	1.3%	2.2%
vs. Fixed Income Returns of Public Funds	46	71	13	21

Current Target Index: 45% Russell 1000/10% R2000/5% CPI +3%/5% NCREIF/35% Bloomberg Barclays US Aggregate. Prior to June 2017: 45% Russell 1000/55% Bloomberg Barclays US Aggregate. Prior to July 2009, the Target Index: 35% Russell 1000 /10% Russell 2000/40% Bloomberg Barclays US Aggregate/15% MSCI EAFE (Net). Each Fiscal Year ends 6/30.

VIII. EQUITY MANAGER COMPARISON

Manager/Index/Universe	Quarter	1 Year	3 Year	5 Year
Blackrock Equity Dividend (LCV)	**6.2%**	**11.3%**	**15.4%**	**11.4%**
Russell 1000 Value	5.7%	9.5%	13.6%	10.7%
Russell 1000	7.4%	8.0%	17.1%	13.7%
vs. Large Value Mutual Funds	44	43	16	15
Vanguard 500 (Passive)	**7.7%**	**17.9%**	**n/a**	**n/a**
Russell 1000	7.4%	8.0%	n/a	n/a
vs. Large Core Mutual Funds	30	28	n/a	n/a
TRP New American Growth (LCG)	**7.2%**	**26.7%**	**21.2%**	**16.4%**
Russell 1000 Growth	9.2%	26.3%	20.6%	16.6%
Russell 1000	7.4%	8.0%	17.1%	13.7%
vs. Large Growth Mutual Funds	65	33	8	19
Wells Fargo Growth Fund (LCG)	**7.7%**	**30.2%**	**20.4%**	**13.6%**
Russell 1000 Growth	9.2%	26.3%	20.6%	16.6%
Russell 1000	7.4%	8.0%	17.1%	13.7%
vs. Large Growth Mutual Funds	51	9	17	79
Eaton Vance (SMID Growth)	**7.9%**	**23.3%**	**19.0%**	**14.6%**
Russell 2000 Growth	5.5%	21.1%	18.0%	12.1%
Russell 2000	3.6%	15.2%	17.1%	11.1%
vs. MidCap Growth Equity Portfolios	33	37	17	9
Vanguard Small Cap (Passive)	**4.8%**	**16.7%**	**16.3%**	**n/a**
Russell 2000	3.6%	15.2%	17.1%	n/a
vs. Small Cap Core Mutual Funds	17	15	26	n/a
Yacktman Fund (Contrarian/ARE)	**3.7%**	**14.7%**	**13.7%**	**9.5%**
Russell 1000	7.4%	8.0%	17.1%	13.7%

IX. ABSOLUTE RETURN PERFORMANCE COMPARISONS

Manager/Index/Universe	Quarter	1 Year	3 Year	5 Year
PIMCO All Asset	**0.4%**	**1.3%**	**8.3%**	**3.4%**
CPI + 4%	1.2%	6.4%	6.1%	5.5%
MSCI ACWI	4.3%	9.8%	13.4%	8.7%

The inception date of the PIMCO All Asset Fund was May 17, 2011. Absolute Return is considered part of the fixed income allocation for compliance calculations. Mutual Funds for Absolute Return may include underlying equity securities/funds.

X. FIXED INCOME PERFORMANCE COMPARISONS

Manager/Index/Universe	Quarter	1 Year	3 Year	5 Year
PIMCO Total Return	**0.1%**	**-1.5%**	**2.2%**	**2.2%**
BbgBarc US Aggregate	0.0%	-1.2%	1.3%	2.2%
vs. Intermediate Fixed Income Funds	47	65	12	41
PIMCO Investment Grade Corp	**0.9%**	**-1.0%**	**4.3%**	**4.4%**
BbgBarc Credit	0.9%	-1.1%	3.0%	3.4%
vs. Intermediate Fixed Income Funds	3	27	1	1
PIMCO Income	**0.6%**	**n/a**	**n/a**	**n/a**
BbgBarc US Aggregate	0.0%	n/a	n/a	n/a
vs. Multi-Sector Income Mutual Funds	76	n/a	n/a	n/a

PIMCO Investment Grade Corp has dividends that lag behind one month. Performance shown in this report is based off of market values listed by the custodian.

XI. REAL ESTATE PERFORMANCE COMPARISONS

Manager/Index/Universe	Quarter	1 Year	3 Year	5 Year
JP Morgan Strategic Property (Gross)	**1.8%**	**8.0%**	**n/a**	**n/a**
JP Morgan Strategic Property (Net)	**1.6%**	**7.0%**	**n/a**	**n/a**
NCREIF Property Index	1.7%	7.2%	n/a	n/a
NCREIF ODCE Index	2.1%	8.7%	n/a	n/a
vs. Real Estate Funds	40	27	n/a	n/a
JP Morgan Special Situation (Gross)	**2.7%**	**n/a**	**n/a**	**n/a**
JP Morgan Special Situation (Net)	**2.3%**	**n/a**	**n/a**	**n/a**
NCREIF Property Index	1.7%	n/a	n/a	n/a
NCREIF ODCE Index	2.1%	n/a	n/a	n/a
vs. Real Estate Funds	1	n/a	n/a	n/a

JPM real estate is managed through commingled fund structures and performance is reported GROSS-of-fees. All other investments of Gainesville ERS A are held through mutual fund structure with performances reported NET-of-fees. SEAS is showing / calculating the JPM NET-of-fee return for illustrative purposes only and these returns may differ slightly from manager-reported data/statements.

BlackRock Equity Dividend Instl (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Bronze 01-08-2018	★★★★ 1,109 US Fund Large Value	S&P 500 TR USD	Russell 1000 Value TR USD	US Fund Large Value

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	0.52	4.22	1.99	8.76	16.21
2017	3.15	3.15	4.11	5.41	16.76
2018	-2.64	2.30	6.18	—	5.76

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	11.48	15.48	11.49	10.01	10.13
Std 09-30-2018	11.48	—	11.49	10.01	10.13
Total Return	11.48	15.48	11.49	10.01	10.13
+/- Std Index	-6.43	-1.82	-2.45	-1.95	—
+/- Cat Index	2.03	1.93	0.78	0.23	—
% Rank Cat	43	15	22	42	
No. in Cat	1274	1109	948	696	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 09-30-18	1.75	1.74

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-441-7762 or visit www.blackrock.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.55
12b1 Expense %	NA
Gross Expense Ratio %	**0.73**

Risk and Return Profile

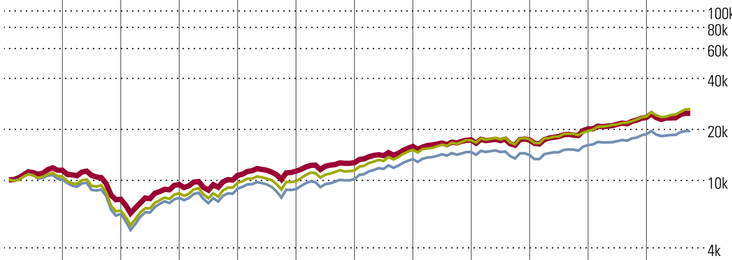
	3 Yr 1109 funds	5 Yr 948 funds	10 Yr 696 funds
Morningstar Rating™	4★	4★	4★
Morningstar Risk	Avg	Avg	-Avg
Morningstar Return	+Avg	+Avg	Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	9.48	9.63	13.21
Mean	15.48	11.49	10.01
Sharpe Ratio	1.47	1.12	0.77

MPT Statistics	Standard Index	Best Fit Index Russell 1000 Value TR USD
Alpha	-0.77	1.90
Beta	0.95	0.99
R-Squared	84.17	94.44
12-Month Yield		1.56%
Potential Cap Gains Exp		36.86%

Investment Style
Equity
Stocks %

91	89	88	93	94	96	99	97	96	96	95	94



Growth of $10,000
- BlackRock Equity Dividend Instl 24,870
- Category Average 19,593
- Standard Index 26,364

Performance Quartile (within category)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18	History
20.16	13.25	15.84	17.55	18.19	19.93	24.33	24.95	21.00	22.55	22.77	23.88	NAV/Price
14.78	-32.57	22.18	13.26	5.92	12.18	24.67	9.35	-0.10	16.21	16.76	5.76	Total Return %
9.29	4.43	-4.29	-1.80	3.81	-3.83	-7.72	-4.34	-1.48	4.25	-5.07	-4.80	+/- Standard Index
14.95	4.28	2.49	-2.24	5.53	-5.33	-7.86	-4.11	3.73	-1.13	3.09	1.84	+/- Category Index
1	16	55	52	13	79	92	70	9	31	42	—	% Rank Cat
1432	1433	1272	1240	1258	1208	1213	1290	1378	1268	1260	1288	No. of Funds in Cat

Portfolio Analysis 09-30-2018

Asset Allocation %	Net %	Long %	Short %
Cash	5.71	5.71	0.00
US Stocks	80.43	80.43	0.00
Non-US Stocks	13.87	13.87	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style
Value Blend Growth
Large Mid Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	16.7	0.80	0.99
P/C Ratio TTM	12.2	0.86	1.08
P/B Ratio TTM	2.2	0.66	0.96
Geo Avg Mkt Cap $mil	90602	0.83	0.84

Fixed-Income Style
Ltd Mod Ext
High Med Low

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	88.4	0.89
Greater Europe	10.1	26.36
Greater Asia	1.5	29.66

Share Chg since 08-2018	Share Amount	Holdings : 91 Total Stocks , 37 Total Fixed-Income, 36% Turnover Ratio	Net Assets %
⊖	19 mil	Pfizer Inc	4.00
⊖	7 mil	JPMorgan Chase & Co	3.91
⊖	10 mil	Citigroup Inc	3.30
⊖	13 mil	Verizon Communications Inc	3.30
⊖	23 mil	Bank of America Corporation	3.19
⊖	12 mil	Wells Fargo & Co	2.95
	2 mil	Anthem Inc	2.74
⊖	11 mil	Oracle Corp	2.59
⊖	5 mil	Microsoft Corp	2.41
⊖	13 mil	Suncor Energy Inc	2.26
⊖	56 mil	BP PLC	2.02
⊖	9 mil	MetLife Inc	1.98
⊖	5 mil	AstraZeneca PLC	1.87
⊖	7 mil	American International Group Inc	1.72
⊖	2 mil	Aetna Inc	1.69

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**30.1**	**0.93**
Basic Materials	1.8	0.78
Consumer Cyclical	1.9	0.16
Financial Services	26.4	1.67
Real Estate	0.0	0.00
Sensitive	**36.7**	**0.86**
Communication Services	5.5	1.69
Energy	12.4	2.07
Industrials	6.9	0.66
Technology	12.0	0.52
Defensive	**33.1**	**1.33**
Consumer Defensive	6.9	0.96
Healthcare	21.2	1.42
Utilities	5.1	1.79

Operations

Family:	BlackRock	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	MADVX	Incept:	11-29-1988
Tenure:	4.2 Years	ISIN:	US09251M5040	Type:	MF
Objective:	Equity-Income	Minimum Initial Purchase:	$2 mil	Total Assets:	$20,237.05 mil

AMG Yacktman I (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 10-08-2018	★★★★ 1,109 US Fund Large Value	S&P 500 TR USD	Russell 1000 Value TR USD	US Fund Large Value

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	4.07	2.39	1.48	2.83	11.20
2017	6.92	1.09	1.77	7.48	18.23
2018	-0.96	3.89	3.74	—	6.74

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	14.72	13.72	9.54	12.67	10.43
Std 09-30-2018	14.72	—	9.54	12.67	10.43
Total Return	14.72	13.72	9.54	12.67	10.43
+/- Std Index	-3.19	-3.59	-4.41	0.71	—
+/- Cat Index	5.27	0.17	-1.17	2.89	—
% Rank Cat	15	48	72	3	
No. in Cat	1274	1109	948	696	

	Subsidized	Unsubsidized
7-day Yield 10-24-18	0.00	—
30-day SEC Yield	—	—

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-835-3879 or visit www.amgfunds.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.43
12b1 Expense %	NA
Gross Expense Ratio %	**0.76**

Risk and Return Profile

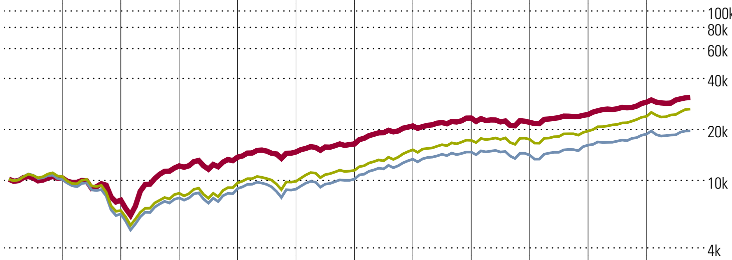
	3 Yr 1109 funds	5 Yr 948 funds	10 Yr 696 funds
Morningstar Rating™	3★	3★	5★
Morningstar Risk	Low	Low	-Avg
Morningstar Return	Avg	-Avg	High

	3 Yr	5 Yr	10 Yr
Standard Deviation	7.04	7.92	14.53
Mean	13.72	9.54	12.67
Sharpe Ratio	1.74	1.12	0.87

MPT Statistics	Standard Index	Best Fit Index S&P 1500 Cons Discretionary TR
Alpha	2.32	3.67
Beta	0.64	0.54
R-Squared	69.09	69.17
12-Month Yield		—
Potential Cap Gains Exp		46.21%

Investment Style
Equity
Stocks %

89	90	86	89	90	84	79	81	83	78	73	70



Performance Quartile (within category)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18	History
	13.39	9.68	15.22	16.54	17.51	19.12	23.54	25.12	20.87	21.39	22.85	24.39	NAV/Price
	3.39	-26.05	59.31	12.64	7.30	11.47	27.74	11.33	-5.63	11.20	18.23	6.74	Total Return %
	-2.11	10.94	32.85	-2.42	5.19	-4.53	-4.65	-2.36	-7.02	-0.76	-3.60	-3.82	+/- Standard Index
	3.56	10.79	39.62	-2.86	6.91	-6.03	-4.79	-2.12	-1.81	-6.14	4.57	2.82	+/- Category Index
	35	2	1	61	7	—	—	—	—	—	—	—	% Rank Cat
	1432	1433	1272	1240	1258	—	—	—	—	—	—	1288	No. of Funds in Cat

Portfolio Analysis 09-30-2018

Asset Allocation %	Net %	Long %	Short %
Cash	28.42	28.42	0.00
US Stocks	57.03	57.03	0.00
Non-US Stocks	13.28	13.28	0.00
Bonds	1.28	1.28	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style
Value Blend Growth
Large Mid Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	17.8	0.85	1.05
P/C Ratio TTM	11.2	0.79	0.99
P/B Ratio TTM	2.9	0.86	1.26
Geo Avg Mkt Cap $mil	120998	1.10	1.12

Fixed-Income Style
Ltd Mod Ext
High Med Low

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	81.1	0.81
Greater Europe	4.2	11.02
Greater Asia	14.7	293.28

Share Chg since 06-2018	Share Amount	Holdings : 29 Total Stocks , 3 Total Fixed-Income, 2% Turnover Ratio	Net Assets %
	8 mil	Procter & Gamble Co	8.43
⊕	16 mil	Samsung Electronics Co Ltd Partici	7.28
⊖	7 mil	Oracle Corp	4.89
⊖	3 mil	Johnson & Johnson	4.84
	8 mil	Coca-Cola Co	4.80
	8 mil	Twenty-First Century Fox Inc Class	4.79
⊖	3 mil	PepsiCo Inc	4.70
	2 mil	Microsoft Corp	3.41
	6 mil	Twenty-First Century Fox Inc Class	3.31
	700,000	Anthem Inc	2.49
⊕	38 mil	Bollore SA	2.13
	3 mil	US Bancorp	2.06
⊖	3 mil	Cisco Systems Inc	2.02
⊖	2 mil	Sysco Corp	1.90
	1 mil	Exxon Mobil Corp	1.54

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**20.1**	**0.62**
Basic Materials	0.0	0.00
Consumer Cyclical	11.5	0.95
Financial Services	8.6	0.54
Real Estate	0.0	0.00
Sensitive	**36.3**	**0.85**
Communication Services	1.0	0.30
Energy	3.8	0.63
Industrials	3.8	0.37
Technology	27.7	1.20
Defensive	**43.7**	**1.75**
Consumer Defensive	33.2	4.66
Healthcare	10.4	0.70
Utilities	0.0	0.00

Operations

Family:	AMG Funds	Ticker:	YACKX	Incept:	07-06-1992
Manager:	Multiple	ISIN:	US00170K5882	Type:	MF
Tenure:	15.8 Years	Minimum Initial Purchase:	$100,000	Total Assets:	$7,378.58 mil
Objective:	Growth and Income	Minimum IRA Purchase:	$25,000		
Base Currency:	USD	Purchase Constraints:	—		

Vanguard 500 Index Admiral (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 03-09-2018	★★★★★ 1,196 US Fund Large Blend	S&P 500 TR USD	Russell 1000 TR USD	US Fund Large Blend

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	1.34	2.45	3.84	3.82	11.93
2017	6.05	3.07	4.48	6.64	21.79
2018	-0.77	3.42	7.70	—	10.53

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	17.87	17.27	13.91	11.95	6.45
Std 09-30-2018	17.87	—	13.91	11.95	6.45
Total Return	17.87	17.27	13.91	11.95	6.45
+/- Std Index	-0.04	-0.04	-0.04	-0.01	—
+/- Cat Index	0.10	0.20	0.24	-0.14	—
% Rank Cat	20	11	9	19	
No. in Cat	1383	1196	1058	794	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 10-24-18	1.92	1.92

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.03
12b1 Expense %	NA
Gross Expense Ratio %	**0.04**

Risk and Return Profile

	3 Yr 1196 funds	5 Yr 1058 funds	10 Yr 794 funds
Morningstar Rating™	5★	5★	4★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	+Avg	High	+Avg

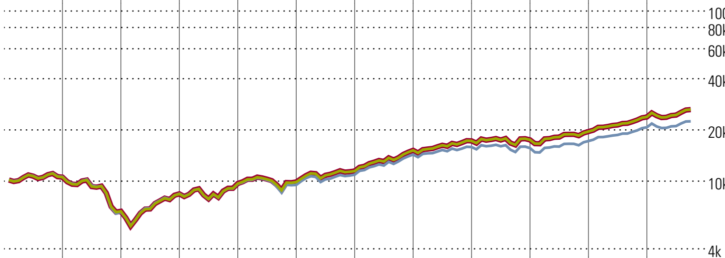
	3 Yr	5 Yr	10 Yr
Standard Deviation	9.18	9.55	14.40
Mean	17.27	13.91	11.95
Sharpe Ratio	1.69	1.36	0.84

MPT Statistics	Standard Index	Best Fit Index S&P 500 TR USD
Alpha	-0.03	-0.03
Beta	1.00	1.00
R-Squared	100.00	100.00

12-Month Yield	1.73%
Potential Cap Gains Exp	42.16%

Investment Style
Equity
Stocks %

100	99	100	100	100	100	99	100	100	100	100	99



Growth of $10,000
- Vanguard 500 Index Admiral 26,330
- Category Average 22,474
- Standard Index 26,364

Performance Quartile (within category)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18	History
135.15	83.09	102.67	115.83	115.80	131.37	170.36	189.89	188.48	206.57	246.82	269.09	NAV/Price
5.47	-36.97	26.62	15.05	2.08	15.96	32.33	13.64	1.36	11.93	21.79	10.53	Total Return %
-0.02	0.03	0.16	-0.01	-0.03	-0.04	-0.06	-0.05	-0.02	-0.03	-0.05	-0.03	+/- Standard Index
-0.30	0.63	-1.81	-1.05	0.58	-0.46	-0.78	0.40	0.45	-0.13	0.10	0.04	+/- Category Index
49	37	52	29	17	35	42	18	20	27	29	—	% Rank Cat
2090	2086	2027	2010	1786	1686	1559	1568	1606	1409	1396	1415	No. of Funds in Cat

Portfolio Analysis 09-30-2018

Asset Allocation %	Net %	Long %	Short %
Cash	0.54	0.54	0.00
US Stocks	99.02	99.02	0.00
Non-US Stocks	0.43	0.43	0.00
Bonds	0.01	0.01	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style
Value Blend Growth
Large Mid Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	21.0	1.00	0.96
P/C Ratio TTM	14.1	1.00	0.98
P/B Ratio TTM	3.3	1.00	0.93
Geo Avg Mkt Cap $mil	109490	1.00	0.64

Fixed-Income Style
Ltd Mod Ext
High Med Low

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	99.6	1.00
Greater Europe	0.4	1.00
Greater Asia	0.1	1.00

Share Chg since 08-2018	Share Amount	Holdings : 508 Total Stocks , 2 Total Fixed-Income, 3% Turnover Ratio	Net Assets %
⊖	85 mil	Apple Inc	4.19
⊕	143 mil	Microsoft Corp	3.55
⊕	8 mil	Amazon.com Inc	3.32
⊕	35 mil	Berkshire Hathaway Inc B	1.62
⊕	45 mil	Facebook Inc A	1.60
⊕	63 mil	JPMorgan Chase & Co	1.53
⊕	50 mil	Johnson & Johnson	1.50
⊕	6 mil	Alphabet Inc Class C	1.49
⊕	6 mil	Alphabet Inc A	1.46
⊕	79 mil	Exxon Mobil Corp	1.46
⊕	173 mil	Bank of America Corporation	1.11
⊕	33 mil	Visa Inc Class A	1.08
⊕	109 mil	Pfizer Inc	1.05
⊕	18 mil	UnitedHealth Group Inc	1.04
⊕	135 mil	AT&T Inc	0.99

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**32.4**	**1.00**
Basic Materials	2.3	1.00
Consumer Cyclical	12.2	1.00
Financial Services	15.8	1.00
Real Estate	2.2	1.00
Sensitive	**42.7**	**1.00**
Communication Services	3.2	1.00
Energy	6.0	1.00
Industrials	10.4	1.00
Technology	23.1	1.00
Defensive	**24.9**	**1.00**
Consumer Defensive	7.1	1.00
Healthcare	15.0	1.00
Utilities	2.8	1.00

Operations

Family:	Vanguard	Base Currency:	USD	Purchase Constraints:	—
Manager:	Multiple	Ticker:	VFIAX	Incept:	11-13-2000
Tenure:	2.5 Years	ISIN:	US9229087104	Type:	MF
Objective:	Growth	Minimum Initial Purchase:	$10,000	Total Assets:	$459,294.70 mil

T. Rowe Price New America Growth (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Bronze 01-24-2018	★★★★ 1,258 US Fund Large Growth	S&P 500 TR USD	Russell 1000 Growth TR USD	US Fund Large Growth

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	-4.79	0.73	5.99	-0.24	1.40
2017	11.95	7.26	4.63	7.10	34.57
2018	4.41	5.70	7.21	—	18.32

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	26.73	21.25	16.43	14.77	11.26
Std 09-30-2018	26.73	—	16.43	14.77	11.26
Total Return	26.73	21.25	16.43	14.77	11.26
+/- Std Index	8.82	3.94	2.48	2.80	—
+/- Cat Index	0.43	0.70	-0.16	0.46	—
% Rank Cat	27	11	16	14	
No. in Cat	1430	1258	1129	818	

	Subsidized	Unsubsidized
7-day Yield 10-24-18	0.00	—
30-day SEC Yield	—	—

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-638-5660 or visit www.troweprice.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.64
12b1 Expense %	NA
Gross Expense Ratio %	**0.79**

Risk and Return Profile

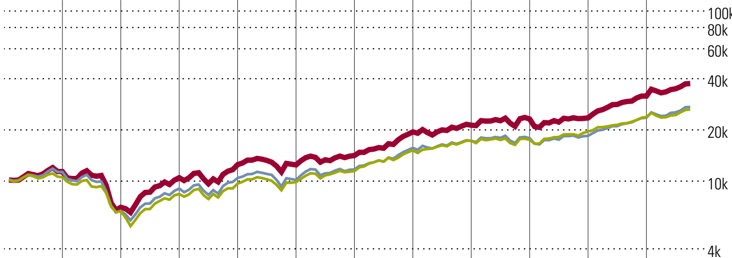
	3 Yr 1258 funds	5 Yr 1129 funds	10 Yr 818 funds
Morningstar Rating™	4★	4★	4★
Morningstar Risk	High	+Avg	+Avg
Morningstar Return	+Avg	+Avg	+Avg

	3 Yr	5 Yr	10 Yr
Standard Deviation	12.50	12.23	16.19
Mean	21.25	16.43	14.77
Sharpe Ratio	1.54	1.27	0.92

MPT Statistics	Standard Index	Best Fit Index Morningstar US Large Growth TR USD
Alpha	0.52	0.05
Beta	1.21	1.06
R-Squared	78.55	93.87
12-Month Yield		—
Potential Cap Gains Exp		44.00%

Investment Style Equity Stocks %

99	97	96	95	91	93	97	98	97	98	99	94



Growth of $10,000
- T. Rowe Price New America Growth 37,440
- Category Average 27,285
- Standard Index 26,364

Performance Quartile (within category)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18	History
31.87	18.77	28.03	32.99	31.81	35.92	44.17	42.01	41.96	40.09	48.03	56.83	NAV/Price
13.74	-38.31	49.33	19.34	-0.41	13.56	37.73	9.44	8.80	1.40	34.57	18.32	Total Return %
8.24	-1.31	22.87	4.27	-2.52	-2.45	5.34	-4.25	7.42	-10.56	12.73	7.76	+/- Standard Index
1.93	0.12	12.13	2.63	-3.05	-1.70	4.24	-3.61	3.13	-5.67	4.35	1.23	+/- Category Index
44	33	8	18	32	67	16	58	12	66	11	—	% Rank Cat
1748	1809	1796	1718	1683	1681	1712	1710	1681	1463	1363	1449	No. of Funds in Cat

Portfolio Analysis 09-30-2018

Asset Allocation % 06-30-2018	Net %	Long %	Short %
Cash	2.86	2.86	0.00
US Stocks	93.88	93.88	0.00
Non-US Stocks	2.61	2.61	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.65	0.65	0.00
Total	100.00	100.00	0.00

Equity Style (Value Blend Growth / Large Mid Small)

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	28.6	1.37	1.01
P/C Ratio TTM	18.1	1.28	0.98
P/B Ratio TTM	5.4	1.61	0.85
Geo Avg Mkt Cap $mil	90696	0.83	0.50

Fixed-Income Style (Ltd Mod Ext / High Med Low)

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	98.1	0.98
Greater Europe	0.7	1.89
Greater Asia	1.2	24.20

Top Holdings 06-30-2018

Share Chg since 06-2018	Share Amount	Holdings : 84 Total Stocks , 0 Total Fixed-Income, 75% Turnover Ratio	Net Assets %
⊕	211,721	Amazon.com Inc	7.35
⊕	1 mil	Facebook Inc A	5.70
	3 mil	Microsoft Corp	5.19
⊕	213,996	Alphabet Inc C	4.88
⊕	471,100	Boeing Co	3.23
⊕	945,003	Visa Inc Class A	2.56
	585,190	Mastercard Inc A	2.35
⊕	1 mil	HCA Healthcare Inc	2.29
⊕	599,880	Apple Inc	2.27
	435,208	Becton, Dickinson and Co	2.13
⊕	491,700	The Home Depot Inc	1.96
	354,900	UnitedHealth Group Inc	1.78
⊖	414,254	Intuit Inc	1.73
	387,900	Fleetcor Technologies Inc	1.67
⊕	4 mil	Symantec Corp	1.66

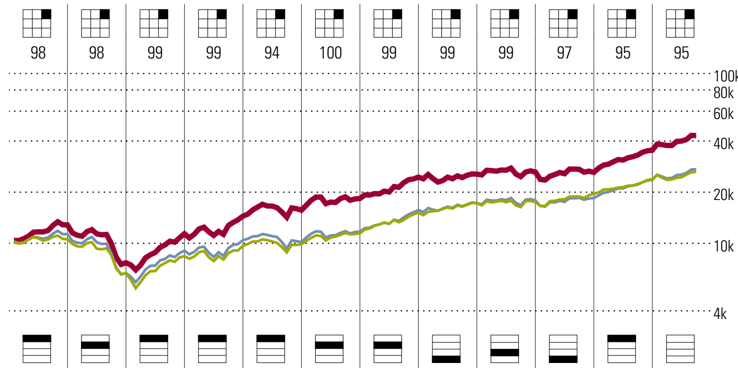
Sector Weightings	Stocks %	Rel Std Index
Cyclical	**35.4**	**1.09**
Basic Materials	0.6	0.28
Consumer Cyclical	20.5	1.69
Financial Services	12.8	0.81
Real Estate	1.5	0.68
Sensitive	**48.7**	**1.14**
Communication Services	2.3	0.70
Energy	0.8	0.14
Industrials	15.3	1.48
Technology	30.3	1.31
Defensive	**15.9**	**0.64**
Consumer Defensive	1.5	0.20
Healthcare	12.2	0.82
Utilities	2.2	0.77

Operations

Family:	T. Rowe Price	Ticker:	PRWAX	Incept:	09-30-1985
Manager:	Justin White	ISIN:	US7795571071	Type:	MF
Tenure:	2.5 Years	Minimum Initial Purchase:	$2,500	Total Assets:	$4,692.22 mil
Objective:	Growth	Minimum IRA Purchase:	$1,000		
Base Currency:	USD	Purchase Constraints:	—		

Wells Fargo Growth Inst (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Neutral 11-16-2017	★★★★ 1,258 US Fund Large Growth	S&P 500 TR USD	Russell 1000 Growth TR USD	US Fund Large Growth



Investment Style
Equity
Stocks %

Growth of $10,000
Wells Fargo Growth Inst
43,070
Category Average
27,285
Standard Index
26,364

Performance Quartile
(within category)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18	History
	30.47	18.25	27.06	34.32	36.76	43.06	55.75	50.66	46.00	38.63	41.03	50.01	NAV/Price
	28.24	-40.11	48.27	26.83	8.44	17.14	33.72	4.12	2.94	-0.56	35.14	21.89	Total Return %
	22.75	-3.11	21.81	11.77	6.32	1.13	1.33	-9.57	1.56	-12.52	13.31	11.32	+/- Standard Index
	16.43	-1.67	11.07	10.12	5.79	1.88	0.23	-8.93	-2.73	-7.63	4.93	4.80	+/- Category Index
	4	47	9	2	1	28	50	95	56	82	9	—	% Rank Cat
	1748	1809	1796	1718	1683	1681	1712	1710	1681	1463	1363	1449	No. of Funds in Cat

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	-5.54	3.41	6.12	-4.06	-0.56
2017	11.80	5.77	6.96	6.84	35.14
2018	6.68	6.05	7.73	—	21.89

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	30.23	20.38	13.61	15.77	5.71
Std 09-30-2018	30.23	—	13.61	15.77	5.71
Total Return	30.23	20.38	13.61	15.77	5.71
+/- Std Index	12.32	3.07	-0.34	3.81	—
+/- Cat Index	3.93	-0.18	-2.97	1.47	—
% Rank Cat	9	19	60	6	
No. in Cat	1430	1258	1129	818	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 866-765-0778 or visit https://www.wellsfargofunds.com/.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.69
12b1 Expense %	0.00
Gross Expense Ratio %	**0.84**

Risk and Return Profile

	3 Yr 1258 funds	5 Yr 1129 funds	10 Yr 818 funds
Morningstar Rating™	4★	3★	5★
Morningstar Risk	+Avg	+Avg	+Avg
Morningstar Return	+Avg	Avg	High

	3 Yr	5 Yr	10 Yr
Standard Deviation	11.86	12.23	16.06
Mean	20.38	13.61	15.77
Sharpe Ratio	1.56	1.07	0.98

MPT Statistics	Standard Index	Best Fit Index Morningstar US Mid Growth TR USD
Alpha	2.23	2.82
Beta	1.04	1.01
R-Squared	65.58	83.20

12-Month Yield	—
Potential Cap Gains Exp	67.03%

Portfolio Analysis 08-31-2018

Asset Allocation %	Net %	Long %	Short %
Cash	5.13	5.13	0.00
US Stocks	92.35	92.35	0.00
Non-US Stocks	2.52	2.52	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style

Value Blend Growth
Large Mid Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	30.9	1.47	1.09
P/C Ratio TTM	20.4	1.45	1.10
P/B Ratio TTM	6.8	2.03	1.08
Geo Avg Mkt Cap $mil	59079	0.54	0.33

Fixed-Income Style

Ltd Mod Ext
High Med Low

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	99.3	1.00
Greater Europe	0.0	0.00
Greater Asia	0.7	13.66

Share Chg since 07-2018	Share Amount	Holdings : 91 Total Stocks , 184 Total Fixed-Income, 37% Turnover Ratio	Net Assets %
⊖	204,270	Amazon.com Inc	7.91
⊖	238,635	Alphabet Inc A	5.65
⊖	2 mil	Microsoft Corp	3.28
⊕	2 mil	Microchip Technology Inc	3.19
⊖	1 mil	Visa Inc Class A	2.96
⊖	673,070	Mastercard Inc A	2.79
⊖	792,500	Facebook Inc A	2.68
⊖	533,840	Apple Inc	2.34
⊖	676,750	Burlington Stores Inc	2.19
⊖	1 mil	PayPal Holdings Inc	2.07
⊖	509,421	MarketAxess Holdings Inc	1.86
⊖	2 mil	Envestnet Inc	1.86
⊖	522,390	Norfolk Southern Corp	1.75
⊖	591,470	Monolithic Power Systems Inc	1.70
⊖	840,450	Veeva Systems Inc Class A	1.69

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**35.4**	**1.09**
Basic Materials	3.6	1.57
Consumer Cyclical	14.6	1.20
Financial Services	17.3	1.09
Real Estate	0.0	0.00
Sensitive	**50.5**	**1.18**
Communication Services	0.0	0.00
Energy	1.2	0.20
Industrials	13.2	1.27
Technology	36.2	1.57
Defensive	**14.1**	**0.57**
Consumer Defensive	7.5	1.05
Healthcare	6.7	0.45
Utilities	0.0	0.00

Operations

Family:	Wells Fargo Funds	Base Currency:	USD	Purchase Constraints:	—
Manager:	Multiple	Ticker:	SGRNX	Incept:	02-24-2000
Tenure:	16.4 Years	ISIN:	US9499157140	Type:	MF
Objective:	Growth	Minimum Initial Purchase:	$1 mil	Total Assets:	$4,209.67 mil

Eaton Vance Atlanta Capital SMID-Cap I (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Bronze 12-28-2017	★★★★★ 540 US Fund Mid-Cap Growth	S&P 500 TR USD	Russell Mid Cap Growth TR USD	US Fund Mid-Cap Growth

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	3.32	3.36	1.59	2.51	11.21
2017	5.28	5.05	3.51	8.96	24.73
2018	1.10	3.71	7.92	—	13.15

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	23.29	19.03	14.62	15.06	11.82
Std 09-30-2018	23.29	—	14.62	15.06	11.82
Total Return	23.29	19.03	14.62	15.06	11.82
+/- Std Index	5.38	1.72	0.67	3.09	—
+/- Cat Index	2.19	2.38	1.62	1.60	—
% Rank Cat	31	15	8	4	
No. in Cat	601	540	483	342	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-262-1122 or visit www.eatonvance.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.81
12b1 Expense %	NA
Gross Expense Ratio %	**0.94**

Risk and Return Profile

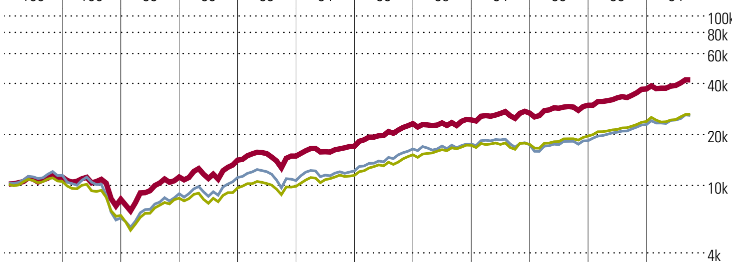
	3 Yr 540 funds	5 Yr 483 funds	10 Yr 342 funds
Morningstar Rating™	4★	5★	5★
Morningstar Risk	-Avg	-Avg	-Avg
Morningstar Return	+Avg	High	High

	3 Yr	5 Yr	10 Yr
Standard Deviation	9.87	10.49	16.36
Mean	19.03	14.62	15.06
Sharpe Ratio	1.73	1.31	0.92

MPT Statistics	Standard Index	Best Fit Index Morningstar US Mid Cap TR USD
Alpha	2.29	4.23
Beta	0.95	0.93
R-Squared	78.73	83.78
12-Month Yield		—
Potential Cap Gains Exp		46.36%

Investment Style
Equity
Stocks %

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18
100	100	96	96	93	94	95	98	94	95	95	94



Growth of $10,000
- Eaton Vance Atlanta Capital SMID-Cap I 41,952
- Category Average 25,894
- Standard Index 26,364

Performance Quartile (within category)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18	History
12.56	9.02	12.20	15.26	16.03	18.26	24.69	25.20	25.92	27.85	33.61	38.03	NAV/Price
11.99	-25.99	35.25	25.80	5.62	14.26	36.06	5.17	9.74	11.21	24.73	13.15	Total Return %
6.50	11.00	8.79	10.74	3.51	-1.74	3.67	-8.52	8.36	-0.75	2.90	2.59	+/- Standard Index
0.57	18.33	-11.04	-0.58	7.27	-1.54	0.31	-6.73	9.94	3.89	-0.54	-0.23	+/- Category Index
—	—	66	44	3	49	41	69	1	17	43	—	% Rank Cat
—	—	812	759	751	737	703	749	733	644	617	611	No. of Funds in Cat

Portfolio Analysis 08-31-2018

Asset Allocation %	Net %	Long %	Short %
Cash	5.57	5.57	0.00
US Stocks	94.43	94.43	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	0.00	0.00	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Equity Style

Value Blend Growth
Large Mid Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	25.6	1.22	0.95
P/C Ratio TTM	22.5	1.60	1.11
P/B Ratio TTM	4.3	1.29	0.93
Geo Avg Mkt Cap $mil	8954	0.08	0.71

Fixed-Income Style

Ltd Mod Ext
High Med Low

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	100.0	1.00
Greater Europe	0.0	0.00
Greater Asia	0.0	0.00

Share Chg since 07-2018	Share Amount	Holdings : 50 Total Stocks , 0 Total Fixed-Income, 11% Turnover Ratio	Net Assets %
	7 mil	TransUnion	4.02
	3 mil	Ansys Inc	3.95
	2 mil	Teleflex Inc	3.35
	2 mil	Fair Isaac Corp	3.22
⊖	343,379	Markel Corp	3.19
	1 mil	Bio-Rad Laboratories Inc	3.08
	5 mil	WR Berkley Corp	3.08
	9 mil	Aramark	2.97
	4 mil	CDW Corp	2.95
	2 mil	WEX Inc	2.84
	3 mil	JB Hunt Transport Services Inc	2.76
	5 mil	SEI Investments Co	2.62
	2 mil	IDEX Corp	2.57
	3 mil	AptarGroup Inc	2.55
	3 mil	Blackbaud Inc	2.39

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**29.6**	**0.91**
Basic Materials	1.6	0.68
Consumer Cyclical	11.0	0.90
Financial Services	15.5	0.98
Real Estate	1.5	0.67
Sensitive	**57.1**	**1.34**
Communication Services	0.0	0.00
Energy	0.0	0.00
Industrials	34.4	3.32
Technology	22.7	0.98
Defensive	**13.4**	**0.54**
Consumer Defensive	1.7	0.24
Healthcare	11.6	0.78
Utilities	0.0	0.00

Operations

Family:	Eaton Vance	Ticker:	EISMX	Incept:	04-30-2002
Manager:	Multiple	ISIN:	US2779026986	Type:	MF
Tenure:	16.5 Years	Minimum Initial Purchase:	$250,000	Total Assets:	$13,020.44 mil
Objective:	Growth	Min Auto Investment Plan:	$250,000		
Base Currency:	USD	Purchase Constraints:	C		

Vanguard Small Cap Index Adm (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 07-18-2018	★★★★ 652 US Fund Small Blend	S&P 500 TR USD	Russell 2000 TR USD	US Fund Small Blend

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	1.00	3.98	6.17	6.10	18.30
2017	3.74	1.95	4.57	5.10	16.24
2018	-0.21	6.20	4.77	—	11.04

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	16.70	16.34	11.48	12.36	9.64
Std 09-30-2018	16.70	—	11.48	12.36	9.64
Total Return	16.70	16.34	11.48	12.36	9.64
+/- Std Index	-1.21	-0.97	-2.47	0.40	—
+/- Cat Index	1.47	-0.79	0.40	1.25	—
% Rank Cat	14	31	17	15	
No. in Cat	778	652	539	388	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 10-24-18	1.43	2.93

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800-662-7447 or visit www.vanguard.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.04
12b1 Expense %	NA
Gross Expense Ratio %	**0.05**

Risk and Return Profile

	3 Yr 652 funds	5 Yr 539 funds	10 Yr 388 funds
Morningstar Rating™	4★	4★	4★
Morningstar Risk	-Avg	-Avg	Avg
Morningstar Return	+Avg	+Avg	+Avg

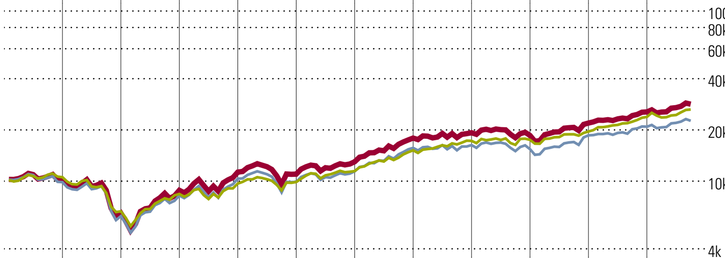
	3 Yr	5 Yr	10 Yr
Standard Deviation	11.33	11.68	18.92
Mean	16.34	11.48	12.36
Sharpe Ratio	1.32	0.95	0.70

MPT Statistics	Standard Index	Best Fit Index Morningstar US Small Cap TR USD
Alpha	-0.89	1.52
Beta	1.02	0.91
R-Squared	67.96	98.95

12-Month Yield	1.39%
Potential Cap Gains Exp	30.24%

Investment Style
Equity
Stocks %

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18
99	99	100	100	100	99	99	100	99	98	98	98



Growth of $10,000
Vanguard Small Cap Index Adm 28,333
Category Average 22,624
Standard Index 26,364

Performance Quartile (within category)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18
NAV/Price	32.59	20.40	27.50	34.78	33.39	38.76	52.72	55.87	53.05	61.77	70.78	77.86
Total Return %	1.24	-36.00	36.33	27.89	-2.69	18.24	37.81	7.50	-3.64	18.30	16.24	11.04
+/- Standard Index	-4.25	1.00	9.86	12.82	-4.80	2.24	5.43	-6.19	-5.03	6.34	-5.59	0.48
+/- Category Index	2.81	-2.22	9.16	1.03	1.48	1.89	-1.01	2.61	0.77	-3.00	1.59	-0.47
% Rank Cat	29	52	25	23	42	21	45	13	34	71	14	—
No. of Funds in Cat	645	670	649	649	650	662	681	737	780	750	802	784

Portfolio Analysis 09-30-2018

Asset Allocation %	Net %	Long %	Short %
Cash	2.12	2.12	0.00
US Stocks	96.92	96.92	0.00
Non-US Stocks	0.88	0.88	0.00
Bonds	0.08	0.08	0.00
Other/Not Clsfd	0.00	0.00	0.00
Total	100.00	100.00	0.00

Share Chg since 08-2018	Share Amount	Holdings : 1,405 Total Stocks , 3 Total Fixed-Income, 15% Turnover Ratio	Net Assets %
⊕	2 mil	IDEX Corp	0.30
⊖	3 mil	PTC Inc	0.30
⊕	2 mil	Neurocrine Biosciences Inc	0.29
⊕	2 mil	Burlington Stores Inc	0.29
⊖	7 mil	NRG Energy Inc	0.28
⊕	3 mil	PerkinElmer Inc	0.28
⊕	3 mil	Atmos Energy Corp	0.28
⊕	4 mil	Leidos Holdings Inc	0.27
⊕	2 mil	Sarepta Therapeutics Inc	0.27
⊖	3 mil	Spirit AeroSystems Holdings Inc	0.26
⊕	3 mil	Exact Sciences Corp	0.26
⊕	4 mil	UGI Corp	0.26
⊕	2 mil	STERIS PLC	0.26
⊕	757,099	The Ultimate Software Group Inc	0.25
⊕	1 mil	Zebra Technologies Corp	0.25

Equity Style
Value Blend Growth
Large Mid Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	18.0	0.86	0.98
P/C Ratio TTM	12.0	0.85	1.05
P/B Ratio TTM	2.4	0.72	1.03
Geo Avg Mkt Cap $mil	4036	0.04	1.33

Fixed-Income Style
Ltd Mod Ext
High Med Low

Avg Eff Maturity	—
Avg Eff Duration	—
Avg Wtd Coupon	—
Avg Wtd Price	—

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	99.4	1.00
Greater Europe	0.3	0.86
Greater Asia	0.3	6.02

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**43.0**	**1.33**
Basic Materials	5.5	2.44
Consumer Cyclical	12.8	1.05
Financial Services	13.5	0.86
Real Estate	11.2	5.13
Sensitive	**38.2**	**0.89**
Communication Services	1.0	0.32
Energy	4.9	0.82
Industrials	15.5	1.50
Technology	16.7	0.72
Defensive	**18.8**	**0.75**
Consumer Defensive	3.6	0.51
Healthcare	11.9	0.80
Utilities	3.3	1.16

Operations

Family:	Vanguard	Base Currency:	USD	Purchase Constraints:	—
Manager:	Multiple	Ticker:	VSMAX	Incept:	11-13-2000
Tenure:	2.5 Years	ISIN:	US9229086866	Type:	MF
Objective:	Small Company	Minimum Initial Purchase:	$10,000	Total Assets:	$95,352.32 mil

PIMCO All Asset Instl (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 05-14-2018	★★★ 246 US Fund Tactical Allocation	Morningstar Mod Tgt Risk TR USD	Morningstar Mod Agg Tgt Risk TR USD	US Fund Tactical Allocation

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	5.20	4.06	3.86	-0.32	13.34
2017	5.08	1.86	3.25	3.13	13.98
2018	0.27	-2.37	0.35	—	-1.76

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	1.32	8.25	3.42	5.97	6.83
Std 09-30-2018	1.32	—	3.42	5.97	6.83
Total Return	1.32	8.25	3.42	5.97	6.83
+/- Std Index	-4.70	-0.94	-3.10	-1.44	—
+/- Cat Index	-7.00	-3.51	-4.61	-2.57	—
% Rank Cat	84	33	73	54	
No. in Cat	296	246	185	70	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 09-30-18	4.63 [1]	4.51

1. Contractual waiver; Expires 07-31-2019

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 888-877-4626 or visit www.pimco.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.23
12b1 Expense %	NA
Gross Expense Ratio %	**1.11**

Risk and Return Profile

	3 Yr 246 funds	5 Yr 185 funds	10 Yr 70 funds
Morningstar Rating™	4★	2★	3★
Morningstar Risk	Avg	Avg	Avg
Morningstar Return	Avg	-Avg	Avg

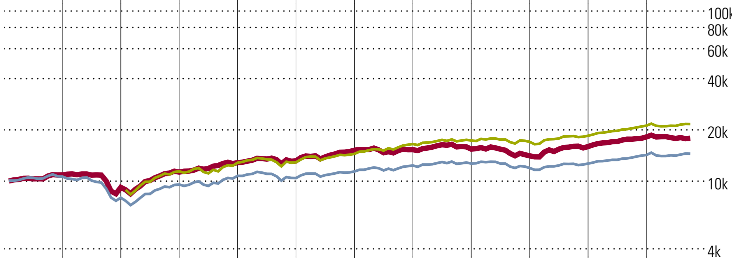
	3 Yr	5 Yr	10 Yr
Standard Deviation	6.61	6.86	9.39
Mean	8.25	3.42	5.97
Sharpe Ratio	1.09	0.44	0.63

MPT Statistics	Standard Index	Best Fit Index Morningstar EM GR USD
Alpha	-0.20	2.12
Beta	0.92	0.44
R-Squared	58.85	84.51

12-Month Yield	4.48%
Potential Cap Gains Exp	-12.97%

Investment Style
Fixed-Income
Bond %

21	56	60	53	59	64	59	58	44	46	45	53



Growth of $10,000
- PIMCO All Asset Instl 17,873
- Category Average 14,489
- Standard Index 21,658

Performance Quartile (within category)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18	History
12.69	10.09	11.49	12.05	11.54	12.58	12.08	11.60	10.20	11.15	12.15	11.67	NAV/Price
8.68	-15.48	22.99	13.68	2.44	15.44	0.77	0.80	-8.72	13.34	13.98	-1.76	Total Return %
0.04	6.72	1.22	1.35	1.85	3.40	-13.54	-4.09	-6.93	4.77	-0.68	-3.96	+/- Standard Index
-0.26	15.17	-4.56	-1.24	4.38	1.11	-19.41	-4.17	-6.32	3.12	-4.91	-5.01	+/- Category Index
—	—	—	—	—	—	—	71	78	7	42	—	% Rank Cat
—	—	—	—	—	—	—	304	327	309	312	299	No. of Funds in Cat

Portfolio Analysis 06-30-2018

Asset Allocation %	Net %	Long %	Short %
Cash	-17.73	123.31	141.04
US Stocks	21.04	23.78	2.73
Non-US Stocks	6.79	6.81	0.02
Bonds	74.91	197.61	122.70
Other/Not Clsfd	14.99	21.93	6.94
Total	100.00	373.44	273.44

Share Chg since 03-2018	Share Amount	Holdings : 957 Total Stocks , 11,806 Total Fixed-Income, 37% Turnover Ratio	Net Assets %
⊖	278 mil	PIMCO Em Mkts Ccy and S/T Invsmt I	12.92
⊕	171 mil	PIMCO RAE PLUS EMG Instl	9.14
⊕	111 mil	PIMCO Income Instl	7.00
⊕	110 mil	PIMCO RAE Fundamental AdvantagePLU	5.85
⊖	159 mil	PIMCO Emerging Local Bond Instl	5.70
⊕	94 mil	PIMCO RAE Emerging Markets Instl	5.31
⊕	100 mil	PIMCO RAE Worldwide Long/Short PLU	5.15
⊕	96 mil	PIMCO Low Duration Instl	4.89
⊖	138 mil	PIMCO CommoditiesPLUS® Strategy In	4.72
⊖	104 mil	PIMCO Real Estate Real Return Stra	4.59
⊖	81 mil	PIMCO Total Return Instl	4.25
⊕	88 mil	PIMCO Extended Duration Instl	3.52
⊖	110 mil	PIMCO Long-Term US Government Instl	3.45
⊖	69 mil	PIMCO StocksPLUS® Intl (USD-Hedged	3.08
⊖	58 mil	PIMCO Senior Floating Rate Instl	2.99

Equity Style
Value Blend Growth
Large Mid Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	—	—	—
P/C Ratio TTM	—	—	—
P/B Ratio TTM	—	—	—
Geo Avg Mkt Cap $mil	—	—	—

Fixed-Income Style
Ltd Mod Ext
High Med Low

Avg Eff Maturity	—
Avg Eff Duration	3.22
Avg Wtd Coupon	3.17
Avg Wtd Price	101.77

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	—	—
Greater Europe	—	—
Greater Asia	—	—

Sector Weightings	Stocks %	Rel Std Index
Cyclical	—	—
Basic Materials	—	—
Consumer Cyclical	—	—
Financial Services	—	—
Real Estate	—	—
Sensitive	—	—
Communication Services	—	—
Energy	—	—
Industrials	—	—
Technology	—	—
Defensive	—	—
Consumer Defensive	—	—
Healthcare	—	—
Utilities	—	—

Operations

Family:	PIMCO	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	PAAIX	Incept:	07-31-2002
Tenure:	16.3 Years	ISIN:	US7220056268	Type:	MF
Objective:	Asset Allocation	Minimum Initial Purchase:	$1 mil	Total Assets:	$18,956.91 mil

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PIMCO Investment Grade Credit Bond Instl (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Silver 10-04-2018	★★★★★ 181 US Fund Corporate Bond	BBgBarc US Agg Bond TR USD	BBgBarc US Corp Bond TR USD	US Fund Corporate Bond

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	3.33	3.96	2.30	-2.64	6.99
2017	2.40	2.71	1.75	0.87	7.95
2018	-1.46	-1.28	0.89	—	-1.85

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-1.00	4.27	4.47	7.85	7.29
Std 09-30-2018	-1.00	—	4.47	7.85	7.29
Total Return	-1.00	4.27	4.47	7.85	7.29
+/- Std Index	0.22	2.96	2.31	4.08	—
+/- Cat Index	0.19	1.15	0.93	1.50	—
% Rank Cat	38	22	16	9	
No. in Cat	246	181	152	82	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold or redeemed, may be worth more or less than their original cost.

Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 888-877-4626 or visit www.pimco.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.50
12b1 Expense %	NA
Gross Expense Ratio %	**0.59**

Risk and Return Profile

	3 Yr 181 funds	5 Yr 152 funds	10 Yr 82 funds
Morningstar Rating™	4★	4★	5★
Morningstar Risk	Avg	+Avg	Avg
Morningstar Return	+Avg	+Avg	High

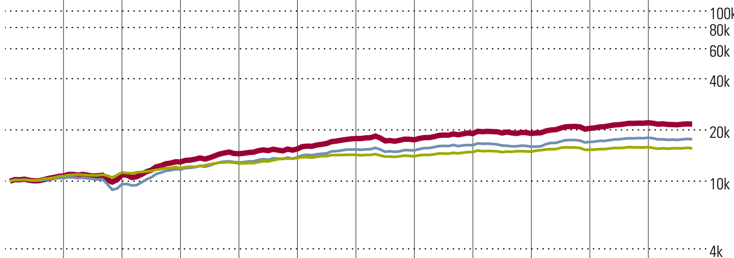
	3 Yr	5 Yr	10 Yr
Standard Deviation	3.49	3.76	5.38
Mean	4.27	4.47	7.85
Sharpe Ratio	0.94	1.02	1.37

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Credit TR USD
Alpha	2.86	1.28
Beta	1.12	0.98
R-Squared	72.25	92.16

12-Month Yield	—
Potential Cap Gains Exp	-2.45%

Investment Style
Fixed-Income
Bond %

15	52	79	71	68	92	92	85	92	80	83	88



Growth of $10,000
- PIMCO Investment Grade Credit Bond Instl 21,633
- Category Average 17,641
- Standard Index 15,589

Performance Quartile (within category)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18	History
10.46	10.08	10.93	10.48	10.35	11.12	10.24	10.55	9.92	10.21	10.54	10.05	NAV/Price
7.15	1.89	18.74	11.72	6.86	14.99	-1.69	8.76	0.28	6.99	7.95	-1.85	Total Return %
0.18	-3.35	12.81	5.18	-0.98	10.78	0.33	2.80	-0.27	4.34	4.41	-0.25	+/- Standard Index
2.59	6.83	0.06	2.72	-1.28	5.18	-0.16	1.30	0.96	0.88	1.53	0.48	+/- Category Index
4	7	71	11	45	8	74	10	13	39	14	—	% Rank Cat
84	91	97	104	127	134	145	169	177	199	227	253	No. of Funds in Cat

Portfolio Analysis 06-30-2018

Asset Allocation %	Net %	Long %	Short %
Cash	-59.42	19.10	78.52
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.25	0.25	0.00
Bonds	156.32	169.13	12.81
Other/Not Clsfd	2.85	2.85	0.00
Total	100.00	191.33	91.33

Equity Style
Value Blend Growth
Large Mid Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	—	—	—
P/C Ratio TTM	—	—	—
P/B Ratio TTM	—	—	—
Geo Avg Mkt Cap $mil	2262	—	—

Fixed-Income Style
Ltd Mod Ext
High Med Low

Avg Eff Maturity	10.02
Avg Eff Duration	6.41
Avg Wtd Coupon	—
Avg Wtd Price	100.43

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	0.1	—
Greater Europe	99.9	—
Greater Asia	0.0	—

Share Chg since 03-2018	Share Amount	Holdings : 4 Total Stocks , 1,541 Total Fixed-Income, 84% Turnover Ratio	Net Assets %
⊕	1,987 mil	Cdx Ig30 5y Ice	16.06
☼	713 mil	US 5 Year Note (CBT) Sept18	6.45
☼	555 mil	US 10 Year Note (CBT) Sept18	5.32
☼	546 mil	Federal National Mortgage Associat	4.32
☼	1,751 mil	ZCS BRL 7.5 05/17/18-01/02/20 CME_	3.26
☼	276 mil	Cdx Itraxx Main28 5y Ice	-2.61
☼	256 mil	United States Treasury Notes 2.88%	2.04
	188 mil	IRS GBP 1.50000 09/19/18-10Y LCH_P	-1.97
☼	1,044 mil	ZCS BRL 7.0347 05/03/18-01/02/20 C	1.93
	219 mil	United States Treasury Notes 1.62%	1.66
	193 mil	Cdx Ig25 5y Ice	1.56
⊕	202 mil	United States Treasury Notes 2.12%	1.54
	176 mil	United States Treasury Bonds 3.38%	1.50
	187 mil	United States Treasury Bonds 2.5%	1.36
⊖	179 mil	United States Treasury Notes 2.25%	1.36

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**100.0**	**—**
Basic Materials	0.0	—
Consumer Cyclical	0.1	—
Financial Services	99.9	—
Real Estate	0.0	—
Sensitive	**0.0**	**—**
Communication Services	0.0	—
Energy	0.0	—
Industrials	0.0	—
Technology	0.0	—
Defensive	**0.0**	**—**
Consumer Defensive	0.0	—
Healthcare	0.0	—
Utilities	0.0	—

Operations

Family:	PIMCO	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	PIGIX	Incept:	04-28-2000
Tenure:	15.9 Years	ISIN:	US7220058165	Type:	MF
Objective:	Corporate Bond - General	Minimum Initial Purchase:	$1 mil	Total Assets:	$12,677.51 mil

PIMCO Total Return Instl (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Gold 04-24-2018	★★★★ 902 US Fund Intermediate-Term Bond	BBgBarc US Agg Bond TR USD	BBgBarc US Agg Bond TR USD	US Fund Intermediate-Term Bond

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	1.79	2.07	1.24	-2.46	2.60
2017	1.63	1.80	1.50	0.11	5.13
2018	-1.27	-0.44	0.08	—	-1.62

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	-1.52	2.16	2.27	5.08	7.09
Std 09-30-2018	-1.52	—	2.27	5.08	7.09
Total Return	-1.52	2.16	2.27	5.08	7.09
+/- Std Index	-0.30	0.85	0.11	1.30	—
+/- Cat Index	-0.30	0.85	0.11	1.30	—
% Rank Cat	72	25	41	16	
No. in Cat	1039	902	796	577	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield 09-30-18	2.53	1.84

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 888-877-4626 or visit www.pimco.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.46
12b1 Expense %	NA
Gross Expense Ratio %	**0.55**

Risk and Return Profile

	3 Yr 902 funds	5 Yr 796 funds	10 Yr 577 funds
Morningstar Rating™	4★	3★	4★
Morningstar Risk	+Avg	+Avg	Avg
Morningstar Return	+Avg	Avg	+Avg

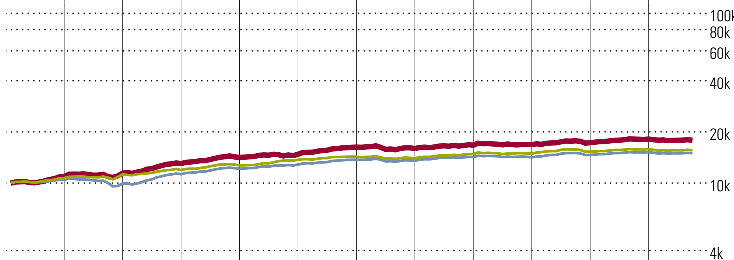
	3 Yr	5 Yr	10 Yr
Standard Deviation	2.73	2.95	3.67
Mean	2.16	2.27	5.08
Sharpe Ratio	0.45	0.58	1.27

MPT Statistics	Standard Index	Best Fit Index BBgBarc US Agg Bond TR USD
Alpha	0.87	0.87
Beta	0.92	0.92
R-Squared	79.20	79.20

12-Month Yield	2.57%
Potential Cap Gains Exp	-2.94%

Investment Style
Fixed-Income
Bond %

13	53	50	55	90	93	55	69	61	68	68	70



Growth of $10,000
PIMCO Total Return Instl 17,869
Category Average 14,988
Standard Index 15,589

Performance Quartile (within category)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18	History
10.69	10.14	10.80	10.85	10.87	11.24	10.69	10.66	10.07	10.03	10.27	9.91	NAV/Price
9.07	4.82	13.83	8.83	4.16	10.36	-1.92	4.69	0.73	2.60	5.13	-1.62	Total Return %
2.11	-0.42	7.90	2.29	-3.68	6.15	0.10	-1.27	0.18	-0.05	1.59	-0.03	+/- Standard Index
2.11	-0.42	7.90	2.29	-3.68	6.15	0.10	-1.27	0.18	-0.05	1.59	-0.03	+/- Category Index
1	11	46	26	87	12	60	71	15	63	10	—	% Rank Cat
1097	1135	1123	1164	1195	1165	1079	1038	1042	985	986	1062	No. of Funds in Cat

Portfolio Analysis 06-30-2018

Asset Allocation %	Net %	Long %	Short %
Cash	-58.44	83.34	141.78
US Stocks	0.00	0.00	0.00
Non-US Stocks	0.00	0.00	0.00
Bonds	148.60	217.41	68.80
Other/Not Clsfd	9.83	9.83	0.00
Total	100.00	310.58	210.58

Equity Style
Value Blend Growth
Large Mid Small

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	2.5	—	—
P/C Ratio TTM	—	—	—
P/B Ratio TTM	0.2	—	—
Geo Avg Mkt Cap $mil	38	—	0.02

Fixed-Income Style
Ltd Mod Ext
High Med Low

Avg Eff Maturity	5.17
Avg Eff Duration	4.06
Avg Wtd Coupon	3.73
Avg Wtd Price	102.19

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	100.0	—
Greater Europe	0.0	—
Greater Asia	0.0	—

Share Chg since 03-2018	Share Amount	Holdings : 2 Total Stocks , 6,644 Total Fixed-Income, 635% Turnover Ratio	Net Assets %
☼	14,518 mil	US 5 Year Note (CBT) Sept18	23.05
☼	48,509 mil	Fin Fut Euribor Ice (Wht) 09/17/18	19.85
☼	8,936 mil	Federal National Mortgage Associat	12.71
⊕	660 mil	Pimco Fds	9.23
⊕	24,241 mil	90 Day Eurodollar Future June20	-8.22
☼	5,896 mil	Federal National Mortgage Associat	8.19
☼	3,103 mil	Euro OAT Sept18	-7.82
⊕	5,318 mil	Cdx Ig30 5y Ice	7.54
⊕	21,601 mil	90 Day Eurodollar Future Mar20	-7.32
☼	3,114 mil	U.S. Treasury Bond Sept18	-6.31
☼	4,579 mil	Federal National Mortgage Associat	6.19
⊕	16,935 mil	90 Day Eurodollar Future Sept20	-5.74
☼	13,013 mil	Fin Fut Euribor Ice (Wht) 12/17/18	5.32
	409,440 mil	IRS JPY 0.30000 03/18/16-10Y CME_P	-5.21
	335,000 mil	IRS JPY 0.30000 03/18/16-10Y LCH_P	-4.26

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**100.0**	**—**
Basic Materials	0.0	—
Consumer Cyclical	100.0	—
Financial Services	0.0	—
Real Estate	0.0	—
Sensitive	**0.0**	**—**
Communication Services	0.0	—
Energy	0.0	—
Industrials	0.0	—
Technology	0.0	—
Defensive	**0.0**	**—**
Consumer Defensive	0.0	—
Healthcare	0.0	—
Utilities	0.0	—

Operations

Family:	PIMCO	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	PTTRX	Incept:	05-11-1987
Tenure:	4.1 Years	ISIN:	US6933907007	Type:	MF
Objective:	Growth and Income	Minimum Initial Purchase:	$1 mil	Total Assets:	$69,248.15 mil

PIMCO Income Instl (USD)

Morningstar Analyst Rating™	Overall Morningstar Rating™	Standard Index	Category Index	Morningstar Cat
Silver 05-23-2018	★★★★★ 278 US Fund Multisector Bond	BBgBarc US Agg Bond TR USD	BBgBarc US Universal TR USD	US Fund Multisector Bond

Performance 09-30-2018

Quarterly Returns	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total %
2016	1.78	2.44	2.84	1.39	8.72
2017	2.89	2.27	2.09	1.10	8.60
2018	-0.27	-0.44	0.56	—	-0.15

Trailing Returns	1 Yr	3 Yr	5 Yr	10 Yr	Incept
Load-adj Mthly	0.95	5.82	5.65	9.59	8.38
Std 09-30-2018	0.95	—	5.65	9.59	8.38
Total Return	0.95	5.82	5.65	9.59	8.38
+/- Std Index	2.16	4.51	3.49	5.81	—
+/- Cat Index	1.95	3.84	3.12	5.37	—
% Rank Cat	42	11	3	1	
No. in Cat	319	278	215	132	

	Subsidized	Unsubsidized
7-day Yield	—	—
30-day SEC Yield	—	—

Performance Disclosure

The Overall Morningstar Rating is based on risk-adjusted returns, derived from a weighted average of the three-, five-, and 10-year (if applicable) Morningstar metrics.

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Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 888-877-4626 or visit www.pimco.com.

Fees and Expenses

Sales Charges

Front-End Load %	**NA**
Deferred Load %	**NA**

Fund Expenses

Management Fees %	0.50
12b1 Expense %	NA
Gross Expense Ratio %	**0.74**

Risk and Return Profile

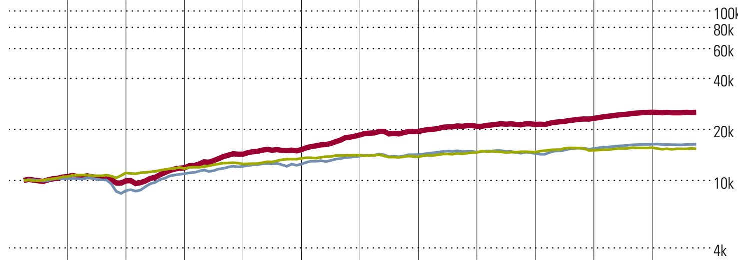
	3 Yr 278 funds	5 Yr 215 funds	10 Yr 132 funds
Morningstar Rating™	5★	5★	5★
Morningstar Risk	-Avg	-Avg	-Avg
Morningstar Return	+Avg	High	High

	3 Yr	5 Yr	10 Yr
Standard Deviation	2.07	2.33	4.50
Mean	5.82	5.65	9.59
Sharpe Ratio	2.22	2.10	1.97

MPT Statistics	Standard Index	Best Fit Index ICE BofAML US High Yield TR USD
Alpha	4.63	2.55
Beta	0.36	0.31
R-Squared	19.89	53.20
12-Month Yield		—
Potential Cap Gains Exp		-0.94%

Investment Style	49	87	91	84	94	88	87	72	69	73	68	73

Investment Style
Fixed-Income
Bond %



Growth of $10,000
- PIMCO Income Instl 25,228
- Category Average 16,359
- Standard Index 15,358

Performance Quartile (within category)

History	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	09-18
NAV/Price	10.08	8.91	9.84	11.04	10.85	12.36	12.26	12.33	11.73	12.06	12.41	11.89
Total Return %	—	-5.47	19.21	20.46	6.37	22.17	4.80	7.18	2.64	8.72	8.60	-0.15
+/- Standard Index	—	-10.71	13.28	13.92	-1.47	17.95	6.83	1.22	2.09	6.07	5.06	1.45
+/- Category Index	—	-7.85	10.60	13.29	-1.03	16.64	6.15	1.62	2.21	4.81	4.51	1.25
% Rank Cat	—	5	82	1	6	1	18	6	3	31	10	—
No. of Funds in Cat	—	215	242	268	250	283	308	276	304	299	321	324

Portfolio Analysis 06-30-2018

Asset Allocation %	Net %	Long %	Short %
Cash	-54.20	66.85	121.04
US Stocks	0.33	0.33	0.00
Non-US Stocks	0.12	0.12	0.00
Bonds	151.35	191.43	40.09
Other/Not Clsfd	2.40	2.40	0.00
Total	100.00	261.13	161.13

Equity Style (Value Blend Growth; Large Mid Small)

Portfolio Statistics	Port Avg	Rel Index	Rel Cat
P/E Ratio TTM	12.9	—	1.25
P/C Ratio TTM	—	—	—
P/B Ratio TTM	1.6	—	0.70
Geo Avg Mkt Cap $mil	5011	—	0.15

Fixed-Income Style (Ltd Mod Ext; High Med Low)

Avg Eff Maturity	5.57
Avg Eff Duration	3.11
Avg Wtd Coupon	—
Avg Wtd Price	98.13

Credit Quality Breakdown —	Bond %
AAA	—
AA	—
A	—
BBB	—
BB	—
B	—
Below B	—
NR	—

Regional Exposure	Stocks %	Rel Std Index
Americas	80.3	—
Greater Europe	19.7	—
Greater Asia	0.0	—

Share Chg since 03-2018	Share Amount	Holdings : 20 Total Stocks , 6,064 Total Fixed-Income, 266% Turnover Ratio	Net Assets %
	1,699,773 mil	IRS JPY 0.45000 03/20/19-10Y LCH_P	-13.46
☼	10,000 mil	CIRS USD 4Y MAT 3.82% 6/2020 MYC_R	8.68
	10,000 mil	CIRS USD 5.5Y MAT 3.00% 7/2018 GLM	8.68
☼	8,662 mil	IRS USD 2.86000 01/26/18-5Y* CME_R	7.50
	7,000 mil	CIRS USD 5.5Y MAT 2.92% 7/2018 GLM	6.07
☼	6,600 mil	IRS USD 2.80000 01/18/18-5Y* CME_R	5.70
☼	5,434 mil	US 10 Year Note (CBT) Sept18	5.67
☼	6,500 mil	Federal National Mortgage Associat	-5.61
⊕	17 mil	Secretaria Tesouro Nacional 0%	3.81
☼	3,864 mil	Csmc 2018-Sp2 Cert 144a	3.43
⊕	3,896 mil	IRS USD 2.50000 06/20/18-30Y CME_P	-3.05
☼	2,726 mil	US 5 Year Note (CBT) Sept18	2.69
	2,874 mil	United States Treasury Notes 2.25%	2.43
⊕	11 mil	Secretaria Tesouro Nacional 0%	2.41
⊖	2,367 mil	Cdx Hy25 5y Ice	2.19

Sector Weightings	Stocks %	Rel Std Index
Cyclical	**91.4**	**—**
Basic Materials	0.0	—
Consumer Cyclical	25.0	—
Financial Services	19.7	—
Real Estate	46.7	—
Sensitive	**8.6**	**—**
Communication Services	0.0	—
Energy	8.6	—
Industrials	0.0	—
Technology	0.0	—
Defensive	**0.1**	**—**
Consumer Defensive	0.0	—
Healthcare	0.0	—
Utilities	0.1	—

Operations

Family:	PIMCO	Base Currency:	USD	Purchase Constraints:	A
Manager:	Multiple	Ticker:	PIMIX	Incept:	03-30-2007
Tenure:	11.6 Years	ISIN:	US72201F4900	Type:	MF
Objective:	Multisector Bond	Minimum Initial Purchase:	$1 mil	Total Assets:	$112,947.28 mil

XI. POLICY COMPLIANCE - For Discussion Only

A. Investment Guidelines: Total Fund

Goal	FYE 2018	FYE 2017	FYE 2016	FYE 2015
Meet or Exceed Target Index	✓	✓		
Earn Absolute Return Objective of 7.25%	✓	✓		
Rank Above 50th Percentile in Public Fund Universe	✓	✓	✓	✓

Board-Imposed Rebalancing Guideline	Total Fund
Equity Securities Limited to Less Than 70% at Total Fund at Market Valuation	65.8% ✓

O.C.G.A 47-20-82 Compliance	3Q18	2Q18	1Q18	4Q17
Less Than 55% in Equity Securities Based on Historial Cost	45.0% ✓	47.1% ✓	51.2% ✓	51.1% ✓

B. Fund Performance Objective

Manager	Exceed Benchmark 3-Year	Exceed Benchmark 4-Year	Exceed Benchmark 5-Year	Risk vs. Benchmark 5-Year
Blackrock Equity Dividend	✓	✓	✓	<
Eaton Vance AC SMID	✓	✓	✓	<
Vanguard 500	n/a	n/a	n/a	n/a
Vanguard Small Cap	✗	n/a	n/a	n/a
TRP New America Growth	✓	✓	✗	>
Wells Fargo Growth	✗	✗	✗	>
Yacktman Fund	✗	✗	✗	n/a
PIMCO Total Return	✓	✓	✓	<
PIMCO Income	n/a	n/a	n/a	n/a
PIMCO Investment Grade Corp	✓	✓	✓	>
PIMCO All Asset	✗	✗	✗	<
JP Morgan Strategic Property	n/a	n/a	n/a	n/a
JP Morgan Special Situation	n/a	n/a	n/a	n/a

Manager	Rank Above 50th Percentile 3-Year	Rank Above 50th Percentile 4-Year	Rank Above 50th Percentile 5-Year
Blackrock Equity Dividend	✓	✓	✓
Eaton Vance AC SMID	✓	✓	✓
Vanguard 500	n/a	n/a	n/a
Vanguard Small Cap	✓	n/a	n/a
TRP New America Growth	✓	✓	✓
Wells Fargo Growth	✓	✓	✗
Yacktman Fund	n/a	n/a	n/a
PIMCO Total Return	✓	✓	✓
PIMCO Income	n/a	n/a	n/a
PIMCO Investment Grade Corp	✓	✓	✓
PIMCO All Asset	n/a	n/a	n/a
JP Morgan Strategic Property	n/a	n/a	n/a
JP Morgan Special Situation	n/a	n/a	n/a

C. Manager Status

Manager	MS Analyst Rating	Status	Effective Date
Blackrock Equity Dividend	Bronze	Good Standing	
Eaton Vance AC SMID	Bronze	Good Standing	
TRP New America Growth	Bronze	Good Standing	
Vanguard 500	Gold	Good Standing	
Vanguard Small Cap	Gold	Good Standing	
Wells Fargo Growth	Neutral	Good Standing	
Yacktman Fund	Gold	Good Standing	
PIMCO Total Return	Gold	Good Standing	
PIMCO Income	Silver	Good Standing	
PIMCO Investment Grade Corp	Silver	Good Standing	
PIMCO All Asset	Gold	Good Standing	
JPM Strategic Property	NA	Good Standing	
JPM Special Situation	NA	Good Standing	

XII. NOTES/HISTORY

1) JPM real estate is managed through commingled fund structures and performance is reported GROSS-of-fees. All other investments of Gainesville ERS A are held through mutual fund structure with performances reported NET-of-fees. SEAS is showing / calculating the JPM NET-of-fee return for illustrative purposes only and these returns may differ slightly from manager-reported data/statements.
2) Mutual fund investments representing foreign securities were deleted in 2Q09 to become compliant with Investment Policy Guidelines. Domestic mutual funds may hold some foreign securities.
3) The inception date for the O'Shaughnessy account was July 3, 2008.
4) The inception date for the Tradewinds Value Opps Fund and Blackrock Equity Dividend Fund was May 5, 2009.
5) The EuroPacific Growth Fund was liquidated on May 4, 2009.
6) PIMCO Diversified Income was liquidated on May 11, 2009.
7) The inception date for the PIMCO Real Return Fund and PIMCO Investment Grade Corp Fund was October 2, 2009.
8) The inception date for the PIMCO All Asset Fund and PIMCO Unconstrained Bond Fund was May 17, 2011.
9) The inception date for the Eaton Vance Fund and Pennsylvania Fund was September 1, 2011.
10) Buckhead Capital and O'Shaughnessy were liquidated in 3Q11.
11) Growth Fund of America was liquidated on March 5, 2012.
12) The inception date for the TRP New America Growth and Wells Fargo Growth Funds was March 6, 2012.
13) Tradewinds Value Opportunities was liquidated on August 1, 2012.
14) The inception date for the Yacktman Fund was August 2, 2012.
15) PIMCO Real Return was liquidated on August 28, 2013.
16) PIMCO UCB Fund was liquidated on November 24, 2014.
17) The Pennsylvania Fund was liquidated on September 21, 2015.
18) The inception date of the Vanguard Small Cap Fund was September 21, 2015.
19) The inception date of the Vanguard 500 Fund was November 16, 2015.
20) The inception date of the JP Morgan Strategic Property fund was April 1, 2017.
21) The inception date of the PIMCO Income fund was February 15, 2018.
22) The inception date of the JP Morgan Special Situation Property fund was July 3, 2018

CITY OF GAINESVILLE

AGENDA REQUEST

Date Submitted: 11/7/2018

Presenter: Marsha Petzel, Wells Fargo

Item of Business: Wells Fargo Quarterly Executive Summary

Meeting Date: 11/13/2018

Purpose of Request:
The purpose of this request is to receive a periodic update from Wells Fargo.

History/Background:

Facts & Issues for Consideration:

Department Recommendation:

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?
No

Amount Requested: **Source of Funds**:

Finance Comments:

Administrative Comments:

ATTACHMENTS:

	Description	Type
🗋	Wells Fargo Executive Summary	Report

Institutional Retirement
and Trust

Relationship Review

Marsha Petzel
Relationship Manager

November 13, 2018

PLAN SPONSOR USE ONLY

Wells Fargo Service Team

City of Gainesville Retirement Plan A

Name and Title	Role on team	Contact information
Marsha Petzel Relationship Manager **Jack Wiltshire** Regional Director	Product and service consultation, design and delivery coordination – your IRT relationship contact	**Phone:** 678-627-3791 **E-mail:** marsha.petzel@wellsfargo.com **Phone:** 704-427-8361 **E-mail**: jack.wiltshire@wellsfargo.com
Rhonda Wilson Relationship Associate	Relationship Manager backup and administrative support	**Phone:** 678-589-4336 **Email:** Rhonda.Wilson@wellsfargo.com
Landri Campbell Client Service Consultant	Assigned day-to-day contact for all operational needs, accounting, audit requests, CEO and RPP support and reporting details	**Phone:** 254-761-6971 **Email:** texascsc@wellsfargo.com **Fax:** 888-848-5011
Online Support for Commercial Electronic Office® (CEO®)	Technical support for users CEO products (Trust Portfolio Reporting, Trust Information Delivery, Retirement Plan Payments, Securities Lending Reporting and Treasury Management online tools).	**Phone:** 1-800-289-3557, Option 5, Option 1


Relationship Review

Our role as Trustee/Custodian

- Fiduciary
- In-person administrative reviews
- Regulatory and legislative updates
- Monthly, quarterly and annual statements
- Real-time information via *Commercial Electronic Office®* (*CEO®*) business portal
- Interface with advisor and other providers
- Safekeeping of assets
- Process of receipts and disbursements (includes contributions, benefit payments and fee invoices)
- Financial reporting / audit support
- Trade settlement
- Income processing
- Automated Cash Sweep
- Securities pricing
- Post maturities and full calls on assets
- Corporate Action/Class Action Processing
- Proxy Processing
- Receive/deliver tri-party repo assets
- Foreign Tax Reclaims

Custodial relationship established in March 2014
Two custody accounts

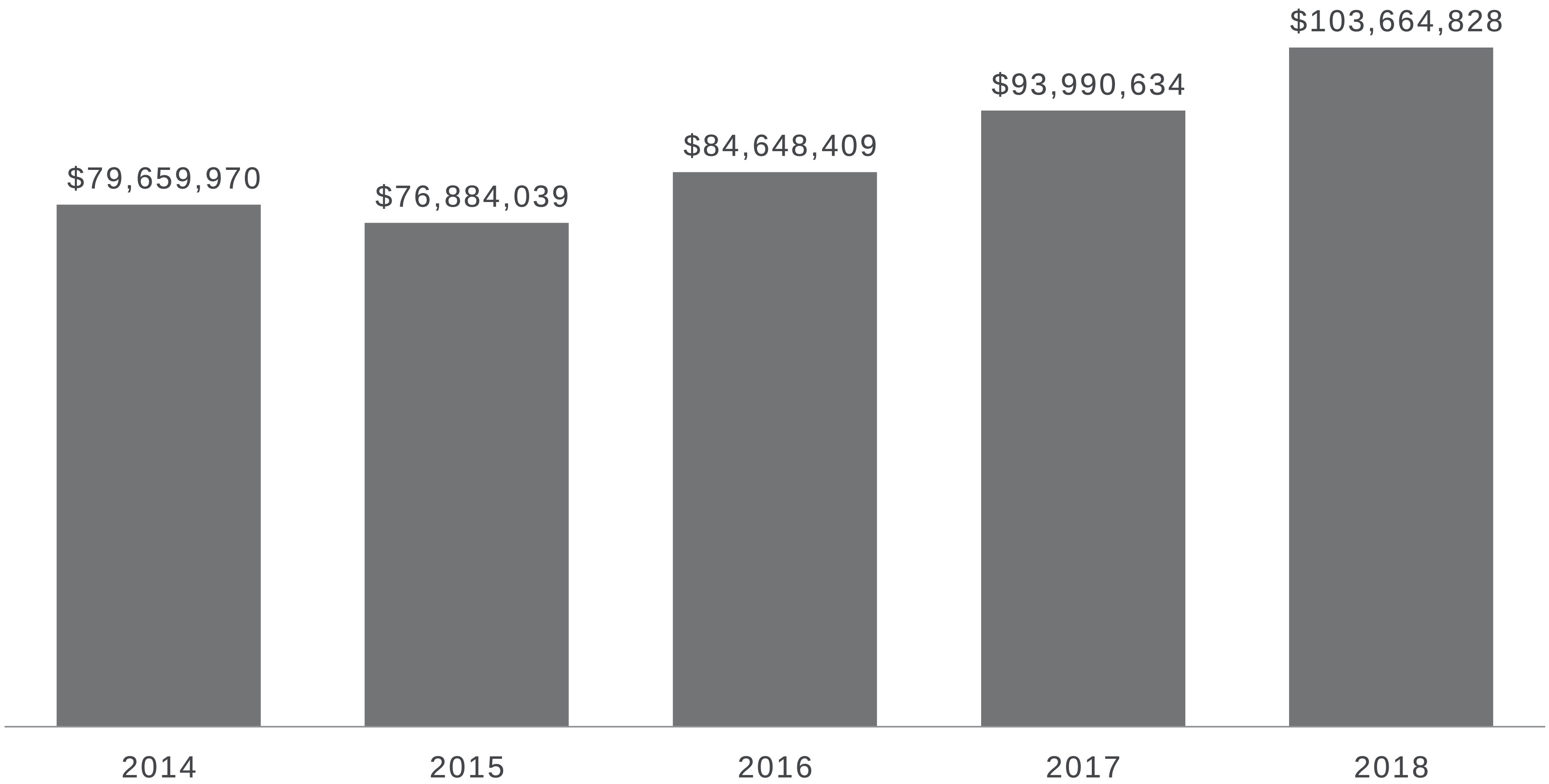
Key statistics & success metrics

Quarter end 09/30/2018			
Market value 6/30/18	$99,638,356	Pension Payments – QE 9/30/18 – (832)	$2,081,169
Market value 9/30/18	$103,664,828	Non-Periodic Payments – QE 9/30/18 – (4)	$26,223
Contributions – QE 9/30/18	$1,843,326	Pension Payments – October (278) Non-Periodic Payments – October (3)	$695,859 $41,858
Contributions – Employer – QE 9/30/18	$921,663	Periodic Payments – ACH Monthly	238
Contributions – Employee – QE 9/30/18	$921,663	Periodic Payments – Check Monthly	1

Expenses

Quarter end 9/30/2018		
GAPPT Conference and related expenses	Reimbursed to City of Gainesville	$19,475.85
JPMCB Strategic Property Fund	Investment Management Fee	$11,194.59
McGarity's	Invoice 84086	$227.96
Morris, Manning & Martin, LLP	Legal Services – invoice 640866	$1,455.00
Southeastern Advisory Services Inc.	Investment Management Fee – 2Q18	$12,215.00
Segal Consulting	Actuarial Services	$710.00
Wells Fargo	Custodian	$6,288.09

Plan asset history



CEO User access

CEO Product	Financial Statements Frequency: M, Q & A		Trust Information Delivery (TID)
	General = unaudited / Verified = audited		Trust Portfolio Reporting (TPR)
Name	City of Gainesville Retirement Plan A		Retirement Plan Payments (RPP)
Janeann Allison	RPP, TID, TPR		Audited
Denis Jordan	RPP, TID, TPR		Audited
Jeremy Perry	RPP, TID, TPR		Audited
B J Rider	RPP, TID, TPR		Audited
Karen Rojas	RPP, TID, TPR		Audited
Jennifer Chamblee	TID, TPR		Audited
Suzanne Beckum – SE Advisory Services	TID, TPR		Audited

Disclaimer

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This information is general in nature and is not intended to be reflective of any specific plan.

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CAR 0618-03168

Thank You

CITY OF GAINESVILLE

AGENDAREQUEST

Date Submitted: 11/7/2018

Presenter: Karen Rojas

Item of Business: 2019 Proposed RPA Board Meeting Calendar

Meeting Date: 11/13/2018

Purpose of Request:
The purpose of this request is to establish the meeting calendar for 2019.

History/Background:
The Retirement Manager serves as secretary to the Retirement Plan A Board. The annual meeting calendar was distributed to board members for review prior to the November 13th meeting to avoid conflicts.

Facts & Issues for Consideration:
The Board should decide which meeting schedule works best considering pending and future discussions for the calendar year. The SEAS consultant is available to attend the February, May, August and November meeting dates as submitted.

Department Recommendation:
Adopt the proposed meeting schedule for calendar year 2019.

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?
No

Amount Requested:

Source of Funds:

Finance Comments:

Administrative Comments:

ATTACHMENTS:

	Description	Type
🗋	2019 RPA Board Meeting Calendar	Backup Material

2019 RPA BOARD MEETING INTERNAL DEADLINE SCHEDULE

Agenda Item In AMMS (Meeting Date Closes @ 8:00 AM)	Agenda Item to Board Chairman	Agenda Packages Finalized/Distributed	Meeting Date Administration Building, Board Room
Wednesday, January 30	Monday, February 4	Thursday, February 7	Tuesday, February 12, 2019, 10:00 AM
Wednesday, March 27	Monday, April 1	Thursday, April 4	Tuesday, April 9, 2019, 10:00 AM
Wednesday, May 1	Monday, May 6	Thursday, May 9	Tuesday, May 14, 2019, 10:00 AM
Wednesday, May 29	Monday, June 3	Thursday, June 6	Tuesday, June 11, 2019, 10:00 AM
Wednesday, June 26	Monday, July 1	Wednesday, July 3	Tuesday, July 9, 2019, 10:00 AM
Wednesday, July 31	Monday, August 5	Thursday, August 8	Tuesday, August 13, 2019, 10:00 AM
Wednesday, September 25	Monday, September 30	Thursday, October 3	Tuesday, October 8, 2019, 10:00 AM
Wednesday, October 30	Monday, November 4	Thursday, November 7	Tuesday, November 12, 2019, 10:00 AM
Wednesday, November 27	Monday, December 2	Thursday, December 5	Tuesday, December 10, 2019, 10:00 AM

Draft: 10/30/2018 kr

CITY OF GAINESVILLE

AGENDA REQUEST

Date Submitted: 11/7/2018

Presenter: Karen Rojas

Item of Business: Proposal to Purchase Laptop Computer

Meeting Date: 11/13/2018

Purpose of Request:
The purpose of this request is to propose the purchase of a laptop computer for RPA Secretary use.

History/Background:
RPA Board Secretary Karen Rojas is requesting approval to purchase a laptop computer for RPA related duties. The Human Resources office currently has 2 laptop computers (one for staff usage and one that is the Director's) for a 10 person department. We are finding that a laptop is not always available for Board meeting purposes. The purchase of a laptop for the Retirement Manager/RPA Board Secretary use will facilitate completion of pre and post meeting tasks.

Facts & Issues for Consideration:

Department Recommendation:
To approve the purchase of a laptop computer.

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?

Amount Requested:

Source of Funds:

Finance Comments:

Administrative Comments:

ATTACHMENTS:

Description	Type
Laptop Computer Quote	Backup Material

Pricing Proposal
Quotation #: 15201908
Created On: 4/18/2018
Valid Until: 11/30/2018

City of Gainesville

Steven Moore
GA
United States
Phone: (770) 535-6879
Fax:
Email:

Inside Account Executive

Pat Connolly
Somerset NJ, 08873
Phone: 800-477-6479
Fax: 800-477-6479
Email: Pat_Connolly@SHI.com

All Prices are in US Dollar (USD)

	Product	Qty	Your Price	Total
1	Lenovo ThinkPad X1 Carbon 20KH - Ultrabook - Core i5 8350U / 1.7 GHz - Win 10 Pro 64-bit - 16 GB RAM - 256 GB SSD TCG Opal Encryption 2, NVMe - 14" IPS 1920 x 1080 (Full HD) - UHD Graphics 620 - Wi-Fi, Bluetooth - black Lenovo - Part#: 20KH002DUS	1	$1,679.00	$1,679.00
2	Dell 4-in-1 Travel Adapter - External video adapter - USB-C - D-Sub, HDMI - for Latitude 7370 Dell - Part#: DA200	1	$59.00	$59.00
			Total	$1,738.00

Additional Comments

Please Note: Lenovo has a zero returns policy on any custom build machines. Lenovo also does not allow returns on open box/phased out products.

Thank you for choosing SHI International Corp! The pricing offered on this quote proposal is valid through the expiration date set above. To ensure the best level of service, please provide End User Name, Phone Number, Email Address and applicable Contract Number when submitting a Purchase Order.

SHI International Corp. is 100% Minority Owned, Woman Owned Business.
TAX ID# 22-3009648; DUNS# 61-1429481; CCR# 61-243957G; CAGE 1HTF0

The Products offered under this proposal are resold in accordance with the SHI Online Customer Resale Terms and Conditions, unless a separate resale agreement exists between SHI and the Customer.

CITY OF GAINESVILLE

AGENDA REQUEST

Date Submitted: 11/7/2018

Presenter:

Item of Business: Personnel Matters

Meeting Date: 11/13/2018

Purpose of Request:

History/Background:

Facts & Issues for Consideration:

Department Recommendation:

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?

Amount Requested: **Source of Funds**:

Finance Comments:

Administrative Comments:

CITY OF GAINESVILLE

AGENDA REQUEST

Date Submitted: 11/7/2018

Presenter: Karen Rojas

Item of Business: New Disbursements Report

Meeting Date: 11/13/2018

Purpose of Request:
To provide a report of all disbursements since the last RPA Board Meeting and to seek the Board's approval of the disbursements as presented.

History/Background:

Facts & Issues for Consideration:
Disbursements processed as of 10/30/2018.

Department Recommendation:

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?

Amount Requested:

Source of Funds:

Finance Comments:

Administrative Comments:

ATTACHMENTS:

Description	Type
New Disbursements Report	Report

RETIREMENT PLAN A
DISBURSEMENT REPORT
November 13, 2018

	EMPLOYEE NAME	DEPARTMENT	TERMINATION DATE	DISTRIBUTION INFORMATION				
				DATE PROCESSED	CONT AMT	VESTED	DEATH BENEFIT	LUMP SUM ROLLOVER LUMP SUM/ROLLOVER
1	Morris, Janicia Carest	Police	10/4/2018	10/17/2018		No	No	Lump Sum
2	Hassan, Essam M.	DWR	9/17/2018	10/29/2018		No	No	Lump Sum
3	Dalton, Cody Ray	Police	7/2/2015	10/29/2018		No	No	Lump Sum
4	Mitchell, Nicole M.	IT	9/20/2018	10/31/2018		No	No	Lump Sum
	TOTAL				**$ 49,290.36**			

CITY OF GAINESVILLE

AGENDA REQUEST

Date Submitted: 11/7/2018

Presenter: Karen Rojas

Item of Business: New Benefits Report

Meeting Date: 11/13/2018

Purpose of Request:
To provide a report of new retirement benefits processed as of 10/30/2018.

History/Background:

Facts & Issues for Consideration:
New benefit payments processed as of 10/30/2018.

Department Recommendation:
To approve payments as presented.

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?

Amount Requested:

Source of Funds:

Finance Comments:

Administrative Comments:

ATTACHMENTS:

Description	Type
New Benefits Report	Report

RETIREMENT PLAN A
NEW BENEFITS PAYMENT REPORT
November 13, 2018

	RETIREE BENEFICIARY	DEPARTMENT	EFFECTIVE DATE	BENEFIT INFORMATION				SERVICE	
				TYPE	AMOUNT	START DATE	SPOUSAL OPTION	Years of Service	TOTAL - CREDITED (Includes Conv Sick)
1	Gee, Horace	Police	9/21/2018	Normal		10/1/2018	No	26.80	27.30
2	Patterson, Jason Charles	Fire	10/19/2018	Early		11/1/2018	100%	22.62	22.62
3									
	TOTAL				$ 8,318.62				

SPECIAL REPORTS

	RETIREE BENEFICIARY	DEPARTMENT	EFFECTIVE DATE	BENEFIT INFORMATION				SERVICE	
				TYPE	Amount	START DATE	SPOUSAL OPTION	TOTAL	CREDITED
1	Jerry Forrester	Police	10/28/2018	Deceased			No		
2	John Cotton (Olivia Cotton	Spouse	10/25/2018	Deceased					
3									

CITY OF GAINESVILLE

AGENDA REQUEST

Date Submitted: 11/7/2018

Presenter: Karen Rojas

Item of Business: Minutes: October 9, 2018 Meeting

Meeting Date: 11/13/2018

Purpose of Request:
The purpose of this request is to allow the Board to adopt the minutes from the referenced meeting.

History/Background:

Facts & Issues for Consideration:
Draft minutes were distributed via email to the Board and Ex-Officio Members for comments/corrections.

Department Recommendation:
Adopt the minutes accepting edits as presented.

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?
No

Amount Requested:

Source of Funds:

Finance Comments:

Administrative Comments:

ATTACHMENTS:

Description	Type

CITY OF GAINESVILLE

AGENDA REQUEST

Date Submitted: 11/7/2018

Presenter: Karen Rojas

Item of Business: Executive Session Minutes: October 9, 2018 Meeting

Meeting Date: 11/13/2018

Purpose of Request:
The purpose of this request is to allow the Board to approve the Executive Session minutes from the referenced meeting.

History/Background:

Facts & Issues for Consideration:
Minutes of each Executive Session shall be maintained by the Secretary in accordance with the Open Meetings Act.

Department Recommendation:
Approve the minutes with edits as presented.

Department Director:
David Frazier

If funding is involved, are funds approved within the current budget?

Amount Requested:

Source of Funds:

Finance Comments:

Administrative Comments: