



Component Units of the State of Alabama

Comprehensive Annual Financial Report

For the Fiscal Year Ended September 30, 2017





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The Retirement Systems of Alabama

COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended September 30, 2017

The Retirement Systems of Alabama
Consists of:

TEACHERS' RETIREMENT SYSTEM of ALABAMA
EMPLOYEES' RETIREMENT SYSTEM of ALABAMA
JUDICIAL RETIREMENT FUND

(Each a Component Unit of the State of Alabama)

David G. Bronner, Ph.D., J.D., Chief Executive Officer

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Component Units of the State of Alabama
Comprehensive Annual Financial Report

Introductory Section

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Teachers
Luther P. Hallmark, Chair
John R. Whaley, Vice Chair



Employees
State State Police Public Judicial
Robert J. Bentley, Chair
Jacqueline B. Graham, Vice Chair

THE RETIREMENT SYSTEMS OF ALABAMA

David G. Bronner, CEO
Donald L. Yancey, Deputy Director

January 31, 2018

The Boards of Control
Teachers' Retirement System of Alabama
Employees' Retirement System of Alabama
201 South Union Street
Montgomery, Alabama 36104

Dear Board Members:

It is with great pleasure that we submit the Comprehensive Annual Financial Report (CAFR) of the Retirement Systems of Alabama (RSA or Systems) for the fiscal year ended September 30, 2017. The Retirement Systems of Alabama includes the Teachers' Retirement System of Alabama (TRS), the Employees' Retirement System of Alabama (ERS), and the Judicial Retirement Fund (JRF). Each system is considered a component unit of the State of Alabama for financial reporting purposes, and, as such, the financial statements contained in this report are also included in the State of Alabama Comprehensive Annual Financial Report.

Responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, including all disclosures, rests with the management of the Systems. Sufficient internal controls exist to provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements, supporting schedules, and statistical tables. We trust that you and the members of the Systems will find this report helpful in understanding your retirement system.

Administration and Plan History

The TRS, ERS, and JRF operate under common management and are collectively referred to as the Retirement Systems of Alabama. In addition to executive management, the TRS, ERS, and JRF share investment management, accounting, and information system services, the costs of which are allocated to the funds on an equitable basis. The TRS was established pursuant to the *Code of Alabama 1975, Title 16, Chapter 25* (Act 419 of the Legislature of 1939) to provide benefits to qualified persons employed by State-supported educational institutions. The ERS was established pursuant to the *Code of Alabama 1975, Title 36, Chapter 27* (Act 515 of the Legislature of 1945) to provide benefits to State employees, State Police, and, on an elective basis, to qualified persons of cities, towns, and quasi-public organizations. The JRF was established pursuant to the *Code of Alabama 1975, Title 12, Chapter 18* (Act 1163 of the Legislature of 1973) to provide benefits to qualified judges and justices. Additional information regarding the administration and history of each system, including laws establishing each plan and services provided, can be found in the Financial Section - Notes to the Combined Financial Statements portion of this report.

Financial Information

Accounting Method - As required by Generally Accepted Accounting Principles (GAAP), the financial information of the TRS, ERS, and JRF is reported on the accrual basis of accounting. Revenues are recognized when earned and expenses are recognized when the corresponding liability is incurred. Investments are reported at fair value.

Internal Controls - The management of the RSA is responsible for maintaining the system of internal controls (system). The system provides management with reasonable, but not absolute, assurance regarding the safeguarding of assets against loss or unauthorized disposition and the reliability of the financial records from which the financial reports are prepared. The concept of reasonable assurance recognizes that the cost of a control should not exceed the resulting benefits.

Summary Comparative Data – Management’s Discussion and Analysis (MD&A) includes a narrative introduction, an overview of the financial statements, including the notes and required supplementary information, and summary comparative data for fiscal years 2017 and 2016. Also, an analysis of significant variances between fiscal years 2017 and 2016 is provided in the MD&A.

In fiscal year 2017, the Systems implemented GASB Statement No. 82, *Pension Issues – an amendment of GASB Statements No. 67, No. 68, and No. 73*. This statement addresses issues regarding the presentation of payroll-related measures in required supplementary information, the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and the classification of payments made by employers to satisfy employee (plan member) contribution requirements.

Plan Financial Condition

The funding objective of the RSA pension trust funds is to accumulate sufficient assets during a member’s employment by requiring employer and member contributions to fully finance the benefits the member is expected to receive throughout retirement.

At September 30, 2016, the date of the most recent actuarial valuation, the number of participants in the TRS was 274,424, ERS participants totaled 163,190, and JRF participants totaled 768. The following table compares the funded status as of September 30, 2016 and 2015:

Funded Status (%)			
System	9/30/2016	9/30/2015	% Increase/ (Decrease)
TRS	68.3	68.3	0.0
ERS	66.2	67.3	(1.1)
JRF	62.6	62.5	0.1

The lack of increase in the funded status for TRS and ERS was due to the changes in actuarial assumption based on the most recent experience study as of September 30, 2015. The actuarial gains to offset the decrease in the rate of return on investments used in the actuarial valuations. The funded status of JRF increased because of actuarial gains related to compensation that increased its funded status, despite the decrease in the rate of return on investments used in the actuarial valuations.

Investment Activity

Total investments for the RSA increased in fiscal year 2017, primarily due to increases in the fair value of investments. Total pension fund investments managed by the RSA increased from \$34.0 billion at September 30, 2016, to \$36.7 billion at September 30, 2017, an increase of 8.07%.

	Investments, at Fair Value		Interest & Dividend Income	
	9/30/2017	9/30/2016	9/30/2017	9/30/2016
TRS	\$24.4 billion	\$22.6 billion	\$613.4 million	\$607.8 million
ERS	\$12.0 billion	\$11.0 billion	\$302.3 million	\$297.4 million
JRF	\$299.1 million	\$277.9 million	\$6.9 million	\$6.9 million

Net Change in Fair Value of Investments		
	9/30/2017	9/30/2016
TRS	\$2.0 billion	\$1.6 billion
ERS	\$1.1 billion	\$753.8 million
JRF	\$25.6 million	\$21.3 million

Total returns were 11.77%, 12.86%, and 11.90% for TRS, ERS, and JRF, respectively. Equity markets across the globe had stellar returns, with emerging markets leading the way. As rates have begun to climb higher due to the Federal Reserve continuing on their tightening path, fixed income returns have suffered. We have continued to have a higher cash weighting than normal, especially considering that there is finally some yield on the short end of the curve. As rates normalize, we expect to increase our allocation to longer duration fixed income securities. With that said, we will continue to invest in a diverse mix of assets, and monitor asset class ranges per the guidance given in the respective Investment Policy Statements of each system, with the long term goal of achieving our actuarial assumed rate of return. Additional information concerning investments, including investment policy statements, is located in the Investment Section of this report. The Schedule of Broker Commissions Paid can be found on page 107 of the Investment Section.

Management's Discussion and Analysis

GASB Statement No. 34 requires that management provide a narrative introduction, overview, and analysis to accompany the Financial Statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is intended to complement the MD&A and should be read in conjunction with it. The MD&A can be found immediately following the Independent Auditors' Report.

Professional Services

Professional consultants are appointed by the Boards of Control to perform professional services that are essential to the effective operation of the TRS, ERS, and JRF. The certification letters from the independent actuary are included in this report. The professional consultants appointed by the Boards of Control are listed on page 10 of this report.

Financial Statement Audit

Carr, Riggs and Ingram, LLC, Certified Public Accountants, issued an unqualified ("clean") opinion on the RSA's financial statements for the fiscal year ended September 30, 2017. The independent auditors' report is located at the front of the Financial Section of this report.

Highlights and Initiatives

The Robert Trent Jones Golf Trail celebrated its 25th anniversary during the fiscal year. With 26 golf courses in 11 locations, the Trail hosts more than 1,100 events each year. Roughly 12 million rounds of golf have been played on these courses. This includes players from all 50 states and an average of 20 foreign countries. When the Trail started, tourism in Alabama was a \$1.8 billion industry. Now tourism generates \$12.6 billion annually for our State.

Lastly, RSA-owned hotels ranked first, second, and third for guest satisfaction in a recent ranking of 363 full service Marriott hotels in North and South America. The top finishers were the Auburn Marriott Opelika Hotel and Conference Center, Marriott Shoals Hotel and Spa, and the Grand Hotel Marriott Resort, Golf Club and Spa. They also ranked first and third of 90 Renaissance properties in North and South America. Renaissance Ross Bridge Golf Resort and Spa and The Battle House Renaissance Hotel and Spa were the winners here.

The staff will continue to purchase and develop investments that will facilitate the mission of the RSA. Our aim is to serve the interests of our members by preserving the excellent benefits and soundness of the Systems while providing these at the least expense to the State of Alabama and all Alabama taxpayers. With the continued cooperative efforts of the Boards of Control, the RSA staff, and the Legislature, this goal will be achieved.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Retirement Systems of Alabama for its comprehensive annual financial report for the fiscal year ended September 30, 2016. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current comprehensive annual financial report continues to conform to the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

The Retirement Systems received the Public Pension Coordinating Council (PPCC) Recognition Award for Funding 2017. The award recognizes organizations that meet professional standards for plan funding as set forth in the Public Pension Standards.

Acknowledgments

The compilation of this report reflects the combined effort of the staff under the leadership of the Boards of Control. It is intended to provide extensive and reliable information as a basis for making management decisions, determining compliance with legal provisions, and determining responsible stewardship of the funds of the TRS, ERS, and JRF.

We would like to take this opportunity to express our gratitude to the staff, the Boards of Control, the consultants, the Legislature, and to the many people who have worked so diligently through continued cooperative efforts to assure the successful operation and financial soundness of the TRS, ERS, and JRF.

Sincerely,

Diane E. Scott

Diane E. Scott, C.P.A., C.G.M.A.
Chief Accountant & Financial Officer

David G. Bronner

David G. Bronner, Ph.D., J.D.
Chief Executive Officer



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

**The Retirement Systems
of Alabama**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

September 30, 2016

Christopher P. Morill

Executive Director/CEO



Public Pension Coordinating Council

***Recognition Award for Funding
2017***

Presented to

Retirement Systems of Alabama

In recognition of meeting professional standards for
plan funding as
set forth in the Public Pension Standards.

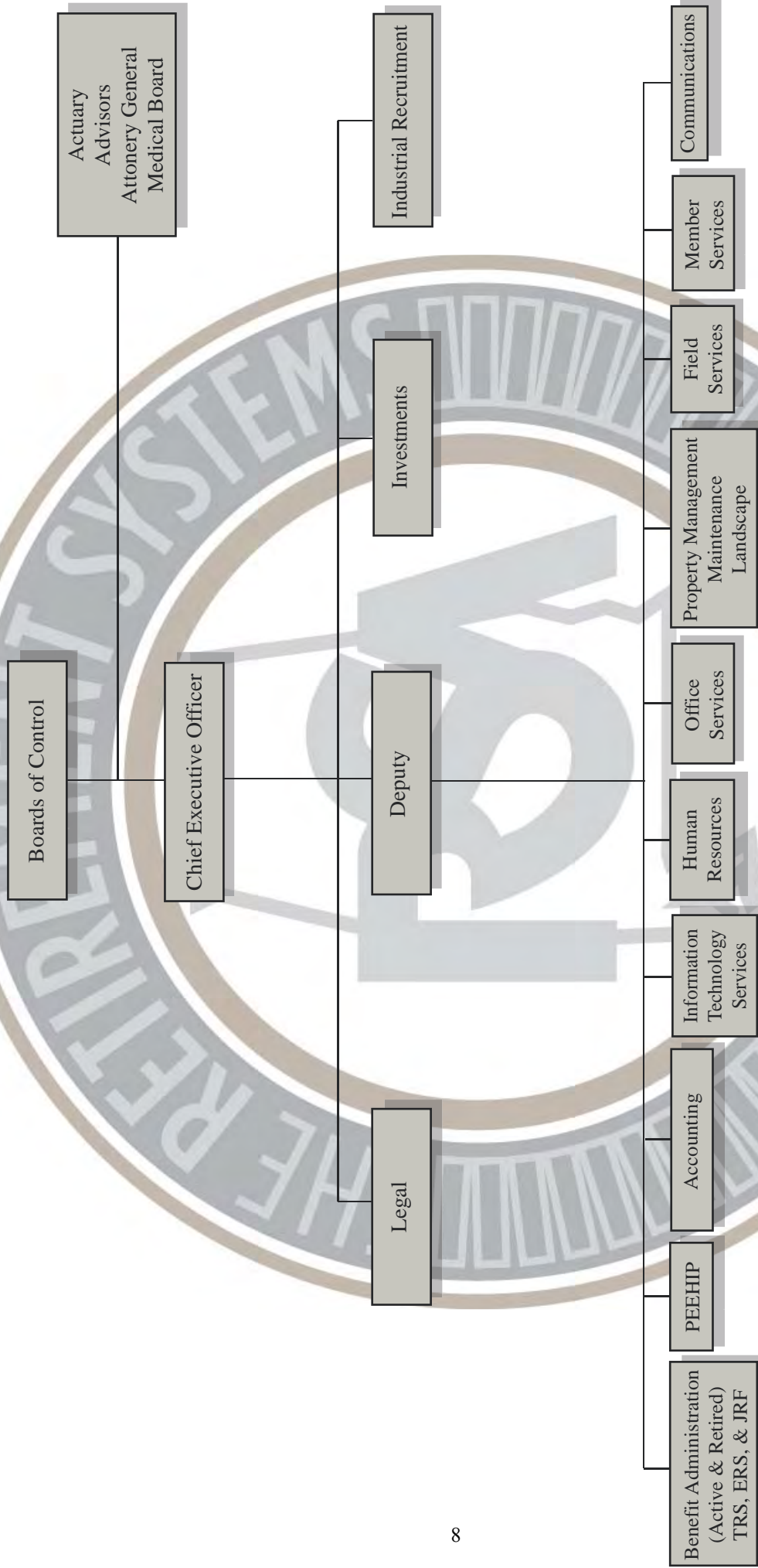
Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

A handwritten signature in black ink that reads "Alan H. Winkle". The signature is written in a cursive style.

Alan H. Winkle
Program Administrator

Retirement Systems of Alabama



Note: The Retirement Systems of Alabama (“RSA”) is a public pension plan statutorily formed under the laws of the State of Alabama. RSA consists of the Teachers’ Retirement System of Alabama and the Employees’ Retirement System of Alabama which includes and administers the Judicial Retirement Fund. Each system is considered a body corporate of the State of Alabama and they are referred to collectively for financial reporting purposes as “RSA.” While each system has distinct boards of control, they share executive management and certain other services.

Teachers' Retirement System Board of Control

Ex Officio Members

Honorable Young Boozer, State Treasurer
Mr. Clinton Carter, State Finance Director
Dr. Ed Richardson, Interim State Superintendent of Education

Elected Members

Chair, Mr. Luther P. Hallmark, Superintendent Position
Vice Chair, Mr. John R. Whaley, Teacher Position
Ms. Peggy Mobley, Retired Position
Mr. Joseph E. Ward, Retired Position
Dr. Donald L. Large, Jr., Higher Education Position
Dr. Joseph G. Van Matre, Higher Education Position
Dr. Susan Williams Brown, Postsecondary Position
Mr. Richard Brown, Principal Position
Ms. Charlene McCoy, Teacher Position
Dr. Cathy McNeal, Teacher Position
Mrs. Susan Lockridge, Support Personnel Position
Mr. Russell J. Twilley, Support Personnel Position

Employees' Retirement System Board of Control**

Ex Officio Members

Chair, Honorable Kay Ivey, Governor
Vice Chair, Mrs. Jackie B. Graham, State Personnel Director
Honorable Young Boozer, State Treasurer
Mr. Clinton Carter, State Finance Director

Elected Members

Mr. James Fibbe, Retired Local Employee Position
Mr. James H. Rowell, Retired State Employee Position
Mr. David Bollie, Active State Employee Position
Mr. Stephen C. Walkley, Active State Employee Position
Mr. Ben Powell, Active Local Employee Position
Mr. Steven W. Williams, Active Local Employee Position

Appointed Members

Mr. Bill A. Flowers
Ms. Ellen Leonard
Mr. Curtis E. Stewart

** The Employees' Retirement System Board of Control is responsible for the administration of both the Employees' Retirement System and the Judicial Retirement Fund.

Introductory Section

Staff, Advisors, and Medical Board

Staff, Advisors, and Medical Board

David G. Bronner, Ph.D., J.D., Chief Executive Officer

Donald L. Yancey, M.P.A., J.D., Deputy Director

Administrative Staff

Chief Accountant & Financial Officer, Diane E. Scott, B.S., C.P.A., C.G.M.A.

Teachers' Retirement Executive, Christopher P. Townes, M.B.A.

Employees' & Judicial Retirement Executive, William F. Kelley, Jr., J.D.

Information Technology Services, Michael T. Baker, B.S.

General Counsel, Leura G. Canary, J.D.

Legislative Counsel, Neah M. Scott, J.D.

Communications, Michael E. Pegues, M.A.

Field Services, Christopher C. Gallup, B.S.

Member Services, Penny K. Wilson, B.S.

Investment Staff

Director of Investments, R. Marc Green, M.B.A., CFA

Director of Private Placements, M. Hunter Harrell, M.B.A., J.D., CFA

Private Placements Analyst, Rachel Daniels, M.A., C.P.A.

Director of Fixed Income, Julie S. Barranco, M.B.A., CFA

Chief Economist, C. Lance Lachney, M.B.A., CFA

Fixed Income Analyst/Portfolio Manager, Nicholas A. Prillaman, M.S., CFA

Director of Equities, G. Allan Carr Jr., M.B.A., CFA

Assistant Director of Equities, Steven R. Lambdin, M.B.A., CFA

Assistant Director of Equities, Hunter Bronson, M.S., CFA

Senior Equity Analyst/Portfolio Manager, Adam Rogers, M.A., CFA

Equity Analyst/Portfolio Manager, Bobby Long, M.B.A., CFA

Equity Analyst/Portfolio Manager, Kevin W. Gamble, M.B.A., CFA

Equity Analyst, Michael J. McNair, M.B.A., CFA

Equity Analyst, Joshua A. Husted, M.B.A.

Equity Analyst, Katie S. Richard, J.D.

Cash Management & Operations, Catherine S. Ray, B.A.

Advisors

Independent Certified Public Accountants, Carr, Riggs, & Ingram, LLC

Investment Consultant, Regions Bank N.A., Mr. Alan McKnight

Investment Custodian, State Street Bank and Trust Company

Consulting Actuary, Cavanaugh Macdonald Consulting, LLC, Mr. Edward A. Macdonald

Attorney General, Honorable Steve Marshall

Chief Examiner, Mr. Ronald L. Jones

Medical Board

Chair, Glenn Yates, M.D.

Gregory Borg, M.D.

Malcolm Brown, M.D.



Component Units of the State of Alabama
Comprehensive Annual Financial Report

Financial Section

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INDEPENDENT AUDITORS' REPORT

To the Boards of Control
Teachers' Retirement System of Alabama
Employees' Retirement System of Alabama
Judicial Retirement Fund

We have audited the accompanying combined financial statements of the Retirement Systems of Alabama (consisting of the Teachers' Retirement System of Alabama, the Employees' Retirement System of Alabama, and the Judicial Retirement Fund, component units of the State of Alabama), which comprise the combining statement of fiduciary net position as of September 30, 2017 and the related combining statement of changes in fiduciary net position, for the year then ended, and the related notes to the combined financial statements, which collectively comprise the Retirement Systems of Alabama's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these combined financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the combined financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Retirement Systems of Alabama, as of September 30, 2017, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Prior-Year Comparative Information

The financial statements include partial prior-year comparative information. Such information does not include all of the information required to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the Retirement Systems of Alabama's financial statements for the year ended September 30, 2016, from which such partial information was derived.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, the schedule of changes in the net pension liability and related ratios, the schedules of employer contributions, the schedule of investment returns, the schedules of proportionate share of net pension liability and schedules of contributions for TRS, ERS and JRF be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplemental and Other Information

Our audit was conducted for the purpose of forming an opinion on the combined financial statements that collectively comprise the Retirement Systems of Alabama's basic financial statements. The introductory section, investment section, actuarial section, statistical section, schedule of administrative expenses, schedule of investment expenses and schedule of professional/consultant fees (supplementary information) are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of administrative expenses, schedule of investment expenses and schedule of professional/consultant fees are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial, and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Carri Riggs & Ingram, L.L.C.

January 31, 2018
Montgomery, Alabama

The Retirement Systems of Alabama (RSA) is comprised of the Teachers' Retirement System (TRS), Employees' Retirement System (ERS), and Judicial Retirement Fund (JRF). The following discussion provides an overview of the financial position and results of operation for the RSA as of and for the fiscal year ended September 30, 2017. For more detailed information, please refer to the financial statements, including the Notes to the Combined Financial Statements and the Required Supplementary Information.

Financial Statements and Required Supplementary Information

The financial statements (statements) include the Combining Statement of Fiduciary Net Position and the Combining Statement of Changes in Fiduciary Net Position. The Notes to the Combined Financial Statements are considered an integral part of the financial statements. The statements are prepared using the economic resources measurement focus and accrual basis of accounting. Revenues are recognized when earned, pursuant to plan requirements, and expenses are recognized when incurred, regardless of when cash is received or expended. Investments are reported at fair value.

Combining Statement of Fiduciary Net Position – Includes all assets, deferred outflows of resources, liabilities, and deferred inflows of resources of the RSA and provides a snapshot of the financial position of the RSA as of the end of the fiscal year. Assets and deferred outflows of resources less liabilities and deferred inflows of resources results in the net position restricted for pension benefits at the end of the fiscal year.

Combining Statement of Changes in Fiduciary Net Position – Reports all additions and deductions of the RSA for the fiscal year. Additions primarily consist of employer contributions, employee contributions, and investment income. Deductions are principally made up of retirement allowance payments. Additions minus deductions provide the change in fiduciary net position for the fiscal year. The change in fiduciary net position plus the beginning fiduciary net position results in the fiduciary net position at the end of the fiscal year.

The Notes to the Combined Financial Statements include plan descriptions, a summary of significant accounting policies, a description of legally required reserves and corresponding reserve balances at the end of the fiscal year, credit risk disclosures for cash and investments, concentration of investments disclosures, securities lending disclosures, funded status, net pension liability, contributions required and made, and additional actuarial information relevant to the latest actuarial valuations.

The Required Supplementary Information following the Notes to the Combined Financial Statements includes Schedules of Changes in the Net Pension Liability & Related Ratios, Schedules of Employer Contributions, Schedule of Investment Returns, Schedules of Proportionate Share of the Net Pension Liability, and Schedules of Contributions for TRS, ERS, and JRF. The Schedules of Employer Contributions provides trend data on the annual required employer contributions and the percentage actually contributed.

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Management's Discussion and Analysis (Continued)

Comparative Summary Statements

Summary Comparative Combining Statement of Fiduciary Net Position

As of September 30, 2017 and 2016

(Dollar Amounts in Thousands)

	<u>2017</u>	<u>2016</u>	<u>Variance</u>	<u>% Increase/ (Decrease)</u>
<i>Assets & Deferred Outflows of Resources</i>				
Cash	\$ 69,189	\$ 65,295	\$ 3,894	5.96
Receivables	264,704	262,040	2,664	1.02
Investment Sales Receivable	80,379	1,001,543	(921,164)	(91.97)
Investments, at fair value	36,699,498	33,960,484	2,739,014	8.07
Invested Securities Lending Collateral	1,759,897	1,664,521	95,376	5.73
Property and Equipment, Net	154,037	150,859	3,178	2.11
Deferred Outflows of Resources	9,196	6,552	2,644	40.35
Total Assets & Deferred Outflows of Resources	<u>39,036,900</u>	<u>37,111,294</u>	<u>1,925,606</u>	5.19
<i>Liabilities & Deferred Inflows of Resources</i>				
Accounts Payable and Other Liabilities	10,424	12,575	(2,151)	(17.11)
Federal Withholding Payable	23,498	22,501	997	4.43
Investment Purchases Payable	116,269	972,334	(856,065)	(88.04)
Other Post-employment Benefit Obligations	11,102	10,024	1,078	10.75
Net Pension Liability	38,316	33,309	5,007	15.03
Securities Lending Collateral	1,759,897	1,664,521	95,376	5.73
Deferred Inflows of Resources	888	616	272	44.16
Total Liabilities & Deferred Inflows of Resources	<u>1,960,394</u>	<u>2,715,880</u>	<u>(755,486)</u>	(27.82)
<i>Net Position</i>	<u>\$ 37,076,506</u>	<u>\$ 34,395,414</u>	<u>\$ 2,681,092</u>	7.79

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Management's Discussion and Analysis (Continued)

**Summary Comparative Combining Statement of Changes in Fiduciary Net Position
For the Fiscal Years Ended September 30, 2017 and 2016
(Dollar Amounts in Thousands)**

	<u>2017</u>	<u>2016</u>	<u>Variance</u>	<u>% Increase/ (Decrease)</u>
Additions				
Employee Contributions	\$ 720,741	\$ 707,829	\$ 12,912	1.82
Employer Contributions	1,226,283	1,204,529	21,754	1.81
Investment Income	4,070,953	3,280,756	790,197	24.09
Transfers Between Systems	6,770	9,891	(3,121)	(31.55)
Total Additions	<u>6,024,747</u>	<u>5,203,005</u>	<u>821,742</u>	15.79
Deductions				
Retirement Allowance Payments	3,194,977	3,225,194	(30,217)	(0.94)
Return of Contributions, Unit Withdrawals & Death Benefits	104,670	103,013	1,657	1.61
Transfers Between Systems	6,770	9,891	(3,121)	(31.55)
Administrative Expenses	28,706	26,272	2,434	9.26
Depreciation	8,532	6,730	1,802	26.78
Total Deductions	<u>3,343,655</u>	<u>3,371,100</u>	<u>(27,445)</u>	(0.81)
Increase in Fiduciary Net Position	2,681,092	1,831,905	849,187	46.36
Net Position - Beginning of Year	<u>34,395,414</u>	<u>32,563,509</u>	<u>1,831,905</u>	5.63
Net Position - End of Year	<u>\$ 37,076,506</u>	<u>\$ 34,395,414</u>	<u>\$ 2,681,092</u>	7.79

**Comparison of Individual Fiduciary Net Position
As of September 30, 2017 and 2016
(Dollar Amounts in Thousands)**

	<u>2017</u>	<u>2016</u>	<u>Variance</u>	<u>% Increase/ (Decrease)</u>
TRS	\$ 24,651,457	\$ 22,936,298	\$ 1,715,159	7.48
ERS	12,122,471	11,177,074	945,397	8.46
JRF	302,578	282,042	20,536	7.28
Total	<u>\$ 37,076,506</u>	<u>\$ 34,395,414</u>	<u>\$ 2,681,092</u>	7.79

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Management's Discussion and Analysis (Continued)

Financial Analysis

- Primarily all cash on hand at September 30, 2017, was held for administrative expenses.
- In the Summary Comparative Combining Statement of Fiduciary Net Position, receivables consist of employee contributions, employer contributions, interest, dividends, and real estate receivables at September 30, 2017.
- Investment sales receivable and investment purchases payable occur as a result of trade date accounting. The decrease in the receivable and payable for fiscal year 2017 was due to the value of securities traded in the current fiscal year and settling in the following fiscal year being smaller than the value of the securities traded but settled in the previous fiscal year.
- The RSA's investment portfolio presented in percentages by investment type:

	<u>TRS</u>	<u>ERS</u>	<u>JRF</u>
Equity	70.50%	70.72%	69.99%
Fixed	19.65%	19.59%	28.64%
Real Estate	9.85%	9.69%	1.37%
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

- Employer contributions increased as a result of higher employer contribution rates for fiscal year 2016. The employer contribution rates for fiscal year 2017 are in the table below. ERS local participating employer contribution rates differ for each employer.

	<u>Tier 1</u>	<u>Tier 2</u>
TRS	12.01%	10.82%
ERS - State Employees	13.89%	13.25%
ERS - State Police	57.25%	53.55%
JRF	40.65%	-

- During fiscal year 2017, returns on investments of the TRS, ERS, and JRF were 11.77%, 12.86%, and 11.90%, respectively. The returns were calculated by State Street Bank.
- During fiscal year 2017, net securities lending income decreased by 9% for RSA which was primarily driven by an overall decrease in demand. The lower demand was particularly evident during the first half of the fiscal year. The asset classes most impacted were U.S. government securities as well as U.S. equities and corporate bonds. Since the presidential election in November 2016, the markets continued to appreciate through September 30, 2017. This appreciation led to a lack of volatility and subdued demand. Brokers and the subsequent hedge funds did not have the opportunities in 2017 as compared to 2016. At September 30, 2017, cash loan balances increased while non-cash loans decreased leaving on loan balances down slightly from the previous year. With cash loans, the borrower posts cash as collateral which is reinvested in a collateral fund which generates earnings and from those earnings the borrowing broker receives a rebate. The rebate paid to a borrower is driven by the Federal Funds rate (the Fed Funds rate which is also the benchmark). During fiscal year 2017, the Federal Open Market Committee (FOMC) raised rates three times. These rate increases raised the range of the FOMC rate from 0.25% to 0.50% to 1.00% to 1.25%. These rate increases along with the decreased demand to borrow securities and increased the rebates paid borrowers. As the benchmark continues to increase, rebates paid to borrowers will continue to migrate from what was previously negative rebate rates to positive ("standard") rebate rates.
- Retirement allowance payments decreased slightly due to the end of the Deferred Retirement Option Program (DROP) in March 2011 with the final DROP Participation Period ending in May 2016. There has been a decrease in the number of DROP account distributions paid out as no new participants were allowed to enter the DROP with an effective participation date after June 1, 2011.

Funding Status

The Governmental Accounting Standards Board (GASB) has issued Statement No. 67, *Financial Reporting for Pension Plans*, which amends GASB Statement No. 25. Under GASB Statement No. 67, the methodology for determining the net pension liability disclosed in the Notes to the Combined Financial Statements has shifted from a funding perspective to an accounting perspective.

At September 30, 2017, TRS and JRF employers' total pension liability was \$34.5 billion and \$456.9 million, respectively. The plan fiduciary net position of TRS and JRF employers was \$24.7 billion and \$ 302.6 million, respectively, resulting in a net pension liability of \$9.8 billion and \$154.3 million, respectively. The plan fiduciary net position as a percentage of the total pension liability for TRS and JRF employers was 71.50% and 66.22%, respectively, using GASB Statement No. 67 measurements.

Under the provisions of GASB Statement No. 67, agent-multiple employer plans such as ERS apply the measurements and recognition of net pension liability at the individual plan level for each retirement plan administered. Therefore, aggregate information for ERS related to the net pension liability has not been presented.

Financial Highlights

- Net position held in trust of \$37.1 billion at September 30, 2017, was available to meet future benefit payments.
- At September 30, 2016, the date of the most recent actuarial valuation, the funding level (actuarial value of assets as a percentage of actuarial accrued liabilities) was 68.3% for the TRS, 66.2% for the ERS, and 62.6% for the JRF.



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RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Combining Statement of Fiduciary Net Position

September 30, 2017 with comparative figures for 2016

(Dollar Amounts in Thousands)

	2017			Totals
	Teachers' Retirement System	Employees' Retirement System	Judicial Retirement Fund	
Assets				
Cash (Note 4)	\$ 57,413	\$ 9,140	\$ 2,636	\$ 69,189
Receivables				
Employee Contributions	38,750	19,124	173	58,047
Employer Contributions	63,362	34,545	614	98,521
Investment Sales Receivable	52,290	28,075	14	80,379
Real Estate Investment Receivable	866	433	-	1,299
Dividends and Interest	72,031	33,903	903	106,837
Total Receivables	<u>227,299</u>	<u>116,080</u>	<u>1,704</u>	<u>345,083</u>
Investments, at Fair Value (Note 5)				
Domestic Equity	13,901,047	7,025,435	164,278	21,090,760
Domestic Fixed Income	3,928,819	1,933,088	69,172	5,931,079
International Equities	3,294,618	1,467,563	45,067	4,807,248
Real Estate	2,401,236	1,163,825	4,101	3,569,162
Short-Term	864,603	420,173	16,473	1,301,249
Total Investments	<u>24,390,323</u>	<u>12,010,084</u>	<u>299,091</u>	<u>36,699,498</u>
Invested Securities Lending Collateral (Note 5)	1,189,852	551,930	18,115	1,759,897
Property and Equipment less				
Accumulated Depreciation (Note 8)	105,664	48,373	-	154,037
Total Assets	<u>25,970,551</u>	<u>12,735,607</u>	<u>321,546</u>	<u>39,027,704</u>
Deferred Outflows of Resources				
	<u>5,355</u>	<u>3,758</u>	<u>83</u>	<u>9,196</u>
Total Assets and Deferred Outflows of Resources	<u>25,975,906</u>	<u>12,739,365</u>	<u>321,629</u>	<u>39,036,900</u>
Liabilities				
Accounts Payable and Other Liabilities	6,732	3,630	62	10,424
Federal Withholding Payable	23,498	-	-	23,498
Investment Purchases Payable	76,787	38,979	503	116,269
Other Post-employment Benefits (Note 9)	5,720	5,335	47	11,102
Net Pension Liability	21,164	16,850	302	38,316
Securities Lending Collateral (Note 5)	1,189,852	551,930	18,115	1,759,897
Total Liabilities	<u>1,323,753</u>	<u>616,724</u>	<u>19,029</u>	<u>1,959,506</u>
Deferred Inflows of Resources				
	<u>696</u>	<u>170</u>	<u>22</u>	<u>888</u>
Total Liabilities and Deferred Inflows of Resources	<u>1,324,449</u>	<u>616,894</u>	<u>19,051</u>	<u>1,960,394</u>
Net Position Restricted for Pension Benefits (Note 3)	<u>\$ 24,651,457</u>	<u>\$ 12,122,471</u>	<u>\$ 302,578</u>	<u>\$ 37,076,506</u>

See accompanying Notes to the Combined Financial Statements.

	2016			
	Teachers' Retirement System	Employees' Retirement System	Judicial Retirement Fund	Totals
<i>Assets</i>				
Cash	\$ 56,079	\$ 6,823	\$ 2,393	\$ 65,295
Receivables				
Employee Contributions	37,735	19,678	166	57,579
Employer Contributions	61,167	36,276	619	98,062
Investment Sales Receivable	667,019	326,474	8,050	1,001,543
Real Estate Investment Receivable	913	457	-	1,370
Dividends and Interest	70,611	33,153	1,001	104,765
Miscellaneous Receivable	131	133	-	264
Total Receivables	<u>837,576</u>	<u>416,171</u>	<u>9,836</u>	<u>1,263,583</u>
Investments, at Fair Value				
Domestic Equity	11,784,393	5,850,539	146,359	17,781,291
Domestic Fixed Income	4,853,613	2,316,304	74,968	7,244,885
International Equities	2,832,378	1,260,074	38,660	4,131,112
Real Estate	2,331,076	1,129,763	4,009	3,464,848
Short-Term	837,201	487,223	13,924	1,338,348
Total Investments	<u>22,638,661</u>	<u>11,043,903</u>	<u>277,920</u>	<u>33,960,484</u>
Invested Securities Lending Collateral	1,072,246	571,710	20,565	1,664,521
Property and Equipment less				
Accumulated Depreciation	102,722	48,137	-	150,859
Total Assets	<u>24,707,284</u>	<u>12,086,744</u>	<u>310,714</u>	<u>37,104,742</u>
Deferred Outflows of Resources				
Total Assets and Deferred Outflows of Resources	<u>4,002</u>	<u>2,458</u>	<u>92</u>	<u>6,552</u>
	<u>24,711,286</u>	<u>12,089,202</u>	<u>310,806</u>	<u>37,111,294</u>
<i>Liabilities</i>				
Accounts Payable and Other Liabilities	8,374	4,140	61	12,575
Federal Withholding Payable	22,501	-	-	22,501
Investment Purchases Payable	647,585	316,977	7,772	972,334
Other Post-employment Benefits	5,091	4,889	44	10,024
Net Pension Liability	18,891	14,146	272	33,309
Securities Lending Collateral	1,072,246	571,710	20,565	1,664,521
Total Liabilities	<u>1,774,688</u>	<u>911,862</u>	<u>28,714</u>	<u>2,715,264</u>
Deferred Inflows of Resources				
Total Liabilities and Deferred Inflows of Resources	<u>300</u>	<u>266</u>	<u>50</u>	<u>616</u>
	<u>1,774,988</u>	<u>912,128</u>	<u>28,764</u>	<u>2,715,880</u>
<i>Net Position Restricted for Pension Benefits</i>	<u>\$ 22,936,298</u>	<u>\$ 11,177,074</u>	<u>\$ 282,042</u>	<u>\$ 34,395,414</u>

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Combining Statement of Changes in Fiduciary Net Position

For the Fiscal Year Ended September 30, 2017 with comparative figures for 2016

(Dollar Amounts in Thousands)

	2017			
	Teachers' Retirement System	Employees' Retirement System	Judicial Retirement Fund	Totals
Additions				
Contributions				
Employee	\$ 486,542	\$ 230,488	\$ 3,711	\$ 720,741
Employer	782,695	426,215	17,373	1,226,283
Transfers from Teachers' Retirement System	-	3,413	-	3,413
Transfers from Employees' Retirement System	3,096	-	261	3,357
Total Contributions	<u>1,272,333</u>	<u>660,116</u>	<u>21,345</u>	<u>1,953,794</u>
Investment Income (Note 5)				
<i>From Investing Activities</i>				
Net Increase in Fair Value of Investments	2,021,774	1,098,859	25,639	3,146,272
Interest and Dividends	613,353	302,295	6,910	922,558
Total Investment Income from Investing Activities	<u>2,635,127</u>	<u>1,401,154</u>	<u>32,549</u>	<u>4,068,830</u>
Less: Investment Expenses, Net	8,685	3,305	-	11,990
Net Investment Income from Investing Activities	<u>2,626,442</u>	<u>1,397,849</u>	<u>32,549</u>	<u>4,056,840</u>
<i>From Securities Lending Activities</i>				
Securities Lending Income	20,125	9,127	270	29,522
Less Securities Lending Expenses:				
Borrower Rebates	7,350	3,424	90	10,864
Management Fees	3,112	1,389	44	4,545
Total Securities Lending Expenses	<u>10,462</u>	<u>4,813</u>	<u>134</u>	<u>15,409</u>
Net Income from Securities Lending Activities	<u>9,663</u>	<u>4,314</u>	<u>136</u>	<u>14,113</u>
Total Net Investment Income	<u>2,636,105</u>	<u>1,402,163</u>	<u>32,685</u>	<u>4,070,953</u>
Total Additions	<u>3,908,438</u>	<u>2,062,279</u>	<u>54,030</u>	<u>6,024,747</u>
Deductions				
Retirement Allowance Payments	2,111,830	1,050,340	32,807	3,194,977
Return of Contributions and Death Benefits	55,634	47,683	353	103,670
Unit Withdrawals	-	1,000	-	1,000
Transfers to Employees' Retirement System	3,413	-	-	3,413
Transfers to Teachers' Retirement System	-	3,096	-	3,096
Transfers to Judicial Retirement Fund	-	261	-	261
Administrative Expenses	16,390	11,982	334	28,706
Depreciation (Note 8)	6,012	2,520	-	8,532
Total Deductions	<u>2,193,279</u>	<u>1,116,882</u>	<u>33,494</u>	<u>3,343,655</u>
Net Increase	<u>1,715,159</u>	<u>945,397</u>	<u>20,536</u>	<u>2,681,092</u>
Net Position Restricted for Pension Benefits (Note 3)				
Beginning of Year	22,936,298	11,177,074	282,042	34,395,414
End of Year	<u>\$ 24,651,457</u>	<u>\$ 12,122,471</u>	<u>\$ 302,578</u>	<u>\$ 37,076,506</u>

See accompanying *Notes to the Combined Financial Statements*.

	2016			
	Teachers' Retirement System	Employees' Retirement System	Judicial Retirement Fund	Totals
Additions				
Contributions				
Employee	\$ 472,390	\$ 231,794	\$ 3,645	\$ 707,829
Employer	751,902	435,098	17,529	1,204,529
Transfers from Teachers' Retirement System	-	6,223	-	6,223
Transfers from Employees' Retirement System	3,590	-	78	3,668
Total Contributions	<u>1,227,882</u>	<u>673,115</u>	<u>21,252</u>	<u>1,922,249</u>
Investment Income				
<i>From Investing Activities</i>				
Net Increase in Fair Value of Investments	1,589,279	753,836	21,302	2,364,417
Interest and Dividends	607,795	297,369	6,865	912,029
Total Investment Income from Investing Activities	<u>2,197,074</u>	<u>1,051,205</u>	<u>28,167</u>	<u>3,276,446</u>
Less: Investment Expenses, Net	7,731	2,883	-	10,614
Net Investment Income from Investing Activities	<u>2,189,343</u>	<u>1,048,322</u>	<u>28,167</u>	<u>3,265,832</u>
<i>From Securities Lending Activities</i>				
Securities Lending Income	15,930	7,481	258	23,669
Less Securities Lending Expenses:				
Borrower Rebates	2,825	1,356	58	4,239
Management Fees	3,044	1,416	46	4,506
Total Securities Lending Expenses	<u>5,869</u>	<u>2,772</u>	<u>104</u>	<u>8,745</u>
Net Income from Securities Lending Activities	<u>10,061</u>	<u>4,709</u>	<u>154</u>	<u>14,924</u>
Total Net Investment Income	<u>2,199,404</u>	<u>1,053,031</u>	<u>28,321</u>	<u>3,280,756</u>
Total Additions	<u>3,427,286</u>	<u>1,726,146</u>	<u>49,573</u>	<u>5,203,005</u>
Deductions				
Retirement Allowance Payments	2,155,784	1,038,517	30,893	3,225,194
Return of Contributions and Death Benefits	57,130	45,768	115	103,013
Transfers to Employees' Retirement System	6,223	-	-	6,223
Transfers to Teachers' Retirement System	-	3,590	-	3,590
Transfers to Judicial Retirement Fund	-	78	-	78
Administrative Expenses	14,873	11,002	397	26,272
Depreciation	4,709	2,021	-	6,730
Total Deductions	<u>2,238,719</u>	<u>1,100,976</u>	<u>31,405</u>	<u>3,371,100</u>
Net Increase	1,188,567	625,170	18,168	1,831,905
Net Position Restricted for Pension Benefits				
Beginning of Year	21,747,731	10,551,904	263,874	32,563,509
End of Year	<u>\$ 22,936,298</u>	<u>\$ 11,177,074</u>	<u>\$ 282,042</u>	<u>\$ 34,395,414</u>

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Notes to the Combined Financial Statements For the Fiscal Year Ended September 30, 2017

(Dollar Amounts in Thousands)

1) PLAN DESCRIPTION

The Teachers' Retirement System (TRS), Employees' Retirement System (ERS), and Judicial Retirement Fund (JRF) operate under common management and are collectively referred to as the Retirement Systems of Alabama (RSA or Systems). In addition to executive management, the TRS, ERS, and JRF share investment management, accounting, and information system services, the costs of which are allocated to the funds on an equitable basis.

The TRS, a cost-sharing multiple-employer public employee retirement plan, was established as of September 15, 1939, pursuant to the *Code of Alabama 1975, Title 16, Chapter 25* (Act 419 of the Legislature of 1939) for the purpose of providing retirement allowances and other specified benefits for qualified persons employed by State-supported educational institutions. The responsibility for the general administration and operation of the TRS is vested in its Board of Control, which consists of 15 trustees as follows:

- 1) The State Superintendent of Education, ex officio.
- 2) The State Treasurer, ex officio.
- 3) The State Director of Finance, ex officio.
- 4) Twelve members of TRS who are elected by members from the same category of TRS for a term of three years as follows:
 - a. Teacher Place #1.
 - b. Teacher Place #2.
 - c. Teacher Place #3.
 - d. Educational Support Personnel Place #1.
 - e. Educational Support Personnel Place #2.
 - f. Retired Place #1.
 - g. Retired Place #2.
 - h. Superintendents' Place.
 - i. Principals' Place.
 - j. Postsecondary Place.
 - k. Higher Education Place #1.
 - l. Higher Education Place #2.

The ERS, an agent multiple-employer public employee retirement plan, was established as of October 1, 1945, pursuant to the *Code of Alabama 1975, Title 36, Chapter 27* (Act 515 of the Legislature of 1945). The purpose of the ERS is to provide retirement allowances and other specified benefits for state employees, State Police, and, on an elective basis, to all cities, counties, towns, and quasi-public organizations. Assets of the ERS are pooled for investment purposes. However, separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of its employees only. The responsibility for the general administration and operation of the ERS is vested in its Board of Control, which consists of 13 trustees as follows:

- 1) The Governor, ex officio.
- 2) The State Treasurer, ex officio.
- 3) The State Personnel Director, ex officio.
- 4) The State Director of Finance, ex officio.
- 5) Three vested members of ERS appointed by the Governor for a term of four years, no two of whom are from the same department of state government nor from any department of which an ex officio trustee is the head.
- 6) Six members of ERS who are elected by members from the same category of ERS for a term of four years as follows:
 - a. Two retired members with one from the ranks of retired state employees and one from the ranks of retired employees of a city, county, or a public agency each of whom is an active beneficiary of ERS.
 - b. Two vested active state employees.
 - c. Two vested active employees of an employer participating in ERS pursuant to the *Code of Alabama 1975, Section 36-27-6*.

The JRF, a cost-sharing multiple-employer public employee retirement plan, was established as of September 18, 1973, pursuant to the *Code of Alabama 1975, Title 12, Chapter 18* (Act 1163 of the Legislature of 1973) for the purpose of providing retirement allowances and other specified benefits for any Justice of the Supreme Court of Alabama, Judge of the Court of Civil Appeals, Judge of the Court of Criminal Appeals, Judge of the Circuit Court, or office holder of any newly created judicial office receiving compensation from the State Treasury. The *Code of Alabama 1975, Title 12, Chapter 18, Articles 3 & 4* (Act 1205 of the Legislature of 1975) enlarged the scope and coverage of the JRF to include District and Probate Judges, respectively. The responsibility for the general administration and operation of the JRF is vested in the Board of Control of the ERS.

At September 30, 2017, the number of participating units in each system was as follows:

	<u>TRS</u>	<u>ERS</u>	<u>JRF</u>
Cities	-	297	-
Counties	-	65	67
Other Public Entities	-	514	-
Universities	13	-	-
Postsecondary			
Institutions	25	-	-
City and County			
Boards of Education	138	-	-
State Agencies & Other	32	1	1
Totals	<u>208</u>	<u>877</u>	<u>68</u>

At September 30, 2016, the date of the most recent actuarial valuation, membership consisted of:

	<u>TRS</u>	<u>ERS</u>	<u>JRF</u>
Retirees and beneficiaries currently receiving benefits:			
General	91,574	23,614	384
State Police	-	893	-
Employees of Local Employers	-	23,242	-
Terminated employees entitled to benefits but not yet receiving benefits:			
General	16,770	3,094	22
State Police	-	17	-
Employees of Local Employers	-	7,809	-
Non-vested inactive members who have not contributed for more than 5 years	29,349	19,707	26
Active Employees:			
General	136,731	29,101	336
State Police	-	655	-
Employees of Local Employers	-	55,058	-
Totals	<u>274,424</u>	<u>163,190</u>	<u>768</u>

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Notes to the Combined Financial Statements For the Fiscal Year Ended September 30, 2017

(Dollar Amounts in Thousands)

State law establishes retirement benefits as well as death and disability benefits and any ad hoc increase in postretirement benefits for the TRS, ERS, and JRF. Benefits for TRS and ERS members vest after 10 years of creditable service. Teachers and state employees who retire after age 60 (52 for State Police) with 10 years or more of creditable service or with 25 years of service (regardless of age) are entitled to an annual retirement benefit, payable monthly for life. Local employees who retire after age 60 with 10 years or more of creditable service or with 25 or 30 years of service (regardless of age), depending on the particular entity's election, are entitled to an annual retirement benefit, payable monthly for life. Service and disability retirement benefits are based on a guaranteed minimum or a formula method, with the member receiving payment under the method that yields the highest monthly benefit. Under the formula method, members of the TRS and ERS (except State Police) are allowed 2.0125% of their average final compensation (highest 3 of the last 10 years) for each year of service. State Police are allowed 2.875% for each year of State Police service in computing the formula method.

Act 377 of the Legislature of 2012 established a new tier of benefits (Tier 2) for members hired on or after January 1, 2013. Tier 2 TRS and ERS members are eligible for retirement after age 62 (56 for State Police) with 10 years or more of creditable service and are entitled to an annual retirement benefit, payable monthly for life. Service and disability retirement benefits are based on a guaranteed minimum or a formula method, with the member receiving payment under the method that yields the highest monthly benefit. Under the formula method, Tier 2 members of the TRS and ERS (except State Police) are allowed 1.65% of their average final compensation (highest 5 of the last 10 years) for each year of service. State Police are allowed 2.375% for each year of state police service in computing the formula method.

The JRF benefits vest from five to eighteen years. Except for justices or judges who were either disabled, elected prior to July 30, 1979, or have at least 25 years of creditable service, no justice or judge is eligible to receive judicial service retirement pay prior to attaining age 60. Service retirement benefits for justices and judges are dependent upon the particular office held in the judicial branch of government. A retirement benefit is payable upon the request of any member who has: (1) 25 years of creditable service (regardless of age), (2) completed 12 years of creditable service and has attained age 65, (3) completed 15 years of creditable service and whose age plus service equals or exceeds 77, (4) completed 10 years of creditable service and has attained age 70 or (5) been elected prior to July 30, 1979, and has 18 years of service (regardless of age). A member eligible to retire who has not requested his or her retirement benefit to commence at the end of the term in which the member's 70th birthday occurs is entitled only to the refund of his or her contributions (except for members with at least 25 years of creditable service). The service retirement benefit for circuit, appellate, and probate judges is 75% of the member's salary at the time of separation from service. The service retirement benefit for a district judge is 75% of the position's salary immediately prior to retirement.

Act 498 of the Legislature of 2015 established a new group (Group 3) of members within JRF which consists of all justices, judges, circuit clerks, and district attorneys elected or appointed on or after November 8, 2016. Group 3 members are eligible for retirement after age 62 with 10 years or more of creditable service and are entitled to an annual retirement benefit, payable monthly for life. A district attorney who has Tier 1 ERS transferred service as an assistant or deputy district attorney is eligible for service retirement with 25 years of service credit, regardless of age. Service and disability retirement benefits are calculated using a retirement formula. Group 3 members who are judges or justices are allowed 4% of their average final compensation (highest 5 of the last 10 years) for each year of service up to 75% of their average final compensation. Group 3 members who are clerks or district attorneys are allowed 3% of their average final compensation (highest 5 of the last 10 years) for each year of service up to 80% of their average final compensation.

Covered members of the TRS and ERS (except State Police and certified law enforcement, correctional officers, and firefighters) contributed 5% of earnable compensation to the TRS and ERS as required by statute until September 30, 2011. From October 1, 2011, to September 30, 2012, covered members of the TRS and ERS (except State Police and certified law enforcement, correctional officers, and firefighters) were required by statute to contribute 7.25% of earnable compensation. Effective October 1, 2012, covered members of the TRS and ERS (except State Police and certified law enforcement, correctional officers, and firefighters) are required by statute to contribute 7.50% of earnable compensation. JRF members and certified law enforcement, correctional officers, and firefighters of the TRS and ERS contributed 6% of earnable compensation as required by statute until September 30, 2011. From October 1, 2011, to September 30, 2012, JRF members and certified law enforcement, correctional officers, and firefighters of the TRS and ERS were required by statute to contribute 8.25% of earnable compensation. Effective October 1, 2012, JRF members and certified law enforcement, correctional officers, and firefighters of the TRS and ERS are required by statute to contribute 8.50% of earnable compensation. State Police members of the ERS contribute 10% of earnable compensation. ERS local participating employers are not required by statute to increase contribution rates for their members.

Tier 2 covered members of the TRS and ERS (except State Police and certified law enforcement, correctional officers, and firefighters) contribute 6% of earnable compensation to the TRS and ERS as required by statute. Tier 2 certified law enforcement, correctional officers, and firefighters of the TRS and ERS are required by statute to contribute 7% of earnable compensation. Tier 2 State Police members of the ERS contribute 10% of earnable compensation. These contribution rates are the same for Tier 2 covered members of ERS local participating employers.

Group 3 members of the JRF contribute 8.50% of earnable compensation to the JRF as required by statute.

2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Accounting

The TRS, ERS, and JRF financial statements are prepared using the economic resources measurement focus and accrual basis of accounting. Contributions are recognized as revenues when earned, pursuant to plan requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plans. Expenses are recognized when the corresponding liability is incurred, regardless of when the payment is made. The accompanying financial statements are prepared in accordance with the requirements of the Governmental Accounting Standards Board (GASB). Under these requirements, the TRS, ERS, and JRF are considered component units of the State of Alabama and are included in the State's Comprehensive Annual Financial Report. Subsequent events were evaluated by management through the date the financial statements were issued.

B. Investments

The Boards of Control of the Systems have the responsibility and authority to invest and reinvest available funds, through the Secretary-Treasurer (CEO) and Investment Committee, in bonds, mortgage-backed securities, common and preferred stock, and other investment vehicles with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use. All plan assets are carried at fair value. Securities traded on national or international exchanges are valued at the last reported sales price at current exchange rates. Short-term investments are reported at cost, which approximates fair value. Mortgage-backed securities are reported based on future principal and interest payments discounted at the prevailing interest rate for similar instruments. The fair value of real estate investments is based on independent appraisals or cost, when cost approximates fair value. Generally, private placements are valued based on the selling price of similar investments sold in the open market. In those instances where there are no similar investments sold in the open market, an independent appraisal is performed to determine the fair value of the private placements. RSA invests in limited partnerships which are long-term and generally illiquid. As a result, investors are subject to redemption restrictions which generally limit distributions and restrict the ability of limited partners to exit a partnership investment prior to its dissolution. These partnership investments are valued using their respective net asset values (NAV) and are generally audited annually. The most significant element of the NAV is the fair value of the investment holdings. These holdings are valued by the general partners in conjunction with management, investment advisors, and valuation specialists. The valuation techniques vary based on investment type and involve a certain degree of expert judgment. The fair value for these investments could differ significantly if a ready market for these assets existed.

C. Comparative Combining Statements

The basic financial statements include the prior year Combining Statement of Fiduciary Net Position and Combining Statement of Changes in Fiduciary Net Position (Statements) for comparative purposes only. Prior year note disclosures are not included. Therefore, the prior year basic financial statement presentation does not meet the minimum level of detail required for a presentation in conformity with generally accepted accounting principles. Accordingly, the prior year Statements should be read in conjunction with the RSA's prior year financial report from which the prior year Statements were derived.

D. Interfund Transfers

Interfund transfers result from transfers of members between retirement systems.

E. Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts and disclosure in the financial statements. Actual results may differ from these estimates.

F. Deferred Outflows & Inflows of Resources

In addition to assets, the Combining Statement of Fiduciary Net Position reports a separate section for deferred outflows of resources. This separate financial statement element, *Deferred Outflows of Resources*, represents a consumption of fiduciary net position that applies to future periods and will not be recognized as an outflow of resources until that period. Employer contributions subsequent to the measurement date related to the employer's net pension liability are reported as deferred outflows of resources until the next measurement date.

In addition to liabilities, the Combining Statement of Fiduciary Net Position will sometimes report a separate section for *Deferred Inflows of Resources*. This separate financial statement element represents an acquisition of fiduciary net position that applies to future periods and will not be recognized until then. Net differences between projected and actual earnings on pension plan investments identified during the measurement period are deferred and amortized as a component of pension expense in future periods.

G. New Accounting Pronouncements

GASB Statement No. 82, *Pension Issues – an amendment of GASB Statements No. 67, No. 68, and No. 73*, became effective for reporting periods beginning after June 15, 2016 and was implemented by the Systems for the fiscal year ended September 30, 2017. This statement addresses issues regarding the presentation of payroll-related measures in required supplementary information, the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and the classification of payments made by employers to satisfy employee (plan member) contribution requirements.

3) LEGALLY REQUIRED RESERVES

A. Annuity Savings

Member contributions are credited to the Annuity Savings account. Interest at 4% per annum is credited to the annuity savings account of each member on the basis of the average of the beginning and end of year balances (as of June 30 for the TRS and September 30 for the ERS and JRF).

When a member withdraws from service prior to becoming vested, the member's accumulated contributions and a portion of accumulated interest credited to the Annuity Savings account are returned to the member. The portion of accumulated interest that, by law, is not payable to the member is transferred to the Expense fund.

When a TRS or ERS member dies prior to becoming eligible for retirement, the member's accumulated contributions and accumulated interest credited to the Annuity Savings account are returned to the member's designated beneficiary. If the preretirement death benefit defined below is not payable, an additional death benefit equal to the member's accumulated contributions, up to five thousand dollars, is paid from the Pension Accumulation account to the member's beneficiary.

When a member retires or when a survivor allowance becomes payable, the amount of the member's accumulated contributions and accumulated interest is transferred from the Annuity Savings account to the Pension Accumulation account.

B. Pension Accumulation

The Pension Accumulation account is credited with contributions made by the employer and net investment income. The lump sum death benefit is paid from this account when a TRS or ERS member dies prior to becoming eligible for the preretirement death benefit or retirement. Periodic interest representing member's earnings is transferred from the Pension Accumulation account to the Annuity Savings account. When a TRS, ERS, or JRF member retires or when a survivor allowance becomes payable, the member's accumulated contributions and accumulated interest is credited to the Pension Accumulation account, and all monthly benefit payments are paid from this account.

C. Preretirement Death Benefit

The Preretirement Death Benefit (PRDB) was established as of October 1, 1983, pursuant to the *Code of Alabama 1975, Title 36, Chapter 27B* (Act 616 of the Legislature of 1983). The PRDB account is credited with contributions made by TRS, ERS, and JRF Group 3 members' employers and investment income on such funds. The preretirement death benefit (in the form of group term life insurance) is paid in addition to the return of member contributions upon the death of an active TRS, ERS, and JRF Group 3 member who has completed at least one year of active membership in the system and whose date of death was within 180 days of such member's last date of actual service. However, a surviving spouse beneficiary of a deceased member who was eligible for service retirement may elect a survivor allowance in lieu of this benefit. The preretirement death benefit is equal to the annual earnable compensation of the member as reported to the System for the preceding year ending June 30 for the TRS and September 30 for the ERS and the JRF. These assets are not included in the actuarial valuation and the liabilities associated with these death benefits are not included in the actuarial valuation.

D. Term Life Insurance

The Alabama Teacher's Group Term Life Insurance Plan (established October 1, 1987) is credited with a portion of the employer contributions. All active contributing members of the TRS are covered by this plan. Contingent on availability of funds, upon death, a benefit is paid to the designated beneficiary of an insured member of the TRS. Beneficiaries of full-time employees receive fifteen thousand dollars while beneficiaries of part-time employees receive a prorated amount of fifteen thousand dollars. These assets are not included in the actuarial valuation and the liabilities associated with these life insurance benefits are not included in the valuation.

E. Expense

The Expense fund is used to pay the administrative expenses of the RSA. A portion of the employer contributions and the interest not payable upon member withdrawal provide the funding of the expense fund. The majority of expenses are directly identifiable as expenses of the TRS, ERS, or JRF. As discussed in Note 1, certain administrative salaries and other expenses are shared on an equitable basis between the TRS and ERS. These assets are not included in the actuarial valuation.

F. Deferred Retirement Option Plan (DROP)

The DROP was established for election to participate on or after June 1, 2002, pursuant to the *Code of Alabama 1975, Title 16, Chapter 25, Article 9* for TRS participants and the *Code of Alabama 1975, Title 36, Chapter 27B, Article 9* for ERS participants (Act 23 of the Legislature of 2002). Eligible members may elect to retire, and, in lieu of immediate withdrawal from service, continue employment for a period of three to five years. The retirement allowance, employee contributions, and interest earned are accumulated in an account for the benefit of the member. At the end of participation, the account balance is paid to the member. DROP participation is an option available to eligible members that have at least 25 years of service (exclusive of sick leave), are at least 55 years of age, and are eligible for retirement. See the actuarial section for additional information.

The DROP was repealed by Act 27 of the Legislature of 2011. The effect of Act 27 is that no new participants were allowed to enter the DROP with an effective participation date after June 1, 2011.

G. Reserves

The reserves of the RSA included in the Net Position Restricted for Pension Benefits in the accompanying Combining Statement of Fiduciary Net Position are funded to the full extent required by statute. The reserve balances as of September 30, 2017, are as follows (dollar amounts in thousands):

	<u>TRS</u>	<u>ERS</u>	<u>JRF</u>
Annuity Savings	\$ 5,504,125	\$ 2,817,368	\$ 44,871
Pension Accumulation	18,717,587	9,104,144	255,395
Deferred Retirement Option Plan	245,806	130,674	-
Pre-retirement Death Benefit	56,044	32,362	12
Term Life Insurance	12,137	-	-
Plant Fund	105,664	48,373	-
Expense	10,094	(10,450)	2,300
Net Position at 9/30/2017	<u>\$ 24,651,457</u>	<u>\$ 12,122,471</u>	<u>\$ 302,578</u>

4) CASH

Cash consists of deposits held by the State Treasurer in the respective retirement systems' name. Deposits are entirely insured by the Federal Deposit Insurance Corporation or protected under the Security for Alabama Funds Enhancement (SAFE) Program. The *Code of Alabama 1975*, as amended, requires all State organizations to participate in the SAFE Program. The SAFE Program is a multiple financial institution collateral pool. The SAFE Program requires all public funds to be deposited in a financial institution designated by the State Treasurer as a qualified public depository. Each qualified public depository is required to pledge collateral in accordance with the rules established by the SAFE Board of Directors. In the event that a qualified public depository defaults or becomes insolvent and the pledged collateral is insufficient to satisfy the claims of public depositors, the *Code of Alabama 1975, Section 41-14A-9(3)* authorizes the State Treasurer to make assessments against the other qualified public depositories in the pool so that there will be no loss of public funds. Virtually all cash on hand at September 30, 2017, was held for administrative expenses.

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5) INVESTMENTS

A. Investment Authority

Investment authority is granted to the Boards of Control, as Trustees of the Teachers' Retirement System and Employees' Retirement System (Systems), by Alabama statutes. Each System's Board of Control, therefore, has full power, through each System's Secretary-Treasurer, to invest and reinvest System funds in accordance with the Prudent Person Rule: "with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims." An important component of any investment strategy is the decision regarding allocation of investments among the various asset classes. The purpose of formulating asset allocation guidelines is to maximize investment returns within the standards of prudence established for the whole portfolio.

Each System's Board of Control is responsible for approving an Investment Policy Statement (IPS) that outlines investment strategies and the related asset allocation guidelines. During the reporting period, the Employees' Retirement System Board of Control adopted a revised IPS that was effective on September 7, 2017. Below are the asset allocation guidelines and related effective dates for both Systems.

Investment Allocation Guidelines for October 1, 2016, through September 6, 2017:

Asset Class	TRS		ERS		JRF	
	Target Allocation	Strategic Range	Target Allocation	Strategic Range	Target Allocation	Strategic Range
Domestic Equity	45%	30-60%	45%	30-60%	55%	30-60%
International Equity	15%	10-25%	15%	10-25%	15%	10-25%
Fixed Income	17%	10-50%	17%	10-50%	22%	10-50%
Alternative Investments	10%	0-20%	10%	0-15%	1%	0-15%
Real Estate	10%	0-15%	10%	0-15%	2%	0-15%
Short-Term Investments	3%	1-6%	3%	0-5%	5%	0-5%

Investment Allocation Guidelines for September 7, 2017, through September 30, 2017:

Asset Class	TRS		ERS		JRF	
	Target Allocation	Strategic Range	Target Allocation	Strategic Range	Target Allocation	Strategic Range
Domestic Equity	45%	30-60%	45%	30-60%	55%	30-60%
International Equity	15%	10-25%	15%	10-25%	15%	10-25%
Fixed Income	17%	10-50%	17%	10-40%	22%	10-40%
Alternative Investments	10%	0-20%	10%	0-15%	1%	0-15%
Real Estate	10%	0-15%	10%	0-15%	2%	0-15%
Short-Term Investments	3%	1-6%	3%	0-7%	5%	0-7%

B. Money-Weighted Rate of Return

The annual money-weighted rates of return for TRS, ERS, and JRF are 11.73%, 12.80%, and 11.88%, respectively. A money-weighted rate of return expresses investment performance, which is net of investment expense and is adjusted for the changing amounts actually invested. The annual money-weighted rate of return on investments is calculated as the internal rate of return on plan investments, net of plan investment expense.

C. Investment Risks

Investments are subject to certain types of risks, including interest rate risk, custodial credit risk, credit quality risk, foreign currency risk, and concentration of credit risk. The following describes those risks and the RSA's policies regarding those risks:

Interest Rate Risk – The fair value of fixed-maturity investments fluctuates in response to changes in market interest rates. Increases in prevailing interest rates generally translate into decreases in fair value of those instruments. There is no stated limitation on the duration level of the fixed income portfolio; however, this level is assessed on a regular basis to determine if adjustments are needed. The fair value of interest sensitive instruments may also be affected by the creditworthiness of the issuer, prepayment options, relative values of alternative investments, and other general market conditions. Certain fixed maturity investments have call provisions that could result in shorter maturity periods.

Custodial Credit Risk – For an investment, custodial credit risk is the risk that an entity will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party if the counterparty fails. The RSA's custodial credit risk policy requires the custodial agent to hold or direct its agents or sub custodians to hold, for the account of the RSA, all securities and other non-cash property other than securities in the Federal Reserve book-entry system, in a clearing agency which acts as a securities depository, or in another book-entry system. The RSA's safekeeping agent holds all investments of the RSA in the RSA's name with the exception of securities purchased with securities lending cash collateral.

Credit Quality Risk – Nationally recognized statistical rating organizations provide ratings of debt securities' quality based on a variety of factors, such as the financial condition of the issuers, which provide investors with some idea of the issuer's ability to meet its obligations. Domestic fixed-maturity investments may consist of rated or non-rated securities. There are no stated limitations on the credit quality of the fixed income portfolio; however, ratings are assessed on a regular basis. The Systems may hedge against the possible adverse effects of currency fluctuations on each System's portfolio of international fixed income obligations when it is considered appropriate. Short-term investments may consist of commercial paper rated at least A-2 and/or P-2, repurchase agreements, short-term U.S. securities, and other money market investments.

Foreign Currency Risk – The risk that changes in exchange rates will adversely affect the fair value of an investment. In order for an international security to be eligible for purchase by the Systems, the issuing company must be incorporated in a country whose debt securities are eligible for purchase and the fair value of the aggregate outstanding equity of the issuing company must be at least \$100 million.

Concentration of Credit Risk – As of September 30, 2017, the TRS, ERS, and JRF owned debt and equity securities of Goldman Sachs Group, Inc. which represented approximately 7.03% of the TRS investments, 6.21% of the ERS investments, and 6.48% of the JRF Investments. The TRS and ERS owned debt and equity securities of Raycom Media Corporation which represented approximately 8.05% of the TRS investments and 9.73% of the ERS investments. Additionally, TRS owned debt and equity securities of New Water Street Corporation which represented 5.19% of the TRS investments.

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The following tables provide information as of September 30, 2017, concerning the fair value of investments, interest rate risk, and foreign currency risk:

Type of Investment	TRS				Total Fair Value	Cost
	Maturity in Years at Fair Value					
	Less Than 1	1-5	6-10	More Than 10		
<i>Fixed Maturity</i>						
Domestic						
Money Market Funds	\$ 268,018	\$ -	\$ -	\$ -	\$ 268,018	\$ 268,018
Commercial Paper	596,585	-	-	-	596,585	596,585
U.S. Agency	17,656	88,568	51,321	-	157,545	157,640
U.S. Govt Guaranteed	-	342,407	303,179	101,711	747,297	746,354
Corporate Bonds	143,437	350,899	260,773	339,662	1,094,771	1,040,085
Private Placements	-	199,107	13,601	1,231,853	1,444,561	1,454,680
GNMAs	2	109	5,467	21,322	26,900	26,840
CMOs	6,955	273	27,268	423,249	457,745	456,698
Total Domestic Fixed Maturity	<u>\$ 1,032,653</u>	<u>\$ 981,363</u>	<u>\$ 661,609</u>	<u>\$ 2,117,797</u>	<u>4,793,422</u>	<u>4,746,900</u>
<i>Equities</i>						
Preferred						
					24,977	24,441
Domestic						
					12,650,924	8,007,117
Private						
					1,225,146	471,782
International						
Emerging Markets					485,758	409,190
United Kingdom - Pound Sterling					487,061	445,735
Japan - Yen					677,493	494,381
France - Euro					290,738	196,110
Germany - Euro					269,026	156,760
Switzerland - Franc					252,078	125,154
Netherlands - Euro					107,982	68,540
Italy - Euro					59,037	64,238
Ireland - Euro					11,553	7,097
Spain - Euro					81,173	82,392
Australia - Dollar					190,429	120,982
Singapore - Dollar					36,932	30,698
Belgium - Euro					39,395	27,074
Finland - Euro					28,612	25,146
Hong Kong - Dollar					99,105	52,237
Sweden - Krona					85,569	43,122
Denmark - Krone					48,005	17,913
Israel - Shekel					13,238	18,154
Norway - Krone					19,715	12,549
Austria - Euro					9,440	5,938
New Zealand - Dollar					2,279	2,218
Total International Equities					<u>3,294,618</u>	<u>2,405,628</u>
Total Equities					<u>17,195,665</u>	<u>10,908,968</u>
Real Estate					<u>2,401,236</u>	<u>1,803,094</u>
Total Investments					<u>\$ 24,390,323</u>	<u>\$ 17,458,962</u>

Type of Investment	ERS Maturity in Years at Fair Value				Total Fair Value	Cost
	Less Than 1	1-5	6-10	More Than 10		
<i>Fixed Maturity</i>						
Domestic						
Money Market Funds	\$ 98,185	\$ -	\$ -	\$ -	\$ 98,185	\$ 98,185
Commercial Paper	321,988	-	-	-	321,988	321,988
U.S. Agency	7,902	46,727	24,696	-	79,325	79,345
U.S. Govt Guaranteed	-	167,900	145,640	46,498	360,038	359,534
Corporate Bonds	65,982	169,441	137,238	159,175	531,836	506,098
Private Placements	-	98,068	6,699	611,149	715,916	720,900
GNMAs	-	39	1,914	9,704	11,657	11,637
CMOs	3,163	19	12,440	218,694	234,316	233,536
Total Domestic Fixed Maturity	<u>\$ 497,220</u>	<u>\$ 482,194</u>	<u>\$ 328,627</u>	<u>\$ 1,045,220</u>	<u>2,353,261</u>	<u>2,331,223</u>
<i>Equities</i>						
Preferred					11,356	11,112
Domestic					6,215,063	3,917,603
Private					799,016	275,808
International						
Emerging Markets					231,979	195,412
United Kingdom - Pound Sterling					214,227	195,095
Japan - Yen					297,939	217,880
France - Euro					130,123	87,201
Germany - Euro					118,329	68,766
Switzerland - Franc					110,837	54,350
Netherlands - Euro					45,259	28,557
Italy - Euro					25,964	28,045
Ireland - Euro					5,104	3,138
Spain - Euro					35,952	35,846
Australia - Dollar					83,752	53,220
Singapore - Dollar					16,235	13,451
Belgium - Euro					17,330	11,853
Finland - Euro					12,584	11,193
Hong Kong - Dollar					43,577	23,074
Sweden - Krona					37,643	19,073
Denmark - Krone					21,102	7,834
Israel - Shekel					5,822	7,984
Norway - Krone					8,651	5,583
Austria - Euro					4,152	2,658
New Zealand - Dollar					1,002	989
Total International Equities					1,467,563	1,071,202
Total Equities					8,492,998	5,275,725
Real Estate					1,163,825	898,762
Total Investments					\$ 12,010,084	\$ 8,505,710

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Type of Investment	JRF Maturity in Years at Fair Value				Total Fair Value	Cost
	Less Than 1	1-5	6-10	More Than 10		
	<i>Fixed Maturity</i>					
Domestic						
Money Market Funds	\$ 6,479	\$ -	\$ -	\$ -	\$ 6,479	\$ 6,479
Commercial Paper	9,994	-	-	-	9,994	9,994
U.S. Agency	410	2,272	1,436	-	4,118	4,124
U.S. Govt Guaranteed	-	11,403	9,517	2,723	23,643	23,757
Corporate Bonds	2,986	9,821	6,842	8,104	27,753	26,588
GNMAs	-	-	-	491	491	497
CMOs	160	-	691	12,316	13,167	13,147
Total Domestic Fixed Maturity	<u>\$ 20,029</u>	<u>\$ 23,496</u>	<u>\$ 18,486</u>	<u>\$ 23,634</u>	<u>85,645</u>	<u>84,586</u>
<i>Equities</i>						
Preferred					620	607
Domestic					163,527	83,495
Private					131	-
International						
Emerging Markets					8,077	6,830
Hong Kong - Dollar					1,321	812
Japan - Yen					8,978	6,924
Australia - Dollar					2,501	2,176
Singapore - Dollar					471	426
Germany - Euro					3,534	2,315
Belgium - Euro					517	347
Switzerland - Franc					3,287	2,180
Netherlands - Euro					1,353	927
Sweden - Krona					1,125	739
Spain - Euro					1,074	1,198
United Kingdom - Pound Sterling					6,401	6,292
France - Euro					3,884	3,036
Italy - Euro					780	817
Israel - Shekel					173	238
Finland - Euro					376	328
Denmark - Krone					640	315
Ireland - Euro					162	101
Norway - Krone					259	223
Austria - Euro					124	91
New Zealand - Dollar					30	23
Total International Equities					<u>45,067</u>	<u>36,338</u>
Total Equities					<u>209,345</u>	<u>120,440</u>
Real Estate					4,101	1,067
Total Investments					<u>\$ 299,091</u>	<u>\$ 206,093</u>

The following tables provide information as of September 30, 2017, concerning credit risk:

TRS			
Moody's Ratings	Cost	Fair Value	Fair Value as a Percent of Total Fixed Maturity Fair Value
Aaa	\$ 631,195	\$ 633,159	15.753
Aa1	16,433	17,142	0.427
Aa2	9,155	10,346	0.257
Aa3	3,067	3,139	0.078
P-2	596,585	596,585	14.843
A1	171,309	178,558	4.443
A2	44,294	42,235	1.051
A3	141,305	155,509	3.869
Baa1	243,481	256,982	6.394
Baa2	192,779	204,122	5.079
Baa3	78,789	83,348	2.074
Ba1	37,525	37,626	0.936
Ba2	17,969	20,000	0.497
Ba3	18,981	18,899	0.470
B1	9,537	9,544	0.238
B2	849	859	0.021
B3	10,386	10,693	0.266
Caa1	7,778	6,331	0.158
Not Rated	1,742,289	1,734,148	43.146
Total Fixed Maturity	\$ 3,973,706	\$ 4,019,225	100.000

Standard & Poor's Ratings	Cost	Fair Value	Fair Value as a Percent of Total Fixed Maturity Fair Value
AAA	\$ 14,887	\$ 15,699	0.391
AA+	630,771	632,431	15.735
AA	9,155	10,346	0.257
AA-	92,277	95,219	2.369
A-2	596,585	596,585	14.843
A+	51,612	56,416	1.404
A	99,291	102,967	2.562
A-	170,182	185,649	4.619
BBB+	239,492	251,971	6.269
BBB	188,758	195,728	4.870
BBB-	101,339	106,236	2.643
BB+	13,954	15,037	0.374
BB-	18,400	18,395	0.458
B	18,164	17,024	0.424
Not Rated	1,728,839	1,719,522	42.782
Total Fixed Maturity	\$ 3,973,706	\$ 4,019,225	100.000

Note: Excludes obligations of the U.S. government and obligations explicitly guaranteed by the U.S. government.

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ERS			
Moody's Ratings	Cost	Fair Value	Fair Value as a Percent of Total Fixed Maturity Fair Value
Aaa	\$ 320,582	\$ 321,804	16.240
Aa1	9,041	9,403	0.475
Aa2	4,142	4,687	0.237
Aa3	1,375	1,408	0.071
P-2	321,989	321,989	16.249
A 1	78,537	81,842	4.130
A 2	24,227	23,359	1.179
A 3	69,213	75,760	3.823
Baa1	130,260	137,024	6.915
Baa2	89,250	94,405	4.764
Baa3	35,549	37,609	1.898
Ba1	16,958	16,991	0.857
Ba2	8,208	9,137	0.461
Ba3	8,498	8,435	0.426
B1	4,299	4,283	0.216
B2	383	387	0.020
B3	5,043	5,177	0.261
Caa1	3,499	2,835	0.143
Not Rated	828,999	825,031	41.635
Total Fixed Maturity	\$ 1,960,052	\$ 1,981,566	100.000

Standard & Poor's Ratings	Cost	Fair Value	Fair Value as a Percent of Total Fixed Maturity Fair Value
AAA	\$ 6,807	\$ 7,177	0.362
AA+	321,922	323,045	16.302
AA	4,142	4,687	0.237
AA-	42,168	43,512	2.196
A-1	5,000	5,000	0.252
A-2	316,989	316,988	15.997
A+	23,624	25,815	1.303
A	48,957	50,659	2.557
A-	77,747	84,702	4.275
BBB+	134,106	140,692	7.100
BBB	87,375	90,540	4.569
BBB-	46,143	48,356	2.440
BB+	6,369	6,863	0.346
BB-	8,263	8,235	0.416
B	8,541	8,012	0.404
Not Rated	821,899	817,283	41.244
Total Fixed Maturity	\$ 1,960,052	\$ 1,981,566	100.000

Note: Excludes obligations of the U.S. government and obligations explicitly guaranteed by the U.S. government.

JRF			
<u>Moody's Ratings</u>	<u>Cost</u>	<u>Fair Value</u>	Fair Value as a Percent of Total Fixed Maturity Fair Value
Aaa	\$ 17,751	\$ 17,793	28.927
Aa1	508	528	0.858
Aa2	199	225	0.366
Aa3	75	77	0.125
P-2	9,994	9,994	16.248
A1	4,139	4,275	6.950
A2	1,094	1,048	1.704
A3	3,309	3,568	5.800
Baa1	6,747	7,107	11.554
Baa2	4,969	5,212	8.473
Baa3	2,260	2,354	3.827
Ba1	908	913	1.484
Ba2	458	510	0.830
Ba3	425	422	0.686
B1	224	223	0.363
B2	21	21	0.034
B3	309	317	0.515
Caa1	178	144	0.234
Not Rated	6,765	6,780	11.022
Total Fixed Maturity	\$ 60,333	\$ 61,511	100.000

<u>Standard & Poor's Ratings</u>	<u>Cost</u>	<u>Fair Value</u>	Fair Value as a Percent of Total Fixed Maturity Fair Value
AAA	\$ 436	\$ 460	0.747
AA+	17,779	17,813	28.958
AA	199	225	0.366
AA-	3,214	3,294	5.356
A-2	9,994	9,994	16.247
A+	1,021	1,088	1.769
A	2,441	2,528	4.110
A-	3,234	3,517	5.718
BBB+	6,433	6,736	10.951
BBB	4,965	5,120	8.324
BBB-	2,706	2,804	4.559
BB+	341	366	0.595
BB-	424	423	0.687
B	487	461	0.749
Not Rated	6,659	6,682	10.864
Total Fixed Maturity	\$ 60,333	\$ 61,511	100.000

Note: Excludes obligations of the U.S. government and obligations explicitly guaranteed by the U.S. government.

(Dollar Amounts in Thousands)

D. Fair Value Measurement

The RSA categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy prioritizes the inputs to valuation used to measure the fair value of the asset, giving the highest priority to quoted prices in an active market for identical assets (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The inputs to the three levels of the fair value hierarchy are described as follows:

- Level 1: Quoted (unadjusted) prices in an active market for identical assets or liabilities.
- Level 2: Significant other inputs which are observable either directly or indirectly, including quoted prices for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in a less active market, or other market-corroborated inputs.
- Level 3: Valuations derived from valuation techniques using significant unobservable inputs for the asset or liabilities.

The categorization of investments within the hierarchy is based upon pricing transparency of the instrument and should not be perceived as the particular investment's risk.

Investments in equity securities classified as Level 1 are valued using quoted prices in an active market for those securities.

Investments in securities classified as Level 2 are valued using non-proprietary information that is readily available to market participants from multiple independent sources, which are known to be actively involved in the market. Pricing inputs may include market quotation, yields, maturities, call features, and ratings.

Investments in private equity, debt, and direct investments in real estate are classified as Level 3 due to lack of observable pricing inputs and are valued using annual appraisals based on a combination of market data and projected cash flows.

The following tables provide information as of September 30, 2017, concerning fair value measurement:

	TRS			
	9/30/2017	Fair Value Measurements Using		
		Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<i>Domestic Fixed Maturity</i>				
Money Market Funds	\$ 268,018	\$ -	\$ 268,018	\$ -
Commercial Paper	596,585	-	596,585	-
U.S. Agency	157,545	-	157,545	-
U.S. Government Guaranteed	747,297	-	747,297	-
Corporate Bonds	1,094,771	-	1,094,771	-
Private Placements	1,444,561	-	-	1,444,561
GNMAs	26,900	-	26,900	-
CMOs	457,745	-	457,745	-
Total Domestic Fixed Maturity	<u>4,793,422</u>	<u>-</u>	<u>3,348,861</u>	<u>1,444,561</u>
<i>Equities</i>				
Preferred	24,977	24,977	-	-
Domestic	12,650,924	10,980,071	1,670,853	-
Private	1,225,146	-	-	1,225,146
International	3,294,618	3,294,618	-	-
Total Equities	<u>17,195,665</u>	<u>14,299,666</u>	<u>1,670,853</u>	<u>1,225,146</u>
Real Estate	2,401,236	-	-	2,401,236
Total Investments	<u>24,390,323</u>	<u>14,299,666</u>	<u>5,019,714</u>	<u>5,070,943</u>
Securities Lending Collateral	1,189,852	-	1,189,852	-
Total Fair Value	<u>\$ 25,580,175</u>	<u>\$ 14,299,666</u>	<u>\$ 6,209,566</u>	<u>\$ 5,070,943</u>

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	ERS			
	9/30/2017	Fair Value Measurements Using		
		Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<i>Domestic Fixed Maturity</i>				
Money Market Funds	\$ 98,185	\$ -	\$ 98,185	\$ -
Commercial Paper	321,988	-	321,988	-
U.S. Agency	79,325	-	79,325	-
U.S. Government Guaranteed	360,038	-	360,038	-
Corporate Bonds	531,836	-	531,836	-
Private Placements	715,916	-	-	715,916
GNMAs	11,657	-	11,657	-
CMOs	234,316	-	234,316	-
Total Domestic Fixed Maturity	<u>2,353,261</u>	<u>-</u>	<u>1,637,345</u>	<u>715,916</u>
<i>Equities</i>				
Preferred	11,356	11,356	-	-
Domestic	6,215,063	5,490,122	724,941	-
Private	799,016	-	-	799,016
International	1,467,563	1,467,563	-	-
Total Equities	<u>8,492,998</u>	<u>6,969,041</u>	<u>724,941</u>	<u>799,016</u>
Real Estate	1,163,825	-	-	1,163,825
Total Investments	<u>12,010,084</u>	<u>6,969,041</u>	<u>2,362,286</u>	<u>2,678,757</u>
Securities Lending Collateral	551,930	-	551,930	-
Total Fair Value	<u>\$ 12,562,014</u>	<u>\$ 6,969,041</u>	<u>\$ 2,914,216</u>	<u>\$ 2,678,757</u>

JRF				
Fair Value Measurements Using				
	<u>9/30/2017</u>	<u>Quoted Prices in Active Markets (Level 1)</u>	<u>Significant Other Observable Inputs (Level 2)</u>	<u>Significant Unobservable Inputs (Level 3)</u>
<i>Domestic Fixed Maturity</i>				
Money Market Funds	\$ 6,479	\$ -	\$ 6,479	\$ -
Commercial Paper	9,994	-	9,994	-
U.S. Agency	4,118	-	4,118	-
U.S. Government Guaranteed	23,643	-	23,643	-
Corporate Bonds	27,753	-	27,753	-
GNMAs	491	-	491	-
CMOs	13,167	-	13,167	-
Total Domestic Fixed Maturity	<u>85,645</u>	<u>-</u>	<u>85,645</u>	<u>-</u>
<i>Equities</i>				
Preferred	620	620	-	-
Domestic	163,527	145,107	18,420	-
Private	131	-	-	131
International	45,067	45,067	-	-
Total Equities	<u>209,345</u>	<u>190,794</u>	<u>18,420</u>	<u>131</u>
Real Estate	4,101	-	-	4,101
Total Investments	<u>299,091</u>	<u>190,794</u>	<u>104,065</u>	<u>4,232</u>
Securities Lending Collateral	18,115	-	18,115	-
Total Fair Value	<u>\$ 317,206</u>	<u>\$ 190,794</u>	<u>\$ 122,180</u>	<u>\$ 4,232</u>

E. Securities Lending Program

The TRS, ERS, and JRF are authorized by the Boards of Control to participate in a securities lending program. The Systems' custodian, State Street Bank and Trust Company (State Street), administers the program. Certain securities from the TRS, ERS, and JRF are loaned to borrowers approved by the Systems for collateral that will be returned for the same type of securities. Approved borrowers of securities provide acceptable collateral in the form of cash (U.S. and foreign currency), any other assets permissible under Rule 15c3-3 under the Exchange Act of 1934, U.S. and non-U.S. equities, and such other collateral as the parties may agree to in writing from time to time. All security loans are open loans and can be terminated on demand by the TRS, ERS, JRF, or borrower. The initial collateral received shall have (depending on the nature of the loaned securities and the collateral received) a value of 102% or 105% of the fair value of the loaned securities, or such other value, but not less than 102% of the fair value of the loaned securities, as may be applicable in the jurisdiction in which such loaned securities are customarily traded. Pursuant to the terms of the applicable securities loan agreement, State Street shall, in accordance with State Street's reasonable and customary practices, mark loaned securities and collateral to their fair value each business day based upon the fair value of the collateral and the loaned securities at the close of the business day employing the most recently available pricing information and shall receive and deliver collateral in order to maintain the value of the collateral at no less than 100% of the fair value of the loaned securities.

The TRS, ERS, and JRF cannot pledge or sell collateral securities received unless the borrower defaults. Cash collateral is invested in the State Street Quality D Short-term Investments Fund (QDF). The collateral fund is separated into two pools, a liquidity pool and a duration pool. This split allows greater flexibility in managing the available liquidity in the investment in the fund and the outstanding balance of securities on loan.

The following describes the QDF's guidelines. The QDF's Investment Manager (State Street Bank) shall maintain the dollar-weighted average maturity of QDF in a manner that the Investment Manager believes is appropriate to the objective of QDF; provided, that (i) in no event shall any eligible security be acquired with a remaining legal final maturity (i.e., the date on which principal must be repaid) of greater than 18 months, (ii) the Investment Manager shall endeavor to maintain a dollar-weighted average maturity of the QDF not to exceed 75 calendar days, and (iii) the Investment Manager shall endeavor to maintain a dollar-weighted average maturity to final of the QDF not to exceed 180 calendar days. At the time of purchase (i) all eligible securities with maturities of 13 months or less shall (x) be rated at least A1, P1, or F1 by at least any two of the following nationally recognized statistical rating organizations: Standard & Poor's Corp. ("S&P"), Moody's Investor Services, Inc. ("Moody's"), or Fitch, Inc. ("Fitch"), or (y) be determined by the Investment Manager to be of comparable quality and (ii) all eligible securities with maturities in excess of 13 months shall (x) be rated at least A-, A3, or A- by at least any two of S & P, Moody's, or Fitch, or (y) be determined by the Investment Manager to be of comparable quality. The QDF may invest up to 10% of its assets at a time of purchase in commingled vehicles managed by State Street Global Advisors or its affiliates that conform to the Investment Policy Guidelines. The QDF duration pool includes all asset-backed securities (regardless of maturity) and securities of any type with a remaining maturity of 91 days or greater. Each QDF investor owns a specified percentage interest in the duration pool which is redeemable only in kind, not in cash. The QDF duration pool will not make additional investments.

As of September 30, 2017, the average term of the loans secured by QDF was 12, 12, and 13 days, respectively for the TRS, ERS, and JRF. Cash collateral investments in the QDF are matured as needed to fulfill loan obligations. There is no direct matching of the maturities of the loans with the investments made with cash collateral.

At September 30, 2017, the fair value of the securities on loan was \$3,546,423, \$1,564,307, and \$47,453 for the TRS, ERS, and JRF, respectively. The fair value of the collateral pledged by the borrowers was \$3,778,369, \$1,662,372, and \$49,439 for the TRS, ERS, and JRF, respectively. Since the amounts owed by the TRS, ERS, and JRF exceeded the amounts the borrowers owed to the TRS, ERS, and JRF, there was no credit risk exposure as of September 30, 2017. There were no significant violations of legal or contractual provisions, no borrower or lending agent default losses, and no recoveries of prior period losses during the year.

Investments purchased with cash collateral are held by the custodial agent, but not in the name of the Systems. Securities pledged as collateral are held by the custodial agent, but not in the name of the Systems. Letters of credit pledged as collateral are issued by the borrower's bank and are irrevocable. Tri Party Collateral is held by a third party bank in the name of the custodial agent. State Street, as custodial agent, is authorized to request a third party bank to undertake certain custodial functions in connection with holding of the collateral provided by a borrower. State Street may instruct the third party bank to establish and maintain a borrower's account and a State Street account wherein all collateral, including cash shall be maintained by the third party bank in accordance with the terms of the agreement.

The following table provides information as of September 30, 2017, concerning securities lent (dollar amounts in thousands):

Securities Lending - Investments Lent & Collateral Received
(at Fair Value)

<u>Type of Investment Lent</u>	TRS	ERS	JRF	Totals
<i>For Cash Collateral</i>				
Domestic Fixed Maturities	\$ 213,459	\$ 96,659	\$ 5,858	\$ 315,976
Domestic Equity	854,084	412,616	10,912	1,277,612
International Equity - JPY	87,485	27,874	590	115,949
International Equity - USD	12,141	5,041	451	17,633
Total Lent for Cash Collateral	<u>1,167,169</u>	<u>542,190</u>	<u>17,811</u>	<u>1,727,170</u>
<i>For Non-Cash Collateral</i>				
Domestic Fixed Maturities	556,799	247,767	18,726	823,292
Domestic Equity	1,703,685	674,733	9,397	2,387,815
International Equity	118,770	99,617	1,519	219,906
Total Lent for Non-Cash Collateral	<u>2,379,254</u>	<u>1,022,117</u>	<u>29,642</u>	<u>3,431,013</u>
Total Securities Lent	<u>\$3,546,423</u>	<u>\$1,564,307</u>	<u>\$47,453</u>	<u>\$5,158,183</u>
<u>Type of Collateral Received</u>				
<i>Cash Collateral</i>				
Invested in State Street Global Securities Lending Trust - JPY	\$ 91,679	\$ 29,234	\$ 619	\$ 121,532
Invested in State Street Global Securities Lending Trust - USD	1,098,173	522,696	17,496	1,638,365
Total Cash Collateral Denominated in USD	<u>1,189,852</u>	<u>551,930</u>	<u>18,115</u>	<u>1,759,897</u>
<i>Non-Cash Collateral</i>				
Domestic Fixed Securities				
CAD	17,436	2,022	-	19,458
EUR	1,341	1	385	1,727
GBP	3,620	2	1,040	4,662
USD	406,775	199,218	2,607	608,600
Domestic Equity Securities				
GBP	105	-	-	105
USD	1,868,510	737,429	10,677	2,616,616
International Fixed Maturities & Equity				
EUR	14,988	12,676	748	28,412
GBP	2,135	215	78	2,428
USD	273,607	158,879	15,789	448,275
Total Non-Cash Collateral	<u>2,588,517</u>	<u>1,110,442</u>	<u>31,324</u>	<u>3,730,283</u>
Total Collateral Received	<u>\$3,778,369</u>	<u>\$1,662,372</u>	<u>\$49,439</u>	<u>\$5,490,180</u>

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F. Mortgage-backed Securities

As of September 30, 2017, the TRS, ERS, and JRF had investments in mortgaged-backed securities. Embedded prepayment options cause these investments to be highly sensitive to changes in interest rates. Prepayments of the underlying assets reduce the total interest payments to be received. Generally, when interest rates fall, obligees tend to prepay the mortgages thus eliminating the stream of interest payments that would have been received under the original amortization schedule. The resulting reduction in cash flow diminishes the fair value of the mortgage-backed securities. Additionally, the prepayment activity associated with this type of security can lead to changes in the average life and duration of the security; higher prepayments will effectively shorten the expected life of the security while slower prepayments can lengthen the expected life of the security.

G. Investment Derivatives

Derivative instruments are financial arrangements used by governments to manage specific risks or to make investments. From time to time, the RSA enters into certain derivative transactions, specifically call options and put options. The RSA uses these derivative instruments to make an investment, control risk with certain investment positions, or as a yield enhancement strategy. During the fiscal year, these investment derivative instruments were used exclusively within the RSA's domestic and international equity portfolios and are presented in the financial statements in their respective equity classifications. These derivative instruments are either listed options or executed in the over-the-counter (OTC) market using only credit worthy counterparties. The fair value of the investment derivative instruments is based on market prices. Investment risks related to investment derivatives have been considered and included in the Investment Risks note in the preceding pages. The following table presents the investment derivative instruments outstanding as of September 30, 2017, as reported in the System's Combining Statement of Fiduciary Net Position and Combining Statement of Changes in Fiduciary Net Position:

Investment Derivative Instruments					
	Changes in Fair Value		Fair Value as of September 30, 2017		
	Classification	Amount	Classification	Amount	Notional
TRS					
Domestic Options Written	Investment Income	\$(12,691)	Domestic Equity	\$ -	\$ -
Domestic Options Purchased	Investment Income	13,739	Domestic Equity	-	-
Total Domestic Options		1,048		-	-
International Options Written	Investment Income	(18)	International Equity	(463)	(178,505)
Total TRS Options		<u>\$ 1,030</u>		<u>\$ (463)</u>	<u>\$ (178,505)</u>
ERS					
Domestic Options Written	Investment Income	\$ (6,061)	Domestic Equity	\$ -	\$ -
Domestic Options Purchased	Investment Income	6,562	Domestic Equity	-	-
Total Domestic Options		501		-	-
International Options Written	Investment Income	(9)	International Equity	(221)	(85,247)
Total ERS Options		<u>\$ 492</u>		<u>\$ (221)</u>	<u>\$ (85,247)</u>
JRF					
Domestic Options Written	Investment Income	\$ (190)	Domestic Equity	\$ -	\$ -
Domestic Options Purchased	Investment Income	205	Domestic Equity	-	-
Total Domestic Options		15		-	-
International Options Written	Investment Income	-	International Equity	(7)	(2,649)
Total JRF Options		<u>\$ 15</u>		<u>\$ (7)</u>	<u>\$ (2,649)</u>
Total					
Domestic Options Written	Investment Income	\$(18,942)	Domestic Equity	\$ -	\$ -
Domestic Options Purchased	Investment Income	20,506	Domestic Equity	-	-
Total Domestic Options		1,564		-	-
International Options Written	Investment Income	(27)	International Equity	(691)	(266,401)
Grand Total Options		<u>\$ 1,537</u>		<u>\$ (691)</u>	<u>\$ (266,401)</u>

6) NET PENSION LIABILITY

The components of the net pension liability related to the TRS, ERS, and JRF retirement plans determined in accordance with GASB Statement No. 67, *Financial Reporting for Pension Plans*, as of September 30, 2017, were as follows (dollar amounts in thousands):

	<u>TRS</u>	<u>ERS</u>	<u>JRF</u>
Total Pension Liability	\$ 34,479,936	\$ 17,390,739	\$ 456,927
Less: Plan Net Position (see Note 3G)	<u>(24,651,457)</u>	<u>(12,122,471)</u>	<u>(302,578)</u>
Net Pension Liability	<u>\$ 9,828,479</u>	<u>\$ 5,268,268</u>	<u>\$ 154,349</u>
 Plan Net Position as a Percentage of the Total Pension Liability	 71.50%	 69.71%	 66.22%

The net pension liability is allocated to employers in accordance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*. The net pension liability was determined by an actuarial valuation as of September 30, 2016, and rolled forward in accordance with GASB Statement No. 67 to the measurement date of September 30, 2017, using the following actuarial assumptions, applied to all periods included in the measurement:

	<u>TRS</u>	<u>ERS</u>	<u>JRF</u>
Inflation	2.75%	2.75%	2.75%
Projected Salary Increases	3.25% - 5.00%	3.25% - 5.00%	3.25% - 3.50%
Investment Rate of Return*	7.75%	7.75%	7.75%

*Net of pension plan investment expense.

There were no ad hoc postemployment benefit changes, including ad hoc COLAs, during fiscal year 2017.

The actuarial assumptions used in the actuarial valuation as of September 30, 2016, were based on the results of an investigation of the economic and demographic experience for the TRS, ERS, and JRF based upon participant data as of September 30, 2015, completed by the RSA and its actuaries. The purpose of the investigation was to assess the reasonableness of the actuarial assumptions and methods currently used by the RSA. This investigation resulted in changes to the actuarial assumptions. The Boards of Control for each accepted and approved these changes in September 2016, which became effective at the beginning of fiscal year 2016.

Mortality rates for TRS and JRF were based on the White Collar Mortality Table projected to 2020 using Scale BB and adjusted 115% for males and 112% for females age 78 and older. The rates of disabled mortality were based on the RP-2000 Disabled Mortality Table projected to 2020 using Scale BB and adjusted 105% for males and 120% for females. Mortality rates for ERS were based on the RP-2000 Combined Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on Scale AA projected to 2015 and set forward three years for males and one year for females.

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The total pension liability related to the cost-sharing retirement plans is based on the actuarial valuation as of September 30, 2016. The expected total pension liability is determined as of September 30, 2017, using standard roll-forward techniques as shown in the following table:

	TRS	
	Expected	Actual
Total Pension Liability		
as of 9/30/2016 (a)	\$ 33,762,303	\$ 33,520,013
Entry Age Normal Cost* for		
10/1/2016 - 9/30/2017 (b)	\$ 617,120	\$ 617,120
Actual Benefit Payments for		
10/1/2016 - 9/30/2017 (c)	\$ 2,170,877	\$ 2,170,877
Total Pension Liability		
as of 9/30/2017	\$ 34,741,003	\$ 34,479,936
[(a) x (1.0775)] + (b) - [(c) x (1.03875)]		
Difference between Expected &		
Actual Experience (Gain)/Loss		\$ (261,067)
	ERS	
	Expected	Actual
Total Pension Liability		
as of 9/30/2016 (a)	\$ 16,960,380	\$ 16,900,880
Entry Age Normal Cost* for		
10/1/2016 - 9/30/2017 (b)	\$ 325,138	\$ 325,138
Actual Benefit Payments for		
10/1/2016 - 9/30/2017 (c)	\$ 1,102,380	\$ 1,102,380
Total Pension Liability		
as of 9/30/2017	\$ 17,454,850	\$ 17,390,739
[(a) x (1.0775)] + (b) - [(c) x (1.03875)]		
Difference between Expected &		
Actual Experience (Gain)/Loss		\$ (64,111)
	JRF	
	Expected	Actual
Total Pension Liability		
as of 9/30/2016 (a)	\$ 451,003	\$ 446,921
Entry Age Normal Cost* for		
10/1/2016 - 9/30/2017 (b)	\$ 9,815	\$ 9,815
Actual Benefit Payments for		
10/1/2016 - 9/30/2017 (c)	\$ 33,160	\$ 33,160
Total Pension Liability		
as of 9/30/2017	\$ 461,326	\$ 456,927
[(a) x (1.0775)] + (b) - [(c) x (1.03875)]		
Difference between Expected &		
Actual Experience (Gain)/Loss		\$ (4,399)

*Also called the Service Cost.

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of geometric real rates of return for each major asset class are as follows:

	Target Allocation			Long-Term Expected Rate of Return*		
	TRS	ERS	JRF	TRS	ERS	JRF
Fixed Income	17.00%	17.00%	22.00%	4.40%	4.40%	4.40%
U.S. Large Stocks	32.00%	32.00%	41.00%	8.00%	8.00%	8.00%
U.S. Mid Stocks	9.00%	9.00%	11.00%	10.00%	10.00%	10.00%
U.S. Small Stocks	4.00%	4.00%	3.00%	11.00%	11.00%	11.00%
International Developed Market Stocks	12.00%	12.00%	12.00%	9.50%	9.50%	9.50%
International Emerging Market Stocks	3.00%	3.00%	3.00%	11.00%	11.00%	11.00%
Alternatives	10.00%	10.00%	1.00%	10.10%	10.10%	10.10%
Real Estate	10.00%	10.00%	2.00%	7.50%	7.50%	7.50%
Cash	3.00%	3.00%	5.00%	1.50%	1.50%	1.50%
Total	100.00%	100.00%	100.00%			

*Includes assumed rate of inflation of 2.50%.

The discount rate used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, components of the pension plan's fiduciary net position were projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The following table presents the net pension liability of the TRS, ERS, and JRF calculated using the discount rate of 7.75%, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate (dollar amounts in thousands):

	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
TRS	\$ 13,556,622	\$ 9,828,479	\$ 6,674,759
ERS	\$ 7,152,949	\$ 5,268,268	\$ 3,671,501
JRF	\$ 196,532	\$ 154,349	\$ 117,851

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7) CONTRIBUTIONS REQUIRED AND MADE

The actuary has computed, as of the date of the latest available actuarial valuations, the estimated present value of benefits payable to retired members, beneficiaries, and active members. The actuarial valuations for the TRS, ERS, and JRF are prepared on the projected benefit basis utilizing the entry age normal method. The present value of all expected benefits payable from each system to the present group of members and beneficiaries is calculated by adding the present value of the expected benefits payable to the active members to the present value of the expected future payments to retired members and beneficiaries.

As required by statute, the TRS, ERS, and JRF provide for employer contributions at actuarially determined rates (expressed as percentages of annual covered payroll) that accumulate sufficient assets to pay benefits when due. The employer contributions required to support the benefits of each system are determined following a level funding approach and consist of a normal contribution, an accrued liability contribution, and a portion to finance administrative costs. Additionally, a portion of the TRS and ERS employer contributions fund a preretirement death benefit. Also, a portion of the TRS employer contributions fund a term-life benefit.

For the TRS, ERS, and JRF, the normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contributions which, if applied to the compensation of the average new member during the entire period of the member's anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on the member's behalf.

The 2017 retirement contributions were made in accordance with actuarially determined contribution requirements.

The RSA and its actuaries completed an investigation of the economic and demographic experience for the TRS, ERS, and JRF based upon participant data as of September 30, 2015. The purpose of the investigation was to assess the reasonableness of the actuarial assumptions and methods currently used by the RSA. This investigation resulted in changes to actuarial assumptions which are outlined in Note 6. The Boards of Control for each accepted and approved these changes in September 2016, which became effective at the beginning of fiscal year 2016.

8) PROPERTY AND EQUIPMENT

Plan assets used in plan operations are reported at historical cost less accumulated depreciation. Depreciation is determined on the straight-line basis using estimated useful lives of 30 years for buildings and 3 to 10 years for furniture and equipment. Property and equipment was comprised of the following amounts as of September 30, 2017:

	<u>TRS</u>	<u>ERS</u>
Land	\$ 5,085	\$ 2,535
Building and Improvements	107,896	53,948
Software	17,186	5,729
Furniture and Equipment	7,223	2,140
Intangible Assets in Progress	7,784	2,562
Total Property and Equipment	145,174	66,914
Less: Accumulated Depreciation	(39,510)	(18,541)
Net Property and Equipment	<u>\$105,664</u>	<u>\$ 48,373</u>

Intangible assets in progress represents the cost of software and professional services related to RSA's pension administration system. RSA entered into a contract with Deloitte Consulting LLP for an initial term of 3 years beginning October 24th, 2014, with an option to renew for two additional 1 year periods for a total term of no more than 5 years. The cost of the system is being split between TRS and ERS with TRS incurring 75% of the cost and ERS incurring 25%. This project is being accounted for pursuant to the requirements of GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*.

9) OTHER POST-EMPLOYMENT BENEFITS

In addition to the pension benefits described in Note 1, the TRS, ERS, and JRF (as agencies of the State of Alabama) participate in the State Employees' Health Insurance Plan (SEHIP) administered by the State Employees' Health Insurance Board (Board). The State Employees' Insurance Fund (SEIF) was established in 1965 pursuant to the *Code of Alabama 1975, Title 36, Chapter 29* (Act 833 of the Legislature of 1965) to provide health insurance benefits for employees and retired employees of the State of Alabama. In addition, the *Code of Alabama 1975, Section 36-36-1* established the Alabama Retired State Employees' Health Care Trust (Trust) for the purpose of accumulating assets to fund retiree benefits. The Trust is a single-employer plan. The Trust issues financial statements that may be obtained by writing to:

State Employees' Insurance Board
P.O. Box 304900
Montgomery, AL 36130

The *Code of Alabama 1975, Section 36-29-7* authorizes the employer contributions to the plan. Each year, the Legislature sets the appropriation in the annual appropriation bill required to be paid by employers on behalf of each active member. A portion of the premium is used to assist in funding retiree benefits. The fiscal year 2017 rate set by the State Employees' Insurance Board was \$850 per active member per month (dollar amount not in thousands).

The *Code of Alabama 1975, Section 36-29-19.7* authorizes the retiree contributions to the plan. The required monthly contribution rates for fiscal year 2017 were as follows (the following dollar amounts are not in thousands):

Retired Member Rates

- Individual Coverage: Non-Medicare Eligible Retired Member – \$359
- Family Coverage: Non-Medicare Eligible Retired Member without Spouse & Non-Medicare Eligible Dependents(s) – \$621
- Family Coverage: Non-Medicare Eligible Retired Member with Spouse & Non-Medicare Eligible Dependents(s) – \$756
- Family Coverage: Non-Medicare Eligible Retired Member without Spouse & Medicare Eligible Dependent(s) – \$490
- Family Coverage: Non-Medicare Eligible Retired Member with Spouse & Medicare Eligible Dependent(s) – \$600
- Individual Coverage: Medicare Eligible Retired Member – \$75
- Family Coverage: Medicare Eligible Retired Member without Spouse & Non-Medicare Eligible Dependents(s) – \$337
- Family Coverage: Medicare Eligible Retired Member with Spouse & Non-Medicare Eligible Dependents(s) – \$472
- Family Coverage: Medicare Eligible Retired Member without Spouse & Medicare Eligible Dependent(s) – \$196
- Family Coverage: Medicare Eligible Retired Member with Spouse & Medicare Eligible Dependent(s) – \$306
- For employees that retire other than for disability, for each year under 25 years of service, the retiree pays two percent of the employer premium and for each year over 25 years of service, the retiree premium is reduced by two percent of the employer premium.

Surviving Spouse Rates

- Non-Medicare Eligible Surviving Spouse – \$477
- Non-Medicare Eligible Surviving Spouse & Non-Medicare Eligible Dependent(s) – \$734
- Non-Medicare Eligible Surviving Spouse & Medicare Eligible Dependent(s) – \$643
- Medicare Eligible Surviving Spouse – \$271
- Medicare Eligible Surviving Spouse & Non-Medicare Eligible Dependent(s) – \$528
- Medicare Eligible Surviving Spouse & Medicare Eligible Dependent(s) – \$437

These rates do not reflect any discounts, waivers, and retiree sliding scale adjustments.

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(Dollar Amounts in Thousands)

RSA employees participate in the SEHIP, which is a single employer health insurance plan for the State of Alabama. As a component unit, RSA employees participating in the SEHIP are valued with all other State of Alabama employees, and therefore, report under the requirements of a cost-sharing unit. The following table details the annual required contributions and the percentage contributed. These amounts are calculated before the final Total Group Health Insurance Expense for all state agencies is known and are subject to change:

	Fiscal	Annual	
	Year	Required	Percentage
	Ended	Contributions	Contributed
TRS	2017	\$ 1,127	44.23%
	2016	\$ 1,109	38.44%
	2015	\$ 1,108	36.74%
ERS	2017	\$ 801	44.23%
	2016	\$ 836	38.44%
	2015	\$ 906	36.74%
JRF	2017	\$ 7	44.23%
	2016	\$ 7	38.44%
	2015	\$ 7	36.74%

10) PENSION PLAN FOR RSA EMPLOYEES

A portion of the RSA employees participates in the TRS pension plan, which is a cost-sharing plan, and a portion of the RSA employees participates in the ERS pension plan, which is an agent multiple-employer pension plan. As a component unit, RSA employees participating in the ERS pension plan are valued with all other State of Alabama employees, and therefore, report under the requirements of a cost-sharing unit.

A. Teachers' Retirement System of Alabama

The TRS, a cost-sharing multiple-employer public employee retirement plan, was established as of September 15, 1939, pursuant to the *Code of Alabama 1975, Title 16, Chapter 25* (Act 419 of the Legislature of 1939) for the purpose of providing retirement allowances and other specified benefits for qualified persons employed by State-supported educational institutions. The responsibility for the general administration and operation of the TRS is vested in its Board of Control. The TRS Board of Control consists of 15 trustees. Note 1 of this report outlines the composition of the TRS Board of Control. The Plan is administered by RSA and issues a Comprehensive Annual Financial Report each year. It is available at www.rsa-al.gov.

State law establishes retirement benefits as well as death and disability benefits and any ad hoc increase in postretirement benefits for the TRS. Benefits for TRS members vest after 10 years of creditable service. TRS members who retire after age 60 with 10 years or more of creditable service or with 25 years of service (regardless of age) are entitled to an annual retirement benefit, payable monthly for life. Service and disability retirement benefits are based on a guaranteed minimum or a formula method, with the member receiving payment under the method that yields the highest monthly benefit. Under the formula method, members of the TRS are allowed 2.0125% of their average final compensation (highest 3 of the last 10 years) for each year of service.

Act 377 of the Legislature of 2012 established a new tier of benefits (Tier 2) for members hired on or after January 1, 2013. Tier 2 TRS members are eligible for retirement after age 62 with 10 years or more of creditable service and are entitled to an annual retirement benefit, payable monthly for life. Service and disability retirement benefits are based on a guaranteed minimum or a formula method, with the member receiving payment under the method that yields the highest monthly benefit. Under the formula method, Tier 2 members of the TRS are allowed 1.65% of their average final compensation (highest 5 of the last 10 years) for each year of service. Members are eligible for disability retirement if they have 10 years of credible service, are currently in-service, and determined by the RSA Medical Board to be permanently incapacitated from further performance of duty. Preretirement death benefits are calculated and paid to the beneficiary based on the member's age, service credit, employment status, and eligibility for retirement.

Covered members of the TRS contributed 5% of earnable compensation to the TRS as required by statute until September 30, 2011. From October 1, 2011, to September 30, 2012, covered members of the TRS were required by statute to contribute 7.25% of earnable compensation. Effective October 1, 2012, covered members of the TRS are required by statute to contribute 7.50% of earnable compensation. Certified law enforcement, correctional officers, and firefighters of the TRS contributed 6% of earnable compensation as required by statute until September 30, 2011. From October 1, 2011, to September 30, 2012, certified law enforcement, correctional officers, and firefighters of the TRS were required by statute to contribute 8.25% of earnable compensation. Effective October 1, 2012, certified law enforcement, correctional officers, and firefighters of the TRS are required by statute to contribute 8.50% of earnable compensation.

Tier 2 covered members of the TRS contribute 6% of earnable compensation to the TRS as required by statute. Tier 2 certified law enforcement, correctional officers, and firefighters of the TRS are required by statute to contribute 7% of earnable compensation.

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Participating employers' contractually required contribution rate for the fiscal year ended September 30, 2017, was 12.01% of annual pay for Tier 1 members and 10.82% of annual pay for Tier 2 members. These required contribution rates are a percent of annual payroll, actuarially determined as an amount that, when combined with member contributions, is expected to finance the costs of benefits earned by members during the year, with an additional amount to finance any unfunded accrued liability. Total TRS employer contributions to the pension plan from the System were \$1,444 for the fiscal year ended September 30, 2017.

At September 30, 2017, in accordance with GASB Statement No. 68, the TRS reported a net pension liability of \$21,164 for its proportionate share of the TRS pension plan's total net pension liability as determined under GASB Statement No. 67. The TRS pension plan's total pension liability used to calculate the TRS's net pension liability was determined by an actuarial valuation as of September 30, 2015, and rolled forward to TRS's measurement date of September 30, 2016. The TRS's share of the net pension liability was based on the TRS's share of contributions to the pension plan relative to the total employer contributions of all participating TRS employers. At September 30, 2016, the TRS's proportion was 0.195490%, which was an increase of 0.014983% from its proportion measured as of September 30, 2015.

For the year ended September 30, 2017, the TRS recognized pension expense of \$2,704. At September 30, 2017, the TRS reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected & Actual Experience	\$ -	\$ 545
Changes of Assumptions	1,494	-
Net Difference between Projected & Actual		
Earnings on Pension Plan Investments	306	-
Changes in Proportion & Differences between Employer		
Contributions & Proportionate Share of Contributions	2,111	151
Employer Contributions Subsequent to the Measurement Date	1,444	-
Total	\$ 5,355	\$ 696

The TRS will recognize \$1,444 of reported deferred outflows of resources related to pensions resulting from contributions subsequent to the measurement date as a reduction of net pension liability in the fiscal year ended September 30, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Fiscal Year Ended	
September 30:	
2018	\$ 899
2019	\$ 899
2020	\$ 952
2021	\$ 308
2022	\$ 157
Thereafter	\$ -

The total pension liability was determined by an actuarial valuation as of September 30, 2015, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Projected Salary Increases	3.25% - 5.00%
Investment Rate of Return*	7.75%

*Net of pension plan investment expense

The actuarial assumptions used in the actuarial valuation as of September 30, 2015, were based on the results of an investigation of the economic and demographic experience for the TRS based upon participant data as of September 30, 2015. This investigation resulted in changes to the actuarial assumptions. The Board of Control accepted and approved these changes in September 2016, which became effective at the beginning of fiscal year 2016.

Mortality rates for TRS and JRF were based on the White Collar Mortality Table projected to 2020 using Scale BB and adjusted 115% for males and 112% for females age 78 and older. The rates of disabled mortality were based on the RP-2000 Disabled Mortality Table projected to 2020 using Scale BB and adjusted 105% for males and 120% for females.

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of geometric real rates of return for each major asset class are as follows:

	Target Allocation	Long-Term Expected Rate of Return*
Fixed Income	17.00%	4.40%
U.S. Large Stocks	32.00%	8.00%
U.S. Mid Stocks	9.00%	10.00%
U.S. Small Stocks	4.00%	11.00%
International Developed Market Stocks	12.00%	9.50%
International Emerging Market Stocks	3.00%	11.00%
Alternatives	10.00%	10.10%
Real Estate	10.00%	7.50%
Cash	3.00%	1.50%
Total	<u>100.00%</u>	

The discount rate used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, components of the pension plan's fiduciary net position were projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

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The following table presents the net pension liability of the TRS calculated using the discount rate of 7.75%, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
TRS's Proportionate Share of Collective Net Pension Liability	\$ 28,195	\$ 21,164	\$ 15,211

Detailed information about the pension plan's fiduciary net position is available in the separately issued RSA Comprehensive Annual Financial Report for the fiscal year ended September 30, 2016. The supporting actuarial information is included in the GASB Statement No. 67 Report for the TRS prepared as of September 30, 2016. The auditor's report dated September 22, 2017, on the total pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the sum of all participating entities as of September 30, 2016, along with supporting schedules is also available. The additional financial and actuarial information is available at www.rsa-al.gov.

B. Employees' Retirement System of Alabama

The ERS, an agent multiple-employer public employee retirement plan, was established as of October 1, 1945, pursuant to the *Code of Alabama 1975, Title 36, Chapter 27* (Act 515 of the Legislature of 1945). The purpose of the ERS is to provide retirement allowances and other specified benefits for state employees, State Police, and on an elective basis, to all cities, counties, towns, and quasi-public organizations. RSA employees who participate in the ERS are employees of the ERS and JRF. The responsibility for the general administration and operation of the ERS is vested in its Board of Control. The ERS Board of Control consists of 13 trustees. Note 1 of this report outlines the composition of the ERS Board of Control. The Plan is administered by RSA and issues a Comprehensive Annual Financial Report each year. It is available at www.rsa-al.gov.

State law establishes retirement benefits as well as death and disability benefits and any ad hoc increase in postretirement benefits for the ERS. Benefits for ERS members vest after 10 years of creditable service. State employees who retire after age 60 (52 for State Police) with 10 years or more of creditable service or with 25 years of service (regardless of age) are entitled to an annual retirement benefit, payable monthly for life. Local employees who retire after age 60 with 10 years or more of creditable service or with 25 or 30 years of service (regardless of age), depending on the particular entity's election, are entitled to an annual retirement benefit, payable monthly for life. Service and disability retirement benefits are based on a guaranteed minimum or a formula method, with the member receiving payment under the method that yields the highest monthly benefit. Under the formula method, members of the ERS (except State Police) are allowed 2.0125% of their average final compensation (highest 3 of the last 10 years) for each year of service. State Police are allowed 2.875% for each year of State Police service in computing the formula method.

Act 377 of the Legislature of 2012 established a new tier of benefits (Tier 2) for members hired on or after January 1, 2013. Tier 2 ERS members are eligible for retirement after age 62 (56 for State Police) with 10 years or more of creditable service and are entitled to an annual retirement benefit, payable monthly for life. Service and disability retirement benefits are based on a guaranteed minimum or a formula method, with the member receiving payment under the method that yields the highest monthly benefit. Under the formula method, Tier 2 members of the ERS (except State Police) are allowed 1.65% of their average final compensation (highest 5 of the last 10 years) for each year of service. State Police are allowed 2.375% for each year of state police service in computing the formula method.

Members are eligible for disability retirement if they have 10 years of credible service, are currently in-service, and determined by the RSA Medical Board to be permanently incapacitated from further performance of duty. Preretirement death benefits are calculated and paid to the beneficiary on the member's age, service credit, employment status and eligibility for retirement.

As of September 30, 2016, ERS membership included approximately 85,874 active participants. Note 1 of this report contains details about the classifications of participants and the number of participants within each classification.

Covered members of the ERS contributed 5% of earnable compensation to the ERS as required by statute until September 30, 2011. From October 1, 2011, to September 30, 2012, covered members of the ERS were required by statute to contribute 7.25% of earnable compensation. Effective October 1, 2012, covered members of the ERS are required by statute to contribute 7.50% of earnable compensation. Certified law enforcement, correctional officers, and firefighters of the ERS contributed 6% of earnable compensation as required by statute until September 30, 2011. From October 1, 2011, to September 30, 2012, certified law enforcement, correctional officers, and firefighters of the ERS were required by statute to contribute 8.25% of earnable compensation. Effective October 1, 2012, certified law enforcement, correctional officers, and firefighters of the ERS are required by statute to contribute 8.50% of earnable compensation. State Police of the ERS contribute 10% of earnable compensation. ERS local participating employers are not required by statute to increase contribution rates for their members.

Tier 2 covered members of the ERS contribute 6% of earnable compensation to the ERS as required by statute. Tier 2 certified law enforcement, correctional officers, and firefighters of the ERS are required by statute to contribute 7% of earnable compensation. Tier 2 State Police members of the ERS contribute 10% of earnable compensation. These contributions rates are the same for Tier 2 covered members of ERS local participating employers.

The participating employer contribution rate for the ERS State Regular Employees contractually required contribution rate for the year ended September 30, 2017, was 13.89% of annual pay for Tier 1 members and 13.25% of annual pay for Tier 2 members. These required contribution rates are a percent of annual payroll, actuarially determined as an amount that, when combined with member contributions, is expected to finance the costs of benefits earned by members during the year, with an additional amount to finance any unfunded accrued liability. Total employer contributions to the pension plan from ERS were \$1,014 and from JRF were \$19 for the fiscal year ended September 30, 2017 (dollar amounts in thousands).

At September 30, 2017, in accordance with GASB Statement No. 68, the ERS reported a net pension liability of \$16,850 and the JRF reported a net pension liability of \$302 for their respective proportionate shares of the total net pension liability of the ERS State Regular Employees' retirement plan (dollar amounts in thousands). The ERS pension plan's total net pension liability was measured as of September 30, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of September 30, 2015, and rolled forward to the ERS and JRF's measurement date of September 30, 2016. ERS and JRF's proportion of the total net pension liability was based on the employers' shares of contributions to the pension plan relative to the total employer contributions of all participating ERS State Regular employers. At September 30, 2016, ERS's proportion was 0.58854641%, which was an increase of 0.07052132% from its proportion measured as of September 30, 2015. At September 30, 2016, the JRF's proportion was 0.01053890%, which was an increase of 0.00058164% from its proportion measured as of September 30, 2015.

For the fiscal year ended September 30, 2017, the ERS recognized pension expense of \$2,147. At September 30, 2017, ERS reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (dollar amounts in thousands):

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected & Actual Experience	\$ 17	\$ 154
Changes of Assumptions	788	-
Net Difference between Projected & Actual		
Earnings on Pension Plan Investments	240	-
Changes in Proportion & Differences between Employer		
Contributions & Proportionate Share of Contributions	1,699	16
Employer Contributions Subsequent to the Measurement Date	1,014	-
Total	\$ 3,758	\$ 170

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(Dollar Amounts in Thousands)

The ERS will recognize \$1,014 of reported deferred outflows of resources related to pensions resulting from contributions subsequent to the measurement date as a reduction of net pension liability in the fiscal year ended September 30, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Fiscal Year Ended	
September 30:	
2018	\$ 958
2019	\$ 911
2020	\$ 817
2021	\$ (113)
2022	\$ -
Thereafter	\$ -

For the fiscal year ended September 30, 2017, the JRF recognized pension expense of \$30. At September 30, 2017, the JRF reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected & Actual Experience	\$ -	\$ 3
Changes of Assumptions	14	-
Net Difference between Projected & Actual Earnings on Pension Plan Investments	5	-
Changes in Proportion & Differences between Employer Contributions & Proportionate Share of Contributions	45	19
Employer Contributions Subsequent to the Measurement Date	19	-
Total	\$ 83	\$ 22

The JRF will recognize \$19 of reported deferred outflows of resources related to pensions resulting from contributions subsequent to the measurement date as a reduction of net pension liability in the fiscal year ended September 30, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Fiscal Year Ended	
September 30:	
2018	\$ 13
2019	\$ 21
2020	\$ 11
2021	\$ (2)
2022	\$ -
Thereafter	\$ -

The total pension liability was determined by an actuarial valuation as of September 30, 2015, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Projected Salary Increases	3.25% - 5.00%
Investment Rate of Return*	7.75%

*Net of pension plan investment expense

Mortality rates for ERS were based on the RP-2000 Combined Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on Scale AA projected to 2015 and set forward three years for males and one year for females.

The actuarial assumptions used in the actuarial valuation as of September 30, 2015, were based on the results of an investigation of the economic and demographic experience for the TRS, ERS, and JRF based upon participant data as of September 30, 2015, completed by the RSA and its actuaries. The purpose of the investigation was to assess the reasonableness of the actuarial assumptions and methods currently used by the RSA. This investigation resulted in changes to the actuarial assumptions. The Boards of Control for each accepted and approved these changes in September 2016, which became effective at the beginning of fiscal year 2016.

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of geometric real rates of return for each major asset class are as follows:

	Target Allocation	Long-Term Expected Rate of Return*
Fixed Income	17.00%	4.40%
U.S. Large Stocks	32.00%	8.00%
U.S. Mid Stocks	9.00%	10.00%
U.S. Small Stocks	4.00%	11.00%
International Developed Market Stocks	12.00%	9.50%
International Emerging Market Stocks	3.00%	11.00%
Alternatives	10.00%	10.10%
Real Estate	10.00%	7.50%
Cash	3.00%	1.50%
Total	<u>100.00%</u>	

The discount rate used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, components of the pension plan's fiduciary net position were projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The following table presents the net pension liability of the ERS and JRF calculated using the discount rate of 7.75%, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate (dollar amounts in thousands):

	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
ERS's Proportionate Share of Collective Net Pension Liability	\$ 21,290	\$ 16,850	\$ 13,073
JRF's Proportionate Share of Collective Net Pension Liability	\$ 381	\$ 302	\$ 234

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Notes to the Combined Financial Statements For the Fiscal Year Ended September 30, 2017

(Dollar Amounts in Thousands)

Detailed information about the pension plan's fiduciary net position is available in the separately issued RSA Comprehensive Annual Financial Report for the fiscal year ended September 30, 2016. The supporting actuarial information is included in the GASB Statement No. 68 Report for the ERS prepared as of September 30, 2016. The auditor's report dated September 22, 2017, on the Schedule of Changes in Fiduciary Net Position by Employer and accompanying notes is also available. The additional financial and actuarial information is available at www.rsa-al.gov.

11) RELATED PARTY TRANSACTIONS

The TRS and ERS jointly own office buildings in Montgomery and Mobile and lease office space to agencies of the State of Alabama. These agencies are obligated to the TRS and ERS to lease space for varying terms through the year 2029. Rental payments and other agreed upon payments (reported as investment income) from leases with state agencies totaled \$33,261,711 (dollar amount not in thousands) during the 2017 fiscal year.



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RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Required Supplementary Information
For the Fiscal Year Ended September 30, 2017

**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY
& RELATED RATIOS**

TRS

For the Fiscal Years Ended September 30

(Dollar Amounts in Thousands)

Total Pension Liability	2017	2016	2015	2014
Service Cost*	\$ 617,120	\$ 627,938	\$ 660,390	\$ 602,605
Interest	2,532,457	2,488,310	2,421,604	2,352,804
Benefit Changes	-	-	-	-
Difference Between Expected & Actual Experience	(261,067)	(290,388)	(70,200)	-
Changes of Assumptions	-	942,133	-	-
Benefit Payments	(2,117,351)	(2,161,570)	(2,080,896)	(1,997,877)
Refunds of Contributions	(53,526)	(57,566)	(55,898)	(56,145)
Net Change in Total Pension Liability	717,633	1,548,857	875,000	901,387
Total Pension Liability - Beginning	33,762,303	32,213,446	31,338,446	30,437,059
Total Pension Liability - Ending (A)	\$ 34,479,936	\$ 33,762,303	\$ 32,213,446	\$ 31,338,446
Plan Fiduciary Net Position reserved to fund Total Pension Liability				
Contributions - Employer	\$ 782,702	\$ 751,909	\$ 737,677	\$ 716,753
Contributions - Member	489,638	475,980	477,918	480,849
Other	-	-	172,982	-
Net Investment Income	2,636,098	2,199,396	261,461	2,468,499
Benefit Payments	(2,117,351)	(2,161,570)	(2,080,896)	(1,997,877)
Refunds of Contributions	(53,526)	(57,566)	(55,898)	(56,145)
Administrative Expenses	(22,402)	(19,582)	(19,331)	-
Net Change in Plan Fiduciary Net Position	1,715,159	1,188,567	(506,087)	1,612,079
Plan Fiduciary Net Position - Beginning	22,936,298	21,747,731	22,253,818	20,641,739
Plan Fiduciary Net Position - Ending (B)	\$ 24,651,457	\$ 22,936,298	\$ 21,747,731	\$ 22,253,818
Net Pension Liability - Ending (A - B)	\$ 9,828,479	\$ 10,826,005	\$ 10,465,715	\$ 9,084,628
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability				
	71.50%	67.93%	67.51%	71.01%
Covered Payroll	\$ 6,623,929	\$ 6,541,310	\$ 6,541,054	\$ 6,466,923
Net Pension Liability as a Percentage of Covered Payroll	148.38%	165.50%	160.00%	140.48%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

*Also called the Entry Age Normal Cost.

**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY
& RELATED RATIOS
ERS**

For the Fiscal Years Ended September 30

(Dollar Amounts in Thousands)

Total Pension Liability	2017	2016	2015	2014
Service Cost*	\$ 325,138	\$ 308,840	\$ 346,440	\$ 298,985
Interest	1,271,712	1,233,415	1,199,079	1,164,853
Benefit Changes	-	-	-	-
Difference Between Expected & Actual Experience	(64,111)	101	(35,546)	-
Changes of Assumptions	-	544,310	-	-
Benefit Payments	(1,056,006)	(1,043,293)	(1,023,732)	(948,645)
Refunds of Contributions	(46,374)	(44,660)	(49,865)	(49,767)
Net Change in Total Pension Liability	430,359	998,713	436,376	465,426
Total Pension Liability - Beginning	16,960,380	15,961,667	15,525,291	15,059,865
Total Pension Liability - Ending (A)	\$ 17,390,739	\$ 16,960,380	\$ 15,961,667	\$ 15,525,291
Plan Fiduciary Net Position reserved to fund Total Pension Liability				
Contributions - Employer	\$ 426,369	\$ 435,243	\$ 411,087	\$ 379,163
Contributions - Member	233,901	238,017	229,254	226,015
Other	-	-	68,897	-
Net Investment Income	1,402,009	1,052,886	126,335	1,183,377
Benefit Payments	(1,056,006)	(1,043,293)	(1,023,732)	(948,645)
Refunds of Contributions	(46,374)	(44,660)	(49,865)	(49,767)
Administrative Expenses	(14,502)	(13,023)	(13,182)	-
Net Change in Plan Fiduciary Net Position	945,397	625,170	(251,206)	790,143
Plan Fiduciary Net Position - Beginning	11,177,074	10,551,904	10,803,110	10,012,967
Plan Fiduciary Net Position - Ending (B)	\$ 12,122,471	\$ 11,177,074	\$ 10,551,904	\$ 10,803,110
Net Pension Liability - Ending (A - B)	\$ 5,268,268	\$ 5,783,306	\$ 5,409,763	\$ 4,722,181
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability				
	69.71%	65.90%	66.11%	69.58%
Covered Payroll	\$ 3,680,078	\$ 3,592,658	\$ 3,556,282	\$ 3,511,115
Net Pension Liability as a Percentage of Covered Payroll	143.16%	160.98%	152.12%	134.49%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

*Also called the Entry Age Normal Cost.

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Required Supplementary Information
For the Fiscal Year Ended September 30, 2017

**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY
& RELATED RATIOS**

JRF

For the Fiscal Years Ended September 30

(Dollar Amounts in Thousands)

Total Pension Liability	2017	2016	2015	2014
Service Cost*	\$ 9,815	\$ 9,807	\$ 9,644	\$ 9,481
Interest	33,668	32,695	32,385	31,521
Benefit Changes	-	-	-	-
Difference Between Expected & Actual Experience	(4,399)	(2,487)	(7,391)	-
Changes of Assumptions	-	17,792	-	-
Benefit Payments	(32,807)	(30,902)	(30,356)	(29,838)
Refunds of Contributions	(353)	(106)	(147)	(46)
Net Change in Total Pension Liability	5,924	26,799	4,135	11,118
Total Pension Liability - Beginning	451,003	424,204	420,069	408,951
Total Pension Liability - Ending (A)	\$ 456,927	\$ 451,003	\$ 424,204	\$ 420,069
Plan Fiduciary Net Position reserved to fund Total Pension Liability				
Contributions - Employer	\$ 17,373	\$ 17,529	\$ 15,077	\$ 15,250
Contributions - Member	3,972	3,723	3,683	3,764
Net Investment Income	32,685	28,322	(856)	31,343
Benefit Payments	(32,807)	(30,902)	(30,356)	(29,838)
Refunds of Contributions	(353)	(106)	(147)	(46)
Administrative Expenses	(334)	(398)	(356)	-
Other	-	-	1,854	-
Net Change in Plan Fiduciary Net Position	20,536	18,168	(11,101)	20,473
Plan Fiduciary Net Position - Beginning	282,042	263,874	274,975	254,502
Plan Fiduciary Net Position - Ending (B)	\$ 302,578	\$ 282,042	\$ 263,874	\$ 274,975
Net Pension Liability - Ending (A - B)	\$ 154,349	\$ 168,961	\$ 160,330	\$ 145,094
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability				
	66.22%	62.54%	62.20%	65.46%
Covered Payroll	\$ 44,314	\$ 44,099	\$ 44,087	\$ 43,275
Net Pension Liability as a Percentage of Covered Payroll	348.31%	383.14%	363.67%	335.28%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

*Also called the Entry Age Normal Cost.

SCHEDULES OF EMPLOYER CONTRIBUTIONS
For the Ten Fiscal Years Ended September 30, 2017
(Dollar Amounts in Thousands)

TEACHERS' RETIREMENT SYSTEM §

Fiscal Year	Actuarially Determined Employer Contributions	Actual Employer Contributions	Annual Contribution Deficiency (Excess)	Covered Payroll*	Actual Contributions as a % of Covered Payroll**
2017	\$ 782,702	\$ 782,702	\$ -	\$ 6,633,068	11.80
2016	751,909	751,909	-	6,377,515	11.79
2015	737,677	737,677	-	6,331,991	11.65
2014	716,753	716,753	-	6,331,740	11.32
2013	605,465	605,465	-	6,241,907	9.70
2012	594,771	594,771	-	6,182,651	9.62
2011	755,944	755,944	-	6,232,020	12.13
2010	753,213	753,213	-	6,209,505	12.13
2009	728,822	728,822	-	6,234,577	11.69
2008	706,491	706,491	-	6,213,641	11.37

JUDICIAL RETIREMENT FUND ¥

Fiscal Year	Actuarially Determined Employer Contributions	Actual Employer Contributions	Annual Contribution Deficiency (Excess)	Covered Payroll*	Actual Contributions as a % of Covered Payroll**
2017	\$ 17,373	\$ 17,373	\$ -	\$ 42,738	40.65
2016	17,529	17,529	-	42,775	40.98
2015	15,077	15,077	-	42,784	35.24
2014	15,250	15,250	-	43,275	35.24
2013	13,903	13,903	-	43,366	32.06
2012	10,747	10,747	-	44,136	24.35
2011	10,906	10,906	-	45,066	24.20
2010	10,814	10,814	-	44,686	24.20
2009	10,326	10,326	-	44,798	23.05
2008	9,880	9,880	-	42,863	23.05

§ There are no nonemployer contributing entities in TRS.

*Estimated based on employer contribution rate.

**Act No. 2012-377 established a new tier of benefits (Tier 2) for members hired on or after January 1, 2013.

Therefore, this percentage represents a blended rate based on separate Tier 1 and Tier 2 contribution rates.

¥ The State of Alabama is a nonemployer contributing entity in JRF. The State pays the employer portion of the Probate Judges' contributions.

SCHEDULE OF INVESTMENT RETURNS
For the Ten Fiscal Years Ended September 30, 2017

Fiscal Year	TRS	ERS	JRF
2017	11.73%	12.80%	11.88%
2016	10.37%	10.19%	10.96%
2015	1.16%	1.15%	-0.37%
2014	12.17%	12.05%	12.55%
2013	14.85%	14.53%	14.05%
2012	18.32%	18.05%	19.17%
2011	2.04%	2.39%	0.89%
2010	8.34%	8.40%	10.66%
2009	-8.20%	-10.16%	0.18%
2008	-15.31%	-15.18%	-14.61%

The following schedules pertain to employees of TRS, ERS, and JRF who participate in the TRS and ERS pension plans.

SCHEDULES OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY

(Dollar Amounts in Thousands)

TEACHERS' RETIREMENT SYSTEM

Measurement Date	Fiscal Year Ended	Proportion of the Net Pension Liability (%)	Proportionate Share of the Net Pension Liability	Covered Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
9/30/2016	9/30/2017	0.20	\$ 21,164	\$ 6,739	314.05	67.93
9/30/2015	9/30/2016	0.18	18,891	6,593	286.53	67.51
9/30/2014	9/30/2015	0.18	16,626	6,283	264.62	71.01

EMPLOYEES' RETIREMENT SYSTEM

Measurement Date	Fiscal Year Ended	Proportion of the Net Pension Liability (%)	Proportionate Share of the Net Pension Liability	Covered Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
9/30/2016	9/30/2017	0.59	\$ 16,850	\$ 4,904	343.60	62.07
9/30/2015	9/30/2016	0.52	14,146	4,695	301.30	62.35
9/30/2014	9/30/2015	0.49	11,991	4,526	264.94	65.58

JUDICIAL RETIREMENT FUND

Measurement Date	Fiscal Year Ended	Proportion of the Net Pension Liability (%)	Proportionate Share of the Net Pension Liability	Covered Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
9/30/2016	9/30/2017	0.01	\$ 302	\$ 144	209.72	62.07
9/30/2015	9/30/2016	0.01	272	136	200.00	62.35
9/30/2014	9/30/2015	0.01	170	89	191.01	65.58

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Required Supplementary Information For the Fiscal Year Ended September 30, 2017

The following schedules pertain to employees of TRS, ERS, and JRF who participate in the TRS and ERS pension plans.

SCHEDULES OF CONTRIBUTIONS For the Fiscal Years Ended September 30 (Dollar Amounts in Thousands)

TEACHERS' RETIREMENT SYSTEM

	<u>2017</u>	<u>2016</u>	<u>2015</u>
Contractually Required Contribution	\$ 1,444	\$ 1,453	\$ 1,271
Contributions in relation to the			
Contractually Required Contribution	<u>(1,444)</u>	<u>(1,453)</u>	<u>(1,271)</u>
Contribution Deficiency/(Excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	\$ 7,235	\$ 6,739	\$ 6,593
Contributions as a Percentage of			
Covered Payroll	19.96%	21.56%	19.28%

EMPLOYEES' RETIREMENT SYSTEM

	<u>2017</u>	<u>2016</u>	<u>2015</u>
Contractually Required Contribution	\$ 1,014	\$ 1,133	\$ 896
Contributions in relation to the			
Contractually Required Contribution	<u>(1,014)</u>	<u>(1,133)</u>	<u>(896)</u>
Contribution Deficiency/(Excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	\$ 5,113	\$ 4,904	\$ 4,695
Contributions as a Percentage of			
Covered Payroll	19.83%	23.10%	19.08%

JUDICIAL RETIREMENT FUND

	<u>2017</u>	<u>2016</u>	<u>2015</u>
Contractually Required Contribution	\$ 19	\$ 21	\$ 17
Contributions in relation to the			
Contractually Required Contribution	<u>(19)</u>	<u>(21)</u>	<u>(17)</u>
Contribution Deficiency/(Excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	\$ 152	\$ 144	\$ 136
Contributions as a Percentage of			
Covered Payroll	12.50%	14.58%	12.50%

Schedule is intended to show information for 10 years.
Additional years will be displayed as they become available.

Financial Section

Notes to the Required Supplementary Information
For the Fiscal Year Ended September 30, 2017

1) SCHEDULES OF CHANGES IN THE NET PENSION LIABILITY & RELATED RATIOS

The total pension liabilities presented in these schedules were provided by the Systems' actuarial consultants, Cavanaugh Macdonald Consulting, LLC. The net pension liability is measured as the total pension liability less plan fiduciary net position. The related ratios show plan net position as a percentage of the total pension liability and the net pension liability as a percentage of covered employee payroll.

2) SCHEDULES OF EMPLOYER CONTRIBUTIONS

Contributions were made in accordance with actuarially determined contribution requirements. The employer contribution rate expressed as a percent of payroll is determined annually by reviewing a variety of factors including benefits promised, member contributions, investment earnings, mortality, and withdrawal experience. The employer contribution rates for fiscal year 2017 are in the table below. ERS local participating employer contribution rates differ for each employer.

	<u>Tier 1</u>	<u>Tier 2</u>
TRS	12.01%	10.82%
ERS - State Employees	13.89%	13.25%
ERS - State Police	57.25%	53.55%
JRF	40.65%	-

3) SCHEDULE OF INVESTMENT RETURNS

The annual money-weighted rate of return on investments is calculated as the internal rate of return on plan investments, net of plan investment expense. A money-weighted rate of return expresses investment performance, net of plan investment expense, adjusted for the changing amounts actually invested.

4) ACTUARIAL ASSUMPTIONS

The actuarially determined contribution rates in the schedules of employer contributions are calculated as of September 30, 2014, three years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine the most recent contribution rate reported in that schedule:

	<u>TRS</u>	<u>ERS</u>	<u>JRF</u>
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal
Asset Valuation Method	5-year smoothed market	5-year smoothed market	5-year smoothed market
Amortization Method	Level percent closed	Level percent closed	Level percent closed
Remaining Amortization Period	29.8 years	Within 29.8 years - Varies by Employer	25.3 years
Actuarial Assumptions:			
Investment Rate of Return* ‡	8.00%	8.00%	8.00%
Projected Salary Increases ‡	3.50% - 8.25%	3.75% - 7.25%	4.00%
Cost of Living Adjustments	None	None	3.25%†

*Net of pension plan investment expense.

‡ Includes inflation at 3.00%.

† Per year for certain members hired prior to July 30, 1979, and for spousal benefits subject to increase.

Financial Section

Notes to the Required Supplementary Information
For the Fiscal Year Ended September 30, 2017

Changes to Benefit Terms

- TRS and ERS's member contribution rates increased from 5% (6% for certified law enforcement, correctional officers, and firefighters) of earnable compensation to 7.25% (8.25%) of earnable compensation effective October 1, 2011, and to 7.50% (8.50%) of earnable compensation effective October 1, 2012.
- TRS and ERS members hired on or after January 1, 2013, are covered under a new benefit structure.
- JRF's member contribution rate increased from 6% of earnable compensation to 8.25% of earnable compensation on October 1, 2011, and to 8.50% of earnable compensation on October 1, 2012.

Changes to Assumptions

In 2010 and later, the expectation of retired life mortality was changed to the RP-2000 Mortality Tables rather than the 1994 Group Annuity Mortality Table, which was used prior to 2010. In 2010, rates of withdrawal, retirement, disability, and mortality were adjusted to more closely reflect actual experience. In 2010, assumed rates of salary increase were adjusted to more closely reflect actual and anticipated experience.

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Schedule of Administrative Expenses

For the Fiscal Year Ended September 30, 2017

(Dollar Amounts in Thousands)

	Teachers' Retirement System	Employees' Retirement System	Judicial Retirement Fund	Totals
Personnel Services:				
Salaries	\$ 7,235	\$ 5,113	\$ 152	\$ 12,500
Employee Fringe Benefits	4,236	3,516	53	7,805
Total Personnel Services	<u>11,471</u>	<u>8,629</u>	<u>205</u>	<u>20,305</u>
Professional Services:				
Actuarial	199	599	71	869
Accounting and Auditing	102	68	19	189
Information Technology	517	227	15	759
Education & Training	23	4	2	29
Mailing Services	133	68	-	201
Legal Services	63	43	-	106
Personnel Services	82	-	-	82
Other Professional Services and Fees	102	19	1	122
Total Professional Services	<u>1,221</u>	<u>1,028</u>	<u>108</u>	<u>2,357</u>
Communications and Travel:				
Telecommunications	100	53	-	153
Postage	1,108	745	-	1,853
Travel	73	42	3	118
Total Communications and Travel	<u>1,281</u>	<u>840</u>	<u>3</u>	<u>2,124</u>
Rentals:				
Office Space	691	461	12	1,164
Equipment Leasing	13	12	-	25
Total Rentals	<u>704</u>	<u>473</u>	<u>12</u>	<u>1,189</u>
Miscellaneous:				
Supplies	1,266	752	6	2,024
Maintenance	406	236	-	642
Equipment	41	24	-	65
Total Miscellaneous	<u>1,713</u>	<u>1,012</u>	<u>6</u>	<u>2,731</u>
Total Administrative Expenses	<u>\$ 16,390</u>	<u>\$ 11,982</u>	<u>\$ 334</u>	<u>\$ 28,706</u>

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Schedule of Investment Expenses

For the Fiscal Year Ended September 30, 2017

(Dollar Amounts in Thousands)

	Teachers' Retirement System	Employees' Retirement System	Judicial Retirement Fund	Totals
<i>Investment Activity</i>				
Investment Management Fees:				
Salaries and Benefits	\$ 6,381	\$ 1,963	\$ -	\$ 8,344
Dues, Subscriptions and Supplies	1,713	1,137	-	2,850
Travel	33	12	-	45
Professional Services:				
Legal	20	14	-	34
Investment Advisor	60	30	-	90
Appraisal of Private Placements and Real Estate	485	304	-	789
Investment Activity Expenses before Reimbursement	8,692	3,460	-	12,152
Less: Reimbursement for Investment Management Fees	7	155	-	162
Total Investment Activity Expenses	8,685	3,305	-	11,990
<i>Securities Lending Activity</i>				
Securities Lending Borrower Rebates	7,350	3,424	90	10,864
Securities Lending Management Fees	3,112	1,389	44	4,545
Total Securities Lending Activity Expenses	10,462	4,813	134	15,409
Total Investment Expenses	\$ 19,147	\$ 8,118	\$ 134	\$ 27,399

RETIREMENT SYSTEMS OF ALABAMA

Financial Section

Schedule of Professional/Consultant Fees

For the Fiscal Year Ended September 30, 2017

(Dollar Amounts in Thousands)

Professional/Consultant	Nature of Service	Teachers' Retirement System	Employees' Retirement System	Judicial Retirement Fund	Totals
Cavanaugh Macdonald Consulting, LLC	Actuary	\$ 199	\$ 599	\$ 71	\$ 869
Carr, Riggs & Ingram, LLC	Auditor	91	46	15	152
A-lign	Auditor	11	22	4	37
Balch & Bingham LLP	Legal	10	7	-	17
Bradley Arant Boulton Cummings LLP	Legal	36	24	-	60
Steptoe & Johnson LLP	Legal	14	10	-	24
Wells Mailing	Mail	85	36	-	121
Alabama Department of Finance	Mail	48	32	-	80
State Personnel Department	Personnel	82	-	-	82
Fine Geddie & Associates, LLC	Consultant	75	-	-	75
Alabama Department of Finance	Comptroller's Accounting Services	50	25	8	83
Alabama Department of Finance	State of Alabama Accounting & Resource System (STAARS)	44	22	7	73
Alabama Department of Finance	Information Technology	18	12	-	30
Auburn Montgomery	Information Technology	296	99	-	395
Packet Ninjas	Information Technology	32	21	-	53
GKR Systems, Inc.	Information Technology	57	36	-	93
Various	Other	73	37	3	113
Total Professional/Consultant Fees - Administrative Services		1,221	1,028	108	2,357
Burr & Forman LLP	Legal	14	10	-	24
Maynard Cooper Gale	Legal	6	4	-	10
Regions Bank	Investment Advisor	60	30	-	90
Pearson Realty Services, Inc.	Real Estate Appraiser	197	132	-	329
Houlihan Lokey	Investment Appraiser	288	172	-	460
Total Professional/Consultant Fees - Investment Services		565	348	-	913
Total Professional/Consultant Fees		\$ 1,786	\$ 1,376	\$ 108	\$ 3,270



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Comprehensive Annual Financial Report

Investment Section

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Investment Section

Report on Investment Activity

For the Fiscal Year Ended September 30, 2017

Dear Members,

I am pleased to present the following report on investment activity for the fiscal year ended September 30, 2017. The report provides investment highlights in general as well as specific information on the Retirement Systems' investment activity for the fiscal year. The custodian calculated rates of return are based on normal industry standards.

For the first time in several years and to the surprise of most, the global economy grew at a faster clip than market participants initially expected. This is not to say that the global economy is really humming along, but it is the first time in several years that we have not seen constant downward revisions in growth prospects. Central Banks have remained very accommodative, especially the European Central Bank (ECB) and the Bank of Japan (BOJ). At home, we saw the Federal Reserve (Fed) hike interest rates three times in the fiscal year with a high likelihood of more to come. We are also on the brink of the quantitative easing unwind, where the Fed is going to start shrinking its balance sheet. Washington, D.C. has also been interesting on several other fronts as well. President Trump's constant Twitter battles with multiple parties have spooked the market several times, especially regarding the situation in North Korea. Although expectations were high early in the calendar year that some parts of the Trump agenda would be easy to pull off, as of this writing none of the main goals established in the candidacy have been accomplished. It is akin to the gridlock days of the Clinton and Bush administrations where the market actually cheered the gears of Washington turning very slowly.

We didn't have any major asset shifts in the portfolio during the fiscal year. Our biggest overweight remains U.S. equities. We have recently used a small percentage of our S&P 500 index as a source of funds and reallocated it towards emerging markets. After ten plus years of relative underperformance, it seems there is sustainability to economic growth in emerging markets so a large underweighting has less merit. The fixed income portfolio has remained at the lower end of our target range. There were a few instances where it seemed rates were set to break out to the upside as well as rally to new lows. At the end of the year, long rates weren't more or less range bound as they have been for the past five years. We did see a bit of flattening in the curve as short rates moved higher while the long end held firm. With that said, we have continued to overweight corporate credit relative to mortgages and government bonds, and have been focusing new money on the shorter end of the curve.

The real estate portfolio had a decent year though things slowed from the heated pace of the past couple of years. At the end of the fiscal year two of our larger private placement holdings announced a deal. Raycom announced the acquisition of Community Newspaper Holdings, with the goal of reducing costs with one back office team, as well as being able to use content across both the newspaper and television platforms. We think the prospects are better for the combined entity than the two companies on a stand-alone basis. Like last year, we continue to keep our cash weighting at the high end of the target range. It has become progressively easier to hold more cash, as the short end of the interest rate curve has moved higher. We also like the natural hedge it provides relative to our sizeable equity exposure. As always, we will continue to demand the best execution from all RSA counterparts, and will strive to produce results that strengthen the Retirement Systems of Alabama and its beneficiaries.

RSA Performance Summary

As of September 30, 2017, aggregate defined benefit assets under management totaled \$36.76 billion. During fiscal year 2017, annualized total returns of the TRS, ERS, and JRF were 11.77%, 12.86%, and 11.90% respectively.

Equities

After five years of lackluster earnings growth, 2017 earnings were an upside surprise relative to initial expectations. A somewhat synchronized global economic acceleration translated into good returns for most equity markets. Easy money conditions and improving investor sentiment also helped shape a good year. Political turmoil and a failure to accomplish some of the bigger goals as set out by the Trump administration wasn't the impediment one might have expected. Looking ahead, the market seems to be implying that some type of corporate tax reform is going to happen. Forward earnings expectations are widely dispersed, with one of the biggest variables being the undecided upon corporate tax rate. Hopefully, the administration and legislators can put together a tax plan that the markets will support.

Within the equity portfolios it was a risk on year, with smallcaps and emerging markets having the best returns. Market breadth improved from the prior year, but market leadership remains narrow relative to history. The biggest repositioning within the portfolio was moving some money out of our S&P 500 index fund and into emerging markets. Emerging markets have been a laggard relative to both U.S. and developed international markets over the past ten years. With the dollar having stalled out and energy prices remaining range bound, we believe from a reversion to the mean standpoint more exposure to emerging markets has merit.

Considering we are in one of the longer running bull markets of all time, the RSA has continued to put some hedges in place to dampen downside volatility within the equity portfolio. We have tactically rolled out put-spread collars at various strikes and maturities that give 4-5% downside protection. There is a cost associated with these as protection isn't free, but we feel it prudent to have these trades on given our substantial equity market exposure.

For the year, the RSA domestic equity portfolios returned 17.83%, 17.81%, and 17.81% for the TRS, ERS, and JRF, respectively. Both developed and emerging international equities outperformed U.S. equities. Total international equity returns were 19.71% for the TRS, 19.75% for the ERS, and 19.76% for the JRF. The combined total returns for the overall equity portfolios were 18.27%, 18.23%, and 18.28% for the TRS, ERS, and JRF, respectively. Three-, five-, and ten-year annualized global equity returns were 9.67%, 12.88%, and 6.18% for the TRS, 9.65%, 12.89%, and 6.22% for the ERS, and 9.75%, 12.98%, and 6.63% for the JRF.

Fixed Income

At the beginning of fiscal year 2017, fixed income markets had just experienced a slight uptick in volatility created by global monetary policymakers. Lack of discussion by the ECB in regards to its asset-purchase program, yield-targeting by the BOJ, and the lowering of projections for future interest rate increases by the Federal Open Market Committee (FOMC) left markets in a state of flux. The treasury yield curve steepened in October as the potential unwind of global quantitative easing and higher inflation expectations came into focus. Investment-grade credit spreads actually tightened during the month while high-yield debt was able to squeak out a positive return due to its shorter-duration profile.

In November, Donald Trump's presidential victory triggered an upward move in interest rates as expectations grew that his administration, coupled with Republican majorities in both houses of Congress, would enact policies enhancing economic growth. The Bloomberg Barclays' Aggregate Index, the benchmark for fixed income securities, shed over 2.35% during the month with all coupon-paying assets posting negative returns. The post-election move also reflected stronger economic data and higher inflation expectations. As anticipated, the FOMC raised the federal funds rate 25 basis points (bps) at its December meeting. Treasury yields were able to rally during the latter half of December. The ten-year treasury ended the calendar year at 2.44%, 110bps higher than the lows experienced in July. High yield debt was the best performing asset class within fixed income, gaining approximately 2.00% in December and finishing 2016 with a 17.5% total return.

Treasury levels remained virtually unchanged in the first month of the calendar year, while corporate credit traded in a tight range. Corporations appeared to have front loaded supply in expectation of higher rates in the future as \$175bn of investment grade debt was issued. The risk-on rally continued into February as corporate credit spreads tightened across the board, stretching their run to eight consecutive months. Treasury securities were able to rally as political risks in Europe began to pick up steam. French and Italian spreads widened to their highest levels since 2014, and short-term yields in Greece spiked as negotiations with creditors on the next round of funding broke down.

By mid-March, interest rates had settled back into the top end of its post-election range. This was achieved through effective communication by policymakers, strong employment numbers, and easing political risks in Europe. Fed Chair Janet Yellen and the FOMC did raise short term interest rates at their March meeting, but relayed that only two additional hikes were likely for the remainder of the year. This provided a little relief for fixed income investors as they had feared a faster pace of tightening going forward.

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Report on Investment Activity (Continued)

For the Fiscal Year Ended September 30, 2017

During the spring, corporate credit continued to show its resiliency despite a few economic and political disturbances. Treasury yields fell from peak levels after a weaker than expected payroll report and concerns about the outcome of the French election. These issues coupled with falling inflation expectations led to a dramatic flattening of the yield curve. While all sectors within fixed income were able to post positive returns, the lack of duration within agency and mortgage securities held them back from fully participating. By the time policymakers raised short term interest rates near the end of June, the differential between two-year and ten-year treasury yields had fallen to 80bps. At this meeting, the Committee also laid the groundwork for reducing its balance sheet later in the year.

Interest rates moved briefly higher over the next couple of weeks on the heels of solid economic data and a jump in inflation expectations. This move proved to be short-lived as expectations for a September rate move began to diminish. Geopolitical tensions and a benign inflation outlook appeared to have squashed previous hawkish sentiment. Policymakers and investors alike have struggled to come to an agreement on the cyclical vs structural disinflation debate. The corporate sector actually fared worse than government debt in August, something that has not happened quite often this year outside the marginal underperformance in March.

The last month of the fiscal year started out on shaky ground with hurricanes and debt ceiling deadlines leaving investors looking for shelter. The search for safe assets sent treasury yields to their lows of the year. Once again, this bout of risk aversion was not to be, as Congress extended the debt ceiling decision for another day and a relief rally ensued. The Fed did meet towards the end of the month and as expected, voted to leave rates at their current level. The Committee also finalized plans for the reduction in its balance sheet. These actions, coupled with hawkish statements thereafter, lifted rates higher through the end of the fiscal year. As expected, risk assets reacted favorably with high yield debt posting its largest outperformance of the calendar year. In a year of pedestrian returns in fixed income, investors were rewarded for reaching down the quality spectrum and scooping up as many assets as they could find. However, the performance gap within corporate credit shrunk considerably throughout the year and appears to be a trend going forward.

For the fiscal year, the total annual returns for the public domestic fixed income portfolios were 1.03% for the TRS, 1.05% for the ERS, and 0.66% for the JRF. The five-year annualized returns were 2.74% for the TRS, 2.73% for the ERS, and 2.64% for the JRF. The ten-year annualized returns were 5.10% for the TRS, 5.10% for the ERS, and 4.99% for the JRF.

Sincerely,



Marc Green
Director of Investments

Investment Section

Teachers' Retirement System Investment Policy Statement

For the Fiscal Year Ended September 30, 2017

Purpose

This Investment Policy Statement ("IPS") sets forth the investment policies by which the Teachers' Retirement System's ("TRS") fund's investments will be managed. This IPS is consistent with and complements related Alabama statutes and is intended to be binding upon all persons with authority over the investments of the TRS. Deviation from the IPS is not permitted without explicit written permission, in advance, from the TRS Board of Control ("Board of Control" or "Board"). This IPS was adopted by the Board of Control on December 9, 2015, and is effective March 1, 2016.

Roles and Responsibilities

Board of Control

The Board of Control, as Trustees, shall carry out its functions solely in the interest of the members and benefit recipients and for the exclusive purpose of providing benefits and defraying reasonable expenses incurred in performing such duties. The Trustees shall act in accordance with the provisions of the laws and with the care, skill, prudence and diligence in light of the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.

Specific responsibilities include:

- Approving a statement of investment philosophy that sets forth TRS's beliefs on key investment issues.
- Approving an IPS.
- Ensuring asset allocation strategies are in place to achieve the investment goals and objectives of the TRS.
- Reviewing adherence to the investment philosophy of the TRS.
- Reviewing compliance with, and the continued appropriateness of, the IPS.
- Reviewing the investment performance of the fund, including the performance of all investment classes.
- Elect an investment committee (Ala. Code § 16-25-20(a)(3)).
- Appoint an Investment Advisor (Ala. Code § 16-25-20(a)(4)).

Investment Committee

The Investment Committee will:

- Act as agent for its appointing Board of Control (Ala. Code § 16-25-20(a)(3)).
- Consider all investment recommendations made by the Secretary-Treasurer (Ala. Code § 16-25-20(a)(3)).
- Either approve or disapprove the recommended investments in accordance with policies set by the Board (Ala. Code § 16-25-20(a)(3)).
- Confirm by written authorization of at least two members the approval of all investments, with such authorization to be attached to the invoice for the transaction (Ala. Code § 16-25-20(a)(3)).

Secretary-Treasurer

The Secretary-Treasurer is elected by the Board of Control and serves as the chief executive officer for the TRS. Ala. Code § 16-25-19(i). Specific responsibilities of the Secretary-Treasurer include:

- Recommending to the Board a written IPS and reviewing that statement with the Board at least annually.
- Developing and executing, within the policy parameters approved by the Board, investment strategies for each asset category in which the TRS invests.
- Executing portfolio rebalancing in accordance with the policies of the Board.
- Advising the Board on any other investment matters and making recommendations for Board or committee action when necessary.
- Reporting to the Board all purchases and sales of investments made by him or her at least once semiannually (Ala. Code § 16-25-20(a)(5)).
- Carrying out the investment policies fixed by the Board (Ala. Code § 16-25-20(a)(2)).

Investment Section

Teachers' Retirement System Investment Policy Statement (Continued)

For the Fiscal Year Ended September 30, 2017

- Examining all offers of investments made to the funds (Ala. Code § 16-25-20(a)(2)).
- Initiating inquiries as to available investments for the funds (Ala. Code § 16-25-20(a)(2)).
- Reviewing periodically the investment quality and desirability of retention of investments held (Ala. Code § 16-25-20(a)(2)).
- Making purchases and sales of investments as he or she shall deem to be to the best interests of the fund and in accordance with policies set by the Board, and as the Investment Committee shall approve (Ala. Code § 16-25-20(a)(2)).
- Other such responsibilities as the Board may delegate or the law shall provide.

Custodian

The Custodian holds directly, through its agents, its sub-custodians, or designated clearing systems, assets as designated by the Board. The Custodian is accountable for registration of those designated assets in good delivery form, collection of income generated by those assets, and any corporate action notification. The Custodian is responsible for delivery and receipt of securities of the aforementioned transactions. The Custodian is required to provide online records and reports, performance reporting, accounting reports, and other services included by contract. The Board may opt to designate other duties to the Custodian.

Investment Advisor

The Investment Advisor may be appointed and employed by the Board of Control to act as a consultant to the Secretary-Treasurer in the purchase, sale, and review of the TRS's investments to the extent the Board may designate. The Investment Advisor must be a bank having principal office in the State of Alabama, must have capital, surplus, and undivided profits of not less than \$300 million, and must have an organized investment department. Ala. Code § 16-25-20(a)(4). Specific responsibilities of the Investment Advisor include:

- Assist the Secretary-Treasurer with the development of quarterly strategies for investments.
- Confirm weekly list of investment activities.
- Meet at least quarterly with the Secretary-Treasurer and Board of Control members.

Investment Goals and Objectives

The function of the TRS is to provide present and future retirement or survivor benefits for its members. This objective requires the prudent assumption of investment risk in seeking to maximize long-term investment returns while incorporating the fund's liability requirements. The future investment performance of the fund directly affects its future financial strength. However, the greater the expected return of the strategic asset allocation policy, the higher the risk, and thus the greater the volatility of expected returns. With this greater volatility, the volatility of the surplus (deficit) of the plan may also be greater. The optimal balancing of these return and risk considerations will be considered in the context of the fund's short-term and long-term benefit obligations.

Investment Philosophy

The investment philosophy for the TRS is determined with careful consideration of its primary fund purpose, fiduciary obligations, statutory requirements, actuarial assumptions, funding policy, liquidity needs, income sources, benefit obligations, and other general business conditions. The investment philosophy embraces the following:

- Strategic asset allocation is the most significant factor influencing long-term investment performance and asset volatility. The asset allocation targets, determined by the Board of Control, will be adhered to through a clearly defined rebalancing program.
- In controlling the risk level that is appropriate for the fund, the Board will diversify the assets of the fund among various asset classes as the Board may from time to time adopt as appropriate asset classes with the goal of minimizing large losses. The specific asset classes to be used will be set in conjunction with the strategic asset allocation adopted from time to time by the Board. The Board will diversify investment assets within asset classes to avoid concentrations.
- The fund's liabilities are long term and the investment strategy will therefore be long term in nature. Strategic decisions will prevail in determining asset allocation rather than tactical or short-term market timing decisions.
- The asset allocation policy will be reexamined every three years to ensure its appropriateness to the then prevailing liability considerations.
- Market-related risk and non-market related risk investments will be utilized. Market related risk refers to risk systematic to a market or risk embedded in the strategic asset allocation policy. Non-market risk refers to risk derived from active management or tactical decisions. Market-related risks are expected to produce returns proportional to the level of those risks over long periods of time as a natural feature of reasonably efficient capital markets; non-market related risks may produce additional returns when capitalized upon through skilled active management in the presence of some degree of market inefficiency. As a long-term investor, the TRS will invest across a wide spectrum of market-related risk investments, categorized in asset classes, in a prudent manner consistent with the strategic asset allocation policy referred to above.
- Index funds can be a desirable way of obtaining market-related risk exposure to asset classes.
- Non-market-related risks, also known as active management risk, may be expected to add value over index funds with comparable benchmarks, under appropriate conditions, and can be employed by the fund with controls in place which are appropriate to the particular investment.
- Also TRS recognizes that a stronger Alabama equates to a stronger Teachers' Retirement System and, as such, investments in Alabama businesses are encouraged to the extent the investment return meets the criteria delineated by this policy statement. Any Alabama investment must be forecast to have a return comparable to other like investments in the same asset class.
- Investment returns may be adversely affected by excessive investment related fees. TRS will utilize in-house staff expertise to minimize the cost of investing as appropriate.

Strategic Asset Allocation Policy

The TRS current target asset allocation and ranges are specified below.

Asset Class	Target Allocation	Strategic Range
Domestic Equity	45%	30%-60%
International Equity	15%	10%-25%
Fixed Income	17%	10%-50%
Alternative Investments	10%	0%-20%
Real Estate	10%	0%-15%
Short-term investments	3%	1%-6%
Total	100%	

The strategic asset allocation policy will be periodically reviewed, as described under “Investment Philosophy” and “Roles and Responsibilities.”

Rebalancing Policy

The purpose of the rebalancing policy is to ensure the adherence to the strategic allocation plan. Unexpected changes in market values may, on occasion, cause the actual asset allocation to fall outside of the allowable ranges. This policy applies to all asset classes in which the TRS invests and requires Investment Management Staff (“Staff”) to implement rebalancing trades if, as of any quarter end, the allocation to any asset class is outside the allowable ranges. The Board recognizes, however, the inherent difficulty in managing the allocations to illiquid asset classes.

As such, with respect to TRS’s illiquid asset classes, the Board expects the allocations to these areas to be managed as close as practical to the policy targets. The Board expects Staff to report illiquid asset class allocations that fall outside the prescribed ranges. In addition, the Board expects Staff to provide an implementation recommendation to bring the fund’s allocation to these areas back within the allowable ranges.

Managing the allocations to the marketable asset classes involves a risk reduction tradeoff with increased transaction costs. As such, the Board expects Staff to implement this policy in a manner that seeks to minimize the impact of transaction costs. In particular, the Board expects Staff to use cash contributions and cash needs to move the fund’s asset allocation as close as practical to the policy targets. When markets move such that the fund’s normal cash flows are insufficient to maintain the fund’s actual asset allocation within the permissible ranges as of any quarter end, the Board expects Staff to implement the necessary transactions to bring the fund’s allocation back to within the allowable ranges. Before a rebalancing transaction is implemented, the Board expects Staff to identify those portfolios that are likely to have the lowest cost of trading. Absent any asset class structure considerations, the Board expects these low trading cost portfolios to be utilized more frequently to implement required total fund rebalancing.

Eligible Asset Categories

The Board is responsible for approving asset categories in which the fund will invest. Listed below are the asset categories in which TRS currently invests along with a discussion of market efficiency in each category.

The efficiency of markets is relevant to expected return opportunities. Highly efficient markets provide less opportunity to add value above market returns. Highly inefficient markets provide more opportunity to add return above what is available by the market. This above market return expectation can be referred to as alpha. Market return can be referred to as beta.

Domestic Equities

Investing in the domestic equity market is a way to participate in one of the largest and most diverse economies in the world through ownership of the companies that make up the economy of the United States. Investment theory and history suggest that the domestic equity markets provide long-term price appreciation in an amount that tends to mirror the overall growth in the economy. In addition, stocks have historically provided a return that served as an effective hedge relative to inflation (i.e., the historical return of stocks has been in excess of the rate of inflation).

It is expected that the TRS will have exposure to all segments of the domestic equity market including but not limited to growth and value stocks of large to small capitalization companies. The domestic equity market is considered by many to be one of the most efficient capital markets in the world. The availability of public information regarding the future prospects of individual companies combined with the numerous market participants rendering assessments of the information contribute to this market's efficiency. With this in mind, a large portion of the domestic equity portfolio will be managed through passive index funds. A portion of the portfolio will be utilized to add alpha relative to the benchmarks. While the market is very efficient, neither it nor any other market is perfectly efficient. When appropriate skill is available, it may be possible to successfully use active management techniques to improve upon benchmark returns, with acceptable levels of risk.

International Equities

The international equity markets are an increasingly larger share of the investment opportunity set. In addition, because international company stocks tend to react to local as well as global influences, the fluctuations in the returns of international equity markets are only partially related to the movements in the domestic equity market. Further, capital market theory suggests that we should be fully diversified in a global, not just in a local sense.

Fixed Income

Bonds provide a source of diversification relative to an equity-oriented portfolio. The rate of return volatility (investment risk) of fixed income securities is substantially lower than the volatility of equities. In addition, there are significant differences in the pattern of returns between stock and bond investments. When combined with equity securities, a fixed income allocation can serve to reduce the overall risk of the portfolio without materially sacrificing return potential.

The fixed income asset class is perhaps the most diverse capital market. Securities include government, mortgage-backed and corporate bonds of U.S. and non-U.S. issuers. It also includes bonds issued by high quality as well as low quality companies and countries. The fixed income market may be more efficient than once believed. However, fixed income can experience less efficiency at times and in certain segments such as lower quality bonds. It is expected that the fixed income portfolio will make use of both active and passive investment mandates and will include allocations to all major segments of the fixed income market.

Investment Section

Teachers' Retirement System Investment Policy Statement (Continued)

For the Fiscal Year Ended September 30, 2017

Alternative Investments

The alternative investment asset class can encompass many different and distinct asset categories. These types of investments may exhibit high levels of risk, with a concomitant expectation for high rates of investment returns. Many of these investments may exhibit a high level of correlation with the publicly-traded equity markets.

The alternative investment asset class is considered highly inefficient, as the lack of publicly available company and pricing information suggest active management is critical in this asset class. Examples of such investments are venture capital partnerships, private equity, hedge funds, leveraged buy-out funds, private debt, and direct ownership of individual assets such as oil and gas partnerships. These investments shall only be entered into after significant due diligence.

Real Estate

Real estate investments can serve as a diversifier of a stock and bond portfolio. While the factors that influence real estate returns may also influence the returns of stock and bond portfolios, these factors impact real estate in a different manner than the other asset classes. This suggests that the return patterns of real estate have a lower correlation to other asset classes, providing a diversification benefit when combined with stocks and bonds.

Risk Controls and Procedures

- The fund is to be broadly diversified across and within asset classes to limit the volatility of the total fund investment returns and to limit the impact of large losses on individual investments of the fund.
- Individual portfolios will be managed according to written investment guidelines that are approved by the Staff. These guidelines are intended to ensure that the portfolio meets its objective and operates within acceptable risk parameters.
- A process will be established by which compliance with all elements of the IPS and portfolio guidelines are measured and monitored, with compliance exceptions being reported to the Board.
- The Investment Advisor will work with the Staff to develop a quarterly strategy for investments, which will be disseminated to the Board, as it is prepared each quarter.
- The Investment Committee shall approve all investments made within the IPS. The Investment Committee, in its approval, is considered to be signing for the Board of Control. If any purchase or sale is questioned by two members of the Investment Committee as to whether it is within policy, the Board shall decide if further action is required.
- Each week, the Secretary-Treasurer will send to the Investment Advisor the list of actual activities for written confirmation, which will then be distributed to the Board of Control members upon receipt.
- All investment security purchases will be documented with an individual worksheet setting out the reason for the purchase, rating, market history and other general data relevant to the decision making process.
- An annual survey will be made of all fixed income investments held with emphasis on credit quality. A holding that has been downgraded in rating will be examined as to the reason for the downgrade and a determination should be made as to whether the security should remain in the portfolio.
- The rules of the Securities and Exchange Commission, the general policies of the Board of Control, and the Alabama Ethics Commission shall govern the ethical conduct of employees. The Investment Management Staff will provide the Alabama Ethics Commission with a quarterly report of all purchases and sales of any and all securities for personal accounts occurring within each reported quarter.
- All Alternative Investments will be documented with a comprehensive financial analysis setting out the reasons for the investment and showing the projected return on investment.

Performance Measurement

The investment objective of the TRS total fund is to earn the rate of return of the Total Plan Policy Portfolio. A Policy Portfolio is a passive representation of the specific asset allocation strategy pursued and is the most objective performance evaluation metric. The Total Plan Policy Portfolio weights each individual portfolio and its return versus the actual relative index returns. This process accounts for asset allocation shifts within and between any asset classes.

Total Plan Benchmark

The Total Plan Benchmark is calculated monthly. It is a weighted average of the asset classes and their corresponding benchmarks. The weights are calculated using the beginning market values. The asset class benchmarks are listed in the table below.

Domestic Equity	Custom Benchmark	(see description below)
International Equity	MSCI EAFE Net & Emerging Markets Net	Beginning of month weighted custom benchmark
Domestic Fixed Income	Custom Benchmark	(see description below)
International Fixed Income	WGBI Non-US	Currently, there are no International Fixed Income portfolios in the plan.
Cash	ML 90-Day T-Bill	
Alternative Investments	-If an equity investment, the Russell 3000 plus 3%. -If a debt investment, the Barclay Capital Agency plus 3%.	
Real Estate	CPI+3%	

Domestic Equity Benchmark

The Domestic Equity Benchmark is calculated monthly. It is a weighted average of the domestic equity portfolios and their corresponding benchmarks. The weights are calculated using the beginning markets' values. The portfolio benchmarks are listed in the table below:

Core Fund	S&P 500
S&P 500 Fund	S&P 500
MidCap Active Fund (SSF)	S&P 400 MidCap
S&P MidCap Index	S&P 400 MidCap
S&P SmallCap Index	S&P 600 SmallCap
Policy Fund	S&P 500
Value Fund	S&P 500

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Teachers' Retirement System Investment Policy Statement (Continued)

For the Fiscal Year Ended September 30, 2017

Fixed Income Benchmark

The Fixed Income Benchmark is calculated monthly. It is a weighted average of the Fixed Income sectors and their corresponding benchmarks. The weights are calculated using the beginning markets' values. The sector benchmarks are listed in the table below:

Agency	Barclay Capital Agency
Asset Backed	Barclay Capital ABS Index
CMO	Barclay Capital MTGE
Corporate	Barclay Capital Corp
Municipal	N/A
Mortgage Pass-Through	Barclay Capital MTGE
Private Placement	N/A
US Treasury	Barclay Capital Treasury
Yankee - Agency	Barclay Capital Agency
Yankee - Other Yankee	Barclay Capital Corp

Investment Section

Employees' Retirement System Investment Policy Statement

For the Fiscal Year Ended September 30, 2017

Purpose

This Investment Policy Statement (IPS) sets forth the investment policies by which the fund's investments will be managed. This IPS is consistent with and complements related Alabama Statutes and is intended to be binding upon all persons with authority over the investments of the Employee Retirement System of Alabama ("ERS"). Deviation from the IPS is not permitted without explicit written permission, in advance, from the ERS Board of Control ("Board of Control" or "Board"). This IPS shall be effective April 1, 2015.

The Judicial Retirement Fund is a defined benefit plan created by and administered in accordance with Ala. Code §§ 12-18-1, et seq.. Section 12-18-2(a) states in its pertinent part as follows:

"The Judicial Retirement Fund shall be administered by the Secretary-Treasurer of the State Employees' Retirement System under the supervision of the Board of Control of the said State Employees' Retirement System and said board of control shall be the trustee of such fund and shall handle such fund in the same manner and pursuant to the same rules and regulations that it handles funds in the State Employees' Retirement System."

Therefore, the Board of Control is the trustee and responsible for handling such funds in the same manner as ERS. This IPS, therefore, will also apply to the JRF.

Roles and Responsibilities

Board of Control

The Board of Control, as Trustees, shall carry out its functions solely in the interest of the members and benefit recipients and for the exclusive purpose of providing benefits and defraying reasonable expenses incurred in performing such duties. The Trustees shall act in accordance with the provisions of the laws and with the care, skill, prudence and diligence in light of the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims by diversifying the investments of the ERS so as to minimize the risk of large losses.

Specific responsibilities include:

- Working with the Investment Management Committee to provide oversight of the investment program of the ERS.
- Approving a statement of investment philosophy that sets forth ERS's beliefs on key investment issues.
- Approving an IPS.
- Ensuring asset allocation strategies are in place to achieve the investment goals and objectives of the ERS.
- Reviewing adherence to the investment philosophy of the ERS.
- Reviewing compliance with, and the continued appropriateness of, the IPS.
- Reviewing the investment performance of the fund, including the performance of all investment classes.
- Elect an investment committee (Ala. Code §§36-27-25(d)).
- Appoint an Investment Advisor (Ala. Code §§36-27-25(e)).

Investment Management Committee

The Investment Management Committee is responsible for overseeing the ERS investment program. Specific responsibilities include recommending to/advising the Board:

- A written statement of investment philosophy for the fund.
- A written IPS.
- Strategies to achieve the investment goals and objectives of the ERS.
- On any other investment matters and make recommendations for Board action when necessary.
- Keeping minutes of Investment Management Committee meetings and ensuring the minutes are made available to Trustees.

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Employees' Retirement System Investment Policy Statement (Continued)

For the Fiscal Year Ended September 30, 2017

- Monitoring all the investment activities of the Investment Committee, Secretary-Treasurer, Staff, Investment Advisor, and Custodian
- Ensuring the investment reporting policies are designed to provide transparency and aggregate information on target investments regardless of the investment vehicles used.

Investment Committee

The Investment Committee will:

- Act as agent for its appointing Board of Control (Ala. Code §§36-27-25(d)).
- Consider all investment recommendations made by the Secretary-Treasurer (Ala. Code §§36-27-25(d)).
- Either approve or disapprove the recommended investments in accordance with policies set by the Board (Ala. Code §§36-27-25(d)).
- Confirm by written authorization the approval of all investments, with such authorization to be attached to the invoice for the transaction (Ala. Code §§36-27-25(d)).

Secretary-Treasurer

The Secretary –Treasurer is elected by the Board of Control and serves as the chief executive officer for the ERS. Ala. Code §§36-27-23(h). Specific responsibilities of the Secretary-Treasurer include:

- Recommending to the Investment Management Committee a written statement of investment philosophy and review that statement with the committee at least every three years.
- Recommending to the Investment Management Committee a written IPS and review that statement with the committee at least annually.
- Recommending to the Investment Management Committee strategies to achieve the investment goals and objectives of ERS.
- Developing, and executing, within the policy parameters approved by the Board, investment strategies for each asset category in which the ERS invests.
- Executing portfolio rebalancing in accordance with the policies of the Board.
- Advising the Board and the Investment Management Committee on any other investment matters and making recommendations for Board or committee action when necessary.
- Reporting to the Board of Control all purchases and sales of investments made by him or her at least once semiannually (Ala. Code §§36-27-25(c)).
- Carrying out the investment policies fixed by the Board of Control (Ala. Code §§26-27-25(c)).
- Examining all offers of investments made to the funds (Ala. Code §§36-27-25(c)).
- Initiating inquiries as to available investments for the funds (Ala. Code §§36-27-25(c)).
- Reviewing periodically the investment quality and desirability of retention of investments held (Ala. Code §§36-27-25(c)).
- Making purchases and sales of investments as he or she shall deem to be to the best interests of the fund and in accordance with policies set by the Board, and as the Investment Committee shall approve (Ala. Code §§36-27-25(c)).

Custodian

The Custodian holds directly, through its agents, its sub-custodians, or designated clearing systems, assets as designated by the Board. The Custodian is accountable for registration of those designated assets in good delivery form, collection of income generated by those assets, and any corporate action notification. The Custodian is responsible for delivery and receipt of securities of the aforementioned transactions. The Custodian is required to provide online records and reports, performance reporting, accounting reports, and other services included by contract. The Board may opt to designate other duties to the Custodian.

Investment Advisor

The Investment Advisor may be appointed and employed by the Board of Control to act as a consultant to the Secretary-Treasurer in the purchase, sale, and review of the ERS's investments to the extent the Board may designate. The Investment Advisor must be a bank having principal office in the State of Alabama, must have capital, surplus, and undivided profits of not less than \$300 million, and must have an organized investment department. Specific responsibilities of the Investment Advisor include:

- Assist the Secretary-Treasurer with the development of quarterly strategies for investments.
- Confirm weekly list of investment activities.
- Meet at least quarterly with the Secretary-Treasurer and Board of Control members.

Investment Goals and Objectives

The function of the ERS is to provide present and future retirement or survivor benefits for its members. This objective requires the prudent assumption of investment risk in seeking to maximize long-term investment returns while incorporating the fund's liability requirements. The future investment performance of the fund directly affects its future financial strength. However, the greater the expected return of the strategic asset allocation policy, the higher the risk, and thus the greater the volatility of expected returns. With this greater volatility, the volatility of the surplus (deficit) of the plan may also be greater. The optimal balancing of these return and risk considerations will be considered in the context of the fund's short-term and long-term benefit obligations.

Investment Philosophy

The investment philosophy for the ERS is determined with careful consideration of its primary fund purpose, fiduciary obligations, statutory requirements, actuarial assumptions, funding policy, liquidity needs, income sources, benefit obligations and other general business conditions. The investment philosophy embraces the following:

- Strategic asset allocation is the most significant factor influencing long-term investment performance and asset volatility. The asset allocation targets, determined by the Board of Control, will be adhered to through a clearly defined rebalancing program.
- In controlling the risk level that is appropriate for the fund, the Board will diversify the assets of the fund among various asset classes as the Board may from time to time adopt as appropriate asset classes. The specific asset classes to be used will be set in conjunction with the strategic asset allocation adopted from time to time by the Board. The Board will diversify investment assets within asset classes to avoid concentrations.
- The fund's liabilities are long term and the investment strategy will therefore be long term in nature. Strategic decisions will prevail in determining asset allocation rather than tactical or short-term market timing decisions.
- The asset allocation policy will be reexamined every three years to ensure its appropriateness to the then prevailing liability considerations.
- Market-related risk and non-market related risk investments will be utilized. Market related risk refers to risk systematic to a market or risk embedded in the strategic asset allocation policy. Non-market risk refers to risk derived from active management or tactical decisions. Market-related risks are expected to produce returns proportional to the level of those risks over long periods of time as a natural feature of reasonably efficient capital markets; non-market related risks may produce additional returns when capitalized upon through skilled active management in the presence of some degree of market inefficiency. As a long-term investor, the ERS will invest across a wide spectrum of market-related risk investments, categorized in asset classes, in a prudent manner consistent with the strategic asset allocation policy referred to above.
- Index funds can be a desirable way of obtaining market-related risk exposure to asset classes.
- Non-market-related risks, also known as active management risk, may be expected to add value over index funds with comparable benchmarks, under appropriate conditions, and can be employed by the fund with controls in place which are appropriate to the particular investment.

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Employees' Retirement System Investment Policy Statement (Continued)

For the Fiscal Year Ended September 30, 2017

- Also ERS recognizes that a stronger Alabama equates to a stronger Employee Retirement System, and as such, investments in Alabama businesses are encouraged to the extent the investment return meets the criteria delineated by this policy statement. Any Alabama investment must be forecast to have a return comparable to other investments in the same asset class. The forecast and the accompanying analysis must be presented to the Investment Committee and Investment Management Committee prior to making the investment.

Strategic Asset Allocation Policy

The ERS current target asset allocation and ranges are specified below.

Asset Class	JRF Target Allocation	ERS Target Allocation	Strategic Range (10/1/16 – 9/6/17)	Strategic Range (9/7/17 – 9/30/17)
Domestic Equity	55%	45%	30%-60%	30%-60%
International Equity	15%	15%	10%-25%	10%-25%
Fixed Income	22%	17%	10%-50%	10%-40%
Alternative Investments	1%	10%	0%-15%	0%-15%
Real Estate	2%	10%	0%-15%	0%-15%
Short-term investments	5%	3%	0%-7%	0%-7%

The strategic asset allocation policy will be periodically reviewed, as described under “Investment Philosophy” and “Roles and Responsibilities.”

Rebalancing Policy

The purpose of the rebalancing policy is to ensure the adherence to the strategic allocation plan. Unexpected changes in market values may, on occasion, cause the actual asset allocation to fall outside of the allowable ranges. This policy applies to all asset classes in which the ERS invests and requires Investment Management Staff (“Staff”) to implement rebalancing trades if, as of any quarter end, the allocation to any asset class is outside the allowable ranges. The Board recognizes, however, the inherent difficulty in managing the allocations to illiquid asset classes.

As such, with respect to ERS’s investments in illiquid asset classes (alternative investments and real estate), the Board expects the allocations to these areas to be managed as close as practical to the policy targets. As of any quarter-end, the Board expects Staff to report illiquid asset class allocations that fall outside the prescribed ranges. In addition, the Board expects Staff to provide an implementation recommendation to bring the fund’s allocation to these areas back within the allowable ranges. The Staff will provide annually to the Investment Management Committee a schedule for valuations on such assets.

Managing the allocations to the marketable asset classes involves a risk reduction tradeoff with increased transaction costs. As such, the Board expects Staff to implement this policy in a manner that seeks to minimize the impact of transaction costs. In particular, the Board expects Staff to use cash contributions and cash needs to move the fund’s asset allocation as close as practical to the policy targets.

When markets move such that the fund’s normal cash flows are insufficient to maintain the fund’s actual asset allocation within the permissible ranges as of any quarter end, the Board expects Staff to implement the necessary transactions to bring the fund’s allocation back to within the allowable ranges. Before a rebalancing transaction is implemented, the Board expects Staff to identify those portfolios that are likely to have the lowest cost of trading. Absent any asset class structure considerations, the Board expects these low trading cost portfolios to be utilized more frequently to implement required total fund rebalancing.

Eligible Asset Categories

The Board is responsible for approving asset categories in which the fund will invest. Listed below are the asset categories in which ERS currently invests along with a discussion of market efficiency in each category. The efficiency of markets is relevant to expected return opportunities. Highly efficient markets provide less opportunity to add value above market returns. Highly inefficient markets provide more opportunity to add return above what is available by the market. This above market return expectation can be referred to as alpha. Market return can be referred to as beta.

Domestic Equities

Investing in the domestic equity market is a way to participate in one of the largest and most diverse economies in the world through ownership of the companies that make up the economy of the United States. Investment theory and history suggest that the domestic equity markets provide long-term price appreciation in an amount that tends to mirror the overall growth in the economy. In addition, stocks have historically provided a return that served as an effective hedge relative to inflation (i.e., the historical return of stocks has been in excess of the rate of inflation).

It is expected that the ERS will have exposure to all segments of the domestic equity market including but not limited to growth and value stocks of large to small capitalization companies. The domestic equity market is considered by many to be one of the most efficient capital markets in the world. The availability of public information regarding the future prospects of individual companies combined with the numerous market participants rendering assessments of the information contribute to this market's efficiency. With this in mind, a large portion of the domestic equity portfolio will be managed through passive index funds. A portion of the portfolio will be utilized to add alpha relative to the benchmarks. While the market is very efficient, neither it nor any other market is perfectly efficient. When appropriate skill is available, it may be possible to successfully use active management techniques to improve upon benchmark returns, with acceptable levels of risk.

International Equities

The international equity markets are an increasingly larger share of the investment opportunity set. In addition, because international company stocks tend to react to local as well as global influences, the fluctuations in the returns of international equity markets are only partially related to the movements in the domestic equity market. Further, capital market theory suggests that we should be fully diversified in a global, not just in a local sense.

Fixed Income

Bonds provide a source of diversification relative to an equity-oriented portfolio. The rate of return volatility (investment risk) of fixed income securities is substantially lower than the volatility of equities. In addition, there are significant differences in the pattern of returns between stock and bond investments. When combined with equity securities, a fixed income allocation can serve to reduce the overall risk of the portfolio without materially sacrificing return potential.

The fixed income asset class is perhaps the most diverse capital market. Securities include government, mortgage-backed and corporate bonds of U.S. and non-U.S. issuers. It also includes bonds issued by high quality as well as low quality companies and countries. The fixed income market may be more efficient than once believed. However, fixed income can experience less efficiency at times and in certain segments such as lower quality bonds. It is expected that the fixed income portfolio will make use of both active and passive investment mandates and will include allocations to all major segments of the fixed income market.

Alternative Investments

The alternative investment asset class can encompass many different and distinct asset categories. These types of investments exhibit high levels of risk, with an expectation for high rates of investment returns. Many of these investments also exhibit a high level of correlation with the publicly-traded equity markets.

The alternative investment asset class is considered highly inefficient, as the lack of publicly available company and pricing information suggest active management is critical in this asset class. The primary benefit afforded investors in this asset class is the expectation of generating high levels of investment returns, as well as hedging instruments for risk controls.

Investment Section

Employees' Retirement System Investment Policy Statement (Continued)

For the Fiscal Year Ended September 30, 2017

Examples of such investments are venture capital partnerships, private equity, hedge funds, leveraged buy-out funds, private debt, and direct ownership of individual assets such as oil and gas partnerships. These investments shall only be entered into after due diligence and with approval by both the Investment Committee and the Investment Management Committee or by the Board. No final commitment shall be made until all the forgoing is met. Subsequent investments in a previously approved investment do not require additional specific approvals by the Investment Committee and the Investment Management Committee or the Board, unless there has been a material adverse change in the investment.

ERS may not engage an investment manager or invest in a fund, partnership, or other entity if the terms of the engagement or investment do not preclude an investment result that is contrary to the Investment Policy Statement.

ERS may not engage an investment manager or invest in a fund unless the investment-management or subscription agreement includes a representation, warranty, and covenant confirming the absence of any compensation (before, during, or after the agreement) to a solicitor, placement agent, lobbyist, or other intermediary except as fully disclosed in a writing attached to and made a part of the agreement.

Real Estate

Real estate investments can serve as a diversifier of a stock and bond portfolio. While the factors that influence real estate returns may also influence the returns of stock and bond portfolios, these factors impact real estate in a different manner than the other asset classes. This suggests that the return patterns of real estate have a lower correlation to other asset classes, providing a diversification benefit when combined with stocks and bonds.

Risk Controls and Procedures

- The fund is to be broadly diversified across and within asset classes to limit the volatility of the total fund investment returns and to limit the impact of large losses on individual investments of the fund.
- Individual portfolios will be managed according to written investment guidelines that are approved by the Staff. These guidelines are intended to ensure that the portfolio meets its objective and operates within acceptable risk parameters.
- A process will be established by which compliance with all elements of the IPS and portfolio guidelines are measured and monitored, with compliance exceptions being reported to the Investment Management Committee and the Board.
- The Investment Advisor will work with the Staff to develop a quarterly strategy for investments, which will be disseminated to the Board, as it is prepared each quarter.
- The Investment Committee shall approve all investments made within the IPS. The Investment Committee, in its approval, is considered to be signing for the Board of Control. If any purchase or sale is questioned by two members of the Investment Committee as to whether it is within policy, the Board shall decide and no purchase or sale shall take place until all parties are in clear agreement that said action is or is not covered by policy.
- Each week, the Secretary-Treasurer will send to the Investment Advisor the list of actual activities for written confirmation, which will then be distributed to the Board of Control members upon receipt.
- All investment security purchases will be documented with an individual worksheet setting out the reason for the purchase, rating, market history and other general data relevant to the decision making process.
- An annual survey will be made of all fixed income investments held with emphasis on credit quality. A holding that has been downgraded in rating will be examined as to the reason for the downgrade and a determination should be made as to whether the security should remain in the portfolio.
- The rules of the Securities and Exchange Commission, the general policies of the Board of Control, and the Alabama Ethics Commission shall govern the ethical conduct of employees. The Investment Management Staff will provide the Alabama Ethics Commission with a quarterly report of all purchases and sales of any and all securities for personal accounts occurring within each reported quarter.
- All Alternative Investments will be documented with a comprehensive financial analysis setting out the reasons for the investment and showing the projected return on investment.

Performance Measurement

The investment objective of the ERS total fund is to earn the rate of return of the Total Plan Policy Portfolio. A Policy Portfolio is a passive representation of the specific asset allocation strategy pursued and is the most objective performance evaluation metric. The Total Plan Policy Portfolio weights each individual portfolio and its return versus the actual relative index returns. This process accounts for asset allocation shifts within and between any asset classes.

Total Plan Benchmark

The Total Plan Benchmark is calculated monthly. It is a weighted average of the asset classes and their corresponding benchmarks. The weights are calculated using the beginning market values. The asset class benchmarks are listed in the table below:

Domestic Equity	Custom Benchmark	(see description below)
International Equity	MSCI E AFE Net	
Domestic Fixed Income	Custom Benchmark	(see description below)
International Fixed Income	WGBI Non-US	Currently, there are no International Fixed Income portfolios in the plan.
Cash	ML 90-Day T-Bill	
Alternative Investments	-If an equity investment, the Russell 3000 +3% -If a debt investment, the Barclay Capital Agency plus 3%.	
Real Estate	NCREIF NPI	-Privately held US- based commercial Real Estate properties. -Most commonly used. -Often use NPI + 1-3% to compensate for higher risk and expected returns of funds that use leverage.

Domestic Equity Benchmark

The Domestic Equity Benchmark is calculated monthly. It is a weighted average of the domestic equity portfolios and their corresponding benchmarks. The weights are calculated using the beginning markets' values. The portfolio benchmarks are listed in the table below:

Core Fund	S&P 500
S&P 500 Fund	S&P 500
MidCap Active Fund (SSF)	S&P 400 MidCap
S&P MidCap Index	S&P 400 MidCap
S&P SmallCap Index	S&P 600 SmallCap
SmallCap Active Fund	S&P 600 SmallCap

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Employees' Retirement System Investment Policy Statement (Continued)

For the Fiscal Year Ended September 30, 2017

Fixed Income Benchmark

The Fixed Income Benchmark is calculated monthly. It is a weighted average of the Fixed Income sectors and their corresponding benchmarks. The weights are calculated using the beginning markets' values. The sector benchmarks are listed in the table below:

Agency	Barclay Capital Agency
Asset Backed	Barclay Capital ABS Index
CMO	Barclay Capital MTGE
Corporate	Barclay Capital Corp
Municipal	N/A
Mortgage Pass-Through	Barclay Capital MTGE
Private Placement	N/A
US Treasury	Barclay Capital Treasury
Yankee - Agency	Barclay Capital Agency
Yankee – Other Yankee	Barclay Capital Corp

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Teachers' Retirement System

Schedule of Investment Performance

	TIME WEIGHTED RATES OF RETURN - GROSS OF FEE			
	1 Year	3 Years	5 Years	10 Years
<u>U.S. Equity</u>				
TRS Core Fund	18.30%	10.13%	14.09%	6.74%
TRS S&P 500 Fund	17.26%	10.39%	13.89%	7.33%
TRS Mid Cap Index	17.62%	11.26%	14.48%	9.10%
TRS S&P Small Cap Index	21.69%	14.61%	16.20%	9.88%
TRS Midcap Active Fund (Ssf)	16.90%	9.06%	11.93%	7.88%
TRS Large Cap Policy Fund	20.45%	n/a	n/a	n/a
TRS Large Cap Value Fund	14.59%	n/a	n/a	n/a
TRS Total Domestic Equity	17.83%	10.67%	14.05%	7.46%
TRS Custom Domestic Equity Index	18.60%	11.12%	14.40%	7.80%
<i>S&P 500</i>	<i>18.61%</i>	<i>10.81%</i>	<i>14.22%</i>	<i>7.44%</i>
<i>S&P Mid Cap 400</i>	<i>17.52%</i>	<i>11.18%</i>	<i>14.43%</i>	<i>9.00%</i>
<i>S&P Smallcap 600</i>	<i>21.05%</i>	<i>14.07%</i>	<i>15.60%</i>	<i>9.27%</i>
<u>International Equity</u>				
TRS Emerging Markets Fund	22.77%	5.47%	4.40%	n/a
TRS International Equities	19.19%	5.50%	8.89%	1.88%
TRS Total International Equity	19.71%	5.64%	8.49%	1.94%
TRS Custom International Equity Index	19.58%	5.16%	7.99%	n/a
<i>MSCI Eafe (Net)</i>	<i>19.10%</i>	<i>5.04%</i>	<i>8.38%</i>	<i>1.34%</i>
<i>MSCI Emerging Markets</i>	<i>22.46%</i>	<i>4.90%</i>	<i>3.99%</i>	<i>1.32%</i>
TRS Total Global Equity	18.27%	9.67%	12.88%	6.18%
TRS Custom Global Equity Index	18.84%	9.92%	13.05%	6.24%
<u>Fixed Income</u>				
TRS Domestic Fixed Income	1.03%	3.35%	2.74%	5.10%
TRS Custom Domestic Fixed Index	0.66%	3.09%	2.44%	4.73%
<i>Barclays Aggregate Bond</i>	<i>0.07%</i>	<i>2.71%</i>	<i>2.06%</i>	<i>4.27%</i>
TRS Private Placements	-33.99%	-8.20%	0.52%	1.07%
TRS Total Fixed Income	-15.43%	-1.45%	2.16%	3.24%
<u>Alternative Investments</u>				
TRS Preferred And Private Equity	154.73%	35.74%	27.89%	-1.90%
TRS Real Estate	3.96%	6.18%	5.40%	3.06%
TRS Total Alternatives	29.74%	13.35%	10.20%	2.44%
TRS Total Fixed Income Plus Alternatives	1.33%	4.59%	5.56%	3.45%
<u>Cash</u>				
TRS Cash Account	0.85%	0.46%	0.32%	0.65%
TRS Short Term Investments	1.13%	0.77%	0.60%	1.07%
TRS Total Cash	1.06%	0.69%	n/a	n/a
<u>Total Plan</u>				
TRS Total Plan	11.77%	7.63%	9.95%	5.04%
TRS Total Plan Policy	12.85%	7.60%	9.36%	5.35%

Note: Calculations are prepared using the time-weighted rate-of-return methodology based upon market values

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Employees' Retirement System

Schedule of Investment Performance

	TIME WEIGHTED RATES OF RETURN - GROSS OF FEE			
	1 Year	3 Years	5 Years	10 Years
<u>U.S. Equity</u>				
ERS Core Fund	18.29%	10.13%	14.10%	6.77%
ERS S&P 500 Fund	17.30%	10.37%	13.87%	7.32%
ERS Mid Cap Index	17.61%	11.25%	14.47%	9.11%
ERS S&P Small Cap Index	21.69%	14.61%	16.20%	9.89%
ERS Midcap Active Fund (Ssf)	16.88%	9.07%	11.93%	7.90%
ERS Large Cap Policy Fund	20.45%	n/a	n/a	n/a
ERS Large Cap Value Fund	14.59%	n/a	n/a	n/a
ERS Total Domestic Equity	17.81%	10.59%	13.99%	7.42%
ERS Custom Domestic Equity Index	18.58%	11.09%	14.39%	7.79%
<i>S&P 500</i>	<i>18.61%</i>	<i>10.81%</i>	<i>14.22%</i>	<i>7.44%</i>
<i>S&P Mid Cap 400</i>	<i>17.52%</i>	<i>11.18%</i>	<i>14.43%</i>	<i>9.00%</i>
<i>S&P Smallcap 600</i>	<i>21.05%</i>	<i>14.07%</i>	<i>15.60%</i>	<i>9.27%</i>
<u>International Equity</u>				
ERS Emerging Markets Fund	22.77%	5.47%	4.40%	n/a
ERS International Equities	19.20%	5.50%	8.89%	1.88%
ERS Total International Equity	19.75%	5.65%	8.46%	1.95%
ERS Custom International Equity Index	19.62%	5.17%	7.95	n/a
<i>MSCI Eafe (Net)</i>	<i>19.10%</i>	<i>5.04%</i>	<i>8.38%</i>	<i>1.34%</i>
<i>MSCI Emerging Markets</i>	<i>22.46%</i>	<i>4.90%</i>	<i>3.99%</i>	<i>1.32%</i>
ERS Total Global Equity	18.23%	9.65%	12.89%	6.22%
ERS Custom Global Equity Index	18.81%	9.96%	13.10%	6.31%
<u>Fixed Income</u>				
ERS Domestic Fixed Income	1.05%	3.35%	2.73%	5.10%
ERS Custom Domestic Fixed Index	0.64%	3.08%	2.44%	4.72%
<i>Barclays Aggregate Bond</i>	<i>0.07%</i>	<i>2.71%</i>	<i>2.06%</i>	<i>4.27%</i>
ERS Private Placements	-34.19%	-8.29%	0.47%	0.98%
ERS Total Fixed Income	-15.57%	-1.46%	2.23%	3.19%
<u>Alternative Investments</u>				
ERS Preferred And Private Equity	170.41%	38.56%	29.58%	1.83%
ERS Real Estate	3.93%	6.14%	5.38%	3.00%
ERS Total Alternatives	38.51%	15.61%	11.45%	2.18%
ERS Total Fixed Income Plus Alternatives	4.86%	5.73%	6.24%	3.32%
<u>Cash</u>				
ERS Cash Account	0.86%	0.47%	0.32%	0.65%
ERS Short Term Investments	1.16%	0.82%	0.62%	1.08%
ERS Total Cash	1.08%	0.74%	n/a	n/a
<u>Total Plan</u>				
ERS Total Plan	12.86%	7.92%	10.04%	4.88%
ERS Total Plan Policy	12.90%	8.32%	9.75%	5.53%

Note: Calculations are prepared using the time-weighted rate-of-return methodology based upon market values

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Judicial Retirement Fund

Schedule of Investment Performance

	TIME WEIGHTED RATES OF RETURN - GROSS OF FEE			
	1 Year	3 Years	5 Years	10 Years
U.S. Equity				
JRF S&P 500 Fund	17.60%	10.53%	14.03%	7.42%
JRF Mid Cap Index	17.61%	11.24%	14.47%	9.06%
JRF S&P Small Cap Index	21.69%	14.61%	16.20%	9.88%
JRF Large Cap Policy Fund	20.45%	n/a	n/a	n/a
JRF Large Cap Value Fund	14.59%	n/a	n/a	n/a
JRF Total Domestic Equity	17.81%	10.83%	14.19%	7.68%
JRF Custom Domestic Equity Index	18.61%	11.01%	14.30%	7.62%
<i>S&P 500</i>	<i>18.61%</i>	<i>10.81%</i>	<i>14.22%</i>	<i>7.44%</i>
<i>S&P Mid Cap 400</i>	<i>17.52%</i>	<i>11.18%</i>	<i>14.43%</i>	<i>9.00%</i>
<i>S&P Smallcap 600</i>	<i>21.05%</i>	<i>14.07%</i>	<i>15.60%</i>	<i>9.27%</i>
International Equity				
JRF Emerging Markets Fund	22.63%	5.43%	4.38%	n/a
JRF International Equities	19.15%	5.50%	8.90%	1.97%
JRF Total International Equity	19.76%	5.66%	8.46%	2.36%
JRF Custom International Equity Index	19.69%	5.24%	7.98	n/a
<i>MSCI Eafe (Net)</i>	<i>19.10%</i>	<i>5.04%</i>	<i>8.38%</i>	<i>1.34%</i>
<i>MSCI Emerging Markets</i>	<i>22.46%</i>	<i>4.90%</i>	<i>3.99%</i>	<i>1.32%</i>
JRF Total Global Equity	18.28%	9.75%	12.98%	6.63%
JRF Custom Global Equity Index	18.88%	9.80%	12.97%	6.35%
Fixed Income				
JRF Domestic Fixed Income	0.66%	3.16%	2.64%	4.99%
JRF Custom Domestic Fixed Index	0.43%	2.94%	2.34%	4.59%
<i>Barclays Aggregate Bond</i>	<i>0.07%</i>	<i>2.71%</i>	<i>2.06%</i>	<i>4.27%</i>
JRF Private Placements	-88.63%	-50.17%	-30.54%	-16.79%
JRF Total Fixed Income	-0.79%	2.66%	2.53%	4.35%
Alternative Investments				
JRF Real Estate	4.90%	8.70%	7.51%	8.16%
JRF Total Alternatives	4.90%	8.70%	5.96%	4.75%
JRF Total Fixed Income Plus Alternatives	-0.50%	2.96%	2.74%	4.31%
Cash				
JRF Cash Account	0.88%	0.47%	0.33%	0.65%
JRF Short Term Investments	1.13%	0.79%	0.61%	1.11%
JRF Total Cash	1.00%	0.66%	n/a	n/a
Total Plan				
JRF Total Plan	11.90%	7.28%	9.63%	6.05%
JRF Total Plan Policy	12.63%	7.52%	9.82%	5.80%

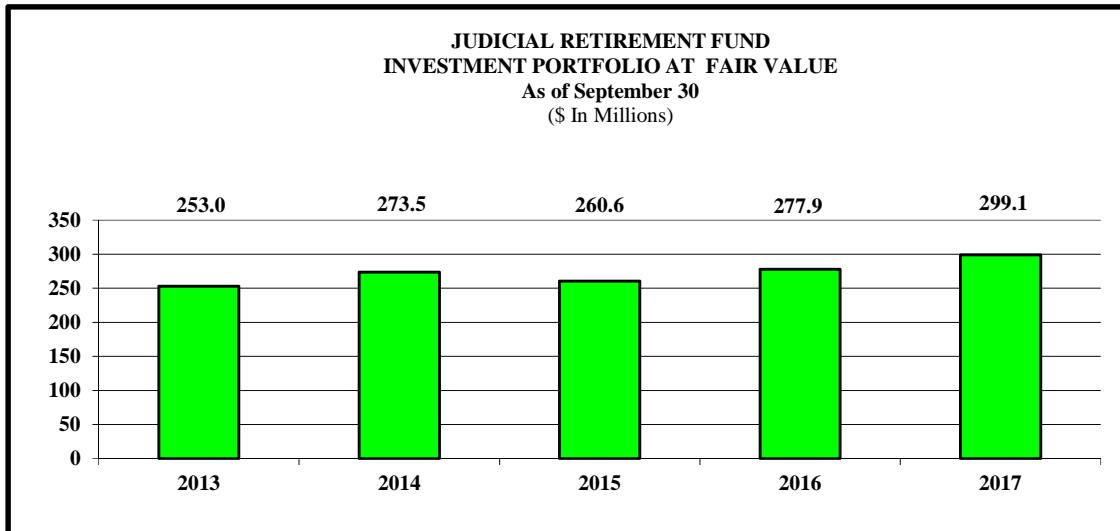
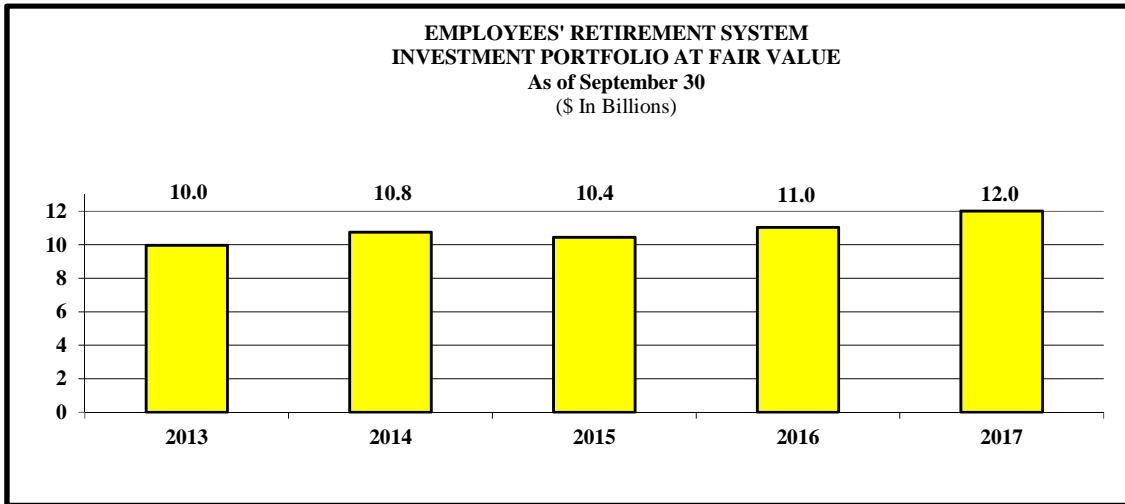
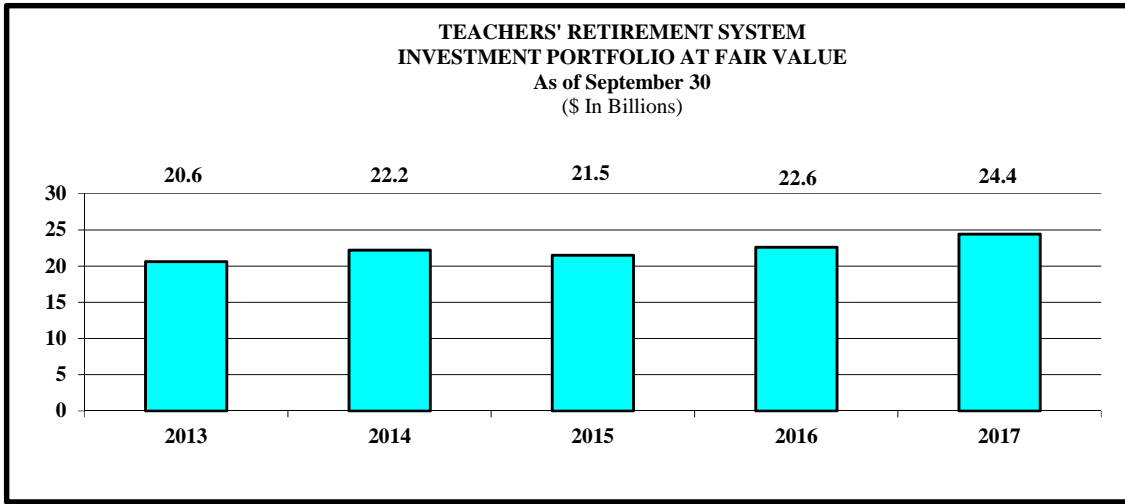
Note: Calculations are prepared using the time-weighted rate-of-return methodology based upon market values

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Investment Portfolio at Fair Value

Five-Year Comparison

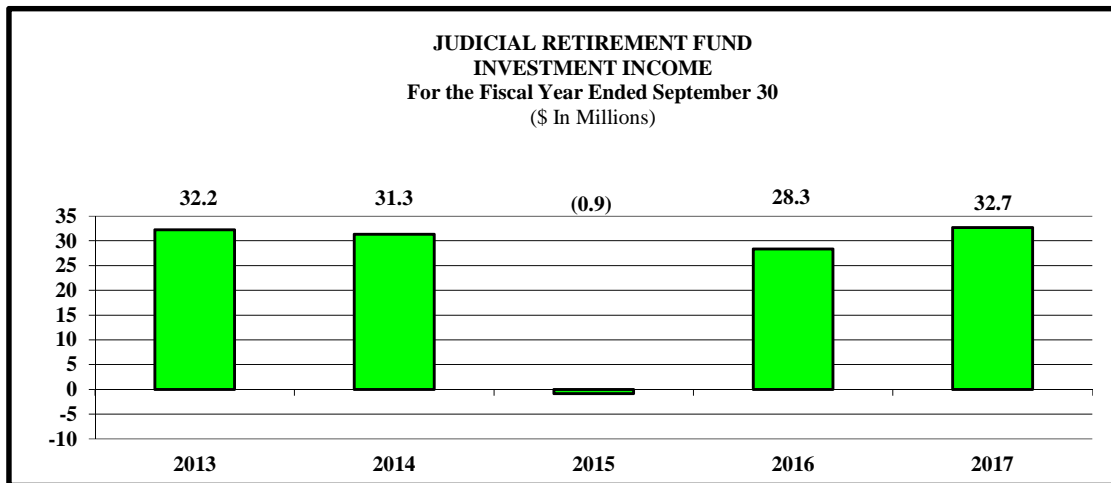
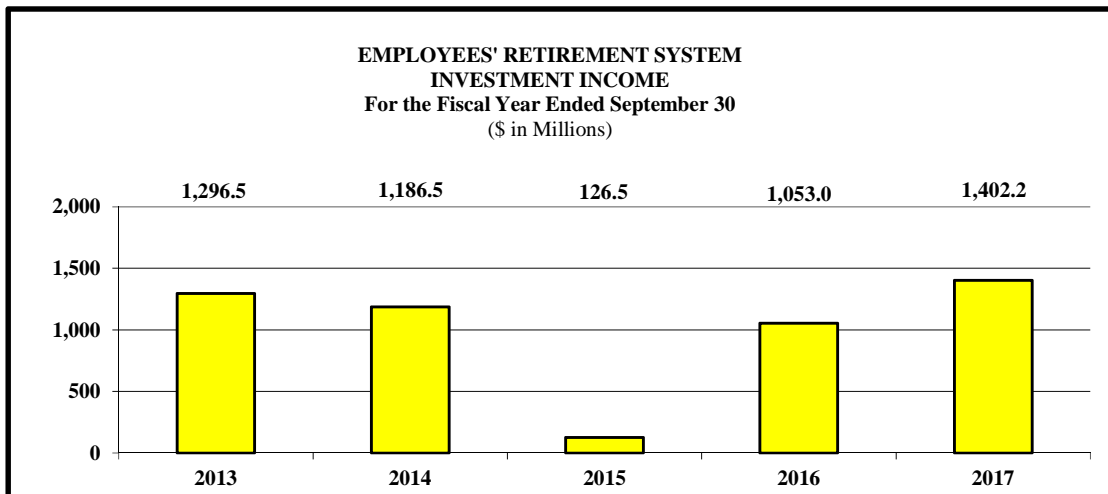
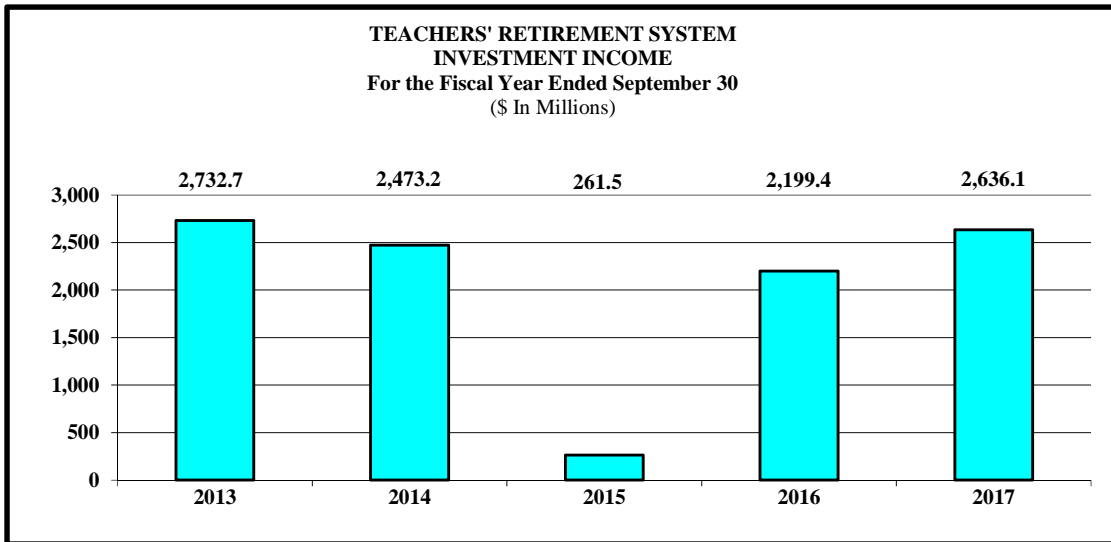


RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Investment Income

Five-Year Comparison

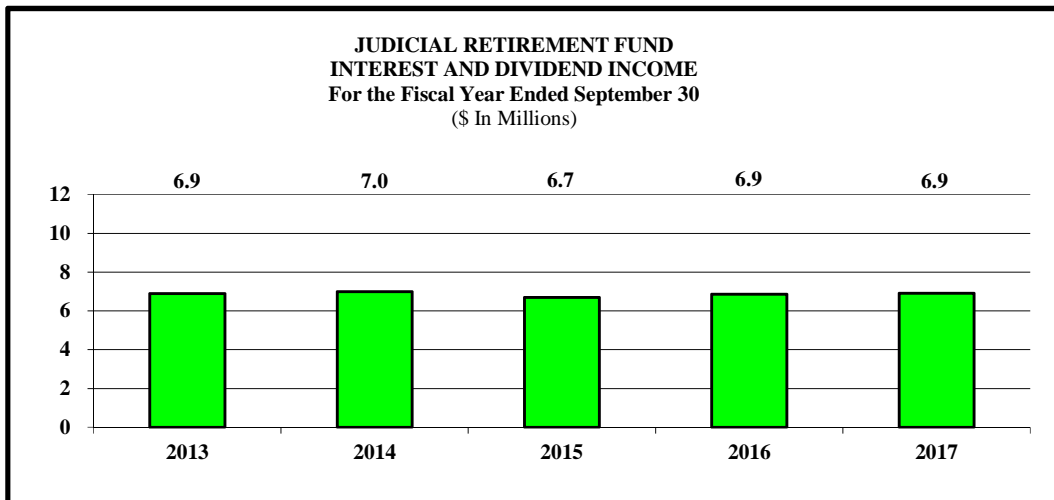
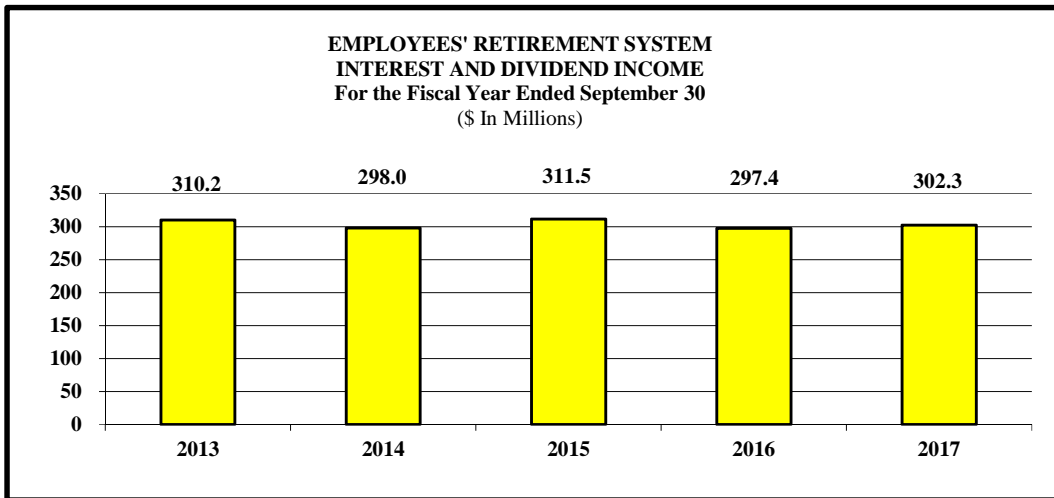
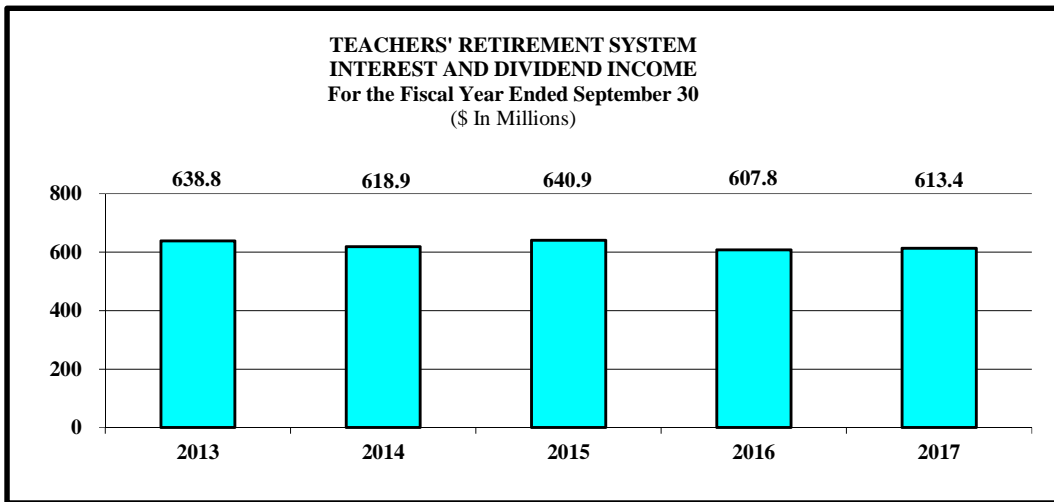


RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Interest and Dividend Income

Five-Year Comparison

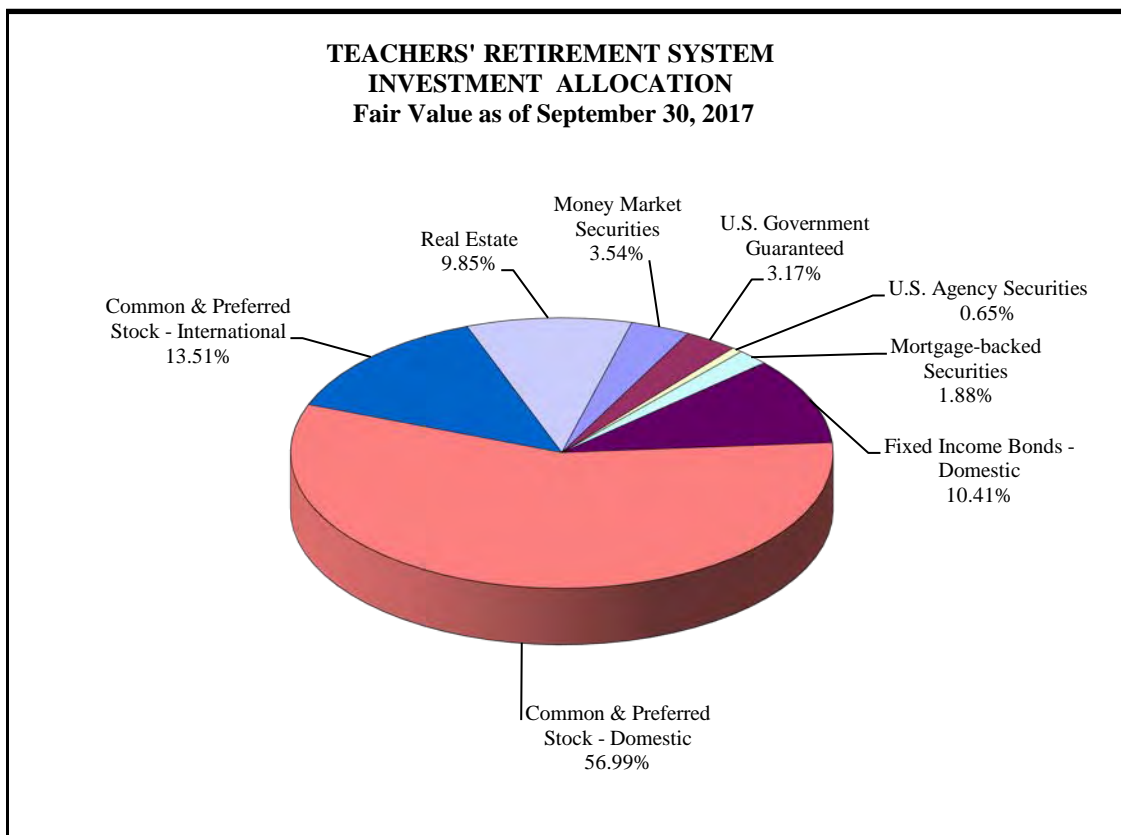


RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Teachers' Retirement System

Investment Allocation and Summary



**TEACHERS' RETIREMENT SYSTEM
INVESTMENT SUMMARY AT FAIR VALUE
As of September 30, 2017**

(\$ In Thousands)

	<u>Fair Value</u>	<u>% of Fair Value</u>
Money Market Securities and Mutual Funds	\$ 864,603	3.54
U.S. Government Guaranteed	774,198	3.17
U.S. Agency Securities	157,544	0.65
Mortgage-backed Securities	457,745	1.88
Fixed Income Bonds		
Domestic	2,539,332	10.41
Common and Preferred Stocks		
Domestic	13,901,047	56.99
International	3,294,618	13.51
Real Estate	2,401,236	9.85
Total Investments	<u><u>\$ 24,390,323</u></u>	<u><u>100.00</u></u>

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Teachers' Retirement System

Largest Stock and Bond Holdings

TEACHERS' RETIREMENT SYSTEM

LARGEST STOCK HOLDINGS

September 30, 2017

(Amounts In Thousands)

	<u>Shares</u>	<u>Stock</u>	<u>Fair Value</u>
1)	13	New Water Street Corporation	\$ 1,266,288
2)	949	Goldman Sachs Small Cap Equity Linked Note	1,101,404
3)	10,826	Raycom Media Warrants	688,493
4)	547,021	Goldman Sachs International S & P 500 Equity Linked Note	569,449
5)	10,851	ISHARES MSCI Emerging Markets	486,220
6)	2,021	Apple, Inc.	311,505
7)	2,995	Microsoft Corporation	223,128
8)	927	Facebook, Inc.	158,412
9)	164	Amazon.Com, Inc.	157,335
10)	160	Alphabet, Inc.	155,425

TEACHERS' RETIREMENT SYSTEM

LARGEST BOND HOLDINGS

September 30, 2017

(Amounts In Thousands)

	<u>Par</u>	<u>Bonds</u>	<u>Fair Value</u>
1)	1,157,052	Raycom Media, 8%, Due 9/30/2032	\$ 1,157,051
2)	75,311	U.S. Treasury, 2%, Due 12/31/2021	75,784
3)	68,666	U.S. Treasury, 2.75%, Due 2/15/2024	71,310
4)	63,840	U.S. Treasury, 2.25%, Due 11/15/2024	64,166
5)	61,232	U.S. Treasury, 2.125%, Due 8/15/2021	62,018
6)	56,926	U.S. Treasury, 1.375%, Due 1/31/2020	56,725
7)	57,261	SIO2 Medical Products Inc, 8%, Due 12/31/2018	55,945
8)	52,831	U.S. Treasury, 2.5%, Due 5/15/2024	54,041
9)	48,599	U.S. Treasury, 3.375%, Due 11/15/2019	50,506
10)	47,996	U.S. Treasury, 3.5%, Due 5/15/2020	50,388

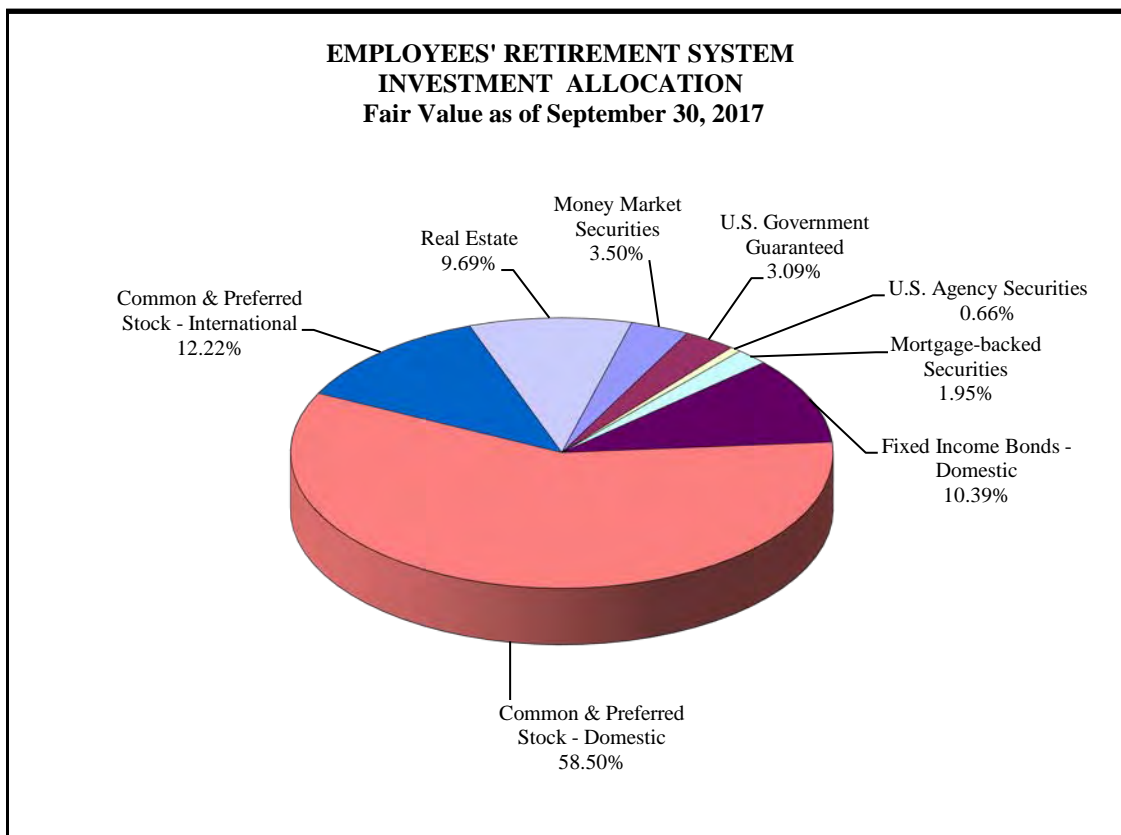
A complete list of portfolio holdings is available upon request.

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Employees' Retirement System

Investment Allocation and Summary



**EMPLOYEES' RETIREMENT SYSTEM
INVESTMENT SUMMARY AT FAIR VALUE**

As of September 30, 2017

(\$ In Thousands)

	Fair Value	% of Fair Value
Money Market Securities and Mutual Funds	\$ 420,173	3.50
U.S. Government Guaranteed	371,695	3.09
U.S. Agency Securities	79,325	0.66
Mortgage-backed Securities	234,316	1.95
Fixed Income Bonds		
Domestic	1,247,752	10.39
Common and Preferred Stocks		
Domestic	7,025,435	58.50
International	1,467,563	12.22
Real Estate	1,163,825	9.69
Total Investments	\$ 12,010,084	100.00

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Employees' Retirement System

Largest Stock and Bond Holdings

EMPLOYEES' RETIREMENT SYSTEM

LARGEST STOCK HOLDINGS

September 30, 2017

(Amounts in Thousands)

	<u>Shares</u>	<u>Stock</u>	<u>Fair Value</u>
1)	6	New Water Street Corporation	\$ 581,823
2)	7,727	Raycom Media Warrants	491,374
3)	390	Goldman Sachs Small Cap Equity Linked Note	452,965
4)	261,264	Goldman Sachs International S & P 500 Equity Linked Note	271,976
5)	5,182	ISHARES MSCI Emerging Markets	232,200
6)	1,022	Apple, Inc.	157,508
7)	1,511	Microsoft Corporation	112,589
8)	84	Raycom Media Preferred 10 Series	84,248
9)	83	Alphabet, Inc.	80,424
10)	468	Facebook, Inc.	79,998

EMPLOYEES' RETIREMENT SYSTEM

LARGEST BOND HOLDINGS

September 30, 2017

(Amounts In Thousands)

	<u>Par</u>	<u>Bonds</u>	<u>Fair Value</u>
1)	574,975	Raycom Media, 8%, Due 9/30/2032	\$ 574,975
2)	41,044	U.S. Treasury, 2%, Due 12/31/2021	41,302
3)	33,001	U.S. Treasury, 2.125%, Due 8/15/2021	33,425
4)	31,236	U.S. Treasury, 2.75%, Due 2/15/2024	32,439
5)	29,131	U.S. Treasury, 2.5%, Due 5/15/2024	29,798
6)	29,268	U.S. Treasury, 2.25%, Due 11/15/2024	29,418
7)	28,203	SIO2 Medical Products Inc, 8%, Due 12/31/2018	27,555
8)	25,799	American Spirit Media, LLC, 8%, Due 12/31/2032	25,799
9)	25,877	U.S. Treasury, 1.375%, Due 1/31/2020	25,786
10)	22,207	U.S. Treasury, 3.375%, Due 11/15/2019	23,078

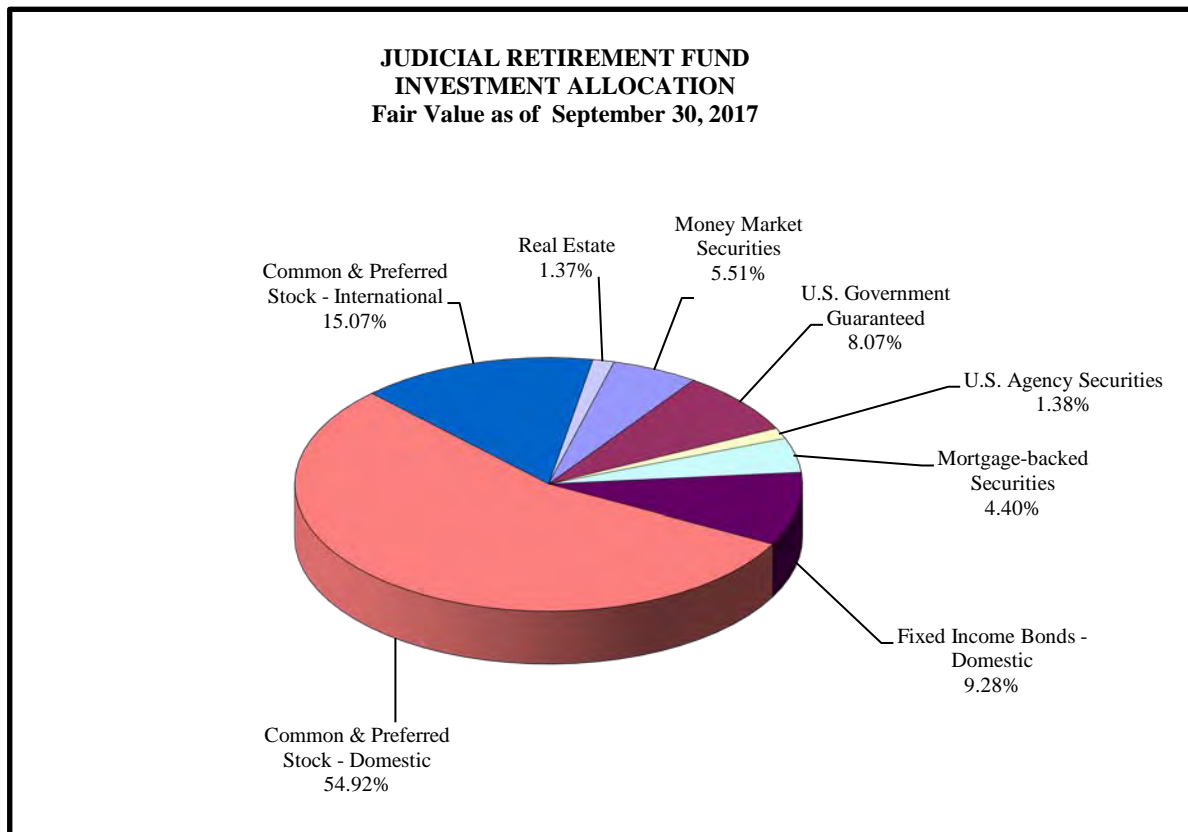
A complete list of portfolio holdings is available upon request.

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Judicial Retirement Fund

Investment Allocation and Summary



**JUDICIAL RETIREMENT FUND
INVESTMENT SUMMARY AT FAIR VALUE
As of September 30, 2017**

(\$ In Thousands)

	<u>Fair Value</u>	<u>% of Fair Value</u>
Money Market Securities and Mutual Funds	\$ 16,473	5.51
U.S. Government Guaranteed	24,134	8.07
U.S. Agency Securities	4,118	1.38
Mortgage-backed Securities	13,167	4.40
Fixed Income Bonds		
Domestic	27,753	9.28
Common and Preferred Stocks		
Domestic	164,278	54.92
International	45,067	15.07
Real Estate	4,101	1.37
Total Investments	\$ 299,091	100.00

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Judicial Retirement Fund

Largest Stock and Bond Holdings

JUDICIAL RETIREMENT FUND

LARGEST STOCK HOLDINGS

September 30, 2017

(Amounts in Thousands)

	<u>Shares</u>	<u>Stock</u>	<u>Fair Value</u>
1)	9	Goldman Sachs Small Cap Equity Linked Note	\$ 9,920
2)	8,165	Goldman Sachs International S & P 500 Equity Linked Note	8,500
3)	180	ISHARES MSCI Emerging Markets	8,084
4)	29	Apple, Inc.	4,498
5)	*	New Water Street Corporation	4,101
6)	44	Microsoft Corporation	3,242
7)	14	Facebook, Inc.	2,339
8)	2	Amazon.Com, Inc.	2,215
9)	11	Berkshire Hathaway, Inc.	1,993
10)	15	Johnson & Johnson	1,975

* Less than 1,000 shares

JUDICIAL RETIREMENT FUND

LARGEST BOND HOLDINGS

September 30, 2017

(Amounts In Thousands)

	<u>Par</u>	<u>Bonds</u>	<u>Fair Value</u>
1)	4,544	U.S. Treasury, 2.125%, Due 8/15/2021	\$ 4,602
2)	3,986	U.S. Treasury, 2.5%, Due 5/15/2024	4,077
3)	2,499	U.S. Treasury, 3.75%, Due 11/15/2018	2,564
4)	1,871	U.S. Treasury, 2.75%, Due 2/15/2024	1,943
5)	1,863	U.S. Treasury, 2.25%, Due 11/15/2024	1,873
6)	1,590	U.S. Treasury, 1.375%, Due 1/31/2020	1,584
7)	1,619	U.S. Treasury, 2.5%, Due 2/15/2045	1,511
8)	1,319	GE Capital Intl Funding Co, 2.342%, Due 11/15/2020	1,331
9)	1,280	U.S. Treasury, 3.375%, Due 11/15/2019	1,330
10)	1,259	U.S. Treasury, 3.5%, Due 5/15/2020	1,322

A complete list of portfolio holdings is available upon request.

RETIREMENT SYSTEMS OF ALABAMA

Investment Section

Broker Commissions Paid

For the Fiscal Year Ended September 30, 2017

	Stock		Commissions (000's)	Fixed Securities Commissions (000's)	Total Commissions (000's)
	Commissions Per Share	# of Shares (000's)			
Bank of America Merrill Lynch	\$ 0.0351	7,810	\$ 274	\$ 83	\$ 357
Barclays	0.0500	2,499	125	19	144
Bernstein	0.0254	12,847	326	-	326
BTIG	0.0379	1,135	43	-	43
Cantor Fitzgerald	-	-	-	20	20
Citigroup	0.0457	7,222	330	99	429
Convergex	0.0356	4,607	164	-	164
Cornerstone	0.0502	1,912	96	-	96
Cowen	0.0500	1,399	70	-	70
Credit Suisse	0.0503	755	38	1	39
Deutsche Bank	0.0443	813	36	18	54
Goldman Sachs	0.0109	7,810	85	111	196
Harbor Financial	0.0507	454	23	-	23
Howard Weil	0.0498	281	14	-	14
International Strategy and Investment - ISI	0.0329	11,911	392	-	392
Issuer Designated	-	-	-	70	70
Jefferies	0.0457	2,712	124	-	124
JP Morgan Chase	0.0494	1,336	66	89	155
Keybank Capital Markets	0.0501	999	50	76	126
Morgan Keegan	0.0500	400	20	-	20
Morgan Stanley	0.0615	17,167	1,056	129	1,185
National Bank of Commerce - NBC Securities	0.0504	1,250	63	-	63
Raymond James	0.0496	1,048	52	3	55
Renaissance Macro Securities - Renmac	0.0500	5,204	260	-	260
Royal Bank of Canada - RBC	0.0500	6,154	308	27	335
Sandler O'Neill	0.0492	264	13	-	13
Securities Capital	0.0511	450	23	-	23
Southwest Securities	0.0511	450	23	-	23
Stifel Nicolaus	0.0495	9,940	492	20	512
Strategas	0.0281	11,056	311	-	311
Suntrust	-	-	-	8	8
Union Bank of Switzerland - UBS	0.0499	1,302	65	-	65
Wells Fargo	0.0153	26,180	401	101	502
Totals		147,367	\$ 5,343	\$ 874	\$ 6,217
Average Commission Per Share of Stock =			\$ 0.0363		

Note: Certain Broker agreements include provisions for commission sharing.



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Component Units of the State of Alabama
Comprehensive Annual Financial Report

Actuarial Section

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Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

June 9, 2017

Board of Control
Teachers' Retirement System
of Alabama

Dear Board Members:

The basic funding objectives of the Teachers' Retirement System of Alabama (TRS) is to accumulate sufficient assets during a member's employment to fully finance the benefits the member is expected to receive throughout retirement.

TRS maintains a funding policy that was effective September 30, 2012. In order to meet the objectives listed above, the System will strive to meet the following funding objectives:

- To maintain an increasing funded ratio (ratio of system actuarial value of assets to actuarial accrued liabilities) that reflects a trend of improved actuarial condition. The long-term objective is to attain a funded ratio which is consistent with the fiscal health and long-term stability of the System.
- To maintain adequate asset levels to finance the benefits promised to members and monitor the future demands for liquidity.
- To develop a pattern of contribution rates expressed as a percentage of member payroll as measured by valuations prepared in accordance with applicable State laws and the principles of practice prescribed by the Actuarial Standards Board. In no event will the employer contribution rate be negative.
- To provide intergenerational equity for taxpayers with respect to System costs.

To track progress in achieving the funding objectives, the following benchmarks are measured annually as of the valuation date:

- **Funded ratio** – The funded ratio, defined as the actuarial value of assets divided by the actuarial accrued liability, should increase over time, before adjustments for changes in benefits, actuarial, methods, and/or actuarial assumptions.
- **Unfunded Actuarial Accrued Liability (UAAL)**
 - **Transitional UAAL** – The UAAL established as of the initial valuation date for which this funding policy is adopted.
 - **New Incremental UAAL** – Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation.
- **UAAL Amortization Period and Contribution Rates**
 - In each valuation 1/15th of the Transitional UAAL will be amortized over a closed period. The closed period shall be the amortization period for the valuation preceding the adoption of the funding policy not to exceed 30 years. The remaining Transitional UAAL each year will be amortized over an open period. The open period shall be the amortization period for the valuation preceding the adoption of the funding policy not to exceed 30 years. After 15 years the entire Transitional UAAL will be closed.
 - Each New Incremental UAAL shall be amortized over a closed 30 year period.
 - Employer Normal Contribution Rate – the contribution rate determined as of the valuation date each year based on the provisions of Alabama Code Section 16-25-21.



- In each valuation subsequent to the adoption of this funding policy the required employer contribution rate will be determined by the summation of the employer Normal Contribution Rate, a contribution rate for administrative expenses, a contribution rate for the pre-retirement death benefit fund, a contribution rate for the term life insurance fund, individual amortization rate for each of the New Incremental UAAL bases, the individual amortization rate for each of the 15 closed periods for the Transitional UAAL and the amortization of any remaining open portion of the Transitional UAAL.

In order to measure progress toward this fundamental objective and funding policy, TRS has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the normal cost and level percent of payroll amortization of unfunded actuarial accrued liability in accordance with the funding policy. The latest completed actuarial valuation was based upon data and assumptions as of September 30, 2016. This valuation indicates that the current employer contribution rates of 12.41% of payroll for Tier I members and 11.35% of payroll for Tier II members, for benefits then in effect, meet the basic financial objective and the goals of the funding policy as listed above. There are 136,731 active members as of September 30, 2016.

The actuarial valuation is based upon financial and participant data which is prepared by the retirement system staff, assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death and disability among TRS members and their beneficiaries. The data are reviewed by us for internal and year to year consistency as well as general reasonableness prior to its use in the actuarial valuation. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions were adopted by the Board of Control and were based upon actual experience of TRS during the years October 1, 2010 to September 30, 2015. Assets are valued according to a market related method that recognizes 20% of the difference between market value and expected value each year. The assumptions and methods utilized in this valuation, in our opinion, meet the parameters established by the Actuarial Standards of Practice.

The current benefit structure is outlined in the Actuarial Section. There have been no changes since the previous valuation.

We provided the following information and supporting schedules in the Actuarial and Statistical Sections:

- Summary of Actuarial Assumptions and Methods
- Actuarial Cost Method
- Summary of Plan Provisions as Interpreted for Valuation Purposes
- Schedule of Funding Progress
- Solvency Test
- Analysis of Actuarial Gains and Losses
- Schedule of Active Member Valuation Data
- Schedule of Retirants and Beneficiaries Added and Removed from Rolls
- Retired Members by Type of Benefit as of September 30, 2016
- Ten-Year History of Average Monthly Benefit Payments as of September 30



Board of Control
June 9, 2017
Page 3

Based upon the valuation results and the presumption that future contributions will be made at the necessary level to ensure adequate funding and to meet accounting standards, it is our opinion that the Teachers' Retirement System of Alabama continues in sound condition in accordance with the actuarial principles of level percent of payroll financing.

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'Edward Macdonald'.

Edward A. Macdonald, ASA, FCA, MAAA
President

A handwritten signature in blue ink, appearing to read 'Cathy Turcot'.

Cathy Turcot
Principal and Managing Director

A handwritten signature in blue ink, appearing to read 'Jonathan T. Craven'.

Jonathan T. Craven, ASA, EA, FCA, MAAA
Consulting Actuary

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RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Teachers' Retirement System

Summary of Actuarial Assumptions and Methods

Summary of Actuarial Assumptions and Methods

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2015, submitted to and adopted by the Board on September 13, 2016.

Ultimate Investment Rate of Return: 7.875% per annum, compounded annually, including price inflation at 2.875%.

Salary Increases: Representative values of the assumed annual rates of future salary increases are as follows:

<u>Years of Service</u>	<u>Annual % Rate*</u>
0	5.125
1 - 5	4.125
6 - 10	3.875
11 - 15	3.625
16 & Over	3.375

* Includes wage inflation at 3.125% per annum.

Separations before Service Retirement: Representative values of the assumed annual rates of death, disability, and withdrawal are as follows:

<u>Age</u>	<u>Male</u>						
	<u>Death*</u>	<u>Annual % Rate of</u>					
		<u>Disability**</u>		<u>Withdrawal***</u>			
		<u>Years of Service</u>		<u>Years of Service</u>			
	<u>0-24</u>	<u>25+</u>	<u>0-4</u>	<u>5-9</u>	<u>10-20</u>	<u>20+</u>	
20	0.02	0.00		25.00			
25	0.03	0.03		14.80	11.00		
30	0.04	0.04		13.80	5.40	3.50	
35	0.07	0.13		13.50	5.40	2.50	0.50
40	0.09	0.17		13.00	5.40	2.25	0.50
45	0.13	0.27	0.20	13.00	5.40	2.25	0.75
50	0.18	0.60	0.20	12.00	5.00	2.50	0.80
55	0.25	0.90	0.20	11.50	5.00	2.50	0.90
60	0.38	0.50	0.50	12.00	4.50	2.50	0.90
65	0.54	0.50	0.50	12.00	6.00		
69	0.63	0.50	0.50	12.00	6.25		

*Rates of pre-retirement mortality are according to the sex distinct RP-2000 Employee Mortality Table Projected with Scale BB to 2020 with an adjustment factor of 90% for males and 60% for females.

**No rates of disability are assumed for members with less than 10 years of service.

***No rates of withdrawal are assumed after eligibility for service retirement.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Teachers' Retirement System

Summary of Actuarial Assumptions and Methods (Continued)

Age	Female						
	Annual % Rate of						
	Death*	Disability**		Withdrawal***			
		Years of Service		Years of Service			
	0-24	25+	0-4	5-9	10-20	20+	
20	0.01	0.10		25.00			
25	0.01	0.03		12.75	9.00		
30	0.01	0.04		13.50	5.80	4.30	
35	0.02	0.10		13.50	5.00	2.60	1.50
40	0.04	0.20		11.50	4.75	2.00	1.50
45	0.06	0.35	0.20	10.75	4.10	2.00	0.50
50	0.09	0.65	0.20	10.75	3.90	2.20	0.75
55	0.14	1.05	0.20	11.00	4.20	2.40	0.80
60	0.19	0.50	0.50	12.00	4.50	2.70	1.00
65	0.27	0.50	0.50	15.00	6.75		
69	0.34	0.50	0.50	15.00	7.25		

*Rates of pre-retirement mortality are according to the sex distinct RP-2000 Employee Mortality Table Projected with Scale BB to 2020 with an adjustment factor of 90% for males and 60% for females.

**No rates of disability are assumed for members with less than 10 years of service

***No rates of withdrawal are assumed after eligibility for service retirement.

Service Retirement:

The assumed annual rates of service retirement for Tier 1 members upon attaining 25 years of service:

<u>Age Group</u>	<u>Annual % Rate</u>	
	<u>Male*</u>	<u>Female **</u>
47 & Under	25.0	28.0
48	25.0	20.0
49	20.0	17.0
50	16.5	13.0
51 - 53	16.0	15.0
54	16.0	17.0
55	16.0	18.0
56 - 57	16.0	19.0
58	16.0	21.0
59	20.0	22.0
60	20.0	30.0
61	20.0	27.5
62	35.0	45.0
63	30.0	35.0
64	23.0	32.0
65	28.0	38.0
66	27.0	40.0
67	22.0	35.0
68	22.0	37.0
69 - 70	22.0	30.0
71 - 74	20.0	30.0
75	100.0	100.0

*For males, retirement rates are increased by 5% in the first year attaining 25 years of service from age 51 through age 60

**For females, retirement rates are increased by 9% in the first year attaining 25 years of service from age 50 to 59.

The assumed annual rates of service retirement for Tier 1 members who are first eligible for unreduced benefits before attaining 25 years of service:

<u>Age</u>	<u>Annual % Rate</u>	
	<u>Male</u>	<u>Female</u>
60	12.50	17.00
61	11.00	13.50
62	25.00	23.50
63	18.50	18.00
64	15.00	17.00
65	28.00	28.00
66	27.00	28.00
67	22.00	23.00
68	22.00	27.00
69	22.00	22.00
70	22.00	26.00
71 to 74	20.00	24.00
75 & Above	100.00	100.00

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Teachers' Retirement System

Summary of Actuarial Assumptions and Methods (Continued)

The assumed annual rates of service retirement for Tier 2 members are as follows:

Age	Annual % Rate			
	Male*		Female**	
	Less than 25 years of service	25 or more years of service	Less than 25 years of service	25 or more years of service
62	50.00	60.00	50.00	70.00
63	18.50	30.00	18.00	35.00
64	15.00	23.00	17.00	32.00
65	28.00	28.00	28.00	38.00
66	27.00	27.00	28.00	40.00
67	22.00	22.00	23.00	35.00
68	22.00	22.00	27.00	37.00
69	22.00	22.00	22.00	30.00
70	22.00	22.00	26.00	30.00
71 to 74	20.00	20.00	24.00	30.00
75 & Above	100.00	100.00	100.00	100.00

*For FLC Tier II members, rates on or after age 60 are the same as those for Tier I, while rates from ages 56 to 59 are equal to 0.20 for service less than 25 years and 0.30 for service greater than or equal to 25 years.

**For FLC Tier II members, rates on or after age 60 are the same as those for Tier I, while rates from ages 56 to 59 are equal to 0.20 for service less than 25 years and 0.40 for service greater than or equal to 25 years.

Deaths after Retirement: Rates of mortality for the period after service retirement are according to the RP-2000 White Collar Mortality Table Projected to 2020 using scale BB and adjusted 115% for all ages for males and 112% for ages 78 and over for females. The rates of disabled mortality were based on the RP-2000 Disabled Mortality Table projected to 2020 using scale BB and adjusted 105% for males and 120% for females. Representative values of assumed mortality are as follows:

Age	Annual % Rate of Death After			
	Service Retirement		Disability Retirement	
	Male	Female	Male	Female
55	0.36	0.23	3.50	1.79
60	0.56	0.38	3.84	2.14
65	0.99	0.68	4.14	2.64
70	1.64	1.19	4.86	6.55
75	2.86	2.02	6.37	4.92
80	5.05	3.79	8.45	6.82
85	8.89	6.52	10.99	9.45
90	16.43	11.32	15.44	13.47

Spousal Benefits: For those eligible for spousal benefits, it is assumed that 75% will elect the lump sum death benefit payable from the death benefit fund and 25% will elect the spousal benefit payable from the pension accumulation fund and included in the liabilities of the System.

Benefits Payable upon Separation from Service: For active members who separate from service prior to eligibility for a service retirement allowance, the liability is assumed to be the greater of the value of the refund of contributions or the value of the deferred annuity.

Unused Sick Leave: 3% load on service retirement liabilities for Tier 1 active members. No load for Tier 2 active members.

Percentage Married: 100% of active members are assumed to be married with the husband 3 years older than the wife.

Valuation Method: Individual entry age normal method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability.

Assets Method: Actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected value. In order to reduce short-term volatility in valuation results and because the market value and actuarial value of assets were close in value, the actuarial value of assets was set equal to the market value on September 30, 2013. 5-year smoothing commenced again beginning September 30, 2013.

Liability for Current Inactive Members: Member Contribution Balance is multiplied by a factor of 2.0 for vested members with incomplete data and 1.0 for other inactive members.

Liability for Post-DROP Active Members: Members are assumed to retire immediately and receive their accrued benefit.

COLA: No future ad hoc cost of living adjustments (COLAs) are assumed.

Future Service Credit: One year of creditable service per year of employment.

Actuarial Cost Method

1. The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 7.875%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to retired members and beneficiaries to obtain the present value of all expected benefits payable to the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the System are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the "individual entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contributions which, if applied to the compensation of each new member during the entire period of the member's anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on the member's behalf.
4. The unfunded accrued liability contributions are determined by subtracting the current assets held by the System and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from the System.

Summary of Plan Provisions as Interpreted for Valuation Purposes

The Teachers' Retirement System of Alabama (TRS) was established on September 15, 1939, and became effective September 30, 1941. The valuation took into account amendments to the System effective through the valuation date. The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

Definitions

Average Final Compensation – The average compensation of a Tier 1 member is calculated using compensation for the 3 highest years in the last 10 years of creditable service. The average compensation of a Tier 2 member is calculated using compensation for the 5 highest years in the last 10 years of creditable service.

Membership Service – all service rendered while a member of the System and for which contributions are made.

Creditable Service – the sum of membership service, prior service, and any other service established as creditable in accordance with the provisions of the retirement law.

Annuity – payments for life derived from the accumulated contributions of a member.

Pension – payments for life derived from the accumulated contributions of an employer.

Retirement Allowance – the sum of the annuity and pension payments.

Benefits

Service Retirement Allowance

Condition for Allowance

Tier 1 - The service retirement allowance is payable upon the request of a member who has completed 25 years of creditable service or who has attained age 60 and completed at least 10 years of creditable service.

Tier 2 - The service retirement allowance is payable upon the request of a member who has completed at least 10 years of creditable service and who has attained age 62 (age 56 with 10 years of creditable service for certified law enforcement, correctional officers, and firefighters).

Amount of Allowance

Tier 1 - Upon service retirement, a member receives a retirement allowance equal to 2.0125% of the member's average final compensation multiplied by the number of years of creditable service. At retirement, a member receives one additional year of creditable service in determining the retirement allowance for each five years of service as certified law enforcement, correctional officer, or firefighter.

Tier 2 - Upon service retirement, a member receives a retirement allowance equal to 1.65% of their average final compensation multiplied by the number of years of creditable service. The benefit is capped at 80% of the member's average final compensation.

Tier 1 & 2 - Members may elect to receive a reduced retirement allowance in order to provide an allowance to a designated beneficiary after the member's death (see "Special Privileges at Retirement").

Disability Retirement Allowance

Condition for Allowance

A disability retirement allowance may be granted to a member who has completed at least 10 years of creditable service and becomes permanently incapacitated for duty before reaching eligibility for a service retirement.

Amount of Allowance

Tier 1 - Upon disability retirement, a member receives a retirement allowance equal to 2.0125% of the member's average final compensation multiplied by the number of years of creditable service. At retirement, a member receives one additional year of creditable service in determining the retirement allowance for each five years of service as certified law enforcement, correctional officer, or firefighter.

Tier 2 - Upon disability retirement, a member receives a retirement allowance equal to 1.65% of the member's average final compensation multiplied by the number of years of creditable service. The benefit is capped at 80% of the member's average final compensation.

Tier 1 & 2 - Members may elect to receive a reduced retirement allowance in order to provide an allowance to a designated beneficiary after the member's death (see "Special Privileges at Retirement").

Benefits Payable upon Separation of Service

A member who withdraws from service is entitled to receive his or her contributions with allowable interest. A member who has completed 10 years of creditable service may, after separation from service, continue membership in the System and file for service retirement after reaching age 60 for Tier 1 members and age 62 for Tier 2 members.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Teachers' Retirement System

Summary of Plan Provisions (Continued)

Benefits Payable upon Death in Active Service

In the event of the death of a member eligible for service retirement, the designated beneficiary may elect (1) to exercise Option 3 as defined under "Special Privileges at Retirement" or (2) to receive a return of member contributions and total earned interest plus a death benefit payable from the Pre-retirement Death Benefit Fund equal to the salary on which retirement contributions were made for the previous scholastic year (July 1-June 30).*

In the event of the death of a member with more than one year of service who is not eligible to retire, the designated beneficiary shall receive the return of member contributions and total earned interest. Also, the designated beneficiary shall receive an additional death benefit payable from the Pre-retirement Death Benefit Fund equal to the salary on which retirement contributions were made for the previous scholastic year (July 1-June 30).*

In the event of a job-related death of a member with less than one year of service, the designated beneficiary shall receive the return of member contributions and total earned interest plus a death benefit payable from the Pre-retirement Death Benefit Fund equal to the annual earnable compensation of the member at the time of death.*

In the event of the death of a member which is not job-related and who has less than one year of service, the designated beneficiary shall receive the return of member contributions and total earned interest plus a matching death benefit, which is limited to a maximum of \$5,000.

*However, if the death occurred more than 180 calendar days after the member's last day in pay status, or if the deceased member had applied for a refund of member contributions or terminated employment, the lump sum will be the same as if the member had less than one year of service and the death was not job-related.

Special Privileges at Retirement

In lieu of the full retirement allowance, a member may, at retirement, elect to receive a reduced retirement allowance equal in value to the full allowance, with the provision that:

Option 1 - If the member dies before the annuity payments equal the present value of the annuity at the date of retirement, the balance is paid to a designated beneficiary or to the member's estate, or

Option 2 - After the member's death, the member's allowance is continued throughout the life of the designated beneficiary, or

Option 3 - After the member's death, one-half of the member's allowance is continued throughout the life of the designated beneficiary, or

Option 4 - Some other benefit is paid either to the member or to such other person as the member shall designate provided such benefit, together with the reduced retirement allowance, is of equivalent actuarial value to the member's retirement allowance and is approved by the Board of Control.

Deferred Retirement Option Plan (DROP)

Prior to March 25, 2011, a member could elect to participate in the Deferred Retirement Option Plan (DROP) upon completion of at least 25 years of creditable service (excluding sick leave) and attainment of at least 55 years of age. Under the DROP, the member deferred receipt of a retirement allowance and continued employment for a period of three to five years. At the end of the period, the member withdrew from active service and received the retirement benefit calculated at the time of enrollment in the DROP, and also received a payment for the deferred retirement benefits and employee contributions while participating in the DROP and interest earned on DROP deposits. The effect of Act 2011-27 was that no new participants were allowed to enter the DROP with an effective participation date after June 1, 2011.

Term Life Insurance

Upon the death of a contributing member, a term life insurance benefit of \$15,000 is paid (pro-rated for part-time members).

Member Contributions

Tier 1 - Prior to October 1, 2011, covered members contributed 5% of earnable compensation. From October 1, 2011, to September 30, 2012, covered members contributed 7.25% of earnable compensation. Beginning October 1, 2012, covered members contribute 7.50% of earnable compensation. Prior to October 1, 2011, certified law enforcement, correctional officers, and firefighters contributed 6% of earnable compensation. From October 1, 2011, to September 30, 2012, certified law enforcement, correctional officers, and firefighters contributed 8.25% of earnable compensation. Beginning October 1, 2012, certified law enforcement, correctional officers, and firefighters contribute 8.50% of earnable compensation. DROP participants continue to contribute during the DROP period but receive a refund of these contributions and regular interest upon retirement.

Tier 2 – Covered members contribute 6% of earnable compensation. Certified law enforcement, correctional officers, and firefighters contribute 7% of earnable compensation.

Tier 1 & 2 - If positive investment performance results in a decrease in the total contribution rate paid by employers and employees participating in the System, the Retirement Systems of Alabama shall first reduce the employee contribution rate. “Regular Interest” is 4% which is the rate adopted by the Board and applied to the balance in each member’s account every year; however, if a member receives a refund of contributions, the interest rate applied to the refund is lower than the 4% regular rate (Based on the *Code of Alabama 1975, Section 16-25-20(b)*).

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Teachers' Retirement System

Supporting Schedules

Supporting Schedules

The following table reflects a six-year history of active member valuation data:

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

(Dollar Amounts Not in Thousands)

<u>Valuation Date</u>		<u>Number</u>	<u>Annual Payroll</u>	<u>Annual Average Pay</u>	<u>% Increase/ (Decrease) in Average Pay</u>
9/30/2016	A	136,731	\$ 6,430,999,445	\$ 47,034	1.56
9/30/2015	B	135,986	6,297,938,621	46,313	0.77
9/30/2014	C	135,230	6,214,949,700	45,958	1.48
9/30/2013	D	133,919	6,065,042,345	45,289	2.06
9/30/2012	E	133,791	5,936,831,043	44,374	3.74
9/30/2011	F	135,768	5,807,655,862	42,776	(0.12)

A - There are no employees currently participating in the DROP program.

B - In addition, there are 699 employees with annual compensation of \$52,847,343 who are currently in the DROP program. Employers of the Retirement System contribute on this payroll.

C - In addition, there are 1,748 employees with annual compensation of \$120,210,805 who are currently in the DROP program. Employers of the Retirement System contribute on this payroll.

D - In addition, there are 3,029 employees with annual compensation of \$198,322,151 who are currently in the DROP program. Employers of the Retirement System contribute on this payroll.

E - In addition, there are 4,436 employees with annual compensation of \$285,484,977 who are currently in the DROP program. Employers of the Retirement System contribute on this payroll.

F - In addition, there are 5,625 employees with annual compensation of \$351,906,404 who are currently in the DROP program. Employers of the Retirement System contribute on this payroll.

The following table presents a six-year history of funding progress:

SCHEDULE OF FUNDING PROGRESS

(Dollar Amounts in Thousands)

<u>Valuation Date</u>	<u>Actuarial Value of Assets (A)</u>	<u>Actuarial Liability (AAL) (B)</u>	<u>Unfunded AAL (UAAL) (B-A)</u>	<u>% Funded (A/B)</u>	<u>Covered Payroll (C)</u>	<u>UAAL as a % of Covered Payroll ((B-A)/C)</u>
9/30/2016*	\$ 22,645,512	\$ 33,143,834	\$ 10,498,322	68.3	\$ 6,430,999	163.2
9/30/2015	21,740,280	31,844,843	10,104,563	68.3	6,350,786	159.1
9/30/2014	20,809,871	30,837,829	10,027,958	67.5	6,335,161	158.3
9/30/2013	19,629,816	29,665,843	10,036,027	66.2	6,263,364	160.2
9/30/2012**	18,786,008	28,251,367	9,465,359	66.5	6,222,316	152.1
9/30/2011*	19,430,135	28,776,316	9,346,181	67.5	6,159,562	151.7

*Reflects changes in assumptions.

**Reflects changes in methods.

The following table presents a six-year history of a solvency test:

SOLVENCY TEST
(Dollar Amounts in Thousands)

Valuation Date	Aggregate Accrued Liabilities For				Reported Assets	% of Accrued Liabilities Covered by Reported Assets		
	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)			(1)	(2)	(3)
9/30/2016 #	\$ 5,197,469	\$ 19,257,160	\$ 8,689,205	\$ 22,645,512	100	61	0.0	
9/30/2015	4,894,145	18,621,250	8,329,448	21,740,280	100	90	0.0	
9/30/2014	4,589,021	18,104,369	8,144,439	20,809,871	100	90	0.0	
9/30/2013	4,261,269	17,666,932	7,737,642	19,629,816	100	87	0.0	
9/30/2012 &	3,921,179	17,085,972	7,244,216	18,786,008	100	87	0.0	
9/30/2011 #	3,620,301	17,245,088	7,910,927	19,430,135	100	92	0.0	

Reflects changes in actuarial assumptions.

& Reflects change in methods.

The following table presents a six-year history of retirants and beneficiaries:

SCHEDULE OF RETIRANTS AND BENEFICIARIES ADDED AND REMOVED FROM ROLLS

Fiscal Year Ended	Retirees Added §*		Retirees Removed		Retirees - Year-end*		% Increase/ (Decrease) in Annual Allowances	Average Annual Allowance
	Number	Annual Allowances (000s)	Number	Annual Allowances (000s)	Number	Annual Allowances (000s)		
2016	4,583	\$ 102,365	1,590	\$ 35,115	90,356	\$1,757,936	3.98	\$ 19,456
2015	4,951	117,295	1,565	34,127	87,363	1,690,686	5.17	19,352
2014	4,820	113,117	1,396	30,044	83,977	1,607,518	5.45	19,142
2013	4,627	104,280	1,369	29,107	80,553	1,524,445	5.19	18,925
2012	5,043	111,252	1,132	18,234	77,295	1,449,272	6.86	18,750
2011	4,088	87,692	1,212	25,189	73,384	1,356,254	4.83	18,482

§ Includes retirees completing DROP participation and entering regular retirement.

*Does not include active DROP participants.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Teachers' Retirement System

Supporting Schedules (Continued)

The following table provides an analysis of actuarial gains and losses:

ANALYSIS OF ACTUARIAL GAINS AND LOSSES

(Dollar Amounts in Thousands)

	<u>Amount</u>
Unfunded Actuarial Liability as of September 30, 2015	\$ 10,104,563
Normal Cost for 2016 Plan Year	114,743
Contributions Received During the Year	(728,923)
Interest to Year End	<u>790,359</u>
Expected Unfunded Actuarial Liability as of September 30, 2016	<u>10,280,742</u>
Actuarial (Gains)/Losses During the Year	
From Investments	(212,141)
From Actuarial Liabilities	<u>429,720</u>
Total Actuarial (Gains)/Losses During the Year	<u>217,579</u>
Actual Unfunded Actuarial Liability as of September 30, 2016	<u><u>\$ 10,498,321</u></u>



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June 29, 2017

Board of Control
Employees' Retirement System
of Alabama

Dear Board Members:

The basic funding objectives of the Employees' Retirement System of Alabama (ERS) is to accumulate sufficient assets during a member's employment to fully finance the benefits the member is expected to receive throughout retirement.

ERS maintains a funding policy that was effective September 30, 2012. In order to meet the objectives listed above, the System will strive to meet the following funding objectives:

- To maintain an increasing funded ratio (ratio of system actuarial value of assets to actuarial accrued liabilities) that reflects a trend of improved actuarial condition. The long-term objective is to attain a funded ratio which is consistent with the fiscal health and long-term stability of the System.
- To maintain adequate asset levels to finance the benefits promised to members and monitor the future demands for liquidity.
- To develop a pattern of contribution rates expressed as a percentage of member payroll as measured by valuations prepared in accordance with applicable State laws and the principles of practice prescribed by the Actuarial Standards Board. In no event will the employer contribution rate be negative.
- To provide intergenerational equity for taxpayers with respect to System costs.

To track progress in achieving the funding objectives, the following benchmarks are measured annually as of the valuation date:

- **Funded ratio** – The funded ratio, defined as the actuarial value of assets divided by the actuarial accrued liability, should increase over time, before adjustments for changes in benefits, actuarial, methods, and/or actuarial assumptions.
- **Unfunded Actuarial Accrued Liability (UAAL)**
 - **Transitional UAAL** – The UAAL established as of the initial valuation date for which this funding policy is adopted.
 - **New Incremental UAAL** – Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation.
- **UAAL Amortization Period and Contribution Rates**
 - For those employers with a funded percentage less than 100% in the valuation prior to the adoption of the funding policy: In each valuation 1/15th of the Transitional UAAL will be amortized over a closed period. The closed period shall be the amortization period for the valuation preceding the adoption of the funding policy not to exceed 30 years. The remaining Transitional UAAL each year will be amortized over an open period. The open period shall be the amortization period for the valuation preceding the adoption of the funding policy not to exceed 30 years. After 15 years the entire Transitional UAAL will be closed.



- For those employers with a funded percentage 100% or greater in the valuation prior to the adoption of the funding policy: In each valuation 1/15th of the Transitional UAAL will be amortized over a 30 year closed period. The remaining Transitional UAAL each year will be amortized over a 30 year open period. After 15 years the entire Transitional UAAL will be closed.
- Each New Incremental UAAL shall be amortized over a closed 30 year period.
- Employer Normal Contribution Rate – the contribution rate determined as of the valuation date each year based on the provisions of Alabama Code Section 36-27-24.
- In each valuation subsequent to the adoption of this funding policy the required employer contribution rate will be determined by the summation of the employer Normal Contribution Rate, a contribution rate for administrative expenses, a contribution rate for the pre-retirement death benefit fund, the individual amortization rate for each of the New Incremental UAAL bases, the individual amortization rate for each of the 15 closed periods for the Transitional UAAL and the amortization of any remaining open portion of the Transitional UAAL. If the resulting contribution rate will not support the cash flow and projected benefit payment needs of a particular unit or employer then the RSA staff may approve a more aggressive funding policy for these units or employers.

In order to measure progress toward this fundamental objective and funding policy, ERS has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the normal cost and level percent of payroll amortization of unfunded actuarial accrued liability in accordance with the funding policy. The latest completed actuarial valuation was based upon data and assumptions as of September 30, 2016. This valuation indicates that the current employer contribution rates for State employees (other than State policemen) of 14.51% of payroll for Tier I members and 14.14% of payroll for Tier II members and employer contribution rates for State policemen of 50.08% of payroll for Tier I members and 43.43% of payroll for Tier II members, for benefits then in effect, meet the basic financial objective and the goals of the funding policy as listed above. In addition, there are varying employer contribution rates for each participating Local employer actuarially determined in accordance with the funding policy. There are 84,814 total active members as of September 30, 2016.

The actuarial valuation is based upon financial and participant data which is prepared by the retirement system staff, assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death and disability among ERS members and their beneficiaries. The data are reviewed by us for internal and year to year consistency as well as general reasonableness prior to its use in the actuarial valuation. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions were adopted by the Board of Control and were based upon actual experience of ERS during the years October 1, 2010 to September 30, 2015. Assets are valued according to a market related method that recognizes 20% of the difference between market value and expected value each year. The assumptions and methods utilized in this valuation, in our opinion, meet the parameters established by the Actuarial Standards of Practice.

The current benefit structure is outlined in the Actuarial Section. The valuation reflects the impact of Act 2017-360, which amended the provisions defining state policemen, to include employees hired after January 1, 2015.

We provided most of the information used in the supporting schedules in the Actuarial and Statistical Sections, as well as the Schedules of Funding Progress and the employer contributions shown in the Schedules of Employer Contributions in the Financial Section.



We provided the following information and supporting schedules in the Actuarial and Statistical Sections:

- Summary of Actuarial Assumptions and Methods
- Actuarial Cost Method
- Summary of Plan Provisions as Interpreted for Valuation Purposes
- Schedule of Funding Progress
- Solvency Test
- Analysis of Actuarial Gains and Losses
- Schedule of Active Member Valuation Data
- Schedule of Retirants and Beneficiaries Added and Removed from Rolls
- Retired Members by Type of Benefit as of September 30, 2016
- Ten-Year History of Average Monthly Benefit Payments as of September 30

Based upon the valuation results and the presumption that future contributions will be made at the necessary level to ensure adequate funding and to meet accounting standards, it is our opinion that the Employees' Retirement System of Alabama continues in sound condition in accordance with the actuarial principles of level percent of payroll financing.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Edward Macdonald'.

Edward A. Macdonald, ASA, FCA, MAAA
President

A handwritten signature in blue ink, appearing to read 'Cathy Turcot'.

Cathy Turcot
Principal and Managing Director

A handwritten signature in blue ink, appearing to read 'Jonathan T. Craven'.

Jonathan T. Craven, ASA, EA, FCA, MAAA
Consulting Actuary

A handwritten signature in blue ink, appearing to read 'Larry Langer'.

Larry Langer, ASA, EA, FCA, MAAA
Principal and Consulting Actuary

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Employees' Retirement System

Summary of Actuarial Assumptions and Methods

Summary of Actuarial Assumptions and Methods

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2015, submitted to and adopted by the Board on September 29, 2016.

Ultimate Investment Rate of Return: 7.875% per annum, compounded annually, including price inflation at 2.875%.

Salary Increases: Representative values of the assumed annual rates of future salary increases for State and Local Employees are as follows and include inflation at 3.125% per annum:

<u>Years of Service</u>	<u>Annual % Rate*</u>
0	5.125
1 - 5	4.125
6 - 10	3.875
11 - 15	3.625
16 & Over	3.375

*Includes wage inflation at 3.125% per annum.

The assumed annual rate of future salary increases for State Police is 4.625% per year for all years of service.

Separations before Service Retirement: Representative values of the assumed annual rates of death, disability, and withdrawal are shown in the following tables.

State and Local Employees - Male							
Annual % Rate of							
Age	Death*	Disability		Withdrawal			
		Years of Service		Years of Service			
		0-24	25+	0-4	5-9	10-20	20+
20	0.02	0.06		24.00			
25	0.03	0.09		19.50	8.50		
30	0.03	0.12		17.50	7.00	4.00	
35	0.05	0.15		16.00	6.50	3.25	
40	0.07	0.41		15.50	5.50	3.00	1.50
45	0.10	0.63	0.25	13.50	5.00	2.75	1.50
50	0.14	1.15	0.25	13.00	5.00	2.50	1.50
55	0.20	1.53	0.25	11.50	5.00	2.50	1.50
60	0.30	0.50	0.25	11.50	5.50		
65	0.42			15.50	7.50		
69	0.49			15.50	7.50		

*Rates of pre-retirement mortality are according to the sex distinct RP-2000 Combined Mortality Table Projected with Scale BB to 2020 set forward three years for males and set forward one year for females with an adjustment factor of 0.70 for males and 0.50 for females.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Employees' Retirement System

Summary of Actuarial Assumptions and Methods (Continued)

State and Local Employees - Female							
Annual % Rate of							
Age	Death*	Disability		Withdrawal			
		Years of Service		Years of Service			
		0-24	25+	0-4	5-9	10-20	20+
20	0.01	0.05		33.00			
25	0.01	0.07		23.00	11.00		
30	0.01	0.10		20.00	8.25	5.25	
35	0.02	0.19		18.00	7.50	5.25	
40	0.03	0.37		17.00	7.25	3.50	1.50
45	0.05	0.56	0.25	15.50	6.50	3.50	1.50
50	0.08	0.90	0.25	14.50	6.25	3.50	1.50
55	0.11	1.40	0.25	14.00	5.50	3.00	1.50
60	0.16	1.00	0.25	15.00	6.00		
65	0.23			16.00	8.50		
69	0.29			16.00	8.50		

*Rates of pre-retirement mortality are according to the sex distinct RP-2000 Combined Mortality Table Projected with Scale BB to 2020 set forward three years for males and set forward one year for females with an adjustment factor of 0.70 for males and 0.50 for females.

State Police					
Annual % Rate of					
Age	Death*		Disability	Withdrawal	
	Years of Service			Years of Service	
	Male	Female		0 - 4	5+
20	0.02	0.01	0.08	2.00	2.00
25	0.03	0.01	0.10	2.00	2.00
30	0.03	0.01	0.14	2.00	2.00
35	0.05	0.02	0.22	2.00	1.00
40	0.07	0.03	0.34	2.00	1.00
45	0.10	0.05	0.46	5.00	1.00
50	0.14	0.08	0.60		
55	0.20	0.11			
60	0.30	0.16			
62	0.35	0.18			
65	0.42	0.23			

*Rates of pre-retirement mortality are according to the sex distinct RP-2000 Combined Mortality Table Projected with Scale BB to 2020 set forward three years for males and set forward one year for females with an adjustment factor of 0.70 for males and 0.50 for females.

Service Retirement: The assumed annual rates of service retirement for Tier 1 and Tier 2 members are as follows:

Tier 1 State and Local Employees
Annual % Rate of Service Retirement*

<u>Age</u>	<u>1st Eligible</u>	<u>Subsequent</u>
50 & Under	18.00	11.50
51 to 55	20.00	11.50
56	25.00	11.50
57 to 59	25.00	15.00
60	13.00	17.00
61	13.00	13.00
62	25.00	25.00
63	25.00	20.00
64	25.00	20.00
65	35.00	25.00
66	35.00	30.00
67 to 74	35.00	21.00
75 & Above	100.00	100.00

*40% are assumed to retire at age 60 with 25 years of service and 20% are assumed to retire at age 60 with 26 or more years of service.

Tier 2 State and Local Employees
Annual % Rate of Service Retirement

<u>Age</u>	<u>1st Eligible</u>	<u>Subsequent</u>
62	50.00	
63	25.00	20.00
64	25.00	20.00
65	35.00	25.00
66	35.00	30.00
67	35.00	25.00
68	35.00	21.00
69 to 74	35.00	20.00
75 & Above	100.00	100.00

State Police
Annual % Rate of Service Retirement

<u>Age</u>	<u>Years of Service</u>		
	<u>10 - 19</u>	<u>20 - 24</u>	<u>25+</u>
40			40.00
45			40.00
50			40.00
55	5.00	35.00	35.00
60	25.00	25.00	25.00
62	25.00	25.00	25.00
65	100.00	100.00	100.00

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Employees' Retirement System

Summary of Actuarial Assumption and Methods (Continued)

Death after Retirement: The rates of mortality for the period after service retirement are according to the sex distinct RP-2000 Blue Collar Mortality Table Projected with Scale BB to 2020 with an adjustment of 125% at all ages for males and 120% for females at ages on and after age 78. The rates of mortality for the period after disability retirement are according to the sex distinct RP-2000 Disabled Mortality Table Projected with Scale BB to 2020 with an adjustment of 130% at all ages for females.

Death in Active Service Benefit: For those members eligible for service retirement who die in active service, it is assumed that 75% of beneficiaries will elect the lump sum death benefit and 25% will elect the Option 3 allowance.

Benefits Payable upon Separation from Service: For active members who separate from service prior to eligibility for a service retirement allowance, the liability is assumed to be the greater of the value of the refund of contributions or the value of the deferred annuity.

Unused Sick Leave: 2.25% load on service retirement liabilities for Tier 1 active members. No load for Tier 2 active members.

Percent Married: 100% of active members are assumed to be married with the husband 3 years older than the wife.

Actuarial Method: Individual entry age normal method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability.

Asset Method: Actuarial value. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. Each year, 20% of the difference between market value and expected actuarial value is recognized. In order to reduce short-term volatility in valuation results and because the market value and actuarial value of assets were close in value, the actuarial value of assets was set equal to the market value on September 30, 2012. 5-year smoothing commenced again beginning September 30, 2013.

Liability for Current Inactive Members: Member Contribution Balance is multiplied by a factor of 3.0 for vested local employees with incomplete data and by a factor of 1.0 for all non-vested inactive members.

Liability for Post-DROP Active Members: Members are assumed to retire immediately and receive their accrued benefit.

COLA: No future ad hoc cost of living adjustments (COLAs) are assumed.

Future Service Credit: One year of creditable service per year of employment.

Valuation Interest Rate Method: Static discount rate of 7.875%.

Actuarial Cost Method

1. The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 7.875%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to retired members and beneficiaries to obtain the present value of all expected benefits payable to the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the System are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the "individual entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contributions which, if applied to the compensation of each new member during the entire period of the member's anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on the member's behalf.
4. The unfunded accrued liability contributions are determined by subtracting the current assets held by the System and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from the System. The accrued liability contribution amortizes the balance of the unfunded accrued liability over a period of years from the valuation date.

Summary of Plan Provisions as Interpreted for Valuation Purposes

The Employees' Retirement System of Alabama (ERS) was established on October 1, 1945. The valuation took into account amendments to the System effective through the valuation date. The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

Definitions

Average Final Compensation – The average compensation of a Tier 1 member is calculated using compensation for the 3 highest years in the last 10 years of creditable service. The average compensation of a Tier 2 member is calculated using compensation for the 5 highest years in the last 10 years of creditable service.

Membership Service – all service rendered while a member of the System and for which contributions were made.

Creditable Service – the sum of membership service, prior service, and any other previous service established as creditable in accordance with the provisions of the retirement law.

Annuity – payments for life derived from the accumulated contributions of a member.

Pension – payments for life derived from the accumulated contributions of an employer.

Retirement Allowance – the sum of the annuity and pension payments.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Employees' Retirement System

Summary of Plan Provisions (Continued)

Benefits – Members Classified as Other Than State Police

Service Retirement Allowance

Condition for Allowance

Tier 1 - The service retirement allowance is payable upon the request of a member who has completed 25 years of creditable service or who has attained age 60 and completed at least 10 years of creditable service.

Tier 2 - The service retirement allowance is payable upon the request of a member who has completed at least 10 years of creditable service and who has attained age 62 or age 56 for certified law enforcement, correctional officers, and firefighters.

Amount of Allowance

Tier 1 - Upon service retirement, a member receives a retirement allowance equal to 2.0125% of the member's average final compensation multiplied by the number of years of creditable service. At retirement, a member receives one additional year of creditable service in determining the retirement allowance for each five years of service as a certified law enforcement, correctional officer, or firefighter.

Tier 2 - Upon service retirement, a member receives a retirement allowance equal to 1.65% of their average final compensation multiplied by the number of years of creditable service. The benefit is capped at 80% of the member's average final compensation.

Tier 1 & 2 - Members may elect to receive a reduced retirement allowance in order to provide an allowance to a designated beneficiary after the member's death (see "Special Privileges at Retirement – All Members").

Disability Retirement Allowance

Condition for Allowance

A disability retirement allowance may be granted to a member who has completed at least 10 years of creditable service and becomes permanently incapacitated for duty before reaching eligibility for service retirement.

Amount of Allowance

Tier 1 - Upon disability retirement, a member receives a retirement allowance equal to 2.0125% of the member's average final compensation multiplied by the number of years of creditable service. At retirement, a member receives one additional year of creditable service in determining the retirement allowance for each five years of service as a certified law enforcement, correctional officer, or firefighter.

Tier 2 - Upon disability retirement, a member receives a retirement allowance equal to 1.65% of the member's average final compensation multiplied by the number of years of creditable service. The benefit is capped at 80% of the member's average final compensation.

Tier 1 & 2 - Members may elect to receive a reduced retirement allowance in order to provide an allowance to a designated beneficiary after the member's death (see "Special Privileges at Retirement – All Members").

Benefits Payable upon
Separation of Service

A member who withdraws from service is entitled to receive his or her contributions with allowable interest. A member who has completed at least 10 years of creditable service may, after separation from service, continue membership in the System and file for service retirement after reaching age 60 for Tier 1 members or age 62 for Tier 2 members.

Benefits Payable upon
Death in Active Service

In the event of the death of a member eligible for service retirement, the designated beneficiary may elect: (1) to exercise Option 3 as defined under “Special Privileges at Retirement – All Members” or (2) to receive a return of member contributions and total earned interest plus a death benefit payable from the Pre-retirement Death Benefit Fund equal to the salary on which retirement contributions were made for the previous fiscal year (October 1 – September 30).*

In the event of the death of a member with more than one year of service who is not eligible to retire, the designated beneficiary shall receive the return of member contributions and total earned interest. Also, the designated beneficiary shall receive an additional death benefit payable from the Pre-retirement Death Benefit Fund equal to the salary on which retirement contributions were made for the previous fiscal year (October 1 – September 30).*

In the event of a job-related death of a member at any age with less than one year of service, the designated beneficiary shall receive the return of member contributions and total earned interest plus a death benefit payable from the Pre-retirement Death Benefit Fund equal to the annual earnable compensation of the member at the time of death.*

In the event of the death of a member which is not job-related who has less than one year of service, the designated beneficiary shall receive the return of member contributions and total earned interest plus a matching death benefit, which is limited to a maximum of \$5,000.

*However, if the death occurred more than 180 calendar days after the member’s last day in pay status or if the deceased member had applied for a refund of member contributions or terminated employment, the lump sum will be the same as if the member had less than one year of service and the death was not job-related.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Employees' Retirement System

Summary of Plan Provisions (Continued)

Deferred Retirement Option Plan (DROP)

Prior to March 25, 2011, a member could elect to participate in the Deferred Retirement Option Plan (DROP) upon completion of at least 25 years of creditable service (excluding sick leave) and attainment of at least 55 years of age. Under the DROP, the member deferred receipt of a retirement allowance and continued employment for a period of three to five years. At the end of the period, the member withdrew from active service and received the retirement benefit calculated at the time of enrollment in the DROP, and also received a payment for the deferred retirement benefits and employee contributions while participating in the DROP and interest earned on DROP deposits. The effect of Act 2011-27 was that no new participants were allowed to enter the DROP with an effective participation date after June 1, 2011.

Member Contributions

Tier 1 - Prior to October 1, 2011, covered members contributed 5% of earnable compensation. From October 1, 2011, to September 30, 2012, covered members contributed 7.25% of earnable compensation. Beginning October 1, 2012, covered members contribute 7.50% of earnable compensation. Certified law enforcement, correctional officers, and firefighters contributed 6% of earnable compensation until September 30, 2011. From October 1, 2011, to September 30, 2012, certified law enforcement, correctional officers, and firefighters contributed 8.25% of earnable compensation. Beginning October 1, 2012, certified law enforcement, correctional officers, and firefighters contribute 8.50% of earnable compensation. DROP participants continue to contribute during the DROP period but receive a refund of these contributions and regular interest upon retirement.

Tier 2 – Covered members contribute 6% of earnable compensation. Certified law enforcement, correctional officers, and firefighters contribute 7% of earnable compensation.

Tier 1 & 2 - If positive investment performance results in a decrease in the total contribution rate paid by employers and employees participating in the System, the Retirement Systems of Alabama shall first reduce the employee contribution rate. "Regular Interest" is 4% which is the rate adopted by the Board and applied to the balance in each member's account every year; however, if a member receives a refund of contributions, the interest rate applied to the refund is lower than the 4% regular rate (Based on the *Code of Alabama 1975, Section 36-27-25(g)*).

Benefits – Members Classified as State Police

Service Retirement Allowance

Condition of Allowance Tier 1 - A retirement allowance is payable upon the request of a member who has completed 25 years of creditable service or who has attained age 52 and completed at least 10 years of creditable service.

Tier 2 - A retirement allowance is payable upon the request of any member who has attained age 56 and completed at least 10 years of creditable service.

Amount of Allowance Tier 1 - Upon service retirement, a member receives a retirement allowance equal to 2.875% of the member's average final compensation multiplied by the number of years of creditable service.

A member who has attained 20 or more years of creditable service and retires prior to age 60 is eligible to receive a “bonus service credit” up to 4 years as follows:

- Age 56 or older – bonus service of 4 years reduced by 1 month for each month over the age of 56.
- Age 52 to 56 – bonus service of 4 years.
- Age 52 or less (disability retirement only) – bonus service of 4 years.
- Age 52 or less with 25 or more years of service – bonus service of 4 years.

Tier 2 - Upon service retirement, a member receives a retirement allowance equal to 2.375% of the member’s average final compensation multiplied by the number of years of creditable service. The benefit is capped at 80% of the member’s average final compensation.

Disability Retirement Allowance

Condition for Allowance A disability retirement allowance may be granted to a member who has completed at least 10 years of creditable service and who becomes permanently incapacitated for the further performance of duty before reaching the minimum age for service retirement or who becomes disabled as a result of employment in the line of duty without regard to years of creditable service.

Amount of Allowance Tier 1 - Upon disability retirement, a member receives a retirement allowance equal to 2.875% of the member's average final compensation multiplied by the number of years of creditable service.

Tier 2 - Upon disability retirement, a member receives a retirement allowance equal to 2.375% of the member’s average final compensation multiplied by the number of years of creditable service.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Employees' Retirement System

Summary of Plan Provisions (Continued)

Benefits Payable upon Separation from Service

A member who withdraws from service is entitled to receive a return of member contributions with allowable interest. A member who has completed at least 10 years of creditable service may, after separation from service, continue in the membership of the System and file for service retirement after reaching age 52 for Tier 1 members or age 56 for Tier 2 members.

Benefits Payable upon Death in Active Service

In the event of the death of a member who is eligible for service retirement, the designated beneficiary may elect: (1) to exercise Option 3 as defined below under "Special Privileges at Retirement – All Members" or (2) to receive a return of member contributions and total earned interest plus a death benefit payable from the Pre-retirement Death Benefit Fund equal to the salary on which the member made retirement contributions for the previous fiscal year (October 1 – September 30).*

In the event of the death of a member with more than one year of service who is not eligible to retire, the designated beneficiary shall receive the return of member contributions and total earned interest. Also, the designated beneficiary shall receive an additional death benefit payable from the Pre-retirement Death Benefit Fund equal to the salary on which the member made retirement contributions for the previous fiscal year (October 1 – September 30).*

In the event of a job-related death of a member at any age with less than one year of service, the designated beneficiary shall receive the return of member contributions and total earned interest plus a death benefit payable from the Pre-retirement Death Benefit Fund equal to the annual earnable compensation of the member at the time of death.*

In the event of the death of a member which is not job-related and who has less than one year of service, the designated beneficiary shall receive the return of member contributions and total earned interest plus a matching death benefit which is limited to a maximum of \$5,000.

*However, if the death occurred more than 180 calendar days after the member's last day in pay status, or if the deceased member had applied for a refund of member contributions or terminated employment, the lump sum will be the same as if the member had less than one year of service and the death was not job-related.

Deferred Retirement Option Plan
(DROP)

Prior to March 25, 2011, a member could elect to participate in the Deferred Retirement Option Plan (DROP) upon completion of at least 25 years of creditable service (excluding sick leave) and attainment of at least 52 years of age. Under the DROP, the member deferred receipt of a retirement allowance and continued employment for a period of three to five years. At the end of the period, the member withdrew from active service and received the retirement benefit calculated at the time of enrollment in the DROP, and also received a payment for the deferred retirement benefits and employee contributions while participating in the DROP and interest earned on DROP deposits. The effect of Act 2011-27 was that no new participants were allowed to enter the DROP with an effective participation date after June 1, 2011.

Member Contributions

Each member contributes 10% of earnable compensation. DROP participants continue to contribute during the DROP period but receive a refund of these contributions and regular interest upon retirement.

Special Privileges at Retirement – All Members

In lieu of the full retirement allowance, a member may, at retirement, elect to receive a reduced retirement allowance equal in value to the full retirement allowance, with the provision that:

- Option 1: If the member dies before the annuity payments equal or exceed the present value of the member's annuity at the date of retirement, the balance is paid to the designated beneficiary or to the member's estate, or
- Option 2: After the member's death, the member's retirement allowance is continued throughout the life of the designated beneficiary, or
- Option 3: After the member's death, one-half of the member's retirement allowance is continued throughout the life of the designated beneficiary, or
- Option 4: Some other benefit is paid either to the member or the designated beneficiary, provided such benefit, together with the reduced retirement allowance, is of equivalent actuarial value to the member's retirement allowance and is approved by the Board of Control.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Employees' Retirement System

Supporting Schedules

Supporting Schedules

The following schedule provides a six-year history on active member valuation data:

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

(Dollar Amounts Not in Thousands)

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>Annual Average Pay</u>	<u>% Increase/ (Decrease) in Average Pay</u>
9/30/2016	A 84,814	\$ 3,572,891,196	\$ 42,129	2.92
9/30/2015	B 84,563	3,461,155,131	40,930	2.34
9/30/2014	C 84,694	3,387,186,858	39,993	1.61
9/30/2013	D 84,035	3,307,511,468	39,359	6.02
9/30/2012	E 84,169	3,124,791,422	37,125	(5.88)
9/30/2011	F 85,633	3,377,717,419	39,444	(1.00)

A - There are no employees currently participating in the DROP program.

B - In addition, there are 396 members with compensation of \$26,861,749 who are currently participating in the DROP. Employers of the Retirement System contribute on this payroll.

C - In addition, there are 891 members with compensation of \$57,153,873 who are currently participating in the DROP. Employers of the Retirement System contribute on this payroll.

D - In addition, there are 1,514 members with compensation of \$93,084,090 who are currently participating in the DROP. Employers of the Retirement System contribute on this payroll.

E - In addition, there are 2,121 members with compensation of \$127,211,439 who are currently participating in the DROP. Employers of the Retirement System contribute on this payroll.

F - In addition, there are 2,708 members with compensation of \$162,963,178 who are currently participating in the DROP. Employers of the Retirement System contribute on this payroll.

The following table presents a six-year history of funding progress:

SCHEDULE OF FUNDING PROGRESS

(Dollar Amounts in Thousands)

<u>Valuation Date</u>	<u>Actuarial Value of Assets (A)</u>	<u>Actuarial Accrued Liability (AAL) (B)</u>	<u>Unfunded AAL (UAAL) (B-A)</u>	<u>Percentage Funded (A/B)</u>	<u>Covered Payroll (C)</u>	<u>UAAL as a % of Covered Payroll ((B-A)/C)</u>
9/30/2016	\$ 11,082,280	\$ 16,728,009	\$ 5,645,729	66.2	\$ 3,572,891	158.0
9/30/2015	10,589,258	15,723,720	5,134,462	67.3	3,488,017	147.2
9/30/2014	10,134,581	15,138,294	5,003,713	66.9	3,444,341	145.3
9/30/2013	9,546,459	14,536,600	4,990,141	65.7	3,400,596	146.7
9/30/2012	9,116,551	13,884,995	4,768,444	65.7	3,252,003	146.6
9/30/2011	9,456,158	14,366,796	4,910,638	65.8	3,540,681	138.7

The following table provides a six-year history of solvency tests:

SOLVENCY TEST
(Dollar Amounts in Thousands)

Valuation Date	Aggregate Accrued Liabilities For				% of Accrued Liabilities Covered by Reported Assets		
	(1)	(2)	(3)	Reported Assets	(1)	(2)	(3)
	Active Member Contributions	Retirants and Beneficiaries	Active Members (Employer Financed Portion)				
9/30/2016 #	\$ 2,707,129	\$ 9,209,857	\$ 4,811,023	\$ 11,082,280	100	91	0.0
9/30/2015	2,591,066	8,666,490	4,466,164	10,589,258	100	92	0.0
9/30/2014	2,484,050	8,366,277	4,287,967	10,134,581	100	91	0.0
9/30/2013	2,363,600	8,085,291	4,087,709	9,546,459	100	89	0.0
9/30/2012 &	2,218,478	7,781,431	3,885,086	9,116,551	100	89	0.0
9/30/2011 #	2,112,356	7,722,942	4,531,498	9,456,158	100	95	0.0

Reflects changes in actuarial assumptions.

& Reflects changes in methods.

The following table presents a six-year history of data concerning retirants and beneficiaries:

SCHEDULE OF RETIRANTS AND BENEFICIARIES ADDED AND REMOVED FROM ROLLS

Fiscal Year Ended	Retirees Added §*		Retirees Removed		Retirees - Year-end*		% Increase/ (Decrease) in Annual Allowances	Average Annual Allowance
	Number	Annual Allowances (000s)	Number	Annual Allowances (000s)	Number	Annual Allowances (000s)		
2016	2,655	\$ 61,579	1,083	\$ 22,434	46,954	\$ 850,574	4.82	\$ 18,115
2015	2,698	63,043	1,028	21,337	45,382	811,429	5.42	17,880
2014	2,617	59,959	1,012	20,185	43,712	769,723	5.45	17,609
2013	2,628	59,930	972	19,036	42,107	729,949	5.93	17,336
2012	2,846	64,800	977	18,759	40,451	689,055	7.16	17,034
2011	2,444	53,577	921	17,228	38,582	643,014	5.99	16,666

§ Includes retirees completing DROP participation and entering regular retirement.

*Does not include active DROP participants.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Employees' Retirement System

Supporting Schedules (Continued)

The following table provides an analysis of actuarial gains and losses:

ANALYSIS OF ACTUARIAL GAINS AND LOSSES

(Dollar Amounts in Thousands)

	<u>Amount</u>
Unfunded Actuarial Liability as of September 30, 2015	\$ 5,134,462
Normal Cost for 2016 Plan Year	47,808
Contributions Received During the Year	(421,734)
Interest to Year End	404,175
Expected Unfunded Actuarial Liability as of September 30, 2016	<u>5,164,711</u>
Actuarial (Gains)/Losses During the Year	
From Investments	(76,010)
From Actuarial Liabilities	557,028
Total Actuarial (Gains)/Losses During the Year	<u>481,018</u>
Actual Unfunded Actuarial Liability as of September 30, 2016	<u><u>\$ 5,645,729</u></u>



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June 30, 2017

Board of Control
Employees' Retirement System of
Alabama for the Administration of
the Judicial Retirement Fund

Dear Board Members:

The basic funding objectives of the Judicial Retirement Fund of Alabama (JRF) is to accumulate sufficient assets during a member's employment to fully finance the benefits the member is expected to receive throughout retirement.

JRF maintains a funding policy that was effective September 30, 2012. In order to meet the objectives listed above, the Fund will strive to meet the following funding objectives:

- To maintain an increasing funded ratio (ratio of fund actuarial value of assets to actuarial accrued liabilities) that reflects a trend of improved actuarial condition. The long-term objective is to attain a funded ratio which is consistent with the fiscal health and long-term stability of the Fund.
- To maintain adequate asset levels to finance the benefits promised to members and monitor the future demands for liquidity.
- To develop a pattern of contribution rates expressed as a percentage of member payroll as measured by valuations prepared in accordance with applicable State laws and the principles of practice prescribed by the Actuarial Standards Board. In no event will the employer contribution rate be negative.
- To provide intergenerational equity for taxpayers with respect to Fund costs.

To track progress in achieving the funding objectives, the following benchmarks are measured annually as of the valuation date:

- **Funded ratio** – The funded ratio, defined as the actuarial value of assets divided by the actuarial accrued liability, should increase over time, before adjustments for changes in benefits, actuarial, methods, and/or actuarial assumptions.
- **Unfunded Actuarial Accrued Liability (UAAL)**
 - **Transitional UAAL** – The UAAL established as of the initial valuation date for which this funding policy is adopted.
 - **New Incremental UAAL** – Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation.
- **UAAL Amortization Period and Contribution Rates**
 - The Transitional UAAL will be amortized over a closed period. The closed period shall be the amortization period for the valuation preceding the adoption of the funding policy not to exceed 30 years.
 - Each New Incremental UAAL shall be amortized over a closed 30 year period.
 - Employer Normal Contribution Rate – the contribution rate determined as of the valuation date each year based on the provisions of Alabama Code Sections 36-27-24 and 12-18-2.



- In each valuation subsequent to the adoption of this funding policy the required employer contribution rate will be determined by the summation of the employer Normal Contribution Rate, a contribution rate for administrative expenses, the individual amortization rate for each of the New Incremental UAAL bases and the amortization rate for the Transitional UAAL.

In order to measure progress toward this fundamental objective and funding policy, JRF has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the normal cost and level percent of payroll amortization of unfunded actuarial accrued liability in accordance with the funding policy. The latest completed actuarial valuation was based upon data and assumptions as of September 30, 2016. This valuation indicates that the current employer contribution rate of 41.40% of payroll, for benefits then in effect, meet the basic financial objective and the goals of the funding policy as listed above. There are 336 active members as of September 30, 2016.

The actuarial valuation is based upon financial and participant data which is prepared by the retirement Fund staff, assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death and disability among JRF members and their beneficiaries. The data is reviewed by us for internal and year to year consistency as well as general reasonableness prior to its use in the actuarial valuation. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions were adopted by the Board of Control and were based upon actual experience of JRF during the years October 1, 2010 to September 30, 2015. Assets are valued according to a market related method that recognizes 20% of the difference between market value and expected value each year. The assumptions and methods utilized in this valuation, in our opinion, meet the parameters established by the Actuarial Standards of Practice.

The current benefit structure is outlined in the Actuarial Section. There were no changes since the previous valuation.

We provided the following information and supporting schedules in the Actuarial and Statistical Sections:

- Summary of Actuarial Assumptions and Methods
- Actuarial Cost Method
- Summary of Plan Provisions as Interpreted for Valuation Purposes
- Schedule of Funding Progress
- Solvency Test
- Analysis of Actuarial Gains and Losses
- Schedule of Active Member Valuation Data
- Schedule of Retirants and Beneficiaries Added and Removed from Rolls
- Retired Members by Type of Benefit as of September 30, 2016
- Ten-Year History of Average Monthly Benefit Payments as of September 30



Based upon the valuation results and the presumption that future contributions will be made at the necessary level to ensure adequate funding and to meet accounting standards, it is our opinion that the Judicial Retirement Fund of Alabama continues in sound condition in accordance with the actuarial principles of level percent of payroll financing.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Edward Macdonald'.

Edward A. Macdonald, ASA, FCA, MAAA
President

A handwritten signature in blue ink, appearing to read 'Jonathan T. Craven'.

Jonathan T. Craven, ASA, EA, FCA, MAAA
Consulting Actuary

A handwritten signature in blue ink, appearing to read 'Cathy Turcot'.

Cathy Turcot
Principal and Managing Director

A handwritten signature in blue ink, appearing to read 'Larry Langer'.

Larry Langer, ASA, EA, FCA, MAAA
Principal and Consulting Actuary

Summary of Actuarial Assumptions and Methods

The assumptions and methods used in the valuation are based on the actuarial experience study prepared as of September 30, 2015, submitted to and adopted by the Board on September 29, 2016.

Ultimate Investment Rate of Return: 7.75% per annum, compounded annually, including inflation at 2.75%.

Salary Increases: 3.5% per annum for all ages with service less than 14 years, and 3.25% per annum for all ages with service of 14 years or more, compounded annually, including wage inflation at 3.00%.

Separations before Retirement: Representative values of the assumed annual rates of withdrawal, death, and disability are as follows:

Age	Annual % Rate of			
	Withdrawal	Death*		Disability**
		Male	Female	
30	2.50	0.04	0.01	0.02
35	2.50	0.07	0.03	0.04
40	2.50	0.09	0.04	0.07
45	2.50	0.13	0.06	0.11
50	2.50	0.18	0.09	0.16
55	2.50	0.26	0.14	0.25
60	2.50	0.38	0.19	0.40
64	2.50	0.51	0.26	0.57

*Rates of pre-retirement mortality are according to the sex distinct RP-2000 Employee Mortality Table Projected with Scale BB to 2020 with an adjustment factor of 90% for males and 60% for females.

**Disability rates turn off at retirement eligibility.

Rates of Retirement: Between the ages of 55 and 59, 25% of members are assumed to retire in the first year of eligibility and 10% in each year thereafter. Between the ages of 60 and 69, 30% of members are assumed to retire in the year when first eligible and 15% in each year thereafter. 30% of the remaining members are assumed to retire each year between age 70 and 74, and all remaining members are assumed to retire at age 75.

Deaths after Retirement: Rates of mortality for the period after service retirement are according to the RP-2000 White Collar Mortality Table with projection scale BB to 2020 and adjusted 115% for males and 112% for females older than age 78. The sex distinct RP-2000 Disabled Mortality Table adjusted 105% for males and 120% for females. Representative values of assumed mortality rates are as follows:

Age	Annual % Rate of Death After			
	Service Retirement		Disability Retirement	
	Male	Female	Male	Female
55	0.36	0.23	3.50	1.79
60	0.56	0.38	3.84	2.14
65	0.99	0.68	4.14	2.64
70	1.64	1.19	4.86	3.55
75	2.86	2.02	6.37	4.92
80	5.05	3.79	8.49	6.82
85	8.89	6.53	10.99	9.45
90	16.43	11.32	15.44	13.47

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Judicial Retirement Fund

Summary of Actuarial Assumptions and Methods (Continued)

Percent Married: 85% of active members are assumed to be married with the husband 4 years older than the wife.

Actuarial Method: Individual entry age normal method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability.

Assets: Actuarial value. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. Each year, 20% of the difference between market value and expected actuarial value is recognized. In order to reduce short-term volatility in valuation results and because market value and actuarial value of assets were close in value, the actuarial value of assets was set equal to the market value on September 30, 2012. 5-year smoothing commenced again beginning September 30, 2013.

Liability for Current Inactive Non-Vested members: Members Contribution Balance is multiplied by a factor of 1.0.

Post Retirement Increases: Allowances of retired members and spouses who receive benefits based on the salaries prescribed by law for the position are assumed to increase by 3.00% per year. The members' actual salaries at retirement are assumed to be equal to the salary prescribed by law for their position.

Benefits Payable upon Separation from Service: Active members who terminated from service prior to becoming eligible for a benefit are assumed to receive a refund of contributions with interest assumed to be 4% per year.

Actuarial Cost Method

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future, of each member's expected benefit payable at retirement or death is determined, based on age, service, sex and compensation. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the probability of his terminating with a service, disability or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account the active members is added to the present value of expected future payments to retired members and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the Fund are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the "individual entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
4. The unfunded accrued liability contributions are determined by subtracting the present value of prospective employer normal contributions and member contributions together with the current assets held from the present value of expected benefits to be paid from the Fund.

Summary of Plan Provisions as Interpreted for Valuation Purposes

The Judicial Retirement Fund (JRF) was established as of September 18, 1973. The valuation took into account amendments to the JRF effective through the valuation date. The following summary describes the main benefit and contribution provisions of the JRF as interpreted for the valuation.

Membership

Any justice of the Supreme Court of Alabama, judge of the Alabama Court of Civil Appeals, judge of the Alabama Court of Criminal Appeals, judge of a Circuit Court, or officeholder of any newly created judicial office receiving compensation from the State Treasury became a member of the JRF if the member was holding office on the date that it was established and elected to come under its provisions. Any such justice or judge elected or appointed to office after September 18, 1973, or any district or probate judge elected or appointed to office after October 10, 1975, or October 1, 1976, respectively, automatically becomes a member by virtue of their position. Certain other district and probate judges as well as certain former county court judges, district attorneys, or assistant district attorneys serving as circuit judges and certain supernumerary judges and justices may also elect to become a member.

Creditable Service

Creditable service is service as a member plus certain periods of previous service creditable in accordance with the provisions of the Act.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Judicial Retirement Fund

Summary of Plan Provisions (Continued)

Benefits

Service Retirement Benefit

Condition of Benefit

A service retirement benefit is payable upon request of a member who has:

- Completed 12 years of creditable service and attained age 65, or
- Completed 15 years of creditable service and whose age plus service equals or exceeds 77, or
- Completed at least 18 years of creditable service or three full terms as a judge or justice, or
- Completed 10 years of creditable service and attained age 70.

However, a judge who became a member on or after July 30, 1979, or who is a district or probate judge must meet the following age and service requirement combinations in order to be eligible to retire:

- Completed 12 years of creditable service and attained age 65, or
- Completed at least 15 years of creditable service and attained age 60, and whose age plus service equals or exceeds 77, or
- Completed 10 years of creditable service and attained age 70, or
- Completed 25 years of creditable service or 24 years of creditable service provided the member purchases one year of service prior to retirement, regardless of age.

Amount of Benefit

The service retirement benefit for a member is equal to:

- (a) For circuit or appellate judges who were members prior to July 30, 1979, 75% of the salary prescribed by law for the position from which the member retires.
- (b) For circuit and appellate judges who assumed office on or after July 30, 1979, 75% of the member's salary at the time of separation from service.
- (c) For district judges, 75% of the position's salary immediately prior to retirement.
- (d) For probate judges, 75% of the member's salary at the time of separation from service.

Disability Retirement Benefit

Condition of Benefit A disability retirement benefit is payable to a member who becomes permanently, physically or mentally, unable to carry out his duties on a full-time basis, provided the member has completed five or more years of creditable service.

Amount of Benefit The disability retirement benefit for a member other than a district or probate judge who was a member prior to July 30, 1979, is equal to 25% of the salary prescribed by law for the position from which the member retires on disability plus 10% of such salary for each year of creditable service in excess of five years. The disability retirement benefit is subject to a minimum of 30% and a maximum of 75% of such salary.

The disability retirement benefit for a judge who became a member on or after July 30, 1979, or who is a district or probate judge is equal to 25% of his salary immediately prior to retirement plus 10% of such salary for each year of creditable service in excess of five years. The disability retirement benefit is subject to a minimum of 30% and a maximum of 75% of such salary.

Spousal Benefit

Condition of Benefit Upon the death of an active, inactive or retired member with at least 5 years of creditable service, a death benefit is payable to the member's spouse.

Amount of Benefit The death benefit payable to the spouse of a judge other than a district or probate judge consists of a yearly benefit equivalent to 3% of the salary prescribed by law for the position of the former member for each year of creditable service, not to exceed 30% of such salary.

The death benefit payable to the spouse of a district judge consists of a yearly benefit equal to 3% of the position's salary prescribed by law at the time of death for each year of creditable service, not to exceed 30% of such salary.

The death benefit for the spouse of a probate judge is a yearly benefit equal to the greater of \$480 for each year of creditable service to a maximum of 10 years, or 3% of the member's salary at the time of separation from service for each year of creditable service, not to exceed 30% of such salary.

The benefit is payable for the spouse's life or until his or her remarriage.

Benefit Payable upon Separation from Service

If a member terminates service and elects not to withdraw his or her contributions and accrued interest from the JRF, the member is eligible to receive any of the benefits for which the member has sufficient creditable service upon reaching an eligible retirement age.

A member terminating service prior to reaching eligibility for retirement benefits may elect to receive a return of contributions and accrued interest. "Regular Interest" is 4% which is the rate adopted by the Board and applied to the balance in each member's account every year; however, if a member receives a refund of contributions, the interest rate applied to the refund is lower than the 4% regular rate (Based on the *Code of Alabama 1975, Section 36-27-25(g)*).

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Judicial Retirement Fund

Summary of Plan Provisions (Continued)

Member Contributions

Prior to October 1, 2011, each member contributed 6% of earnable compensation. From October 1, 2011, to September 30, 2012, each member will contribute 8.25% of earnable compensation. Beginning October 1, 2012, each member contributes 8.50% of earnable compensation.

If a positive investment performance results in a decrease in the total contribution rate paid by employers and employees participating in the System, the Retirement Systems of Alabama shall first reduce the employee contribution rate.

State Contributions

The State makes contributions, which in addition to the members' contributions, are sufficient to provide the retirement allowances described.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Judicial Retirement Fund

Supporting Schedules

Supporting Schedules

The following schedule presents six years of active member valuation data:

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

(Dollar Amounts Not in Thousands)

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll*</u>	<u>Annual Average Pay</u>	<u>% Increase/ (Decrease) in Average Pay</u>
9/30/2016	336	\$ 43,022,891	\$ 128,044	1.08
9/30/2015	338	42,814,343	126,670	0.27
9/30/2014	338	42,698,909	126,328	1.94
9/30/2013	338	41,887,006	123,926	(1.61)
9/30/2012	337	42,446,426	125,954	0.58
9/30/2011	334	41,826,338	125,229	(1.70)

*Does not include any salary increase effective after the valuation date.

The following table presents a six-year history of funding progress:

SCHEDULE OF FUNDING PROGRESS

(Dollar Amounts in Thousands)

<u>Valuation Date</u>	<u>Actuarial Value of Assets (A)</u>	<u>Actuarial Accrued Liability (AAL) (B)</u>	<u>Unfunded AAL (UAAL) (B-A)</u>	<u>Percentage Funded (A/B)</u>	<u>Covered Payroll (C)</u>	<u>UAAL as a % of Covered Payroll ((B-A)/C)</u>
9/30/2016*	\$ 279,807	\$ 446,920	\$ 167,113	62.6	\$ 43,023	388.4
9/30/2015	267,414	427,591	160,177	62.5	42,814	374.1
9/30/2014	257,452	422,863	165,411	60.9	42,699	387.4
9/30/2013	243,316	414,200	170,884	58.7	41,887	408.0
9/30/2012**	234,300	380,470	146,170	61.6	42,446	344.4
9/30/2011*	235,870	393,635	157,765	59.9	41,826	377.2

*Reflects changes in actuarial assumptions and methods.

**Reflects changes in methods.

RETIREMENT SYSTEMS OF ALABAMA

Actuarial Section

Judicial Retirement Fund

Supporting Schedules (Continued)

The following schedule presents six years of solvency tests:

SOLVENCY TEST
(Dollar Amounts in Thousands)

Valuation Date	Aggregate Accrued Liabilities For			Reported Assets	% of Accrued Liabilities Covered by Reported Assets		
	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)		(1)	(2)	(3)
9/30/2016 *	\$ 45,900	\$ 280,836	\$ 120,185	\$ 279,807	100	83	0.0
9/30/2015	42,745	272,624	112,222	267,414	100	82	0.0
9/30/2014	40,981	268,439	113,443	257,452	100	81	0.0
9/30/2013	37,366	270,430	106,404	243,315	100	76	0.0
9/30/2012 **	38,341	237,197	104,932	234,300	100	83	0.0
9/30/2011 *	32,898	250,731	110,006	235,870	100	81	0.0

*Reflects a change in actuarial assumptions and methods.

**Reflects a change in methods.

The following schedule presents six years of retirant and beneficiary data:

SCHEDULE OF RETIRANTS AND BENEFICIARIES ADDED AND REMOVED FROM ROLLS

Fiscal Year Ended	Retirees Added		Retirees Removed		Retirees - Year-end		% Increase/ (Decrease) in Annual Allowances	Average Annual Allowance
	Number	Annual Allowances (000s)	Number	Annual Allowances (000s)	Number	Annual Allowances (000s)		
2016	11	\$ 970	11	\$ 889	384	\$ 29,786	0.27	\$ 77,568
2015	16	1,500	6	479	384	29,705	3.56	77,357
2014	9	918	10	798	374	28,684	0.42	76,695
2013	33	3,144	4	315	375	28,564	10.99	76,171
2012	6	569	3	236	346	25,735	1.31	74,379
2011	28	2,939	10	786	343	25,402	9.26	74,058

The following table provides an analysis of actuarial gains and losses:

ANALYSIS OF ACTUARIAL GAINS AND LOSSES

(Dollar Amounts in Thousands)

	<u>Amount</u>
Unfunded Actuarial Liability as of September 30, 2015	\$ 160,177
Normal Cost for 2016 Plan Year	5,669
Contributions Received During the Year	(16,985)
Interest to Year End	<u>12,336</u>
Expected Unfunded Actuarial Liability as of September 30, 2016	<u>161,197</u>
Actuarial (Gains)Losses During the Year	
From Investments	(2,146)
From Actuarial Liabilities	<u>8,062</u>
Total Actuarial (Gains)/Losses During the Year	<u>5,916</u>
Actual Unfunded Actuarial Liability as of September 30, 2016	<u><u>\$ 167,113</u></u>





Component Units of the State of Alabama
Comprehensive Annual Financial Report

Statistical Section

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The Statistical Section of the comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Retirement Systems' overall financial health.

Financial Trends

These schedules contain trend information to help the reader understand how the Retirement Systems' financial performance has changed over time.

Additions by Source – Ten-Year History – page 159

Deductions by Type – Ten-Year History – page 160

Benefits by Type – Ten-Year History – page 161

Ten-Year History of Additions, Reductions, and Changes in Net Position – page 162

Retirees and Beneficiaries

These schedules provide information concerning the retirees and beneficiaries receiving benefits.

Retired Members by Type of Benefit – page 168

Ten-Year History of Average Monthly Benefit Payments – page 171

Participating Units

These schedules provide information concerning units participating in the Employees' Retirement System.

Local Participating Employers – page 174

Largest Employers – Ten-Year History – page 184

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Additions by Source

Ten-Year History

(Amounts in Thousands)

TEACHERS' RETIREMENT SYSTEM
ADDITIONS BY SOURCE

Fiscal Year	Member Contributions \$	Employer Contributions		Investment Income	Total	
		Amount	Employer Rate (%)			
			Tier 1	Tier 2 ©		
2017	\$ 489,638	\$ 782,695	12.01	10.82	\$2,636,105	\$ 3,908,438
2016	475,980	751,902	11.94	10.84	2,199,404	3,427,286
2015	477,918	737,671	11.71	11.05	261,468	1,477,057
2014	480,849	739,547	11.71	11.08	2,473,152	3,693,548
2013	477,586	627,892	10.08	9.44	2,732,706	3,838,184
2012	458,534	618,306	10.00	-	2,989,162	4,066,002
2011	323,196	779,644	12.51	-	351,965	1,454,805
2010	321,403	776,421	12.51	-	1,448,312	2,546,136
2009	323,706	753,518	12.07	-	(1,485,126)	(407,902)
2008	327,004	729,995	11.75	-	(3,336,697)	(2,279,698)

EMPLOYEES' RETIREMENT SYSTEM
ADDITIONS BY SOURCE

Fiscal Year	Member Contributions \$	Amount	Employer Contributions				Local	Investment Income	Total
			Employer Rate (%)						
			State						
			Tier 1		Tier 2 ©				
		Regular	Law	Regular	Law				
2017	\$ 233,901	\$ 426,215	13.89	57.25	13.25	53.55	*	\$ 1,402,163	\$2,062,279
2016	238,017	435,098	14.57	42.61	14.09	38.98	*	1,053,031	1,726,146
2015	229,254	410,932	13.45	38.37	13.31	32.45	*	126,490	766,676
2014	226,016	391,181	12.02	35.81	11.96	29.52	*	1,186,529	1,803,726
2013	223,646	338,819	10.12	31.61	10.04	25.32	*	1,296,460	1,858,925
2012	216,870	317,520	9.42	29.92	-	-	*	1,427,858	1,962,248
2011	195,709	394,998	11.94	30.57	-	-	*	196,939	787,646
2010	196,758	377,898	11.94	30.57	-	-	*	696,677	1,271,333
2009	210,281	451,139	11.88	30.99	-	-	*	(887,881)	(226,461)
2008	191,654	329,339	10.26	30.42	-	-	*	(1,574,094)	(1,053,101)

JUDICIAL RETIREMENT FUND
ADDITIONS BY SOURCE

Fiscal Year	Member Contributions \$	Employer Contributions		Investment Income	Total
		Amount	Employer Rate (%)		
2017	\$ 3,972	\$ 17,373	40.65	\$ 32,685	\$ 54,030
2016	3,723	17,529	40.98	28,321	49,573
2015	3,683	15,077	35.24	(856)	17,904
2014	3,764	15,790	35.24	31,344	50,898
2013	3,919	13,903	32.06	32,245	50,067
2012	3,681	10,747	24.35	39,011	53,439
2011	2,654	10,906	24.20	2,022	15,582
2010	2,566	10,814	24.20	21,925	35,305
2009	2,701	10,326	23.23	758	13,785
2008	2,707	9,880	23.05	(38,322)	(25,735)

§ Includes transfers from other systems.

* Local agency rates differ for each participating agency.

© A new tier of benefits was established for members hired on or after January 1, 2013, which included different contribution rates for the members and their employers.

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Deductions by Type

Ten-Year History

(Amounts in Thousands)

**TEACHERS' RETIREMENT SYSTEM
DEDUCTIONS BY TYPE**

Fiscal Year	Benefit Payments	Contribution Refunds & Death Benefits	Service Transfers	Administrative Expenses	Depreciation	Total
2017	\$ 2,111,830	\$ 55,634	\$ 3,413	\$ 16,390	\$ 6,012	\$ 2,193,279
2016	2,155,784	57,130	6,223	14,873	4,709	2,238,719
2015	2,075,302	58,060	3,432	15,074	4,258	2,156,126
2014	1,997,595	54,699	2,880	13,103	4,336	2,072,613
2013	1,893,321	55,891	1,823	12,591	4,312	1,967,938
2012	1,800,805	49,453	1,937	11,555	4,344	1,868,094
2011	1,673,881	49,304	2,012	10,820	4,243	1,740,260
2010	1,567,790	43,628	1,790	11,979	4,264	1,629,451
2009	1,512,260	42,337	1,767	11,005	4,128	1,571,497
2008	1,486,871	37,317	1,683	12,216	578	1,538,665

**EMPLOYEES' RETIREMENT SYSTEM
DEDUCTIONS BY TYPE**

Fiscal Year	Benefit Payments	Contribution Refunds & Death Benefits	Unit Withdrawals & Service Transfers	Administrative Expenses	Depreciation	Total
2017	\$ 1,050,340	\$ 48,683	\$ 3,357	\$ 11,982	\$ 2,520	\$ 1,116,882
2016	1,038,517	45,768	3,668	11,002	2,021	1,100,976
2015	1,018,515	51,024	4,059	11,136	2,046	1,086,780
2014	948,478	47,937	3,632	9,612	2,055	1,011,714
2013	895,475	44,837	3,587	9,767	2,015	955,681
2012	848,464	40,746	2,180	10,616	1,981	903,987
2011	782,957	36,798	2,157	10,002	2,029	833,943
2010	725,660	33,868	1,633	10,334	2,111	773,606
2009	695,430	32,640	2,718	9,413	2,038	742,239
2008	655,467	31,387	3,355	9,892	311	700,412

**JUDICIAL RETIREMENT FUND
DEDUCTIONS BY TYPE**

Fiscal Year	Benefit Payments	Contribution Refunds & Death Benefits	Service Transfers	Administrative Expenses	Depreciation	Total
2017	\$ 32,807	\$ 353	\$ -	\$ 334	\$ -	\$ 33,494
2016	30,893	115	-	397	-	31,405
2015	30,348	100	55	356	-	30,859
2014	29,826	54	1	281	-	30,162
2013	29,112	196	-	280	-	29,588
2012	27,183	253	-	257	-	27,693
2011	26,379	34	-	276	-	26,689
2010	24,526	235	-	317	-	25,078
2009	23,821	145	68	552	-	24,586
2008	22,587	83	186	526	-	23,382

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Benefits by Type

Ten-Year History

(Amounts in Thousands)

TEACHERS' RETIREMENT SYSTEM

BENEFITS BY TYPE

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2017	\$ 1,971,017	\$ 75,812	\$ 65,001	\$ 13,142	\$ 42,492
2016	2,021,973	70,959	62,852	14,578	42,552
2015	1,947,983	66,636	60,683	14,095	43,965
2014	1,876,615	62,674	58,306	11,225	43,474
2013	1,778,541	58,669	56,111	11,684	44,207
2012	1,692,169	55,109	53,527	11,269	38,184
2011	1,571,682	51,873	50,326	13,174	36,130
2010	1,469,928	49,287	48,576	13,032	30,596
2009	1,419,727	46,085	46,448	12,293	30,044
2008	1,395,060	44,628	47,183	12,007	25,310

EMPLOYEES' RETIREMENT SYSTEM

BENEFITS BY TYPE

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2017	\$ 946,203	\$ 45,810	\$ 58,327	\$ 9,197	\$ 39,486
2016	937,752	43,376	57,389	8,842	36,926
2015	919,657	42,308	56,550	9,800	41,224
2014	855,857	39,488	53,133	9,687	38,250
2013	806,846	37,730	50,899	7,889	36,948
2012	763,881	36,161	48,422	8,969	31,777
2011	703,128	34,538	45,291	7,806	28,992
2010	649,532	33,009	43,119	8,994	24,874
2009	621,519	32,167	41,744	9,032	23,608
2008	584,391	30,827	40,249	9,188	22,199

JUDICIAL RETIREMENT FUND

BENEFITS BY TYPE

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2017	\$ 28,370	\$ 3,956	\$ 481	\$ 19	\$ 334
2016	26,556	3,850	487	10	105
2015	26,082	3,839	427	8	92
2014	25,796	3,703	327	-	54
2013	25,022	3,715	375	-	196
2012	23,307	3,501	375	-	253
2011	22,773	3,231	375	-	34
2010	20,763	3,388	375	-	235
2009	19,856	3,589	376	-	145
2008	18,807	3,387	393	-	83

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Teachers' Retirement System

Ten-Year History of Additions, Reductions, and Changes in Net Position

(Amounts in Thousands)

	2017	2016	2015	2014	2013
Additions					
Contributions					
Employee	\$ 486,542	\$ 472,390	\$ 473,903	\$ 477,300	\$ 474,241
Employer	782,695	751,902	737,671	739,547	627,892
Transfers from Employees' Retirement System	3,096	3,590	4,015	3,549	3,345
Transfers from Judicial Retirement Fund	-	-	-	-	-
Total Contributions	<u>1,272,333</u>	<u>1,227,882</u>	<u>1,215,589</u>	<u>1,220,396</u>	<u>1,105,478</u>
Investment Income					
From Investing Activities					
Net Increase/(Decrease) in Fair Value of Investments	2,021,774	1,589,279	(381,400)	1,853,288	2,090,646
Interest and Dividends	<u>613,353</u>	<u>607,795</u>	<u>640,910</u>	<u>618,861</u>	<u>638,766</u>
Total Investment Income from Investing Activities	2,635,127	2,197,074	259,510	2,472,149	2,729,412
Less: Investment Expenses, Net	<u>8,685</u>	<u>7,731</u>	<u>6,407</u>	<u>5,732</u>	<u>5,712</u>
Net Investment Income from Investing Activities	<u>2,626,442</u>	<u>2,189,343</u>	<u>253,103</u>	<u>2,466,417</u>	<u>2,723,700</u>
From Securities Lending Activities					
Securities Lending Income	20,125	15,930	11,512	9,629	12,753
Less Securities Lending Expenses:					
Borrower Rebates	7,350	2,825	365	65	401
Management Fees	<u>3,112</u>	<u>3,044</u>	<u>2,782</u>	<u>2,829</u>	<u>3,346</u>
Total Securities Lending Expenses	<u>10,462</u>	<u>5,869</u>	<u>3,147</u>	<u>2,894</u>	<u>3,747</u>
Net Income from Securities Lending Activities	<u>9,663</u>	<u>10,061</u>	<u>8,365</u>	<u>6,735</u>	<u>9,006</u>
Total Net Investment Income	<u>2,636,105</u>	<u>2,199,404</u>	<u>261,468</u>	<u>2,473,152</u>	<u>2,732,706</u>
Total Additions	<u>3,908,438</u>	<u>3,427,286</u>	<u>1,477,057</u>	<u>3,693,548</u>	<u>3,838,184</u>
Deductions					
Retirement Allowance Payments	2,111,830	2,155,784	2,075,302	1,997,595	1,893,321
Return of Contributions and Death Benefits	55,634	57,130	58,060	54,699	55,891
Transfers to Employees' Retirement System	3,413	6,223	3,432	2,880	1,823
Transfers to Judicial Retirement Fund	-	-	-	-	-
Administrative Expenses	16,390	14,873	15,074	13,103	12,591
Depreciation	<u>6,012</u>	<u>4,709</u>	<u>4,258</u>	<u>4,336</u>	<u>4,312</u>
Total Deductions	<u>2,193,279</u>	<u>2,238,719</u>	<u>2,156,126</u>	<u>2,072,613</u>	<u>1,967,938</u>
Net Increase/(Decrease)	1,715,159	1,188,567	(679,069)	1,620,935	1,870,246
Net Position Restricted for Pension Benefits					
Beginning of Year - as previously reported	22,936,298	21,747,731	22,441,307	20,820,372	18,950,126
Adjustment for Application of GASB 68	-	-	(14,507)	-	-
Beginning of Year - as adjusted	<u>22,936,298</u>	<u>21,747,731</u>	<u>22,426,800</u>	<u>20,820,372</u>	<u>18,950,126</u>
End of Year	<u>\$ 24,651,457</u>	<u>\$ 22,936,298</u>	<u>\$ 21,747,731</u>	<u>\$ 22,441,307</u>	<u>\$ 20,820,372</u>

	2012	2011	2010	2009	2008
Additions					
Contributions					
Employee	\$ 456,518	\$ 321,137	\$ 319,770	\$ 321,100	\$ 323,822
Employer	618,306	779,644	776,421	753,518	729,995
Transfers from Employees' Retirement System	2,016	2,059	-	2,606	3,182
Transfers from Judicial Retirement Fund	-	-	1,633	-	-
Total Contributions	1,076,840	1,102,840	1,097,824	1,077,224	1,056,999
Investment Income					
<i>From Investing Activities</i>					
Net Increase/(Decrease) in Fair Value of Investments	2,349,955	(278,407)	886,997	(2,083,048)	(4,057,823)
Interest and Dividends	634,695	624,546	559,941	580,656	705,555
Total Investment Income from Investing Activities	2,984,650	346,139	1,446,938	(1,502,392)	(3,352,268)
Less: Investment Expenses, Net	5,260	5,305	5,415	5,419	5,990
Net Investment Income from Investing Activities	2,979,390	340,834	1,441,523	(1,507,811)	(3,358,258)
<i>From Securities Lending Activities</i>					
Securities Lending Income	13,670	15,643	12,519	33,782	83,588
Less Securities Lending Expenses:					
Borrower Rebates	433	1,261	2,820	6,685	57,695
Management Fees	3,465	3,251	2,910	4,412	4,332
Total Securities Lending Expenses	3,898	4,512	5,730	11,097	62,027
Net Income from Securities Lending Activities	9,772	11,131	6,789	22,685	21,561
Total Net Investment Income	2,989,162	351,965	1,448,312	(1,485,126)	(3,336,697)
Total Additions	4,066,002	1,454,805	2,546,136	(407,902)	(2,279,698)
Deductions					
Retirement Allowance Payments	1,800,805	1,673,881	1,567,790	1,512,260	1,486,871
Return of Contributions and Death Benefits	49,453	49,304	43,628	42,337	37,317
Transfers to Employees' Retirement System	1,937	2,012	1,790	1,767	1,683
Transfers to Judicial Retirement Fund	-	-	-	-	-
Administrative Expenses	11,555	10,820	11,979	11,005	12,216
Depreciation	4,344	4,243	4,264	4,128	578
Total Deductions	1,868,094	1,740,260	1,629,451	1,571,497	1,538,665
Net Increase/(Decrease)	2,197,908	(285,455)	916,685	(1,979,399)	(3,818,363)
Net Position Restricted for Pension Benefits					
Beginning of Year - as previously reported	16,752,218	17,037,673	16,120,988	18,100,387	21,918,750
Adjustment for Application of GASB 68	-	-	-	-	-
Beginning of Year - as adjusted	16,752,218	17,037,673	16,120,988	18,100,387	21,918,750
End of Year	\$ 18,950,126	\$ 16,752,218	\$ 17,037,673	\$ 16,120,988	\$ 18,100,387

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Employees' Retirement System

Ten-Year History of Additions, Reductions, and Changes in Net Position

(Amounts in Thousands)

	2017	2016	2015	2014	2013
Additions					
Contributions					
Employee	\$ 230,488	\$ 231,794	\$ 225,767	\$ 223,135	\$ 221,823
Employer	426,215	435,098	410,932	391,181	338,819
Transfers from Teachers' Retirement System	3,413	6,223	3,432	2,880	1,823
Transfers from Judicial Retirement Fund	-	-	55	1	-
Total Contributions	660,116	673,115	640,186	617,197	562,465
Investment Income					
<i>From Investing Activities</i>					
Net Increase/(Decrease) in Fair Value of Investments	1,098,859	753,836	(186,154)	888,303	984,714
Interest and Dividends	302,295	297,369	311,516	298,049	310,220
Total Investment Income from Investing Activities	1,401,154	1,051,205	125,362	1,186,352	1,294,934
Less: Investment Expenses, Net	3,305	2,883	2,771	2,766	2,549
Net Investment Income from Investing Activities	1,397,849	1,048,322	122,591	1,183,586	1,292,385
<i>From Securities Lending Activities</i>					
Securities Lending Income	9,127	7,481	5,353	4,199	5,780
Less Securities Lending Expenses:					
Borrower Rebates	3,424	1,356	164	21	186
Management Fees	1,389	1,416	1,290	1,235	1,519
Total Securities Lending Expenses	4,813	2,772	1,454	1,256	1,705
Net Income from Securities Lending Activities	4,314	4,709	3,899	2,943	4,075
Total Net Investment Income	1,402,163	1,053,031	126,490	1,186,529	1,296,460
Total Additions	2,062,279	1,726,146	766,676	1,803,726	1,858,925
Deductions					
Retirement Allowance Payments	1,050,340	1,038,517	1,018,515	948,478	895,475
Return of Contributions and Death Benefits	47,683	45,768	51,024	47,937	44,837
Unit Withdrawals	1,000	-	-	-	-
Transfers to Teachers' Retirement System	3,096	3,590	4,015	3,549	3,345
Transfers to Judicial Retirement Fund	261	78	44	83	242
Administrative Expenses	11,982	11,002	11,136	9,612	9,767
Depreciation	2,520	2,021	2,046	2,055	2,015
Total Deductions	1,116,882	1,100,976	1,086,780	1,011,714	955,681
Net Increase/(Decrease)	945,397	625,170	(320,104)	792,012	903,244
Net Position Restricted for Pension Benefits					
Beginning of Year - as previously reported	11,177,074	10,551,904	10,883,952	10,091,940	9,188,696
Adjustment for Application of GASB 68	-	-	(11,944)	-	-
Beginning of Year - as adjusted	11,177,074	10,551,904	10,872,008	10,091,940	9,188,696
End of Year	<u>\$ 12,122,471</u>	<u>\$ 11,177,074</u>	<u>\$ 10,551,904</u>	<u>\$ 10,883,952</u>	<u>\$ 10,091,940</u>

	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>
Additions					
Contributions					
Employee	\$ 214,933	\$ 193,697	\$ 194,968	\$ 208,446	\$ 189,785
Employer	317,520	394,998	377,898	451,139	329,339
Transfers from Teachers' Retirement System	1,937	2,012	1,790	1,767	1,683
Transfers from Judicial Retirement Fund	-	-	-	68	186
Total Contributions	<u>534,390</u>	<u>590,707</u>	<u>574,656</u>	<u>661,420</u>	<u>520,993</u>
Investment Income					
<i>From Investing Activities</i>					
Net Increase/(Decrease) in Fair Value of Investments	1,114,737	(112,758)	427,365	(1,180,523)	(1,919,746)
Interest and Dividends	310,748	307,152	268,667	285,022	339,578
Total Investment Income from Investing Activities	<u>1,425,485</u>	<u>194,394</u>	<u>696,032</u>	<u>(895,501)</u>	<u>(1,580,168)</u>
Less: Investment Expenses, Net	<u>2,256</u>	<u>2,308</u>	<u>2,398</u>	<u>2,651</u>	<u>3,747</u>
Net Investment Income from Investing Activities	<u>1,423,229</u>	<u>192,086</u>	<u>693,634</u>	<u>(898,152)</u>	<u>(1,583,915)</u>
<i>From Securities Lending Activities</i>					
Securities Lending Income	6,445	6,891	5,619	15,335	38,458
Less Securities Lending Expenses:					
Borrower Rebates	174	517	1,271	3,070	26,649
Management Fees	<u>1,642</u>	<u>1,521</u>	<u>1,305</u>	<u>1,994</u>	<u>1,988</u>
Total Securities Lending Expenses	<u>1,816</u>	<u>2,038</u>	<u>2,576</u>	<u>5,064</u>	<u>28,637</u>
Net Income from Securities Lending Activities	<u>4,629</u>	<u>4,853</u>	<u>3,043</u>	<u>10,271</u>	<u>9,821</u>
Total Net Investment Income	<u>1,427,858</u>	<u>196,939</u>	<u>696,677</u>	<u>(887,881)</u>	<u>(1,574,094)</u>
Total Additions	<u>1,962,248</u>	<u>787,646</u>	<u>1,271,333</u>	<u>(226,461)</u>	<u>(1,053,101)</u>
Deductions					
Retirement Allowance Payments	848,464	782,957	725,660	695,430	655,467
Return of Contributions and Death Benefits	40,746	36,798	33,868	32,640	31,387
Unit Withdrawals	-	-	-	14	-
Transfers to Teachers' Retirement System	2,016	2,059	1,633	2,606	3,182
Transfers to Judicial Retirement Fund	164	98	-	98	173
Administrative Expenses	10,616	10,002	10,334	9,413	9,892
Depreciation	<u>1,981</u>	<u>2,029</u>	<u>2,111</u>	<u>2,038</u>	<u>311</u>
Total Deductions	<u>903,987</u>	<u>833,943</u>	<u>773,606</u>	<u>742,239</u>	<u>700,412</u>
Net Increase/(Decrease)	<u>1,058,261</u>	<u>(46,297)</u>	<u>497,727</u>	<u>(968,700)</u>	<u>(1,753,513)</u>
Net Position Restricted for Pension Benefits					
Beginning of Year - as previously reported	8,130,435	8,176,732	7,679,005	8,647,705	10,401,218
Adjustment for Application of GASB 68	-	-	-	-	-
Beginning of Year - as adjusted	<u>8,130,435</u>	<u>8,176,732</u>	<u>7,679,005</u>	<u>8,647,705</u>	<u>10,401,218</u>
End of Year	<u>\$ 9,188,696</u>	<u>\$ 8,130,435</u>	<u>\$ 8,176,732</u>	<u>\$ 7,679,005</u>	<u>\$ 8,647,705</u>

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Judicial Retirement Fund

Ten-Year History of Additions, Reductions, and Changes in Net Position

(Amounts in Thousands)

	2017	2016	2015	2014	2013
Additions					
Contributions					
Employee	\$ 3,711	\$ 3,645	\$ 3,639	\$ 3,681	\$ 3,677
Employer	17,373	17,529	15,077	15,790	13,903
Transfers from Teachers' Retirement System	-	-	-	-	-
Transfers from Employees' Retirement System	261	78	44	83	242
Total Contributions	<u>21,345</u>	<u>21,252</u>	<u>18,760</u>	<u>19,554</u>	<u>17,822</u>
Investment Income					
From Investing Activities					
Net Increase/(Decrease) in Fair Value of Investments	25,639	21,302	(7,695)	24,197	25,207
Interest and Dividends	6,910	6,865	6,698	7,030	6,912
Total Investment Income from Investing Activities	<u>32,549</u>	<u>28,167</u>	<u>(997)</u>	<u>31,227</u>	<u>32,119</u>
Less: Investment Expenses, Net	-	-	-	-	-
Net Investment Income from Investing Activities	<u>32,549</u>	<u>28,167</u>	<u>(997)</u>	<u>31,227</u>	<u>32,119</u>
From Securities Lending Activities					
Securities Lending Income	270	258	195	167	184
Less Securities Lending Expenses:					
Borrower Rebates	90	58	7	1	10
Management Fees	44	46	47	49	48
Total Securities Lending Expenses	<u>134</u>	<u>104</u>	<u>54</u>	<u>50</u>	<u>58</u>
Net Income from Securities Lending Activities	<u>136</u>	<u>154</u>	<u>141</u>	<u>117</u>	<u>126</u>
Total Investment Income	<u>32,685</u>	<u>28,321</u>	<u>(856)</u>	<u>31,344</u>	<u>32,245</u>
Total Additions	<u>54,030</u>	<u>49,573</u>	<u>17,904</u>	<u>50,898</u>	<u>50,067</u>
Deductions					
Retirement Allowance Payments	32,807	30,893	30,348	29,826	29,112
Return of Contributions and Death Benefits	353	115	100	54	196
Transfers to Employees' Retirement System	-	-	55	1	-
Transfers to Teachers' Retirement System	-	-	-	-	-
Administrative Expenses	334	397	356	281	280
Total Deductions	<u>33,494</u>	<u>31,405</u>	<u>30,859</u>	<u>30,162</u>	<u>29,588</u>
Net Increase/(Decrease)	20,536	18,168	(12,955)	20,736	20,479
Net Position Restricted for Pension Benefits					
Beginning of Year - as previously reported	282,042	263,874	277,096	256,360	235,881
Adjustment for Application of GASB 68	-	-	(267)	-	-
Beginning of Year - as adjusted	<u>282,042</u>	<u>263,874</u>	<u>276,829</u>	<u>256,360</u>	<u>235,881</u>
End of Year	<u>\$ 302,578</u>	<u>\$ 282,042</u>	<u>\$ 263,874</u>	<u>\$ 277,096</u>	<u>\$ 256,360</u>

	2012	2011	2010	2009	2008
Additions					
Contributions					
Employee	\$ 3,517	\$ 2,556	\$ 2,566	\$ 2,603	\$ 2,534
Employer	10,747	10,906	10,814	10,326	9,880
Transfers from Teachers' Retirement System	-	-	-	-	-
Transfers from Employees' Retirement System	164	98	-	98	173
Total Contributions	<u>14,428</u>	<u>13,560</u>	<u>13,380</u>	<u>13,027</u>	<u>12,587</u>
Investment Income					
<i>From Investing Activities</i>					
Net Increase/(Decrease) in Fair Value of Investments	32,112	(4,961)	15,287	(6,612)	(46,910)
Interest and Dividends	6,748	6,853	6,551	7,026	8,206
Total Investment Income from Investing Activities	<u>38,860</u>	<u>1,892</u>	<u>21,838</u>	<u>414</u>	<u>(38,704)</u>
Less: Investment Expenses, Net	-	-	-	11	8
Net Investment Income from Investing Activities	<u>38,860</u>	<u>1,892</u>	<u>21,838</u>	<u>403</u>	<u>(38,712)</u>
<i>From Securities Lending Activities</i>					
Securities Lending Income	215	201	169	543	1,765
Less Securities Lending Expenses:					
Borrower Rebates	12	22	45	119	1,298
Management Fees	52	49	37	69	77
Total Securities Lending Expenses	<u>64</u>	<u>71</u>	<u>82</u>	<u>188</u>	<u>1,375</u>
Net Income from Securities Lending Activities	<u>151</u>	<u>130</u>	<u>87</u>	<u>355</u>	<u>390</u>
Total Investment Income	<u>39,011</u>	<u>2,022</u>	<u>21,925</u>	<u>758</u>	<u>(38,322)</u>
Total Additions	<u>53,439</u>	<u>15,582</u>	<u>35,305</u>	<u>13,785</u>	<u>(25,735)</u>
Deductions					
Retirement Allowance Payments	27,183	26,379	24,526	23,821	22,587
Return of Contributions and Death Benefits	253	34	235	145	83
Transfers to Employees' Retirement System	-	-	-	68	186
Transfers to Teachers' Retirement System	-	-	-	-	-
Administrative Expenses	257	276	317	552	526
Total Deductions	<u>27,693</u>	<u>26,689</u>	<u>25,078</u>	<u>24,586</u>	<u>23,382</u>
Net Increase/(Decrease)	25,746	(11,107)	10,227	(10,801)	(49,117)
Net Position Restricted for Pension Benefits					
Beginning of Year - as previously reported	210,135	221,242	211,015	221,816	270,933
Adjustment for Application of GASB 68	-	-	-	-	-
Beginning of Year - as adjusted	<u>210,135</u>	<u>221,242</u>	<u>211,015</u>	<u>221,816</u>	<u>270,933</u>
End of Year	<u>\$ 235,881</u>	<u>\$ 210,135</u>	<u>\$ 221,242</u>	<u>\$ 211,015</u>	<u>\$ 221,816</u>

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Teachers' Retirement System

Retired Members by Type of Benefit as of September 30, 2016

Amount of Monthly Benefit	Number of Retirants	Type of Retirement ¹			Option Selected ²					
		A	B	C	Maximum	Opt-1	Opt-2	Opt-3	Opt-4	
\$ 1 - 250	1,429	882	392	155	276	330	439	383	1	
251 - 500	8,777	6,429	860	1,488	2,588	3,489	1,618	1,078	4	
501 - 750	8,675	6,925	660	1,090	2,308	3,601	1,698	1,063	5	
751 - 1,000	7,322	5,980	577	765	1,818	3,027	1,429	1,043	5	
1,001 - 1,250	6,252	5,156	460	636	1,303	2,506	1,463	977	3	
1,251 - 1,500	5,786	4,850	415	521	1,168	2,210	1,518	889	1	
1,501 - 1,750	7,003	6,293	310	400	1,266	2,994	1,810	930	3	
1,751 - 2,000	8,849	8,328	241	280	1,568	4,100	1,949	1,228	4	
2,001 - 2,250	8,799	8,467	187	145	1,369	4,215	2,034	1,178	3	
2,251 - 2,500	7,045	6,826	139	80	1,104	3,434	1,598	905	4	
2,501 - 2,750	5,135	4,984	101	50	773	2,458	1,234	670	-	
2,751 - 3,000	3,721	3,610	85	26	549	1,685	938	547	2	
3,001 - 3,250	2,803	2,714	76	13	384	1,237	763	415	4	
3,251 - 3,500	2,091	2,026	59	6	294	885	596	315	1	
3,501 - 3,750	1,611	1,562	44	5	222	679	489	218	3	
3,751 - 4,000	1,254	1,218	32	4	183	542	333	191	5	
4,001 - 4,250	1,062	1,031	30	1	156	459	278	167	2	
4,251 - 4,500	786	762	22	2	98	320	235	130	3	
4,501 - 4,750	584	571	13	-	75	231	172	105	1	
4,751 - 5,000	491	481	10	-	64	194	155	76	2	
Over	5,000	2,099	2,032	62	5	261	675	754	394	15
Totals	91,574	81,127	4,775	5,672	17,827	39,271	21,503	12,902	71	

¹ Type of Retirement

- A - Service
- B - Survivor Benefit
- C - Disability

² Option

- Maximum - Life Annuity
- Opt-1 - Cash Refund
- Opt-2 - 100% Joint Survivorship
- Opt-3 - 50% Joint Survivorship
- Opt-4 - Other

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Employees' Retirement System

Retired Members by Type of Benefit as of September 30, 2016

	Amount of Monthly Benefit	Number of Retirants	Type of Retirement ¹			Option Selected ²				
			A	B	C	Maximum	Opt-1	Opt-2	Opt-3	Opt-4
\$	1 - 250	352	150	187	15	66	34	65	176	11
	251 - 500	3,661	2,329	941	391	963	923	853	863	59
	501 - 750	5,014	3,445	738	831	1,555	1,579	937	844	99
	751 - 1,000	4,731	3,327	534	870	1,473	1,603	764	804	87
	1,001 - 1,250	5,178	4,071	403	704	1,258	1,967	982	857	114
	1,251 - 1,500	4,666	3,888	309	469	1,066	1,848	956	716	80
	1,501 - 1,750	4,322	3,785	216	321	916	1,709	889	733	75
	1,751 - 2,000	3,904	3,571	118	215	772	1,643	725	705	59
	2,001 - 2,250	3,259	3,044	75	140	654	1,243	713	602	47
	2,251 - 2,500	2,696	2,518	73	105	521	1,091	587	458	39
	2,501 - 2,750	2,164	2,045	49	70	390	878	481	383	32
	2,751 - 3,000	1,703	1,629	41	33	303	680	365	327	28
	3,001 - 3,250	1,436	1,382	33	21	255	615	285	265	16
	3,251 - 3,500	1,006	975	17	14	174	420	203	190	19
	3,501 - 3,750	813	797	8	8	151	344	161	145	12
	3,751 - 4,000	582	567	8	7	103	259	100	109	11
	4,001 - 4,250	470	464	4	2	70	208	99	82	11
	4,251 - 4,500	354	343	6	5	62	147	78	64	3
	4,501 - 4,750	292	286	6	-	50	118	66	54	4
	4,751 - 5,000	235	229	4	2	49	88	42	51	5
	Over 5,000	911	900	8	3	172	371	161	196	11
	Totals ³	47,749	39,745	3,778	4,226	11,023	17,768	9,512	8,624	822

¹ Type of Retirement

- A - Service
- B - Survivor Benefit
- C - Disability

² Option

- Maximum - Life Annuity
- Opt-1 - Cash Refund
- Opt-2 - 100% Joint Survivorship
- Opt-3 - 50% Joint Survivorship
- Opt-4 - Other

³ Does not include 36 pensioners entitled to deferred benefits, but not currently in receipt.

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Judicial Retirement Fund

Retired Members by Type of Benefit as of September 30, 2016

Amount of Monthly Benefit	Number of Retirants	Type of Retirement †			Option	
		A	B	C	Maximum	Joint Survivorship
\$ 1 - 250	-	-	-	-	-	-
251 - 500	1	-	1	-	1	-
501 - 750	1	-	1	-	1	-
751 - 1,000	5	-	4	1	5	-
1,001 - 1,250	4	-	4	-	4	-
1,251 - 1,500	10	-	10	-	10	-
1,501 - 1,750	7	1	6	-	6	1
1,751 - 2,000	6	-	6	-	6	-
2,001 - 2,250	3	-	3	-	3	-
2,251 - 2,500	1	-	1	-	1	-
2,501 - 2,750	2	-	2	-	2	-
2,751 - 3,000	5	1	3	1	5	-
3,001 - 3,250	5	2	3	-	3	2
3,251 - 3,500	17	4	13	-	13	4
3,501 - 3,750	43	1	42	-	43	-
3,751 - 4,000	1	1	-	-	1	-
4,001 - 4,250	4	4	-	-	1	3
4,251 - 4,500	6	5	1	-	3	3
4,501 - 4,750	12	7	4	1	6	6
4,751 - 5,000	13	7	6	-	6	7
Over 5,000	238	234	-	4	41	197
Totals	384	267	110	7	161	223

† Type of Retirement

A - Service

B - Survivor Benefit

C - Disability

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Teachers' Retirement System

Ten-Year History of Average Monthly Benefit Payments as of September 30

	Years Credited Service				
	10-14	15-19	20-24	25-29	30 & over
2016					
Average monthly benefit	\$ 790	\$ 1,276	\$ 1,679	\$ 2,448	\$ 3,558
Average final average salary	\$ 41,166	\$ 46,315	\$ 47,377	\$ 57,439	\$ 66,923
Number of active retirants	950	646	626	1,456	502
2015					
Average monthly benefit	\$ 822	\$ 1,189	\$ 1,731	\$ 2,340	\$ 3,350
Average final average salary	\$ 42,410	\$ 42,982	\$ 49,065	\$ 54,854	\$ 63,017
Number of active retirants	934	667	650	1,476	529
2014					
Average monthly benefit	\$ 790	\$ 1,273	\$ 1,675	\$ 2,374	\$ 3,236
Average final average salary	\$ 40,969	\$ 46,200	\$ 47,036	\$ 56,099	\$ 60,273
Number of active retirants	855	656	633	1,397	364
2013					
Average monthly benefit	\$ 810	\$ 1,201	\$ 1,653	\$ 2,325	\$ 3,204
Average final average salary	\$ 41,846	\$ 43,291	\$ 46,143	\$ 55,080	\$ 59,738
Number of active retirants	879	676	600	1,216	278
2012					
Average monthly benefit	\$ 733	\$ 1,151	\$ 1,644	\$ 2,288	\$ 2,896
Average final average salary	\$ 37,417	\$ 41,518	\$ 46,432	\$ 53,707	\$ 54,443
Number of active retirants	951	643	638	1,411	493
2011					
Average monthly benefit	\$ 721	\$ 1,230	\$ 1,660	\$ 2,448	\$ 3,362
Average final average salary	\$ 36,580	\$ 43,817	\$ 47,340	\$ 58,430	\$ 64,558
Number of active retirants	797	595	632	1,674	732
2010					
Average monthly benefit	\$ 691	\$ 1,140	\$ 1,596	\$ 2,309	\$ 3,206
Average final average salary	\$ 36,194	\$ 41,368	\$ 45,033	\$ 55,481	\$ 61,883
Number of active retirants	721	499	520	1,701	847
2009					
Average monthly benefit	\$ 693	\$ 1,099	\$ 1,533	\$ 2,229	\$ 3,089
Average final average salary	\$ 35,464	\$ 39,601	\$ 43,549	\$ 53,066	\$ 59,139
Number of active retirants	632	476	432	1,726	770
2008					
Average monthly benefit	\$ 687	\$ 1,063	\$ 1,463	\$ 2,124	\$ 3,010
Average final average salary	\$ 34,769	\$ 38,493	\$ 41,345	\$ 50,504	\$ 57,764
Number of active retirants	699	504	443	1,538	843
2007					
Average monthly benefit	\$ 650	\$ 1,044	\$ 1,490	\$ 2,001	\$ 2,791
Average final average salary	\$ 32,988	\$ 37,638	\$ 42,325	\$ 47,239	\$ 53,602
Number of active retirants	589	533	407	1,539	798

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Employees' Retirement System

Ten-Year History of Average Monthly Benefit Payments as of September 30

	Years Credited Service				
	10-14	15-19	20-24	25-29	30 & over
2016					
Average monthly benefit	\$ 756	\$ 1,212	\$ 1,655	\$ 2,349	\$ 3,341
Average final average salary	\$ 39,679	\$ 44,655	\$ 47,798	\$ 54,386	\$ 61,838
Number of active retirants	516	340	357	852	425
2015					
Average monthly benefit	\$ 714	\$ 1,182	\$ 1,726	\$ 2,398	\$ 3,379
Average final average salary	\$ 38,049	\$ 43,986	\$ 48,618	\$ 55,372	\$ 62,969
Number of active retirants	548	384	334	808	364
2014					
Average monthly benefit	\$ 737	\$ 1,144	\$ 1,676	\$ 2,326	\$ 3,258
Average final average salary	\$ 38,296	\$ 42,040	\$ 48,423	\$ 54,092	\$ 60,078
Number of active retirants	532	319	316	725	337
2013					
Average monthly benefit	\$ 718	\$ 1,257	\$ 1,738	\$ 2,392	\$ 3,236
Average final average salary	\$ 37,933	\$ 46,357	\$ 49,200	\$ 54,929	\$ 59,595
Number of active retirants	537	385	321	661	337
2012					
Average monthly benefit	\$ 723	\$ 1,214	\$ 1,856	\$ 2,475	\$ 3,170
Average final average salary	\$ 38,160	\$ 43,479	\$ 49,415	\$ 54,904	\$ 58,675
Number of active retirants	566	370	486	757	283
2011					
Average monthly benefit	\$ 728	\$ 1,230	\$ 1,871	\$ 2,423	\$ 3,207
Average final average salary	\$ 38,584	\$ 43,878	\$ 49,583	\$ 55,598	\$ 59,990
Number of active retirants	529	341	434	975	459
2010					
Average monthly benefit	\$ 667	\$ 1,144	\$ 1,819	\$ 2,386	\$ 3,054
Average final average salary	\$ 35,383	\$ 41,444	\$ 48,399	\$ 55,257	\$ 57,575
Number of active retirants	399	316	366	954	420
2009					
Average monthly benefit	\$ 1,399	\$ 1,449	\$ 1,661	\$ 2,064	\$ 2,764
Average final average salary	\$ 40,605	\$ 39,986	\$ 37,807	\$ 47,298	\$ 46,613
Number of active retirants	700	436	345	772	428
2008					
Average monthly benefit	\$ 1,443	\$ 1,389	\$ 1,765	\$ 1,982	\$ 2,767
Average final average salary	\$ 43,159	\$ 42,731	\$ 44,673	\$ 47,099	\$ 53,152
Number of active retirants	566	346	262	670	322
2007					
Average monthly benefit	\$ 1,331	\$ 1,288	\$ 1,592	\$ 1,975	\$ 2,650
Average final average salary	\$ 40,544	\$ 41,247	\$ 43,439	\$ 46,209	\$ 51,484
Number of active retirants	601	318	230	761	334

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Judicial Retirement Fund

Ten-Year History of Average Monthly Benefit Payments as of September 30

	Years of Credited Service				
	10-14	15-19	20-24	25-29	30+
2016					
Average monthly benefit	\$ 6,928	\$ 8,952	\$ 9,293	\$ 8,204	\$ -
Average final average salary	\$ 110,854	\$ 143,234	\$ 148,686	\$ 131,271	\$ -
Number of active retirants	2	3	1	4	-
2015					
Average monthly benefit	\$ 8,692	\$ 9,043	\$ 9,319	\$ 9,332	\$ 8,202
Average final average salary	\$ 139,065	\$ 144,688	\$ 149,102	\$ 149,311	\$ 131,231
Number of active retirants	4	2	3	2	4
2014					
Average monthly benefit	\$ 8,528	\$ 9,158	\$ 9,051	\$ 9,371	\$ -
Average final average salary	\$ 136,441	\$ 146,529	\$ 144,812	\$ 149,936	\$ -
Number of active retirants	2	3	2	1	-
2013					
Average monthly benefit	\$ 7,458	\$ 8,297	\$ 9,128	\$ 9,216	\$ 7,224
Average final average salary	\$ 119,322	\$ 132,747	\$ 146,050	\$ 147,448	\$ 115,578
Number of active retirants	5	10	3	5	9
2012					
Average monthly benefit	\$ 6,993	\$ 9,184	\$ 9,371	\$ 7,230	\$ -
Average final average salary	\$ 111,884	\$ 146,937	\$ 149,936	\$ 115,676	\$ -
Number of active retirants	1	1	1	3	-
2011					
Average monthly benefit	\$ 7,940	\$ 8,658	\$ 8,381	\$ 9,170	\$ 10,897
Average final average salary	\$ 127,032	\$ 138,522	\$ 134,096	\$ 146,720	\$ 174,352
Number of active retirants	7	9	5	8	2
2010					
Average monthly benefit	\$ 6,796	\$ 8,819	\$ 9,319	\$ 7,147	\$ -
Average final average salary	\$ 108,736	\$ 141,102	\$ 149,104	\$ 114,352	\$ -
Number of active retirants	3	2	3	2	-
2009					
Average monthly benefit	\$ 7,247	\$ 7,899	\$ 8,020	\$ 9,899	\$ 10,750
Average final average salary	\$ 115,950	\$ 126,376	\$ 128,320	\$ 158,384	\$ 172,000
Number of active retirants	6	2	5	5	1
2008					
Average monthly benefit	\$ 7,189	\$ 5,741	\$ 9,054	\$ 8,993	\$ -
Average final average salary	\$ 115,028	\$ 91,863	\$ 144,864	\$ 143,888	\$ -
Number of active retirants	3	2	1	4	-
2007					
Average monthly benefit	\$ 6,761	\$ 8,167	\$ 7,786	\$ 6,486	\$ 7,507
Average final average salary	\$ 108,168	\$ 130,679	\$ 124,576	\$ 103,776	\$ 120,112
Number of active retirants	5	9	6	6	11

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Employees' Retirement System

Local Participating Employers

Abbeville Water Works & Sewer Board
Abbeville, City of
Adamsville, City of
Addison, Town of
Alabama Cooperative Extension System
Alabama Elk River Development Agency
Alabama Historic Ironworks Commission
Alabama League of Municipalities
Alabama Municipal Electric Authority
Alabama Rural Water Association
Alabama Space Science Exhibit Commission
Alabama Sports Hall of Fame
Alabama Tombigbee Regional Commission
Alabaster Water Board
Alabaster, City of
Albertville Housing Authority
Albertville Municipal Utilities Board
Albertville, City of
Alexander City Housing Authority
Alexander City, City of
Aliceville Housing Authority
Aliceville, City of
AltaPointe Health Systems
Altoona, Town of
Andalusia Housing Authority
Andalusia Utilities Board
Andalusia, City of
Anniston & Calhoun County Public Library
Anniston Housing Authority
Anniston Water Works & Sewer Board
Anniston, City of
Arab Housing Authority
Arab Sewer Board
Arab Water Works Board
Arab, Town of
Argo, Town of
Arley, Town of
Ashford Housing Authority
Ashland Housing Authority
Ashland Water Works & Sewer Board
Ashland, City of
Ashville, Town of
Association of County Commissioners of
Alabama
Athens Utilities
Athens, City of
Athens-Limestone County Emergency
Management Communications District
Athens-Limestone Public Library
Atmore Housing Authority
Atmore, City of
Attalla Housing Authority
Attalla Water Works Board
Attalla, City of
Auburn Housing Authority
Auburn Water Works Board
Auburn, City of
Autauga County Commission
Autauga County Emergency Management
Communication District
Autauga County Water Authority
Autauga-Prattville Public Library
B. B. Comer Memorial Library
Bakerhill Water Authority
Bakerhill, Town of
Baldwin County Commission
Baldwin County Emergency Communication
District
Baldwin County Sheriff's Office
Baldwin County Soil & Water Conservation
District
Barbour County Commission
Bay Minette Housing Authority
Bay Minette, City of
Bayou La Batre Utilities Board
Bayou La Batre, City of
Bear Creek Development Authority
Bear Creek Water Works Board
Bear Creek, Town of
Beatrice, Town of
Beauregard Water Authority
Berry, Town of
Bessemer, City of
Beulah Utilities District
Bibb County Commission
Bibb County Emergency Management
Communication District
Big Wills Water Authority
Billingsley, Town of
Birmingham Racing Commission
Birmingham Regional Planning Commission
Birminghamport Fire District
Black Warrior Solid Waste Disposal Authority
Blount County Commission
Blount County Communications District
Blount County Industrial Development Board
Blount County Water Authority
Blountsville Utility Board
Blountsville, Town of
Boaz Board of Water & Sewer Commissioners
Boaz, City of
Boldo Water & Fire Protection Authority

Boston Housing Authority
Brantley Housing Authority
Brent Housing Authority
Brent, City of
Brewton Housing Authority
Brewton, City of
Bridgeport Housing Authority
Bridgeport Utilities Board
Bridgeport, City of
Brilliant, Town of
Brookwood, Town of
Brundidge, City of
Buhl-Elrod-Holman Water Authority
Bullock County Commission
Butler County Commission
Butler County Emergency Communication
District
Butler, City of
Cahaba Center for Mental Health & Mental
Retardation
Cahaba Valley Fire & Emergency Medical
Rescue District
Calera, City of
Calhoun County 9-1-1 District
Calhoun County Commission
Calhoun County Community Punishment &
Corrections Authority
Calhoun County Economic Development
Council
Calhoun County Water & Fire Protection
Authority
Calhoun-Cleburne Mental Health Board
Camden, City of
Camp Hill, City of
Carbon Hill Utilities Board
Carbon Hill, City of
Carl Elliott Regional Library
Carroll's Creek Water Authority
Carrollton, Town of
Castleberry, Town of
Cedar Bluff Utilities Board & Solid Waste
Authority
Cedar Bluff, Town of
Center Point Fire District
Center Point, City of
Central Alabama Aging Consortium
Central Alabama Regional Planning &
Development Commission
Central Alabama Youth Services
Central Elmore Water & Sewer Authority
Central Talladega County Water District

Centre Water Works & Sewer Board
Centre, City of
Centreville, City of
Chambers County Commission
Chambers County Development Authority
Chambers County Emergency Management
Communications District
Chambers County Library Board
Chatom, City of
Chelsea, City of
Cherokee County Commission
Cherokee County Water & Sewer Authority
Cherokee, Town of
Chickasaw Housing Authority
Chickasaw Utilities Board
Chickasaw, Town of
Childersburg Water Works, Sewer & Gas Board
Childersburg, City of
Chilton County Commission
Chilton County Soil & Water Conservation
District
Chilton Water Authority
Chilton/Clanton Public Library
Chilton-Shelby Mental Health Center
Choctaw County Emergency Communications
District
Citizenship Trust American Village
Clanton Housing Authority
Clanton Water Works & Sewer Board
Clanton, City of
Clarke County Commission
Clarke County Industrial Development Board
Clarke County Soil & Water Conservation
District
Clarke-Mobile Counties Gas District
Clay County Commission
Clay County E911
Clay County Water Authority
Clayton Housing Authority
Clayton Water Works & Sewer Board
Clayton, City of
Cleburne County Commission
Cleveland, Town of
Coaling Water Authority
Coaling, Town of
Coffee County Commission
Coffee County Water Authority
Coffeeville, Town of
Coker Water Authority
Colbert County Commission

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Employees' Retirement System

Local Participating Employers

Colbert County Emergency Management Communications District	Dadeville, Waterworks and Sewer Board of Dale County Commission
Colbert County Tourism & Convention Bureau	Dale County Water Authority
Collinsville Water Works & Sewer Board	Daleville Housing Authority
Collinsville, City of	Daleville, City of
Columbia, Town of	Dallas County Commission
Columbiana Housing Authority	Dallas County Water & Sewer Authority
Columbiana Water Works Board	Daphne Utilities Board
Columbiana, Town of	Daphne, City of
Concord Fire District	Dauphin Island Park & Beach Board
Conecuh County Commission	Dauphin Island Water & Sewer Authority
Conecuh County E911	Dauphin Island, Town of
Conecuh County Soil & Water Conservation District	Decatur Utilities
Cook Springs Water Authority	Decatur, City of
Cooperative District for Northeast Alabama Gas	DeKalb County Commission
Coosa County Commission	DeKalb County Economic Development Authority
Coosa County Emergency Communication Management Board	DeKalb County Emergency Communications District
Coosa Valley Youth Services	DeKalb County Hospital Association
Coosada, Town of	DeKalb County Mental Retardation Board
Cordova Water & Gas Board	DeKalb County Soil & Water Conservation District
Cordova, City of	DeKalb-Cherokee Counties Gas District
Cottonwood Housing Authority	DeKalb-Jackson Water Supply District Board
Cottonwood, City of	Demopolis Housing Authority
Courtland, Town of	Demopolis Water Works & Sewer Board
Covington County Commission	Demopolis, City of
Covington County E911 Board	Dora Waterworks & Gas Board
Covington County Water Authority	Dora, City of
Cowarts, Town of	Dothan, City of
Crenshaw County Commission	Dothan-Houston County Intellectual Disabilities Board
Crenshaw County Emergency Communications District	Dothan-Houston County Communications District
Creola, City of	Double Springs Water Works Board
Crossville, Town of	Double Springs, Town of
Cuba, Town of	Douglas Water Authority
Cullman Area Mental Health Authority	Douglas, Town of
Cullman County Center for the Developmentally Disabled	Dutton, Town of
Cullman County Commission	East Alabama Mental Health-Mental Retardation Board
Cullman County E-911	East Alabama Regional Planning & Development Commission
Cullman County Soil & Water Conservation District	East Alabama Water, Sewer & Fire Protection District
Cullman Power Board	East Brewton Water Works & Sewer Board
Cullman, City of	East Brewton, City of
Cullman-Jefferson Counties Gas District	East Central Alabama Gas District
Cumberland Mountain Water Authority	East Central Baldwin County Water & Fire Protection Authority
Curry Water Authority	
CWM Water Authority	
Dadeville Housing Authority	
Dadeville Water Supply & Gas Board	
Dadeville, City of	

East Lauderdale County Water & Fire Protection Authority
Eclectic, Town of
Elba Water & Electric Board
Elba, City of
Elberta, City of
Electric Cities of Alabama
Elmore County Commission
Elmore County Emergency Communications District
Elmore Water & Sewer Authority
Enterprise Housing Authority
Enterprise Water Works Board
Enterprise, City of
Ernest F. Ladd Memorial Stadium
Escambia County Commission
Escambia County Cooperative Library System
Escambia County Emergency Communications District
Etowah County Commission
Etowah County Communications District
Etowah County Community Corrections
Etowah County Tourism Board
Etowah Solid Waste Disposal Authority
Eufaula Housing Authority
Eufaula Water Works & Sewer Board
Eufaula, City of
Eutaw, City of
Evergreen Housing Authority
Evergreen, City of
Excel, Town of
Fairfield, City of
Fairhope Public Library
Fairhope, City of
Falkville, Town of
Fayette County Commission
Fayette County E911 District
Fayette County Water Authority
Fayette Gas Board
Fayette Housing Authority
Fayette Water Works Board
Fayette, City of
Fayetteville Water Authority
Five Star Water Supply District
Flomaton, Town of
Florence Housing Authority
Florence Lauderdale Port Authority
Florence/Lauderdale Tourism Board
Foley Utilities Board
Foley, City of
Forestdale Fire District

Fort Deposit Water Works & Sewer Board
Fort Deposit, Town of
Fort Payne Housing Authority
Fort Payne Improvement Authority
Fort Payne Water Works Board
Fort Payne, City of
Fosters-Ralph Water Authority
Franklin County Commission
Franklin County Soil & Water Conservation District
Franklin County Water Service Authority
Frisco City, Town of
Fultondale Gas Board
Fultondale, Town of
Fyffe, Town of
Gadsden Water Works & Sewer Board
Gadsden, City of
Gantt, Town of
Garden Town, Town of
Gardendale, City of
Geneva County Commission
Geneva County E911
Geneva Water Works & Sewer Board
Geneva, City of
Georgiana Housing Authority
Georgiana, City of
Geraldine, Town of
Gilbertown Utilities Board
Gilbertown, Town of
Glencoe Water & Sewer Board
Glencoe, City of
Good Hope, City of
Goodwater, City of
Gordo, City of
Governmental Utility Services Corporation of Moody
Governmental Utility Services Corporation of the City of Bessemer
Grant, Town of
Graysville Public Library
Graysville, City of
Greater Etowah Mental Retardation 310 Board
Greene County Ambulance Service
Greene County Commission
Greene County E911 Communication District
Greene County Hospital & Nursing Home
Greene County Housing Authority
Greene County Industrial Development Authority
Greene County Racing Commission
Greenhill Water & Fire Protection Authority

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Employees' Retirement System

Local Participating Employers

Greensboro Housing Authority
Greensboro, City of
Greenville Housing Authority
Greenville Water Works & Sewer Board
Greenville, City of
Grove Hill, City of
Guin Housing Authority
Guin Water Works & Sewer Board
Guin, City of
Gulf Shores Utilities Board
Gulf Shores, City of
Guntersville Electric Board
Guntersville Housing Authority
Guntersville Water Works & Sewer Board
Guntersville, City of
Gurley, Town of
Hackleburg Housing Authority
Hackleburg Water Board
Hackleburg, Town of
Hackneyville Water & Fire Protection Authority
Hale County Commission
Hale County Emergency Medical Service
Hale County Soil & Water Conservation District
Haleyville, City of
Hamilton Housing Authority
Hamilton, City of
Hanceville Water Works & Sewer Board
Hanceville, City of
Harpersville, Town of
Hartford, City of
Hartselle Utilities Board
Hartselle, City of
Hartselle, Housing Authority of the City of
Harvest-Monrovia Water, Sewer & Fire
Protection Authority
Hayden, Town of
Hayneville, City of
Headland Housing Authority
Headland, City of
Heflin Water Works & Sewer Board
Heflin, City of
Helena Utilities Board
Helena, City of
Henry County Commission
Henry County Soil & Water Conservation
District
Henry County Water Authority
Highland Water Authority
Hillsboro, Town of
Historic Blakeley Authority
Hodges, Town of
Hokes Bluff Water Board
Hokes Bluff, Town of
Holly Pond, Town of
Hollywood, Town of
Homewood, City of
Hoover, City of
Horseshoe Bend Regional Library
Houston County Commission
Houston County Soil Conservation District
Houston County Water Authority
Houston-Love Memorial Library
Hueytown, City of
Huguley Water, Sewer & Fire Protection
Authority
Huntsville Electric Utilities System
Huntsville Gas Utilities System
Huntsville Solid Waste Disposal Authority
Huntsville Waterworks Utilities System
Huntsville, City of
Huntsville/Madison County Convention &
Visitors Bureau
Huntsville-Madison County Airport Authority
Huntsville-Madison County Marina & Port
Authority
Huntsville-Madison County Mental Health
Center Board
Indian Pines Recreational Authority
International Motorsports Hall of Fame
Irondale, City of
J. Paul Jones Hospital
Jackson County Commission
Jackson County Economic Development
Authority
Jackson County Emergency Management
Communications District
Jackson County Soil & Water Conservation
District
Jackson County Water Authority
Jackson, City of
Jackson's Gap Water Authority
Jackson's Gap, Town of
Jacksonville Housing Authority
Jacksonville Water Works, Gas & Sewer Board
Jacksonville, City of
Jasper Waterworks & Sewer Board
Jasper, City of
Jefferson County Department of Health
Jefferson County Housing Authority
Jefferson-Blount-St. Clair Mental Health
Authority
Jemison, Town of
Joppa, Hulaco & Ryan Water Authority
Kennedy, City of

Killen, City of
Kinsey, Town of
LaFayette, City of
Lamar County Commission
Lamar County Communications District
Lamar County Gas District
Lanett, City of
Lauderdale County Commission
Lauderdale County Community Corrections Authority
Lauderdale County Regional Library System
Lawrence County Commission
Lee County Commission
Leeds Housing Authority
Leeds Water Works Board
Leeds, City of
Lee-Russell Council of Governments
Leesburg, Town of
Leighton Water & Sewer Board
Leighton, Town of
Level Plains, Town of
Limestone County Commission
Limestone County Water & Sewer Authority
Lincoln, City of
Linden, City of
Lineville Housing Authority
Lineville Waterworks & Sewer Board
Lineville, City of
Littleville, Town of
Livingston Housing Authority
Livingston, City of
Loachapoka Water Authority
Locust Fork, Town of
Lowndes County Commission
Loxley, City of
Luverne Housing Authority
Luverne, City of
Lynn, Town of
Macon County Commission
Macon County Racing Commission
Madison County 310 Board
Madison County Commission
Madison County Communications District
Madison Water & Wastewater Board
Madison, City of
Magnolia Springs, Town of
Malvern, Town of
Maplesville Waterworks & Gas Board
Maplesville, City of
Marengo County Commission

Marengo County Economic & Industrial Development Authority
Marengo County Emergency Communications District
Marengo Nursing Home
Margaret, Town of
Marion County Commission
Marion County Emergency Communications District
Marion County Public Water Authority
Marion Housing Authority
Marion, City of
Marshall County Commission
Marshall County Community Punishment & Corrections Authority
Marshall County Emergency Telephone Services
Marshall County Gas District
Marshall County Soil & Water Conservation District
Marshall-Jackson Mental Retardation Authority
McAdory Area Fire District
McIntosh, Town of
Mental Health Board of Bibb, Pickens & Tuscaloosa County
Mental Health Center of North Central Alabama
Mental Retardation/Developmental Disabilities Board
Mentone Water Works Board
Mentone, Town of
Middle Alabama Area Agency on Aging
Midfield Library Board
Midfield, City of
Midway, Town of
Mildred B. Harrison Library
Millbrook, City of
Millport Housing Authority
Millport, Town of
Mobile Airport Authority
Mobile Area Water & Sewer System
Mobile County Commission
Mobile County Communications District
Mobile County Emergency Management Agency
Mobile County Health Department
Mobile County Housing Authority
Mobile County Law Enforcement & Firefighters' Pension Fund
Mobile County Personnel Board
Mobile County Racing Commission

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Employees' Retirement System

Local Participating Employers

Mobile County Water, Sewer & Fire Protection Authority	Northeast Alabama MR/DD Authority
Mobile Public Library	Northeast Alabama Water, Sewer & Fire Protection District
Mobile, City of	Northeast Morgan County Water & Sewer Authority
Monroe County Commission	Northport Housing Authority
Monroeville Housing Authority	Northport, City of
Monroeville Water Works Board	Northwest Alabama Council of Local Governments
Monroeville, City of	Northwest Alabama Mental Health Center
Montevallo Water Works & Sewer Board	Northwest Alabama Regional Airport
Montevallo, City of	Notasulga, Town of
Montgomery Area Mental Health Authority	Oak Grove, Town of
Montgomery County Commission	Oakman Water Works Board
Montgomery County Soil & Water Conservation District	Oakman, Town of
Montgomery Water Works & Sanitary Sewer Board	Odenville Utilities Board
Moody, City of	Odenville, Town of
Morgan County Commission	Ohatchee, Town of
Morgan County Emergency Management Communication District	Oneonta Housing Authority
Morgan County Soil & Water Conservation District	Oneonta Utilities Board
Moulton Housing Authority	Oneonta, City of
Moulton, City of	Opelika Housing Authority
Moundville, City of	Opelika Utilities Board
Mountain Brook Library Board	Opelika, City of
Mountain Brook Park & Recreation Board	Opp Utilities Board
Mountain Brook, City of	Opp, City of
Mt. Vernon, Town of	Orange Beach Water, Sewer & Fire Protection Authority
Munford Water Authority	Orange Beach, Town of
Munford, Town of	Owassa/Brownville Water Authority
Muscle Shoals Electric Board	Owens Cross Roads, City of
Muscle Shoals Utilities Board	Oxford Emergency Medical Services
Muscle Shoals, City of	Oxford, City of
Myrtlewood, Town of	Ozark Utilities Board
Nauvoo, Town of	Ozark, City of
Nectar, Town of	Ozark-Dale County E911
New Hope, Town of	Parrish Water Works & Sewer Board
New London Water, Sewer & Fire Protection Authority	Parrish, Town of
New Site, Town of	Pelham, City of
North Alabama Gas District	Pell City Housing Authority
North Baldwin Utilities	Pell City, City of
North Central Alabama Mental Retardation Authority	Pennington Utilities Board
North Central Alabama Regional Council of Governments	Pennington, City of
North Dallas County Water Authority	Perdido Bay Water, Sewer and Fire Protection District
North Marshall Utilities Board	Perry County Capital Improvement Cooperative District
North Shelby County Fire & Emergency Medical District	Perry County Commission
North Shelby Library	Perry County E911
	Perry County Water Authority
	Phenix City Utilities
	Phenix City, City of

Phil Campbell Housing Authority
Phil Campbell Water Works & Sewer Board
Phil Campbell, Town of
Pickens County Commission
Pickens County Cooperative Library
Pickens County E911 Board
Pickens County Water Authority
Piedmont Housing Authority
Piedmont, City of
Pike County Commission
Pike County Communications District
Pike County Soil & Water Conservation District
Pike County Water Authority
Pike Road, Town of
Pike Road Volunteer Fire Protection Authority
Pine Bluff Water Authority
Pine Hill, Town of
Pine Level Water Authority
Pinson, City of
Pisgah, Town of
Pleasant Grove, City of
Prattville Housing Authority
Prattville Water Works Board
Prattville, City of
Priceville, Town of
Prichard Housing Authority
Quint-Mar Water Authority
Ragland Water Works Board
Ragland, Town of
Rainbow City Utilities Board
Rainbow City, City of
Rainsville, City of
Randolph County Commission
Randolph County E911
Red Bay Housing Authority
Red Bay Water Works & Gas Board
Red Bay, City of
Reform Housing Authority
Reform, City of
Regional Housing Authority of Lawrence,
Cullman & Morgan Counties
Rehobeth, City of
Remlap-Pine Mountain Water Authority
Repton, Town of
Riverbend Center for Mental Health
Riverside, Town of
Roanoke Utility Board
Roanoke, City of
Robertsdale, City of
Rockford Utilities Board
Rocky Ridge Fire District

Rogersville Water Works & Sewer Board
Rogersville, Town of
Russell County Commission
Russell County Emergency Communications
District
Russell County Soil & Water Conservation
District
Russell County Water Authority
Russellville Electric Board
Russellville Gas Board
Russellville Housing Authority
Russellville Water & Sewer Board
Russellville, City of
Rutledge, Town of
Samson, City of
Saraland Water Service
Saraland, City of
Sardis City Water Board
Sardis, City of
Satsuma Water Works Board
Satsuma, City of
Scottsboro Electric Power Board
Scottsboro Housing Authority
Scottsboro Public Library
Scottsboro Public Park & Recreation Board
Scottsboro Waterworks, Sewer & Gas Board
Scottsboro, City of
Section Waterworks Board
Section, Town of
Selma Housing Authority
Selma Water & Sewer Board
Selma, City of
Sheffield Utilities Board
Sheffield, City of
Shelby County Commission
Shelby County Community Corrections
Shelby County Economic & Industrial
Development Authority
Shelby County Emergency Management
Communications District
Shelby County Soil Conservation District
Shoals Committee on Programs & Employment
for the Mentally Retarded
Shoals Economic Development Authority
Shoals Solid Waste Disposal Authority
Shorter, Town of
Silas, Town of
Silverhill, Town of
Skyline, Town of
Slocomb Waterworks & Sewer Board
Slocomb, Town of

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Employees' Retirement System

Local Participating Employers

Smiths Station, City of
Smiths Water & Sewer Authority
Snead, Town of
Somerville, Town of
South Alabama Gas District
South Alabama Regional Planning Commission
South Central Alabama Development
Commission
South Central Alabama Mental Health Board
South Central Alabama Regional Housing
Authority
South Crenshaw County Water Authority
South Marengo County Water & Fire Protection
Authority
Southeast Alabama Regional Planning &
Development Commission
Southeast Alabama Solid Waste Disposal
Authority
Southeast Alabama Youth Services
Southern Alabama Regional Council on Aging
Southside Water Works & Sewer Board
Southside, City of
Southwest Alabama Water Authority
Spanish Fort Fire Rescue Department
Spanish Fort, City of
SpectraCare Health Systems
Springville, Town of
St. Clair County Commission
St. Clair County Community Punishment &
Corrections Authority
St. Clair County Industrial Development Board
St. Clair County Soil & Water Conservation
District
St. Clair Regional Library
St. Florian, Town of
Star-Mindingall Water & Fire Protection
Authority
Steele, Town of
Stevenson Housing Authority
Stevenson Utilities Board
Stevenson, City of
Stewartville Water Authority
Sulligent Housing Authority
Sulligent, City of
Sumiton Housing Authority
Sumiton Water Works Board
Sumiton, City of
Summerdale, Town of
Sumter County Commission
Sumter County Industrial Development
Authority

Sumter County Soil & Water Conservation
District
Sumter County Water Authority
Sylacauga Parks & Recreation Board
Sylacauga Utilities Board
Sylacauga, City of
Sylvan Springs, Town of
Sylvania, Town of
Talladega County Commission
Talladega County Emergency Management
Communications District
Talladega County Soil & Water Conservation
District
Talladega Water & Sewer Board
Talladega, City of
Tallapoosa County Commission
Tallasse, City of
Tarrant Alabama Housing Authority
Tarrant Electric System
Tarrant, City of
Taylor, Town of
Tennessee Valley Exhibit Commission
Thomaston, Town of
Thomasville, City of
Thorsby, Town of
Top of Alabama Regional Council of
Governments
Top Trails Public Park Authority of the Cities of
Lincoln and Talladega
Town Creek, Town of
Triana, City of
TriCounty Agency for Intellectual Disabilities
Trinity, Town of
Troy, City of
Trussville Utilities Board
Trussville, City of
Turnerville Water & Fire Protection District
Tuscaloosa County Commission
Tuscaloosa County Community Punishment and
Corrections Authority
Tuscaloosa County Industrial Development
Authority
Tuscaloosa County Office of Public Defender
Tuscaloosa County Park & Recreation Authority
Tuscaloosa County Parking & Transit Authority
Tuscaloosa County Soil & Water Conservation
District
Tuscaloosa County Special Tax Board
Tuscaloosa Housing Authority
Tuscaloosa Public Library
Tuscaloosa, City of
Tuscumbia, City of

Tuskegee Utilities Board
Tuskegee, City of
Union Grove Utilities Board
Union Springs Utilities Board
Union Springs, City of
Uniontown Housing Authority
Uniontown Utilities Board
Uniontown, Town of
USS Alabama Battleship Commission
Valley Grande, City of
Valley Head Water Works Board
Valley Head, City of
Valley Housing Authority
Valley, City of
Vance, Town of
Vernon Housing Authority
Vernon, City of
Vestavia Hills, City of
Vincent, City of
Von Braun Civic Center
Wadley, Town of
Walker County Commission
Walker County E9-1-1 District
Walker County Housing Authority
Walker County Soil & Water Conservation
District
Wall Street Water Authority
Walnut Hill Water Authority
Warrior River Water Authority
Warrior, City of
Washington County Commission
Washington County E911 Communication
District
Washington County Soil & Water Conservation
District
Wattsville Water Authority
Weaver, City of
Webb, Town of
Wedowee Water, Sewer & Gas Board
Wedowee, City of
West Alabama Regional Commission
West Autauga Water Authority
West Escambia Utilities
West Etowah County Water Authority
West Jefferson, Town of
West Lauderdale County Water & Fire
Protection Authority
West Morgan–East Lawrence Water & Sewer
Authority
Wetumpka Water Works & Sewer Board
Wetumpka, City of

Wilcox County Commission
Wilcox County Emergency Communications
District
Wilcox County Gas District
Wilsonville, Town of
Wilton, Town of
Winfield Water Works & Sewer Board
Winfield, City of
Winston County Commission
Winston County E9-1-1 Communications
District
Woodland, Town of
Woodstock, Town of
York Housing Authority
York, City of

RETIREMENT SYSTEMS OF ALABAMA

Statistical Section

Employees' Retirement System

Ten-Year History of Largest Employers

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
1) Employer	State of Alabama	State of Alabama	State of Alabama	State of Alabama	State of Alabama	State of Alabama	State of Alabama	State of Alabama	State of Alabama	State of Alabama
# of Active Members	29,756	30,109	30,297	30,659	31,795	33,885	35,147	35,200	35,767	35,566
% of Total Active Members	35.08%	35.43%	35.40%	35.84%	36.85%	38.36%	39.24%	39.10%	39.53%	40.03%
2) Employer	Huntsville, City of	Huntsville, City of	Huntsville, City of	Huntsville, City of	Huntsville, City of	Huntsville, City of	Huntsville, City of	Huntsville, City of	Huntsville, City of	Huntsville, City of
# of Active Members	2,258	2,207	2,243	2,209	2,192	2,195	2,175	2,227	2,293	2,185
% of Total Active Members	2.66%	2.60%	2.62%	2.58%	2.54%	2.48%	2.43%	2.47%	2.53%	2.46%
3) Employer	Mobile County	Mobile County	Mobile County	Mobile County	Mobile County	Mobile County	Mobile County	Mobile County	Mobile County	Mobile County
# of Active Members	1,604	1,587	1,578	1,625	1,657	1,672	1,678	1,699	1,664	1,614
% of Total Active Members	1.89%	1.87%	1.84%	1.90%	1.92%	1.89%	1.87%	1.89%	1.84%	1.82%
4) Employer	Mobile, City of	Mobile, City of	AlaPointe Health*	Mobile, City of	Mobile, City of	Mobile, City of	Mobile, City of	Mobile, City of	Mobile, City of	Mobile, City of
# of Active Members	1,195	1,250	1,341	1,282	1,254	1,310	1,335	1,421	1,337	1,288
% of Total Active Members	1.41%	1.47%	1.57%	1.50%	1.45%	1.48%	1.49%	1.58%	1.48%	1.45%
5) Employer	Madison County	Madison County	Mobile, City of	AlaPointe Health*	Madison County	Madison County	Madison County	Madison County	Madison County	Madison County
# of Active Members	1,145	1,152	1,254	1,236	1,154	1,162	1,133	1,060	1,102	1,068
% of Total Active Members	1.35%	1.36%	1.47%	1.44%	1.34%	1.32%	1.27%	1.18%	1.22%	1.20%
6) Employer	Dothan, City of	Dothan, City of	Madison County	Madison County	Helen Keller Hospital	Dothan, City of	Helen Keller Hospital	Helen Keller Hospital	Helen Keller Hospital	Dothan, City of
# of Active Members	999	995	1,152	1,174	1,002	957	984	1,034	1,023	962
% of Total Active Members	1.18%	1.17%	1.35%	1.37%	1.16%	1.08%	1.10%	1.15%	1.13%	1.08%
7) Employer	Montgomery County	AlaPointe Health*	Dothan, City of	Dothan, City of	Dothan, City of	Helen Keller Hospital	Dothan, City of	Dothan, City of	Dothan, City of	Helen Keller Hospital
# of Active Members	807	792	996	985	966	956	961	970	972	893
% of Total Active Members	0.95%	0.93%	1.16%	1.15%	1.12%	1.08%	1.07%	1.08%	1.07%	1.01%
8) Employer	Tuscaloosa, City of	Tuscaloosa, City of	Tuscaloosa, City of	Tuscaloosa, City of	AlaPointe Health*	Montgomery County	Montgomery County	Montgomery County	Tuscaloosa, City of	Tuscaloosa, City of
# of Active Members	774	777	790	775	911	794	848	806	710	710
% of Total Active Members	0.91%	0.91%	0.92%	0.91%	1.06%	0.90%	0.95%	0.90%	0.78%	0.80%
9) Employer	Auburn, City of	Montgomery County	Montgomery County	Montgomery County	Montgomery County	AlaPointe Health*	Tuscaloosa, City of	Tuscaloosa, City of	AlaPointe Health*	Hoover, City of
# of Active Members	752	766	769	767	771	762	745	732	674	656
% of Total Active Members	0.89%	0.90%	0.90%	0.90%	0.89%	0.86%	0.83%	0.81%	0.74%	0.72%
10) Employer	Hoover, City of	Auburn, City of	Hoover, City of	Helen Keller Hospital	Tuscaloosa, City of	Tuscaloosa, City of	AlaPointe Health*	AlaPointe Health*	Baldwin County	Greater Mobile-Washington Co. Mental Health Board
# of Active Members	704	706	678	729	763	757	668	685	655	631
% of Total Active Members	0.83%	0.83%	0.79%	0.85%	0.88%	0.86%	0.75%	0.76%	0.72%	0.71%
Total # of Active Members	84,814	84,985	85,585	85,549	86,290	88,341	89,560	90,018	90,472	88,849

* Formerly Greater Mobile-Washington Co. Mental Health Board

Source: Retirement Systems of Alabama records



BH
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