

Rooted in Sound Stewardship. Dedicated to Serving Generations.



The 2017 PERS Comprehensive Annual Financial Report is dedicated to Pat Robertson who is retiring in 2018 after nearly 40 years of service to the agency and the people of Mississippi. She began with PERS in 1980 and has served as executive director since 2005.

Thank you, Pat, for your years of passion and commitment.

## 2017 Comprehensive Annual Financial Report

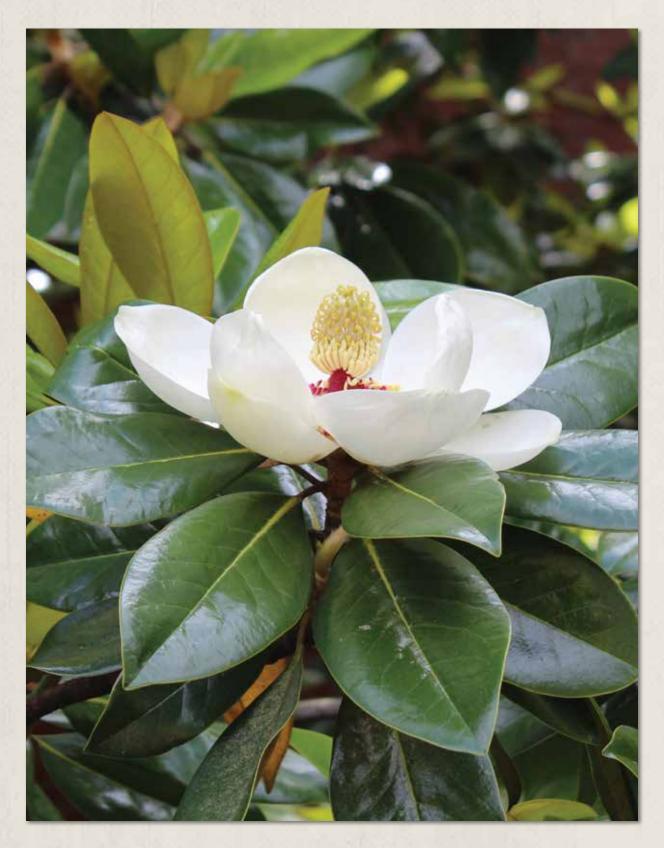
A Component Unit of the State of Mississippi Fiscal Year Ended June 30

PREPARED BY:

The Office of Administrative Services
Public Employees' Retirement System of Mississippi

PERS Building 429 Mississippi Street Jackson, Mississippi 39201-1005





GRACIOUSNESS

Magnolia grandiflora (southern magnolia)

Some of life's most valuable provisions can often be found in what may seem commonplace in the world.

We climb them to glimpse the world's vastness.

We swing from them into the embrace of favorite swimming holes to test our bravery. In them we carve the initials of first loves. Under them we enjoy shady respites with good books. They provide fuel for warmth, materials for homes, and product for industry. Trees play a leading role in a life well lived. And in Mississippi, where the stage is set with a wealth of magnificently giving native trees, life can be exceptional.

The graceful boughs and heady fragrance of the southern magnolia reflect the beauty of gracious living. Pecans provide delicious sustenance, whether eaten in the most delectable desserts or straight off the ground. A testimony to longevity, the live oak, with its massive trunk and spreading limbs, can live for centuries.

The cypress, with its roots nestled deep below marshland waters, protect their surroundings from flooding. And the seasonally turning leaves, resistance to pollutants, and defiance to harsh weather of the ancient sycamore teach the importance of resilience.

Like the magnolia, the pecan, the oak, the cypress, and the sycamore, the Public Employees' Retirement System of Mississippi embodies graciousness, sustenance, longevity, protection, and resilience. We provide benefits for life to our members, which, in turn, help sustain local economies throughout the state. We stand strong in our role as fiduciaries and understand the strength needed to weather the ups and downs that come with funding a plan that provides for hundreds of thousands of Mississippians. Our job is to protect the retirement benefits of those who serve as our state's teachers, firefighters, police officers, librarians, doctors, professors, attorneys, elected officials, etc. We are rooted in sound stewardship and dedicated to serving generations. And we are proud to play a leading role in the truly exceptional lives of all who count on us.



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#### Providing Benefits for Life

Board of Trustees Public Employees' Retirement System 429 Mississippi Street Jackson, MS 39201-1005

December 15, 2017

#### Dear Board Members:

I am pleased to present the 2017 Comprehensive Annual Financial Report (CAFR) of the Public Employees' Retirement System. We are deeply rooted in sound stewardship and dedicated to serving our members as we provide secure benefits and a quality experience to those who have spent their careers in public service. Our lasting commitment to serve our members spans decades and will continue to embody graciousness, sustenance, longevity, protection, and resilience as we advance the financial security of our members and retirees.

This CAFR is a presentation of the financial results of the System as of June 30, 2017. We believe this information is useful for transparency and perspective over the long term. We trust that you and other members will find this CAFR helpful in understanding your retirement system.

#### PROFILE OF THE SYSTEM

The System was established to provide retirement benefits for all state and public education employees, officers of the Mississippi Highway Safety Patrol, elected members of the State Legislature, the President of the Senate, and other public employees of participating employers. Plans administered by the System include: the Public Employees' Retirement System of Mississippi (PERS), which was established by legislation in 1952; the Mississippi Highway Safety Patrol Retirement System (MHSPRS), established in 1958; the Supplemental Legislative Retirement Plan (SLRP), established in 1989; and the Municipal Retirement Systems (MRS), which came under the System's administration in 1987. As of June 30, 2017, the System's defined benefit plans served a total of 219,999 members and 104,945 retirees and beneficiaries. We have 880 participating employers from across the state. Primary sources of funding for the System include employer contributions, member contributions, and investment income. Retirement benefits paid during the fiscal year totaled \$2.5 billion. Employers contributed \$1.1 billion during the fiscal year, while members of the System contributed a total of \$572 million. As of June 30, 2017, net position restricted for benefits totaled \$27.1 billion.

The System is administered by a 10-member Board of Trustees that includes: the State Treasurer; one gubernatorial appointee who is a member of PERS; two state employees; two PERS retirees; and one representative each from public schools and community colleges, state universities, municipalities, and counties. With the exception of the State Treasurer and the gubernatorial appointee, all members are elected to staggered six-year terms by the constituents they represent. The Board of Trustees is responsible for the general administration and proper operation of the System. The executive director is designated by the Board to lead and conduct all business for the System. The Public Employees' Retirement System of Mississippi operates under legislative mandate with respect to administrative budgets, human resources, and purchasing quidelines. The System is considered a component unit of the State of Mississippi for financial reporting

Pat Robertson
Executive Director

Board of Trustees:

Lynn Fitch State Treasurer Chair

George Dale

Chris Howard State Employees

Kelly Breland

State Employees Vice Chair Bill Benson County Employees

Randy D.

Municipal Employees Brian Rutledge Lee Childress

Public Schools,

Community/Jr. Colleges

Institutions of Higher Learning

Stephen Benson

Drew Snyder Gubernatorial Appointee

Public Employees' Retirement System of Mississippi 429 Mississippi Street, Jackson, MS 39201-1005 601.359.3589 800.444.PERS

www.pers.ms.gov

purposes, and, as such, the financial statements contained in this report are included in the State of Mississippi's Comprehensive Annual Financial Report.

Annual budgets are legally adopted for the administrative expenditure portion of the System's operations and are funded by earnings of the System. Our operating budget request for the upcoming fiscal year is prepared in conjunction with a review of our strategic long-range plan. A budget request is approved by the Board of Trustees and submitted to the State Legislature, which legally enacts the budget in the form of an appropriation bill during the subsequent legislative session. Changes may be made in budget categories, consistent with legislative authority, with approval of the Mississippi Department of Finance and Administration. A discussion of the budgetary process is presented in the Financial Section of this CAFR on page 38.

#### FINANCIAL INFORMATION

Our staff issues a CAFR within six months of the close of each fiscal year. The report contains basic financial statements presented in conformity with generally accepted accounting principles and audited in accordance with generally accepted auditing standards, as well as standards applicable to financial audits contained in government auditing standards. The 2017 independent audit was conducted by Eide Bailly, LLP, a firm of licensed certified public accountants. The Independent Auditors' Report is presented in the Financial Section on pages 19 through 21.

This CAFR consists of management's representations concerning the finances of the System. Consequently, management assumes full responsibility for the completeness and reliability of all information presented in this report. A framework of internal controls is maintained to establish reasonable assurance that assets are safeguarded, transactions are accurately executed, and financial statements are fairly presented. The system of internal controls also includes written policies and procedures and an internal audit department that reports to the Board of Trustees. The internal audit department makes recommendations for improvements in controls and operating efficiency. The concept of reasonable assurance recognizes that the cost of a control should not appreciably exceed the benefits likely to be derived and that the analysis of costs and benefits requires estimates and professional judgments by management. Management's Discussion and Analysis (MD&A) immediately follows the Independent Auditors' Report and provides a narrative introduction, overview, and analysis of the basic financial statements. MD&A complements, and should be read in conjunction with this letter of transmittal.

The System invests to provide funding to meet current and future pension benefit obligations. The Board of Trustees remains focused on an investing approach that underscores the principles of a well-diversified portfolio of securities invested over a long-time horizon, which moderates the effects of the changing economic environment in which we operate. Our asset allocation policy is tactically balanced to provide an expected level of return while incurring minimal risk, which over time will fund the liabilities of the System with the contribution rate expressed as a percent of payroll. This year the System earned a 14.96 percent rate of return on investments measured as a point-in-time snapshot of fiscal year performance. Our annualized rate of return for the last 30-year period was 8.3 percent, exceeding the long-term 7.75 percent assumed rate of return for the System. Positive investment performance at or above our assumed rate of return over the long term assures that the System maintains a strong, supportable financial foundation. Additional information on investment related fees may be found in the Investment Section on page 96.

Annual actuarial valuations for PERS, MHSPRS, MRS, and SLRP are conducted by the actuarial consulting firm of Cavanaugh Macdonald Consulting, LLC. Actuarial assumptions and contribution rates are based on recommendations made by the actuary. Experience investigations are performed every two years on a rolling four-year basis to determine that actuarial assumptions are reasonably related to actual experience. Additional information regarding the actuarial valuation is presented in the Actuarial Section of this report. In addition to actuarial valuations and experience investigations, the System's actuaries annually prepare 30-year funding projection reports for each plan.

The Board of Trustees maintains a funding policy for PERS, MHSPRS, and SLRP aimed at stabilizing the employer contribution rate, with a goal to position the plans at more than 80.0 percent funded by 2042. The funding ratio is a measure of the actuarial value of assets to the actuarial accrued liability. Based on the most recent actuarial

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valuation, PERS is 61.1 percent funded; MHSPRS is 68.1 percent funded; the MRS closed plan is 49.0 percent funded; and SLRP is 78.8 percent funded. Funding status and progress is presented in the Actuarial Section of this report on pages 138 and 139. Based on fiscal year-end valuation results, each of the System's plans continue in sound condition, presuming that future contributions will be made at the level necessary to ensure adequate funding and to meet standards as certified in the Actuarial Section of this report.

#### FOR THE FUTURE

Our technology objectives are driven by our commitment to deliver quality customer service to our members before, during, and after retirement. Our long-held belief is that good stewardship includes good customer service. As part of achieving that objective, we identified the need for a technology solution with broad and deep capabilities for managing the volume and variety of data necessary to successfully support our services to members. The System launched a major project initiative, implementing a new pension and benefits administration software solution using the most economical pathways for technical support. Through the Mississippi Automated Retirement System (MARS) technology project, we developed a stable, state-of-the-industry solution consisting of a fully integrated online software system that is capable of supporting the System's pension processes and finances, as well as expanding our customer service area. In fiscal year 2018, PERS will complete the first major upgrade of the MARS, which will allow PERS to continue to receive the desired level of technical support as well as provide enhanced functionality. An additional member self-service enhancement is planned for fiscal year 2018 that will expand our ability to provide fast, effective service to our members and retirees

One of the System's biggest strengths is our staff of trained professionals. The System relies on staff to carry out our mission, provide excellent customer service, and meet our goals. It has become more critical to enhance our succession plan as the years pass and the System experiences growth in both membership and complexity. We continue to address needs and explore alternatives to provide our membership with continuity across all aspects of our operations. Our objective is to provide an effective succession plan that supports the System's organizational stability and sustainability by assuring that there is an established progression to meet future staffing requirements.

#### 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 System for its comprehensive annual financial report for the fiscal year ended June 30, 2016. The Certificate of Achievement is a prestigious national award, recognizing conformance with the highest standards for preparation of state and local government financial reports.

To be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report with contents that conform to program standards. Such financial reports must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of only one year. The System has received a Certificate of Achievement for the last 30 consecutive years. We believe our current report continues to conform to the Certificate of Achievement Program's requirements, and we are submitting it to GFOA for evaluation.

The Public Employees' Retirement System of Mississippi's submission of a Popular Annual Financial Report to the GFOA resulted in an Award for Outstanding Achievement in Popular Annual Financial Reporting for the fiscal year ended June 30, 2016. To receive an Award for Outstanding Achievement in Popular Annual Financial Reporting, a government unit must publish a popular annual financial report with contents that conform to program standards of creativity, presentation, understandability, and reader appeal.

An Award for Outstanding Achievement in Popular Annual Financial Reporting is valid for a period of one year. The Public Employees' Retirement System of Mississippi has received a Popular Award certificate for the last 14 consecutive fiscal years. We believe our current report continues to conform to the Popular Annual Financial Reporting requirements, and we are submitting it to GFOA for consideration this year.

The Public Employees' Retirement System received the Public Pension Coordinating Council's (PPCC) Public Pension Standards 2016 Award in recognition of meeting professional standards for plan design and administration. The PPCC is a national confederation of state retirement associations whose standards are widely recognized benchmarks for public pension systems in the areas of plan design, funding, actuarial, and financial audits, as well as member communications.

#### CONCLUSION

This report is a product of the combined efforts of the System's staff and advisors functioning under your leadership and is intended to provide extensive and reliable information as a basis for making management decisions, determining compliance with legal provisions, and determining responsible stewardship for the assets contributed by the System's members and their employers.

This report is made available to the Governor, state auditor, and all member agencies. These agencies form the link between the System and its members, whose cooperation contributes significantly to our success. I hope all recipients of this report find it informative and useful. This report is also available to the general public on our website, www.pers.ms.qov.

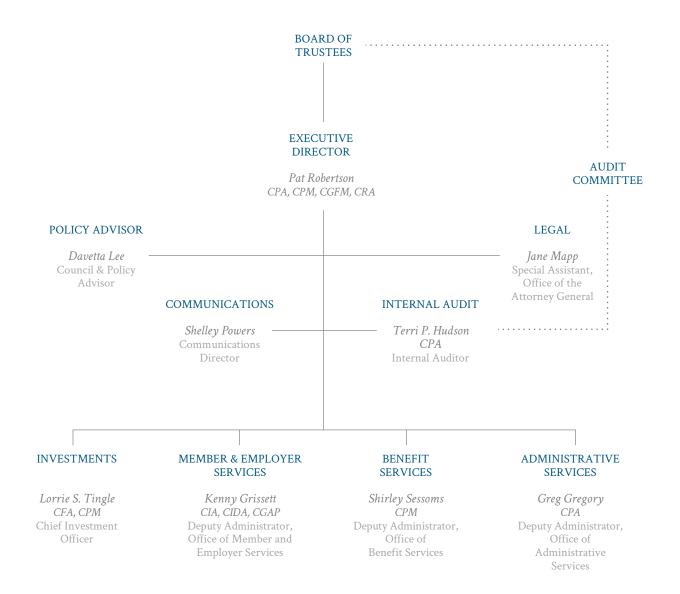
As has been reported, I will be retiring from my position as executive director of PERS during the 2018 fiscal year. I would like to take the opportunity to express my gratitude for the extraordinary and memorable partnership with you, the staff, the advisors, and others who have worked so diligently to continue the System's years of successful operation. For almost four decades, it has been my great honor to serve the members, retirees, and employers who make up this institution, and I thank you for the privilege of carrying on the vision of a secure retirement future for our members and retirees.



Respectfully submitted,

Pat Robertson | Executive Director

### Organizational Chart as of June 30, 2017



#### 2017 Board of Trustees

The Board of Trustees of the Public Employees' Retirement System of Mississippi (PERS) is responsible for designating the System's executive director and for establishing the policies for administration of the trust. The Board also works to carry out the intent and purposes of the State Legislature by establishing rules and regulations for the administration of PERS and the transaction of its business.

CHAIR RANDY MCCOY, ED.D. Elected by Retirees TERM OF SERVICE: JUL. 2013 - JUN. 2019

VICE CHAIR LYNN FITCH State Treasurer TERM OF SERVICE: JAN. 2016 - JAN. 2020









#### 2017 Board of Trustees (Continued)

BILL BENSON *Elected by County Employees* TERM OF SERVICE: JAN. 2016 - DEC. 2021

TERM OF SERVICE: JAIN. 2010 - DEC. 2021

STEPHEN BENSON *Elected by Municipal Employees* TERM OF SERVICE: JAN. 2015 - DEC. 2020

KELLY BRELAND Elected by State Employees
TERM OF SERVICE: JAN. 2013 - DEC. 2018

EDWARD LEE CHILDRESS, ED.D. Elected by Public School and Community/Junior College Employees
TERM OF SERVICE: MAY 2016- APR. 2022

**GEORGE DALE** *Elected by Retirees*TERM OF SERVICE: MAY 2017 - APR. 2023

CHRIS HOWARD *Elected by State Employees* TERM OF SERVICE: JUL. 2014 - JUN. 2020

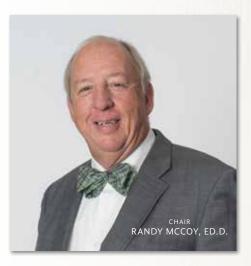
BRIAN RUTLEDGE, PH.D. Elected by Institutions of Higher Learning Employees TERM OF SERVICE: DEC. 2016 - DEC. 2022

DREW SNYDER Appointed by Governor TERM OF SERVICE: APR. 2016 - APR. 2020













#### Outside Professional Services

#### **ACTUARY**

Cavanaugh Macdonald Consulting, LLC 3550 Busbee Parkway, Suite 250 Kennesaw, Georgia 30144 Telephone: (678) 388-1700

#### **AUDITOR**

Eide Bailly, LLP 877 W. Main Street, Suite 800 Boise, Idaho 83702 Telephone: (208) 344-7150

#### **CUSTODIAN INVESTMENT FUNDS**

Bank of New York Mellon 225 Liberty Street New York, New York 10286 Telephone: (212) 495-1784

### FUNDS EVALUATION SERVICES & ASSET ALLOCATION/INVESTMENT POLICY STUDY

Callan Associates, Inc. 600 Montgomery Street, Suite 800 San Francisco, California 94111 Telephone: (415) 974-5060

#### **INVESTMENT MANAGERS**

#### **EQUITY MANAGERS**

Acadian Asset Management, LLC 260 Franklin Street, 20th floor Boston, Massachusetts 02110 Telephone: (617) 850-3501

Arrowstreet Capital, LP 200 Clarendon Street, 30th Floor Boston, Massachusetts 02116 Telephone: (617) 919-0000

Artisan Partners, LP 875 East Wisconsin Avenue, Suite 800 Milwaukee, Wisconsin 53202-1770 Telephone: (414) 390-6100

Baillie Gifford & Company Calton Square, 1 Greenside Row, Edinburgh, EH1 3AN, Scotland Telephone: +44 (0) 131-275-2000

BlackRock Institutional Trust Company, NA 55 East 52nd Street New York, New York 10022 Telephone: (212) 810-5300

Dimensional Fund Advisors, Inc. 6300 Bee Cave Road, Building One Austin, Texas 78746 Telephone: (512) 306-7400

Eagle Capital Management, LLC 499 Park Avenue, 17th Floor New York, New York 10022 Telephone: (212) 293-4040 Epoch Investment Partners, Inc. 399 Park Avenue, 31st floor New York, New York 10022 Telephone: (212) 303-7200

Fidelity Institutional Asset Management, LLC 900 Salem Street Smithfield, Rhode Island 02917 Telephone: (401) 292-7816

Fisher Investments 5525 NW Fisher Creek Drive Camas, Washington 98607 Telephone: (800) 851-8845

Harding Loevner, LP 400 Crossing Boulevard, 4th Floor Bridgewater, New Jersey 08807 Telephone: (908) 218-7900

Lazard Asset Management 30 Rockefeller Plaza New York, New York 10112 Telephone: (212) 632-6439

Longview Partners Ltd.
PO Box 559
Sarnia House, Le Truchot
St Peter Port, Guernsey Channel Islands
GY1 6JG
Telephone: +44 (0) 148-171-2414

Marathon Asset Management, LLP Orion House 5 Upper St. Martin's Lane London WC2H 9EA Telephone: +44 (0) 207-497-2399

Mondrian Investment Partners, Inc. Two Commerce Square 2001 Market Street, Suite 3810 Philadelphia, Pennsylvania 19103-7039 Telephone: (215) 825-4500

Northern Trust Global Investment 50 South LaSalle Street Chicago, Illinois 60675 Telephone: (312) 444-4977

Riverbridge Partners, LLC 80 South Eighth Street, Suite 1200 Minneapolis, Minnesota 55402 Telephone: (612) 904-6250

State Street Global Advisors State Street Financial Center One Lincoln Street Boston, Massachusetts 02111-2999 Telephone: (617) 664-4739

The Boston Company Asset Management, LLC One Boston Place, Suite 024-0051 Boston, Massachusetts 02108 Telephone: (617) 722-7000

Additional information on the above-mentioned investment professional fees can be found on pages 73 and 96. Information on commissions is found on page 97.

## Outside Professional Services (Continued)

Wedgewood Partners, Inc. 9909 Clayton Road, Suite 103 St. Louis, Missouri 63124 Telephone: (314) 567-6407

Wellington Management Company, LLP 280 Congress Street Boston, Massachusetts 02210 Telephone: (617) 951-5000

#### **FIXED INCOME MANAGERS**

Aberdeen Asset Management 1735 Market Street, 32nd Floor Philadelphia, Pennsylvania 19103 Telephone: (215) 405-5700

AllianceBernstein, LP 1345 Avenue of the Americas New York, New York 10105 Telephone: (212) 969-1168

BlackRock Institutional Trust Company, NA 55 East 52nd Street New York, New York 10022 Telephone: (212) 810-5300

Loomis Sayles & Company, LP One Financial Center, 25th floor Boston, Massachusetts 02111 Telephone: (617) 482-2450

Manulife Asset Management 197 Clarendon Street Boston, MA 02116 Telephone: (617) 663-4748

Pacific Investment Management Company 650 Newport Center Drive Newport Beach, California 92660 Telephone: (949) 720-6000

Prudential Investment Management, Inc. 655 Broad Street, 8th Floor Newark, New Jersey 07102 Telephone: (973) 802-4316

Wellington Management Company, LLP 280 Congress Street Boston, Massachusetts 02210 Telephone: (617) 951-5000

#### PRIVATE EQUITY MANAGERS

GCM Grosvenor Diversified Partners, LP 767 Fifth Avenue, 14th Floor New York, New York 10153 Telephone: (646) 362-3700

Pathway Capital Management, LP 2211 Michelson Drive, 9th floor Irvine, CA 92612 Telephone: (949) 622-1000

#### REAL ESTATE MANAGERS

AEW Capital Management, LP Two Seaport Lane, Suite 1600 Boston, Massachusetts 02210 Telephone: (627) 261-9000 Angelo, Gordon & Company 245 Park Avenue, 26th Floor New York, New York 10167 Telephone: (212) 692-9328

Center Square Investment Management 630 W. Germantown Pike, Suite 300 Plymouth Meeting, PA 19462 Telephone: (610) 834-9500

Cohen & Steers Capital Management, Inc. 280 Park Avenue, 10th Floor New York, New York 10017-1216 Telephone: (212) 832-3232

Deutsche Asset & Wealth Management 222 S. Riverside Plaza, 26th floor Chicago, Illinois 60616 Telephone: (312) 266-9300

Hancock Natural Resource Group 99 High Street, 26th Floor Boston, Massachusetts 02110-2320 Telephone: (617) 747-1600

Heitman, LLC 191 North Wacker Drive, Suite 2500 Chicago, Illinois 60606 Telephone: (312) 855-5700

Invesco 1166 Avenue of the Americas, 27th Floor New York, New York 10036 Telephone: (212) 278-9138

J.P. Morgan Investment Management, Inc. 270 Park Avenue, 7th Floor New York, New York 10017 Telephone: (212) 648-2122

Principal Global Investors, LLC 810 Grand Avenue Des Moines, Iowa 50392-0490 Telephone: (800) 533-1390

T.A. Associates Realty 28 State Street, 10th floor Boston, Massachusetts 02109 Telephone: (617) 476-2700

UBS Realty Investors, LLC 10 State House Square, 15th floor Hartford, Connecticut 06103-3604 Telephone: (860) 616-9000

Westbrook Partners 7121 Fairway Drive, Suite 410 Palm Beach Gardens, Florida 33418 Telephone: (561) 598-6700

#### LEGAL COUNSEL

Office of the Attorney General Jane Mapp, Special Assistant 550 High Street Jackson, Mississippi 39201 Telephone: (601) 359-3680



Government Finance Officers Association

### Certificate of Achievement for Excellence in Financial Reporting

Presented to

Public Employees' Retirement System of Mississippi

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2016

Executive Director/CEO



### **Public Pension Coordinating Council**

# Public Pension Standards Award For Funding and Administration 2017

Presented to

## Public Employees' Retirement System of Mississippi

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

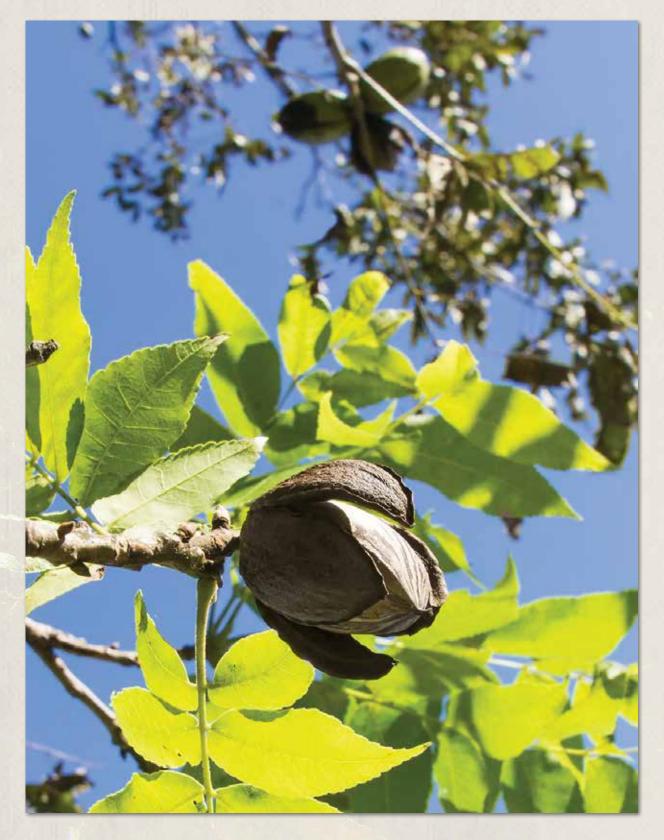
Presented by the Public Pension Coordinating Council, a confederation of

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

> Alan H. Winkle Program Administrator

alan Helinble

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SUSTENANCE

Carya illinoinensis (pecan)



#### **Independent Auditor's Report**

To the Board of Trustees Public Employees' Retirement System of Mississippi Jackson, Mississippi

#### Report on the Financial Statements

We have audited the accompanying financial statements of the Public Employees' Retirement System of Mississippi (the System), which comprise the statement of fiduciary net position as of June 30, 2017, and the related statement of changes in fiduciary net position, for the year then ended, and the related notes to the financial statements.

#### 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.

#### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of 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 auditor's 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 auditor considers 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 financial statements referred to above present fairly, in all material respects, the respective statement of the fiduciary net position of the Public Employees' Retirement System of Mississippi, as of June 30, 2017, and the respective statement of 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**

#### **Required Supplementary Information**

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 22-29 and the required supplementary information on pages 62-68 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.

#### Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements as a whole. The introductory, investment, actuarial, statistical and supplementary sections are presented for purposes of additional analysis and are not a required part of the financial statements.

The additional supplementary information accompanying financial information listed as supplemental schedules in the table of contents are the responsibility of management and were derived from and relate 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 accompanying financial information listed as supplemental schedules 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.

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 28, 2017, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering System's internal control over financial reporting and compliance.

Esde Saelly LLP Boise, Idaho

November 28, 2017

## Management's Discussion & Analysis [unaudited]

This section presents management's discussion and analysis of the Public Employees' Retirement System of Mississippi's (System) financial position and performance for the year ended June 30, 2017. This section is presented as a narrative overview and analysis in conjunction with the Letter of Transmittal—included in the Introductory Section—the financial statements, and other information presented in the Financial Section of this *Comprehensive Annual Financial Report*.

The System is responsible for administering retirement benefits for all state and public education employees, sworn officers of the Mississippi Highway Safety Patrol, other public employees whose employers have elected to participate, and elected members of the State Legislature, as well as the President of the Senate. The System is comprised of five funds, including four defined benefit pension plans: the Public Employees' Retirement System of Mississippi (PERS), the Mississippi Highway Safety Patrol Retirement System (MHSPRS), the Municipal Retirement Systems (MRS), and the Supplemental Legislative Retirement Plan (SLRP). The remaining fund is the Flexible Benefits Cafeteria Plan (FBCP), which is an agency fund.

The System also oversees two other plans: the Mississippi Government Employees' Deferred Compensation Plan & Trust (MDC), which is a voluntary supplemental retirement savings plan, and the Optional Retirement Plan (ORP), which is offered as an alternative to PERS to certain employees of the state's institutions of higher learning. As explained in Note 2 to the basic financial statements, MDC and ORP are not part of the System's reporting entity. The System's funds, with the exception of MDC and ORP, are defined as pension (and other employee benefit) trust funds, which are fiduciary in nature. Throughout this discussion and analysis, units of measure (i.e., billions, millions, and thousands) are approximate, being rounded up or down to the nearest tenth of the respective unit value.

### Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System's financial reporting, which is comprised of the following components:

- 1. Basic financial statements
- 2. Notes to the basic financial statements
- 3. Required supplementary information
- 4. Other supplementary schedules

Collectively, this information presents the net position restricted for pension benefits for each of the funds administered by the System as of June 30, 2017. This financial information also summarizes changes in net position restricted for pension benefits for the year then ended. The information in each of these components is briefly summarized as follows:

#### 1. BASIC FINANCIAL STATEMENTS

The June 30, 2017, financial statements are presented for the fiduciary funds administered by the System. Fiduciary funds are used to account for resources held for the benefit of parties outside of the System. Fiduciary funds include pension trust funds such as PERS, MHSPRS, MRS, and SLRP, as well as an agency fund, the FBCP. A Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Net Position are presented for the fiduciary funds as of and for the year ended June 30, 2017. These financial statements reflect the resources available to pay benefits to members, including retirees and beneficiaries, as of year end, as well as the changes in those resources during the year.

#### **Financial Highlights**

The combined net position of the defined benefit plans administered by the System increased by \$2.4 billion, or 10.0 percent. This increase was primarily the result of investment performance for 2017.

The 2017 rate of return on investments for the defined benefit plans was 14.96 percent, compared with fiscal year 2016's rate of return of 1.20 percent. Domestic, international, and global equity portfolios returned 19.08 percent, 22.30 percent, and 20.25 percent, respectively, for the year, while the return on debt securities was 2.39 percent. The rate of return on real estate investments was 6.76 percent, and the return on the private equity portfolio was 20.12 percent.

The PERS, MHSPRS, and SLRP defined benefit plans administered by the System had a Net Pension Liability of \$16.6 billion, \$156.3 million, and \$3.5 million, respectively. The ratio of fiduciary net position to total pension liability was 61.5 percent, 68.6 percent, and 83.4 percent, respectively.

#### 2. NOTES TO THE BASIC FINANCIAL STATEMENTS

The notes to the financial statements provide additional information essential to a full understanding of the data provided in the basic financial statements. Information in the notes to the basic financial statements is described as follows:

- » Note 1 provides a general description of the System, as well as a concise description of each of the funds administered by the System. Information regarding employer and member participation in the pension plans administered by the System also is provided.
- » Note 2 provides a summary of significant accounting policies, including the basis of accounting for each fund type, management's use of estimates, and other significant accounting policies.
- » Note 3 describes investments, including investing authority and policies, investment risk discussion and additional information about cash, securities lending, fair value measurement, and derivatives.
- » Note 4 provides a summary of the capital assets of the System, including depreciation and net holding amounts.
- » Note 5 provides information about the net pension liability of employers in the defined benefit plans administered by the System.
- » Note 6 provides information about contributions to the defined benefit plans administered by the System.
- » Note 7 provides information about System employees as members of PERS.

#### 3. REQUIRED SUPPLEMENTARY INFORMATION

The required supplementary information consists of the schedule of changes in the net pension liability and related ratios, schedules of employer contributions, the schedule of investment returns, and related notes concerning accounting and financial reporting information for the defined benefit pension plans administered by the System.

#### 4. OTHER SUPPLEMENTARY SCHEDULES

Other schedules include detailed information on administrative expenses incurred by the System, investment and other professional service expenses incurred, as well as the balances due to individual municipal retirement plans. Also included is the statement of changes for the FBCP.

Financial Analysis of the Systems: Defined Benefit Plans

#### **INVESTMENTS**

The investment assets of the defined benefit plans administered by the System are combined in a commingled investment pool as authorized by state statute. Each plan owns an equity position in the pool and receives a proportionate investment allocation of income or loss from the pool in accordance with its respective ownership percentage. Each plan's allocated share of each type of investment in the pool is shown in the Statement of Fiduciary Net Position. Investment gains or losses are reported in the Statement of Changes in Fiduciary Net Position. The rate of return on investments is therefore approximately the same for each of the plans.

#### TOTAL SYSTEM INVESTMENTS

At June 30, 2017, the System's total investments, before securities lending activities, approximated \$26.6 billion, an increase of \$2.7 billion from fiscal year 2016. The combined investment portfolio experienced a return of 14.96 percent compared with a median large public plan, which is Callan Associates Public Funds > \$10 billion median, return of 13.30 percent. Investment results over time compared with the System's benchmarks are presented on page 87 in the Investment Section.

#### SHORT-TERM SECURITIES

At June 30, 2017, the System held \$303 million in short-term investments, which is an increase of \$68 million from 2016 holdings. Short-term investments returned 0.52 percent for the year.

#### **DEBT SECURITIES**

At June 30, 2017, the System held \$5.0 billion in debt securities, which is approximately the same as fiscal year 2016 holdings. Debt securities returned 2.39 percent compared with the System's benchmark return of 0.29 percent.

#### **EQUITY SECURITIES**

At June 30, 2017, the System held \$16.8 billion in US, international, and global equity securities, an increase of \$2.2 billion from fiscal year 2016. US, international, and global equity securities had returns of 19.08 percent, 22.30 percent, and 20.25 percent, respectively. The System's benchmark return for domestic equity securities was 18.53 percent, while the international securities benchmark returned 22.29 percent. The global securities benchmark used by the System posted a return of 19.01 percent.

#### PRIVATE EQUITY

The private equity asset class, totaling \$1.8 billion, posted a return of 20.12 percent. Private equities are investments in operating companies, typically accessed through limited partnerships, which provide a differentiated return stream and diversification. This asset class is generally managed for long-term gains, where returns and asset value take time to develop. The System's benchmark return was 20.90 percent. The System began investing in private equities in fiscal year 2008.

#### REAL ESTATE

The real estate portfolio is divided between core commingled and value-added fund investments that directly invest in properties. The System also invests in managed portfolios of Real Estate Investment Trusts (REITs), which are exchange-traded securities that provide indirect exposure to real estate properties and real estate management companies. At June 30, 2017, combined holdings remained at \$2.6 billion compared to 2016. The System's real estate portfolio experienced a return of 6.76 percent on the total real estate portfolio. The System's benchmark saw a return of 6.97 percent for the year ended June 30, 2017.

#### **SECURITIES LENDING**

The System earns additional investment income by lending investment securities to broker-dealers. This is done on a pooled basis by the System's custodial bank, Bank of New York Mellon (BNYM). The broker-dealers provide collateral to BNYM and generally use the borrowed securities to cover short sales and failed trades for their clients. BNYM invests cash collateral to earn interest. For the 2017 fiscal year, net securities lending income to the System amounted to \$22.3 million, an increase of \$2.9 million over fiscal year 2016.

DEFINED BENEFIT
PLANS INVESTMENT
RATES OF RETURN BY
INVESTMENT TYPE
- FISCAL YEAR 2017 -



### Analysis of Individual Systems

#### PUBLIC EMPLOYEES' RETIREMENT SYSTEM

PERS is a defined benefit cost-sharing plan that provides retirement benefits to all eligible State of Mississippi public employees, public education employees, other public employees whose employers have elected to participate, and elected members of the State Legislature and President of the Senate. Benefits of the plan are funded by member and employer contributions and by earnings on investments. Net position restricted for pension benefits at June 30, 2017, amounted to \$26.5 billion, an increase of \$2.4 billion (10.0 percent) from June 30, 2016.

Additions to PERS' net position restricted for benefits include employer and member contributions and investment income. For the 2017 fiscal year, employer and member contributions were \$1.6 billion, a decrease of \$4.7 million. The decrease is attributed to a decline in active members. PERS recognized net investment income of \$3.4 billion for the 2017 fiscal year, compared with net investment income of \$130.9 million for the 2016 fiscal year.

Deductions from PERS' net position restricted for pension benefits primarily include retirement and beneficiary benefits, as well as administrative expenses. For the 2017 fiscal year, benefit payments amounted to \$2.5 billion, an increase of \$110.2 million (4.7 percent) over the 2016 fiscal year. The increase in benefit payments was due to an increase in the number of benefit recipients. For the 2017 fiscal year, the cost of administering the System amounted to \$17.6 million.

At June 30, 2017, PERS employers' total pension liability was \$43.2 billion. The plan fiduciary net position was \$26.6 billion, resulting in a net pension liability of \$16.6 billion. The plan fiduciary net position as a percentage of the total pension liability was 61.5 percent using Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans, measurements.

#### MISSISSIPPI HIGHWAY SAFETY PATROL RETIREMENT SYSTEM

MHSPRS provides retirement benefits to sworn officers of the Mississippi Highway Safety Patrol. Benefits of the plan are funded by member and employer contributions and by earnings on investments. MHSPRS' net position restricted for pension benefits at June 30, 2017, amounted to \$341.7 million, an increase of \$30.1 million (9.7 percent) from \$311.6 million at June 30, 2016.

Additions to MHSPRS' net position restricted for pension benefits include employer and member contributions and investment income. For the 2017 fiscal year, employer and member contributions were \$16.9 million, an increase of \$73 thousand (0.4 percent) from 2016. Motor vehicle fees of \$3.0 million and driver's license reinstatement fees of \$763 thousand were added to 2017 employer contributions. MHSPRS recognized net investment income of \$44.5 million for the 2017 fiscal year compared with net investment income of \$1.7 million for 2016.

Deductions from MHSPRS' net position restricted for pension benefits primarily include retirement and beneficiary benefits and administrative fees. For the 2017 fiscal year, benefit payments amounted to \$31.0 million, an increase of \$1.1 million (3.7 percent) from the 2016 fiscal year. Although the number of retirees remained relatively constant, some newly retired members had higher benefits than those who were deceased during the period. For the 2017 fiscal year, MHSPRS transferred \$203 thousand to the System to offset the cost of administration, a decrease of \$14 thousand (6.4 percent) from 2016.

At June 30, 2017, MHSPRS employers' total pension liability was \$498.0 million. The plan fiduciary net position was \$341.7 million, resulting in a net pension liability of \$156.3 million. The plan fiduciary net position as a percentage of the total pension liability was 68.6 percent using GASB Statement No. 67 measurements.

## DEFINED BENEFIT PLANS ASSET ALLOCATION AT FAIR VALUE - JUNE 30, 2017 -









1.2% CASH & EOUIVALENTS

#### MUNICIPAL RETIREMENT SYSTEMS

Two municipal retirement plans and 17 fire and police disability and relief plans comprise MRS, all of which are closed to new members. Seventeen of these separate plans provide retirement benefits to municipal employees, fire fighters, and police officers who were not already members of PERS and who were hired prior to July 1, 1976. Membership in the other two plans was extended until July 1, 1987. All active employees have retired from 12 of the municipal plans. The financial positions of MRS plans have been aggregated for financial reporting purposes. Individual plan information is included with the specific municipality's annual financial report. Benefits of MRS are funded by employer and member contributions and by earnings on investments. The aggregated plan's net position restricted for pension benefits at June 30, 2017, amounted to \$158.6 million, an increase of \$4.0 million (2.6 percent) from \$154.6 million at June 30, 2016.

Additions to MRS' net position restricted for pension benefits consist of employer and member contributions and investment income. For the 2017 fiscal year, employer and member contributions of \$17.8 million were \$832 thousand (4.5 percent) less than contributions of \$18.6 million received in fiscal year 2016. MRS employer contributions are funded through taxes levied on assessed properties. In a closed plan, the number of active members decreases as they retire and the number of retirees decreases due to mortality. These factors lead to both lower total contributions and lower total benefits. MRS recognized net investment income of \$20.6 million for the 2017 fiscal year compared with net investment income of \$846 thousand for the 2016 fiscal year.

Deductions from MRS' net position restricted for pension benefits include retirement and beneficiary benefits and administrative fees. For the 2017 fiscal year, benefit payments amounted to \$34.1 million, a decrease of \$359 thousand (1.0 percent) from the 2016 fiscal year. For the 2017 fiscal year, MRS transferred \$355 thousand to the System to offset the cost of administration, compared to \$371 thousand transferred for fiscal year 2016.

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

#### SUPPLEMENTAL LEGISLATIVE RETIREMENT PLAN

SLRP provides supplemental retirement benefits to all elected members of the State Legislature and President of the Senate. Benefits of the plan are funded by member and employer contributions and by earnings on investments. The plan's net position restricted for pension benefits at June 30, 2017, amounted to \$17.3 million, an increase of \$1.6 million (10.0 percent) from June 30, 2016.

Additions to SLRP's net position restricted for pension benefits include employer and member contributions and investment income. For the 2017 fiscal year, employer and member contributions were \$734 thousand, an increase of \$12 thousand (1.7 percent) from those of fiscal year 2016. The increase in contributions is attributed to a slightly higher payroll amount for the 2017 fiscal year. SLRP recognized net investment income of \$2.3 million for the 2017 fiscal year, compared with a net investment income of \$86 thousand for the 2016 fiscal year.

Deductions from SLRP's net position restricted for pension benefits primarily include retirement and beneficiary benefits, as well as administrative fees. For the 2017 fiscal year, benefit payments amounted to \$1.4 million, decreasing over \$57 thousand from fiscal year 2016. The number of retirees decreased from the previous year. For the 2017 fiscal year, SLRP transferred \$10 thousand to PERS to offset the cost of administration, the same amount as for fiscal year 2016.

At June 30, 2017, the SLRP employers' total pension liability was \$20.8 million. The plan fiduciary net position was \$17.3 million, resulting in a net pension liability of \$3.4 million. The plan fiduciary net position as a percentage of the total pension liability was 83.4 percent using GASB Statement No. 67 measurements.

### NET POSITION—DEFINED BENEFIT PLANS - JUNE 30, 2017 -

[in thousands]

	PE	RS	MH	ISPRS	M	RS
Assets:	2017	2016	2017	2016	2017	2016
CASH, CASH EQUIVALENTS, & RECEIVABLES	\$1,367,302	\$1,445,085	\$16,715	\$17,667	\$8,072	\$8,857
INVESTMENTS AT FAIR VALUE	26,081,868	23,467,641	337,000	304,384	156,040	150,956
INVESTED SECURITIES LENDING COLLATERAL	2,902,799	3,254,526	37,590	42,382	17,405	21,055
CAPITAL ASSETS	26,865	35,140	-	-	-	-
TOTAL ASSETS	30,378,834	28,202,392	391,305	364,433	181,517	180,868
Liabilities:						
INVESTMENT ACCOUNTS & OTHER PAYABLES	937,471	814,228	12,054	10,457	5,569	5,195
SECURITIES LENDING LIABILITY	2,898,266	3,253,148	37,532	42,364	17,378	21,046
TOTAL LIABILITIES	3,835,737	4,067,376	49,586	52,821	22,947	26,241
TOTAL NET POSITION	\$26,543,097	\$24,135,016	\$341,719	\$311,612	\$158,570	\$154,627

#### CHANGES IN NET POSITION—DEFINED BENEFIT PLANS - YEAR ENDED JUNE 30, 2017 -

[in thousands]

	PE	ERS	MH	HSPRS	N	IRS	
Additions:	2017	2016	2017	2016	2017	2016	
CONTRIBUTIONS	\$1,589,150	\$1,593,835	\$16,956	\$16,883	\$17,763	\$18,595	
INVESTMENT INCOME	3,436,144	130,900	44,499	1,704	20,605	846	
OTHER ADDITIONS	604	633	-	-	-	-	
TOTAL ADDITIONS	5,025,898	1,725,368	61,455	18,587	38,368	19,441	
Deductions:							
PENSION BENEFITS	2,477,914	2,367,709	31,001	29,913	34,070	34,429	
REFUNDS	113,707	112,926	144	52	-	-	
ADMINISTRATIVE & OTHER DEDUCTIONS	26,196	16,273	203	217	355	371	
TOTAL DEDUCTIONS	2,617,817	2,496,908	31,348	30,182	34,425	34,800	
INCREASE (DECREASE) IN NET POSITION	\$2,408,081	\$(771,540)	\$30,107	\$(11,595)	\$3,943	\$(15,359)	

#### NET POSITION—DEFINED BENEFIT PLANS (CONTINUED)

- JUNE 30, 2017 -

[in thousands]

	S	LRP	ELIMINA	ATIONS	TOTAL DEFIN		TOTAL PERCENT CHANGE
Assets:	2017	2016	2017	2016	2017	2016	
CASH, CASH EQUIVALENTS, & RECEIVABLES	\$819	\$866	\$-	\$-	\$1,392,908	\$1,472,475	(5.40)%
INVESTMENTS AT FAIR VALUE	17,140	15,433	-	-	26,592,048	23,938,414	11.09%
INVESTED SECURITIES LENDING COLLATERAL	1,912	2,149	-	-	2,959,706	3,320,112	(10.86)%
CAPITAL ASSETS	-	-	-	-	26,865	35,140	(23.55)%
TOTAL ASSETS	19,871	18,448	-	-	30,971,527	28,766,141	7.67%
Liabilities:							
INVESTMENT ACCOUNTS & OTHER PAYABLES	620	532	-	-	\$955,714	\$830,412	15.09%
SECURITIES LENDING LIABILITY	1,909	2,148	-	-	2,955,085	3,318,706	(10.96)%
TOTAL LIABILITIES	2,529	2,680	-	-	3,910,799	4,149,118	(5.74)%
TOTAL NET POSITION	\$17,342	\$15,768	\$-	<b>\$</b> -	\$27,060,728	\$24,617,023	9.93%

#### CHANGES IN NET POSITION—DEFINED BENEFIT PLANS (CONTINUED)

- YEAR ENDED JUNE 30, 2017 -

[in thousands]

-		SLRP	ELIMIN	IATIONS		NED BENEFIT N PLANS	TOTAL PERCENT CHANGE
Additions:	2017	2016	2017	2016	2017	2016	
CONTRIBUTIONS	\$734	\$722	\$-	\$-	\$1,624,603	\$1,630,035	(0.33)%
INVESTMENT INCOME	2,264	86	-	-	3,503,512	133,536	2,523.65%
OTHER ADDITIONS	-	-	(568)	(598)	36	35	2.86%
TOTAL ADDITIONS	2,998	808	(568)	(598)	5,128,151	1,763,606	190.78%
Deductions:							
PENSION BENEFITS	1,397	1,454	-	-	2,544,382	2,433,505	4.56%
REFUNDS	17	32	-	-	113,868	113,010	0.76%
ADMINISTRATIVE & OTHER DEDUCTIONS	10	10	(568)	(598)	26,196	16,273	60.98%
TOTAL DEDUCTIONS	1,424	1,496	(568)	(598)	2,684,446	2,562,788	4.75%
INCREASE (DECREASE) IN NET POSITION	\$1,574	\$(688)	\$-	\$-	\$2,443,705	\$(799,182)	405.78%

#### REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the finances of the System. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

Public Employees' Retirement System of Mississippi Accounting Department 429 Mississippi Street Jackson, MS 39201-1005

### PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI STATEMENT OF FIDUCIARY NET POSITION

- JUNE 30, 2017 -

[in thousands]

ASSETS	PERS	MHSPRS	MRS	SLRP	ELIMINATIONS	
CASH & CASH	\$781,057	\$10,519	\$4,960	\$504	\$-	
EQUIVALENTS	Ψ/ O1,03/	¥10,317	Ψ1,200	<b>\$30</b> 1	Ψ	
Receivables:	69,026	_	220	-	_	
MEMBER	36,606	_	2	_	_	
INVESTMENT PROCEEDS	396,923	5,129	2,375	261	_	
INTEREST & DIVIDENDS	82,571	1,067	494	54	_	
OTHER RECEIVABLES	1,119	_,	21	-	_	
TOTAL RECEIVABLES	586,245	6,196	3,112	315	-	
Investments,		, , , ,	•			
at Fair Value: SHORT-TERM INVESTMENTS	296,893	3,836	1,776	195	-	
LONG-TERM DEBT SECURITIES	4,919,333	63,561	29,432	3,233	-	
EQUITY SECURITIES	16,524,452	213,511	98,860	10,859	-	
PRIVATE EQUITY	1,765,702	22,814	10,564	1,160	-	
REAL ESTATE INVESTMENTS	2,575,488	33,278	15,408	1,693	-	
TOTAL INVESTMENTS BEFORE LENDING ACTIVITIES	26,081,868	337,000	156,040	17,140	-	
Securities Lending:						
SHORT-TERM INVESTMENTS	267,685	3,466	1,605	176	-	
LONG-TERM DEBT SECURITIES	2,635,114	34,124	15,800	1,736	-	
TOTAL SECURITIES LENDING	2,902,799	37,590	17,405	1,912	-	
TOTAL INVESTMENTS	28,984,667	374,590	173,445	19,052	-	
CAPITAL ASSETS, AT COST, NET OF ACCUMULATED DEPRECIATION	26,865	-	-	-	-	
TOTAL ASSETS	30,378,834	391,305	181,517	19,871	-	
LIABILITIES						
ACCOUNTS PAYABLE & ACCRUED EXPENSES	937,471	12,054	5,569	620	-	
OBLIGATIONS UNDER SECURITIES LENDING	2,898,266	37,532	17,378	1,909	-	
FUNDS HELD FOR OTHERS	-	-	-	-	-	
TOTAL LIABILITIES	3,835,737	49,586	22,947	2,529	-	
NET POSITION RESTRICTED FOR PENSION BENEFITS	\$26,543,097	\$341,719	\$158,570	\$17,342	\$-	

## PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI STATEMENT OF FIDUCIARY NET POSITION (CONTINUED) - JUNE 30, 2017 -

[in thousands]

	TOTAL DEFINED BENEFIT PENSION PLANS	AGENCY FUNDS	TOTAL 2017
ASSETS			
CASH & CASH EQUIVALENTS	\$797,040	\$18	\$797,058
Receivables:			
EMPLOYER	69,246	-	69,246
MEMBER	36,608	-	36,608
INVESTMENT PROCEEDS	404,688	-	404,688
INTEREST & DIVIDENDS	84,186	-	84,186
OTHER RECEIVABLES	1,140	-	1,140
TOTAL RECEIVABLES	595,868	-	595,868
Investments, at Fair Value:			
SHORT-TERM INVESTMENTS	302,700	-	302,700
LONG-TERM DEBT SECURITIES	5,015,559	-	5,015,559
EQUITY SECURITIES	16,847,682	-	16,847,682
PRIVATE EQUITY	1,800,240	-	1,800,240
REAL ESTATE INVESTMENTS	2,625,867	-	2,625,867
TOTAL INVESTMENTS BEFORE LENDING ACTIVITIES	26,592,048	-	26,592,048
Securities Lending:			
SHORT-TERM INVESTMENTS	272,932	-	272,932
LONG-TERM DEBT SECURITIES	2,686,774	-	2,686,774
TOTAL SECURITIES LENDING	2,959,706	-	2,959,706
TOTAL INVESTMENTS	29,551,754	-	29,551,754
CAPITAL ASSETS, AT COST, NET OF ACCUMULATED DEPRECIATION	26,865	-	26,865
TOTAL ASSETS	30,971,527	18	30,971,545
LIABILITIES			
ACCOUNTS PAYABLE & ACCRUED EXPENSES	955,714	15	955,729
OBLIGATIONS UNDER SECURITIES LENDING	2,955,085	-	2,955,085
FUNDS HELD FOR OTHERS	-	3	3
TOTAL LIABILITIES	3,910,799	18	3,910,817
NET POSITION RESTRICTED FOR PENSION BENEFITS	\$27,060,728	\$-	\$27,060,728

## PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI STATEMENT OF CHANGES IN FIDUCIARY NET POSITION - FOR THE YEAR ENDED JUNE 30, 2017-

[in thousands]

ADDITIONS  Contributions:	PERS	MHSPRS	MRS	SLRP	ELIMINATIONS
EMPLOYER	\$1,019,084	\$14,809	\$17,732	\$522	\$-
MEMBER	570,066	2,147	31	212	-
TOTAL CONTRIBUTIONS	1,589,150	16,956	17,763	734	-
Net Investment Income:					
NET APPRECIATION IN FAIR VALUE	2,979,142	38,580	17,864	1,962	-
INTEREST & DIVIDENDS	529,172	6,853	3,173	349	-
TOTAL BEFORE LENDING ACTIVITIES	3,508,314	45,433	21,037	2,311	-
Securities Lending:					
NET APPRECIATION IN FAIR VALUE	3,174	41	19	2	-
INTEREST	36,600	474	220	24	-
INTEREST EXPENSE	(14,556)	(188)	(87)	(9)	-
PROGRAM FEES	(3,316)	(43)	(20)	(2)	-
NET INCOME FROM SECURITIES LENDING	21,902	284	132	15	-
MANAGERS' FEES & TRADING COSTS	(94,072)	(1,218)	(564)	(62)	-
NET INVESTMENT INCOME	3,436,144	44,499	20,605	2,264	-
Other Additions:					
ADMINISTRATIVE FEES	568	-	-	-	(568)
OTHER	36	-	-	-	-
TOTAL OTHER ADDITIONS	604	-	-	-	(568)
TOTAL ADDITIONS	5,025,898	61,455	38,368	2,998	(568)
DEDUCTIONS					
RETIREMENT ANNUITIES	2,477,914	31,001	34,070	1,397	-
REFUNDS TO TERMINATED EMPLOYEES	113,707	144	-	17	-
TOTALS	2,591,621	31,145	34,070	1,414	-
Administrative Expenses:  PERSONAL SERVICES:					
SALARIES, WAGES, & FRINGE BENEFITS  PERSONAL SERVICES:	9,721	-	-	-	-
TRAVEL & SUBSISTENCE	86	-	-	-	-
CONTRACTUAL SERVICES	7,549	-	-	-	-
COMMODITIES	268	-	-	-	-
TOTAL ADMINISTRATIVE EXPENSES	17,624	-	-	-	-
DEPRECIATION	8,572	-	-	-	-
ADMINISTRATIVE FEES	-	203	355	10	(568)
TOTAL DEDUCTIONS	2,617,817	31,348	34,425	1,424	(568)
NET INCREASE	2,408,081	30,107	3,943	1,574	•
NET POSITION RESTRICTED FOR PENSION BENEFITS					
BEGINNING OF YEAR	24,135,016	311,612	154,627	15,768	-
END OF YEAR	\$26,543,097	\$341,719	\$158,570	\$17,342	<b>\$</b> -

## PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI STATEMENT OF CHANGES IN FIDUCIARY NET POSITION (CONTINUED) - FOR THE YEAR ENDED JUNE 30, 2017-

[in thousands]

TOTAL DEFINED BENEFIT PENSION PLANS 2017

#### **ADDITIONS**

Cont		

MEMBER   \$1,052,147     MEMBER   572,456     TOTAL CONTRIBUTIONS   1,624,603     Net Investment Income:     NET APPRECIATION IN FAIR VALUE   3,037,548     INTEREST & DIVIDENDS   539,547     TOTAL BEFORE LENDING ACTIVITIES   3,577,095     Securities Lending:   NET APPRECIATION IN FAIR VALUE   3,236     INTEREST   37,318     INTEREST EXPENSE   (14,840)     PROGRAM FEES   (3,381)     NET INCOME FROM SECURITIES LENDING   22,333     MANAGERS' FEES & TRADITION   22,333     MANAGERS' FEES & TRADITION   3,503,512     Other Additions:   ADMINISTRATIVE FEES   - OTHER   36     TOTAL OTHER ADDITIONS   3,503,512     OTHER   36     TOTAL ADDITIONS   5,128,151     DE DUCTIONS   RETIREMENT ANNUITIES   2,544,382     REFUNDS TO TERMINATED EMPLOYEES   113,868     TOTALS   2,658,250     Administrative Expenses:   PERSONAL SERVICES:   SALARIES, WAGES, & FRINGE BENEFITS   9,721     PERSONAL SERVICES:   TRAVEL & SUBSISTENCE   86     CONTRACTUAL SERVICES:   7,549     COMMODITIES   268     TOTAL ADMINISTRATIVE EXPENSES   17,624     DEPRECIATION   8,572     ADMINISTRATIVE EXPENSES   17,624     DEPRECIATION   8,572     ADMINISTRATIVE EXPENSES   17,624     DEPRECIATION   8,572     ADMINISTRATIVE EXPENSES   2,684,446     NET INCREASE   2,443,705     NET POSITION RESTRICTED   FOR PENSION BENEFITS	¢1 0E2 147	EMPLOYER
TOTAL CONTRIBUTIONS  Net Investment Income:  NET APPRECIATION IN FAIR VALUE  NET APPRECIATION IN FAIR VALUE  INTEREST & DIVIDENDS  Securities Lending:  NET APPRECIATION IN FAIR VALUE  3,236  INTEREST 37,318  INTEREST 37,318  INTEREST EXPENSE (14,840)  PROGRAM FEES (3,381)  NET INCOME FROM SECURITIES LENDING  PROGRAM FEES (95,916)  NET INVESTMENT INCOME  Other Additions:  ADMINISTRATIVE FEES -  OTHER 36  TOTAL OTHER ADDITIONS  RETIREMENT ANNUITIES 2,544,382  REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINCE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE  CONTRACTUAL SERVICES: TRAVEL & SUBSISTENCE  COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES  TOTAL ADMINISTRATIVE EXPENSES  TOTAL ADMINISTRATIVE EXPENSES  17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES -  TOTAL DEDUCTIONS  RETIRCATION 8,572  ADMINISTRATIVE EXPENSES  TOTAL DEPRECIATION 8,572  ADMINISTRATIVE EXPENSES  NET POSITION RESTRICTED FOR PENSION BENEFITS	\$1,032,147	
Net Investment Income:  NET APPRECIATION IN FAIR VALUE  INTEREST & DIVIDENDS  539,547  TOTAL BEFORE LENDING ACTIVITIES  Securities Lending:  NET APPRECIATION IN FAIR VALUE  3,236  INTEREST  37,318  INTEREST  37,318  INTEREST EXPENSE  (14,840)  PROGRAM FEES  (3,381)  NET INCOME FROM SECURITIES LENDING  PROGRAM FEES  (3,381)  NET INVESTMENT INCOME  Other Additions:  ADMINISTRATIVE FEES  OTHER  36  TOTAL ADDITIONS  RETIREMENT ANNUITIES  ADMINISTRATIVE FEES  TOTALS  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS  PERSONAL SERVICES: TRAVEL & SUBSISTENCE  CONTRACTUAL SERVICES  TRAVEL & SUBSISTENCE  CONTRACTUAL SERVICES  7,549  COMMODITIES  ADMINISTRATIVE EXPENSES  TOTAL ADMINISTRATIVE EXPENSES  17,624  DEPRECIATION  8,572  ADMINISTRATIVE EXPENSES  TOTAL ADMINISTRATIVE EXPENSES  TOTAL ADMINISTRATIVE EXPENSES  17,624  DEPRECIATION  8,572  ADMINISTRATIVE FEES  TOTAL ADMINISTRATIVE EXPENSES  17,624  DEPRECIATION  8,572  ADMINISTRATIVE FEES  TOTAL DEDUCTIONS  Q,684,446  NET INCREASE  2,443,705	572,456	MEMBER
NET APPRECIATION IN FAIR VALUE INTEREST & DIVIDENDS  Securities Lending:  NET APPRECIATION IN FAIR VALUE 3,236  INTEREST 37,318  INTEREST 37,318  INTEREST 37,318  INTEREST EXPENSE (14,840) PROGRAM FEES (3,381)  NET INCOME FROM SECURITIES LENDING PROGRAM FEES (3,381)  NET INVESTMENT INCOME 3,503,512  Other Additions: ADMINISTRATIVE FEES - OTHER 36  TOTAL OTHER ADDITIONS 5,128,151  DEDUCTIONS RETIREMENT ANNUITIES 2,544,382  REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses: PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS 9,721 PERSONAL SERVICES: TRAVEL & SUBSISTENCE 86  TOTAL ADMINISTRATIVE EXPENSES 7,549  COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 8,572  ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 8,572  ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446  NET INCREASE 2,443,705	1,624,603	TOTAL CONTRIBUTIONS
TOTAL BEFORE LENDING ACTIVITIES Securities Lending:  NET APPRECIATION IN FAIR VALUE 3,236 INTEREST 37,318 INTEREST 37,318 INTEREST 37,318 INTEREST EXPENSE (14,840) PROGRAM FEES (3,381)  NET INCOME FROM SECURITIES LENDING 22,333 MANAGERS' FEES & TRADING COSTS (95,916)  NET INVESTMENT INCOME 3,503,512  Other Additions:  ADMINISTRATIVE FEES - OTHER 36  TOTAL OTHER ADDITIONS 36 TOTAL ADDITIONS 5,128,151  DEDUCTIONS RETIREMENT ANNUITIES 2,544,382 REFUNDS TO TERMINATED EMPLOYEES 113,868 TOTALS 2,658,250  Administrative Expenses: PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENSEITS 9,721 PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES: 7,549 COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624 DEPRECIATION 8,572 ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,4466 NET INCREASE 2,443,705		Net Investment Income:
TOTAL BEFORE LENDING ACTIVITIES  Securities Lending:  NET APPRECIATION IN FAIR VALUE  3,236  INTEREST  37,318  INTEREST  37,318  INTEREST 37,318  INTEREST EXPENSE  (14,840)  PROGRAM FEES  (3,381)  NET INCOME FROM SECURITIES LENDING  22,333  MANAGERS' FEES & TRADING COSTS  (95,916)  NET INVESTMENT INCOME  3,503,512  Other Additions:  ADMINISTRATIVE FEES  - OTHER  36  TOTAL OTHER ADDITIONS  RETIREMENT ANNUITIES  2,544,382  REFUNDS TO TERMINATED EMPLOYEES  113,868  TOTALS  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE  CONTRACTUAL SERVICES  TRAVEL & SUBSISTENCE  COMMODITIES  268  TOTAL ADMINISTRATIVE EXPENSES  17,624  DEPRECIATION  8,572  ADMINISTRATIVE FEES  - TOTAL DEDUCTIONS  2,684,446  NET INCREASE  NET POSITION RESTRICTED FOR PENSION BENEFITS	3,037,548	NET APPRECIATION IN FAIR VALUE
Securities Lending:  NET APPRECIATION IN FAIR VALUE 3,236  INTEREST 37,318  INTEREST 37,318  INTEREST EXPENSE (14,840)  PROGRAM FEES (3,381)  NET INCOME FROM SECURITIES LENDING 22,333  MANAGERS' FEES & TRADING COSTS (95,916)  NET INVESTMENT INCOME 3,503,512  Other Additions:  ADMINISTRATIVE FEES - OTHER 36  TOTAL OTHER ADDITIONS 36  TOTAL ADDITIONS 5,128,151  DEDUCTIONS RETIREMENT ANNUITIES 2,544,382  REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses: PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS 9,721 PERSONAL SERVICES: TRAVEL & SUBSISTENCE 86 CONTRACTUAL SERVICES 7,549 COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,4466 NET INCREASE 2,443,705	539,547	INTEREST & DIVIDENDS
NET APPRECIATION IN FAIR VALUE  INTEREST  37,318  INTEREST  37,318  INTEREST EXPENSE  (14,840)  PROGRAM FEES  (3,381)  NET INCOME FROM SECURITIES LENDING  22,333  MANAGERS' FEES & TRADING COSTS  (95,916)  NET INVESTMENT INCOME  Other Additions:  ADMINISTRATIVE FEES  OTHER  36  TOTAL OTHER ADDITIONS  RETIREMENT ANNUITIES  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE  CONTRACTUAL SERVICES: TRAVEL & SUBSISTENCE  CONTRACTUAL SERVICES  TOTAL ADMINISTRATIVE EXPENSES  POPPOSITION  ADMINISTRATIVE FEES  TOTAL DEPRECIATION  8,572  ADMINISTRATIVE FEES  TOTAL DEPRECIATION  8,572  ADMINISTRATIVE FEES  TOTAL DEPRECIATION  NET POSITION RESTRICTED FOR PENSION BENEFITS  NET POSITION RESTRICTED FOR PENSION BENEFITS	3,577,095	TOTAL BEFORE LENDING ACTIVITIES
INTEREST 37,318  INTEREST EXPENSE (14,840) PROGRAM FEES (3,381)  NET INCOME FROM SECURITIES LENDING 22,333  MANAGERS' FEES & TRADING COSTS (95,916)  NET INVESTMENT INCOME 3,503,512  Other Additions:  ADMINISTRATIVE FEES - OTHER 36  TOTAL OTHER ADDITIONS 36  TOTAL ADDITIONS 5,128,151  DEDUCTIONS RETIREMENT ANNUITIES 2,544,382  REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses: PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS 9,721 PERSONAL SERVICES: TRAVEL & SUBSISTENCE 86  CONTRACTUAL SERVICES 7,549  COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446 NET INCREASE 2,443,705		Securities Lending:
INTEREST EXPENSE (14,840) PROGRAM FEES (3,381)  NET INCOME FROM SECURITIES LENDING 22,333  MANAGERS' FEES & TRADING COSTS (95,916)  NET INVESTMENT INCOME 3,503,512  Other Additions:  ADMINISTRATIVE FEES - OTHER 36  TOTAL OTHER ADDITIONS 36  TOTAL ADDITIONS 5,128,151  DEDUCTIONS RETIREMENT ANNUITIES 2,544,382  REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses: PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAYLE & SUBSISTENCE 86  CONTRACTUAL SERVICES 7,549  COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446 NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS	3,236	NET APPRECIATION IN FAIR VALUE
PROGRAM FEES (3,381)  NET INCOME FROM SECURITIES LENDING 22,333  MANAGERS' FEES & TRADING COSTS (95,916)  NET INVESTMENT INCOME 3,503,512  Other Additions:  ADMINISTRATIVE FEES - OTHER 36  TOTAL OTHER ADDITIONS 36  TOTAL ADDITIONS 5,128,151  DEDUCTIONS RETIREMENT ANNUITIES 2,544,382  REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses: PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS 9,721 PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES 7,549  COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446 NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS	37,318	INTEREST
NET INCOME FROM SECURITIES LENDING  MANAGERS' FEES & TRADING COSTS  (95,916)  NET INVESTMENT INCOME  Other Additions:  ADMINISTRATIVE FEES  OTHER  36  TOTAL OTHER ADDITIONS  RETIREMENT ANNUITIES  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES TRAVEL & SUBSISTENCE COMMODITIES  COMMODITIES  TOTAL ADMINISTRATIVE EXPENSES  PERSONAL SERVICES TOTAL ADMINISTRATIVE EXPENSES  COMMODITIES  ADMINISTRATIVE FEES  TOTAL DEDUCTION  ADMINISTRATIVE FEES  TOTAL DEDUCTIONS ADMINISTRATIVE FEES  ADMINISTRATIVE FEES ADMINISTRA	(14,840)	INTEREST EXPENSE
MANAGERS' FEES & TRADING COSTS  NET INVESTMENT INCOME  Other Additions:  ADMINISTRATIVE FEES  OTHER  OTHER  36  TOTAL OTHER ADDITIONS  ACTION S  RETIREMENT ANNUITIES  2,544,382  REFUNDS TO TERMINATED EMPLOYEES  113,868  TOTALS  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS  PERSONAL SERVICES: TRAVEL & SUBSISTENCE  CONTRACTUAL SERVICES  TOTAL ADMINISTRATIVE EXPENSES  17,624  DEPRECIATION  ADMINISTRATIVE FEES  TOTAL DEDUCTIONS  ADMINISTRATIVE FEES  ADMINISTRATIVE FEES  TOTAL DEDUCTIONS  ADMINISTRATIVE FEES  ADMINISTRATIVE F	(3,381)	PROGRAM FEES
NET INVESTMENT INCOME  Other Additions:  ADMINISTRATIVE FEES  OTHER  OTHER  36  TOTAL OTHER ADDITIONS  ACTIVE FEES  DEDUCTIONS  RETIREMENT ANNUITIES  REFUNDS TO TERMINATED EMPLOYEES  113,868  TOTALS  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS  PERSONAL SERVICES: TRAVEL & SUBSISTENCE  CONTRACTUAL SERVICES  TOTAL ADMINISTRATIVE EXPENSES  TOTAL ADMINISTRATIVE EXPENSES  TOTAL ADMINISTRATIVE FEES  TOTAL DEPRECIATION  ADMINISTRATIVE FEES  TOTAL DEDUCTIONS  ADMINISTRATIVE FEES  TOTAL DEDUCTIONS  NET POSITION RESTRICTED  FOR PENSION BENEFITS	22,333	NET INCOME FROM SECURITIES LENDING
Other Additions:  ADMINISTRATIVE FEES  OTHER  36  TOTAL OTHER ADDITIONS  36  TOTAL ADDITIONS  S,128,151   DEDUCTIONS  RETIREMENT ANNUITIES  2,544,382  REFUNDS TO TERMINATED EMPLOYEES  113,868  TOTALS  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES: 7,549 COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624 DEPRECIATION 8,572 ADMINISTRATIVE FEES  TOTAL DEDUCTIONS 2,684,446 NET INCREASE NET POSITION RESTRICTED FOR PENSION BENEFITS	(95,916)	MANAGERS' FEES & TRADING COSTS
ADMINISTRATIVE FEES OTHER 36  TOTAL OTHER ADDITIONS 36 TOTAL ADDITIONS 5,128,151  DEDUCTIONS RETIREMENT ANNUITIES 2,544,382 REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses: PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS 9,721 PERSONAL SERVICES: TRAVEL & SUBSISTENCE 86 CONTRACTUAL SERVICES 7,549 COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624 DEPRECIATION 8,572 ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446 NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS	3,503,512	NET INVESTMENT INCOME
TOTAL OTHER ADDITIONS  TOTAL ADDITIONS  DEDUCTIONS  RETIREMENT ANNUITIES  2,544,382  REFUNDS TO TERMINATED EMPLOYEES  113,868  TOTALS  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES TRAVEL & SUBSISTENCE COMMODITIES  COMMODITIES  TOTAL ADMINISTRATIVE EXPENSES  TOTAL ADMINISTRATIVE FEES  TOTAL DEDUCTIONS ADMINISTRATIVE FEES  TOTAL DEDUCTIONS NET INCREASE  NET POSITION RESTRICTED FOR PENSION BENEFITS		Other Additions:
TOTAL OTHER ADDITIONS TOTAL ADDITIONS TOTAL ADDITIONS  RETIREMENT ANNUITIES REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses: PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES TRAVEL & SUBSISTENCE COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624 DEPRECIATION 8,572 ADMINISTRATIVE FEES TOTAL DEDUCTIONS 2,684,446 NET INCREASE NET POSITION RESTRICTED FOR PENSION BENEFITS	-	ADMINISTRATIVE FEES
TOTAL ADDITIONS  DEDUCTIONS  RETIREMENT ANNUITIES  2,544,382  REFUNDS TO TERMINATED EMPLOYEES  113,868  TOTALS  2,658,250  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES TRAVEL & SUBSISTENCE COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES TOTAL DEDUCTIONS 2,684,446  NET INCREASE NET POSITION RESTRICTED FOR PENSION BENEFITS	36	OTHER
DEDUCTIONS RETIREMENT ANNUITIES 2,544,382  REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses: PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES 7,549 COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624 DEPRECIATION 8,572 ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446 NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS	36	TOTAL OTHER ADDITIONS
RETIREMENT ANNUITIES 2,544,382  REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES TOTAL DEDUCTIONS 2,684,446 NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS	5,128,151	TOTAL ADDITIONS
RETIREMENT ANNUITIES 2,544,382  REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES TOTAL DEDUCTIONS 2,684,446 NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS		
REFUNDS TO TERMINATED EMPLOYEES 113,868  TOTALS 2,658,250  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446  NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS		DEDUCTIONS
TOTALS 2,658,250  Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES TOTAL ADMINISTRATIVE EXPENSES TOTAL ADMINISTRATIVE EXPENSES TOTAL ADMINISTRATIVE FEES TOTAL DEDUCTIONS ADMINISTRATIVE FEES TOTAL DEDUCTIONS NET POSITION RESTRICTED FOR PENSION BENEFITS	2,544,382	RETIREMENT ANNUITIES
Administrative Expenses:  PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES TOTAL ADMINISTRATIVE EXPENSES TOTAL ADMINISTRATIVE EXPENSES TOTAL ADMINISTRATIVE FEES TOTAL DEDUCTIONS ADMINISTRATIVE FEES TOTAL DEDUCTIONS NET POSITION RESTRICTED FOR PENSION BENEFITS	113,868	REFUNDS TO TERMINATED EMPLOYEES
PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES 7,549 COMMODITIES 268 TOTAL ADMINISTRATIVE EXPENSES 17,624 DEPRECIATION 8,572 ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446 NET INCREASE NET POSITION RESTRICTED FOR PENSION BENEFITS	2,658,250	TOTALS
SALARIES, WAGES, & FRINGE BENEFITS  PERSONAL SERVICES: TRAVEL & SUBSISTENCE  CONTRACTUAL SERVICES  7,549  COMMODITIES  268  TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446  NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS		Administrative Expenses
TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES 7,549 COMMODITIES 268 TOTAL ADMINISTRATIVE EXPENSES 17,624 DEPRECIATION 8,572 ADMINISTRATIVE FEES - TOTAL DEDUCTIONS 2,684,446 NET INCREASE 2,443,705 NET POSITION RESTRICTED FOR PENSION BENEFITS		•
COMMODITIES 268  TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES -  TOTAL DEDUCTIONS 2,684,446  NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS	9,721	PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS
TOTAL ADMINISTRATIVE EXPENSES 17,624  DEPRECIATION 8,572  ADMINISTRATIVE FEES -  TOTAL DEDUCTIONS 2,684,446  NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS		PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES:
DEPRECIATION 8,572  ADMINISTRATIVE FEES -  TOTAL DEDUCTIONS 2,684,446  NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS	86	PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE
ADMINISTRATIVE FEES -  TOTAL DEDUCTIONS 2,684,446  NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS	86 7,549	PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES
TOTAL DEDUCTIONS 2,684,446  NET INCREASE 2,443,705  NET POSITION RESTRICTED FOR PENSION BENEFITS	86 7,549 268	PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES COMMODITIES
NET POSITION RESTRICTED FOR PENSION BENEFITS	86 7,549 268 <b>17,624</b>	PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES COMMODITIES TOTAL ADMINISTRATIVE EXPENSES
NET POSITION RESTRICTED FOR PENSION BENEFITS	86 7,549 268 <b>17,624</b>	PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES COMMODITIES TOTAL ADMINISTRATIVE EXPENSES DEPRECIATION
FOR PENSION BENEFITS	86 7,549 268 <b>17,624</b> 8,572	PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES COMMODITIES TOTAL ADMINISTRATIVE EXPENSES DEPRECIATION ADMINISTRATIVE FEES
BEGINNING OF YEAR 24.617.023	86 7,549 268 <b>17,624</b> 8,572	PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES COMMODITIES TOTAL ADMINISTRATIVE EXPENSES DEPRECIATION ADMINISTRATIVE FEES TOTAL DEDUCTIONS
	86 7,549 268 <b>17,624</b> 8,572	PERSONAL SERVICES: SALARIES, WAGES, & FRINGE BENEFITS PERSONAL SERVICES: TRAVEL & SUBSISTENCE CONTRACTUAL SERVICES COMMODITIES TOTAL ADMINISTRATIVE EXPENSES DEPRECIATION ADMINISTRATIVE FEES TOTAL DEDUCTIONS NET INCREASE NET POSITION RESTRICTED

END OF YEAR

\$27,060,728

# Public Employees' Retirement System of Mississippi Notes to Basic Financial Statements JUNE 30, 2017

Note 1: Plan Description

#### **GENERAL**

The Public Employees' Retirement System of Mississippi (System) is the administrator of five fiduciary funds, of which four are pension trust funds and one an agency fund, as listed below. The System also oversees the Mississippi Deferred Compensation Plan & Trust and the Optional Retirement Plan, but as explained in Note 2, these plans are not part of the System's reporting entity.

PLAN NAME	TYPE OF PLAN
PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI (PERS)	Cost-sharing multiple-employer defined benefit pension plan
MISSISSIPPI HIGHWAY SAFETY PATROL RETIREMENT SYSTEM (MHSPRS)	Single-employer defined benefit pension plan
MUNICIPAL RETIREMENT SYSTEMS AND FIRE AND POLICE DISABILITY AND RELIEF FUND (MRS)*	Agent multiple-employer defined benefit pension plan
SUPPLEMENTAL LEGISLATIVE RETIREMENT PLAN (SLRP)	Single-employer defined benefit pension plan
FLEXIBLE BENEFITS CAFETERIA PLAN (FBCP)	Agency

<sup>\*</sup>Closed to new members

The System's purpose is to provide pension benefits for all state and public education employees, sworn officers of the Mississippi Highway Safety Patrol, other public employees whose employers have elected to participate in the System, and elected members of the State Legislature and the President of the Senate. The System is administered by a 10-member Board of Trustees that includes the State Treasurer; one gubernatorial appointee who is a member of PERS; two state employees; two PERS retirees; and one representative each from public schools and community colleges, state universities, municipalities, and counties. With the exception of the State Treasurer and the gubernatorial appointee, all members are elected to staggered six-year terms by the constitutents they represent.

During the year, the System undertook an initiative to reduce the growing level of inactive PERS, MHSPRS, and SLRP accounts with small residual or zero balances. There was no impact to the System's actuarial valuation measurements.

A summary of participating employers and members follows:

#### SUMMARY OF PARTICIPATING EMPLOYERS AND MEMBERS

Employers:	PERS	MHSPRS*	MRS	SLRP**	TOTAL
STATE AGENCIES	111	1	-	1	113
STATE UNIVERSITIES	9	-	-	-	9
PUBLIC SCHOOLS	143	-	-	-	143
COMMUNITY/JUNIOR COLLEGES	15	-	-	-	15
COUNTIES	82	-	-	-	82
MUNICIPALITIES	241	-	17	-	258
OTHER POLITICAL SUBDIVISIONS	260	-	-	-	260
TOTAL EMPLOYERS	861	1	17	1	880
Members:					
ACTIVE VESTED	81,151	424	6	112	81,693
ACTIVE NONVESTED	71,231	46	-	62	71,339
TOTAL ACTIVE MEMBERS	152,382	470	6	174	153,032
INACTIVE VESTED	16,682	40	-	36	16,758
INACTIVE NONVESTED	50,170	19	-	20	50,209
TOTAL INACTIVE MEMBERS	66,852	59	-	56	66,967
RETIREES & BENEFICIARIES	102,260	726	1,754	205	104,945
TOTAL RETIRED/INACTIVE MEMBERS	169,112	785	1,754	261	171,912
TOTAL MEMBERS	321,494	1,255	1,760	435	324,944
Active Members by Employer:					
STATE AGENCIES	28,434	470	-	174	29,078
STATE UNIVERSITIES	17,636	-	-	-	17,636
PUBLIC SCHOOLS	61,509	-	-	-	61,509
COMMUNITY/JUNIOR COLLEGES	6,100	-	-	-	6,100
COUNTIES	13,630	-	-	-	13,630
MUNICIPALITIES	16,163	-	6	-	16,169
OTHER POLITICAL SUBDIVISIONS	8,910	-	-	-	8,910
TOTAL ACTIVE MEMBERS	152,382	470	6	174	153,032

<sup>\*</sup>MHSPRS has two reporting entities. \*\*SLRP has five reporting entities.

#### MEMBERSHIP AND BENEFIT PROVISIONS

(1) Public Employees' Retirement System of Mississippi

Membership in PERS is a condition of employment granted upon hiring for qualifying employees and officials of the State of Mississippi (the State), state universities, community and junior colleges, and teachers and employees of the public school districts. For those persons employed by political subdivisions and instrumentalities of the State, membership is contingent upon approval of the entity's participation in PERS by the System's Board of Trustees. If approved, membership for the entity's employees is a condition of employment and eligibility is granted to those who qualify upon hiring. Members and employers are statutorily required to contribute certain percentages of salaries and wages as specified by the Board of Trustees. A member who terminates employment from all covered employers and who is not eligible to receive monthly retirement benefits may request a full refund of his or her accumulated member contributions plus interest. Upon withdrawal of contributions, a member forfeits service credit represented by those contributions.

Participating members who are vested and retire at or after age 60 or those who retire regardless of age with at least 30 years of creditable service (25 years of creditable service for employees who became members of PERS before July 1, 2011) are entitled, upon application, to an annual retirement allowance payable monthly for life in an amount equal to 2.0 percent of their average compensation for each year of creditable service up to and including 30 years (25 years for those who became members of PERS before July 1, 2011), plus 2.5 percent for each additional year of creditable service with an actuarial reduction in the benefit for each year of creditable service below 30 years or the number of years in age that the member is below 65, whichever is less. Average compensation is the average of the employee's earnings during the four highest compensated years of creditable service. A member may elect a reduced retirement allowance payable for life with the provision that, after death, a beneficiary receives benefits for life or for a specified number of years. Benefits vest upon completion of eight years of membership service (four years of membership service for those who became members of PERS before July 1, 2007). PERS also provides certain death and disability benefits. In the event of death prior to retirement of any member whose spouse and/or children are not entitled to a retirement allowance, the deceased member's accumulated contributions and interest are paid to the designated beneficiary.

A Cost-of-Living Adjustment (COLA) payment is made to eligible retirees and beneficiaries. The COLA is equal to 3.0 percent of the annual retirement allowance for each full fiscal year of retirement up to the year in which the retired member reaches age 60 (55 for those who became members of PERS before July 1, 2011), with 3.0 percent compounded for each fiscal year thereafter. For the year ended June 30, 2017, the total COLA payments for PERS were \$603,318,841.

Plan provisions and the Board of Trustees' authority to determine contribution rates are established by Miss. Code Ann. § 25-11-1 et seq., (1972, as amended) and may be amended only by the Mississippi Legislature.

#### (2) Mississippi Highway Safety Patrol Retirement System

Membership in MHSPRS is a condition of employment granted upon hiring for all officers of the Mississippi Highway Safety Patrol who have completed a course of instruction in an authorized highway patrol training school on general law enforcement and who serve as sworn officers of the highway patrol in the enforcement of the laws of the State of Mississippi. Members and employers are statutorily required to contribute certain percentages of salaries and wages as specified by the Administrative Board of MHSPRS. Participating members who withdraw from service at or after age 55 with at least five years of membership service, or after reaching age 45 with at least 20 years of creditable service, or with 25 years of service at any age, are entitled, upon application, to an annual retirement allowance payable monthly for life in an amount equal to 2.5 percent of average compensation during the four highest consecutive years of earnings, reduced 3.0 percent for each year below age 55 or for each year under 25

years of service, whichever is less. MHSPRS also provides certain death and disability benefits. In the event of death prior to retirement of any member whose spouse and/or children are not entitled to a retirement allowance, the deceased member's accumulated contributions and interest are paid to the designated beneficiary. A member who terminates employment from the highway patrol and who is not eligible to receive monthly retirement benefits may request a full refund of his or her accumulated employee contributions plus interest. Upon withdrawal of contributions, a member forfeits service credit represented by those contributions.

A COLA payment is made to eligible retirees and beneficiaries. The COLA is equal to 3.0 percent of the annual retirement allowance for each full fiscal year of retirement up to the year in which the retired member reaches age 60, with 3.0 percent compounded for each fiscal year thereafter. For the year ended June 30, 2017, the total COLA payments for MHSPRS were \$9,455,524.

Plan provisions and the Administrative Board's authority to determine contribution rates for MHSPRS are established by Miss. Code Ann. § 25-13-1 et seq., (1972, as amended) and may be amended only by the Mississippi Legislature.

#### (3) Municipal Retirement Systems

Membership in the two general municipal employee plans and the 17 fire and police disability and relief systems under MRS was granted to all municipal employees, fire fighters, and police officers who were not already members of PERS and who were hired prior to July 1, 1976. Two fire and police plans elected to extend the eligibility period for membership to July 1, 1987. All MRS plans were closed to new members by July 1, 1987. Eligible employees hired after July 1, 1987, automatically become members of PERS. Members covered by MRS are required to contribute varying amounts of their salary, depending on the actuarial soundness of their respective plans. Each employer contributes the remaining amounts necessary to finance participation of its own employees in MRS.

Regardless of age, participating employees who retire with at least 20 years of membership service are entitled to an annual retirement allowance payable monthly for life in an amount equal to 50.0 percent of their average monthly compensation and to an additional 1.7 percent for each year of creditable service beyond 20 years, not to exceed 66.67 percent of average monthly compensation, except as may otherwise be provided through local and private legislation. Average monthly compensation for the MRS plans is the monthly average for the last six months of service. Certain participating employers provide a minimum monthly retirement allowance. Benefits vest upon reaching 20 years of membership service. MRS plans also provide certain death and disability benefits. Members who terminate employment from all covered employers and are not eligible to receive monthly retirement benefits may request a full refund of employee contributions. Members covered by MRS do not receive interest on their accumulated contributions. Upon withdrawal of contributions, a member forfeits service credit represented by those contributions.

The retirees and beneficiaries of MRS plans with provisions for COLAs who are receiving a retirement allowance on July 1 of each fiscal year may be entitled to a COLA. This payment is equal to the annual percentage change of the Consumer Price Index (CPI) but not to exceed 2.5 percent of the annual retirement allowance for each full fiscal year of retirement. Certain MRS plans may adopt a COLA other than one linked to the change in the CPI. These additional payments will be made only when funded by the employers. For the year ended June 30, 2017, the total COLAs for MRS plans were \$5,536,896.

Plan provisions are established by Miss. Code Ann. § 21-29-1 et seq., Articles 1, 3, 5, and 7, (1972, as amended), and annual local and private legislation. Statutes may be amended only by the Mississippi Legislature.

#### (4) Supplemental Legislative Retirement Plan

Membership in SLRP is composed of all elected members of the State Legislature and the President of the Senate. This plan is designed to supplement the provisions of PERS. Those serving when SLRP became effective July 1, 1989, had 30 days to waive membership in SLRP. Those elected after July 1, 1989, automatically become members of SLRP. Members and employers are statutorily required to contribute certain percentages of salaries and wages as specified by the Board of Trustees.

The retirement allowance is 50.0 percent of an amount equal to the retirement allowance payable by PERS, determined by creditable service as an elected senator or representative in the State Legislature or as President of the Senate. Benefits vest upon completion of the requisite number of membership service years in PERS. SLRP also provides certain death and disability benefits. In the event of death prior to retirement of any member whose spouse and/or children are not entitled to a retirement allowance, the deceased member's accumulated contributions and interest are paid to the designated beneficiary. A member who terminates legislative employment and who is not eligible to receive monthly retirement benefits may request a full refund of his or her accumulated employee contributions plus interest. Upon withdrawal of contributions, a member forfeits service credit represented by those contributions.

Retirees and beneficiaries of SLRP may receive COLAs calculated identically to PERS retirees and beneficiaries. For the year ended June 30, 2017, the total COLAs for SLRP were \$306,216.

Plan provisions and the Board of Trustees' authority to determine contribution rates for SLRP are established by Miss. Code Ann. § 25-11-301 et seq., (1972, as amended) and may be amended only by the Mississippi Legislature.

#### (5) Flexible Benefits Cafeteria Plan—Agency Fund

Miss. Code Ann. § 25-17-3 (1972, as amended) authorizes any state agency to adopt a benefit plan that meets the requirements of a cafeteria plan as defined in § 1-25 et seq. of the Internal Revenue Code of 1954, and regulations there under, for the benefit of eligible employees and their dependents. The FBCP was established as an agency fund to account for transactions related to those employees of the System who participate in the cafeteria plan.

#### (6) Annual Budget

Annual budgets are legally adopted for the administrative expenditure portion of the System's operations and are funded by earnings of the System. Our operating budget request for the upcoming fiscal year is prepared in conjunction with a review of our strategic long-range plan. A budget request is approved by the Board of Trustees and submitted to the State Legislature, which legally enacts the budget in the form of an appropriation bill during the subsequent legislative session. Changes may be made in budget categories, consistent with legislative authority, with approval of the Mississippi Department of Finance and Administration.

## Note 2: Summary of Significant Accounting Policies

#### FINANCIAL REPORTING ENTITY

The reporting entity for the System consists of four defined benefit pension trust funds and one agency fund. The defined benefit pension trust funds are PERS, MHSPRS, MRS, and SLRP. These financial statements are included in the financial statements of the State of Mississippi. The agency fund is the FBCP. Defined benefit pension trust fund plans of the System are included in the System's reporting entity due to their financial relationships. Although the plans are legally separate within the System, they are reported as if they were part of the System because the governing boards of each are identical. The System is considered a component unit of the State of Mississippi reporting entity in accordance with Governmental Accounting Standards Board (GASB) 14, *The Financial Reporting Entity*, as amended by GASB 39 and GASB 61.

MDC is a savings plan organized in accordance with IRC § 457 and is established or may be amended under Miss. Code Ann. § 25-14-1 et seq. Eligible participants are any persons — whether appointed, elected, or under contract — providing services for the state, state agencies, counties, municipalities, or other political subdivisions for which compensation is paid. The plan permits participants to defer a portion of their income. Participants self-direct investment of their savings through selections from a group of funds managed by professional investment managers. In 2014, the System contracted with Great West Life and Annuity Insurance Company - Empower, a third-party administrator for MDC. Because of the change in administration, MDC is no longer considered part of the System's financial reporting entity.

Membership of ORP is composed of teachers and administrators of institutions of higher learning appointed or employed on or after July 1, 1990, who elect to participate in ORP and reject membership in PERS. Title 25, Article 11 of the Mississippi Code states that the Board of Trustees of the System will provide for administration of the ORP program. ORP is not considered part of the System's financial reporting entity.

MDC and ORP participants direct the investment of their funds among investment managers and vendors. Benefits payable to participants of MDC and ORP are not obligations of the State of Mississippi. Such benefits and other rights of participants or their beneficiaries are the liability of the managers and vendors and are governed solely by the terms of the agreements issued by them.

#### BASIS OF PRESENTATION — FUND ACCOUNTING

Fiduciary funds are used to account for assets held by the System in a trustee capacity or as an agent. Fiduciary funds include PERS, MHSPRS, MRS, and SLRP pension trust funds. Agency funds are custodial in nature and do not involve measurement of results of operations. FBCP is accounted for as an agency fund.

#### **BASIS OF ACCOUNTING**

PERS, MHSPRS, MRS, and SLRP use the accrual basis of accounting and the economic resources measurement focus. Member and employer contributions are recognized as revenue when due pursuant to legal requirements; investment income is recognized when earned. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Other expenses are recognized when incurred.

#### **INVESTMENTS**

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Corporate bonds are valued based on yields currently available on comparable securities from issuers of similar credit ratings. Mortgage securities are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. Short-term investments are reported at fair value when published prices are available or at cost plus accrued interest, which approximates fair value. The fair value of commingled real estate funds is based on independent appraisals, while REITs traded on a national or international exchange are valued at the last reported sales price at current exchange rates. For individual investments where no readily ascertainable fair value exists, the System, in consultation with its investment advisors and custodial bank, has determined the fair values based on cash flows and prices for similar investments. Security transactions are accounted for on a trade-date basis.

#### **CAPITAL ASSETS**

Capital assets used for administering the plans are carried at historical cost (see Note 4). Depreciation is provided using the straight-line method. The System's policy is to capitalize all acquisitions of furniture and equipment with a unit cost of \$5,000 or more. The following schedule summarizes estimated useful lives by asset classification:

ASSET CLASSIFICATION	ESTIMATED USEFUL LIFE
BUILDING	40 years
IMPROVEMENTS	20 years
FURNITURE, EQUIPMENT & SOFTWARE	5-15 years
COMPUTER EQUIPMENT	3 years
VEHICLES	3-10 years

#### ACCUMULATED PERSONAL LEAVE AND MAJOR MEDICAL LEAVE

Miss. Code Ann. § 25-3-97, (1972, as amended) authorizes a lump sum payment for a maximum of 30 days of accrued personal leave upon termination of employment. No payment is authorized for accrued major medical leave unless the member presents medical evidence that his or her physical condition is such that he or she no longer has the capacity to work in state government. Accumulated personal leave (including fringe benefits) of employees directly related to the administration of the System is paid from the pension trust funds and is accrued in the financial statements when earned, up to a maximum of 30 days per member. The System does not accrue accumulated major medical leave since it is not probable that the compensation will be paid and since the leave vests only upon termination for medical disability.

#### USE OF ESTIMATES IN THE PREPARATION OF FINANCIAL STATEMENTS

The preparation of financial statements in conformity with US generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at June 30, 2017, and the reported amounts of additions to and deductions from net position during the year then ended. Actual results could differ from those estimates.

### Note 3: Cash, Cash Equivalents, and Investments

#### **LEGAL PROVISIONS**

The System is authorized by Miss. Code Ann. § 25-11-121, (1972, as amended) to invest in the following:

- » Bonds, notes, certificates, and other valid general obligations of the State, or of any county, city, or supervisor's district of any county of the State;
- » School district bonds of the State;
- » Notes or certificates of indebtedness issued by the Veterans' Home Purchase Board of Mississippi;
- » Highway bonds of the State;
- » Corporate bonds rated by Standard & Poor's Corporation (S&P) or Moody's Investors Service;
- » Short-term obligations of corporations or of wholly-owned subsidiaries of corporations, whose short-term obligations are rated A-3 or better by S&P or rated P-3 or better by Moody's. The Board of Trustees has established a policy that further limits investments of this type to only those corporations whose short-term obligations are rated A-2 or P-2 by S&P or Moody's, respectively;
- » Bonds of the Tennessee Valley Authority;
- » Bonds, notes, certificates, and other valid obligations of the United States of America, or any federal instrumentality that issues securities under authority of an act of Congress and are exempt from registration with the US Securities and Exchange Commission;
- » Bonds, notes, debentures, and other securities issued by any federal instrumentality and fully guaranteed by the United States of America;
- » Bonds, stocks, and convertible securities of established foreign companies that are listed on primary national stock exchanges of foreign nations and in foreign government securities. The System is authorized to hedge such transactions through foreign banks and generally deal in foreign exchange through the use of foreign currency, interbank forward contracts, futures contracts, options contracts, swaps, and other related derivative instruments:
- » Interest-bearing bonds or notes that are general obligations of any other state in the United States of America or any city or county therein, provided such city or county had a population as shown by the most recent federal census of not less than 25,000 inhabitants, and provided that such state, city, or county has not defaulted for a period longer than 30 days in the payment of principal or interest on any of its general obligation indebtedness over a period of 10 calendar years immediately preceding such investment;
- » Shares of common and/or preferred stock of corporations created by or existing under the laws of the United States of America or any state, district, or territory thereof;
- » Covered call and put options on securities traded on one or more of the regulated exchanges;
- » Pooled or commingled funds managed by a corporate trustee or by a US Securities and Exchange Commission-registered investment advisory firm and shares of investment companies and unit investment trusts registered under the Investment Company Act of 1940. Such pooled or commingled funds or shares are comprised of common or preferred stocks, bonds, money market instruments, or other authorized investments;

- » Pooled or commingled real estate funds or real estate securities managed by a corporate trustee or by a US Securities and Exchange Commission-registered investment advisory firm retained as an investment manager by the Board of Trustees of the System; and
- » Up to 10.0 percent of the total book value of investments can be types of investments not specifically authorized by this section, if the investments are in the form of a separate account managed by a US Securities and Exchange Commission-registered investment advisory firm retained as an investment manager by the Board; or a limited partnership or commingled fund.

The System also is authorized by its Board of Trustees to operate a securities lending program and has contracted with its custodian to reinvest cash collateral received from the transfer of securities in any investment instrument authorized by Miss. Code Ann. § 25-11-121, (1972, as amended).

Miss. Code Ann. § 25-11-121 (1972, as amended) requires the System's Board of Trustees to determine the degree of collateralization necessary for both foreign and domestic demand deposits in addition to that which is guaranteed by federal insurance programs. These statutes also require that, when possible, the types of collateral securing deposits be limited to securities in which the System itself may invest. The Board of Trustees has established a policy to require collateral equal to at least 100.0 percent of the amount on deposit in excess of that which is guaranteed by federal insurance programs to the credit of the System for domestic demand deposit accounts. No collateral is required for foreign demand deposit accounts, and at June 30, 2017, the System had no deposits in foreign demand deposit accounts.

In accordance with the System's investment policy, the System's investment consultant conducts periodic asset/liability allocation studies that include consideration of projected future liabilities of the System, expected risk, return and correlations for various asset classes, and the System's statutory investment restrictions. Asset allocation studies are performed every five years, or more frequently should significant liability changes occur. A strategic long-term asset allocation is adopted by the Board of Trustees in conjunction with the study. The Investment Committee of the Board of Trustees evaluates the actual investment allocation quarterly and may propose periodic adjustments to the System's strategic long-term asset allocation based on the investment consultant's recommendations, market conditions, and internal investment analysis. The following table shows the Board's asset allocation policy applicable for fiscal year 2017:

ASSET CLASS	TARGET ALLOCATION
EQUITIES: DOMESTIC	27.0%
EQUITIES: GLOBAL	12.0
EQUITIES: INTERNATIONAL	22.0
TOTAL OF ALL EQUITIES	61.0%
DEBT SECURITIES	20.0
REAL ESTATE	10.0
PRIVATE EQUITY	8.0
CASH & EQUIVALENTS	1.0

#### **CASH AND CASH EQUIVALENTS**

For cash deposits and cash equivalents, which includes the highly liquid BNYM Government Short-Term Investment Fund (STIF) and Deposit Reserve Account, custodial credit risk is the risk that, in the event of a bank failure, the government's deposits may not be returned to it. Miss. Code Ann. § 25-11-121 (1972, as amended) provides that the deposits of the System in any US bank shall, where possible, be safeguarded and guaranteed by the posting of bonds, notes, and other securities as security by the depository. The System's Board of Trustees has formally adopted a short-term investment policy that requires that the market value of securities guaranteeing the deposits shall at all times be equal to 100.0 percent of the amount of funds on deposit.

The amount of the System's total cash and cash equivalents at June 30, 2017, was \$797,040,000. Cash deposits in bank accounts totaled \$37,675,000, which were covered by federal deposit insurance. At June 30, 2017, the System held \$759,365,000 in cash equivalents. Cash equivalents are created through daily sweeps of excess cash by the System's custodial bank into a bank-sponsored STIF. This fund is a custodial bank-sponsored commingled fund that is invested in short-term US government securities and repurchase agreements. The average S&P short-term quality rating of the fund was A-1 at June 30, 2017.

#### **INVESTMENTS**

All of the investment assets are pooled and invested in short-term and long-term debt securities, public equity securities, private equity, and real estate. These investments are accounted for as part of the PERS pension trust fund and are allocated to MHSPRS, MRS, and SLRP based on their equitable interest in the PERS fund.

All investments are governed by the Board's policy of the prudent person rule. The prudent person rule establishes a standard for all fiduciaries to act as a prudent person would be expected to act, with discretion and intelligence, while investing for income and preservation of principal.

Miss. Code Ann. § 25-11-121 (1972, as amended) allows the System to invest up to 10.0 percent of the total portfolio in real estate only via real estate securities and commingled funds. Direct ownership of real estate assets is prohibited. The portfolio is divided between core commingled and value-added real estate fund investments, which directly invest in properties, and in managed portfolios of Real Estate Investment Trusts (REITs). REITs are exchange-traded securities that provide indirect exposure to real estate properties and real estate management companies. Fair values of commingled fund properties are based on the most recent independent appraisal values. Independent appraisal firms, which are Members of Appraisal Institute (MAI), are required to conduct valuations at least annually.

The annual money-weighted rate of return on the System's investments is 14.53 percent. A money-weighted rate of return expresses investment performance, which is net of investment expense and is adjusted for the changing amounts actually invested. Investment expense is measured on the accrual basis of accounting, with inputs to the internal rate of return calculation determined monthly.

The System had no investments in any one organization that represents 5.0 percent or more of the System's fiduciary net position. Investments issued or explicitly guaranteed by the US government are excluded from the measurement.

The following table presents the fair value of investments by type at June 30, 2017 (in thousands):

INVESTMENT TYPE	FAIR VALUE
INTERNATIONAL CURRENCY	\$34,732
REPURCHASE AGREEMENTS	296,753
COMMERCIAL PAPER	89,556
SHORT TERM ASSET BACKED SECURITIES	421
SHORT TERM US CORPORATE BONDS	89,097
SHORT TERM US GOVERNMENT AGENCY OBLIGATIONS	41,996
SHORT TERM US TREASURY OBLIGATIONS	19,290
SHORT TERM NON-US CORPORATE BONDS	2,505
SHORT TERM SOVEREIGN GOVERNMENT DEBT	1,282
US GOVERNMENT AGENCY OBLIGATIONS	21,825
US TREASURY OBLIGATIONS	915,944
COLLATERALIZED MORTGAGE OBLIGATIONS	508,854
US CORPORATE BONDS	2,067,879
NON-US CORPORATE BONDS	891,434
MORTGAGE PASS-THROUGHS	587,983
STATE & LOCAL OBLIGATIONS	48,478
ASSET-BACKED SECURITIES	1,687,942
YANKEE/GLOBAL BONDS	32,118
SOVEREIGN GOVERNMENTS DEBT	939,876
DOMESTIC EQUITY SECURITIES	9,846,586
INTERNATIONAL EQUITY SECURITIES	7,001,096
REAL ESTATE	2,625,867
PRIVATE EQUITY	1,800,240
TOTAL	\$29,551,754

#### **CUSTODIAL CREDIT RISK**

For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the pension trust fund will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government, and are held by either (a) the counterparty or (b) the counterparty's trust department or agent but not in the government's name. Miss. Code Ann. § 25-11-121 (1972, as amended) requires that all investments be clearly marked as to ownership, and to the extent possible, shall be registered in the name of the System.

Of the defined benefit pension funds' \$29.6 billion in investments, including securities lending, at June 30, 2017, \$3.6 billion were exposed to custodial credit risk. These are cash collateral reinvestment securities held in the name of the custodian who acquired them as the lending agent/counterparty, and the securities on loan for securities collateral that is held in the name of the lending agent. This is consistent with the System's securities lending agreement in place with the custodian.

The fair value of cash collateral securities purchased and the underlying securities on non-cash loans as of June 30, 2017, are presented by type below (in thousands):

CASH COLLATERAL SECURITIES	FAIR VALUE
COMMERCIAL PAPER	\$85,968
REPURCHASE AGREEMENTS	99,504
CORPORATE BONDS	1,356,671
ASSET-BACKED SECURITIES	1,417,563
SUBTOTAL	2,959,706
UNDERLYING SECURITIES ON NON-CASH LOANS	
DEBT SECURITIES	8,392
EQUITIES	658,690
REITS	9,456
SUBTOTAL	676,538
TOTAL	\$3,636,244

#### INTEREST RATE RISK

Interest rate risk is the risk that changes in interest rates on securities will adversely affect the fair value of an investment. As of June 30, 2017, the System had the following debt security investments and maturities:

	FAIR VALUE	JRITIES (IN YEARS)			
INVESTMENT TYPE	(IN THOUSANDS)	LESS THAN 1	1-5	6-10	MORE THAN 10
ASSET-BACKED SECURITIES	\$1,688,363	\$1,486,805	\$133,133	\$27,036	\$41,389
COLLATERALIZED MORTGAGE OBLIGATIONS	508,854	189,812	30,257	3,840	284,945
COMMERCIAL PAPER	89,556	89,556	-	-	-
CORPORATE BONDS	3,050,915	845,212	1,332,414	490,739	382,550
MORTGAGE PASS-THROUGHS	587,983	-	479	7,205	580,299
REPURCHASE AGREEMENTS	296,753	293,971	-	-	2,782
SOVEREIGN GOVERNMENTS DEBT	941,158	14,890	314,890	351,751	259,627
STATE & LOCAL OBLIGATIONS	48,478	-	12,897	6,092	29,489
US GOVERNMENT AGENCY OBLIGATIONS	63,821	41,996	10,843	398	10,584
US TREASURY OBLIGATIONS	935,234	81,161	352,854	250,924	250,295
YANKEE/GLOBAL BONDS	32,118	-	13,209	17,160	1,749
TOTALS	\$8,243,233	\$3,043,403	\$2,200,976	\$1,155,145	\$1,843,709

The System's investment policy does not limit investment maturities as a means of managing its exposure to potential fair value losses arising from future changes in interest rates. Market or interest rate risk is the greatest risk faced by an investor in the debt securities market. The price of a debt security typically moves in the opposite direction of the change in interest rates. Derivative securities, variable rate investments with coupon multipliers greater than one, and securities with long terms to maturity are examples of investments whose fair values may be highly sensitive to interest rate changes. These securities are reported at fair value in the Statement of Fiduciary Net Position. Inverse floaters and variable rate investments with coupon multipliers greater than one are prohibited under the System's derivatives policy.

Miss. Code Ann. § 25-11-121 (1972, as amended) provides for the acquisition of derivative instruments by the System. The System adopted a formal derivatives policy in February 1996 with updates adopted in June 2005. During fiscal year 2017, the investments in derivative securities by the System were exclusively in asset/liability-based derivatives such as interest-only (IO) strips, collateralized mortgage obligations, and asset-backed securities. The System reviews fair values of all securities on a monthly basis and prices are obtained from recognized pricing sources. Derivative securities are held, in part, to maximize yields.

Interest-Only (IO)s and Principal-Only (PO)s are transactions that involve the separation of the interest and principal components of a security. They are highly sensitive to prepayments by mortgagors, which may result from a decline in interest rates. The System held IOs valued at \$21.3 million at fiscal year-end. The System's derivatives policy limits IO and PO strips to 3.0 percent of the investment portfolio.

Collateralized mortgage obligations (CMO) are bonds that are collateralized by whole-loan mortgages, mortgage pass-through securities, or stripped mortgage-backed securities. Income is derived from payments and prepayments of principal and interest generated from collateral mortgages. Cash flows are distributed to different investment classes or tranches in accordance with the CMO's established payment order. Some CMO tranches have more stable cash flows relative to changes in interest rates while others are significantly more sensitive to interest rate fluctuations. In a declining interest rate environment, some CMOs may be subject to a reduction in interest payments as a result of prepayments of mortgages that make up the collateral pool. A reduction in interest payments causes a decline in cash flows and, thus, a decline in the fair value of the CMO security. Rising interest rates may cause an increase in interest payments and, thus, an increase in the fair value of the security. The System held \$508.9 million in CMOs at June 30, 2017. Of this amount, \$70.4 million were tranches that are highly sensitive to future changes in interest rates. CMO residuals are prohibited under the System's derivatives policy.

Asset-backed securities (ABS) are bonds or notes backed by loan paper or accounts receivable and are originated by banks, credit card companies, or other credit providers. The originator of the loan or accounts receivable paper sells it to a specially created trust, which repackages it as securities. Similar to CMOs, asset-backed securities have been structured as pass-throughs and as structures with multiple bond classes. Of the \$1.7 billion in ABS that the System held at June 30, 2017, \$29.0 million are highly sensitive to changes in interest rates. ABS, which are leveraged structures or residual interests, are prohibited by the System's derivatives policy.

At June 30, 2017, the System had invested \$588.0 million in mortgage pass-through securities issued by the Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, and Government National Mortgage Association. These investments are moderately sensitive to changes in interest rates because they are backed by mortgage loans in which the borrowers have the option of prepaying.

#### FOREIGN CURRENCY RISK

The System's exposure to foreign currency risk at June 30, 2017, was as follows (in thousands):

	CASH &		DEBT	TOTAL	- (
CURRENCY	EQUIVALENTS	EQUITIES & REITS	SECURITIES	FAIR VALUE	PERCENT
ARGENTINA PESO	\$345	\$-	\$3,832	\$4,177	0.10%
AUSTRALIAN DOLLAR	(188,254)	277,214	18,983	107,943	2.69
BRAZIL REAL	(10,229)	143,257	20,694	153,722	3.83
CANADIAN DOLLAR	(56,553)	119,412	56,093	118,952	2.96
CHILEAN PESO	-	4,237	-	4,237	0.11
CHINESE YUAN RENMINBI	6,301	-	-	6,301	0.16
COLOMBIAN PESO	(2,444)	341	2,645	542	0.01
CZECH KORUNA	-	2,024	-	2,024	0.05
DANISH KRONE	(55,493)	117,878	17,141	79,526	1.98
EGYPTIAN POUND	1,405	-	-	1,405	0.04
EURO CURRENCY UNIT	(939,492)	1,417,660	245,274	723,442	18.03
HONG KONG DOLLAR	(72,220)	380,873	-	308,653	7.69
HUNGARIAN FORINT	-	25,135	-	25,135	0.63
INDIAN RUPEE	4,997	125,775	-	130,772	3.26
INDONESIAN RUPIAH	3,163	72,392	-	75,555	1.88
ISRAELI SHEKEL	(5,716)	12,432	-	6,716	0.17
JAPANESE YEN	(635,423)	1,086,940	113,021	564,538	14.07
KENYAN SHILLING	-	152	-	152	-
MALAYSIAN RINGGIT	1,891	26,423	3,159	31,473	0.78
MEXICAN PESO	(43,961)	54,240	75,696	85,975	2.14
NEW TAIWAN DOLLAR	(6,292)	185,668	-	179,376	4.47
NEW ZEALAND DOLLAR	(32,882)	24,562	8,051	(269)	(0.01)
NORWEGIAN KRONE	(13,480)	25,213	-	11,733	0.29
PAKISTAN RUPEE	214	17,657	-	17,871	0.45
PERUVIAN SOL	(483)	-	2,501	2,018	0.05
PHILIPPINES PESO	-	14,598	-	14,598	0.36
POLISH ZLOTY	(2,017)	18,829	2,635	19,447	0.48
POUND STERLING	(457,578)	841,264	50,189	433,875	10.81
QATARI RIYAL	53	946	-	999	0.02
RUSSIAN RUBLE (NEW)	1,423	84	1,761	3,268	0.08
SINGAPORE DOLLAR	(41,607)	76,938	-	35,331	0.88
SOUTH AFRICAN RAND	(4,952)	131,974	10,237	137,259	3.42
SOUTH KOREAN WON	(5,189)	363,696	-	358,507	8.93
SWEDISH KRONA	(91,432)	171,293	32,166	112,027	2.80
SWISS FRANC	(188,169)	323,652	-	135,483	3.38
THAILAND BAHT	59	35,173	-	35,232	0.88
TURKISH LIRA	3,156	79,026	1,279	83,461	2.08
UAE DIRHAM	8	75	-	83	-
URUGUAYAN PESO	-	-	1,826	1,826	0.05
TOTALS	(\$2,830,851)	\$6,177,033	\$667,183	\$4,013,365	100.00%

The System's current investment asset allocation policy was adopted by the Board in April 2013 and became effective in fiscal year 2014. The System's allocation policy does not limit foreign currency-denominated investments of the System. The Investment Committee of the Board of Trustees evaluates the actual investment asset allocation quarterly, in accordance with the adopted phase-in policy. Based on current market conditions, the Board adjusts the allocation as necessary.

#### **CREDIT RISK**

The System's exposure to credit risk as of June 30, 2017, was as follows:

#### **EXPOSURE TO CREDIT RISK**

- JUNE 30, 2017 -

[in thousands]

			Ç	UALITY RATI	NGS AT FAIR	VALUE			
INVESTMENT TYPE	AAA	AA	А	ВАА	ВА	BBB	ВВ	В	CA
ASSET-BACKED SECURITIES	\$1,566,162	\$21,933	\$42,612	\$8,262	\$1,783	\$12,741	\$12,940	\$9,559	\$3
COLLATERALIZED MORTGAGE OBLIGATIONS	195,890	165,921	39,067	14,731	10,335	9,523	7,039	17,396	715
COMMERCIAL PAPER	-	85,969	-	-	-	-	-	-	-
CORPORATE BONDS	98,249	628,456	1,122,094	572,845	153,466	240,763	90,277	125,279	-
MORTGAGE PASS-THROUGHS	-	503,541	-	-	-	-	-	-	-
REPURCHASE AGREEMENTS	-	249,800	39,507	-	-	-	-	-	-
SOVEREIGN GOVERNMENTS DEBT	75,711	83,632	167,801	169,882	86,638	116,976	49,718	154,619	-
STATE & LOCAL OBLIGATIONS	3,167	31,349	12,028	281	301	1,352	-	-	-
US GOVERNMENT AGENCY OBLIGATIONS	-	63,821	-	-	-	-	-	-	-
YANKEE/GLOBAL BONDS	26,139	2,947	1,181	1,851	-	-	-	-	-
TOTALS*	\$1,965,318	\$1,837,369	\$1,424,290	\$767,852	\$252,523	\$381,355	\$159,974	\$306,853	\$718

State law requires a minimum quality rating of A-3 by S&P or P-3 by Moody's for corporate short-term obligations. This law also requires corporate and taxable municipal bonds to be of investment grade as rated by S&P or Moody's. The PERS Board of Trustees has adopted a short-term investment policy that further restricts commercial paper to be of corporations with long-term debt to be rated A or better by S&P or Moody's, and whose short-term obligations are of A-2 or P-2 or better ratings by S&P and Moody's, respectively. This applies to all short-term investments of the System.

#### **EXPOSURE TO CREDIT RISK (CONTINUED)**

- JUNE 30, 2017 -

[in thousands]

TOTALS\* \$41,613

	QUALITY RATINGS AT FAIR VALUE						
	CAA	CCC	CC	С	D	NR**	TOTAL
ASSET-BACKED SECURITIES	\$-	\$1,316	\$-	\$18	\$-	\$11,034	\$1,688,363
COLLATERALIZED MORTGAGE OBLIGATIONS	3,534	4,622	127	-	9,553	30,401	508,854
COMMERCIAL PAPER	-	-	-	-	-	3,587	89,556
CORPORATE BONDS	12,945	-	5,034	-	12	1,495	3,050,915
MORTGAGE PASS-THROUGHS	-	-	-	-	-	-	503,541
REPURCHASE AGREEMENTS	-	-	-	-	-	7,446	296,753
SOVEREIGN GOVERNMENTS DEBT	25,134	8,758	-	-	-	2,289	941,158
STATE & LOCAL OBLIGATIONS	-	-	-	-	-	-	48,478
US GOVERNMENT AGENCY OBLIGATIONS	-	-	-	-	-	-	63,821
YANKEE/GLOBAL BONDS	-	-	-	-	-	-	32,118

\$14,696

\$9,565 \$56,252

\$7,223,557\*

TOTAL	\$1,019,676
GNMA mortgage pass-throughs	84,442
US Treasury obligations	915,944
Short-term US Treasury obligation	s \$19,290

\$5,161

\$18

In addition to the short-term investment policy, a policy adopted for the internally managed short-term account requires that for any amount above the established core of \$30.0 million, no more than 25.0 percent should be invested in any issue having a rating lower than AA or A1/P1.

Credit risk for derivative securities held by the System results from the same considerations as other counterparty risk assumed by the System, which is the risk that a borrower will be unable to meet its obligation. The System's policy requires that the credit quality of the underlying asset must be rated A or better by Moody's or S&P. The System's lending agent is permitted to purchase asset-backed securities for the cash collateral fund that are only AAA rated.

<sup>\*</sup>In accordance with GASB guidelines, totals exclude US Treasury obligations and GNMA mortgage pass-throughs due to their explicit guarantee by the US Government:

<sup>\*\*</sup>Not publicly rated

#### INVESTMENT DERIVATIVES

The System has adopted GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments. Derivative instruments are financial arrangements used by governments to manage specific risks or to make investments.

The following table presents the investment derivative instruments outstanding as of June 30, 2017 (in thousands), as reported in the System's Statement of Fiduciary Net Position:

CLASSIFICATION   AMOUNT   CLASSIFICATION   AMOUNT   NOTIONAL UNITS CURRENCY FOREIGN CURRENCY FORWARDS   Investment Income   (\$4,610)   Investment   \$4,610   (245,778)   AUD   Investment Income   (499)   Investment   499   (37,306)   BRL   Investment Income   (1,323)   Investment   1,323   (67,122)   CAD   Investment Income   (3,460)   Investment   3,460   (188,320)   CHF   Investment Income   22   Investment   (22)   42,830   CNY   Investment Income   123   Investment   (123)   (8,213,068)   COP   Investment Income   (946)   Investment   946   (373,600)   DKK   Investment Income   (1,208)   Investment   1,208   (353,983)   GBP   Investment Income   (1,208)   Investment   (223)   (565,725)   HKD   Investment Income   7   Investment   (223)   (565,725)   HKD   Investment Income   (147)   Investment   147   (20,156)   ILS   Investment Income   (147)   Investment   (6)   208,673   INR   Investment Income   (3,158)   Investment   (3,158)   (72,130,831)   JPY   Investment Income   (3,158)   Investment   (3,158)   (72,130,831)   JPY   Investment Income   (42)   Investment   (216)   (812,313)   MXN   Investment Income   (42)   Investment   (216)   (812,313)   MXN   Investment Income   (1,276)   Investment   (216)   (44,946)   NZD   Investment Income   (1,276)   Investment   (1,276)   (44,946)   NZD   Investment Income   (3,124)   Investment   (61)   77,764   RUB   Investment Income   (3,124)   Investment   (3,124)   (770,470)   SEK   Investment Income   (274)   Investment   (3,124)   (770,470)   SEK   Investment Income   (3,124)   Investment   (26)   (191,709)   TWD   Investment Income   (109)   Investment   (109)   (100,112)   ZAR   TBA SECURITIES   Investment Income   (\$1,410)   Debt securities   (\$1,410)   \$263,968   Investment Income	CHANGES IN FAIR	R VALUE	FAIR VALUE AT JUI	NE 30, 2017		
Investment Income	CLASSIFICATION AMOUNT		CLASSIFICATION	AMOUNT	NOTIONAL UNITS	CURRENCY
Investment Income	FOREIGN CURRENCY F	ORWARDS				
Investment Income   (1,323)	Investment Income	(\$4,610)	Investment	\$4,610	(245,778)	AUD
Investment   Income   (3,460)   Investment   3,460   (188,320)   CHF	Investment Income	(499)	Investment	499	(37,306)	BRL
Investment   Income   22   Investment   (22)   42,830   CNY     Investment   Income   123   Investment   (123)   (8,213,068)   COP     Investment   Income   (946)   Investment   946   (373,600)   DKK     Investment   Income   (21,462)   Investment   21,462   (827,047)   EUR     Investment   Income   (1,208)   Investment   1,208   (353,983)   GBP     Investment   Income   223   Investment   (223)   (565,725)   HKD     Investment   Income   7   Investment   (7)   41,802,761   IDR     Investment   Income   (147)   Investment   147   (20,156)   ILS     Investment   Income   6   Investment   (6)   208,673   INR     Investment   Income   3,158   Investment   (3,158)   (72,130,831)   JPY     Investment   Income   80   Investment   (80)   (6,140,363)   KRW     Investment   Income   216   Investment   (216)   (812,313)   MXN     Investment   Income   (42)   Investment   42   6,775   MYR     Investment   Income   (2)   Investment   2   (114,182)   NOK     Investment   Income   (1,276)   Investment   1,276   (44,946)   NZD     Investment   Income   (16)   Investment   16   (1,596)   PEN     Investment   Income   (350)   Investment   350   (7,687)   PLN     Investment   Income   (3,124)   Investment   3,124   (770,470)   SEK     Investment   Income   (274)   Investment   274   (57,718)   SGD     Investment   Income   13   Investment   (26)   (191,709)   TWD     Investment   Income   (26)   Investment   (26)   (191,709)   TWD     Investment   Income   (109)   Investment   109   (100,112)   ZAR     TBA SECURITIES	Investment Income	(1,323)	Investment	1,323	(67,122)	CAD
Investment Income   123	Investment Income	(3,460)	Investment	3,460	(188,320)	CHF
Investment Income   (946)   Investment   946   (373,600)   DKK     Investment Income   (21,462)   Investment   21,462   (827,047)   EUR     Investment Income   (1,208)   Investment   1,208   (353,983)   GBP     Investment Income   223   Investment   (223)   (565,725)   HKD     Investment Income   7   Investment   (7)   41,802,761   IDR     Investment Income   (147)   Investment   147   (20,156)   ILS     Investment Income   6   Investment   (6)   208,673   INR     Investment Income   3,158   Investment   (3,158)   (72,130,831)   JPY     Investment Income   80   Investment   (80)   (6,140,363)   KRW     Investment Income   216   Investment   (216)   (812,313)   MXN     Investment Income   (42)   Investment   42   (6,775   MYR     Investment Income   (2)   Investment   2   (114,182)   NOK     Investment Income   (1,276)   Investment   1,276   (44,946)   NZD     Investment Income   (350)   Investment   16   (1,596)   PEN     Investment Income   (3,124)   Investment   350   (7,687)   PLN     Investment Income   (3,124)   Investment   3,124   (770,470)   SEK     Investment Income   (274)   Investment   274   (57,718)   SGD     Investment Income   13   Investment   (26)   (191,709)   TWD     Investment Income   26   Investment   (26)   (191,709)   TWD     Investment Income   (109)   Investment   109   (100,112)   ZAR     TBA SECURITIES	Investment Income	22	Investment	(22)	42,830	CNY
Investment Income   (21,462)   Investment   21,462   (827,047)   EUR	Investment Income	123	Investment	(123)	(8,213,068)	COP
Investment Income   (1,208)   Investment   1,208   (353,983)   GBP	Investment Income	(946)	Investment	946	(373,600)	DKK
Investment Income   223	Investment Income	(21,462)	Investment	21,462	(827,047)	EUR
Investment Income   7	Investment Income	(1,208)	Investment	1,208	(353,983)	GBP
Investment Income   (147)   Investment   147   (20,156)   ILS     Investment Income   6   Investment   (6)   208,673   INR     Investment Income   3,158   Investment   (3,158)   (72,130,831)   JPY     Investment Income   80   Investment   (80)   (6,140,363)   KRW     Investment Income   216   Investment   (216)   (812,313)   MXN     Investment Income   (42)   Investment   42   6,775   MYR     Investment Income   (2)   Investment   2   (114,182)   NOK     Investment Income   (1,276)   Investment   1,276   (44,946)   NZD     Investment Income   (16)   Investment   16   (1,596)   PEN     Investment Income   (350)   Investment   350   (7,687)   PLN     Investment Income   (3,124)   Investment   (61)   77,764   RUB     Investment Income   (3,124)   Investment   3,124   (770,470)   SEK     Investment Income   (274)   Investment   274   (57,718)   SGD     Investment Income   13   Investment   (26)   (191,709)   TWD     Investment Income   (109)   Investment   109   (100,112)   ZAR     TBA SECURITIES	Investment Income	223	Investment	(223)	(565,725)	HKD
Investment Income   6	Investment Income	7	Investment	(7)	41,802,761	IDR
Investment Income   3,158   Investment   (3,158)   (72,130,831)   JPY	Investment Income	(147)	Investment	147	(20,156)	ILS
Investment Income         80         Investment         (80)         (6,140,363)         KRW           Investment Income         216         Investment         (216)         (812,313)         MXN           Investment Income         (42)         Investment         42         6,775         MYR           Investment Income         (2)         Investment         2         (114,182)         NOK           Investment Income         (1,276)         Investment         1,276         (44,946)         NZD           Investment Income         (16)         Investment         16         (1,596)         PEN           Investment Income         (350)         Investment         350         (7,687)         PLN           Investment Income         61         Investment         (61)         77,764         RUB           Investment Income         (3,124)         Investment         3,124         (770,470)         SEK           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         26         Investment         (26)         (191,709)         TWD           Investment Income         (109)         Investment         109         (100,112)	Investment Income	6	Investment	(6)	208,673	INR
Investment Income         216         Investment         (216)         (812,313)         MXN           Investment Income         (42)         Investment         42         6,775         MYR           Investment Income         (2)         Investment         2         (114,182)         NOK           Investment Income         (1,276)         Investment         1,276         (44,946)         NZD           Investment Income         (16)         Investment         16         (1,596)         PEN           Investment Income         (350)         Investment         350         (7,687)         PLN           Investment Income         61         Investment         (61)         77,764         RUB           Investment Income         (3,124)         Investment         3,124         (770,470)         SEK           Investment Income         (274)         Investment         274         (57,718)         SGD           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         (109)         Investment         109         (100,112)         ZAR           TBA SECURITIES	Investment Income	3,158	Investment	(3,158)	(72,130,831)	JPY
Investment Income         (42)         Investment         42         6,775         MYR           Investment Income         (2)         Investment         2         (114,182)         NOK           Investment Income         (1,276)         Investment         1,276         (44,946)         NZD           Investment Income         (16)         Investment         16         (1,596)         PEN           Investment Income         (350)         Investment         350         (7,687)         PLN           Investment Income         61         Investment         (61)         77,764         RUB           Investment Income         (3,124)         Investment         3,124         (770,470)         SEK           Investment Income         (274)         Investment         274         (57,718)         SGD           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         26         Investment         (26)         (191,709)         TWD           Investment Income         (109)         Investment         109         (100,112)         ZAR	Investment Income	80	Investment	(80)	(6,140,363)	KRW
Investment Income         (2)         Investment         2         (114,182)         NOK           Investment Income         (1,276)         Investment         1,276         (44,946)         NZD           Investment Income         (16)         Investment         16         (1,596)         PEN           Investment Income         (350)         Investment         350         (7,687)         PLN           Investment Income         61         Investment         (61)         77,764         RUB           Investment Income         (3,124)         Investment         3,124         (770,470)         SEK           Investment Income         (274)         Investment         274         (57,718)         SGD           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         26         Investment         (26)         (191,709)         TWD           Investment Income         (109)         Investment         109         (100,112)         ZAR           TBA SECURITIES	Investment Income	216	Investment	(216)	(812,313)	MXN
Investment Income         (1,276)         Investment         1,276         (44,946)         NZD           Investment Income         (16)         Investment         16         (1,596)         PEN           Investment Income         (350)         Investment         350         (7,687)         PLN           Investment Income         61         Investment         (61)         77,764         RUB           Investment Income         (3,124)         Investment         3,124         (770,470)         SEK           Investment Income         (274)         Investment         274         (57,718)         SGD           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         26         Investment         (26)         (191,709)         TWD           Investment Income         (109)         Investment         109         (100,112)         ZAR           TBA SECURITIES	Investment Income	(42)	Investment	42	6,775	MYR
Investment Income         (16)         Investment         16         (1,596)         PEN           Investment Income         (350)         Investment         350         (7,687)         PLN           Investment Income         61         Investment         (61)         77,764         RUB           Investment Income         (3,124)         Investment         3,124         (770,470)         SEK           Investment Income         (274)         Investment         274         (57,718)         SGD           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         26         Investment         (26)         (191,709)         TWD           Investment Income         (109)         Investment         109         (100,112)         ZAR           TBA SECURITIES	Investment Income	(2)	Investment	2	(114,182)	NOK
Investment Income         (350)         Investment         350         (7,687)         PLN           Investment Income         61         Investment         (61)         77,764         RUB           Investment Income         (3,124)         Investment         3,124         (770,470)         SEK           Investment Income         (274)         Investment         274         (57,718)         SGD           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         26         Investment         (26)         (191,709)         TWD           Investment Income         (109)         Investment         109         (100,112)         ZAR           TBA SECURITIES	Investment Income	(1,276)	Investment	1,276	(44,946)	NZD
Investment Income         61         Investment         (61)         77,764         RUB           Investment Income         (3,124)         Investment         3,124         (770,470)         SEK           Investment Income         (274)         Investment         274         (57,718)         SGD           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         26         Investment         (26)         (191,709)         TWD           Investment Income         (109)         Investment         109         (100,112)         ZAR           TBA SECURITIES	Investment Income	(16)	Investment	16	(1,596)	PEN
Investment Income         (3,124)         Investment         3,124         (770,470)         SEK           Investment Income         (274)         Investment         274         (57,718)         SGD           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         26         Investment         (26)         (191,709)         TWD           Investment Income         (109)         Investment         109         (100,112)         ZAR           TBA SECURITIES	Investment Income	(350)	Investment	350	(7,687)	PLN
Investment Income         (274)         Investment         274         (57,718)         SGD           Investment Income         13         Investment         (13)         11,248         TRY           Investment Income         26         Investment         (26)         (191,709)         TWD           Investment Income         (109)         Investment         109         (100,112)         ZAR           TBA SECURITIES	Investment Income	61	Investment	(61)	77,764	RUB
Investment Income 13 Investment (13) 11,248 TRY Investment Income 26 Investment (26) (191,709) TWD Investment Income (109) Investment 109 (100,112) ZAR TBA SECURITIES	Investment Income	(3,124)	Investment	3,124	(770,470)	SEK
Investment Income 26 Investment (26) (191,709) TWD Investment Income (109) Investment 109 (100,112) ZAR TBA SECURITIES	Investment Income	(274)	Investment	274	(57,718)	SGD
Investment Income (109) Investment 109 (100,112) ZAR TBA SECURITIES	Investment Income	13	Investment	(13)	11,248	TRY
TBA SECURITIES	Investment Income	26	Investment	(26)	(191,709)	TWD
	Investment Income	(109)	Investment	109	(100,112)	ZAR
Investment Income (\$ 1,410) Debt securities (\$ 1,410) \$263,968	TBA SECURITIES					
	Investment Income	(\$ 1,410)	Debt securities	(\$ 1,410)	\$263,968	

The System's derivatives policy limits foreign currency forwards to no more than 100.0 percent of the aggregate value of the portfolio securities denominated in the hedged currency.

#### INVESTMENT DERIVATIVES CREDIT RISK

At June 30, 2017, the counterparties of the foreign currency forwards primarily had short-term credit ratings of A as rated by the nationally recognized statistical rating organizations. PERS' general policy requires that the counterparty has a long-term credit rating of A or better and a short-term credit rating of A1/P1 at a minimum. More specifically, the System's policy requires that all over-the-counter derivatives be rated AA or better by the nationally recognized statistical rating organizations. The counterparties of the to-be-announced securities (TBAs) were primarily rated A by the nationally recognized statistical rating organizations.

#### INVESTMENT DERIVATIVES FOREIGN CURRENCY RISK

The foreign currency forwards are also presented in the foreign currency risk table on page 47.

#### INVESTMENT DERIVATIVES INTEREST RATE RISK

TBAs are included on page 45 in the interest rate risk table by years to maturity.

#### **COMMITMENTS**

As of June 30, 2017, the System had real estate and private equity investments legally structured as limited partnerships. The System was one of the limited partners within each fund, with the investment managers serving as the general partners. As part of the limited partnership agreements, PERS agrees to potentially invest up to the committed amounts during the stated fund investment period.

Within its Alternative Investment Program, the System has investments that, due to their long-term nature, do not provide immediate liquidity. The commingled real estate fund investments allow for quarterly liquidity. As of June 30, 2017, the total fair value of the commingled real estate portfolio was approximately \$1.87 billion. The closed-end real estate funds, timber fund, and private equity fund investments are all 10- to 12-year commitments. These funds have limited liquidity due to their long investment time horizon, but will make periodic distributions throughout the term of the investment as assets are sold. As of June 30, 2017, the fair value of these investments totaled \$2.14 billion. Real Estate Investment Trusts (REITs) are excluded from the Alternative Investment Program.

As of June 30, 2017, PERS had the following outstanding investment commitments (in thousands):

REAL ESTATE	COMMITTED CAPITAL \$750,000	NET OF RECALLABLE DISTRIBUTIONS AND RELEASED COMMITMENTS \$520,775	OUTSTANDING \$229,225
PRIVATE EQUITY	3,850,000	1,804,295	2,045,705
TOTALS	\$4,600,000	\$2,325,070	\$2,274,930

#### FAIR VALUE MEASUREMENTS

The System categorizes its fair value measurements within the fair value hierarchy established by GASB Statement 72. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. GASB Statement No. 72, Fair Value Measurement and Application, focuses on the exit price in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. GASB establishes a fair value reporting hierarchy to maximize the use of observable inputs when measuring fair value and defines the three levels of inputs as noted below:

- » Level 1 Assets or liabilities for which the identical item is traded on an active exchange, such as publicly-traded instruments or futures contracts.
- » Level 2 Assets and liabilities valued based on observable market data for similar instruments. Fair value is estimated using inputs other than quoted prices included within Level 1 that are observable for assets and liabilities, either directly or indirectly.
- » Level 3 Assets or liabilities, for which significant valuation assumptions are not readily observable in the market and instruments, are valued based on the best available data. Fair value is estimated using unobservable inputs that are significant to the fair value of the assets or liabilities. Level 3 assets may include instruments for which the determination of fair value requires significant management judgment or estimation.

The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. Investments that are measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The System's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. The System performed a detailed analysis of the assets and liabilities that are subject to GASB Statement 72 and has the following recurring fair value measurements as of June 30, 2017:

INVESTMENTS BY FAIR VALUE LEVEL  Debt Securities:		QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL 1)	SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)	
COMMERCIAL PAPER	\$89,556	\$-	\$89,556	\$-	
REPURCHASE AGREEMENTS	296,753	-	296,753	-	
SHORT TERM ASSET BACKED SECURITIES	421	-	421	-	
SHORT TERM US CORPORATE BONDS	89,097	-	89,097	-	
SHORT TERM US GOVERNMENT AGENCY OBLIGATIONS	41,996	-	41,996	-	
SHORT TERM US TREASURY OBLIGATIONS	19,290	19,290	-	-	
SHORT TERM NON-US CORPORATE BONDS	2,505	-	2,505	-	
SHORT TERM SOVEREIGN GOVERNMENTS DEBT	1,282	-	1,282	-	
US GOVERNMENT AGENCY OBLIGATIONS	21,825	-	21,735	90	
US TREASURY OBLIGATIONS	915,944	915,944	-	-	
COLLATERALIZED MORTGAGE OBLIGATIONS	508,854	-	502,527	6,327	
US CORPORATE BONDS	2,067,879	1,925	2,033,696	32,258	
NON-US CORPORATE BONDS	891,434	-	891,434	-	
MORTGAGE PASS-THROUGHS	587,983	-	587,983	-	
STATE & LOCAL OBLIGATIONS	48,478	-	48,478	-	
ASSET-BACKED SECURITIES	1,687,942	-	1,687,492	450	
YANKEE/GLOBAL BONDS	32,118	-	32,118	-	
SOVEREIGN GOVERNMENTS DEBT	939,876	-	939,876	-	
TOTAL DEBT SECURITIES	8,243,233	937,159	7,266,949	39,125	
Equity Securities:	F7C 24C	F7/ 24/			
BASIC MATERIALS	576,246	576,246	-	-	
COMMUNICATIONS	1,931,138	1,931,138	-	-	
CONSUMER, CYCLICAL	1,768,067	1,768,067	-	-	
CONSUMER, NON-CYCLICAL  DIVERSIFIED	3,699,096	3,699,096	-	-	
ENERGY	86,463 778,535	86,463 778,535	-	-	
FINANCIAL	4,179,286	4,179,286		-	
INDUSTRIAL	1,928,638	1,928,638		-	
TECHNOLOGY	1,950,540	1,950,083		457	
UTILITIES	359,706	359,706		437	
OTHER	332,700	337,700			
TOTAL EQUITY SECURITIES	17,257,715	17,257,258	_	457	
TOTAL INVESTMENTS BY FAIR VALUE LEVEL	\$25,500,948	\$18,194,417	\$7,266,949	\$39,582	
Investments Measured at the NAV:	<del>+</del>	<del>+-0,-</del> 5 1, 1-1	ψ,, <b>,,,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	400,002	
TOTAL REAL ESTATE*	2,215,834				
PRIVATE EQUITY FUNDS	1,800,240				
TOTAL INVESTMENTS MEASURED AT NAV	4,016,074				
TOTAL INVESTMENTS MEASURED AT FAIR VALUE	29,517,022			nents, are reported in equity	
INTERNATIONAL CURRENCY	34,732	secu	rities for this presentation. F	REITs totaled \$410.0 million.	
TOTAL INVESTMENTS	\$29,551,754	2,551,754			
Investment Derivative Instruments:					
FOREIGN EXCHANGE CONTRACTS (LIABILITIES)	2,860,024				
TOTAL INVESTMENT DERIVATIVE INSTRUMENTS	\$2,860,024	J,024			

#### **DEBT AND EQUITY**

The System's debt and equity securities in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Securities classified in Level 2 of the fair value hierarchy are valued using a proprietary pricing source. The primary proprietary source uses continuous evaluations throughout the trading day based on factors such as dealer quotes and trades, trade execution data, and transaction reporting services. Along with market sources, relative credit information, observed market movements, and sector news are integrated and incorporated into evaluation pricing applications and models. Commercial and residential mortgage-backed securities classified in Level 3 are valued using discounted cash flow techniques. Collateralized debt obligations classified in Level 3 are valued using a proprietary model that monitors structured product markets, interest rate movements, new issue information, and other pertinent data. Evaluations of tranches (non-volatile and volatile) are based on market modeling, trading, and pricing conventions. New issue features are analyzed on data such as pricing speed, spread, and volatility. Information is also solicited from outside sources including secondary dealers, portfolio managers, and research analysts.

#### **DERIVATIVE INSTRUMENTS**

The System held derivative instruments in the form of US Treasury strips, collateralized mortgage obligations, asset-backed securities, and currency conversions as of June 30, 2017.

#### **REAL ESTATE**

The System's real estate funds include open-end funds and closed—end limited partnerships that invest primarily in US commercial real estate. The fair values of these investments have been determined using the NAV per share (or its equivalent) of the System's ownership interest in the fund or partners' capital, as applicable. The governing document for each open-end real estate fund provides investors the ability to request the redemption of all or part of their fund investments. The funds resulting from an investor's redemption request are raised by the sale of underlying real estate investments held by the open-end fund. Closed-end real estate funds, governed by limited partnership agreements, do not contain provisions for limited partner redemptions on demand. Closed-end funds have a finite life or term, which is defined in the limited partnership agreement. Typically, real estate investments must be made within the first three to four years of the partnership's lifespan, and liquidated by the end of the 10th year. As underlying real estate investments are sold over the life of the closed-end fund, pro-rata distributions of the proceeds are made to each partner in the fund partnership. The standard liquidation period of 10 years with the option of two one-year extensions applies to the one percent of the total portfolio invested in closed-end funds.

#### PRIVATE EQUITY

The System's private equity investments consist of two fund-of-funds (FOF) limited partnerships that invest in multiple private equity funds on behalf of the System. Private equity funds invest primarily in non-public companies whose prices are not quoted on a stock exchange; therefore, these investments are typically illiquid in nature. The System's ownership in the underlying private equity funds consists of limited partnership interests. Because these partnership interests are illiquid, the System's investments cannot be redeemed on demand. Instead pro-rata distributions are received through the liquidation of the assets of the underlying partnerships. Based on the terms of each limited partnership within the System's FOFs, all partnership assets should be liquidated over the 10-to-12-year life of the individual partnership.

As of June 30, 2017, it is probable that all of the System's private equity underlying investments will be sold at an amount different from the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. Therefore, the fair values of these underlying investments have been determined using recent observable transaction information for similar investments and non-binding bids received from potential buyers of the investments of each partnership. As of June 30, 2017, a buyer (or buyers) for these investments has not yet been identified. Each underlying private equity fund's general partner has full discretion for the disposition of each partnership investment. The general partner is solely responsible for determining the most appropriate timing for the sale of each investment and the best exit strategy to use. In addition, the general partner is responsible for identifying all buyers and approving all sale transactions of partnership investments.

Investments measured at the NAV (in thousands):

TOTAL INVESTMENTS MEASURED AT NAV	\$4,016,074	\$2,274,930		
TOTAL PRIVATE EQUITY	1,800,240	2,045,705		
DIVERSIFIED	1,800,240	2,045,705	10-12 years	N/A
Private Equity Funds:				
TOTAL REAL ESTATE	2,215,834	229,225		
TIMBER	98,227	-	Various*	Various*
VALUE ADDED - CLOSED END	243,806	229,225	N/A	10-12 years
CORE - OPEN END	\$1,873,801	\$-	Quarterly	45-90 days
Real Estate Funds:	FAIR VALUE	UNFUNDED COMMITMENTS	REDEMPTION FREQUENCY (IF CURRENTLY ELIGIBLE)	REDEMPTION NOTICE PERIOD

<sup>\*</sup>Based on partnership agreement terms.

#### SECURITIES LENDING TRANSACTIONS

The System accounts for securities lending transactions in accordance with GASB Statement No. 28, Accounting and Financial Reporting for Securities Lending Transactions, which established standards of accounting and financial reporting for securities lending transactions.

The Board of Trustees has authorized the System to lend its securities to broker-dealers with a simultaneous agreement to return the collateral for the same securities in the future. The System's custodian, pursuant to a written agreement, is permitted to lend all long-term securities to authorized broker-dealers subject to the receipt of acceptable collateral. The System lends securities for collateral in the form of either cash or other securities. The types of securities on loan at June 30, 2017, are long-term US government and agency obligations, corporate bonds, REITs, and domestic and international equities. The contractual agreement with the System's custodian provides indemnification in the event the borrower fails to return the securities lent or fails to pay the System income distributions by the securities' issuers while the securities are on loan. There have been no significant violations of the provisions of the agreement during the period of these financial statements.

At the initiation of a cash loan, borrowers are required to provide collateral amounts of 102.0 percent on US securities and international securities denominated in the same currency of the loaned security. When the System's international securities are loaned, if they are denominated in a currency other than the currency of the loaned security, 105.0 percent collateral is required at the initiation of the loan. In the event the collateral fair value on US securities and sovereign debt falls to less than 100.0 percent of the respective fair value of the securities lent, the borrower is required to provide additional collateral by the end of the next business day to the 102.0 percent level. In the event the collateral fair value falls below 102.0 percent for international same-currency transactions or 105.0 percent for cross-currency transactions, the borrower is required to provide additional collateral.

Effective October 1, 2013, 110.0 percent collateral is required from the borrowers for non-cash loans. The System cannot pledge, lend, or sell securities received as collateral unless the borrower defaults. As such, these securities are not presented on the Statement of Fiduciary Net Position. Authorized securities' collateral includes US and non-US government debt obligations and securities, supranational debt obligations, US and non-US equity securities listed on specified indices, US and non-US corporate bonds, and convertible securities. Equities were held as collateral on the non-cash loans as of June 30, 2017. As with cash loans, the borrower must provide additional collateral to correct any deficiency.

The maturities of the investments made with cash collateral generally do not match the maturities of the securities loans. All securities loans can be terminated on demand by either the System or the borrower, although the average term of these loans was two days at June 30, 2017. Cash collateral was invested in repurchase agreements, corporate bonds, and asset-backed securities at June 30, 2017. The weighted average effective duration and the weighted average maturity of all collateral investments at June 30, 2017, were 29 days.

Effective October 1, 2014, PERS amended the custodial bank securities lending agreement to allow for the purchase of equity repurchase agreements. Repurchase agreements collateralized by equity securities require a minimum of 107.0 percent collateralization level. The amendment also provides indemnification on all repurchase agreements by the custodial bank lending agent.

Securities lent at year-end for cash and non-cash collateral are presented by type. There were \$676,538,000 securities lent for securities collateral as of June 30, 2017. The investments purchased with the cash collateral are presented in the discussion of custodial credit risk, since the custodian, as agent, is the counterparty in acquiring these securities in a separate account for the System. The securities lent for securities collateral are also presented for exposure to custodial credit risk since the related collateral is acquired and held by the agent, not in the System's name.

The following table details the net income from securities lending for the year ended June 30, 2017 (in thousands):

NET INCOME FROM SECURITIES LENDING	\$21,902	\$284	\$132	\$15	\$22,333
EXPENSES FROM SECURITIES LENDING	17,872	231	107	11	18,221
PROGRAM FEES	3,316	43	20	2	3,381
INTEREST EXPENSE	14,556	188	87	9	14,840
Less:					
INCOME FROM SECURITIES LENDING	39,774	515	239	26	40,554
NET APPRECIATION	3,174	41	19	2	3,236
INTEREST INCOME	\$36,600	\$474	\$220	\$24	\$37,318
	PERS	MHSPRS	MRS	SLRP	TOTAL

At year end, the System had no credit risk exposure to borrowers because the amount the System owed the borrowers exceeded the amount the borrowers owed the System.

Securities lending total assets with related accrued interest are \$2,963,783,000, and total liabilities with accrued expenses are \$2,957,690,000. These two amounts do not equal at June 30, 2017. The difference of \$6,093,000 is due to the collateral investment fund's market appreciation, agent lender fees, and earnings receivable until the final distribution takes place the following month.

The following table presents the fair values of the underlying securities and the value of the collateral pledges at June 30, 2017 (in thousands):

SECURITIES LENT Lent for Cash Collateral:	FAIR VALUE*	COLLATERAL RECEIVED
DEBT SECURITIES	\$566,668	\$580,266
EQUITIES	2,219,125	2,265,840
REITS	106,489	108,979
SUBTOTAL	2,892,282	2,955,085
Lent for Securities Collateral:		
DEBT SECURITIES	8,392	9,257
EQUITIES	658,690	729,939
REITS	9,456	10,515
SUBTOTAL	676,538	749,711
TOTAL SECURITIES LENT	\$3,568,820	\$3,704,796

<sup>\*</sup>The fair values of the underlying securities loaned for cash and securities collateral includes accrued income and expenses.

#### COMMISSION RECAPTURE PROGRAM

The Board of Trustees has authorized the System to enter into a commission recapture program. This program allows the System to recapture a portion of the commissions paid to broker-dealers with which the System has entered into an agreement. Recaptures for the fiscal year ended June 30, 2017, were \$254,000.

Note 4: Capital Assets The following table shows amounts for capital assets as of June 30, 2017 (in thousands):

DESCRIPTION	AMOUNT
LAND	\$508
BUILDING	18,778
URNITURE, EQUIPMENT & SOFTWARE	23,090
CONSTRUCTION IN PROGRESS	1,026
TOTAL CAPITAL ASSETS	43,402
Less Accumulated Depreciation:	
BUILDING	6,224
URNITURE, EQUIPMENT & SOFTWARE	10,313
OTAL ACCUMULATED DEPRECIATION	16,537
NET CAPITAL ASSETS	\$26,865

The System implemented a major project to build and deploy a new pension and benefits administration software solution, which became operational July 6, 2015. The System reclassified \$20,542,293 in software expenses for the technology project from Construction In Progress to Furniture, Equipment & Software.

#### Note 5: Net Pension Liability of Employers

The following tables present the components of the liability of the employers, or net pension liability, to plan members for benefits provided through the System's cost-sharing and single employer defined benefit pension plans at June 30, 2017 (in thousands).

	PERS	MHSPRS	SLRP
TOTAL PENSION LIABILITY	\$43,166,491	\$497,992	\$20,799
PLAN FIDUCIARY NET POSITION	\$(26,543,097)	\$(341,719)	\$(17,342)
PLAN NET PENSION LIABILITY	\$16,623,394	\$156,273	\$3,457
RATIO OF FIDUCIARY NET POSITION TO TOTAL PENSION LIABILITY	61.49%	68.62%	83.38%

#### SIGNIFICANT ASSUMPTIONS AND OTHER INPUTS

The total pension liability was determined by an actuarial valuation as of June 30, 2017, using the following actuarial assumptions applied to all periods included in the measurement:

	PERS	MHSPRS	SLRP
INVESTMENT RATE OF RETURN*	7.75%	7.75%	7.75%
PRICE INFLATION	3.00%	3.00%	3.00%
SALARY INCREASES	3.25-18.50%	3.25-8.81%	3.25%
MOST RECENT EXPERIENCE STUDY	6/30/16	6/30/16	6/30/16

 $<sup>*</sup>Net\ of\ investment\ expense,\ including\ inflation$ 

An actuarial survey of the mortality, service, withdrawals, compensation experience of members, and valuation of assets and liabilities is performed annually to determine the actuarial soundness of the System. To validate that the assumptions recommended by the actuary are, in aggregate, reasonably related to actual experience, the System requests the actuary to conduct an experience investigation every other year. The actuarial assumptions used in the June 30, 2017, valuation were based on the results of an actuarial experience study for the four-year period ending June 30, 2016. The experience report is dated April 18, 2017.

The long-term expected rate of return on the PERS, MHSPRS, and SLRP investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected nominal returns, net of the plans' investment expense and the assumed rate of inflation) were 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 rate of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

CASH	1.00	-	
EMERGING DEBT	2.00	2.25	
PRIVATE EQUITY	8.00	5.10	
REAL ASSETS	10.00	3.50	
FIXED INCOME	18.00	0.75	
GLOBAL	12.00	4.75	
EMERGING MARKETS EQUITY	4.00	4.75	
INTERNATIONAL EQUITY	18.00	4.50	
US BROAD	27.00%	4.60%	
ASSET CLASS	TARGET ALLOCATION	LONG-TERM EXPECTED REAL RATE OF RETURN	

#### **DISCOUNT RATE**

The discount rate used to measure the total pension liabilities for PERS, MHSPRS, and SLRP was 7.75 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at current contribution rates and that employer contributions for PERS, MHSPRS, and SLRP will be made at rates set in the Board's Funding Policy. Based on those assumptions, each plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on investments was applied to all periods of projected benefit payments to determine each plan's total pension liability.

#### SENSITIVITY OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

The following table presents the net pension liability of PERS, MHSPRS, and SLRP, calculated using the discount rate of 7.75 percent, as well as what the plans' net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.75 percent) or one percentage point higher (8.75 percent) than the current rate (in thousands):

NET PENSION LIABILITY	1% DECREASE (6.75%)	CURRENT DISCOUNT RATE (7.75%)	1% INCREASE (8.75%)
PERS	\$21,802,691	\$16,623,394	\$12,323,452
MHSPRS	\$216,604	\$156,273	\$106,180
SLRP	\$5,527	\$3,457	\$1,679

### Note 6: Contributions Required and Contributions Made

Policies for PERS, MHSPRS, and SLRP provide for employer and member contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are adequate to accumulate sufficient assets to pay benefits when due. Contribution rates for PERS, MHSPRS, and SLRP are established in accordance with actuarial contribution requirements determined through actuarial valuations and adopted by the Board of Trustees with respect to PERS and SLRP or the MHSPRS Administrative Board. Employer contribution rates consist of an amount for service cost; the amount estimated to finance benefits earned by current members during the year; and an amount for amortization of the unfunded actuarial accrued liability. For determining employer contribution rates, the actuary evaluates the assets of the plans based on a five-year smoothed expected return with 20.0 percent of a year's excess or shortfall of expected return recognized each year for five years. Contribution rates are determined using the entry age actuarial cost method and include provisions for an annual 3.0 percent cost-of-living increase calculated according to the terms of the respective plan.

Contribution policies for MRS provide for a property tax to be levied within each municipality and deductions from salaries of members at rates sufficient to make the plans actuarially sound. An actuarial valuation is performed annually, as of June 30, to determine the necessary rates. Mississippi statutes limit any increase in the property tax levy for employer pension contributions to one-half mill per year. Given this constraint on employer contribution increases and depending upon future experience, one or more of the closed plans under MRS will possibly be exhausted at some point in the future. Such an event would lead to at least a temporary reduction in benefits paid until the affected plan's cash flow position improved. Members covered by MRS are required to contribute varying amounts of their salary, depending on the actuarial soundness of their respective plans.

#### **CONTRIBUTION RATES**

	CONTRIBUTION RATES AS A PERCENT OF COVERED PAYROLL					
MEMBER		EMPLOYER	OTHER			
PERS	9.00%	15.75%	-			
MHSPRS	7.25%	37.00%	13.20%*			
MRS	7.00-10.00%	1.03-5.67 mills**	-			
SLRP	3.00%	7.40%	-			

<sup>\*</sup>Additional fees

The Board of Trustees adopted a revised funding policy in fiscal year 2012 aimed at stabilizing the employer contribution rates and reducing the unfunded actuarial accrued liability for both PERS and SLRP. The revised policy establishes a goal for the plans to be 80.0 percent funded by 2042 and sets the PERS employer contribution rate at 15.75 percent and the SLRP rate at 7.4 percent. The focus of the revised funding policy is to reduce volatility in the employer contribution rates. A similar funding policy was adopted by the MHSPRS Administrative Board, which set the employer contribution rate at 37.0 percent of active member payroll.

Employer contributions for MHSPRS are augmented by certain additional fees. These amounts vary annually based on the level of activity. The amount collected as of June 30, 2017, was \$2,994,427 for motor vehicle fees and \$763,218 for driver's license reinstatement fees. An estimated \$3,800,000, or 13.20 percent of payroll, was used to calculate the actuarially determined contributions for MHSPRS.

<sup>\*\*</sup>Based on assessed property values.

Administration of the System is financed from investment earnings. In addition, employers of MHSPRS, MRS, and SLRP contribute an administrative fee to the System equal to 2.0 percent of the plan's respective employer contributions. As of June 30, 2017, administrative fees were \$202,562 from MHSPRS, \$354,630 from MRS, and \$10,288 from SLRP. ORP contributes administrative fees of 2.6 percent of covered wages for a total of \$10,965,366.

#### LEGALLY REQUIRED RESERVES

Provisions for reserves, in which all assets of the System are to be credited according to their purpose, are established by Miss. Code Ann. § 25-11-123, Article 3, (1972, as amended) and may be amended only by the State Legislature. The annuity savings account accumulates the contributions made by members and accumulated interest. The annuity reserve represents the actuarial value of all annuities in force. The reserve account that accumulates contributions made by the employers, and where all retirement allowances and other benefits are recorded, is referred to as the employer's accumulation account.

## Note 7: Retirement Plan of System Employees

PERS employees are members of the System. The payroll for PERS employees for the year ended June 30, 2017, was \$7,315,000; the PERS total payroll expense was \$9,721,000. System contributions for the years ended June 30, 2017, 2016, and 2015, were \$1,143,000, \$1,122,000, and \$1,088,000, respectively. The contributions for 2017, 2016, and 2015 were each 100.0 percent of required contributions. Refer to Note 6 of the basic financial statements for more information regarding contributions made for fiscal year 2017. PERS contributions represent less than 1.0 percent of total contributions required for all participating employers.

# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY & RELATED RATIOS - YEAR ENDED JUNE 30, 2017 -

#### [in thousands] [unaudited]

REFUNDS (113,707) (112,926) (119,356) (121,532)  NET CHANGE IN TOTAL PENSION LIABILITY 1,168,978 1,632,929 3,349,296 1,472,440  TOTAL PENSION LIABILITY - BEGINNING 41,997,513 40,364,584 37,015,288 35,542,848  TOTAL PENSION LIABILITY - ENDING (A) 43,166,491 41,997,513 40,364,584 37,015,288  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER \$1,019,084 \$1,021,261 \$996,478 \$969,674  CONTRIBUTIONS - MEMBER 570,066 572,574 557,909 549,528  NET INVESTMENT INCOME 3,436,144 130,900 827,666 3,905,728  BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119  PLAN FIDUCIARY NET POSITION - ENDING (B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	CHANGES IN THE NET PENSION LIABILITY	/ PERS			
SERVICE COST INTEREST  3,154,382  3,032,131  2,867,679  2,754,573  CHANGES OF BENEFIT FERMS  DIFFERENCE BETWEEN ACTUAL AND EXPECTED EXPERIENCE  ASSUMPTION CHANGES  BENEFIT PAYMENTS  (2,477,914)  (2,367,709)  (2,219,240)  (2,099,843)  REFUNDS  NET CHANGE IN TOTAL PENSION LIABILITY  TOTAL PENSION LIABILITY - ENDING (A)  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER  NET INVESTMENT INCOME  BENEFIT PAYMENTS  (2,477,914)  (3,66,066)  (119,356)  (121,532)  NATIONAL PENSION LIABILITY  TOTAL PENSION LIABILITY - ENDING (A)  41,997,513  40,364,584  37,015,288  35,542,848  TOTAL PENSION LIABILITY - ENDING (A)  43,166,491  41,997,513  40,364,584  37,015,288  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER  \$1,019,084  \$1,021,261  \$996,478  \$996,478  \$969,674  CONTRIBUTIONS - MEMBER  570,066  572,574  557,909  549,528  NET INVESTMENT INCOME  BENEFIT PAYMENTS  (2,477,914)  (2,367,709)  (2,219,240)  (2,099,843)  REFUNDS  (113,707)  (112,926)  (119,356)  (121,532)  ADMINISTRATIVE EXPENSE  (17,056)  (15,166)  (13,523)  (128,37)  OTHER  (8,536)  (474)  (497)  (510)  NET CHANGE IN FIDUCIARY NET POSITION  PLAN FIDUCIARY NET POSITION - BEGINNING  PLAN FIDUCIARY NET POSITION - ENDING (B)  NET PENSION LIABILITY  61.49%  57.47%  61.70%  57.4190  24,135,016  24,906,556  24,877,119  21,686,911  PLAN FIDUCIARY NET POSITION - SOLING (B)  17,862,497  \$15,458,028  \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE  OF THE TOTAL PENSION LIABILITY  \$6,038,229  \$6,022,533  \$5,904,827  \$5,834,687  275,200  20,908  20,008  20,008  20,009  20,00	-	2017	2016	2015	2014
INTEREST 3,154,382 3,032,131 2,867,679 2,754,573  CHANGES OF BENEFIT TERMS	Total pension liability				
CHANGES OF BENEFIT TERMS  DIFFERENCE BETWEEN ACTUAL AND EXPECTED EXPERIENCE  ASSUMPTION CHANGES  BENEFIT PAYMENTS  (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS  (113,707) (112,926) (119,356) (121,532)  NET CHANGE IN TOTAL PENSION LIABILITY  TOTAL PENSION LIABILITY - ENDING (A)  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER  NET INVESTMENT INCOME  BENEFIT PAYMENTS  (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS  (113,707) (112,926) (119,356) (121,532)  NET CHANGE IN TOTAL PENSION LIABILITY - ENDING (A)  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER  \$1,019,084 \$1,021,261 \$996,478 \$969,674  CONTRIBUTIONS - EMPLOYER  \$70,066 572,574 557,909 549,528  NET INVESTMENT INCOME  BENEFIT PAYMENTS  (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS  (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE  (17,056) (15,166) (13,523) (12,837)  OTHER  (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION - BEGINNING  PLAN FIDUCIARY NET POSITION - BEGINNING  PLAN FIDUCIARY NET POSITION - BEGINNING  PLAN FIDUCIARY NET POSITION - BEGINNING  OF THE TOTAL PENSION LIABILITY - ENDING (B)  NET PENSION LIABILITY - ENDING (B)  NET PENSION LIABILITY - ENDING (B)  NET PENSION LIABILITY - ENDING (CA)  \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE  OF THE TOTAL PENSION LIABILITY  COVERED PAYROLL  \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	SERVICE COST	\$754,552	\$734,545	\$673,626	\$681,778
DIFFERENCE BETWEEN ACTUAL AND EXPECTED EXPERIENCE  ASSUMPTION CHANGES 24,141 (66,606) 1,821,236 - BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  NET CHANGE IN TOTAL PENSION LIABILITY 1,168,978 1,632,929 3,349,296 1,472,440  TOTAL PENSION LIABILITY - BEGINNING 41,997,513 40,364,584 37,015,288 35,542,848  TOTAL PENSION LIABILITY - ENDING (A) 43,166,491 41,997,513 40,364,584 37,015,288  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER \$1,019,084 \$1,021,261 \$996,478 \$969,674  CONTRIBUTIONS - MEMBER 570,066 572,574 557,909 549,528  NET INVESTMENT INCOME 3,436,144 130,900 827,666 3,905,728  BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING PLAN FIDUCIARY NET POSITION - ENDING (B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY - ENDING (B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY - COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687  NET PENSION LIABILITY AS A PERCENTAGE \$275,200 \$26,500 \$21,70	INTEREST	3,154,382	3,032,131	2,867,679	2,754,573
AND EXPECTED EXPERIENCE ASSUMPTION CHANGES 24,141 (66,606) 1,821,236 - BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843) REFUNDS (113,707) (112,926) (119,356) (121,532)  NET CHANGE IN TOTAL PENSION LIABILITY 1,168,978 1,632,929 3,349,296 1,472,440  TOTAL PENSION LIABILITY - BEGINNING 41,997,513 40,364,584 37,015,288 35,542,848  TOTAL PENSION LIABILITY - ENDING (A) 43,166,491 41,997,513 40,364,584 37,015,288  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER \$1,019,084 \$1,021,261 \$996,478 \$969,674  CONTRIBUTIONS - MEMBER 570,066 572,574 557,909 549,528  NET INVESTMENT INCOME 3,436,144 130,900 827,666 3,905,728  BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119 21,686,911  PLAN FIDUCIARY NET POSITION - ENDING (B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE 61.49% 57.47% 61.70% 67.219  COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687  NET PENSION LIABILITY AS A PERCENTAGE 725,309 206,599 321,709 200,000	CHANGES OF BENEFIT TERMS	-	-	-	-
BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  NET CHANGE IN TOTAL PENSION LIABILITY 1,168,978 1,632,929 3,349,296 1,472,440  TOTAL PENSION LIABILITY - BEGINNING 41,997,513 40,364,584 37,015,288 35,542,848  TOTAL PENSION LIABILITY - ENDING (A) 43,166,491 41,997,513 40,364,584 37,015,288  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER \$1,019,084 \$1,021,261 \$996,478 \$969,674  CONTRIBUTIONS - MEMBER 570,066 572,574 557,909 549,528  NET INVESTMENT INCOME 3,436,144 130,900 827,666 3,905,728  BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119  NET PENSION LIABILITY - ENDING (A-B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY (COVERED PAYROLL NET PENSION LIABILITY AS A PERCENTAGE 7275,309 726,523,33 \$5,904,827 \$5,834,687		(172,476)	413,494	325,351	257,464
REFUNDS (113,707) (112,926) (119,356) (121,532)  NET CHANGE IN TOTAL PENSION LIABILITY 1,168,978 1,632,929 3,349,296 1,472,440  TOTAL PENSION LIABILITY - BEGINNING 41,997,513 40,364,584 37,015,288 35,542,848  TOTAL PENSION LIABILITY - ENDING (A) 43,166,491 41,997,513 40,364,584 37,015,288  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER \$1,019,084 \$1,021,261 \$996,478 \$969,674  CONTRIBUTIONS - MEMBER 570,066 572,574 557,909 549,528  NET INVESTMENT INCOME 3,436,144 130,900 827,666 3,905,728  BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119  PLAN FIDUCIARY NET POSITION - ENDING (B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	ASSUMPTION CHANGES	24,141	(66,606)	1,821,236	-
NET CHANGE IN TOTAL PENSION LIABILITY  1,168,978  1,632,929  3,349,296  1,472,440  TOTAL PENSION LIABILITY - BEGINNING  41,997,513  40,364,584  37,015,288  35,542,848  TOTAL PENSION LIABILITY - ENDING (A)  43,166,491  41,997,513  40,364,584  37,015,288  35,542,848  TOTAL PENSION LIABILITY - ENDING (A)  43,166,491  41,997,513  40,364,584  37,015,288  8969,674  CONTRIBUTIONS - EMPLOYER  \$1,019,084  \$1,021,261  \$996,478  \$969,674  CONTRIBUTIONS - MEMBER  570,066  572,574  557,909  549,528  NET INVESTMENT INCOME  3,436,144  130,900  827,666  3,905,728  BENEFIT PAYMENTS  (2,477,914)  (2,367,709)  (2,219,240)  (2,099,843)  REFUNDS  (113,707)  (112,926)  (119,356)  (121,532)  ADMINISTRATIVE EXPENSE  (17,056)  (15,166)  (13,523)  (12,837)  OTHER  (8,536)  (474)  (497)  (510)  NET CHANGE IN FIDUCIARY NET POSITION  2,408,081  (771,540)  29,437  3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING  24,135,016  24,906,556  24,877,119  21,686,911  PLAN FIDUCIARY NET POSITION - ENDING (B)  NET PENSION LIABILITY - ENDING (A-B)  \$16,623,394  \$17,862,497  \$15,458,028  \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY  COVERED PAYROLL  \$6,038,229  \$6,022,533  \$5,904,827  \$5,834,687	BENEFIT PAYMENTS	(2,477,914)	(2,367,709)	(2,219,240)	(2,099,843)
TOTAL PENSION LIABILITY - BEGINNING  41,997,513  40,364,584  37,015,288  35,542,848  TOTAL PENSION LIABILITY - ENDING (A)  43,166,491  41,997,513  40,364,584  37,015,288  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER  CONTRIBUTIONS - MEMBER  570,066  572,574  557,909  549,528  NET INVESTMENT INCOME  3,436,144  130,900  827,666  3,905,728  BENEFIT PAYMENTS  (2,477,914)  (2,367,709)  (2,219,240)  (2,099,843)  REFUNDS  (113,707)  (112,926)  (119,356)  (121,532)  ADMINISTRATIVE EXPENSE  (17,056)  (15,166)  (13,523)  (12,837)  OTHER  (8,536)  (474)  (497)  (510)  NET CHANGE IN FIDUCIARY NET POSITION  PLAN FIDUCIARY NET POSITION - ENDING (B)  PLAN FIDUCIARY NET POSITION - ENDING (B)  NET PENSION LIABILITY - ENDING (A-B)  PLAN FIDUCIARY NET POSITION - ENDING (A-B)  \$16,623,394  \$17,862,497  \$15,458,028  \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY AS A PERCENTAGE  NET PENSION LIABILITY AS A PERCENTAGE  70,510  70,610  70,610  70,610  70,610  70,610  70,610  70,610  70,610  70,610  70,610  70,610  70,610  70,610  70,610  70,610  70,610	REFUNDS	(113,707)	(112,926)	(119,356)	(121,532)
TOTAL PENSION LIABILITY - ENDING (A)  Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER \$1,019,084 \$1,021,261 \$996,478 \$969,674  CONTRIBUTIONS - MEMBER 570,066 572,574 557,909 549,528  NET INVESTMENT INCOME 3,436,144 130,900 827,666 3,905,728  BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119 21,686,911  PLAN FIDUCIARY NET POSITION - ENDING (B) 26,543,097 24,135,016 24,906,556 24,877,119  NET PENSION LIABILITY - ENDING (A-B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY  COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	NET CHANGE IN TOTAL PENSION LIABILITY	1,168,978	1,632,929	3,349,296	1,472,440
Plan fiduciary net position  CONTRIBUTIONS - EMPLOYER \$1,019,084 \$1,021,261 \$996,478 \$969,674  CONTRIBUTIONS - MEMBER 570,066 572,574 557,909 549,528  NET INVESTMENT INCOME 3,436,144 130,900 827,666 3,905,728  BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119  PLAN FIDUCIARY NET POSITION - ENDING (B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	TOTAL PENSION LIABILITY - BEGINNING	41,997,513	40,364,584	37,015,288	35,542,848
CONTRIBUTIONS - EMPLOYER \$1,019,084 \$1,021,261 \$996,478 \$969,674  CONTRIBUTIONS - MEMBER 570,066 572,574 557,909 549,528  NET INVESTMENT INCOME 3,436,144 130,900 827,666 3,905,728  BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119  NET PENSION LIABILITY - ENDING (B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL  NET PENSION LIABILITY AS A PERCENTAGE \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	TOTAL PENSION LIABILITY - ENDING (A)	43,166,491	41,997,513	40,364,584	37,015,288
CONTRIBUTIONS - MEMBER  570,066  572,574  557,909  549,528  NET INVESTMENT INCOME  3,436,144  130,900  827,666  3,905,728  BENEFIT PAYMENTS  (2,477,914)  (2,367,709)  (2,219,240)  (2,099,843)  REFUNDS  (113,707)  (112,926)  (119,356)  (121,532)  ADMINISTRATIVE EXPENSE  (17,056)  (15,166)  (13,523)  (12,837)  OTHER  (8,536)  (474)  (497)  (510)  NET CHANGE IN FIDUCIARY NET POSITION  PLAN FIDUCIARY NET POSITION - BEGINNING  24,135,016  24,906,556  24,877,119  NET PENSION LIABILITY - ENDING (A-B)  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY  COVERED PAYROLL  NET PENSION LIABILITY AS A PERCENTAGE  OF THE TOTAL PENSION LIABILITY  COVERED PAYROLL  NET PENSION LIABILITY AS A PERCENTAGE  96,038,229  \$6,038,229  \$6,022,533  \$5,904,827  \$5,834,687	Plan fiduciary net position				
NET INVESTMENT INCOME  3,436,144  130,900  827,666  3,905,728  BENEFIT PAYMENTS  (2,477,914)  (2,367,709)  (2,219,240)  (2,099,843)  REFUNDS  (113,707)  (112,926)  (119,356)  (121,532)  ADMINISTRATIVE EXPENSE  (17,056)  (15,166)  (13,523)  (12,837)  OTHER  (8,536)  (474)  (497)  (510)  NET CHANGE IN FIDUCIARY NET POSITION  2,408,081  (771,540)  29,437  3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING  24,135,016  24,906,556  24,877,119  PLAN FIDUCIARY NET POSITION - ENDING (B)  NET PENSION LIABILITY - ENDING (A-B)  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY  COVERED PAYROLL  NET PENSION LIABILITY AS A PERCENTAGE  175, 209  196,599  261,799  208,038	CONTRIBUTIONS - EMPLOYER	\$1,019,084	\$1,021,261	\$996,478	\$969,674
BENEFIT PAYMENTS (2,477,914) (2,367,709) (2,219,240) (2,099,843)  REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119 21,686,911  PLAN FIDUCIARY NET POSITION - ENDING (B) 26,543,097 24,135,016 24,906,556 24,877,119  NET PENSION LIABILITY - ENDING (A-B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	CONTRIBUTIONS - MEMBER	570,066	572,574	557,909	549,528
REFUNDS (113,707) (112,926) (119,356) (121,532)  ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119 21,686,911  PLAN FIDUCIARY NET POSITION - ENDING (B) 26,543,097 24,135,016 24,906,556 24,877,119  NET PENSION LIABILITY - ENDING (A-B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	NET INVESTMENT INCOME	3,436,144	130,900	827,666	3,905,728
ADMINISTRATIVE EXPENSE (17,056) (15,166) (13,523) (12,837)  OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119 21,686,911  PLAN FIDUCIARY NET POSITION - ENDING (B) 26,543,097 24,135,016 24,906,556 24,877,119  NET PENSION LIABILITY - ENDING (A-B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	BENEFIT PAYMENTS	(2,477,914)	(2,367,709)	(2,219,240)	(2,099,843)
OTHER (8,536) (474) (497) (510)  NET CHANGE IN FIDUCIARY NET POSITION 2,408,081 (771,540) 29,437 3,190,208  PLAN FIDUCIARY NET POSITION - BEGINNING 24,135,016 24,906,556 24,877,119 21,686,911  PLAN FIDUCIARY NET POSITION - ENDING (B) 26,543,097 24,135,016 24,906,556 24,877,119  NET PENSION LIABILITY - ENDING (A-B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687	REFUNDS	(113,707)	(112,926)	(119,356)	(121,532)
NET CHANGE IN FIDUCIARY NET POSITION       2,408,081       (771,540)       29,437       3,190,208         PLAN FIDUCIARY NET POSITION - BEGINNING       24,135,016       24,906,556       24,877,119       21,686,911         PLAN FIDUCIARY NET POSITION - ENDING (B)       26,543,097       24,135,016       24,906,556       24,877,119         NET PENSION LIABILITY - ENDING (A-B)       \$16,623,394       \$17,862,497       \$15,458,028       \$12,138,169         PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY       61.49%       57.47%       61.70%       67.219         COVERED PAYROLL       \$6,038,229       \$6,022,533       \$5,904,827       \$5,834,687         NET PENSION LIABILITY AS A PERCENTAGE       275,20%       296,59%       361,79%       208,038	ADMINISTRATIVE EXPENSE	(17,056)	(15,166)	(13,523)	(12,837)
PLAN FIDUCIARY NET POSITION - BEGINNING PLAN FIDUCIARY NET POSITION - ENDING (B) PLAN FIDUCIARY NET POSITION - ENDING (B) PLAN FIDUCIARY NET POSITION - ENDING (A-B) PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL NET PENSION LIABILITY AS A PERCENTAGE NET PENSION LIABILITY AS A PERCENTAGE 24,135,016 24,906,556 24,877,119 21,686,911 24,135,016 24,906,556 24,877,119 21,686,911 24,135,016 24,906,556 24,877,119 21,686,911 24,135,016 24,906,556 24,877,119 21,686,911 24,135,016 24,906,556 24,877,119 21,686,911 21,086,91	OTHER	(8,536)	(474)	(497)	(510)
PLAN FIDUCIARY NET POSITION - ENDING (B) 26,543,097 24,135,016 24,906,556 24,877,119  NET PENSION LIABILITY - ENDING (A-B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687  NET PENSION LIABILITY AS A PERCENTAGE 275,20% 296,59% 361,79% 208,039	NET CHANGE IN FIDUCIARY NET POSITION	2,408,081	(771,540)	29,437	3,190,208
NET PENSION LIABILITY - ENDING (A-B) \$16,623,394 \$17,862,497 \$15,458,028 \$12,138,169  PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687  NET PENSION LIABILITY AS A PERCENTAGE 275,20% 396,59% 361,79% 208,039	PLAN FIDUCIARY NET POSITION - BEGINNING	24,135,016	24,906,556	24,877,119	21,686,911
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY  COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687  NET PENSION LIABILITY AS A PERCENTAGE 275, 20% 296,59% 361,79% 208,03%	PLAN FIDUCIARY NET POSITION - ENDING (B)	26,543,097	24,135,016	24,906,556	24,877,119
OF THE TOTAL PENSION LIABILITY 61.49% 57.47% 61.70% 67.213  COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687  NET PENSION LIABILITY AS A PERCENTAGE 275.20% 296.50% 261.70% 208.03%	NET PENSION LIABILITY - ENDING (A-B)	\$16,623,394	\$17,862,497	\$15,458,028	\$12,138,169
OF THE TOTAL PENSION LIABILITY 61.49% 57.47% 61.70% 67.213  COVERED PAYROLL \$6,038,229 \$6,022,533 \$5,904,827 \$5,834,687  NET PENSION LIABILITY AS A PERCENTAGE 275.20% 296.50% 261.70% 208.03%					
NET PENSION LIABILITY AS A PERCENTAGE 275 20% 206 50% 261 70% 209 03%		61.49%	57.47%	61.70%	67.21%
	COVERED PAYROLL	\$6,038,229	\$6,022,533	\$5,904,827	\$5,834,687
OF COVERED FAIROLL	NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL	275.30%	296.59%	261.79%	208.03%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available. See notes to Required Supplementary Information.

### REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY & RELATED RATIOS (CONTINUED) - YEAR ENDED JUNE 30, 2017 -

[in thousands] [unaudited]

CHANGES IN THE NET PENSION LIABILITY	MHSPRS					
-	2017	2016	2015	2014		
Total pension liability						
SERVICE COST	\$7,328	\$6,858	\$6,361	\$6,461		
INTEREST	37,086	35,869	34,503	33,396		
CHANGES OF BENEFIT TERMS	-	-	-	-		
DIFFERENCE BETWEEN ACTUAL AND EXPECTED EXPERIENCE	(5,780)	3,536	1,013	2,652		
ASSUMPTION CHANGES	(3,598)	-	19,176	-		
BENEFIT PAYMENTS	(31,001)	(29,913)	(28,909)	(28,220)		
REFUNDS	(144)	(52)	(163)	(42)		
NET CHANGE IN TOTAL PENSION LIABILITY	3,891	16,298	31,981	14,247		
TOTAL PENSION LIABILITY - BEGINNING	494,101	477,803	445,822	431,575		
TOTAL PENSION LIABILITY - ENDING (A)	497,992	494,101	477,803	445,822		
Plan fiduciary net position						
CONTRIBUTIONS - EMPLOYER	\$14,809	\$14,755	\$13,695	\$13,500		
CONTRIBUTIONS - MEMBER	2,147	2,128	1,938	1,963		
NET INVESTMENT INCOME	44,499	1,704	10,812	51,575		
BENEFIT PAYMENTS	(31,001)	(29,913)	(28,909)	(28,220)		
REFUNDS	(144)	(52)	(163)	(42)		
ADMINISTRATIVE EXPENSE	(203)	(217)	(198)	(200)		
OTHER	-	-	-	-		
NET CHANGE IN FIDUCIARY NET POSITION	30,107	(11,595)	(2,825)	38,576		
PLAN FIDUCIARY NET POSITION - BEGINNING	311,612	323,207	326,032	287,456		
PLAN FIDUCIARY NET POSITION - ENDING (B)	341,719	311,612	323,207	326,032		
NET PENSION LIABILITY - ENDING (A-B)	\$156,273	\$182,489	\$154,596	\$119,790		
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	68.62%	63.07%	67.64%	73.13%		
COVERED PAYROLL	\$28,845	\$27,380	\$25,505	\$25,554		
NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL	541.77%	666.50%	606.14%	468.77%		

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available. See notes to Required Supplementary Information.

### REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY & RELATED RATIOS (CONTINUED) - YEAR ENDED JUNE 30, 2017 -

[in thousands] [unaudited]

CHANGES IN THE NET PENSION LIABILITY	SLRP						
	2017	2016	2015	2014			
Total pension liability							
SERVICE COST	\$433	\$420	\$406	\$404			
INTEREST	1,593	1,586	1,569	1,549			
CHANGES OF BENEFIT TERMS	-	-	-	-			
DIFFERENCE BETWEEN ACTUAL AND EXPECTED EXPERIENCE	(204)	(468)	(333)	(453)			
ASSUMPTION CHANGES	(868)	(6)	588	-			
BENEFIT PAYMENTS	(1,397)	(1,454)	(1,220)	(1,216)			
REFUNDS	(17)	(32)	(37)	(22)			
NET CHANGE IN TOTAL PENSION LIABILITY	(460)	46	973	262			
TOTAL PENSION LIABILITY - BEGINNING	21,259	21,213	20,240	19,978			
TOTAL PENSION LIABILITY - ENDING (A)	20,799	21,259	21,213	20,240			
Plan fiduciary net position							
CONTRIBUTIONS - EMPLOYER	\$522	\$514	\$511	\$514			
CONTRIBUTIONS - MEMBER	212	208	207	208			
NET INVESTMENT INCOME	2,264	86	552	2,605			
BENEFIT PAYMENTS	(1,397)	(1,454)	(1,220)	(1,216)			
REFUNDS	(17)	(32)	(37)	(22)			
ADMINISTRATIVE EXPENSE	(10)	(10)	(10)	(10)			
OTHER	-	-	-	-			
NET CHANGE IN FIDUCIARY NET POSITION	1,574	(688)	3	2,079			
PLAN FIDUCIARY NET POSITION - BEGINNING	15,768	16,456	16,453	14,374			
PLAN FIDUCIARY NET POSITION - ENDING (B)	17,342	15,768	16,456	16,453			
NET PENSION LIABILITY - ENDING (A-B)	\$3,457	\$5,491	\$4,757	\$3,787			
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	83.38%	74.17%	77.58%	81.29%			
COVERED PAYROLL	\$6,928	\$6,862	\$6,861	\$6,918			
NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL	49.90%	80.02%	69.33%	54.74%			

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available. See notes to Required Supplementary Information. This page intentionally left blank.

# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER CONTRIBUTIONS - LAST 10 FISCAL YEARS -

[in thousands] [unaudited]

Public Employees' Retirement System	2017	2016	2015	2014	2013	
ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION	\$951,021	\$948,549	\$930,010	\$921,872	\$835,321	
CONTRIBUTIONS IN RELATION TO THE ACTUARIALLY DETERMINED CONTRIBUTION	1,019,084	1,021,261	996,478	969,674	881,847	
ANNUAL CONTRIBUTION DEFICIENCY (EXCESS)	\$(68,063)	\$(72,712)	\$(66,468)	\$(47,802)	\$(46,526)	
COVERED PAYROLL	\$6,038,229	\$6,022,533	\$5,904,827	\$5,834,687	\$5,823,578	
ACTUAL CONTRIBUTIONS AS A PERCENTAGE OF COVERED PAYROLL	16.88%	16.96%	16.88%	16.62%	15.14%	
Mississippi Highway Safety Patrol Retirement System						
ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION	\$14,431	\$14,025	\$13,226	\$13,595	\$13,098	
CONTRIBUTIONS IN RELATION TO THE ACTUARIALLY DETERMINED CONTRIBUTION	14,809	14,755	13,695	13,500	13,366	
ANNUAL CONTRIBUTION DEFICIENCY (EXCESS)	\$(378)	\$(730)	\$(469)	\$95	\$(268)	
COVERED PAYROLL	\$28,845	\$27,380	\$25,505	\$25,554	\$25,816	
ACTUAL CONTRIBUTIONS AS A PERCENTAGE OF COVERED PAYROLL	51.34%	53.89%	53.70%	52.83%	51.77%	
Supplemental Legislative Retirement System						
ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION	\$513	\$508	\$508	\$519	\$509	
CONTRIBUTIONS IN RELATION TO THE ACTUARIALLY DETERMINED CONTRIBUTION	522	514	511	514	503	
ANNUAL CONTRIBUTION DEFICIENCY (EXCESS)	\$(9)	\$(6)	\$(3)	\$5	\$6	
COVERED PAYROLL	\$6,928	\$6,862	\$6,861	\$6,918	\$6,695	
ACTUAL CONTRIBUTIONS AS A PERCENTAGE OF COVERED PAYROLL	7.53%	7.49%	7.45%	7.43%	7.51%	

There are no nonemployer contributing entities in the plan reporting entity. See notes to Required Supplementary Information.

# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER CONTRIBUTIONS (CONTINUED) - LAST 10 FISCAL YEARS -

[in thousands] [unaudited]

Public Employees' Retirement System	2012	2011	2010	2009	2008
ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION	\$735,022	\$687,016	\$699,824	\$657,048	\$636,546
CONTRIBUTIONS IN RELATION TO THE ACTUARIALLY DETERMINED CONTRIBUTION	768,914	723,836	731,544	713,569	683,189
ANNUAL CONTRIBUTION DEFICIENCY (EXCESS)	\$(33,892)	\$(36,820)	\$(31,720)	\$(56,521)	\$(46,643)
COVERED PAYROLL	\$5,857,789	\$5,684,624	\$5,763,556	\$5,831,864	\$5,544,705
ACTUAL CONTRIBUTIONS AS A PERCENTAGE OF COVERED PAYROLL	13.13%	12.73%	12.69%	12.24%	12.32%
Mississippi Highway Safety Patrol Retirement System					
ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION	\$12,257	\$11,385	\$11,096	\$11,668	\$10,492
CONTRIBUTIONS IN RELATION TO THE ACTUARIALLY DETERMINED CONTRIBUTION	12,044	11,494	12,598	12,274	12,409
ANNUAL CONTRIBUTION DEFICIENCY (EXCESS)	\$213	\$(109)	\$(1,502)	\$(606)	\$(1,917)
COVERED PAYROLL	\$25,670	\$24,872	\$26,353	\$26,390	\$29,597
ACTUAL CONTRIBUTIONS AS A PERCENTAGE OF COVERED PAYROLL	46.92%	46.21%	47.80%	46.51%	41.93%
Supplemental Legislative Retirement System					
ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION	\$504	\$464	\$452	\$449	\$436
CONTRIBUTIONS IN RELATION TO THE ACTUARIALLY DETERMINED CONTRIBUTION	490	457	446	458	449
ANNUAL CONTRIBUTION DEFICIENCY (EXCESS)	\$14	\$7	\$6	\$(9)	\$(13)
COVERED PAYROLL	\$6,872	\$6,810	\$6,605	\$6,803	\$6,753
ACTUAL CONTRIBUTIONS AS A PERCENTAGE OF COVERED PAYROLL	7.13%	6.71%	6.75%	6.73%	6.65%

There are no nonemployer contributing entities in the plan reporting entity. See notes to Required Supplementary Information.

# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF INVESTMENT RETURNS - LAST 10 FISCAL YEARS -

[unaudited]

 2017
 2016
 2015
 2014

 ANNUAL MONEY-WEIGHTED RATE OF RETURN, NET OF INVESTMENT EXPENSE
 14.53%
 0.69%
 3.05%
 18.37%

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

# Notes to Required Supplementary Schedules JUNE 30, 2017

Note 1: Schedule of Changes in the Net Pension Liability & Related Ratios The total pension liabilities presented in these schedules were provided by the System's actuarial consultants, Cavanaugh Macdonald Consulting, LLC. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position for PERS, MHSPRS, and SLRP.

# Note 2: Schedule of Employer Contributions

The required employer contributions and amount of those contributions actually made are presented in this 10-year schedule.

#### **PERS**

Beginning in fiscal year 2007, the employer contribution rate increased from 10.75 percent in 0.55 percent increments until the target rate was met in fiscal year 2008. The purpose of the phased-in approach was to moderate the effect to the State of Mississippi of a contribution rate increase. A slight increase in the employer contribution rate was implemented in fiscal year 2010, from 11.85 percent to 12.00 percent. In fiscal year 2010, the actuary's recommended employer contribution rate was to increase from 12.00 percent to a projected 13.56 percent for fiscal year 2011. In lieu of the employer contribution rate increase, the member contribution rate was increased to 9.00 percent for fiscal year 2011, which produced a decrease in employer normal cost. The reduction in normal cost, coupled with favorable investment experience, resulted in a revised recommended employer contribution rate from 13.56 percent to 12.93 percent, which became effective January 1, 2012. The employer contribution rate increased in fiscal year 2013 to 14.26 percent and in fiscal year 2014, the Board implemented a revised funding policy aimed at stabilizing the employer contribution rate, which was set and remains at 15.75 percent.

#### **MHSPRS**

The employer contribution rate, previously 28.16 percent, was changed effective July 1, 2006, to 30.30 percent. The employee contribution rate was raised from 6.50 percent to 7.25 percent for fiscal year 2009. On January 1, 2012, the employer contribution rate increased to 35.21 percent and was raised to 37.00 percent effective July 1, 2012, where it remains. Motor vehicle and driver's license reinstatement fees augment employer contributions. The amount varies each year depending on activity, with \$3.8 million collected for fiscal year 2017. An actuarial contribution deficiency occurred for fiscal year 2012 due to a revision of the employer contribution rate. The change took place January 1, 2012, bringing the contribution rate from 30.30 percent to 35.21 percent and causing a deficiency of \$213 thousand in actual contributions compared with the actuarially determined employer contribution. In 2014, a deficiency occurred due to actual contributions of motor vehicle fees, which amounted to \$2.6 million, being lower than anticipated while estimated contributions were \$3.6 million.

#### SLRP

The employer contribution rate, which was 6.33 percent, changed to 6.65 percent effective July 1, 2006. The contribution rate remained constant until January 1, 2012, when it was increased to 7.40. The employee contribution rate has remained at 3.00 percent. Small annual contribution deficiencies occurred yearly from 2010 to 2014. SLRP is a small plan with a relatively fixed number of members. Over the last 10-year period, both actuarially determined and actual employer contributions have generally trended upward.

## Note 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. The investment assets of the defined benefit plans administered by the System are combined in a comingled investment pool. Each plan owns an equity position in the pool in accordance with its ownership percentage. The annual money-weighted rate of return is, therefore, approximately the same for PERS, MHSPRS, and SLRP.

#### Note 4: Actuarial Assumptions

The information presented in the required supplementary schedules was used in the actuarial valuation for purposes of determining the actuarially determined contribution rates. The assumptions and methods used for the June 30, 2017, actuarial valuation were recommended by the actuary and adopted by the Board.

#### EFFECTS OF CURRENT YEAR CHANGES IN PLAN REQUIREMENTS

Plan requirements may be affected by changes in actuarial assumptions, benefit provisions, plan provisions, actuarial funding methods, or other significant factors.

Since the previous valuation, various economic and demographic assumptions have been revised to reflect the results of the experience study for the four-year period ending June 30, 2016. The following amendments were incorporated into the actuarial valuations:

#### » PERS

- » The valuation results are developed based upon the employer contribution rate of 15.75 percent of payroll, which has remained stable since fiscal year 2014.
- » Changes in actuarial assumptions and methods:
  - » The expectation of retired life mortality was changed to the RP-2014 Healthy Annuitant Blue Collar Mortality Table projected with Scale BB to 2022. Small adjustments were also made to the Mortality Table for disabled lives.
  - » The wage inflation assumption was reduced from 3.75 percent to 3.25 percent.
  - » Withdrawal rates, pre-retirement mortality rates, disability rates, and service retirement rates were also adjusted.
  - » The percentage of active member disabilities assumed to be in the line of duty was increased from 6.0 percent to 7.0 percent.
- » There are no changes to benefit or plan provisions since the last valuation.

#### » MHSPRS

- » The valuation results are developed based upon the employer contribution rate of 37.0 percent of payroll, effective July 1, 2012.
- » Changes in actuarial assumptions and methods:
  - » The expectation of retired life mortality was changed to the RP-2014 Healthy Annuitant Blue Collar Table projected with Scale BB to 2022.
  - » The wage inflation assumption was reduced from 3.75 percent to 3.25 percent.
  - » Pre-retirement mortality, withdrawal, and disability retirement rates were also adjusted.
  - » Assumed rates of salary increase were adjusted to more closely reflect actual and anticipated experience.

- » There are no changes to benefit or plan provisions since last valuation.
- » Due to Senate Bill No. 2659 enacted in 2004 and House Bill No. 1015 enacted on April 25, 2013, additional contributions are being made to the System and are expected to continue in the future. In the June 30, 2017 valuation report, the actuary increased the expected contributions from these sources from \$3,700,000 to \$3,800,000 based on actual monies received for the last three fiscal years.

#### » SLRP

- » The valuation results are developed based upon the employer contribution rate of 7.40 percent of payroll, in effect since January 1, 2012.
- » Changes in actuarial assumptions and methods:
  - » The expectation of retired life mortality was changed to the RP-2014 Healthy Annuitant Blue Collar Table projected with Scale BB to 2022.
  - » Pre-retirement mortality rates and service retirement rates were also adjusted.
  - » Assumed rates of salary increase were adjusted to more closely reflect actual and anticipated experience.
  - » The beginning of the attribution period was changed to be the first period in which a member's service accrues pension.
- » There are no changes to benefit or plan provisions since last valuation.

The actuarially determined contribution rates in the Schedules of Employer Contributions are calculated as of June 30 2015, two years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

	PERS	MHSPRS	SLRP
ACTUARIAL COST METHOD	Entry age	Entry age	Entry age
AMORTIZATION METHOD	Level percentage of payroll, open	Level percentage of payroll, open	Level percentage of payroll, open
REMAINING AMORTIZATION PERIOD	33.9 years	45.5 years	23.6 years
ASSET VALUATION METHOD	5-year Smoothed Market	5-year Smoothed Market	5-year Smoothed Market
Actuarial Assumptions:			
INVESTMENT RATE OF RETURN*	7.75%	7.75%	7.75%
SALARY INCREASE	3.75-19.00%	4.25-9.31%	3.75%
PRICE INFLATION	3.00%	3.00%	3.00%

<sup>\*</sup>Net of pension plan investment expense, including inflation.

## SCHEDULE 1 SCHEDULE OF ADMINISTRATIVE EXPENSES AND DEPRECIATION - FOR THE YEAR ENDED JUNE 30, 2017 -

ADMINISTRATIVE EXPENSE  Personal Services:	AMOUNT
SALARIES & WAGES	\$7,317
EMPLOYEE BENEFITS	2,404
TRAVEL & SUBSISTENCE	86
TOTAL PERSONAL SERVICES	9,807
Contractual Services:	
PROFESSIONAL SERVICES (SEE SCHEDULE 2)	1,937
DATA PROCESSING, COMMUNICATIONS, TRAINING, & LICENSING	530
NEW INFORMATION SYSTEM DEVELOPMENT	4,003
REPAIR & MAINTENANCE OF BUILDING & EQUIPMENT	297
UTILITIES	201
RENT OF BUILDING SPACE & OFFICE EQUIPMENT	149
BANK CHARGES	162
OTHER CONTRACTUAL SERVICES	119
SECURITY	27
JANITORIAL	75
INSURANCE	49
TOTAL CONTRACTUAL SERVICES	7,549
Commodities:	
OFFICE SUPPLIES & EXPENDABLE REPAIR PARTS	236
OFFICE EQUIPMENT (NOT CAPITALIZED)	6
PRINTING, BINDING, & PADDING	9
BUSINESS MEETING SUPPLIES	14
FUEL	3
TOTAL COMMODITIES	268
TOTAL ADMINISTRATIVE EXPENSES	17,624
Depreciation:	
FURNITURE & EQUIPMENT	8,197
BUILDING	375
TOTAL DEPRECIATION	8,572
TOTAL ADMINISTRATIVE EXPENSES & DEPRECIATION	\$26,196

# SCHEDULE 2 SCHEDULE OF INVESTMENT MANAGERS' FEES, INVESTMENT GLOBAL OUT-OF-POCKET FEES, AND PROFESSIONAL SERVICE FEES - FOR THE YEAR ENDED JUNE 30, 2017 -

Investment Managers' Fees:	AMOUNT	Investment Managers' Fees (Continued):	AMOUNT
EAGLE CAPITAL MANAGEMENT LLC	\$5,874	T.A. ASSOCIATES REALTY-FUND XI	\$425
PRINCIPAL GLOBAL INVESTORS LLC	4,734	AEW CAPITAL MANAGEMENT, LP - FUND VII	400
J.P. MORGAN INVESTMENT	3,988	AEW CAPITAL MANAGEMENT. LP - FUND VIII	363
MANAGEMENT, INC. UBS REALTY	3,643	INVESCO LLC - FUND IV	324
INVESTORS, LLC - CORE REAL ESTATE RIVERBRIDGE PARTNERS, LLC	3,162	AEW CAPITAL MANAGEMENT, LP - FUND VI	303
		ANGELO GORDON & COMPANY - FUND III	
EPOCH INVESTMENT PARTNERS, INC.	3,086		301
ARROWSTREET CAPITAL, LP	2,990	HEITMAN LLC - FUND III	293
HARDING LOEVNER LP THE BOSTON COMPANY ASSET	2,761	NORTHERN TRUST GLOBAL INVESTMENT	268
MANAGEMENT, LLC	2,743	MANULIFE ASSET MANAGEMENT	242
FISHER INVESTMENTS	2,725	BLACKROCK INSTITUTIONAL TRUST COMPANY, NA - DEBT INVESTMENTS	191
ACADIAN ASSET MANAGEMENT LLC	2,638	STATE STREET GLOBAL ADVISORS	102
LAZARD ASSET MANAGEMENT	2,599	NS PARTNERS LTD.	88
BAILLIE GIFFORD & COMPANY	2,555	CENTERSQUARE INVESTMENT MANAGEMENT	68
ARTISAN PARTNERS LP - MID CAP EQUITY	2,469	ANGELO GORDON & COMPANY - FUND II	25
WELLINGTON MANAGEMENT COMPANY, LLP - MID CAP EQUITY	2,438	HEITMAN LLC - FUND II	2
WELLINGTON MANAGEMENT CO., LLP - EMERGING MARKETS DEBT INVESTMENTS	2,386	PRIVATE EQUITY MANAGERS: GCM GROSVENOR AND PATHWAY CAPITAL MANAGEMENT	12,388
LONGVIEW PARTNERS LIMITED	2,289	TOTAL INVESTMENT MANAGERS' FEES*	\$95,590
WELLINGTON MANAGEMENT COMPANY, LLP - SMALL CAP EQUITY	2,266	Investment Global Out-Of-Pocket Fees:	
WEDGEWOOD PARTNERS, INC.	2,254	BANK OF NEW YORK MELLON	\$326
MARATHON - LONDON ORION HOUSE	2,062	TOTAL INVESTMENT MANAGERS' FEES AND INVESTMENT GLOBAL OUT-OF-POCKET FEES*	\$95,916
MONDRIAN INVESTMENT PARTNERS, INC.	1,849	Securities Lending Fees:	1000
FIDELITY INSTITUTIONAL	1,829	BANK OF NEW YORK MELLON	\$3,381
ASSET MANAGEMENT LLC DIMENSIONAL FUND ADVISORS,	1,704	Professional Service Fees:	<b>\$3,301</b>
INC SMALL CAP EQUITY UBS REALTY INVESTORS, LLC -	1,650	INVESTMENT MANAGEMENT CONSULTANT CALLAN	¢.c
VALUE ADDED REAL ESTATE LOOMIS SAYLES & COMPANY, LP		ASSOCIATES, INC.; FACTSET RESEARCH SYSTEMS, INC.	\$654
PACIFIC INVESTMENT MANAGEMENT	1,580	AUDIT-EIDE BAILLY LLC  ACTUARY-CAVANAUGH MACDONALD	350
COMPANY - GLOBAL	1,524	CONSULTING, LLC	343
ALLIANCEBERNSTEIN L.P. PRUDENTIAL INVESTMENT	1,463	MEDICAL FEES-CLINICS, LABS	242
MANAGEMENT, INC.	1,277	VOTING SERVICES—VR ELECTION SERVICES	161
COHEN & STEERS CAPITAL MANAGEMENT, INC.	1,252	MAILING SERVICES—POSTAGE SAVERS, INC.; RR DONNELLEY	74
HANCOCK NATURAL RESOURCE GROUP	1,171	LEGAL-OUTSIDE— CHAPMAN & CUTLER, LLP; ICE MILLER, LLP	53
T.A. ASSOCIATES REALTY-FUND X	992	GRAPHIC DESIGN—COMMUNICATION ARTS	34
DEUTSCHE ASSET & WEALTH MANAGEMENT (RREEF)	876	EXECUTIVE SEARCH-KORN FERRY	26
BLACKROCK INSTITUTIONAL TRUST COMPANY, NA - EAFE	762	TOTAL PROFESSIONAL SERVICE FEES	\$1,937
PACIFIC INVESTMENT MANAGEMENT COMPANY - DOMESTIC	738		
WESTBROOK PARTNERS-FUND X	558	*Fees are subject to estimation	٦.
ABERDEEN ASSET MANAGEMENT	492		
ANGELO GORDON & COMPANY - FUND IV	428		

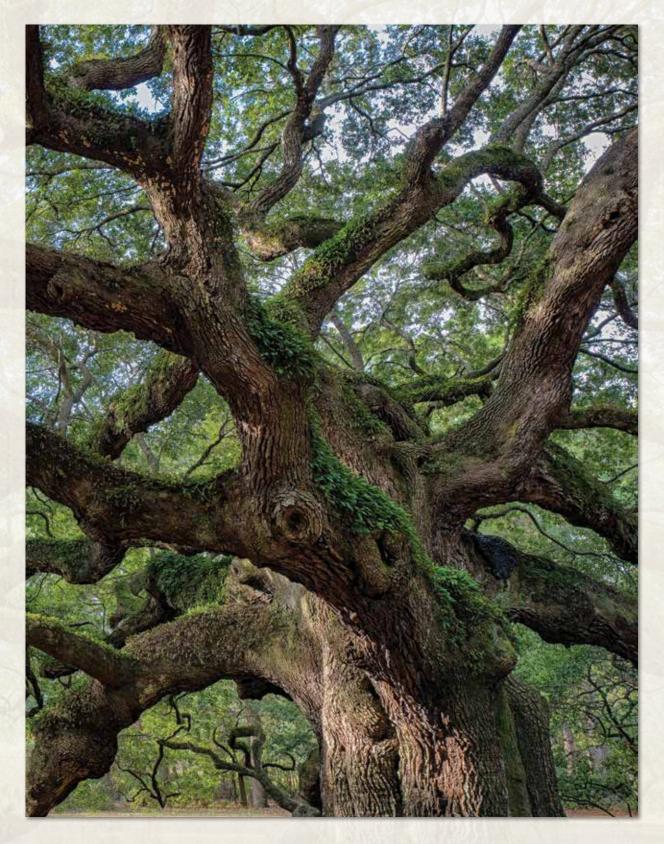
## SCHEDULE 3 SCHEDULE OF INVESTMENTS DUE TO MRS FROM PERS - JUNE 30, 2017 -

Due To MRS:	AMOUNT
BILOXI MUNICIPAL	\$5,758
BILOXI FIRE & POLICE	3,319
CLARKSDALE FIRE & POLICE	1,570
CLINTON FIRE & POLICE	9,010
COLUMBUS FIRE & POLICE	1,013
GREENVILLE FIRE & POLICE	3,235
GREENWOOD FIRE & POLICE	3,026
GULFPORT FIRE & POLICE	9,438
HATTIESBURG FIRE & POLICE	21,374
JACKSON FIRE & POLICE	56,253
LAUREL FIRE & POLICE	4,226
MCCOMB FIRE & POLICE	925
MERIDIAN MUNICIPAL	3,305
MERIDIAN FIRE & POLICE	9,249
NATCHEZ FIRE & POLICE	2,123
PASCAGOULA FIRE & POLICE	7,528
TUPELO FIRE & POLICE	5,695
VICKSBURG FIRE & POLICE	11,133
YAZOO CITY FIRE & POLICE	390
TOTAL INVESTMENTS DUE TO MRS	\$158,570

# SCHEDULE 4 PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI STATEMENT OF CHANGES IN ASSETS AND LIABILITIES—AGENCY FUND -FOR THE YEAR ENDED JUNE 30, 2017 -

FLEXIBLE BENEFITS CAFETERIA PLAN  Assets:	BALANCE JUNE 30, 2016	ADDITIONS	DEDUCTIONS	BALANCE JUNE 30, 2017
CASH	\$21	\$64	\$67	\$18
TOTAL ASSETS	\$21	\$64	\$67	\$18
Liabilities:				
ACCOUNTS PAYABLE	\$15	\$-	\$-	\$15
FUNDS HELD FOR OTHERS	6	64	67	3
TOTAL LIABILITIES	\$21	\$64	\$67	\$18

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LONGEVITY

Quercus virginiana (southern live oak)



#### Providing Benefits for Life

October 18, 2017

Dear Members,

What a difference a year makes! FY2016 ended with markets reeling from the unexpected outcome of the UK's Brexit referendum, which erased most of the investment gains achieved over the preceding 12 months. With the new fiscal year came renewed investor optimism.

As the first quarter progressed, global markets soon recovered from the negative effect of the Brexit shock. In November, the wave of populist sentiment that dominated the UK vote in June carried over to the US presidential election, resulting in Donald Trump becoming America's 45th president.

The advent of a new administration in Washington ushered in a wave of investor enthusiasm as expectations of lower taxes, the potential for deregulation within the US financial system, and broad infrastructure spending launched the "Trump Rally" in equity markets, which is still going strong.

Moderate but steady improvements in GDP growth, coupled with stronger corporate profits and sustained low unemployment levels led the Fed to raise short-term interest rates by 0.25 percent three times during FY2017. In addition to enacting multiple rate hikes, the Federal Open Markets Committee announced late in the fiscal year its plan to begin the process of shrinking the Fed's balance sheet. Going forward, maturing bonds owned by the Fed would not be replaced with new purchases of treasury and agency issues. This plan to gradually wean the financial markets off the Fed's financial "life support" has barely begun at the time of this writing, but if all goes as planned it will be a positive indication that US markets have recovered from the effects of the 2008 financial crisis and are at last stable enough to resume business as usual.

For the fiscal year, the PERS portfolio was well positioned to take advantage of strength in the global equity markets. The overweight position in public equities relative to the target allocation boosted returns throughout the year, while a 50 percent hedge on the non-US developed markets equity portfolio added to returns early in the period. As the year progressed a tactical shift of assets from the US equity portfolio to the international and global equity portfolios was implemented to take advantage of changing market dynamics and the weakening dollar's boost to US-based investor returns. This move also added to returns late in the year.

During the fourth quarter of FY2017 an analysis of the PERS real estate portfolio structure was conducted by Callan Associates. This work resulted in the decision to eliminate timber from the real estate portfolio as existing timber investments were realized and to increase the target exposure for core real estate to 70 percent. The allocations to REITs and value-added real estate opportunities saw no change as the result of the analysis.

Pat Robertson
Executive Director

Board of Trustees:

Lynn Fitch State Treasurer Chair

George Dale

Chris Howard State Employees

Kelly Breland

State Employees Vice Chair Bill Benson County Employees

Randy D. McCoy Stephen Benson Lee Childress
Municipal Public Schools,
Employees Community/Ir. Colleges

Brian Rutledge

Higher Learning

Drew Snyder Gubernatorial Appointee

Public Employees' Retirement System of Mississippi 429 Mississippi Street, Jackson, MS 39201-1005 601.359.3589 800.444.PERS

www.pers.ms.gov

Overall investment returns for the year were strong with the total portfolio returning 14.96 percent for the year and topping the Policy Benchmark return of 13.88 percent. PERS FY2017 return also exceeded the returns of 87 percent of funds in the peer universe of Public Funds > \$10 billion maintained by Callan Associates. For the year, equity returns dominated those of other asset classes with the PERS total public equity portfolio returning 20.45 percent and private equity coming in close behind with a 20.12 percent gain. The PERS real estate portfolio contributed a 6.76 percent return for the year, while the debt portfolio contributed a respectable 2.39 percent increase.

With the strong returns experienced in FY2017 now behind us, the PERS Investment staff is focused on identifying both the potential threats and opportunities that lie ahead for global markets. Though every fiscal year brings new concerns and challenges for investors, PERS strives to maintain a long-term focus when making investment decisions. We believe that sticking with a well-vetted strategic plan will achieve the best investment outcome for PERS and its members over the long term, and we view the successful results of FY2017 as proof of this belief.

I truly appreciate the opportunity to serve the PERS Board of Trustees and participants of the System in the role of chief investment officer for the last 21 years and believe the PERS portfolio to be well-positioned to meet the challenges ahead.

Respectfully,

Lorrie S. Tingle, CFA

Chief Investment Officer

Louis Striels

## Callan

Callan LLC 120 North LaSalle Street Suite 2400 Chicago, IL 60602 Main 312.346.3536 Fax 312.346.1356 www.callan.com

October 19, 2017

Members of the Board:

Callan LLC is pleased to present the Public Employees' Retirement System of Mississippi (PERS) results for fiscal year ended June 30, 2017. During the fiscal year ended June 30, 2017, markets continued their positive performance with many asset classes showing positive returns. Domestic equities continued positive performance, with the broad market returning 18.51%, and smaller capitalization companies leading versus larger companies. Growth sectors fueled this performance with select names in the information technology sector seeing significant increases. International markets outperformed domestic markets with a return of 20.43% due to improving fundamentals overseas as well as the weaker dollar. Domestic fixed income ended the fiscal year slightly negative, down 0.31%, as the Fed raised rates over the time period due to positive economic developments. Private Equity and Real Estate continued to add return to investors as well.

As of June 30, 2017, the Fund's market value totaled \$26.6 billion, an increase in assets during the fiscal year. During the past twelve month period:

- Domestic equity markets advanced. The Russell 3000 Index, an index of domestic stocks covering all capitalizations, increased 18.51%.
- International equity markets reversed from the prior year and increased 20.43%, as measured by the MSCI ACWI ex US IMI Index (All Country World Index ex United States).
- The domestic fixed income market produced a return of -0.31%, as measured by the Bloomberg Aggregate Bond Index.
- Private real estate as measured by the NCREIF Property Index returned 6.97%.

Within this environment the Fund returned 14.96% during the 12 month period ended June 30, 2017, outperforming its benchmark by 1.08%. Over the trailing three-year period the Fund outperformed its benchmark by 0.31% with an annualized return of 6.34%, and by 0.58% over the trailing five-year period with an annualized return of 10.08%.

The Fund continues to evolve through an ongoing review of the asset allocation and asset class components. A Real Assets Structure Review was completed during the 2017 fiscal year, and an Asset-Liability Study is scheduled for the upcoming year.

The Public Employees' Retirement System of Mississippi (PERS) maintains an appropriately diversified strategy, designed to maximize return with an acceptable risk level. Callan supports the Fund's ongoing efforts to enhance investment and its continued due diligence activities.

Sincerely,

John P. Jackson, CFA Senior Vice President

lika P. Packson

Callan LLC

#### Defined Benefit Plans— Report on Investments Fiscal Year 2017

The Public Employees' Retirement System of Mississippi is committed to insuring secure retirement benefits are available for its current and future retirees through the prudent investment of its assets.

The Board of Trustees serves as the ultimate decision-making body for the Public Employees' Retirement System of Mississippi. As fiduciaries, the trustees rely on the following principles to guide them in making investment-related decisions.

- » ensure adequate liquidity is available when needed;
- » preserve the long-term corpus of the fund;
- » maximize total return within prudent levels of risk; and
- » always to act in the exclusive interest of the members of the System.

Facing each year's unique investment challenges and opportunities, the PERS Board and investment staff remain clearly focused on the fundamental principle that investing for the future of our membership is a long-term commitment, and the prudent management of the System's assets demands constant attention and specialized expertise. The PERS Board is committed to maintaining a well-diversified portfolio designed to minimize risks and maximize returns over the long term. The goal of the investment program is to ensure adequate funding is available to meet all current and future pension obligations.

#### **Investment Policy Summary**

#### **INVESTMENT OBJECTIVES**

The primary objective of the investment program is to ensure that PERS meets its financial responsibility to provide stable benefits for its members. As such the investment program strives to:

- » achieve an annual real rate of return of at least 4.75 percent and a nominal return that meets or exceeds the actuarial assumed rate of return on investments. Currently that rate is 7.75 percent
- » protect the investment portfolio from severe extended declines in asset value during periods of adverse market conditions, by prudent diversification of assets
- » ensure adequate liquidity is available to meet all benefit payments and other cash requirements
- » ensure total portfolio risk is controlled through diversification by asset class, investment approach and by individual investments within each asset class

#### **INVESTMENT CONSTRAINTS**

- » Legal-The specific types of investments in which the System is authorized to invest are enumerated in Section 25-11-121 of the Mississippi Code, Annotated (1972, as amended).
- » Time Horizon-Acknowledging the impact of annual investment returns on the actuarial evaluation, PERS views the appropriate investment time horizon for a public pension plan to be thirty (30) years.
- » Liquidity- Annual liquidity requirements must be considered when designing the portfolio structure.

#### **RISK CONTROLS**

PERS' greatest risk is that plan assets will not support liabilities over the long term. To help mitigate this concern the PERS Board conducts annual actuarial valuations to evaluate the funded status of the System. Additionally, at least every six years, an independent external audit of the actuary is conducted to ensure the assumptions and calculation methods used are appropriate for properly computing the liabilities of the System.

#### PORTFOLIO REVIEW AND EVALUATION

Quarterly, the Board reviews and evaluates reports on the investment performance of the PERS' portfolio. These reviews also include the performance of each investment manager portfolio. Performance reports are generated by the investment consultant and include performance data, asset allocation and peer group comparison information. The Board places greater emphasis on long-term rather than short-term results.

The Board recognizes the fact that investments are subject to short term volatility, so it is critical that a long-term investment focus be maintained. This perspective prevents ad hoc revisions to investment philosophy and policies in reaction to either speculation or short-term market fluctuations. In order to maintain this long-term view the Board utilizes the following formal review schedule:

FORMAL REVIEW AGENDA ITEM	REVIEW SCHEDULE
Total Fund Performance	Quarterly
Broad Asset Allocation	At least every five years
Manager Structure	At least every three years
Investment Policy	Annually

#### Strategic Asset Allocation Policy

The primary method utilized in achieving the investment return objectives is the allocation of assets. The Board adopts an asset allocation policy as the framework to insure the assets are invested in a prudently managed and well diversified portfolio designed to meet the established return targets. The strategic target allocation below is intended to accomplish the Board's objectives over time. In addition to the target allocations the Board has established target ranges for each asset class. These ranges provide the Board and staff the latitude to exercise management discretion in a tactical manner as appropriate.

STRATEGIC ASSET ALLOCATION	TARGET	REBALANCING RANGES
Public Equity	61%	±5%
Private Equity	8%	±5%
Real Estate	10%	±5%
Fixed Income	20%	±5%
Cash Equivalents	1%*	±1%

<sup>\*</sup>Cash equivalents will consist of the assets in the Short-Term account used for benefit payments.

The current long-term performance measurement for each asset class is as follows:

ASSET CLASS	BENCHMARK
Public Equities	MSCI ACWI IMI Index
Private Equity	S&P 500 + 3%
Fixed Income	Bloomberg Barclays US Aggregate Index
Real Estate	NCREIF Property Index
Cash Equivalents	30-day U.S. T-bills

#### **ROLES AND RESPONSIBILITIES**

#### Board of Trustees

PERS' investment activities are governed by a ten-member Board of Trustees which is responsible for directing the investment program in accordance with the laws of the State of Mississippi. As fiduciaries of a public pension fund the PERS trustees rely heavily on internal staff, consultants, actuaries and other contracted service providers to assist them in this process.

The Board is responsible for:

- » approval of long-term risk tolerance and asset allocation decisions
- » approval of all formal investment policies
- » approval of the investment structure within the asset allocation policy structure
- » the retention and termination of external managers, consultants and custodial banks
- » annually approving the PERS Investment Policy Statement

#### Executive Director

The Board employs the Executive Director who is responsible for ensuring PERS has in place the appropriate resources, training opportunities, and compensation structures to attract and retain a competent and qualified investment staff.

#### Chief Investment Officer

The Chief Investment Officer (CIO), as head of the investment staff, is charged with maintaining the integrity of the investment program. This responsibility includes working directly with the Board on the development of investment policy, asset allocation decisions, portfolio structure, investment manager/consultant selection and termination, and custodian selection.

#### Investment Staff

The investment staff is responsible for insuring the Board's investment policies are implemented, and for oversight of the external investment managers. The staff's primary responsibilities include:

- » monitoring investment manager's compliance to the guidelines established in their Investment Management Agreements (IMA) with PERS
- » meeting and/or communicating with external managers quarterly to review investment strategies and results
- » managing the short-term account assets to ensure monthly benefit payrolls are funded

#### Investment Consultant

The investment consultant is charged with assisting staff in providing advice and recommendations to the Board on all investment matters, and to discharge their investment duties solely in the interest of the PERS members and benefit recipients. The consultant's responsibility is to work with the Board and staff to assist in the prudent management of the investment process.

The consultant will attend all investment related meetings of the Board and will provide an independent prospective on PERS' investment goals, structure performance and managers. The consultant will review asset allocation, manager structure and performance and make recommendations to the Board as appropriate. The consultant assists in the manager search process. The consultant will also assist in keeping the Board informed as to changes within the pension and investment communities that could affect PERS.

#### Investment Managers

External investment managers are retained for their skill and expertise in managing a specific segment of the PERS total portfolio. Investment managers are responsible for managing PERS' assets in compliance with the policies, guidelines and objectives included in their Investment Management Agreement with PERS.

Investment managers will construct and manage investment portfolios which are consistent with the investment philosophy and disciplines for which they were hired.

All investment managers provide periodic reporting as directed by the investment staff.

#### **Investment Summary**

As of June 30, 2017, the System's portfolio value totaled \$26.6 billion. The increase in value relative to the previous year's closing value of \$24.5 billion was driven by strong returns from both public and private equity investment returns. As is common in mature pension plans, the System's annual distributions again surpassed contributions made by employees and employers. For fiscal year 2017, contributions totaled \$1.6 billion, while the System paid out approximately \$2.7 billion to members and beneficiaries.

#### **ASSET ALLOCATION**

One of the most important decisions made by the Board of Trustees is that of determining the long-term asset allocation policy for the investment portfolio. The System's investment consultant conducts periodic asset/liability allocation studies that include consideration of projected future liabilities, expected risk, return, and correlations for various asset classes, and the System's statutory investment restrictions. The strategic asset allocation targets currently consist of 61.0 percent for public equities, a 20.0 percent target allocation for debt investments and a 1.0 percent allocation to cash equivalents. Real estate investments targeted at 10.0 percent, while the target allocation for private equity is 8.0 percent.

The asset allocation at year end, excluding investments purchased with securities lending cash collateral, was 63.5 percent public equities; 18.5 percent debt securities; 9.9 percent public and private real estate investments; 6.9 percent private equity, and 1.2 percent cash equivalents.

It is important to note that the asset allocation decision for a public pension is unique to the individual plan and is based on that plan's specific liability requirements, as well as any statutory investment restrictions under which the investment program must operate. As a result, the System's allocation could be somewhat different than that of other public pension plans. From time to time, these differences can result in significant differences in investment returns.

#### SECURITIES LENDING

The System's securities lending program is managed by its custodial bank, BNY Mellon. This program generates ancillary income by lending securities from the System's portfolio to securities dealers in return for a premium payment on loans collateralized by securities and earnings generated by the investment of cash collateral. All cash loans are secured by the receipt of collateral valued at 102 or 105 percent of the value of the loaned security, while non-cash loans are collateralized at 110 percent. In fiscal year 2017, the securities lending program generated approximately \$19.3 million\* in additional revenue for the investment program.

\*\$19.3 million were the earnings distributed for the fiscal year; \$22.3 million was the reported net income as required by Governmental Accounting Standards Board Statement No. 28.

#### Portfolio Performance

Callan LLC is employed by the Board of Trustees as the System's investment consultant. Their services include calculating investment returns both for the total fund and for each of the investment managers retained to invest the System's assets. All returns are calculated by Callan using a time-weighted rate of return methodology based on portfolio market values determined by the System's custodial bank.

In a year of consistently strong equity markets returns the PERS portfolio was well positioned to achieve success. The total portfolio gross return of 14.96 percent exceeded not only the 7.75 percent actuarial assumed rate of return but also topped the System's customized Target Policy benchmark's 13.88 percent return, and exceeded the returns of 87 percent of the funds in the Callan public funds >\$10 billion universe. The System's three-year total return of 6.34 percent beat the peer-universe median return of 6.00 percent, and the five-year return of 10.08 percent outpaced its policy benchmark and the returns of 83 percent of the funds in the peer universe. For the 10 years ended June 30, 2017, the portfolio returned 5.58 percent, outperforming the Target Policy benchmark return of 5.44 percent and the peer-universe median return of 5.48 percent.

The System's portfolio structure is designed to achieve success over the long term. While challenging events in the global financial markets often impact the portfolio's shorter term returns, over longer periods the System has been successful in achieving its assumed target return of 7.75 percent. This is evidenced by the 25- and 30-year returns of 7.94 and 8.34 percent, respectively.

#### PUBLIC EQUITY PORTFOLIO

The System's domestic equity portfolio returned a healthy 19.08 percent for the fiscal year, outperforming the benchmark Russell 3000 Index return of 18.51 percent and ranking in the 41th percentile of the Callan Public Plan domestic equity universe. The developed international equity portfolio saw returns of 22.68 percent, which beat the benchmark MSCI EAFE Index return of 20.27 percent for the year. Global equities posted returns of 20.25 percent, exceeding the custom benchmark return of 19.01 percent. The only area within the equity portfolio to underperform its benchmark index was the emerging markets portfolio which saw strong returns of 22.63 percent, but underperformed the MSCI Emerging Markets Index return of 23.75 percent for the year.

Combining all segments of the public equity portfolio, the program returned 20.45 percent for the fiscal year outperforming the 19.01 percent return of the benchmark MSCI All Country World Investable Markets Index (ACWI-IMI). The total public equity portfolio return for the three-year period ended June 30 was 5.98 percent, with the five-year return coming in at 11.99 percent. These gains also exceeded the benchmark ACW-IMI Index returns of 4.87 and 10.47 percent for the three and five-year periods respectively. For the 10 years ended June 30, the public equity portfolio's return of 5.35 percent exceeded the benchmark index return of 3.95.

As of June 30, the System had allocated 31.7 percent of the total portfolio to domestic equities; 17.1 percent to international developed markets; 5.4 percent to emerging markets; and 9.3 percent to global equities. Within the domestic equity portfolio 68.0 percent was invested in large; 19.0 percent in mid-, and 13.0 percent in small-capitalization securities.

#### **DEBT PORTFOLIO**

At the close of the year the debt portfolio included both active and passive core US portfolios; core-plus strategies that incorporate allocations to both high-yield and non-US debt into US core debt exposures; global bond portfolios; and a dedicated emerging market debt portfolio.

The total debt portfolio's 2.39 percent return for the year exceeded the benchmark Bloomberg Aggregate Index's performance of negative 0.31 percent. For the three- and five-year periods ended June 30, debt portfolio returns were 3.62 and 3.59 percent, also topping the Index's 2.48 and 2.21 percent returns for the same periods. The 10-year performance for the portfolio was 5.52 percent, while the Index returned 4.48 percent.

The System ended the year with 18.5 percent of the total portfolio invested in debt securities. The debt portfolio allocations consisted of 29.7 percent active and passive, core US mandates, 35.2 percent core-plus, and 24.9 percent hedged global bond strategies. The remaining 10.2 percent was invested in emerging market debt.

#### **REAL ESTATE PORTFOLIO**

At June 30, the real estate investment program consisting of investments in core and value-added real estate funds, timber, and public REITs was the System's best returning asset class. The total real estate portfolio returned 6.76 percent for the fiscal year, led by the timber and value-added fund returns. The portfolio slightly lagged its custom benchmark return of 6.97 percent. The longer term three-year return of 10.18 percent matched the benchmark return, while the five-year portfolio return of 11.0% beat the benchmark's 10.37 percent return. The 10-year return of 4.31 percent slightly lagged the benchmark return of 4.54 percent.

The core real estate portfolio returned 6.87 percent for the year, underperforming the benchmark NFI-ODCE equal weighted Index return of 7.23 percent. Core real estate saw a three-year return of 10.04 percent, while the Index returned 10.67 for the same period. For the five years ended June 2017, the core real estate portfolio's return of 10.39 percent slightly lagged the 10.84 percent return of the Index.

The System's value-added real estate portfolio consisting of thirteen limited partnerships, posted a strong 10.68 percent return for the year to beat the benchmark NCREIF Total Index returns of 6.97 percent. For longer periods the program also saw strong returns posting 3- and 5-year gains of 14.40 and 14.57 percent. For the same periods the Index had returns of 10.17 and 10.49 percent.

The System's timber portfolio, comprised of both US and non-US timber investments, returned 11.60 percent, benefiting from increased demand derived from slight increases in the number of US housing starts. NCREIF Timberland Index returns for the same period were 3.35 percent. Longer term, the portfolio three-year return of 6.45 percent compared favorably to the 5.54 return of the NCREIF Timberlands Index, while the portfolio's five-year return of 9.63 percent topped the Index return of 7.16 percent.

After several years of double digit returns the public REIT portfolio, comprised of both US and non-US REIT investments lost momentum, returning only 0.87 percent for the year and 7.15 percent for three-year period ended June 30. The custom REIT portfolio benchmark returned negative 0.64 and 6.34 percent for the same periods. The five-year return of 9.20 percent outpaced the 8.73 percent return of the benchmark, but the portfolio's 10-year return of 3.97 percent lagged the benchmark return of 4.24 percent. The fiscal year ended with the combined public and private real estate portfolios representing 9.9 percent of the System's total investments.

#### PRIVATE EQUITY PORTFOLIO

The System's private equity program, consisting of five separate fund-of-funds limited partnership series, was launched in late 2008. As of June 30, 2017, the System's private equity capital commitments totaled \$3.85 billion, with approximately \$2.01 billion of capital paid-in through June 30. The private equity portfolio was invested in 177 partnerships, comprised of buyouts, venture capital/growth, distressed opportunity, and special situation opportunities. On a time-weighted basis, the System's private equity investments returned 20.12 percent for the fiscal year, slightly underperforming the S&P 500 Index+ 3 percent return benchmark's 20.90 percent results. The private equity program saw returns of 15.14 and 15.15 percent for the three- and five-year periods, while the benchmark returns were 12.64 and 17.94\* percent for the same periods. As of June 30, private equity comprised approximately 6.9 percent of the System's total portfolio.

\*prior to 2013 the private equity benchmark was the S&P 500 Index+5%

#### SHORT-TERM PORTFOLIO

Cash flows generated by employee and employer contributions to the System and from ancillary income-generating activities, including securities lending and the System's commission recapture program, are invested by the System's investment staff. These assets are used to fund monthly benefits, refunds, and annual Cost-of-Living-Adjustment (COLA) payments. As interest rates at the short end of the yield curve remained near zero throughout the fiscal year, the return on the short-term investment program was a modest 0.52 percent. The cash portion of the accounts managed by external investment managers is invested in interest-earning cash equivalents. All short-term investments are made in accordance with state law and policies set by the Board of Trustees.



## Defined Benefit Plans: PERFORMANCE SUMMARY - FOR FISCAL YEAR ENDED JUNE 30, 2017 -

	_	ANNUALIZED	
	CURRENT YEAR	3-YEAR	5-YEAR
Total Plans:			
MS PERS COMBINED RETURN*	14.96%	6.34%	10.08 %
MS PERS POLICY TARGET RETURN	13.88	6.03	9.50
PUBLIC FUNDS >\$10 BILLION MEDIAN	13.30	6.00	9.38
Debt Securities:			
DEBT SECURITIES MANAGERS COMPOSITE*	2.39	3.62	3.59
BLOOMBERG BARCLAYS AGGREGATE INDEX	(0.31)	2.48	2.21
FIXED INCOME CUSTOM BENCHMARK	0.29	2.77	2.64
Domestic Equity:			
DOMESTIC EQUITY MANAGERS COMPOSITE*	19.08	8.18	14.23
RUSSELL 3000 INDEX	18.51	9.10	14.58
DOMESTIC EQUITY CUSTOM BENCHMARK	18.53	8.76	14.49
International Equity:			
INTERNATIONAL EQUITY MANAGERS COMPOSITE*	22.30	2.15	8.33
INTERNATIONAL EQUITY BENCHMARK	20.43	1.14	7.53
INTERNATIONAL EQUITY CUSTOM BENCHMARK	22.29	1.66	7.86
Global Equity:			
GLOBAL EQUITY MANAGERS COMPOSITE*	20.25	6.84	11.97
GLOBAL EQUITY BENCHMARK	19.01	4.89	10.59
Real Estate:			
COMMINGLED FUNDS AND REITS COMPOSITE*	6.76	10.18	11.00
REAL ESTATE BENCHMARK	6.97	10.17	10.37
Private Equity:			
PRIVATE EQUITY COMPOSITE*	20.12	15.14	15.15
PRIVATE EQUITY BENCHMARK	20.90	12.64	17.94

<sup>\*</sup>Calculations for the System are prepared using a time-weighted rate of return methodology based upon market values.

## LARGE PUBLIC PLANS\* TOTAL PLANS: ANNUALIZED RATES OF RETURN



<sup>\*</sup>Public funds >\$10 billion median

## Defined Benefit Plans: NON-US INVESTMENTS BY COUNTRY - FAIR VALUE AT JUNE 30, 2017 -

ANGOLA	0.01%	GREECE	0.08%	OMAN	0.16%
ARGENTINA	0.57%	GUERNSEY CI	0.11%	PAKISTAN	0.20%
AUSTRALIA	5.11%	HONDURAS	0.02%	PANAMA	0.19%
AUSTRIA	0.25%	HONG KONG	2.24%	PARAGUAY	0.05%
AZERBAIJAN	0.10%	HUNGARY	0.69%	PERU	0.11%
BAHAMAS	0.01%	INDIA	2.10%	PHILIPPINES	0.25%
BAHRAIN	0.01%	INDONESIA	1.27%	POLAND	0.22%
BELGIUM	0.65%	IRELAND	2.42%	PORTUGAL	0.17%
BERMUDA	0.98%	ISLE OF MAN	0.04%	PUERTO RICO	0.03%
BRAZIL	2.27%	ISRAEL	0.39%	QATAR	0.07%
BRITISH VIRGIN ISLANDS	0.24%	ITALY	1.41%	ROMANIA	0.12%
BULGARIA	0.05%	JAMAICA	0.04%	RUSSIA	0.95%
CANADA	7.07%	JAPAN	12.34%	SAUDI ARABIA	0.13%
CAYMAN ISLANDS	2.48%	JERSEY CI	0.44%	SENEGAL	0.03%
CHILE	0.19%	JORDAN	0.02%	SINGAPORE	0.86%
CHINA	1.89%	KAZAKHSTAN	0.13%	SLOVENIA	0.01%
COLOMBIA	0.15%	KENYA	0.01%	SOUTH AFRICA	1.53%
COSTA RICA	0.05%	KUWAIT	0.11%	SOUTH KOREA	3.74%
COTE D'IVOIRE	0.19%	LEBANON	0.03%	SPAIN	2.00%
CROATIA	0.17%	LIBERIA	0.04%	SRI LANKA	0.13%
CURACAO	0.68%	LITHUANIA	0.02%	SUPRANATIONAL GEOGRAPHIC	0.29%
CYPRUS	0.01%	LUXEMBOURG	0.60%	SWEDEN	2.09%
CZECH REPUBLIC	0.02%	MACAU	0.06%	SWITZERLAND	4.23%
DENMARK	1.39%	MALAYSIA	0.30%	TAIWAN	2.05%
DOMINICAN REPUBLIC	0.28%	MARSHALL ISLANDS	0.03%	THAILAND	0.49%
ECUADOR	0.08%	MAURITIUS	0.04%	TUNISIA	0.03%
EGYPT	0.16%	MEXICO	2.22%	TURKEY	1.08%
EL SALVADOR	0.05%	MONGOLIA	0.05%	UKRAINE	0.16%
FINLAND	0.71%	MOROCCO	0.15%	UNITED ARAB EMIRATES	0.08%
FRANCE	4.54%	NETHERLANDS	3.07%	UNITED KINGDOM	12.12%
GABON	0.01%	NEW ZEALAND	0.33%	URUGUAY	0.09%
GERMANY	4.62%	NIGERIA	0.06%	VENEZUELA	0.09%
GHANA	0.06%	NORWAY	0.31%	ZAMBIA	0.03%

#### Defined Benefit Plans: Equity Portfolio

#### EQUITY PORTFOLIO SUMMARY

Total Equity
Securities:
\$16,847,681,283

Total Number of Shares of Equity Securities Held: 1,241,295,328

Total Number of Issues of Equity Securities Held: 4,061

## EQUITY INVESTMENTS BY INDUSTRY TYPE - FAIR VALUE AT JUNE 30, 2017 -

### TEN LARGEST EQUITY HOLDINGS



2.14% UTILITIES

0.51% DIVERSIFIED

	SHARES	FAIR VALUE
BERKSHIRE HATHAWAY, INC.	1,324,630	\$224,352,583
APPLE INC.	1,483,962	213,720,207
MICROSOFT CORPORATION	2,891,022	199,278,147
ALPHABET, INCCL A	150,964	140,348,212
JPMORGAN CHASE & CO.	1,452,691	132,775,957
ORACLE CORPORATION	2,511,516	125,927,412
AMAZON.COM INC.	124,714	120,723,152
SAMSUNG ELECTRONICS CO., LTD	56,356	117,080,951
ALPHABET, INCCL C	120,300	109,320,219
UNITEDHEALTH GROUP, INC.	584,357	108,351,475
TOTALS	10,700,512	\$1,491,878,315

A complete list of portfolio holdings is available upon written request.

Defined Benefit Plans: Private Equity Portfolio

#### 'RIVATE EQUITY PORTFOLIO SUMMARY

Total Private Equity Investments: \$1,800,240,407

## PRIVATE EQUITY INVESTMENTS BY STRATEGY - JUNE 30, 2017 -







#### Defined Benefit Plans: Bond Portfolio

#### BOND PORTFOLIO SUMMARY\*

Total Bond Investments \$7,702,333,566

Total Par of Bond Investments Held: \$27,633,591,583 Total Number of Bond Issues Held: 4.062

#### CORPORATE BOND INVESTMENTS BY INDUSTRY TYPE\* - FAIR VALUE AT JUNE 30, 2017 -





12.03% ENERGY





4.77% INDUSTRIAL

> 2.81% UTILITIES

0.04% MISCELLANEOUS

## TEN LARGEST LONG-TERM CORPORATE BOND HOLDINGS\*

	PAR	FAIR VALUE
CISCO SYSTEMS, INC	\$62,300,000	\$62,549,387
ROYAL BANK OF CANADA	59,570,000	59,768,845
IBM CORPORATION	52,400,000	52,426,200
WELLS FARGO BANK NA	50,300,000	50,342,755
CHEVRON CORPORATION	47,380,000	47,407,812
CITIBANK NA	46,350,000	46,371,785
THE COCA-COLA COMPANY	44,500,000	44,510,146
US BANK NA CINCINNATI	42,300,000	42,306,853
NATIONAL AUSTRALIA BANK	41,800,000	41,778,055
EXXON MOBIL CORPORATION	41,500,000	41,657,410
TOTALS	\$488,400,000	\$489,119,248

A complete list of portfolio holdings is available upon written request.

<sup>\*</sup>Includes investments purchased with cash collateral received in the securities lending program.

#### Defined Benefit Plans: Real Estate Investment Portfolio

#### REAL ESTATE INVESTMENT PORTFOLIO SUMMARY

Total Real Estate Investments: \$2,625,866,202 Total Number of Shares\* of Real Estate Investments Held: 333,760,693 Total Number of Issues of REITs Held: 100

#### PORTFOLIO DISTRIBUTION BY PROPERTY TYPE - FAIR VALUE AT JUNE 30, 2017 -







12.12%



7.34% RESIDENTIAL

> 4.64% OTHER

• 3.74% TIMBER

2.16% HOTELS

1.27% HEALTH CARE

0.73% SELF-STORAGE

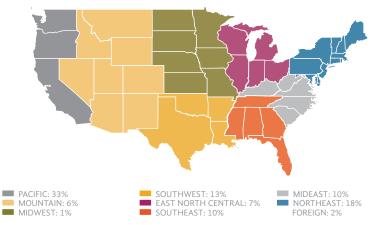
#### TEN LARGEST REIT HOLDINGS

	SHARES	FAIR VALUE
SIMON PROPERTY GROUP, INC.	111,337	\$18,009,873
AVALONBAY COMMUNITIES, INC.	90,832	17,455,185
HCP, INC.	482,516	15,421,211
PROLOGIS, INC.	246,963	14,481,910
EQUINIX, INC.	33,637	14,435,655
ESSEX PROPERTY TRUST, INC.	55,719	14,334,827
VORNADO REALTY TRUST	129,561	12,165,778
UDR, INC.	269,634	10,507,637
DOUGLAS EMMETT, INC.	242,836	9,278,764
SUN COMMUNITIES, INC.	95,064	8,336,162
TOTALS	1,758,099	\$134,427,002

A complete list of portfolio holdings is available upon written request.

## PORTFOLIO DISTRIBUTION BY GEOGRAPHIC LOCATION

- FAIR VALUE AT JUNE 30, 2017 -



<sup>\*</sup>Includes units of commingled funds and shares of REITs.

#### Defined Benefit Plans:

## NET INVESTMENT INCOME BY SOURCE - LAST 10 FISCAL YEARS -

[in thousands]

FISCAL YEAR	BOND INTEREST INCOME	DIVIDEND INCOME	SHORT-TERM INCOME	REALIZED GAIN (LOSS) ON INVESTMENTS	APPRECIATION (DEPRECIATION) IN FAIR VALUE OF INVESTMENTS
2008	\$246,360	\$363,343	\$26,374	\$824,992	\$(3,192,348)
2009	224,605	296,492	14,528	(1,710,303)	(2,639,433)
2010	184,923	273,687	12,169	542,100	1,180,636
2011	185,818	326,174	14,001	1,200,877	2,560,115
2012	186,038	323,610	9,460	585,346	(1,016,522)
2013	184,775	339,386	12,390	920,422	1,198,511
2014	176,286	392,423	8,627	1,264,402	2,213,619
2015	183,456	365,567	8,045	1,450,502	(1,087,742)
2016	177,516	346,655	14,723	574,260	(909,931)
2017	173,692	351,444	14,411	1,136,714	1,900,834

#### TEN-YEAR TOTAL PENSION INVESTMENT RATES OF RETURN

[fair value in millions]

FISCAL YEAR	TOTAL INVESTMENT PORTFOLIO FAIR VALUE	SMOOTHED RATE OF RETURN	FAIR VALUE RATE OF RETURN	ACTUARIAL ASSUMED RATE OF RETURN
2008	\$19,439	7.20%	(8.20)%	8.00%
2009	15,512	(11.00)	(19.40)	8.00
2010	16,767	0.20	14.10	8.00
2011	20,314	4.00	25.40	8.00
2012	19,578	1.90	0.59	8.00
2013	21,947	6.10	13.37	8.00
2014	24,600	14.20	18.58	8.00
2015	24,735	12.30	3.40	8.00
2016	23,938	7.21	1.15	7.75
2017	26,592	9.31	14.96	7.75

#### Defined Benefit Plans:

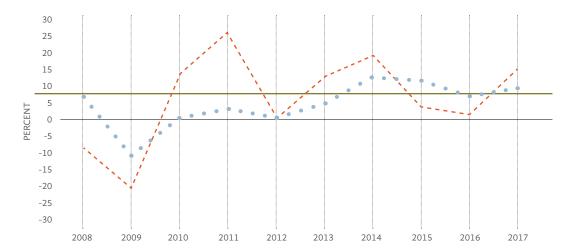
NET INVESTMENT INCOME BY SOURCE (CONTINUED) - LAST 10 FISCAL YEARS -

[in thousands]

FISCAL YEAR	NET INCOME (LOSS) FROM SECURITIES LENDING	TOTAL INCOME (LOSS)	MANAGER* AND TRADING FEES	NET INCOME (LOSS) FROM INVESTMENTS
2008	\$(1,576)	\$(1,732,855)	\$(36,631)	\$(1,769,486)
2009	32,433	(3,781,678)	(26,574)	(3,808,252)
2010	39,881	2,233,396	(33,904)	2,199,492
2011	18,107	4,305,092	(42,765)	4,262,327
2012	17,293	105,225	(44,299)	60,926
2013	14,645	2,670,129	(50,210)	2,619,919
2014	16,453	4,071,810	(83,449)	3,988,361
2015	13,778	933,606	(88,884)	844,722
2016	19,429	222,652	(89,116)	133,536
2017	22,333	3,599,428	(95,916)	3,503,512

<sup>\*</sup>Manager fees are subject to estimation.

#### TEN-YEAR TOTAL PENSION INVESTMENT RATES OF RETURN



- • Smoothed Rate of Return consists of investment income in a surplus or deficit of the assumed 7.75 percent on fair value smoothed over a five-year period with 20.0 percent of a year's surplus or deficit being recognized each year beginning with the current year. PERS, MHSPRS, and SLRP smoothed rates have been averaged. In fiscal year 2006, PERS, MHSPRS, and SLRP actuarial assets were set equal to market value of assets. Therefore, there was no smoothed difference between actuarial and investment asset amounts. In fiscal year 2007, smoothing resumed with the additional constraint that actuarial value of assets cannot be less than 80.0 percent nor more than 120.0 percent of market value. In fiscal year 2009, the 80/120 percent corridor was eliminated for the purpose of determining actuarial value of assets. In 2015, the assumed rate of return was changed from 8.0 percent to 7.75 percent. MRS is excluded as an agent multi-employer plan.
- - Fair Value Rate of Return consists of cash income plus gains and losses due to changes in fair value, whether realized
  or unrealized (before deduction of investment fees).
- Actuarial Assumed Rate is the assumed rate of return on the fair value of assets and is used in establishing retirement contribution rates and in determining current benefit reserve requirements.

### Defined Benefit Plans: PORTFOLIO DETAIL ILLUSTRATED BY ADVISOR

ADVISOR Equities:	ТҮРЕ	DATE INITIATED	FAIR VALUE PERCENT OF TOTAL PORTFOLIO*
NORTHERN TRUST GLOBAL INVESTMENT	Passive (index)	July 1985	12.99%
BLACKROCK INSTITUTIONAL TRUST COMPANY, NA	EAFE index	March 2004	8.33
EAGLE CAPITAL MANAGEMENT	Active - all cap	January 2005	3.75
LAZARD ASSET MANAGEMENT	Emerging markets	April 1998	3.48
BAILLIE GIFFORD & COMPANY	MSCI ACWI ex-U.S.	August 2014	2.78
ARROWSTREET CAPITAL, LP	MSCI ACWI ex-U.S.	June 2013	2.74
HARDING LOEVNER, LP	Global equity	February 2012	2.65
STATE STREET GLOBAL ADVISORS	Passive - large cap value	September 2004	2.59
WEDGEWOOD PARTNERS	Active - large cap growth	December 2014	2.53
ACADIAN ASSET MANAGEMENT, LLC	Global equity	July 2005	2.41
EPOCH INVESTMENT PARTNERS, INC	Global equity	February 2012	2.29
ARTISAN PARTNERS LP	Active - mid cap growth	September 2002	2.13
LONGVIEW PARTNERS, LLC	Global equity	August 2015	2.11
WELLINGTON MANAGEMENT COMPANY, LLP	Active - mid cap value	October 2001	1.93
THE BOSTON COMPANY ASSET MANAGEMENT, LLC	Active - mid cap value	October 2001	1.92
FISHER INVESTMENTS	Emerging markets	April 2016	1.92
RIVERBRIDGE PARTNERS, LLC	Active-small cap growth	November 2013	1.51
WELLINGTON MANAGEMENT COMPANY, LLP	Active-small cap core	July 2002	1.46
DIMENSIONAL FUND ADVISORS, INC	Active-small cap value	July 2002	1.35
MARATHON ASSET MANAGEMENT, LLP	MSCI ACWI ex-U.S.	May 2016	1.30
MONDRIAN INVESTMENT PARTNERS, INC	Small cap	May 2011	1.08
FIDELITY INSTITUTIONAL ASSET MANAGEMENT LLC	Small cap	April 2011	1.01
SUBTOTAL			64.26
Debt Securities:			
PRUDENTIAL FIXED INCOME	Core plus	January 2012	3.34
LOOMIS SAYLES & COMPANY, LP	Core plus	August 2009	3.24
ALLIANCEBERNSTEIN, LP	Global fixed income	February 2013	2.34
PACIFIC INVESTMENT MANAGEMENT COMPANY - GLOBAL	Global fixed income	February 2013	2.31
WELLINGTON MANAGEMENT COMPANY, LLP	Emerging market debt	May 2010	1.89
MANULIFE ASSET MANAGEMENT LLC	Active - core	March 2017	1.86
BLACKROCK INSTITUTIONAL TRUST COMPANY, NA	Passive (index)	September 1986	1.85
PACIFIC INVESTMENT MANAGEMENT COMPANY	Active - core	August 1983	1.85
SUBTOTAL			18.68

<sup>\*</sup>Includes cash and cash equivalents.

#### Defined Benefit Plans: PORTFOLIO DETAIL ILLUSTRATED BY ADVISOR (CONTINUED)

PRINCIPAL GLOBAL INVESTORS   Commingled fund - core   June 2003   2.20%	ADVISOR Real Estate:	ТҮРЕ	DATE INITIATED	FAIR VALUE PERCENT OF TOTAL PORTFOLIO*
UBS REALTY INVESTORS, LLC CENTERSQUARE INVESTMENT MANAGEMENT COHEN & STEERS CAPITAL MANAGEMENT UBS REALTY INVESTORS, LLC Value added January 2011 UBS REALTY INVESTORS, LLC Value added January 2011 O.68  HANCOCK TIMBER RESOURCE GROUP Timber March 2008 O.18  T.A. ASSOCIATES REALTY Fund IV - value added January 2013 O.16  AEW CAPITAL MANAGEMENT, LP Fund VII - value added June 2013 O.15  HEITMAN, LLC Fund III - value added April 2010 O.10  T.A. ASSOCIATES REALTY Fund X - value added November 2013 O.14  AEW CAPITAL MANAGEMENT, LP Fund VI - value added April 2010 O.10  T.A. ASSOCIATES REALTY Fund XI - value added April 2010 O.08  ANGELO GORDON & COMPANY Fund III value added April 2016 O.08  ANGELO GORDON & COMPANY Fund III value added January 2012 O.07  WESTBROOK PARTNERS Fund X - value added March 2016 O.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 O.01  ANGELO GORDON & COMPANY Fund III value added August 2007 O.01  SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 GCM GROSVENOR 2009 Diversified June 2009 2.42  PATHWAY CAPITAL MANAGEMENT, LLC 2013 GCM GROSVENOR 2014 Diversified February 2014 O.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 O.04	PRINCIPAL GLOBAL INVESTORS	Commingled fund - core	June 2003	2.20%
CENTERSQUARE INVESTMENT MANAGEMENT COHEN & STEERS CAPITAL MANAGEMENT UBS REALTY INVESTORS, LLC Value added January 2011 0.68  HANCOCK TIMBER RESOURCE GROUP Timber March 2008 1NVESCO FUND Fund IV - value added January 2013 0.16  T.A. ASSOCIATES REALTY Fund X - value added January 2013 0.16  AEW CAPITAL MANAGEMENT, LP Fund VII - value added January 2013 0.15  HEITMAN, LLC Fund III - value added November 2013 0.14  AEW CAPITAL MANAGEMENT, LP Fund VI - value added April 2010 0.10  T.A. ASSOCIATES REALTY Fund X - value added April 2010 0.10  T.A. ASSOCIATES REALTY Fund XI - value added April 2010 0.08  ANGELO GORDON & COMPANY Fund III value added August 2015 0.08  ANGELO GORDON & COMPANY Fund III value added January 2012 0.07  WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund III value added July 2016 0.01  ANGELO GORDON & COMPANY Fund III value added August 2007 0.01  SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 GCM GROSVENOR 2009 Diversified December 2008 2.45  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2013 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04	J.P. MORGAN INVESTMENT MANAGEMENT,INC.	Core	July 2012	2.12
COHEN & STEERS CAPITAL MANAGEMENT  UBS REALTY INVESTORS, LLC  Value added  January 2011  0.68  HANCOCK TIMBER RESOURCE GROUP  INVESCO FUND  INVESCO FUND  T.A. ASSOCIATES REALTY  FUND X - value added  April 2015  AEW CAPITAL MANAGEMENT, LP  FUND WI- value added  Fund IVI - value added  June 2013  0.16  AEW CAPITAL MANAGEMENT, LP  FUND WI- value added  November 2013  0.14  AEW CAPITAL MANAGEMENT, LP  FUND WI- value added  April 2010  0.10  T.A. ASSOCIATES REALTY  FUND XI - value added  April 2010  0.10  T.A. ASSOCIATES REALTY  FUND XI - value added  April 2010  0.08  ANGELO GORDON & COMPANY  FUND IIVI - value added  April 2016  0.08  ANGELO GORDON & COMPANY  FUND IIVI - value added  January 2012  0.07  WESTBROOK PARTNERS  FUND XI - value added  March 2016  0.03  AEW CAPITAL MANAGEMENT, LP  FUND VIII - value added  July 2016  0.01  ANGELO GORDON & COMPANY  FUND III - value added  August 2007  0.01  SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008  GCM GROSVENOR 2009  Diversified  Diversified  June 2009  2.42  PATHWAY CAPITAL MANAGEMENT, LLC 2013  GCM GROSVENOR 2014  Diversified  February 2014  0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016  Diversified  July 2016  0.04	UBS REALTY INVESTORS, LLC	Commingled fund - core	June 2003	2.07
UBS REALTY INVESTORS, LLC  Value added  January 2011  O.68  HANCOCK TIMBER RESOURCE GROUP  INVESCO FUND  Fund IV - value added  April 2015  O.18  T.A. ASSOCIATES REALTY  Fund X - value added  June 2013  O.16  AEW CAPITAL MANAGEMENT, LP  HEITMAN, LLC  Fund III - value added  April 2010  O.10  T.A. ASSOCIATES REALTY  Fund VI - value added  April 2010  O.10  T.A. ASSOCIATES REALTY  Fund VI - value added  April 2010  O.10  T.A. ASSOCIATES REALTY  Fund VI - value added  April 2010  O.10  T.A. ASSOCIATES REALTY  Fund IV - value added  April 2016  O.08  ANGELO GORDON & COMPANY  Fund III value added  January 2012  O.07  WESTBROOK PARTNERS  Fund X - value added  March 2016  O.03  AEW CAPITAL MANAGEMENT, LP  Fund VIII - value added  July 2016  O.01  SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008  GCM GROSVENOR 2009  Diversified  Diversified  December 2008  2.45  PATHWAY CAPITAL MANAGEMENT, LLC 2013  GCM GROSVENOR 2014  Diversified  February 2014  O.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016  Diversified  July 2016  O.04	CENTERSQUARE INVESTMENT MANAGEMENT	REITs	June 2017	0.83
HANCOCK TIMBER RESOURCE GROUP  INVESCO FUND  Fund IV - value added April 2015 0.18  T.A. ASSOCIATES REALTY  Fund X - value added January 2013 0.16  AEW CAPITAL MANAGEMENT, LP  HEITMAN, LLC  Fund III - value added June 2013 0.15  HEITMAN, LLC  Fund III - value added November 2013 0.14  AEW CAPITAL MANAGEMENT, LP  Fund VI - value added April 2010 0.10  T.A. ASSOCIATES REALTY  Fund XI - value added April 2016 0.08  ANGELO GORDON & COMPANY  Fund IIV - value added August 2015 0.08  ANGELO GORDON & COMPANY  Fund III value added January 2012 0.07  WESTBROOK PARTNERS  Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP  Fund VIII - value added July 2016 0.01  SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008  GCM GROSVENOR 2009 Diversified December 2008 2.45  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  SUBTOTAL  BUBTOTAL  Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04	COHEN & STEERS CAPITAL MANAGEMENT	Global REITs	October 2010	0.73
INVESCO FUND Fund IV - value added April 2015 0.18  T.A. ASSOCIATES REALTY Fund X - value added January 2013 0.16  AEW CAPITAL MANAGEMENT, LP Fund VII - value added June 2013 0.15  HEITMAN, LLC Fund III - value added November 2013 0.14  AEW CAPITAL MANAGEMENT, LP Fund VII - value added April 2010 0.10  T.A. ASSOCIATES REALTY Fund XI - value added April 2016 0.08  ANGELO GORDON & COMPANY Fund IV - value added August 2015 0.08  ANGELO GORDON & COMPANY Fund III value added January 2012 0.07  WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund II value added August 2007 0.01  SUBTOTAL TOTAL SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 Diversified December 2008 2.45  GCM GROSVENOR 2009 Diversified June 2009 2.42  PATHWAY CAPITAL MANAGEMENT, LLC 2013 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  SUBTOTAL Diversified July 2016 0.04	UBS REALTY INVESTORS, LLC	Value added	January 2011	0.68
T.A. ASSOCIATES REALTY AEW CAPITAL MANAGEMENT, LP Fund X - value added June 2013 0.15  HEITMAN, LLC Fund III - value added November 2013 0.14  AEW CAPITAL MANAGEMENT, LP Fund VI - value added April 2010 0.10  T.A. ASSOCIATES REALTY Fund XI - value added April 2016 0.08  ANGELO GORDON & COMPANY Fund IV - value added August 2015 0.08  ANGELO GORDON & COMPANY Fund III value added January 2012 0.07  WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund II value added August 2007 0.01  **BUBTOTAL** **Private Equity:**  PATHWAY CAPITAL MANAGEMENT, LLC 2008 GCM GROSVENOR 2009 Diversified December 2008 2.45  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  **Private Equity:**  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04	HANCOCK TIMBER RESOURCE GROUP	Timber	March 2008	0.38
AEW CAPITAL MANAGEMENT, LP HEITMAN, LLC Fund III - value added November 2013 0.14  AEW CAPITAL MANAGEMENT, LP Fund VI - value added April 2010 0.10  T.A. ASSOCIATES REALTY Fund XI - value added April 2016 0.08  ANGELO GORDON & COMPANY Fund IV - value added August 2015 0.08  ANGELO GORDON & COMPANY Fund III value added January 2012 0.07  WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund II value added July 2016 0.01  SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 GCM GROSVENOR 2009 Diversified December 2008 2.45  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  SUBTOTAL  SUBTOTAL  Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04	INVESCO FUND	Fund IV - value added	April 2015	0.18
HEITMAN, LLC Fund III - value added November 2013 0.14  AEW CAPITAL MANAGEMENT, LP Fund VI - value added April 2010 0.10  T.A. ASSOCIATES REALTY Fund XI - value added April 2016 0.08  ANGELO GORDON & COMPANY Fund IV - value added August 2015 0.08  ANGELO GORDON & COMPANY Fund III value added January 2012 0.07  WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund II value added August 2007 0.01  SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 GCM GROSVENOR 2009 Diversified December 2008 2.45  GCM GROSVENOR 2014 Diversified April 2013 1.54  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04	T.A. ASSOCIATES REALTY	Fund X - value added	January 2013	0.16
AEW CAPITAL MANAGEMENT, LP T.A. ASSOCIATES REALTY Fund XI - value added April 2016 0.08  ANGELO GORDON & COMPANY Fund IV - value added August 2015 0.08  ANGELO GORDON & COMPANY Fund III value added January 2012 0.07  WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund II value added August 2007 0.01  SUBTOTAL Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 GCM GROSVENOR 2009 Diversified December 2008 2.45  GCM GROSVENOR 2014 Diversified April 2013 1.54  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04	AEW CAPITAL MANAGEMENT, LP	Fund VII - value added	June 2013	0.15
T.A. ASSOCIATES REALTY Fund XI - value added April 2016 0.08  ANGELO GORDON & COMPANY Fund IV - value added August 2015 0.08  ANGELO GORDON & COMPANY Fund III value added January 2012 0.07  WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund II value added August 2007 0.01  SUBTOTAL Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 Diversified December 2008 2.45  GCM GROSVENOR 2009 Diversified April 2013 1.54  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  SUBTOTAL SUBTOTAL SUBTOTAL SUBTOTAL SUBTOTAL SUBTOTAL	HEITMAN, LLC	Fund III - value added	November 2013	0.14
ANGELO GORDON & COMPANY ANGELO GORDON & COMPANY Fund III value added August 2015 0.08  ANGELO GORDON & COMPANY Fund III value added January 2012 0.07  WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund II value added August 2007 0.01  SUBTOTAL Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 GCM GROSVENOR 2009 Diversified December 2008 2.45  GCM GROSVENOR 2019 PATHWAY CAPITAL MANAGEMENT, LLC 2013 GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  T.04	AEW CAPITAL MANAGEMENT, LP	Fund VI - value added	April 2010	0.10
ANGELO GORDON & COMPANY WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund II value added August 2007 0.01  SUBTOTAL Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 Diversified December 2008 2.45  GCM GROSVENOR 2009 Diversified June 2009 2.42  PATHWAY CAPITAL MANAGEMENT, LLC 2013 Diversified April 2013 1.54  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  SUBTOTAL SUBTOTAL  T.04	T.A. ASSOCIATES REALTY	Fund XI - value added	April 2016	0.08
WESTBROOK PARTNERS Fund X - value added March 2016 0.03  AEW CAPITAL MANAGEMENT, LP Fund VIII - value added July 2016 0.01  ANGELO GORDON & COMPANY Fund II value added August 2007 0.01  SUBTOTAL Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 Diversified December 2008 2.45  GCM GROSVENOR 2009 Diversified June 2009 2.42  PATHWAY CAPITAL MANAGEMENT, LLC 2013 Diversified April 2013 1.54  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  SUBTOTAL  SUBTOTAL	ANGELO GORDON & COMPANY	Fund IV - value added	August 2015	0.08
AEW CAPITAL MANAGEMENT, LP ANGELO GORDON & COMPANY Fund III value added August 2007  SUBTOTAL Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 GCM GROSVENOR 2009 PATHWAY CAPITAL MANAGEMENT, LLC 2013 GCM GROSVENOR 2014 Diversified February 2014 Diversified February 2014 Diversified July 2016 April 2013 1.54 GCM GROSVENOR 2014 Diversified February 2014 Diversified July 2016 Diversified February 2014 Diversified	ANGELO GORDON & COMPANY	Fund III value added	January 2012	0.07
ANGELO GORDON & COMPANY  SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008  PATHWAY CAPITAL MANAGEMENT, LLC 2013  GCM GROSVENOR 2014  PATHWAY CAPITAL MANAGEMENT, LLC 2014  GCM GROSVENOR 2014  Diversified  Diversified  April 2013  1.54  GCM GROSVENOR 2014  Diversified  February 2014  0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016  Diversified  July 2016  0.04  SUBTOTAL	WESTBROOK PARTNERS	Fund X - value added	March 2016	0.03
SUBTOTAL  Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008  GCM GROSVENOR 2009  Diversified  Diversified  December 2008  2.45  June 2009  2.42  PATHWAY CAPITAL MANAGEMENT, LLC 2013  Diversified  April 2013  1.54  GCM GROSVENOR 2014  Diversified  February 2014  0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016  Diversified  July 2016  0.04  SUBTOTAL	AEW CAPITAL MANAGEMENT, LP	Fund VIII - value added	July 2016	0.01
Private Equity:  PATHWAY CAPITAL MANAGEMENT, LLC 2008 Diversified December 2008 2.45  GCM GROSVENOR 2009 Diversified June 2009 2.42  PATHWAY CAPITAL MANAGEMENT, LLC 2013 Diversified April 2013 1.54  GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  SUBTOTAL 7.04	ANGELO GORDON & COMPANY	Fund II value added	August 2007	0.01
PATHWAY CAPITAL MANAGEMENT, LLC 2008  GCM GROSVENOR 2009  Diversified  Diversified  December 2008  2.45  June 2009  2.42  PATHWAY CAPITAL MANAGEMENT, LLC 2013  Diversified  April 2013  1.54  GCM GROSVENOR 2014  Diversified  February 2014  0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016  Diversified  July 2016  0.04  SUBTOTAL	SUBTOTAL			10.02
GCM GROSVENOR 2009  Diversified  June 2009  2.42  PATHWAY CAPITAL MANAGEMENT, LLC 2013  GCM GROSVENOR 2014  Diversified  February 2014  0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016  Diversified  July 2016  0.04  7.04	Private Equity:			
PATHWAY CAPITAL MANAGEMENT, LLC 2013  GCM GROSVENOR 2014  Diversified February 2014  Diversified July 2016  SUBTOTAL  7.04	PATHWAY CAPITAL MANAGEMENT, LLC 2008	Diversified	December 2008	2.45
GCM GROSVENOR 2014 Diversified February 2014 0.59  PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  SUBTOTAL 7.04	GCM GROSVENOR 2009	Diversified	June 2009	2.42
PATHWAY CAPITAL MANAGEMENT, LLC 2016 Diversified July 2016 0.04  SUBTOTAL 7.04	PATHWAY CAPITAL MANAGEMENT, LLC 2013	Diversified	April 2013	1.54
SUBTOTAL 7.04	GCM GROSVENOR 2014	Diversified	February 2014	0.59
	PATHWAY CAPITAL MANAGEMENT, LLC 2016	Diversified	July 2016	0.04
TOTAL 100.00%	SUBTOTAL			7.04
	TOTAL			100.00%

<sup>\*</sup>Includes cash and cash equivalents.

In addition to the cash equivalent portfolio managed in-house, 40 firms managed 55 different investment portfolios for the System at year end.

## Defined Benefit Plans: INVESTMENT FEES AND COMMISSIONS - FOR THE YEAR ENDED JUNE 30, 2017 -

Investment Managers:	ASSETS UNDER MANAGEMENT	FEES*
EQUITY MANAGER PORTFOLIOS	\$17,042,319,642	\$51,512,360
DEBT MANAGER PORTFOLIOS	4,954,300,650	9,891,793
REAL ESTATE MANAGER PORTFOLIOS	2,657,668,174	21,797,857
PRIVATE EQUITY MANAGER PORTFOLIOS	1,864,655,255	12,388,341
TOTALS	\$26,518,943,721	\$95,590,351

#### Other Investment Service Fees:

SECURITIES LENDING AGENT/ CASH MANAGEMENT FEES	\$3,381,538
CUSTODIAN FEES FOR ANCILLARY SERVICES	40,500
INVESTMENT CONSULTANT FEES	653,980
GLOBAL OUT-OF-POCKET EXPENSES	285,710
TOTAL INVESTMENT SERVICE FEES	\$4,361,728

<sup>\*</sup> Management fees are subject to estimation.

### Defined Benefit Plans: BROKERAGE COMMISSIONS PAID\*

Brokerage Firm, Including Subsidiaries:	NUMBER OF SHARES TRADED	COMMISSIONS	COMMISSIONS PER SHARE
MERRILL LYNCH & COMPANY	83,790,992	\$1,026,832	\$0.012
GOLDMAN SACHS & COMPANY	62,431,973	694,767	0.011
JP MORGAN SECURITIES	49,010,037	517,033	0.011
CREDIT SUISSE	48,653,622	266,399	0.005
MORGAN STANLEY AND COMPANY	24,360,156	263,627	0.011
UBS AG	58,446,495	259,761	0.004
INSTINET	85,919,675	256,763	0.003
CITIGROUP, INC.	48,431,549	248,624	0.005
SANFORD C. BERNSTEIN CO., LLC	22,048,049	210,784	0.010
JEFFERIES & COMPANY, INC.	14,076,801	181,994	0.013
INVESTMENT TECHNOLOGY GROUP	37,493,798	170,741	0.005
BARCLAYS CAPITAL	10,010,683	129,636	0.013
PERSHING, LLC	5,353,432	115,202	0.022
SG AMERICAS SECURITIES	36,570,012	111,645	0.003
HSBC SECURITIES, INC.	27,986,402	103,209	0.004
STIFEL	2,224,230	84,635	0.038
RAYMOND JAMES & ASSOCIATES, INC.	3,313,502	82,319	0.025
NATIONAL FINANCIAL SERVICES GROUP	4,372,349	76,370	0.017
DEUTSCHE BANK	10,477,128	75,817	0.007
OTHERS (LESS THAN \$60,000)	94,186,264	934,537	0.010
COMMISSION RECAPTURE INCOME	-	(254,200)	-
TOTALS	729,157,149	\$5,556,495	\$0.008

<sup>\*</sup>Approximate figures provided by Bank of New York Mellon.

#### Defined Benefit Plans:

#### INVESTMENT SUMMARY

- FOR THE YEAR ENDED JUNE 30, 2017-

[in thousands]

TOTALS	\$27,258,526	\$135,590,700	\$135,200,523	\$1,903,051	\$29,551,754	100.0%
SHORT-TERM INVESTMENTS	588,185	120,142,347	120,125,557	(29,343)	575,632	1.9
REAL ESTATE	2,593,987	919,020	925,943	38,803	2,625,867	8.9
PRIVATE EQUITY	1,518,728	246,977	106,143	140,678	1,800,240	6.1
LONG-TERM DEBT SECURITIES	7,943,047	9,142,808	9,310,752	(72,770)	7,702,333	26.1
EQUITIES	\$14,614,579	\$5,139,548	\$4,732,128	\$1,825,683	\$16,847,682	57.0%
	JULY 1, 2016 BEGINNING FAIR VALUE*	PURCHASES	SALES AND MATURITIES	INCREASE (DECREASE) IN FAIR VALUE	JUNE 30, 2017 ENDING FAIR VALUE**	PERCENT OF TOTAL FAIR VALUE

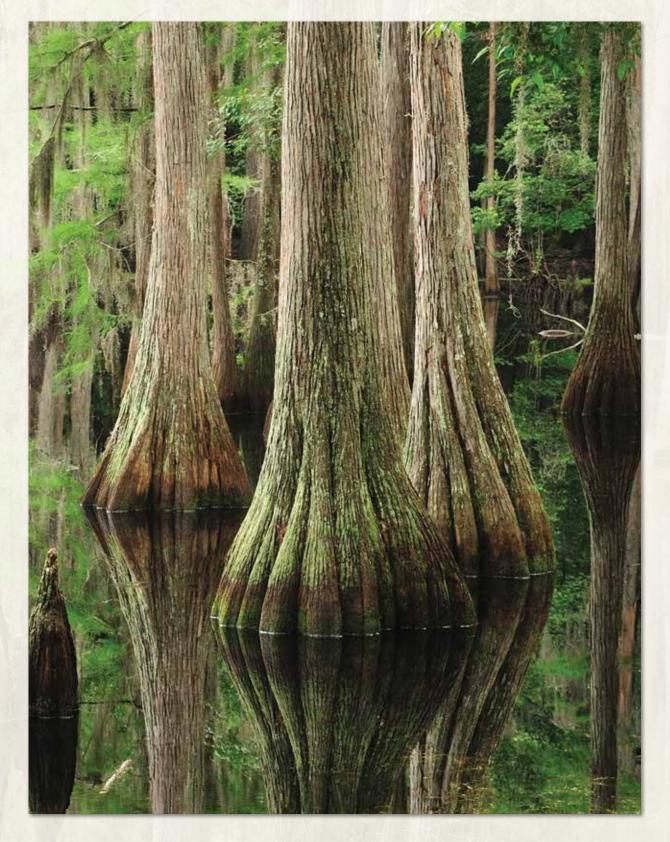
<sup>\*</sup> Includes investment securities on loan to broker-dealers with a fair value of \$3,757,655. It also includes the securities purchased with the cash collateral received in the lending program with a fair value of \$3,320,112. As of June 30, 2016, 13.8 percent of the total fair value of investments were on loan to broker-dealers. To arrive at the net asset value of investments of \$24.5 billion, the fair value total must be adjusted by (\$2.8 billion), which represents the fair value of cash, sweep investments, accrued interest and dividends, net receivables and payables for pending trades, and the securities lending obligations.

#### **INVESTMENTS BY TYPE**

- FAIR VALUE AT JUNE 30, 2017 -



<sup>\*\*</sup> Includes investment securities on loan to broker-dealers with a fair value of \$3,568,820. It also includes the securities purchased with the cash collateral received in the lending program with a fair value of \$2,959,706. As of June 30, 2017, 12.1 percent of the total fair value of investments were on loan to broker-dealers. To arrive at the net asset value of investments of \$26.9 billion, the fair value total must be adjusted by (\$2.7 billion), which represents the fair value of cash, sweep investments, accrued interest and dividends, net receivables and payables for pending trades, and the securities lending obligations.



PROTECTION

Taxodium distichum (bald cypress)



The experience and dedication you deserve

October 19, 2017

Board of Trustees Public Employees' Retirement System of Mississippi 429 Mississippi Street Jackson, MS 39201-1005

Dear Board Members:

The basic financial objective of the Public Employees' Retirement System of Mississippi (PERS) is to establish and receive contributions which:

- (1) When expressed in terms of the percents of active member payroll will remain approximately level from generation to generation of Mississippi citizens, and which
- (2) When combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of PERS.

In addition, PERS maintains a funding policy that was revised in 2012. In order to meet the objectives listed above, the System will strive to meet the following funding goals:

- To maintain an increasing ratio of system assets to accrued liabilities and reach an 80 percent minimum funded ratio in 2042;
- (2) To maintain adequate asset levels to finance the benefits promised to members;
- (3) To develop a pattern of stable contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, with a minimum employer contribution equal to the normal cost determined under the Entry Age Normal funding method.

In order to measure progress toward this fundamental objective and funding policy, PERS has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the current cost and level percent of payroll amortization of unfunded actuarial accrued liability over a reasonable period. The latest completed actuarial valuation was based upon data and assumptions as of June 30, 2017. This valuation indicates that the current contribution rates of 15.75% of payroll for employers and 9.00% of payroll for active members, for benefits then in effect, meet the basic financial objective and the goals of the funding policy as listed above. There are 152.382 active members as of June 30, 2017.

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 PERS 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 Trustees and were based upon actual experience of PERS during the years 2012 to 2016. Assets are valued according to a market

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Board of Trustees October 19, 2017 Page 2

related method that recognizes 20% of the previously unrecognized and unanticipated gains and losses. 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 in the benefit structure since the last valuation.

The following supporting schedules in the Actuarial Section are prepared by Cavanaugh Macdonald Consulting, LLC:

- Summary of Actuarial Assumptions & Methods
- Summary of Main System Provisions as Interpreted for Valuation Purposes
- Valuation Assets & Funding Progress
- Schedules of Funding Progress Last 10 Fiscal Years
- Solvency Tests
- Analysis of Financial Experience
- Schedule of Active Member Valuation Data
- Schedule of Retirants Added To and Removed from Rolls

We also provided the Schedule of Changes in Net Pension Liability and related ratios, as well as the Schedule of Employer Contributions in the Financial Section.

Based upon the valuation results, annual projection forecasting 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 Public Employees' Retirement System of Mississippi continues in sound condition in accordance with the actuarial principles of level percent of payroll financing.

Respectfully submitted,

Edward J. Koebel, FCA, EA, MAAA Principal and Consulting Actuary

Edward J. Kochel

EJK:kc

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The experience and dedication you deserve

October 18, 2017

Board of Trustees Public Employees' Retirement System of Mississippi 429 Mississippi Street Jackson, MS 39201-1005

Dear Board Members:

The basic financial objective of the Mississippi Highway Safety Patrol Retirement System (HSPRS) is to establish and receive contributions which:

- (1) When expressed in terms of the percents of active member payroll will remain approximately level from generation to generation of Mississippi citizens, and which
- (2) When combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of HSPRS.

In addition, HSPRS maintains a funding policy that was revised in 2012. In order to meet the objectives listed above, the System will strive to meet the following funding goals:

- (1) To maintain an increasing ratio of system assets to accrued liabilities and reach an 80 percent minimum funded ratio in 2042;
- (2) To maintain adequate asset levels to finance the benefits promised to members;
- (3) To develop a pattern of stable contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, with a minimum employer contribution equal to the normal cost determined under the Entry Age Normal funding method.

In order to measure progress toward this fundamental objective, HSPRS has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the current cost and level percent of payroll amortization of unfunded actuarial accrued liability over a reasonable period. The latest completed actuarial valuation was based upon data and assumptions as of June 30, 2017. This valuation indicates that contribution rates of 37.00% of payroll for employers and 7.25% of payroll for active members, along with anticipated contributions as provided by Senate Bill No. 2659 (effective July 1, 2004) and House Bill No. 1015 (effective July 1, 2013), for benefits then in effect, meet the basic financial objective. There are 470 active members as of June 30, 2017.

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 HSPRS 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 Trustees and were based upon actual experience of HSPRS during the years 2012 to 2016. Assets are valued according to a market

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Board of Trustees October 18, 2017 Page 2

related method that recognizes 20% of the previously unrecognized and unanticipated gains and losses. 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 in the benefit structure since the last valuation.

The following supporting schedules in the Actuarial Section are prepared by Cavanaugh Macdonald Consulting, LLC:

- Summary of Actuarial Assumptions & Methods
- Summary of Main System Provisions as Interpreted for Valuation Purposes
- Valuation Assets & Funding Progress
- Schedules of Funding Progress Last 10 Fiscal Years
- Solvency Tests
- Analysis of Financial Experience
- Schedule of Active Member Valuation Data

We also provided the Schedule of Changes in Net Pension Liability and related ratios, as well as the Schedule of Employer Contributions in the Financial Section.

Based upon the valuation results, annual projection forecasting 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 Mississippi Highway Safety Patrol Retirement System continues in sound condition in accordance with the actuarial principles of level percent of payroll financing.

Respectfully submitted,

Edward J. Koebel, FCA, EA, MAAA Principal and Consulting Actuary

Edward J. Kochel

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The experience and dedication you deserve

October 19, 2017

Board of Trustees Public Employees' Retirement System of Mississippi 429 Mississippi Street Jackson, MS 39201-1005

Dear Board Members:

The basic financial objective of the Municipal Retirement System of Mississippi (MRS) is to establish and receive contributions (expressed as a tax on assessed property valuations) which:

- (1) Will be in amounts sufficient, but not more than necessary, to maintain the actuarially soundness of the Funds for all future years (the tax may be increased but not by more than one-half mill per year), and which
- (2) When combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of MRS.

In addition, MRS maintains a funding policy that was revised in 2011. In this new funding policy, contributions are extended past 2020 and an employer contribution rate, expressed as a millage rate tax applied to assessed property values, is established beginning in the 2011-2012 fiscal year that will generate an ultimate reserve level equal to a reasonable percentage (initially 100% - 150%) of the next year's projected benefit payment. At that point, employer contributions will be set equal to the fiscal year's projected benefit payments and adjusted as necessary to maintain the assets at the established reserve level.

In order to measure progress toward this fundamental objective, MRS has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the amortization of unfunded total actuarial liabilities over a closed period. The latest completed actuarial valuation was based upon data and assumptions as of June 30, 2017. These valuations indicate that the current contribution rates, for benefits then in effect, meet the basic financial objective. The employee contribution rates vary by participating City and are 7% - 10% of payroll for active members. There were 6 active members as of June 30, 2017.

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, death and disability among MRS 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 Trustees and were based upon actual experience of MRS during the years 2012 to 2016. Assets are valued according to a market related method that recognizes 20% of the previously unrecognized and unanticipated gains and losses. The assumptions and methods utilized in this valuation, in our opinion, meet the parameters established by the Actuarial Standards of Practice.

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Board of Trustees October 19, 2017 Page 2

The current benefit structure is outlined in the Actuarial Section. Since the last valuation, a 3% ad-hoc benefit increase was granted to Tupelo retirees and beneficiaries retired at least one full fiscal year as of September 30, 2015. In addition, the City of Vicksburg increased the minimum monthly allowance from \$1,415 to \$1,515.

The following supporting schedules in the Actuarial Section are prepared by Cavanaugh Macdonald Consulting, LLC:

- Summary of Actuarial Assumptions & Methods
- Summary of Main System Provisions as Interpreted for Valuation Purposes
- Valuation Assets & Funding Progress
- Schedules of Funding Progress Last 10 Fiscal Years
- Solvency Tests
- Analysis of Financial Experience
- Schedule of Active Member Valuation Data
- Schedule of Retirants Added To and Removed from Rolls

Based upon the valuation results annual projection forecasting 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 Municipal Retirement Systems of Mississippi continue in sound condition in accordance with the actuarial principles and requirements of State law.

Respectfully submitted,

Edward J. Koebel, FCA, EA, MAAA Principal and Consulting Actuary

Edward J. Kochel

EJK:kc

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The experience and dedication you deserve

October 18, 2017

Board of Trustees Public Employees' Retirement System of Mississippi 429 Mississippi Street Jackson, MS 39201-1005

#### Dear Board Members:

The basic financial objective of the Mississippi Supplemental Legislative Retirement Plan (SLRP) is to establish and receive contributions which:

- (1) When expressed in terms of the percents of active member payroll will remain approximately level from generation to generation of Mississippi citizens, and which
- (2) When combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of SLRP.

In addition, SLRP maintains a funding policy that was revised in 2012. In order to meet the objectives listed above, the System will strive to meet the following funding goals:

- To maintain an increasing ratio of system assets to accrued liabilities and reach an 80 percent minimum funded ratio in 2042;
- (2) To maintain adequate asset levels to finance the benefits promised to members;
- (3) To develop a pattern of stable contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, with a minimum employer contribution equal to the normal cost determined under the Entry Age Normal funding method.

In order to measure progress toward this fundamental objective and funding policy, SLRP has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the current cost and level percent of payroll amortization of unfunded actuarial accrued liability over a reasonable period. The latest completed actuarial valuation was based upon data and assumptions as of June 30, 2017. This valuation indicates that contribution rates of 7.40% of payroll for employers and 3.00% of payroll for active members, for benefits then in effect, meet the basic financial objective and the goals of the funding policy as listed above. There are 174 active members as of June 30, 2017.

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 SLRP 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 Trustees and were based upon actual experience of SLRP during the years 2012 to 2016. Assets are valued according to a market related method that recognizes 20% of the previously unrecognized and unanticipated gains and losses.

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Board of Trustees October 18, 2017 Page 2

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 in the benefit structure since the last valuation.

The following supporting schedules in the Actuarial Section are prepared by Cavanaugh Macdonald Consulting, LLC:

- Summary of Actuarial Assumptions & Methods
- Summary of Main System Provisions as Interpreted for Valuation Purposes
- Valuation Assets & Funding Progress
- Schedules of Funding Progress Last 10 Fiscal Years
- Solvency Tests
- Analysis of Financial Experience
- Schedule of Active Member Valuation Data

We also provided the Schedule of Changes in Net Pension Liability and related ratios, as well as the Schedule of Employer Contributions in the Financial Section.

Based upon the valuation results, annual projection forecasting 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 Mississippi Supplemental Legislative Retirement Plan continues in sound condition in accordance with the actuarial principles of level percent of payroll financing.

Respectfully submitted,

Edward J. Koebel, FCA, EA, MAAA Principal and Consulting Actuary

Edward & Kochel

EJK:kc

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# Summary of Actuarial Assumptions & Methods

An actuarial experience study of the mortality, service, withdrawals, compensation experience of members, and valuation of assets and liabilities is performed annually to determine the actuarial soundness of the plans within the System. To validate that the assumptions recommended by the actuary are, in aggregate, reasonably related to experience, the System requests the actuary to conduct an experience investigation every other year on a rolling four-year period. The actuarial assumptions used in the June 30, 2017, valuations were based on the results of an actuarial experience study for the fiscal period 2013-2016.

Significant actuarial assumptions used to present the results for the 2016 actuarial valuation are as follows:

	PERS	MHSPRS	MRS	SLRP
VALUATION DATE	June 30, 2017	June 30, 2017	June 30, 2017	June 30, 2017
ACTUARIAL COST METHOD	Entry age	Entry age	Entry age	Entry age
AMORTIZATION METHOD	Level percent open	Level percent open	Level dollar closed	Level percent open
REMAINING AMORTIZATION PERIOD	38.4 years	37.6 years	17.0 years	21.6 years
ASSET VALUATION METHOD	5-year Smoothed Market	5-year Smoothed Market	5-year Smoothed Market	5-year Smoothed Market
Actuarial Assumptions:				
INVESTMENT RATE OF RETURN	7.75%	7.75%	7.75%	7.75%
SALARY INCREASES	3.25-18.50%	3.25-8.81%	0.50-1.50%	3.25%
WAGE INFLATION RATES	3.25%	3.25%	3.25%	3.25%
INCREASE IN BENEFITS AFTER RETIREMENT	3.00%*	3.00%**	Various**	* 3.00%*

<sup>\*</sup>Calculated 3.0 percent simple interest to age 55, compounded each year thereafter.

<sup>\*\*</sup>Calculated 3.0 percent simple interest to age 60, compounded each year thereafter.

<sup>\*\*\*</sup>Varies depending on municipality.

Public Employees' Retirement System of Mississippi: Statement of Actuarial Assumptions & Methods All assumptions used in the actuarial valuation were adopted by the PERS Board of Trustees when the *Experience Investigation for the Four-Year Period Ending June 30, 2016*, was adopted April 25, 2017. Following are the assumptions adopted by the PERS Board for this program.

**INTEREST RATE:** 7.75 percent per annum, compounded annually (net of investment expense only).

**SEPARATIONS FROM ACTIVE SERVICE:** Representative values of the assumed rates of separation from active service are as follows:

			ANNUAL R.	ATES OF		
	WITHDRAWAL	& VESTING*	DEATH	1***	DISABILITY**	
AGE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
20	25.00%	30.00%	0.0256%	0.0080%	0.010%	0.009%
25	18.00	18.25	0.0306	0.0085	0.012	0.011
30	11.50	12.00	0.0286	0.0107	0.017	0.014
35	8.50	8.75	0.0330	0.0141	0.036	0.017
40	6.75	7.00	0.0397	0.0195	0.110	0.070
45	6.25	6.00	0.0615	0.0324	0.230	0.140
50	6.25	6.00	0.1065	0.0543	0.290	0.220
55	6.25	6.00	0.1761	0.0811	0.500	0.380
60	6.25	6.00	0.2868	0.1137	0.530	0.410
65	6.25	6.00	0.4862	0.1694	0.200	0.150
70	6.25	6.00	0.7656	0.2850	0.200	0.150

\*For all ages, rates of 32.5 percent for first year of employment and 23.5 percent for second year.

1.1226

0.4322

0.200

0.150

# ANNUAL RATES OF SERVICE RETIREMENTS

6.00

	MAL	.E	FEMALE		
AGE	UNDER 25 YEARS OF SERVICE*	25 YEARS OF SERVICE & OVER*	UNDER 25 YEARS OF SERVICE*	25 YEARS OF SERVICE & OVER*	
45	-%	21.75%	-%	17.50%	
50	-	14.50	-	12.50	
55	-	18.25	-	19.00	
60	10.25	19.50	13.00	22.25	
62	20.25	32.00	18.75	37.50	
65	24.00	29.50	28.75	42.50	
70	20.00	25.00	24.00	25.50	
75	100.00	100.00	100.00	100.00	

<sup>\*</sup>For Tier 4 members, 30 years of service.

6.25

<sup>\*\*93.0</sup> percent are presumed to be non-duty related, and 7.0 percent are assumed to be duty related.

<sup>\*\*\*94.0</sup> percent are presumed to be non-duty related, and 6.0 percent are assumed to be duty related.

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

	ANNUAL RATES OF SALARY INCREASES				
SERVICE	MERIT & SENIORITY	BASE (ECONOMY)	INCREASE NEXT YEAR		
0	15.25%	3.25%	18.50%		
1	5.25	3.25	8.50		
2	2.75	3.25	6.00		
3	1.75	3.25	5.00		
4	1.25	3.25	4.50		
5-7	0.75	3.25	4.00		
8-27	0.25	3.25	3.50		
28 & OVER	-	3.25	3.25		

PAYROLL GROWTH: 3.25 percent per annum, compounded annually.

ADMINISTRATIVE EXPENSES: 0.23 percent of payroll.

TIMING OF DECREMENTS AND PAY INCREASES: Middle of year.

DEATH AFTER RETIREMENT: The table for post-retirement mortality used in evaluating allowances to be paid is the RP-2014 Healthy Annuitant Blue Collar Table projected with Scale BB to 2022 with male rates set forward one year and adjusted by 106.0 percent for males at all ages and as follows for females: 90.0 percent for ages less than 76, 95.0 percent for age 76, 105.0 percent for age 78 and 1.10 percent for ages 79 and greater. The RP-2014 Disabled Retiree Table set forward four years for males and three years for females was used for the period after disability retirement. This assumption is used to measure the probabilities of each benefit payment being made after retirement. Mortality improvement is anticipated under this assumption as recent mortality experience shows actual deaths 11.2 percent greater than expected under the selected table for non-disability mortality and 10.5 percent greater than expected under the selected table for disability mortality.

MARRIAGE ASSUMPTION: 85.0 percent married with the husband three years older than wife.

UNUSED SICK LEAVE: 0.5 years at retirement.

MILITARY SERVICE: 0.2 years at retirement.

**DEFERRED VESTED:** Benefits are assumed to commence at age 60 for Tiers 1, 2, and 3 and at age 65 for Tier 4.

ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.0 percent.

VALUATION METHOD: 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, disability, 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 7.75 percent). 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 current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of PERS are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.

The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made for pension benefits to determine the uniform and constant percentage rate of employer contribution that, if applied to the compensation of the average new member during the entire period of his or her anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his or her behalf.

The unfunded accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from PERS. The accrued liability contribution amortizes the balance of the unfunded accrued liability over a period of years from the valuation date.

ASSET VALUATION METHOD: Market value five-year smoothing is the method used for asset valuation. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20.0 percent of the difference between market value and expected market value.

Mississippi Highway Safety Patrol Retirement System: Statement of Actuarial Assumptions & Methods All the assumptions used in the actuarial valuation were adopted by the MHSPRS Advisory Board when the *Experience Investigation for the Four-Year Period Ending June 30, 2016*, was adopted April 25, 2017. Following are the assumptions adopted by the PERS Board for this program.

**INTEREST RATE:** 7.75 percent per annum, compounded annually (net of investment expenses only).

**SEPARATIONS FROM ACTIVE SERVICE:** Representative values of the assumed annual rates of separation from active service are as follows:

	ANNUAL RATES OF						
		DEA	ATH	DISABIL	.ITY		
AGE	WITHDRAWAL & VESTING	MALES	FEMALES	NON-DUTY	DUTY	SERVICE	SERVICE RETIREMENT*
25	5.60%	0.03%	0.01%	0.07%	-%	5	5.00%
30	4.00	0.03	0.01	0.09	0.01	10	5.00
35	3.00	0.03	0.01	0.12	0.04	15	5.00
40	2.00	0.04	0.02	0.15	0.05	20	5.00
45	1.00	0.06	0.03	0.22	0.05	25	10.00
50	1.00	0.11	0.05	0.38	0.04	30	25.00
55	-	0.18	0.08	0.68	0.01	35	25.00
60	_	0.29	0.11	1.16	_	40+	100.00%

<sup>\*</sup>The annual rate of service retirement is 100.0 percent at age 61.

It is assumed that a member will be granted one and three-quarter years of service credit for unused leave at termination of employment. In addition, it is assumed that, on average, one quarter year of service credit for peace-time military service will be granted to each member.

**SALARY INCREASES:** Representative values of the assumed annual rates of salary increases are as follows:

	ANNUAL RATES OF				
AGE	MERIT & SENIORITY	BASE (ECONOMY)	INCREASE NEXT YEAR		
20	5.56%	3.25%	8.81%		
25	2.31	3.25	5.56		
30	1.49	3.25	4.74		
35	1.49	3.25	4.74		
40	1.49	3.25	4.74		
45	1.00	3.25	4.25		
50	0.50	3.25	3.75		
55	0.50	3.25	3.75		
60	-	3.25	3.25		

PAYROLL GROWTH: 3.25 percent per annum, compounded annually.

PRICE INFLATION: 3.0 percent per annum, compounded annually.

ADMINISTRATIVE EXPENSES: 0.23 percent of payroll.

TIMING OF DECREMENT AND PAY INCREASES: Middle of year.

ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.0 percent.

DEATH AFTER RETIREMENT: The table for post-retirement mortality used in evaluating allowances to be paid was the RP-2014 Healthy Annuitant Blue Collar Mortality Table Projected to 2022 by Scale BB (set forward one year for males) and adjusted by 106.0 percent for males at all ages and as follows for females: 90.0 percent for ages less than 76, 95.0 percent for age 76, 105.0 percent for age 78, and 1.10 percent for ages 79 and greater. The RP-2014 Disabled Retiree Mortality Table (set forward four years for males and set forward three years for females) was used for the period after disability retirement. This assumption is used to measure the probabilities of each benefit payment being made after retirement. Mortality improvement is anticipated under this assumption as recent mortality experience shows actual deaths 11.2 percent greater than expected under the selected table for non-disability mortality and 10.5 percent greater than expected under the selected table for disability mortality.

MARRIAGE ASSUMPTION: 100.0 percent married with the husband three years older than wife.

VALUATION METHOD: 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, disability, 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 7.75 percent). 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 all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of MHSPRS are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.

The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made for pension benefits to determine the uniform and constant percentage rate of employer contribution that, if applied to the compensation of the average new member during the entire period of his or her anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his or her behalf.

The unfunded accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from the MHSPRS. The accrued liability contribution amortizes the balance of the unfunded accrued liability over a period of years from the valuation date.

ASSET VALUATION METHOD: Market value five-year smoothing is the method used for asset valuation. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20.0 percent of the difference between market value and expected market value.

Municipal Retirement Systems: Statement of Actuarial Assumptions & Methods All the assumptions used in the actuarial valuation were adopted by the PERS Board of Trustees when the *Experience Investigation for the Four-Year Period Ending June 30, 2016*, was adopted on April 25, 2017. Following are the assumptions adopted by the PERS Board for this program.

**INTEREST RATE:** 7.75 percent per annum, compounded annually (net after investment expenses) for prior funding policy rate determination and GASB disclosure.

6.5 percent per annum, compounded annually (net after investment expenses) for current funding policy rate determination.

**SEPARATIONS FROM ACTIVE SERVICE:** Representative values of the assumed annual rates of separation from active service are as follows:

	ANNUAL RATES OF						
		DEATI	Н	DISABIL	ITY		
AGE	WITHDRAWAL	NON-DUTY	DUTY	NON-DUTY	DUTY		
20	10.65%	0.04%	0.02%	0.08%	0.06%		
25	8.64	0.05	0.03	0.12	0.12		
30	6.87	0.08	0.04	0.18	0.26		
35	4.86	0.11	0.05	0.24	0.52		
40	2.97	0.15	0.07	0.36	0.60		
45	1.44	0.22	0.09	0.64	0.54		
50	0.24	0.34	0.14	1.10	0.88		
55	-	0.44	0.20	1.58	1.18		
60	-	0.51	0.32	2.20	1.30		
64	-	0.57	0.42	2.86	1.38		

YEARS OF SERVICE	SERVICE RETIREMENT
20	45.00%
21-28	17.50
29-33	35.00
34 & OVER	20.00
AGE 65	100.00

SALARY INCREASES: 3.25 percent for wage inflation, plus the following chart:

AGES	MERIT & SENIORITY SALARY INCREASE
UNDER 43	1.50%
43-47	1.00
48-52	0.50
53 & OVER	_

PRICE INFLATION: 3.0 percent per annum, compounded annually.

DEATH AFTER RETIREMENT: The mortality table, for post-retirement mortality, used in evaluating allowances to be paid is the RP-2014 Healthy Annuitant Blue Collar Table projected with Scale BB to 2022 with male rates set forward one year and adjusted by 106.0 percent for males at all ages and as follows for females: 90.0 percent for ages less the 76, 95.0 percent for age 76, 105.0 percent for age 78, and 1.10 percent for ages 79 and greater. The RP-2014 Disabled Retiree Table set forward four years for males and three years for females was used for the period after disability retirement. This assumption is used to measure the probabilities of each benefit payment being made after retirement. Mortality improvement is anticipated under this assumption as recent mortality experience shows actual deaths 11.2 percent greater than expected under the selected table for non-disability mortality and 10.5 percent greater than expected under the selected table for disability mortality.

MARRIAGE ASSUMPTION: 85.0 percent married with the husband three years older than wife.

**VALUATION METHOD:** Unfunded employer liabilities are amortized over a closed 30-year period from September 30, 1990, as a level percent of each municipality's assessed property valuation.

ASSESSED PROPERTY VALUE RATE OF INCREASE: 2.0 percent per annum, compounded annually (used in determining the millage rate under the prior funding policy).

**EXPENSE LOAD:** 2.0 percent of employer contributions.

ASSET VALUATION METHOD: Market value five-year smoothing is the method used for asset valuation. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20.0 percent of the difference between market value and expected market value. Actuarial assets were allocated to individual cities in the same proportion that their market value of assets was to the total market value of assets for all cities.

# Supplemental Legislative Retirement Plan: Statement of Actuarial Assumptions & Methods

All assumptions used in the actuarial valuation were adopted by the PERS Board of Trustees when the *Experience Investigation for the Four-Year Period Ending June 30, 2016*, was adopted April 25, 2017. Following are the assumptions adopted by the PERS Board for this program.

**INTEREST RATE:** 7.75 percent per annum, compounded annually (net of investment expenses only).

**SEPARATIONS FROM ACTIVE SERVICE:** Representative values of the assumed rates of separation from active service are as follows:

	ANNUAL RATES OF						
	DEATH	DEATH					
AGE	MALE	FEMALE	DISABILITY*				
20	0.03%	0.01%	0.04%				
25	0.03	0.01	0.05				
30	0.03	0.01	0.07				
35	0.03	0.01	0.11				
40	0.04	0.02	0.17				
45	0.06	0.03	0.23				
50	0.11	0.05	0.30				
55	0.18	0.08	0.35				
60	0.29	0.11	0.40				
65	0.49	0.17	-				
70	0.77	0.29	-				
75	1.24	0.48	-				

<sup>\*93.0</sup> percent are presumed to be non-duty related, and 7.0 percent are assumed to be duty related.

WITHDRAWAL AND VESTING: 20.0 percent in an election year, none in a non-election year.

**SERVICE RETIREMENT:** 30.0 percent in an election year, none in a non-election year. All members are assumed to retire no later than age 80. It is assumed that a member will be granted two and a half years of service credit for unused leave at termination of employment.

PRICE INFLATION: 3.0 percent per annum, compounded annually.

PAYROLL GROWTH: 3.25 percent per annum, compounded annually.

ADMINISTRATIVE EXPENSES: 0.23 percent of payroll.

TIMING OF DECREMENTS AND PAY INCREASES: Middle of year.

SALARY INCREASES: 3.25 percent per annum, for all ages.

DEATH AFTER RETIREMENT: The table for post-retirement mortality used in evaluating allowances to be paid was the RP-2014 Healthy Annuitant Blue Collar Mortality Table Projected to 2022 by Scale BB (set forward one year for males) and adjusted by 106.0 percent for males at all ages and as follows for females: 90.0 percent for ages less than 76, 95.0 percent for age 76, 105.0 percent for age 78, and 1.10 percent for ages 79 and greater. The RP-2014 Disabled Mortality Table (set forward four years for males and set forward three years for females) was used for the period after disability retirement. This assumption is used to measure the probabilities of each benefit payment being made after retirement. Mortality improvement is anticipated under this assumption as recent mortality experience show actual deaths 11.2 percent greater than expected under the selected table for non-disability mortality and 10.5 percent greater than expected under the selected table for disability mortality.

MARRIAGE ASSUMPTION: 85.0 percent married with the husband three years older than wife.

# ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.0 percent.

VALUATION METHOD: 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, disability, 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 7.75 percent). 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 all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of SLRP are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.

The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made for pension benefits to determine the uniform and constant percentage rate of employer contribution that, if applied to the compensation of the average new member during the entire period of his or her anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his or her behalf.

The unfunded accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from SLRP. The accrued liability contribution amortizes the balance of the unfunded accrued liability over a period of years from the valuation date.

ASSET VALUATION METHOD: Market value five-year smoothing is the method used for asset valuation. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20.0 percent of the difference between market value and expected market value.

Public Employees' Retirement System of Mississippi: Summary of Main System Provisions as Interpreted for Valuation Purposes

# SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The following summary presents the main benefit and contribution provisions of the plan in effect June 30, 2017, as interpreted in preparing the actuarial valuation. As used in the summary, "average compensation" means the average annual covered earnings of an employee during the four highest years of service. To determine the member's four highest years, PERS considers these scenarios:

- » Four highest fiscal years of earned compensation;
- » Four highest calendar years of earned compensation;
- » Combination of the four highest fiscal and calendar years of earned compensation that do not overlap; or
- » Final 48 months of earned compensation prior to termination of employment.

"Covered earnings" means gross salary not in excess of the maximum amount on which contributions were required. "Fiscal year" means a year commencing July 1 and ending June 30. "Credited service" means service while a contributing member plus additional service as described below. "Unused sick and vacation leave" means service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. A payment of up to 240 hours leave may be used in the average compensation definition. "Additional service" means additional service credit may be granted for service prior to February 1, 1953, active-duty military service, out-of-state service, professional leave, and non-covered and retroactive service.

The maximum covered earnings for employers and employees over the years are as follows:

FISCAL DATE FROM	FISCAL DATE TO	EMPLOYER RATE	MAXIMUM COVERED EARNINGS	EMPLOYEE RATE	MAXIMUM COVERED EARNINGS
2/1/53	6/30/58	2.50%	\$6,000	4.00%	\$4,800*
7/1/58	6/30/60	2.50	9,000	4.00	7,800*
7/1/60	6/30/66	2.50	15,000	4.00	13,800*
7/1/66	6/30/68	3.00	15,000	4.50	13,800*
7/1/68	3/31/71	4.50	15,000	4.50	15,000
4/1/71	6/30/73	4.50	35,000	4.50	35,000
7/1/73	6/30/76	5.85	35,000	5.00	35,000
7/1/76	6/30/77	7.00	35,000	5.00	35,000
7/1/77	6/30/78	7.50	35,000	5.50	35,000
7/1/78	6/30/80	8.00	35,000	5.50	35,000
7/1/80	6/30/81	8.00	53,000	5.50	53,000
7/1/81	12/31/83	8.75	53,000	6.00	53,000
1/1/84	6/30/88	8.75	63,000	6.00	63,000
7/1/88	6/30/89	8.75	75,600	6.00	75,600
7/1/89	12/31/89	8.75	75,600	6.50	75,600
1/1/90	6/30/91	9.75	75,600	6.50	75,600
7/1/91	6/30/92	9.75	75,600	7.25	75,600
7/1/92	6/30/02	9.75	125,000	7.25	125,000
7/1/02	6/30/05	9.75	150,000	7.25	150,000
7/1/05	6/30/06	10.75	150,000	7.25	150,000
7/1/06	6/30/07	11.30	150,000	7.25	150,000
7/1/07	6/30/08	11.85	150,000	7.25	150,000
7/1/08	6/30/09	11.85	230,000	7.25	230,000
7/1/09	6/30/10	12.00	245,000	7.25	245,000
7/1/10	6/30/11	12.00	245,000	9.00	245,000
7/1/11	12/31/11	12.00	245,000	9.00	245,000
1/1/12	6/30/12	12.93	245,000	9.00	245,000
7/1/12	6/30/13	14.26	250,000	9.00	250,000
7/1/13	6/30/14	15.75	255,000	9.00	255,000
7/1/14	6/30/15	15.75	260,000	9.00	260,000
7/1/15	6/30/17	15.75	265,000	9.00	265,000
7/1/17	6/30/18	15.75	270,000	9.00	270,000

<sup>\*</sup>From February 1, 1953, through June 30, 1968, the first \$100 in monthly earnings or \$1,200 in annual earnings were not covered earnings for the employee.

# Benefits SUPERANNUATION RETIREMENT

Condition for Retirement

- a) A retirement allowance is paid upon the request of any member who retires and has attained age 60 and completed at least eight years\* of membership service. A retirement allowance may also be paid upon the completion of 25 years of creditable service for members hired prior to July 1, 2011, or upon the completion of 30 years of creditable service for members hired on or after July 1, 2011.
- b) Any member who withdraws from service prior to his or her attainment of age 60 and who has completed at least eight years\* of membership service is entitled to receive, in lieu of a refund of his or her accumulated contributions, a retirement allowance commencing at age 60.

# Amount of Allowance

The annual retirement allowance payable to a member who retires under condition (a) above is equal to:

- 1. A member's annuity that is the actuarial equivalent of the member's accumulated contributions at the time of his or her retirement, plus
- 2. For a member hired prior to July 1, 2011, an employer's annuity that, together with the member's annuity, is equal to 2.0 percent of his or her average compensation for each of the first 25 years of creditable service plus 2.5 percent for each year of creditable service over 25 years.
- 3. For a member hired on or after July 1, 2011, an employer's annuity that, together with the member's annuity, is equal to 2.0 percent of his or her average compensation for each of the first 30 years of creditable service plus 2.5 percent for each year of creditable service over 30 years. An actuarial reduction will be made for each year of creditable service below 30 or for each year of age below 65, whichever is less.

For members hired prior to July 1, 2011, the minimum allowance is \$120 for each year of creditable service.

For members hired on or after July 1, 2011, an actuarially reduced retirement allowance is paid upon the request of any member who retires with less than 30 years of creditable service. The annual actuarially reduced retirement allowance is equal to the benefit in the previous section but reduced for each year of creditable service below 30 or for each year in age below age 65, whichever is less.

Any member who withdraws from service prior to his or her attainment of age 60 and who has completed at least eight years (four years if hired prior to July 1, 2007) of membership service is entitled to receive, in lieu of a refund of his or her accumulated contributions, a retirement allowance.

# **DISABILITY RETIREMENT**

Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled, as determined by the Board of Trustees, and who has accumulated eight or more years\* of membership service.

<sup>\*</sup>Four years for those who entered the System before July 1, 2007.

<sup>\*</sup>Four years for those who entered the System before July 1, 2007.

# Amount of Allowance

For those who were active members prior to July 1, 1992, and did not elect the benefit structure outlined below, the annual disability retirement allowance payable is equal to a superannuation retirement allowance if the member has attained age 60; otherwise it is equal to a superannuation retirement allowance calculated as follows:

- 1. A member's annuity equal to the actuarial equivalent of his or her accumulated contributions at the time of retirement, plus
- 2. An employer's annuity equal to the amount that would have been payable had the member continued in service to age 60.

For those who become active members after June 30, 1992, and for those who were active members prior to July 1, 1992, who so elected, the following benefits are payable:

1. A temporary allowance equal to the greater of (a) 40.0 percent of average compensation plus 10.0 percent for each dependent child up to a maximum of two, or (b) the member's accrued allowance. This temporary allowance is paid for a period of time based on the member's age at disability, as follows:

AGE AT DISABILITY	DURATION
60 & earlier	to age 65
61	to age 66
62	to age 66
63	to age 67
64	to age 67
65	to age 68
66	to age 68
67	to age 69
68	to age 70
69 & later	one year

For members hired prior to July 1, 2011, the minimum allowance is \$120 per year of creditable service.

2. A deferred allowance commencing when the temporary allowance ceases equal to the greater of (a) the allowance the member would have received based on service to the termination age of the temporary allowance, but not more than 40.0 percent of average compensation, or (b) the member's accrued allowance.

For members hired prior to July 1, 2011, the minimum allowance is \$120 per year of creditable service.

Effective July 1, 2004, a temporary benefit can be paid out of a member's accumulated contribution balance while the member is awaiting a determination for eligibility for disability benefits. Future disability payments, if any, would be offset by advanced payments made from the member's accumulated contributions.

#### ACCIDENTAL DISABILITY RETIREMENT

#### Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled in the line of performance of duty.

# Amount of Allowance

The annual accidental disability retirement allowance is equal to the allowance payable on disability retirement but not less than 50.0 percent of average compensation. There is no minimum benefit.

# ACCIDENTAL DEATH BENEFIT

#### Condition for Benefit

A retirement allowance is paid to a spouse and/or dependent children upon the death of an active member in the line of performance of duty.

#### Amount of Allowance

The annual retirement allowance is equal to 50.0 percent of average compensation payable to the spouse and 25.0 percent of average compensation payable to one dependent child or 50.0 percent to two or more children until age 19 (23 if a full-time student). There is no minimum benefit.

#### ORDINARY DEATH BENEFIT

# Condition for Benefit

Upon the death of a member who has completed at least eight years\* of membership service, a benefit is payable (in lieu of a refund of the member's accumulated contributions) to his or her spouse, if said spouse has been married to the member for not less than one year.

\*Four years for those who entered the System before July 1, 2007.

# Amount of Allowance

The annual retirement allowance payable to the lawful spouse of a vested member who dies is equal to the greater of:

- 1. The allowance that would have been payable had the member retired and elected Option 2, reduced by an actuarially determined factor based on the number of years the member lacked in qualifying for unreduced retirement benefits, or
- 2. A lifetime benefit equal to 20.0 percent of the deceased member's average compensation, but not less than \$50 per month.

In addition, a benefit is payable to dependent children until age 19 (23 if a full-time student). The benefit is equal to the greater of 10.0 percent of average compensation or \$50 per month for each dependent child up to three.

# **RETURN OF CONTRIBUTIONS**

Upon the withdrawal of a member without a retirement benefit, his or her contributions are returned to him or her, together with accumulated regular interest thereon.

Upon the death of a member before retirement, his or her contributions, plus the full accumulated regular interest thereon are paid to his or her designated beneficiary, if any, otherwise, to his or her estate provided no other survivor benefits are payable.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by *The Wall Street Journal* on December 31 of each preceding year with a minimum rate of 1.0 percent and a maximum rate of 5.0 percent.

#### NORMAL FORM OF BENEFIT

The normal form of benefit (modified cash refund) is an allowance payable during the life of the member with the provision that upon his or her death the excess of his or her total contributions at the time of retirement over the total retirement annuity paid to him or her will be paid to his or her designated beneficiary.

# **OPTIONAL BENEFITS**

A member upon retirement may elect to receive his or her allowance in one of the following forms, which are computed to be actuarially equivalent to the applicable retirement allowance.

- Option 1. Reduced allowance with the provision that if the pensioner dies before he or she receives the value of his or her annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.
- Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.
- Option 3. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50.0 percent of his or her reduced retirement allowance to some other designated beneficiary.
- Option 4. Upon his or her death, 75.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4A. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner or his or her beneficiary for a specified number of years certain.
- Option 4C. A member may elect any option with the added provision that he or she shall receive, so far as possible, the same total amount annually (considering both PERS and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit. This option was only available to those who retired prior to July 1, 2004.

A member who elects Option 2, Option 4, or Option 4A at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the retired member divorces the designated beneficiary. A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4, or Option 4A to provide beneficiary protection to a new spouse if married after retirement.

A member hired prior to July 1, 2011, and who has at least 28 years of creditable service\* or a member hired on or after July 1, 2011, who has at least 33 years of creditable service may select the Partial-Lump-Sum Option (PLSO) at retirement. Under this option, the retiree has the option of taking a partial-lump-sum distribution equal to 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting the PLSO may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4C, the Social Security-leveling provision. The benefit is then calculated using the new reduced maximum benefit as a starting point in applying the appropriate option factors for the reduction.

<sup>\*</sup>Or at least age 63 with four years of membership service for those who entered the System before July 1, 2007.

# POST-RETIREMENT ADJUSTMENTS IN ALLOWANCES

The allowances of retired members are adjusted annually by an amount equal to:

- a) 3.0 percent of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 55\*, plus
- b) 3.0 percent compounded for each year thereafter beginning with the fiscal year in which the member turns age 55\*.

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.

# **CONTRIBUTIONS**

Members contribute 9.0 percent of compensation. The Board of Trustees sets employer contribution rates for PERS, as per Mississippi statute. The adequacy of these rates is checked annually by actuarial valuation. Refer to Note 6 of the basic financial statements for additional information.

<sup>\*</sup>Age 60 for members hired on or after July 1, 2011.

Mississippi Highway Safety Patrol Retirement System: Summary of Main System Provisions as Interpreted for Valuation Purposes

# SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The following summary presents the main benefit and contribution provisions of the plan in effect June 30, 2017, as interpreted in preparing the actuarial valuation. As used in the summary, "average compensation" means the average annual covered earnings of an employee during the four highest consecutive years of service. "Covered earnings" means gross salary not in excess of the maximum amount on which contributions were required. "Fiscal year" means a year commencing on July 1 and ending June 30. "Credited service" means service while a contributing member plus additional service as described below. "Unused sick and vacation leave" means service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. "Additional service" means additional service credit may be granted for service prior to July 1, 1958, active-duty military service, and retroactive service.

The maximum covered earnings for employers and members over the years are as follows:

DATE FROM	DATE TO	EMPLOYER RATE	MAXIMUM COVERED EARNINGS*	MEMBER RATE	MAXIMUM COVERED EARNINGS*
7/1/1958	6/30/1968	13.33%	\$-	5.00%	\$-
7/1/1968	6/30/1971	15.33	-	5.00	-
7/1/1971	6/30/1973	18.59	-	5.00	-
7/1/1973	6/30/1975	20.77	-	5.00	-
7/1/1975	6/30/1978	24.65	-	5.00	-
7/1/1978	6/30/1980	26.16	-	6.00	-
7/1/1980	6/30/1989	26.16	-	6.50	-
7/1/1989	6/30/1990	27.97	-	6.50	-
7/1/1990	6/30/2003	26.16	-	6.50	-
7/1/2003	6/30/2006	28.16	-	6.50	-
7/1/2006	6/30/2008	30.30	-	6.50	-
7/1/2008	12/31/2011	30.30	-	7.25	-
1/1/2012	6/30/2012	35.21	-	7.25	-
7/1/2012	6/30/2017	37.00	-	7.25	-

<sup>\*</sup>Maximum covered earnings equal wages paid, not to exceed wages paid to the Commissioner of the Department of Public Safety (currently \$138,116).

Effective July 1, 2017, additional contributions from Senate Bill No. 2659 and House Bill No. 1015 are estimated to be \$3.800,000 combined.

# Benefits

# SUPERANNUATION RETIREMENT

Condition for Retirement

a) A retirement allowance is payable to any member who retires and has attained age 55 and completed at least five years of membership service, or has attained age 45 and completed at least 20 years of creditable service, or has completed 25 years of creditable service regardless of age.

Any member who has attained age 63 shall be retired forthwith. Effective July 1, 2011, the Commissioner of Public Safety is authorized to allow a member who has attained age 63 to continue in active service. Such continued service may be authorized annually until the member attains age 65.

b) Any member who withdraws from service prior to his or her attainment of age 55 but after having completed five or more years of creditable service is entitled to receive, in lieu of a refund of his or her accumulated contributions, a retirement allowance commencing at age 55.

# Amount of Allowance

The annual retirement allowance payable to a retired member is equal to:

- 1. A member's annuity that is the actuarial equivalent of the member's accumulated contributions at the time of his or her retirement; plus
- 2. An employer's annuity that, together with the member's annuity, is equal to 2.5 percent of his or her average compensation for each year of membership service; plus
- 3. A prior service annuity equal to 2.5 percent of average compensation for each year of prior service.

The aggregate amounts of (2) and (3) above shall not exceed 100.0 percent of average compensation, regardless of service, for retirements on or after January 1, 2000; 85.0 percent for retirements prior to January 1, 2000.

The minimum allowance for both service and disability retirement is based on the following table for each year of creditable service, reduced if necessary as indicated below.

YEARS OF SERVICE	MONTHLY BENEFIT
LESS THAN 10	\$250
10-15	300
15 OR MORE	500

The annual retirement allowance payable to a member who retires under condition (a) above prior to age 55 is computed in accordance with the above formula except that the employer's annuity and prior service annuity are reduced 3.0 percent for each year of age below age 55, or 3.0 percent for each year of service below 25 years of creditable service, whichever is less.

# **DISABILITY RETIREMENT**

Non-duty related disability benefits are available to vested members under the age of 55. Vested members age 55 or older are not eligible for disability benefits but may apply for service retirement benefits. For purposed of disability benefits, average annual compensation is calculated using the last two years of salary before retirement.

If a member becomes permanently disabled due to sickness or injury caused or sustained as a direct result of duty, he or she may be eligible for duty-related disability retirement. He or she is covered for this benefit from the first day of employment if he or she has not reached age 55, regardless of his or her years of service. Duty-related disability retirement benefits are calculated at either 50.0 percent of average compensation of the last two years of salary before retirement (this portion is not taxable) or the non-duty-related disability retirement amount, whichever provides the higher benefit.

#### **DEATH PRIOR TO RETIREMENT**

If a member is vested, the spouse and dependent children may be eligible to receive certain statutory benefits. Claims for non-duty-related death benefits are calculated at 2.5 percent of average compensation for each year of service credit, as calculated under Option 9, Maximum Benefit. Under this option, 50.0 percent of the accrued benefit is payable to the spouse until death, with 25.0 percent of the accrued benefit payable to one dependent child and 50.0 percent of the accrued benefit payable for two or more dependent children (under age 19 and never married or under age 23 if a full-time student and never married). Upon application and approval by the Medical Board, benefits to a physically or mentally disabled child may continue as long as the disability exits.

Coverage for duty-related death benefits begins on the first day of employment and is available to the spouse and dependent children regardless of the the member's vesting status. If the member is vested, the spouse and dependent children may be eligible to receive benefits under either non-duty or duty-related death benefit provisions, whichever provided the higher benefit.

Claims for duty-related death benefits are calculated at 50.0 percent of average compensation, payable to the spouse until death, with 25.0 percent of average compensation payable to one dependent child and 50.0 percent of average compensation payable for two or more dependent children (under age 19 and never married or under age 23 if a full-time student and never married). Upon application and approval by the Medical Board, benefits to a physically or mentally disabled child may continue as long as the disability exists.

#### **DEATH AFTER RETIREMENT**

Upon the death of a highway patrol officer who has retired for service or disability and who has not elected any other optional form of benefit, his widow or her widower is eligible for a benefit equal to 50.0 percent of his or her retirement allowance and each child (but not more than two) who has not attained age 19 (23 if a full-time student) is eligible for a benefit equal to 25.0 percent of his or her retirement allowance. The benefit to the widow or widower is payable for life and to children until they attain age 19 (23 if a full-time student) or for life if they are totally and permanently disabled.

# **REFUND OF CONTRIBUTIONS**

Upon a member's termination of employment for any reason before retirement, his or her accumulated contributions, together with regular interest thereon, are refunded. Upon the death of a member who is not eligible for any other death benefit, his or her accumulated contributions, together with regular interest thereon, are paid to his or her beneficiary.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by *The Wall Street Journal* on December 31 of each preceding year with a minimum rate of 1.0 percent and a maximum rate of 5.0 percent.

#### NORMAL FORM OF BENEFIT

The normal form of benefit is an allowance payable during the life of the member. Upon death the benefits described above are payable.

# **OPTIONAL BENEFITS**

A member upon retirement may elect to receive his or her allowance in one of the following forms, which are computed to be actuarially equivalent to the applicable retirement allowance.

- Option 1. Reduced allowance with the provision that, if the pensioner dies before he or she receives the value of his or her annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.
- Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.

- Option 3. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50.0 percent of his or her reduced retirement allowance to some other designated beneficiary.
- Option 4. Upon his or her death, 75.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4A. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner or his or her beneficiary for a specified number of years certain.
- Option 4C. A member may elect any option with the added provision that he or she shall receive, so far as possible, the same total amount annually (considering both MHSPRS and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit. This option was only available to those who retired prior to July 1, 2004.

A member who elects Option 2, Option 4, or Option 4A at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the retired member divorces the designated beneficiary. A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4, or Option 4A to provide beneficiary protection to a new spouse if married after retirement.

A member who qualifies for an unreduced retirement allowance may select the PLSO at retirement. Under this option, the retiree has the option of taking a partial-lump-sum distribution equal to 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting this option may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4C, the Social Security-leveling provision. The benefit is then calculated using the new reduced maximum benefit as a starting point in applying the appropriate option factors for the reduction.

# POST-RETIREMENT ADJUSTMENTS IN ALLOWANCES

The allowances of retired members are adjusted annually by an amount equal to:

- a) 3.0 percent of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 60\*, plus
- b) 3.0 percent compounded for each year thereafter beginning with the fiscal year in which the member turns age 60\*.

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.

Those members who retired on or before July 1, 1999, received an ad hoc benefit increase in the amount of \$3.50 per month for each full fiscal year of retirement through June 30, 1999, plus \$1 per month for each year of credited service. The benefits were increased July 1, 1999.

\*This age will be reduced in five phases to age 55 if the actuary certifies that reducing the age will not result in the amortization period of the unfunded accrued liability exceeding 20 years.

# **CONTRIBUTIONS**

Members contribute 7.25 percent of compensation and the employer contributes 37.0 percent of compensation. Funds from SB2659 and HB1015 are also provided.

# Municipal Retirement Systems: Summary of Main System Provisions as Interpreted for Valuation Purposes

# SUMMARY OF BENEFIT PROVISIONS EVALUATED

The following summary presents the main provisions of the plans in effect June 30, 2017, as interpreted in preparing the actuarial valuation. As used in the summary, "average compensation" means the average compensation of a member during the six-month period prior to receipt of an allowance.

# Benefits

#### SERVICE RETIREMENT

#### Condition for Retirement

A retirement allowance is payable to any member who retires and has completed at least 20 years of creditable service, regardless of age.

Any general employee member who has attained age 70 and any firefighter or police officer who has attained age 65 shall be retired forthwith.

# Amount of Allowance

The annual retirement allowance payable to a retired member is equal to:

- 1. 50.0 percent of average compensation, plus
- 2. 1.7 percent of average compensation for each year of credited service over 20.

The aggregate amount of (1) and (2) above shall not exceed 66.67 percent (87.0 percent for the city of Clinton) of average compensation, regardless of service.

#### **DISABILITY RETIREMENT**

# Condition for Retirement

A retirement allowance is payable to any member who is not eligible for a service retirement benefit but who becomes totally and permanently disabled, either physically or mentally, regardless of creditable service, if the disability is due to causes in the performance of duty. If the disability is not due to causes in the performance of duty, the member must have completed at least five years of creditable service to be eligible for retirement.

# Amount of Allowance

The annual disability retirement allowance payable is equal to 50.0 percent of his or her salary at the time of retirement, if the disability is due to causes in the performance of duty.

If the disability is not due to causes in the performance of duty, the allowance is equal to 2.5 percent times credited service, not in excess of 20, times his or her salary at the time of retirement for firefighters and police officers, and average compensation for general employees.

# **DEATH BENEFIT**

# Condition for Benefits

A benefit is payable upon the death of a member under the following conditions:

- a) The member has retired;
- b) The member is eligible to retire;
- c) The death is in the line of duty; or
- d) The death is not in the line of duty but occurs after the member has five years of credited service.

The benefit is payable to the surviving spouse until remarriage and to children under age 18, to dependent children through age 23 when full-time students, and to dependent children of any age if handicapped. For the cities of Clarksdale, Columbus, Gulfport, Hattiesburg, Jackson, McComb, Meridian, Vicksburg, and Yazoo City, benefits payable to spouses do not cease upon remarriage.

# Amount of Benefits

The annual benefit payable, under all conditions in the case of firefighters and police officers and under other than condition (c) in the case of general employees is equal to 2.5 percent of average compensation for each year of credited service up to 20 and 1.7 percent of average compensation for each year over 20, with a maximum benefit of 66.67 percent (87.0 percent for the city of Clinton) of average compensation.

For general employee members under condition (c), the annual benefit payable is equal to 50.0 percent of salary at the time of death.

# **REFUND OF CONTRIBUTIONS**

Upon a member's termination of employment for any reason before retirement, his or her accumulated contributions are refunded. Upon the death of a member who is not eligible for any other death benefit, his or her accumulated contributions are paid to his or her beneficiary.

# MINIMUM ALLOWANCES

The minimum monthly allowances paid to members from the following municipalities, for all retirement and death benefits, are:

BILOXI	\$600
COLUMBUS	500
GULFPORT	500
HATTIESBURG	750
JACKSON	500
MERIDIAN	600
TUPELO	750
VICKSBURG	1,515

# POST-RETIREMENT ADJUSTMENTS IN ALLOWANCES

The allowances of certain retired members are adjusted annually by a Cost-of-Living Adjustment (COLA) on the basis of the annual percentage change in each fiscal year of the Consumer Price Index.

Those cities adjustments are limited as follows:

Biloxi:	3.0 percent per year (not to exceed 64.4 percent) for each full fiscal year
	of retirement after June 30, 2000, for all retirees and beneficiaries with
	the COLA being compounded beginning with the state fiscal year in which
	the retired member turns age 55. This is in addition to the previously granted
	maximum of 3.0 percent per year (not to exceed 9.0 percent) for all
	members who retired on or before December 31, 1995.

Clarksdale: M	າໃaximum of 2.5 percent p	oer year for all retirees	and beneficiaries.
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Clinton:	Maximum of 2.5 percent per year (not to exceed 10.0 percent) for service
	retirements only.

Columbus:	Maximum of 2.5 percent per year (not to exceed 25.0 percent) for all retirees
	and beneficiaries.

Greenville:	Maximum of 2.5 percent per year (not to exceed 25.0 percent) for all retirees
	and beneficiaries.

Gulfport: Maximum of 3.0 percent per year (not to exceed 27.0 percent) for each

fiscal year of retirement after June 30, 2002, for all retirees and beneficiaries. This is in addition to the previously granted COLA of 2.0 percent per year (not to exceed 6.0 percent) for those retiring before July 1, 2001.

Hattiesburg: 2.5 percent per year for all retirees and beneficiaries (not to exceed 30.0 percent).

Jackson: Maximum aggregate increase of 19.5 percent for service and disability

retirements only.

Laurel: 2.0 percent per year, compounded annually (maximum of three years)

for each fiscal year of retirement after June 30, 2002, for all retirees and beneficiaries. COLA increases begin at the later of age 60 or after

one full fiscal year of retirement.

McComb: Maximum of 2.5 percent per year for all retirees and beneficiaries

(not to exceed 10.0 percent).

Pascagoula: Maximum of 2.5 percent per year for all retirees and beneficiaries

(not to exceed 15.0 percent).

Vicksburg: 3.0 percent per year for all retirees and beneficiaries.

Yazoo City: Maximum of 2.5 percent per year (not to exceed 25.0 percent)

for all retirees and beneficiaries.

Post-retirement adjustments are included in System liabilities for future increases for the cities of Biloxi, Clinton, Columbus, Greenville, Gulfport, Hattiesburg, Jackson, Laurel, McComb, Pascagoula, Tupelo, Vicksburg, and Yazoo City.

All Meridian retirees and beneficiaries who were receiving a retirement allowance as of June 30, 1999, were granted a 3.9 percent ad-hoc benefit increase.

All Tupelo retirees and beneficiaries received an increase of 5.0 percent in allowances effective December 1, 1991. Additional 3.0 percent ad hoc benefit increases were granted to members retired at least one full fiscal year as of September 30, 1995, as of September 30, 1997, as of September 30, 1998, and as of September 30, 2000. Furthermore, a 2.0 percent ad hoc benefit increase was granted to members retired at least one full fiscal year as of September 30, 1999, and a 2.34 percent ad hoc benefit increase was granted to members retired at least one full fiscal year as of September 30, 2001. Furthermore, a 2.0 percent ad hoc benefit increase was granted to members retired at least one full fiscal year as of September 30, 2010. Furthermore, a 2.0 percent ad hoc benefit increase was granted to members retired at least one full fiscal year as of September 30, 2014. Furthermore, a 3.0 percent ad hoc benefit increase was granted to members retired at least one full fiscal year as of September 30, 2015. Furthermore, a 3 percent ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2016.

All Gulfport retirees and beneficiaries who were receiving a retirement allowance as of June 30, 2002, were granted a monthly ad-hoc benefit increase of \$2 per month for each year of service plus \$2 per month for each full fiscal year retired.

# **CONTRIBUTIONS**

Funding policies established by Mississippi statutes provide the rates of employer contributions for MRS. The adequacy of these rates are checked annually by actuarial valuation. The following table provides a comparison of employer required contributions to actual contributions received for MRS (dollars in thousands):

FISCAL YEAR 10/1 - 9/30	VALUATION DATE 9/30	ANNUAL REQUIRED CONTRIBUTION (A)	ACTUAL CONTRIBUTION (B)	DIFFERENCE (A-B)	PERCENTAGE CONTRIBUTED
1996-97	1996	\$20,674	\$71,350	\$50,676	345.10%
1997-98	1997	14,727	14,200	(527)	96.40
1998-99	1998	13,803	13,770	(33)	99.80
1999-00	1999	12,364	14,162	1,798	114.50
2000-01	2000	11,276	14,201	2,925	125.90
2001-02	2001	10,823	14,338	3,515	132.50
2002-03	2002	11,989	13,979	1,990	116.60
2003-04	2003	13,286	13,890	604	104.50
2004-05	2004	14,091	14,173	82	100.60
2005-06	2005	15,397	15,635	238	101.50
2006-07	2006	15,426	14,976	(450)	97.10
2007-08	2007	15,219	16,132	913	106.00
2008-09	2008	14,765	16,892	2,127	114.40
2009-10	2009	17,739	21,426	3,687	120.80
2010-11	2010	18,576	22,791	4,215	122.70
2011-12	2011	18,751	23,823	5,072	127.00
2012-13	2012*	19,512	20,017	505	102.60
2013-14	2013*	19,344	20,395	1,051	105.40
2014-15	2014*	18,338	19,346	1,008	105.50
2015-16	2015*	18,034	18,542	508	102.80
2016-17	2016*	17,694	-	-	N/A
2017-18	2017*	17,393	-	-	N/A

<sup>\*</sup>Municipal Retirement Systems' plan year changed from September 30 to June 30 beginning in fiscal year 2013.

Supplemental Legislative Retirement Plan: Summary of Main System Provisions as Interpreted for Valuation Purposes

# SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The following summary presents the main benefit and contribution provisions of the plan in effect June 30, 2017, as interpreted in preparing the actuarial valuation. As used in the summary, "average compensation" means the average annual covered earnings of an employee during the four highest years of service.

To determine the member's four highest years, PERS considers these scenarios:

- » Four highest fiscal years of earned compensation;
- » Four highest calendar years of earned compensation;
- » Combination of four highest fiscal and calendar years of earned compensation that do not overlap; or
- » Final 48 months of earned compensation prior to termination of employment.

"Covered earnings" means gross salary not in excess of the maximum amount on which contributions were required. "Fiscal year" means a year commencing July 1 and ending June 30. "Eligibility service" means service while a contributing member of PERS plus additional service as described below. (Old: "Eligibility service" is all service in PERS, including that credited for SLRP service.) "Credited Service" means service while a contributing member of SLRP plus additional service as described below. (Old: "Creditable service" includes only SLRP service.) "Unused sick and vacation leave" means service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. A payment of up to 240 hours of leave may be used in the average compensation definition. "Additional service" means additional service credit may be granted for service prior to July 1, 1989, including active-duty military service. "Attribution" means a period for the normal cost is based on entry into PERS even for members who first participated in SLRP at a later age than PERS.

The maximum covered earnings for employers and employees over the years are as follows:

DATE FROM	DATE TO	EMPLOYER RATE	MAXIMUM COVERED EARNINGS	MEMBER RATE	MAXIMUM COVERED EARNINGS
7/1/1989	6/30/1992	6.33%	\$75,600	3.00%	\$75,600
7/1/1992	6/30/2002	6.33	125,000	3.00	125,000
7/1/2002	6/30/2006	6.33	150,000	3.00	150,000
7/1/2006	6/30/2008	6.65	150,000	3.00	150,000
7/1/2008	6/30/2009	6.65	230,000	3.00	230,000
7/1/2009	12/31/2011	6.65	245,000	3.00	245,000
1/1/2012	6/30/2012	7.40	245,000	3.00	245,000
7/1/2012	6/30/2013	7.40	250,000	3.00	250,000
7/1/2013	6/30/2014	7.40	255,000	3.00	255,000
7/1/2014	6/30/2015	7.40	260,000	3.00	260,000
7/1/2015	6/30/2017	7.40	265,000	3.00	265,000
7/1/2017	6/30/2018	7.40	270,000	3.00	270,000

# Benefits SUPERANNUATION RETIREMENT

Condition for Retirement

- a) A retirement allowance is paid upon the request of any member who retires and has
  attained age 60 and completed at least eight years\* of membership service under PERS.
  A retirement allowance may also be paid upon the completion of at least 25 years
  of creditable service under PERS for members hired prior to July 1, 2011, or upon the
  completion of 30 years of creditable service for members hired on or after July 1, 2011.
- b) Any member who withdraws from service prior to his or her attainment of age 60 and who has completed at least eight years\* of membership service under PERS is entitled to receive (in lieu of a refund of his or her accumulated contributions) a retirement allowance commencing at age 60.

# Amount of Allowance

The annual retirement allowance payable to a member who retires under condition (a) above is equal to:

- 1. A member's annuity that is the actuarial equivalent of his or her accumulated contributions at the time of his or her retirement, plus
- 2. An employer's annuity that, together with the member's annuity, is equal to 1.0 percent of his or her average compensation for each of the first 25 years of creditable service plus 1.25 percent for each year of creditable service over 25 years.

The minimum allowance is \$60 per year of creditable service.

#### **DISABILITY RETIREMENT**

# Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled, as determined by the Board of Trustees and has accumulated eight or more years\* of membership service under PERS.

# Amount of Allowance

For those who were active members prior to July 1, 1992, and did not elect the benefit structure outlined below, the annual disability retirement allowance payable is equal to a superannuation retirement allowance if the member has attained age 60, otherwise it is equal to a superannuation retirement allowance calculated as follows:

- 1. A member's annuity equal to the actuarial equivalent of his or her accumulated contributions at the time of retirement, plus
- 2. An employer's annuity equal to the amount that would have been payable had the member continued in service to age 60.

<sup>\*</sup>Four years for those who entered PERS before July 1, 2007.

<sup>\*</sup>Four years for those who entered PERS before July 1, 2007.

For those who become active members after June 30, 1992, and for those who were active members prior to July 1, 1992, who so elected, the following benefits are payable:

 A temporary allowance equal to the greater of (a) 20.0 percent of average compensation plus 5.0 percent for each dependent child up to a maximum of two, or (b) the member's accrued allowance. This temporary allowance is paid for a period of time based on the member's age at disability, as follows:

AGE AT DISABILITY	DURATION	
60 & earlier	to age 65	
61	to age 66	
62	to age 66	
63	to age 67	
64	to age 67	
65	to age 68	
66	to age 68	
67	to age 69	
68	to age 70	
69 & later	one year	

The minimum allowance is \$60 per year of service credit.

A deferred allowance commencing when the temporary allowance ceases equal
to the greater of (a) the allowance the member would have received based on service
to the termination age of the temporary allowance, but not more than 20.0 percent
of average compensation, or (b) the member's accrued allowance.

The minimum allowance is \$60 per year of service credit.

Effective July 1, 2004, a temporary benefit can be paid out of a member's accumulated contribution balance while the member is awaiting a determination for eligibility for disability benefits. Future disability payments, if any, would be offset by advanced payments made from the member's accumulated contributions.

# ACCIDENTAL DISABILITY RETIREMENT

Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled in the performance of duty.

# Amount of Allowance

The annual accidental disability retirement allowance is equal to the allowance payable on disability retirement but not less than 25.0 percent of average compensation. There is no minimum benefit.

# ACCIDENTAL DEATH BENEFIT

Condition for Benefit

A retirement allowance is paid to a spouse and/or dependent children upon the death of an active member in the performance of duty.

# Amount of Allowance

The annual retirement allowance is equal to 25.0 percent of average compensation payable to the spouse and 12.5 percent of average compensation payable to one dependent child or 25.0 percent to two or more children until age 19 (23 if a full-time student). There is no minimum benefit.

# ORDINARY DEATH BENEFIT

#### Condition for Benefit

Upon the death of a member who has completed at least eight years\* of membership service, a benefit is payable (in lieu of a refund of the member's accumulated contributions) to his or her spouse, if said spouse has been married to the member for not less than one year.

\*Four years for those who entered the System before July 1, 2007.

#### Amount of Allowance

The annual retirement allowance payable to the lawful spouse of a vested member who dies is equal to the greater of:

- The allowance that would have been payable had the member retired and elected Option 2, reduced by an actuarially determined factor based on the number of years the member lacked in qualifying for unreduced benefits, or
- 2. A lifetime benefit equal to 20.0 percent of the deceased member's average compensation, but not less than \$25 per month.

In addition, a benefit is payable to dependent children until age 19 (23 if a full-time student). The benefit is equal to the greater of 5.0 percent of average compensation or \$25 per month for each dependent child up to three.

# **RETURN OF CONTRIBUTIONS**

Upon the withdrawal of a member without a retirement benefit, his or her contributions are returned to him or her, together with accumulated regular interest thereon.

Upon the death of a member before retirement, his or her contributions, together with the full accumulated regular interest thereon, are paid to his or her designated beneficiary, if any, otherwise, to his or her estate provided no other survivor benefits are payable.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by *The Wall Street Journal* on December 31 of each preceding year with a minimum rate of 1.0 percent and a maximum rate of 5.0 percent.

# NORMAL FORM OF BENEFIT

The normal form of benefit is an allowance payable during the life of the member with the provision that, upon his or her death, the excess of his or her total contributions at the time of retirement over the total retirement annuity paid to him or her will be paid to his or her designated beneficiary.

# **OPTIONAL BENEFIT**

A member upon retirement may elect to receive his or her allowance in one of the following forms, which are computed to be actuarially equivalent to the applicable retirement allowance.

- Option 1. Reduced allowance with the provision that if the pensioner dies before he or she receives the value of the member's annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.
- Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.
- Option 3. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50.0 percent of his or her reduced retirement allowance to some other designated beneficiary.
- Option 4. Upon his or her death, 75.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

- Option 4A. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner, or his or her beneficiary for a specified number of years certain.
- Option 4C. A member may elect any option with the added provision that the member shall receive, so far as possible, the same total amount annually (considering both SLRP and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit.

  This option was only available to those who retired prior to July 1, 2004.

A member who elects Option 2, Option 4, or Option 4A at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the member divorces the designated beneficiary.

A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4, or Option 4A to provide beneficiary protection to a new spouse if married at retirement.

A member who has at least 28 years of creditable service\* under PERS may select a PLSO at retirement. Under this option, the retiree has the option of taking a partial-lump-sum distribution equal to 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting the PLSO may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4C, the Social Security-leveling provision. The benefit is then calculated using the new reduced maximum benefit as a starting point in applying the appropriate option factors for the reduction.

\*Or at least age 63 with four years of membership service for those who entered PERS before July 1, 2007.

# POST-RETIREMENT ADJUSTMENTS IN ALLOWANCES

The allowances of retired members are adjusted annually by an amount equal to:

- a) 3.0 percent of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 55, plus
- b) 3.0 percent compounded for each year thereafter beginning with the fiscal year in which the member turns age 55.

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.

# **CONTRIBUTIONS**

Members currently contribute 3.0 percent of covered earnings. The employer contributes 7.40 percent of covered earnings.

# Changes in Plan Provisions

The Mississippi Legislature ended its 2017 legislative session with various changes to the Mississippi Code of 1972 plan provisions of the Public Employees' Retirement System of Mississippi. Legislation is effective July 1, 2017, except as otherwise provided.

House Bill 899 (Regular Session 2016) Approved by Governor Bryant April 11, 2016

- » PERS, MHSPRS, and SLRP
  - » Creditable Service Amends Miss. Code Ann. § 25-11-109(2) effective July 1, 2017, to prospectively change the method of granting service credit from quarterly to monthly increments and to provide that, for members who retire on or after July 1, 2017, creditable service for unused leave will be awarded in monthly rather than quarterly increments, with every 21 days of unused leave counting as one month of service.

House Bill 1301 (Regular Session 2017)
Approved by Governor Bryant March 13, 2017

- » PERS and SLRP
  - » Repayments of Refunds Amends Miss. Code Ann. §§ 25-11-117(3) and 25-11-311(3) to clarify that, for those who enter or reenter state service on or after July 1, 2007, eight years of membership service is required before creditable service related to repaid refunded years can be used in any benefit calculation.
- » PERS, SLRP, and MHSPRS
  - » Beneficiaries for Option 4B Payments Amends Miss. Code Ann. §§ 25-11-115(1) Option 4B and 25-13-16(1) Option 4B to clarify to whom the actuarial equivalent of any remaining payments shall be paid in the event of the death of the retired member and of the last designated beneficiary.
  - » Purchase of Service Credit Amends Miss. Code. Ann §§ 25-11-105(k), 25-11-109(10)(c), 25-11-117(3), 25-11-311(3), and 25-13-21 to simplify purchase of service statutory language by removing language that specifies the increments in which the payment for such service credit must be made so that the PERS Board may set those increments via regulation.

House Bill 1756 (Regular Session 2017) Effective April 5, 2017

- » Municipal Retirement System
  - » Minimum Monthly Benefits Authorizes the City of Vicksburg to increase the amount of the minimum monthly benefit authorized for persons receiving benefits under the Disability and Relief Fund for Firemen and Policemen of the City of Vicksburg.

# **VALUATION ASSETS & FUNDING PROGRESS**

Funding of the actuarial accrued liability is intended to help users assess each plan's funding status on a going-concern basis and assess progress being made in accumulating sufficient assets to pay benefits when due. Actuarial values of assets for PERS, MHSPRS, MRS, and SLRP are based on a smoothed fair-value basis that recognizes 20.0 percent of the unrecognized and unanticipated gains and losses. The actuarial valuation of assets recognizes assumed investment income fully each year. Differences between actual and assumed investment income are recognized in equal increments over a five-year period beginning with the current year.

The following table presents the actuarial change in asset valuation for the year ended June 30, 2017 (in thousands):

	PERS	MHSPRS	MRS	SLRP	TOTAL
VALUATION ASSETS JUNE 2016	\$25,185,078	\$324,894	\$159,160	\$16,447	\$25,685,579
CONTRIBUTIONS & OTHER REVENUE	1,589,150	16,956	17,763	734	1,624,603
BENEFIT PAYMENTS	(2,591,621)	(31,145)	(34,071)	(1,414)	(2,658,251)
ADMINISTRATIVE EXPENSES	(17,056)	(203)	(355)	(10)	(17,624)
INVESTMENT EXPENSES*	(94,072)	(1,218)	-	(62)	(95,352)
NET NEW MONEY	(1,113,599)	(15,610)	(16,663)	(752)	(1,146,624)
EXPECTED TOTAL INVESTMENT RETURN FOR 2017 (7.75%)	1,925,029	24,810	11,338	1,257	1,962,434
ADJUSTMENT TOWARD MARKET (20%)	367,938	5,020	3,839	256	377,053
VALUATION ASSETS JUNE 2017	\$26,364,446	\$339,114	\$157,674	\$17,208	\$26,878,442

<sup>\*</sup>This amount is based on a proportionate share of the total investment expense of the commingled assets. The ratio of this number to the total investment expense is equal to the ratio of a fiscal year average market value of assets for this fund to a fiscal year average market value of the total commingled assets.

Under the funding policy for PERS, MHSPRS, and SLRP, contribution rates will no longer be determined based on a rolling 30-year amortization period. Rather, the focus is on a reduction in volatility of the contribution rates. Changes in assumptions and actuarial experience had the following effect on the computed unfunded accrued liability amortization periods. The plans that comprise MRS are closed and have a funding policy that provides for property tax to be sufficiently levied within limits established by Mississippi statutes to provide for a declining amortization period for each municipality.

The following table presents the actual remaining amortization periods as of June 30, 2017.

PERS	MHSPRS	SLRP
36.6 years	42.9 years	22.6 years
(1.0)	(1.0)	(1.0)
(0.4)	(0.9)	(2.7)
2.5	(1.8)	2.7
-	-	-
-	(1.2)	-
0.7	(0.4)	-
38.4 years	37.6 years	21.6 years
	36.6 years (1.0) (0.4) 2.5 - 0.7	36.6 years 42.9 years  (1.0) (1.0) (0.4) (0.9) 2.5 (1.8) (1.2) 0.7 (0.4)

For PERS, the primary reason for the increase in the amortization period is the investment gain on an actuarial value basis (9.41 percent vs. 7.75 percent). There were also gains on retirement and mortality experience, as well as salary increases less than expected. These gains were partially offset by the assumption changes made to the System. For MHSPRS, the fundamental reason for the decrease in the amortization period was due to investment earnings being higher than assumed (9.41 percent vs. 7.75 percent) and the assumption and method changes from the most recent experience study. There was also a large gain in liabilities due to salary increases less than expected. For SLRP, the primary reason for the decrease in the amortization period was the assumption change to lower the wage inflation from 3.75 percent to 3.25 percent. When using the level percent of payroll amortization method, if payroll is assumed to grow at a slower rate, it will take a longer period to pay off the unfunded accrued liability. There were losses in liabilities due to withdrawal experience. However, those losses were offset by investment earnings on an actuarial value of assets basis that was better than expected (9.31 percent vs. 7.75 percent) and salary increases that were less than expected.

The funded status of each of the plans is shown in the Schedules of Funding Progress on pages 140 and 141. This table shows funding ratios for the last 10 fiscal years. The table also shows the amount by which actuarial assets exceeded or fell short of actuarial benefit liabilities. An actuarial valuation of the plan's assets and benefit obligations is performed annually.

At the date of the most recent actuarial valuation, June 30, 2017, the funded status of PERS increased to 61.1 percent from 60.0 percent at June 30, 2016. The amount by which PERS' actuarial assets were less than actuarial benefit liabilities was \$16.8 billion at June 30, 2017, a decrease in unfunded actuarial accrued liabilities of \$10 million from June 30, 2016.

At the date of the most recent actuarial valuation, June 30, 2017, the funded status of the MHSPRS increased to 68.1 percent from 65.8 percent at June 30, 2016. The amount by which the MHSPRS' actuarial assets were less than actuarial benefit liabilities was \$158.9 million, compared with \$169.2 million at June 30, 2016.

As of the June 30, 2017, actuarial valuation of MRS, the funded status increased to 49.0 percent from 48.1 percent at June 30, 2016. The amount by which the MRS actuarial assets were less than actuarial benefit liabilities was \$164.1 million at June 30, 2017, compared with \$171.5 million at June 30, 2016.

At the date of the most recent actuarial valuation, June 30, 2017, the funded status of SLRP increased to 78.8 percent from 77.4 percent at June 30, 2016. The amount by which the SLRP actuarial assets were less than actuarial benefit liabilities was \$4.6 million, compared with \$4.8 million at June 30, 2016.

## SCHEDULES OF FUNDING PROGRESS

- LAST 10 FISCAL YEARS -

ACTUARIAL VALUATION DATE Public Employees' Retirement System of Mississippi	ACTUARIAL VALUE OF ASSETS (A)	ACTUARIAL ACCRUED LIABILITY (AAL) ENTRY AGE (B)	UNFUNDED AAL (UAAL) (B-A)	PERCENT FUNDED (A/B)	ANNUAL COVERED PAYROLL (C)	UAAL AS A PERCENTAGE OF COVERED PAYROLL ((B-A)/C)
6/30/08	\$20,814,720	\$28,534,694	\$7,719,974	72.90%	\$5,544,705	139.20%
6/30/09	20,597,581	30,594,546	9,996,965	67.30	5,831,864	171.40
6/30/10	20,143,426	31,399,988	11,256,562	64.20	5,763,556	195.30
6/30/11	20,315,165	32,654,465	12,339,300	62.20	5,684,624	217.10
6/30/12	19,992,797	34,492,873	14,500,076	58.00	5,857,789	247.50
6/30/13	20,490,555	35,542,848	15,052,293	57.70	5,823,578	258.50
6/30/14	22,569,940	37,015,288	14,445,348	61.00	5,834,687	247.60
6/30/15	24,387,161	40,364,584	15,977,423	60.40	5,904,827	270.60
6/30/16	25,185,078	41,997,513	16,812,435	60.00	6,022,533	279.20
6/30/17	26,364,446	43,166,491	16,802,045	61.10	6,038,229	278.30
Mississippi Highway Safety Patrol Retirement System						
6/30/08	\$298,630	\$381,578	\$82,948	78.30%	\$29,597	280.30%
6/30/09	292,322	394,630	102,308	74.10	26,390	387.70
6/30/10	281,088	411,277	130,189	68.30	26,353	494.00
6/30/11	278,265	414,432	136,167	67.10	24,872	547.50
6/30/12	268,424	421,415	152,991	63.70	25,670	596.00
6/30/13	271,097	431,575	160,478	62.80	25,816	621.60
6/30/14	295,298	445,822	150,524	66.20	25,554	589.00
6/30/15	316,149	477,803	161,654	66.20	25,505	633.80
6/30/16	324,894	494,101	169,207	65.80	27,380	618.00
6/30/17	339,114	497,992	158,878	68.10	28,845	550.80

## SCHEDULES OF FUNDING PROGRESS (CONTINUED)

- LAST 10 FISCAL YEARS -

ACTUARIAL VALUATION DATE Municipal Retirement Systems	ACTUARIAL VALUE OF ASSETS (A)	ACTUARIAL ACCRUED LIABILITY (AAL) ENTRY AGE (B)	UNFUNDED AAL (UAAL) (B-A)	PERCENT FUNDED (A/B)	ANNUAL COVERED PAYROLL (C)	UAAL AS A PERCENTAGE OF COVERED PAYROLL ((B-A)/C)
9/30/08	\$208,479	\$368,131	\$159,652	56.60%	\$1,713	9,320.00%
9/30/09	191,179	381,036	189,857	50.20	1,608	11,807.00
9/30/10	175,988	372,897	196,909	47.20	1,425	13,818.20
9/30/11	167,604	363,604	196,000	46.10	1,357	14,443.60
9/30/12	155,484	356,571	201,087	43.60	1,131	17,779.60
6/30/13	153,241	349,588	196,347	43.80	794	24,728.80
6/30/14*	157,970	340,385	182,415	46.40	727	25,091.50
6/30/15	162,616	341,525	178,909	47.60	579	30,899.70
6/30/16	159,160	330,663	171,503	48.10	419	40,931.50
6/30/17	157,674	321,747	164,073	49.00	321	51,113.10
Supplemental Legislative Retirement Plan						
6/30/08	\$13,412	\$15,615	\$2,203	85.90%	\$6,753	32.60%
6/30/09	13,386	16,535	3,149	81.00	6,803	46.30
6/30/10	13,241	17,081	3,840	77.50	6,605	58.10
6/30/11	13,606	18,605	4,999	73.10	6,810	73.40
6/30/12	13,268	19,537	6,269	67.90	6,872	91.20
6/30/13	13,554	19,978	6,424	67.80	6,695	95.90
6/30/14	14,899	20,240	5,341	73.60	6,918	77.20
6/30/15	16,098	21,213	5,115	75.90	6,861	74.60
6/30/16	16,447	21,259	4,812	77.40	6,862	70.10
6/30/17	17,208	21,849	4,641	78.80	6,928	67.00

<sup>\*</sup>Municipal Retirement Systems' plan year changed from September 30 to June 30, beginning in fiscal year 2013.

## SOLVENCY TESTS

[in thousands]

6/30/17

	ACTUAI	RIAL ACCRUED LIABILITI	_		
VALUATION DATE Public Employees' Retirement System of Mississippi	(1) ACCUMULATED EMPLOYEE CONTRIBUTIONS INCLUDING ALLOCATED INVESTMENT EARNINGS	(2) RETIREES AND BENEFICIARIES CURRENTLY RECEIVING BENEFITS	(3) ACTIVE AND INACTIVE MEMBERS EMPLOYER-FINANCED PORTION	NET POSITION AVAILABLE FOR BENEFITS	
6/30/08	\$3,991,804	\$14,306,528	\$10,236,362	\$20,814,720	
6/30/09	4,235,466	15,665,712	10,693,368	20,597,581	
6/30/10	4,266,621	16,763,455	10,369,912	20,143,426	
6/30/11	4,356,556	18,001,718	10,296,191	20,315,165	
6/30/12	4,463,252	19,547,367	10,482,254	19,992,797	
6/30/13	5,053,888	20,789,551	9,699,409	20,490,555	
6/30/14	5,277,944	22,033,588	9,703,756	22,569,940	
6/30/15	5,379,226	24,012,624	10,972,734	24,387,161	
6/30/16	5,468,859	25,390,774	11,137,880	25,185,078	
6/30/17 Mississippi Highway Safety	5,534,403	26,686,958	10,945,130	26,364,446	
Patrol Retirement System			*		
6/30/08	\$21,371	\$242,265	\$117,942	\$298,630	
6/30/09	20,136	273,774	100,720	292,322	
6/30/10	20,658	284,106	106,513	281,088	
6/30/11	20,621	292,234	101,577	278,265	
6/30/12	20,760	300,753	99,902	268,424	
6/30/13	23,706	306,273	101,596	271,097	
6/30/14	24,411	317,825	103,586	295,298	
6/30/15	24,827	338,459	114,517	316,149	
6/30/16	25,791	343,635	124,675	324,894	

26,922 349,850

121,219

339,114

### SOLVENCY TESTS (CONTINUED)

# PORTIONS OF ACCRUED LIABILITIES COVERED BY ASSETS

VALUATION DATE Public Employees' Retirement	(1)	(2)	(3)
Systém of Mississippi 6/30/08	100.00%	100.00%	24.60%
6/30/09	100.00	100.00	6.50
6/30/10	100.00	94.70	_
6/30/11	100.00	88.70	-
6/30/12	100.00	79.40	_
6/30/13	100.00	74.30	-
6/30/14	100.00	78.50	_
6/30/15	100.00	79.20	-
6/30/16	100.00	77.70	_
6/30/17	100.00	78.10	-
Mississippi Highway Safety Patrol Retirement System			
6/30/08	100.00%	100.00%	29.70%
6/30/09	100.00	99.40	-
6/30/10	100.00	91.70	-
6/30/11	100.00	88.20	-
6/30/12	100.00	82.30	-
6/30/13	100.00	80.80	-
6/30/14	100.00	85.20	-
6/30/15	100.00	86.10	-
6/30/16	100.00	87.00	-
6/30/17	100.00	89.20	-

### SOLVENCY TESTS (CONTINUED)

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	ACTUAL	_			
VALUATION DATE  Municipal Retirement Systems	(1) ACCUMULATED EMPLOYEE CONTRIBUTIONS INCLUDING ALLOCATED INVESTMENT EARNINGS	(2) RETIREES AND BENEFICIARIES CURRENTLY RECEIVING BENEFITS	(3) ACTIVE AND INACTIVE MEMBERS EMPLOYER-FINANCED PORTION	NET POSITION AVAILABLE FOR BENEFITS	
9/30/08	\$2,688	\$356,413	\$9,030	\$208,479	
9/30/09	2,522	369,470	9,044	191,179	
9/30/10	2,295	362,444	8,158	175,988	
9/30/11	2,256	353,609	7,739	167,604	
9/30/12	1,957	348,121	6,493	155,484	
6/30/13	1,483	343,770	4,335	153,241	
6/30/14*	1,342	334,937	4,106	157,970	
6/30/15	1,101	337,039	3,385	162,616	
6/30/16	867	327,525	2,271	159,160	
6/30/17 Supplemental Legislative	667	319,346	1,734	157,674	
Retirement Plan					
6/30/08	\$2,102	\$8,295	\$5,218	\$13,412	
6/30/09	2,327	8,756	5,452	13,386	
6/30/10	2,509	8,777	5,795	13,241	
6/30/11	2,642	8,734	7,229	13,606	
6/30/12	2,105	11,428	6,004	13,268	
6/30/13	2,416	11,909	5,652	13,554	
6/30/14	2,638	11,920	5,682	14,899	
6/30/15	2,862	12,329	6,023	16,098	
6/30/16	2,485	13,758	5,016	16,447	
6/30/17	2,636	13,799	5,414	17,208	

<sup>\*</sup>Municipal Retirement Systems' plan year changed from September 30 to June 30, beginning in fiscal year 2013.

### SOLVENCY TESTS (CONTINUED)

# PORTIONS OF ACCRUED LIABILITIES COVERED BY ASSETS

VALUATION DATE	(1)	(2)	(3)
Municipal Retirement Systems			
9/30/08	100.00%	57.70%	-%
9/30/09	100.00	51.10	-
9/30/10	100.00	47.90	-
9/30/11	100.00	46.80	-
9/30/12	100.00	44.10	-
6/30/13	100.00	44.10	-
6/30/14*	100.00	46.80	-
6/30/15	100.00	47.90	-
6/30/16	100.00	48.30	-
6/30/17	100.00	49.20	-
Supplemental Legislative Retirement Plan			
6/30/08	100.00%	100.00%	57.80%
6/30/09	100.00	100.00	42.20
6/30/10	100.00	100.00	33.70
6/30/11	100.00	100.00	30.80
6/30/12	100.00	97.70	-
6/30/13	100.00	93.50	-
6/30/14	100.00	100.00	6.00
6/30/15	100.00	100.00	15.10
6/30/16	100.00	100.00	4.10
6/30/17	100.00	100.00	14.30

<sup>\*</sup>Municipal Retirement Systems' plan year changed from September 30 to June 30, beginning in fiscal year 2013.

### ANALYSIS OF FINANCIAL EXPERIENCE GAINS AND LOSSES IN ACCRUED LIABILITIES RESULTING FROM DIFFERENCES BETWEEN ASSUMED EXPERIENCE AND ACTUAL EXPERIENCE -FOR THE YEAR ENDED JUNE 30, 2017 -

GAIN (LOSS) FO	OR YEAR
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		G/ (III ( LO33 ) 1	OTC TE/TIC		
TYPE OF ACTIVITY	PERS	MHSPRS	MRS	SLRP	
AGE & SERVICE RETIREMENTS: IF MEMBERS RETIRE AT OLDER AGES, THERE IS A GAIN. IF YOUNGER AGES, A LOSS.	\$47,800.00	\$751.20	\$401.20	\$86.20	
<b>DISABILITY RETIREMENTS:</b> IF DISABILITY CLAIMS ARE LESS THAN ASSUMED, THERE IS A GAIN. IF MORE CLAIMS, A LOSS.	-	157.10	-	9.80	
<b>DEATH-IN-SERVICE BENEFITS:</b> IF SURVIVOR CLAIMS ARE LESS THAN ASSUMED, THERE IS A GAIN. IF MORE CLAIMS, A LOSS.	(1,300.00)	(0.60)	0.30	5.80	
WITHDRAWAL FROM EMPLOYMENT: IF MORE LIABILITIES ARE RELEASED BY WITHDRAWALS THAN ASSUMED, THERE IS A GAIN. IF SMALLER RELEASES, A LOSS.	(137,300.00)	286.30	-	-	
PAY INCREASES: IF THERE ARE SMALLER PAY INCREASES THAN ASSUMED, THERE IS A GAIN. IF GREATER INCREASES, A LOSS.	239,100.00	6,848.60	5.30	126.30	
<b>NEW MEMBERS:</b> ADDITIONAL UNFUNDED ACCRUED LIABILITY WILL PRODUCE A LOSS.	(91,400.00)	(1,851.10)	-	(90.50)	
INVESTMENT INCOME: IF THERE IS GREATER INVESTMENT INCOME THAN ASSUMED, THERE IS A GAIN. IF LESS INCOME, A LOSS.	286,600.00	3,990.40	3,476.10	203.00	
<b>DEATH AFTER RETIREMENT:</b> IF RETIRANTS LIVE LONGER THAN ASSUMED, THERE IS A LOSS. IF NOT AS LONG, A GAIN.	97,000.00	1,758.90	871.20	89.00	
OTHER: MISCELLANEOUS GAINS AND LOSSES, DATA ADJUSTMENTS, TIMING OF FINANCIAL TRANSACTIONS, ETC.	800.00	(2,379.90)	(304.50)	(33.40)	
GAIN (OR LOSS) DURING YEAR FROM FINANCIAL EXPERIENCE	441,300.00	9,560.90	4,449.60	396.20	
NON-RECURRING ITEMS: ADJUSTMENTS FOR PLAN AMENDMENTS, ASSUMPTION CHANGES, OR METHOD CHANGES AND CHANGES IN VALUATION SOFTWARE.	(24,100.00)	3,597.70	(1,776.50)	(182.20)	
COMPOSITE GAIN (OR LOSS) DURING YEAR	\$417,200.00	\$13,158.60	\$2,673.10	\$214.00	

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### SCHEDULE OF ACTIVE MEMBER VALUATION DATA

		ACTIVE MEMBERS					
VALUATION DATE Public Employees' Retirement System of Mississippi	NUMBER OF EMPLOYERS	NUMBER OF EMPLOYEES	ANNUAL PAYROLL	ANNUAL AVERAGE PAY	INCREASE IN AVERAGE PAY		
6/30/08	863	165,733	\$5,544,704,937	\$33,456	4.80%		
6/30/09	866	167,122	5,831,863,534	34,896	4.30		
6/30/10	868	164,896	5,763,556,195	34,953	0.20		
6/30/11	872	161,676	5,684,624,214	35,161	0.60		
6/30/12	870	162,311	5,857,789,376	36,090	2.60		
6/30/13	873	161,744	5,823,577,978	36,005	(0.20)		
6/30/14	871	161,360	5,834,686,655	36,159	0.40		
6/30/15	868	157,215	5,904,827,181	37,559	3.90		
6/30/16	862	154,104	6,022,532,933	39,081	4.10		
6/30/17 Mississippi Highway Safety Patrol Retirement System	861	152,382	6,038,228,708	39,626	1.40		
6/30/08	1	626	\$29,597,374	\$47,280	3.30%		
6/30/09	1	570	26,389,909	46,298	(2.10)		
6/30/10	1	542	26,353,400	48,623	5.00		
6/30/11	1	515	24,872,085	48,295	(0.70)		
6/30/12	1	547	25,670,030	46,929	(2.80)		
6/30/13	1	520	25,815,787	49,646	5.80		
6/30/14	1	495	25,553,765	51,624	4.00		
6/30/15	1	518	25,504,676	49,237	(4.60)		
6/30/16	1	484	27,380,162	56,571	14.90		
6/30/17	1	470	28,845,478	61,373	8.50		

### SCHEDULE OF ACTIVE MEMBER VALUATION DATA (CONTINUED)

		ACTIVE MEMBERS					
VALUATION DATE	NUMBER OF EMPLOYERS	NUMBER OF EMPLOYEES	ANNUAL PAYROLL	ANNUAL AVERAGE PAY	INCREASE IN AVERAGE PAY		
Municipal Retirement Systems							
9/30/08	17	35	\$1,712,743	\$48,936	5.30%		
9/30/09	17	31	1,608,396	51,884	6.00		
9/30/10	17	27	1,424,636	52,764	1.70		
9/30/11	17	25	1,356,858	54,274	2.90		
9/30/12	17	21	1,131,252	53,869	(0.70)		
6/30/13	17	16	793,841	49,615	(7.90)		
6/30/14*	17	14	727,347	51,953	4.70		
6/30/15	17	11	579,267	52,661	1.40		
6/30/16	17	8	419,000	52,375	(0.50)		
6/30/17	17	6	321,243	53,541	2.20		
Supplemental Legislative Retirement Plan							
6/30/08	5	175	\$6,752,960	\$38,588	3.00%		
6/30/09	5	174	6,803,339	39,100	1.30		
6/30/10	5	175	6,605,037	37,743	(3.50)		
6/30/11	5	174	6,809,770	39,137	3.70		
6/30/12	5	175	6,871,757	39,267	0.30		
6/30/13	5	175	6,695,359	38,259	(2.60)		
6/30/14	5	175	6,917,939	39,531	3.30		
6/30/15	5	174	6,861,166	39,432	(0.30)		

6,862,262

6,928,085

40,130

39,817

1.80

(0.80)

171

174

6/30/16

6/30/17

5

5

<sup>\*</sup>Municipal Retirement Systems' plan year changed from September 30 to June 30, beginning in fiscal year 2013.

## SCHEDULE OF RETIRANTS ADDED TO AND REMOVED FROM ROLLS - LAST SIX FISCAL YEARS -

		ADDED		REM	REMOVED		
FISCAL YEAR ENDED*	PLAN	NUMBER	ANNUAL ALLOWANCES	NUMBER	ANNUAL ALLOWANCES	INCREASE DUE TO ANNUAL COLA	
JUNE 30, 2012	PERS	6,569	\$125,378,708	(2,855)	\$(45,787,704)	\$45,202,325	
	MHSPRS	31	1,157,796	(22)	(574,614)	609,050	
	MRS	39	690,172	(77)	(942,832)	185,354	
	SLRP	33	230,576	(7)	(31,217)	23,377	
JUNE 30, 2013	PERS	6,276	120,592,399	(2,891)	(47,237,330)	48,758,557	
	MHSPRS	23	642,344	(23)	(596,871)	622,206	
	MRS	40	896,085	(77)	(1,083,209)	195,722	
	SLRP	20	77,003	(5)	(26,497)	24,226	
JUNE 30, 2014	PERS	6,159	120,190,296	(2,869)	(48,955,768)	52,368,041	
	MHSPRS	28	1,113,236	(21)	(661,028)	678,533	
	MRS	29	485,121	(80)	(1,041,083)	173,544	
	SLRP	6	32,688	(7)	(44,780)	30,165	
JUNE 30, 2015	PERS	5,907	117,113,206	(3,073)	(55,158,128)	56,044,620	
	MHSPRS	22	890,167	(18)	(480,408)	700,417	
	MRS	40	731,337	(81)	(1,119,680)	143,234	
	SLRP	8	58,303	(10)	(95,910)	31,718	
JUNE 30, 2016	PERS	6,548	132,970,248	(3,403)	(59,603,335)	59,355,139	
	MHSPRS	26	833,870	(26)	(830,278)	701,887	
	MRS	46	842,966	(97)	(1,365,194)	132,268	
	SLRP	28	177,207	(6)	(57,546)	24,514	
JUNE 30, 2017	PERS	6,219	123,938,697	(3,442)	(62,470,173)	64,233,789	
	MHSPRS	22	717,225	(20)	(694,187)	758,789	
	MRS	34	712,490	(78)	(1,174,872)	125,506	
	SLRP	6	31,300	(8)	(64,321)	34,729	

<sup>\*</sup>Information for MRS is as of September 30 for fiscal years 2011 through 2012.

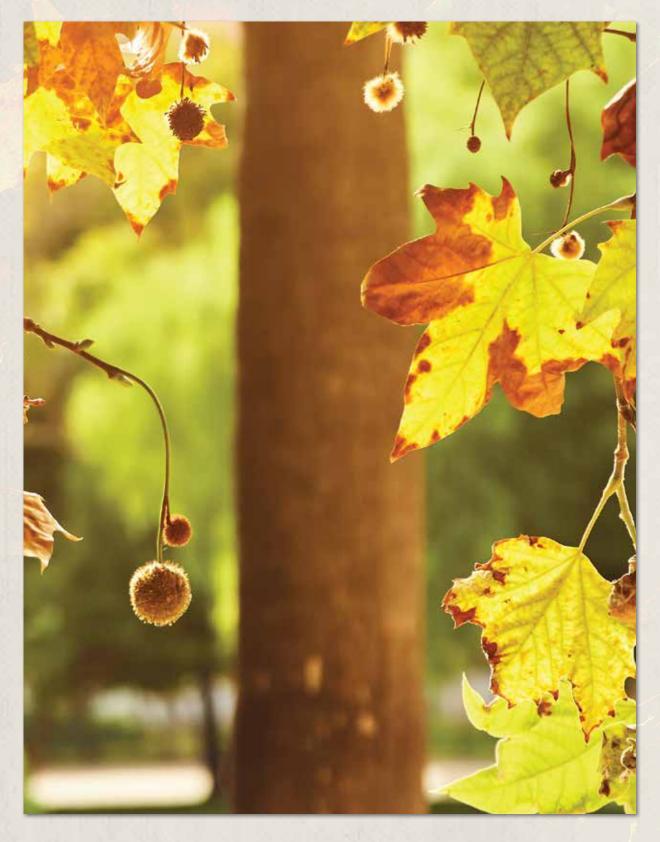
## SCHEDULE OF RETIRANTS ADDED TO AND REMOVED FROM ROLLS (CONTINUED) - LAST SIX FISCAL YEARS -

## ROLLS AT END OF YEAR

FISCAL YEAR ENDED*	PLAN	INCREASE DUE TO PLAN AMENDMENTS	NUMBER	ANNUAL ALLOWANCES	INCREASE IN ANNUAL ALLOWANCES	AVERAGE ANNUAL ALLOWANCES
JUNE 30, 2012	PERS	-	86,829	\$1,752,606,759	7.67%	\$20,185
	MHSPRS	-	713	25,167,940	4.97	35,299
	MRS	-	1,978	35,097,293	(0.19)	17,744
	SLRP	-	173	1,046,672	27.03	6,050
JUNE 30, 2013	PERS	-	90,214	1,874,720,385	6.97	20,781
	MHSPRS	-	713	25,835,619	2.65	36,235
	MRS	-	1,941	35,105,891	0.02	18,086
	SLRP	-	188	1,121,404	7.14	5,965
JUNE 30, 2014	PERS	-	93,504	1,998,322,954	6.59	21,372
	MHSPRS	-	720	26,966,360	4.38	37,453
	MRS	-	1,890	34,723,473	(1.09)	18,372
	SLRP	-	187	1,139,477	1.61	6,093
JUNE 30, 2015	PERS	-	96,338	2,116,322,652	5.90	21,968
	MHSPRS	-	724	28,076,536	4.12	38,780
	MRS	-	1,849	34,478,364	(0.71)	18,647
	SLRP	-	185	1,133,588	(0.52)	6,128
JUNE 30, 2016	PERS	-	99,483	2,249,044,704	6.27	22,607
	MHSPRS	-	724	28,782,015	2.51	39,754
	MRS	-	1,798	34,088,404	(1.13)	18,959
	SLRP	-	207	1,277,763	12.72	6,173
JUNE 30, 2017	PERS	-	102,260	2,374,747,017	5.59	23,223
	MHSPRS	-	726	29,563,842	2.72	40,722
	MRS	-	1,754	33,751,528	(0.99)	19,243
	SLRP	-	205	1,279,471	1.34	6,241

<sup>\*</sup>Information for MRS is as of September 30 for fiscal years 2011 through 2012.

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RESILIENCE

Platanus occidentalis (American sycamore)

## Statistical Report

The objectives of the statistical section are to provide additional historical perspective, context, and details to assist readers in using the information in the financial statements and required supplementary information.

### Financial Trends

The schedule of Changes in Net Position presented on pages 154 through 157 contains historical information related to the System's revenues, expenses, changes in net position, and net position restricted for benefits, as well as a history of employer and member contribution rates over a 10-year period. During the past 10 years, member and employer contributions have generally risen, while investment income has fluctuated due to a volatile global financial environment. PERS, however, experienced a decline in member and employer contributions in fiscal year 2017 due to a decline in active members. Retirement annuity payments, and to a lesser degree administrative expenses, have generally increased over the period.

PERS funded ratio has ranged from a 10-year high of 72.9 percent in 2008 to a low of 57.7 percent in 2013, primarily due to the effects of smoothing investment losses from 2008 and 2009. The current funding ratio is 61.1 percent. To help address the funded status of PERS, the Board of Trustees approved an increase in the employer contribution rate to 15.75 percent, which was effective for fiscal year 2014. MHSPRS funded ratio has ranged from a high of 78.3 percent in 2008 to a low of 62.8 percent in 2013, also due to the effects of smoothing investment losses from 2008 and 2009. The 2017 funded ratio is 68.1. MRS, a closed plan, had funded ratios spanning 56.6 percent in 2008 to a low of 43.6 percent in 2013, brought about by smoothing investment losses from prior years. Funded ratios for SLRP span 85.9 percent in 2008 to 67.8 percent in 2013. The current funded ratio is 78.8 percent. MHSPRS and SLRP employer contribution rates have remained at 37.0 and 7.4 percent, respectively, since fiscal year 2013. The PERS member contribution rate was increased by the Mississippi Legislature from 7.25 percent to 9.0 percent effective July 1, 2010. The MHSPRS member contribution rate has remained constant at 7.25 percent since 2008, and the SLRP member contribution rate has continued at 3.0 percent since inception of the plan in 1989.

The Board adopted a revised funding policy for PERS and SLRP aimed at stabilizing the employer contribution rates and establishing a goal to position the plans at more than 80.0 percent funded by 2042. A similar funding policy was adopted by the MHSPRS Administrative Board. A discussion of contribution rates can be found on page 60, Note 6. Funding information can be found in the Actuarial Section, beginning on page 138.

Changes were enacted in the PERS retirement benefit structure for those hired on or after July 1, 2001, to better position the System for its financial future. A detailed description of plan benefits can be found in Note 1 on pages 36 through 38 and in the Summary of Main System Provisions for each plan, beginning on page 117.

# Demographic and Economic Information

The schedule of Total Active Members by Attained Age and Years of Service, shown on pages 172 through 174, provides relevant details about the composition of the System's membership, including concentration of members within various age groups and selected group averages for each pension plan. Page 176 contains comparative information regarding the 10 largest participating employers of the multiple-employer plans, which are the Public Employees' Retirement System and Municipal Retirement Systems. The schedule of Benefit Payments by County on page 175 offers information on the amount of economic contribution attributed to benefit payments by county within the State of Mississippi.

### Operating Information

Pages 158 through 161 illustrate the number of participants and total benefit payments by type for each retirement plan administered by the System. Additional details regarding monthly benefit distribution by option can be found on pages 168 through 171. The schedule of Average Benefit Payments presents average monthly benefits, average final salary, and the number of active retirees by years of credited service by plan on pages 162 through 165. Comparative supplemental information on employer and member groups covered by the Public Employees' Retirement System cost-sharing plan is offered on pages 166 and 167, with details of participating employers covered by separate agreements on pages 177 through 179.

Statistical data is provided from the System's internal resources and actuarial valuations for each plan. The System had no outstanding debt as of June 30, 2017.

### **CHANGES IN NET POSITION** - LAST 10 FISCAL YEARS -

		MEMBER CON	NTRIBUTIONS	EMPLOYER CONTRIBUTIONS			OTHER	
FISCAL YEAR Public Employees' Retirement System of Mississippi	BEGINNING NET POSITION	AMOUNT	PERCENT*	AMOUNT**	PERCENT*	NET INVESTMENT INCOME (LOSS)	OTHER REVENUES & TRANSFERS**	
2008	\$21,353,016	\$417,119	7.25%	\$683,189	11.85%	\$(1,725,434)	\$637	
2009	19,251,069	434,081	7.25	713,569	11.85	(3,717,016)	657	
2010	15,134,487	439,397	7.25	731,544	12.00	2,148,749	610	
2011	16,788,214	533,369	9.00	723,836	12.00	4,167,042	639	
2012	20,377,236	545,587	9.00	768,914	12.93	59,595	664	
2013	19,781,387	547,792	9.00	881,847	14.26	2,564,097	691	
2014	21,686,911	549,528	9.00	969,674	15.75	3,905,728	885	
2015	24,877,119	557,909	9.00	996,478	15.75	827,666	670	
2016	24,906,556	572,574	9.00	1,021,261	15.75	130,900	633	
2017 Mississippi Highway Safety	24,135,016	570,066	9.00	1,019,084	15.75	3,436,144	604	
Patrol Retirement System 2008	\$307,152	\$1,985	6.50%	\$9,253	30.30%	\$(24,886)	\$3,156	
2009	276,154	2,166	7.25	9,066	30.30	(52,869)	3,208	
2010	214,374	2,043	7.25	8,613	30.30	29,942	3,985	
2011	232,873	1,948	7.25	8,067	30.30	57,090	3,427	
2012	277,563	1,946	7.25	8,798	35.21	805	3,246	
2013	265,232	1,951	7.25	9,952	37.00	34,270	3,414	
2014	287,456	1,963	7.25	13,500	37.00	51,575	-	
2015	326,032	1,938	7.25	13,695	37.00	10,812	-	
2016	323,207	2,128	7.25	14,755	37.00	1,704	-	
2017	311,612	2,147	7.25	14,809	37.00	44,499	-	

<sup>\*</sup>Percentage of annual covered payroll. The rates shown for 2012 for PERS, MHSPRS, and SLRP were effective as of January 1, 2012. For 2012, the rates prior to January 1, 2012, were 12.0 percent, 30.30 percent, and 6.65 percent, respectively.

\*\*Additional contributions for MHSPRS, from House Bill No. 1015, were previously shown in Other Revenues

and Transfers. Beginning with fiscal year 2014, these fees are reported in Employer Contributions.

# CHANGES IN NET POSITION (CONTINUED) - LAST 10 FISCAL YEARS -

FISCAL YEAR Public Employees' Retirement System of Mississippi	TOTAL ADDITIONS (DELETIONS)	RETIREMENT ANNUITIES	REFUNDS	EXPENSES & DEPRECIATION	TRANSFERS	TOTAL DEDUCTIONS	NET CHANGE IN POSITION	ENDING NET POSITION
2008	\$(624,489)	\$1,393,175	\$72,750	\$11,533	\$-	\$1,477,458	\$(2,101,947)	\$19,251,069
2009	(2,568,709)	1,465,500	70,050	12,323	-	1,547,873	(4,116,582)	15,134,487
2010	3,320,300	1,580,808	73,580	12,185	-	1,666,573	1,653,727	16,788,214
2011	5,424,886	1,734,475	88,343	13,046	-	1,835,864	3,589,022	20,377,236
2012	1,374,760	1,862,826	93,379	14,404	-	1,970,609	(595,849)	19,781,387
2013	3,994,427	1,965,660	108,365	14,878	-	2,088,903	1,905,524	21,686,911
2014	5,425,815	2,099,843	121,532	14,232	-	2,235,607	3,190,208	24,877,119
2015	2,382,723	2,219,240	119,356	14,690	-	2,353,286	29,437	24,906,556
2016	1,725,368	2,367,709	112,926	16,273	-	2,496,908	(771,540)	24,135,016
2017	5,025,898	2,477,914	113,707	26,196	-	2,617,817	2,408,081	26,543,097
Mississippi Highway Safety Patrol Retirement System								
2008	\$(10,492)	\$20,295	\$26	\$-	\$185	\$20,506	\$(30,998)	\$276,154
2009	(38,429)	23,098	72	-	181	23,351	(61,780)	214,374
2010	44,583	25,847	65	-	172	26,084	18,499	232,873
2011	70,532	25,620	60	-	162	25,842	44,690	277,563
2012	14,795	26,926	24	-	176	27,126	(12,331)	265,232
2013	49,587	27,052	112	-	199	27,363	22,224	287,456
2014	67,038	28,220	42	-	200	28,462	38,576	326,032
2015	26,445	28,909	163	-	198	29,270	(2,825)	323,207
2016	18,587	29,913	52	-	217	30,182	(11,595)	311,612
2017	61,455	31,001	144	-	203	31,348	30,107	341,719

### CHANGES IN NET POSITION (CONTINUED) - LAST 10 FISCAL YEARS -

		MEMBER CON	ITRIBUTIONS	EMPLOYER CO	NTRIBUTIONS		OTUED.	
FISCAL YEAR  Municipal Retirement Systems	BEGINNING NET POSITION	AMOUNT	PERCENT*	AMOUNT	PERCENT*	NET INVESTMENT INCOME (LOSS)	OTHER REVENUES & TRANSFERS	
2008	\$238,434	\$176	**%	\$15,900	**%	\$(18,046)	\$-	
2009	200,155	154	**	17,415	**	(35,930)	-	
2010	145,467	145	**	21,420	**	19,369	-	
2011	150,203	126	**	22,860	**	35,363	-	
2012	172,451	121	**	23,449	**	487	-	
2013	160,688	100	**	21,718	**	19,837	-	
2014	166,648	78	**	20,337	**	28,453	-	
2015	180,092	45	**	19,344	**	5,692	-	
2016	169,986	53	**	18,542	**	846	-	
2017 Supplemental Legislative Retirement Plan	154,627	31	**	17,732	**	20,605	-	
2008	\$13,748	\$203	3.00%	\$449	6.65%	\$(1,120)	\$-	
2009	12,412	207	3.00	458	6.65	(2,437)	-	
2010	9,832	202	3.00	446	6.65	1,432	-	
2011	11,079	206	3.00	457	6.65	2,832	-	
2012	13,737	206	3.00	490	7.40	39	-	
2013	13,169	204	3.00	503	7.40	1,715	-	
2014	14,374	208	3.00	514	7.40	2,605	-	
2015	16,453	207	3.00	511	7.40	552	-	
2016	16,456	208	3.00	514	7.40	86	-	
2017	15,768	212	3.00	522	7.40	2,264	-	

<sup>\*</sup>Percentage of annual covered payroll. The rates shown for 2012 for PERS, MHSPRS, and SLRP were effective as of January 1, 2012. For 2012, the rates prior to January 1, 2012, were 12.0 percent, 30.30 percent, and 6.65 percent, respectively.

\*\*Employee and employer rates vary among the 19 systems that comprise the Municipal Retirement Systems.

# CHANGES IN NET POSITION (CONTINUED) - LAST 10 FISCAL YEARS -

FISCAL YEAR  Municipal Retirement Systems	TOTAL ADDITIONS (DELETIONS)	RETIREMENT ANNUITIES	REFUNDS	EXPENSES & DEPRECIATION	TRANSFERS	TOTAL DEDUCTIONS	NET CHANGE IN POSITION	ENDING NET POSITION
2008	\$(1,970)	\$35,870	\$-	\$-	\$439	\$36,309	\$(38,279)	\$200,155
2009	(18,361)	35,848	12	-	467	36,327	(54,688)	145,467
2010	40,934	35,766	3	-	429	36,198	4,736	150,203
2011	58,349	35,609	35	-	457	36,101	22,248	172,451
2012	24,057	35,348	3	-	469	35,820	(11,763)	160,688
2013	41,655	35,227	34	-	434	35,695	5,960	166,648
2014	48,868	35,014	3	-	407	35,424	13,444	180,092
2015	25,081	34,799	1	-	387	35,187	(10,106)	169,986
2016	19,441	34,429	-	-	371	34,800	(15,359)	154,627
2017 Supplemental Legislative Retirement Plan	38,368	34,070	-	-	355	34,425	3,943	158,570
2008	\$(468)	\$845	\$14	\$-	\$9	\$868	\$(1,336)	\$12,412
2009	(1,772)	790	9	-	9	808	(2,580)	9,832
2010	2,080	804	20	-	9	833	1,247	11,079
2011	3,495	828	-	-	9	837	2,658	13,737
2012	735	1,268	25	-	10	1,303	(568)	13,169
2013	2,422	1,182	25	-	10	1,217	1,205	14,374
2014	3,327	1,216	22	-	10	1,248	2,079	16,453
2015	1,270	1,220	37	-	10	1,267	3	16,456
2016	808	1,454	32	-	10	1,496	(688)	15,768
2017	2,998	1,397	17	-	10	1,424	1,574	17,342

# BENEFIT AND REFUND PAYMENTS BY TYPE: PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI - LAST 10 FISCAL YEARS -

					REFUNE	OS
FISCAL YEAR  Number of Participants by Type of Benefit	SERVICE	DISABILITY	SURVIVOR	TOTAL	TERMINATED	DEATHS*
2008	59,406	5,075	9,059	73,540	16,105	-
2009	61,466	5,257	9,420	76,143	15,654	-
2010	64,049	5,399	9,720	79,168	14,433	-
2011	67,486	5,676	9,953	83,115	16,595	-
2012	70,843	5,845	10,141	86,829	18,053	-
2013	73,830	6,030	10,354	90,214	19,920	-
2014	76,665	6,229	10,610	93,504	20,700	-
2015	79,156	6,352	10,830	96,338	19,479	-
2016	82,145	6,430	10,908	99,483	13,026	449
2017	84,825	6,485	10,950	102,260	13,003	633
Total Payments by Type of Benefit [in thousands]						
2008	\$1,272,211	\$88,937	\$32,027	\$1,393,175	\$72,750	\$-
2009	1,339,209	92,925	33,366	1,465,500	70,050	-
2010	1,444,987	99,920	35,901	1,580,808	73,580	-
2011	1,588,369	107,657	38,449	1,734,475	88,343	-
2012	1,707,922	115,042	39,862	1,862,826	93,379	-
2013	1,804,812	120,342	40,506	1,965,660	108,365	-
2014	1,930,284	127,537	42,022	2,099,843	121,532	-
2015	2,042,728	133,454	43,058	2,219,240	119,356	-
2016	2,182,627	140,619	44,464	2,367,710	106,644	6,282
2017	2,289,330	143,292	45,292	2,477,914	108,652	5,055

<sup>\*</sup>Information unavailable prior to 2016.

# BENEFIT AND REFUND PAYMENTS BY TYPE: MISSISSIPPI HIGHWAY SAFETY PATROL RETIREMENT SYSTEM - LAST 10 FISCAL YEARS -

				_	REFUI	NDS
FISCAL YEAR  Number of Participants by Type of Benefit	SERVICE	DISABILITY	SURVIVOR	TOTAL	TERMINATED	DEATHS*
2008	443	18	190	651	4	-
2009	480	16	196	692	14	-
2010	489	18	189	696	5	-
2011	500	18	186	704	14	-
2012	510	19	184	713	7	-
2013	510	19	184	713	9	-
2014	516	17	187	720	9	-
2015	525	17	182	724	13	-
2016	526	17	181	724	3	1
2017	528	16	182	726	7	-
Total Payments by Type of Benefit [in thousands]						
2008	\$18,453	\$448	\$1,394	\$20,295	\$26	\$-
2009	21,194	478	1,426	23,098	72	-
2010	24,029	472	1,346	25,847	65	-
2011	23,953	507	1,160	25,620	60	-
2012	25,337	516	1,073	26,926	24	-
2013	25,476	522	1,054	27,052	112	-
2014	26,595	526	1,099	28,220	42	-
2015	27,295	501	1,113	28,909	163	-
2016	29,153	509	249	29,911	42	10
2017	30,175	518	308	31,001	144	-

<sup>\*</sup>Information unavailable prior to 2016.

### BENEFIT AND REFUND PAYMENTS BY TYPE: MUNICIPAL RETIREMENT SYSTEMS - LAST 10 FISCAL YEARS -

				_	REFUN	NDS
FISCAL YEAR  Number of Participants by Type of Benefit	SERVICE	DISABILITY	SURVIVOR	TOTAL	TERMINATED	DEATHS****
2008*	1,470	96	557	2,123	12	-
2009*	1,431	93	566	2,090	3	-
2010*	1,388	84	584	2,056	9	-
2011*	1,334	80	602	2,016	7	-
2012*	1,302	75	601	1,978	-	-
2013**	1,260	71	610	1,941	4	-
2014**	1,216	70	604	1,890	7	-
2015**	1,170	66	613	1,849	1	-
2016**	1,110	64	624	1,798	-	-
2017**	1,070	59	625	1,754	-	-
Total Payments by Type of Benefit*** [in thousands]						
2008*	\$27,720	\$1,011	\$6,725	\$35,456	\$12	\$-
2009*	27,409	1,003	7,045	35,457	3	-
2010*	27,062	927	7,430	35,419	35	-
2011*	26,315	894	7,956	35,165	3	-
2012*	26,056	850	8,190	35,096	-	-
2013**	25,787	817	8,623	35,227	34	-
2014**	25,382	816	8,816	35,014	3	-
2015**	24,824	761	9,214	34,799	1	-
2016**	24,085	744	9,600	34,429	-	-
2017**	23,456	688	9,926	34,070	-	-

<sup>\*</sup>Valuation information furnished for MRS is as of September 30.

\*\*Valuation information furnished for MRS is as of June 30, due to plan year change.

\*\*\*Individual MRS COLA increases are paid if funding is available.

\*\*\*\*Information unavailable prior to 2016.

### BENEFIT AND REFUND PAYMENTS BY TYPE: SUPPLEMENTAL LEGISLATIVE RETIREMENT PLAN - LAST 10 FISCAL YEARS -

				-	REFUN	IDS
FISCAL YEAR	SERVICE	DISABILITY	SURVIVOR	TOTAL	TERMINATED	DEATHS*
Number of Participants by Type of Benefit 2008	110	2	26	138	3	
						-
2009	113	2	26	141	1	-
2010	117	2	23	142	3	-
2011	118	2	27	147	-	-
2012	143	2	28	173	8	-
2013	150	2	36	188	4	-
2014	149	2	36	187	5	-
2015	145	2	38	185	7	-
2016	167	2	38	207	2	1
2017	168	1	36	205	1	1
Total Payments by Type of Benefit [in thousands]						
2008	\$773	\$14	\$58	\$845	\$14	\$-
2009	739	12	39	790	9	-
2010	758	12	34	804	20	-
2011	781	12	35	828	-	-
2012	1,184	16	68	1,268	25	-
2013	1,104	13	65	1,182	25	-
2014	1,123	13	80	1,216	22	-
2015	1,126	13	81	1,220	37	-
2016	1,341	15	97	1,453	9	22
2017	1,314	11	72	1,397	12	5

<sup>\*</sup>Information unavailable prior to 2016.

# AVERAGE BENEFIT PAYMENTS: PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI

				YEARS CREDI	TED SERVICE			
RETIREMENT EFFECTIVE DATES: JULY 1, 2012, TO JUNE 30, 2017	0-9	10-14	15-19	20-24	25	26-29	30	31+
AVERAGE MONTHLY BENEFIT	\$476	\$727	\$1,013	\$1,656	\$1,948	\$2,106	\$2,446	\$3,093
AVERAGE FINAL SALARY	\$31,990	\$37,033	\$39,332	\$47,400	\$49,568	\$50,461	\$55,156	\$59,849
NUMBER OF ACTIVE RETIRANTS	732	938	859	1,014	369	1,174	190	943
2016								
AVERAGE MONTHLY BENEFIT	\$512	\$701	\$1,054	\$1,638	\$1,879	\$2,118	\$2,400	\$3,196
AVERAGE FINAL SALARY	\$31,771	\$34,459	\$39,422	\$45,571	\$46,533	\$50,536	\$52,472	\$59,306
NUMBER OF ACTIVE RETIRANTS	751	997	874	1,048	402	1,204	234	1,038
2015								
AVERAGE MONTHLY BENEFIT	\$458	\$688	\$977	\$1,346	\$1,834	\$1,989	\$2,217	\$2,899
AVERAGE FINAL SALARY	\$29,781	\$33,585	\$37,938	\$40,770	\$46,461	\$48,614	\$50,908	\$57,019
NUMBER OF ACTIVE RETIRANTS	599	898	774	693	494	1,072	230	1,147
2014								
AVERAGE MONTHLY BENEFIT	\$465	\$712	\$999	\$1,384	\$1,871	\$1,993	\$2,283	\$2,954
AVERAGE FINAL SALARY	\$31,044	\$35,356	\$37,962	\$40,947	\$47,490	\$48,732	\$51,456	\$57,022
NUMBER OF ACTIVE RETIRANTS	751	945	815	663	505	1,146	232	1,102
2013								
AVERAGE MONTHLY BENEFIT	\$442	\$695	\$964	\$1,422	\$1,925	\$2,017	\$2,188	\$2,931
AVERAGE FINAL SALARY	\$30,487	\$34,404	\$36,876	\$41,550	\$47,768	\$48,862	\$49,470	\$56,341
NUMBER OF ACTIVE RETIRANTS	915	901	740	758	496	1,121	224	1,121

# AVERAGE BENEFIT PAYMENTS: MISSISSIPPI HIGHWAY SAFETY PATROL RETIREMENT SYSTEM

				YEARS CREDI	TED SERVICE			
RETIREMENT EFFECTIVE DATES: JULY 1, 2012, TO JUNE 30, 2017	0-9	10-15	16-20	21-24	25	26-29	30	31+
AVERAGE MONTHLY BENEFIT	\$338	\$996	\$556	\$2,928	\$1,186	\$2,670	\$4,606	\$3,493
AVERAGE FINAL SALARY	\$19,660	\$45,533	\$22,016	\$67,683	\$28,912	\$54,518	\$72,101	\$47,950
NUMBER OF ACTIVE RETIRANTS	1	1	1	6	2	6	4	1
2016								
AVERAGE MONTHLY BENEFIT	\$315	\$-	\$-	\$2,078	\$-	\$3,013	\$1,729	\$5,059
AVERAGE FINAL SALARY	\$53,306	\$-	\$-	\$45,948	\$-	\$37,841	\$50,692	\$51,223
NUMBER OF ACTIVE RETIRANTS	3	-	-	6	-	13	1	3
2015								
AVERAGE MONTHLY BENEFIT	\$-	\$-	\$1,831	\$1,719	\$1,978	\$4,054	\$-	\$4,758
AVERAGE FINAL SALARY	\$-	\$-	\$45,652	\$30,832	\$36,845	\$51,500	\$-	\$67,378
NUMBER OF ACTIVE RETIRANTS	-	-	3	3	2	10	-	4
2014								
AVERAGE MONTHLY BENEFIT	\$-	\$-	\$402	\$2,013	\$-	\$2,756	\$3,899	\$4,528
AVERAGE FINAL SALARY	\$-	\$-	\$15,019	\$54,344	\$-	\$51,233	\$69,760	\$68,011
NUMBER OF ACTIVE RETIRANTS	-	-	1	5	-	8	5	9
2013								
AVERAGE MONTHLY BENEFIT	\$662	\$710	\$-	\$1,173	\$1,696	\$2,860	\$-	\$3,270
AVERAGE FINAL SALARY	\$21,844	\$36,998	\$-	\$31,852	\$28,673	\$54,158	\$-	\$54,646
NUMBER OF ACTIVE RETIRANTS	1	2	-	3	2	11	-	4

# AVERAGE BENEFIT PAYMENTS: MUNICIPAL RETIREMENT SYSTEMS

_				YEARS OF CRE	DITED SERVIC	E		
RETIREMENT EFFECTIVE DATES: JULY 1, 2012, TO JUNE 30, 2017* 2017	0-9	10-14	15-19	20-24	25	26-29	30	31+
AVERAGE MONTHLY BENEFIT	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$2,424
AVERAGE FINAL SALARY	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$43,631
NUMBER OF ACTIVE RETIRANTS	-	-	-	-	-	-	-	2
2016								
AVERAGE MONTHLY BENEFIT	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$3,479
AVERAGE FINAL SALARY	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$44,155
NUMBER OF ACTIVE RETIRANTS	-	-	-	-	-	-	-	3
2015								
AVERAGE MONTHLY BENEFIT	\$-	\$-	\$-	\$-	\$-	\$-	\$2,898	\$2,912
AVERAGE FINAL SALARY	\$-	\$-	\$-	\$-	\$-	\$-	\$51,253	\$56,520
NUMBER OF ACTIVE RETIRANTS	-	-	-	-	-	-	1	2
2014								
AVERAGE MONTHLY BENEFIT	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$2,778
AVERAGE FINAL SALARY	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$47,160
NUMBER OF ACTIVE RETIRANTS	-	-	-	-	-	-	-	2
2013								
AVERAGE MONTHLY BENEFIT	\$-	\$-	\$-	\$-	\$-	\$3,490	\$-	\$4,379
AVERAGE FINAL SALARY	\$-	\$-	\$-	\$-	\$-	\$63,310	\$-	\$72,947
NUMBER OF ACTIVE RETIRANTS	-	-	-	-	-	1	-	4

<sup>\*</sup>Prior to 2013, retirement effective dates were October to September.

# AVERAGE BENEFIT PAYMENTS: SUPPLEMENTAL LEGISLATIVE RETIREMENT PLAN

_			,	YEARS CREDI	TED SERVICE			
RETIREMENT EFFECTIVE DATES: JULY 1, 2012, TO JUNE 30, 2017	0-9	10-15	16-20	21-24	25	26-29	30	31+
AVERAGE MONTHLY BENEFIT	\$181	\$-	\$609	\$452	\$732	\$-	\$-	\$-
AVERAGE FINAL SALARY	\$29,821	\$-	\$37,791	\$28,378	\$40,932	\$-	\$-	\$-
NUMBER OF ACTIVE RETIRANTS	2	-	1	2	1	-	-	-
2016								
AVERAGE MONTHLY BENEFIT	\$250	\$350	\$487	\$654	\$522	\$-	\$-	\$1,200
AVERAGE FINAL SALARY	\$36,600	\$39,878	\$35,211	\$39,774	\$41,482	\$-	\$-	\$42,238
NUMBER OF ACTIVE RETIRANTS	6	6	4	7	2	-	-	3
2015								
AVERAGE MONTHLY BENEFIT	\$164	\$740	\$721	\$-	\$579	\$-	\$-	\$1,032
AVERAGE FINAL SALARY	\$18,636	\$68,228	\$37,912	\$-	\$34,791	\$-	\$-	\$42,949
NUMBER OF ACTIVE RETIRANTS	2	2	2	-	1	-	-	1
2014								
AVERAGE MONTHLY BENEFIT	\$-	\$345	\$491	\$473	\$-	\$580	\$-	\$-
AVERAGE FINAL SALARY	\$-	\$34,404	\$34,871	\$39,301	\$-	\$43,165	\$-	\$-
NUMBER OF ACTIVE RETIRANTS	-	2	2	1	-	1	-	-
2013								
AVERAGE MONTHLY BENEFIT	\$168	\$183	\$463	\$550	\$-	\$731	\$-	\$-
AVERAGE FINAL SALARY	\$27,925	\$29,576	\$36,140	\$39,581	\$-	\$38,727	\$-	\$-
NUMBER OF ACTIVE RETIRANTS	6	7	1	4	-	2	-	-

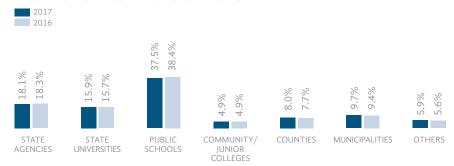
# ANALYSIS OF EMPLOYER AND MEMBER CONTRIBUTIONS PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI - FOR FISCAL YEARS ENDED JUNE 30, 2017 AND 2016 -

[contributions in thousands]

	EMPLOYER		ME	MBER	TOTAL		
EMPLOYER GROUP	UNITS	CONTRIBUTIONS	NUMBER	CONTRIBUTIONS	TOTAL CONTRIBUTIONS	PERCENT	
2017							
STATE AGENCIES	111	\$184,658	28,434	\$103,296	\$287,954	18.12%	
STATE UNIVERSITIES	9	162,544	17,636	90,926	253,469	15.95	
PUBLIC SCHOOLS	143	382,157	61,509	213,775	595,932	37.50	
COMMUNITY/JUNIOR COLLEGES	15	50,138	6,100	28,047	78,186	4.92	
COUNTIES	82	81,119	13,630	45,377	126,496	7.96	
MUNICIPALITIES	241	98,444	16,163	55,068	153,512	9.66	
OTHERS	260	60,024	8,910	33,577	93,601	5.89	
TOTALS	861	\$1,019,084	152,382	\$570,066	\$1,589,150	100.00%	
2016							
STATE AGENCIES	112	\$186,700	29,203	\$105,006	\$291,706	18.30%	
STATE UNIVERSITIES	9	160,254	17,938	89,932	250,186	15.70	
PUBLIC SCHOOLS	143	392,737	61,945	219,986	612,723	38.40	
COMMUNITY/JUNIOR COLLEGES	15	50,023	6,099	27,862	77,885	4.90	
COUNTIES	82	78,707	13,561	43,715	122,422	7.70	
MUNICIPALITIES	241	95,528	16,383	53,806	149,334	9.40	
OTHERS	260	57,312	8,975	32,267	89,579	5.60	
TOTALS	862	\$1,021,261	154,104	\$572,574	\$1,593,835	100.00%	

Note: Above table excludes MHSPRS, MRS, and SLRP contributions.

### PERCENT OF TOTAL CONTRIBUTIONS BY AGENCY TYPE



Note: Above chart excludes MHSPRS, MRS, and SLRP contributions.

### RETIRED MEMBERS BY TYPE OF BENEFIT - JUNE 30, 2017 -

	OPTION SELECTED**									
AMOUNT OF MONTHLY BENEFIT* Public Employees' Retirement System of Mississippi	LIFE	OPT. 1	OPT. 2	OPT. 3	OPT. 4	OPT. 4A				
\$1 - 500	16,369	759	2,718	152	123	476				
501 - 1,000	14,339	681	2,746	151	160	899				
1,001 - 1,500	11,526	693	2,982	184	221	1,149				
1,501 - 2,000	9,198	462	2,426	106	241	1,114				
2,001 - 2,500	6,395	274	1,796	65	151	1,030				
2,501 - 3,000	3,753	150	1,043	34	117	599				
3,001 - 3,500	2,297	90	656	22	86	413				
3,501 - 4,000	1,244	50	382	11	34	223				
4,001 - 4,500	717	21	232	6	30	176				
4,501 - 5,000	382	9	133	2	11	96				
OVER 5,000	679	17	342	6	47	208				
TOTALS	66,899	3,206	15,456	739	1,221	6,383				
Mississippi Highway Safety Patrol Retirement System										
\$1 - 500	34	-	1	-	-	4				
501 - 1,000	88	-	-	1	-	10				
1,001 - 1,500	39	-	3	-	-	27				
1,501 - 2,000	13	-	9	2	-	77				
2,001 - 2,500	7	-	9	-	-	86				
2,501 - 3,000	1	-	11	1	-	79				
3,001 - 3,500	5	1	9	-	-	77				
3,501 - 4,000	-	-	1	1	-	44				
4,001 - 4,500	1	1	4	-	-	24				
4,501 - 5,000	-	-	1	-	-	12				
OVER 5,000	-	-	-	-	-	28				
TOTALS	188	2	48	5	-	468				

<sup>\*</sup>Excluding Cost-of-Living Adjustment.

<sup>\*\*</sup>Option Selected: Life - return of contributions;

<sup>\*</sup>Opton Selected: Life - return of contributions;

Opt.1 - return of member's annuity;

Opt. 2 - 100.0 percent survivorship;

Opt. 3 - 50.0 percent / 50.0 percent dual survivorship;

Opt. 4 - 75.0 percent survivorship;

Opt. 4A - 50.0 percent survivorship;

Opt. 4B - years certain and life;

Opt. 4C - Social Security leveling; Opt. 5 - pop up; PLSO - Partial-Lump-Sum Option.

## RETIRED MEMBERS BY TYPE OF BENEFIT (CONTINUED)

- JUNE 30, 2017 -

	OPTION	SELECTED** (CON	TINUED)	DI CO	DI CO	DI SO
AMOUNT OF MONTHLY BENEFIT* Public Employees' Retirement System of Mississippi	OPT. 4B	OPT. 4C***	OPT. 5	PLSO 1 YR.***	PLSO 2 YR.***	PLSO 3 YR.***
\$1-500	1,770	174	68	583	483	2,266
501 - 1,000	1,453	800	93	752	525	1,879
1,001 - 1,500	1,351	1,006	102	691	642	2,636
1,501 - 2,000	1,228	441	41	602	686	3,118
2,001 - 2,500	884	125	23	653	574	2,517
2,501 - 3,000	573	53	19	474	392	1,385
3,001 - 3,500	327	20	7	376	255	759
3,501 - 4,000	155	9	-	211	133	355
4,001 - 4,500	97	3	1	122	83	243
4,501 - 5,000	47	2	-	58	32	128
OVER 5,000	117	3	-	120	63	216
TOTALS	8,002	2,636	354	4,642	3,868	15,502
Mississippi Highway Safety Patrol Retirement System						
\$1 - 500	-	-	-	-	-	-
501 - 1,000	-	1	-	-	1	-
1,001 - 1,500	1	2	-	2	-	3
1,501 - 2,000	3	4	-	1	1	7
2,001 - 2,500	2	1	-	8	3	15
2,501 - 3,000	5	3	-	4	5	36
3,001 - 3,500	1	-	-	8	5	32
3,501 - 4,000	2	-	-	7	3	19
4,001 - 4,500	1	-	-	3	3	7
4,501 - 5,000	-	-	-	2	1	3
OVER 5,000	-	-	-	3	4	4
TOTALS	15	11	-	38	26	126

<sup>\*</sup>Excluding Cost-of-Living Adjustment.

\*\*Option Selected: Life - return of contributions;

<sup>\*</sup>Option Selected: Life - return of contributions;
Opt.1 - return of member's annuity;
Opt. 2 - 100.0 percent survivorship;
Opt. 3 - 50.0 percent / 50.0 percent dual survivorship;
Opt. 4 - 75.0 percent survivorship;
Opt. 4A - 50.0 percent survivorship;

Opt. 4B - years certain and life;

Opt. 4C - Social Security leveling; Opt. 5 - pop up; PLSO - Partial-Lump-Sum Option.

## RETIRED MEMBERS BY TYPE OF BENEFIT (CONTINUED)

- JUNE 30, 2017 -

		OPTION SELECTED**								
AMOUNT OF MONTHLY BENEFIT* Supplemental Legislative Retirement Plan	LIFE	OPT. 1	OPT. 2	OPT. 3	OPT. 4	OPT. 4A				
\$1 - 100	5	-	4	-	-	-				
101 - 200	16	1	17	-	-	-				
201 - 300	15	-	13	2	1	3				
301 - 400	21	1	13	-	-	3				
401 - 500	12	1	7	1	-	1				
501 - 600	3	-	2	1	-	1				
601 - 700	4	-	10	-	-	1				
701 - 800	2	-	4	-	-	-				
801 - 900	4	-	1	-	-	1				
901 - 1,000	1	-	1	-	-	-				
OVER 1,000	4	-	2	1	-	-				
TOTALS	87	3	74	5	1	10				

<sup>\*</sup>Excluding Cost-of-Living Adjustment.

<sup>\*\*</sup>Option Selected: Life - return of contributions; Opt.1 - return of member's annuity;

Opt. 2 - 100.0 percent survivorship; Opt. 3 - 50.0 percent / 50.0 percent dual survivorship;

Opt 4 - 75.0 percent survivorship; Opt. 4A - 50.0 percent survivorship; Opt. 4B - years certain and life;

Opt. 4C - Social Security leveling;
Opt. 5 - pop up; PLSO - Partial-Lump-Sum Option.

## RETIRED MEMBERS BY TYPE OF BENEFIT (CONTINUED)

- JUNE 30, 2017 -

OPTION	SELECTED** (CONT	INUED)	DI CO	DI CO	DI CO
OPT. 4B	OPT. 4C***	OPT. 5	1 YR.***	2 YR.***	PLSO 3 YR.***
3	1	-	-	-	1
1	-	-	-	-	4
2	-	-	1	-	2
7	-	-	2	-	8
3	-	-	1	3	5
2	-	-	1	1	2
2	-	-	-	-	2
-	-	-	-	-	1
2	-	-	-	-	1
2	-	-	-	1	1
1	-	-	1	-	4
25	1	-	6	5	31
	OPT. 4B  3 1 2 7 3 2 2 2 2 2 1	OPT. 4B OPT. 4C***  3 1 1 - 2 - 7 - 3 - 2 - 2 - 2 - 2 - 1 - 1 -	3 1 - 1 - 2 - 7 - 3 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	OPT. 4B OPT. 4C*** OPT. 5 PLSO 1 YR.***  3 1	OPT. 4B OPT. 4C*** OPT. 5 PLSO 1 YR.*** PLSO 2 YR.***  3 1

<sup>\*</sup>Excluding Cost-of-Living Adjustment.

<sup>\*\*</sup>Option Selected: Life - return of contributions;

Opt.1 - return of member's annuity;

Opt. 2 - 100.0 percent survivorship;

Opt. 3 - 50.0 percent / 50.0 percent dual survivorship;

Opt 4 - 75.0 percent survivorship; Opt. 4A - 50.0 percent survivorship; Opt. 4B - years certain and life;

Opt. 4C - Social Security leveling;
Opt. 5 - pop up; PLSO - Partial-Lump-Sum Option.

# TOTAL ACTIVE MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE: PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI - JUNE 30, 2017 -

			TOTALS						
ATTAINED AGE	0-4	5-9	10-14	15-19	20-24	25-29	30+	NUMBER	VALUATION PAYROLL
UNDER 20	265	-	-	-	-	-	-	265	\$4,578,971
20-24	5,710	45	1	-	-	-	-	5,756	153,614,417
25-29	11,771	2,771	52	-	-	-	-	14,594	479,376,444
30-34	7,835	6,651	2,418	42	-	-	-	16,946	634,736,695
35-39	6,661	4,747	5,966	2,067	40	-	-	19,481	788,658,679
40-44	5,552	4,019	4,015	4,638	1,564	23	-	19,811	839,926,476
45-49	4,997	3,712	3,644	3,699	4,023	1,235	24	21,334	914,357,317
50-54	4,237	3,158	3,163	3,150	2,831	2,106	621	19,266	798,868,009
55-59	3,556	2,873	2,923	3,050	2,704	1,749	1,279	18,134	731,889,235
60-64	2,041	1,974	1,952	1,740	1,517	1,166	1,000	11,390	471,481,617
65-69	697	767	700	514	363	276	350	3,667	154,548,471
70 & OVER	351	314	330	254	178	103	208	1,738	66,192,377
TOTALS	53,673	31,031	25,164	19,154	13,220	6,658	3,482	152,382	\$6,038,228,708

While not used in the financial computations, the following group averages are computed and shown because of their general interest:

Age: 44.7 years Service: 10.3 years Annual Pay: \$39,626

# TOTAL ACTIVE MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE: MISSISSIPPI HIGHWAY SAFETY PATROL RETIREMENT SYSTEM - JUNE 30, 2017 -

_		1		TOTALS					
ATTAINED AGE	0-4	5-9	10-14	15-19	20-24	25-29	30+	NUMBER	VALUATION PAYROLL
UNDER 25	1	-	-	-	-	-	-	1	\$48,688
25-29	22	9	-	-	-	-	-	31	1,362,222
30-34	15	27	8	-	-	-	-	50	2,406,690
35-39	6	31	42	8	-	-	-	87	4,765,036
40-44	1	15	32	35	13	-	-	96	5,618,100
45-49	1	6	26	28	41	5	-	107	7,136,610
50-54	-	2	3	8	32	7	5	57	4,236,434
55-59	-	-	-	4	6	7	11	28	2,155,877
60-64	-	-	-	1	1	2	9	13	1,115,821
65 & OVER	-	-	-	-	-	-	-	-	-
TOTALS	46	90	111	84	93	21	25	470	\$28,845,478

While not used in the financial computations, the following group averages are computed and shown because of their general interest:

Age: 43.3 years Service: 15.0 years Annual Pay: \$61,373

# TOTAL ACTIVE MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE: MUNICIPAL RETIREMENT SYSTEMS - JUNE 30, 2017 -

		AC	TOTALS						
ATTAINED AGE	0-4	5-9	10-14	15-19	20-24	25-29	30+	NUMBER	VALUATION PAYROLL
UNDER 25	-	-	-	-	-	-	-	-	\$-
25-29	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	1	1	50,886
55-59	-	-	-	-	-	-	-	-	-
60 & OVER	-	-	-	-	-	-	5	5	270,357
TOTALS	-	-	-	-	-	-	6	6	\$321,243

While not used in the financial computations, the following group averages are computed and shown because of their general interest:

Age: 67.3 years Service: 41.8 years Annual Pay: \$53,541

# TOTAL ACTIVE MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE: SUPPLEMENTAL LEGISLATIVE RETIREMENT PLAN - JUNE 30, 2017 -

				TOTALS					
ATTAINED AGE	0-4	5-9	10-14	15-19	20-24	25-29	30+	NUMBER	VALUATION PAYROLL
UNDER 25	-	-	-	-	-	-	-	-	\$-
25-29	2	-	-	-	-	-	-	2	78,270
30-34	5	-	-	-	-	-	-	5	186,163
35-39	6	6	-	-	-	-	-	12	454,431
40-44	3	9	2	1	-	-	-	15	637,755
45-49	11	13	1	-	-	-	-	25	953,165
50-54	12	13	1	2	1	-	-	29	1,174,296
55-59	4	7	4	2	3	-	-	20	760,616
60-64	6	4	3	1	6	2	3	25	1,023,918
65-69	-	4	5	3	1	1	3	17	679,825
70-74	-	3	1	-	3	2	1	10	413,774
75 & OVER	-	2	2	1	4	2	3	14	565,872
TOTALS	49	61	19	10	18	7	10	174	\$6,928,085

While not used in the financial computations, the following group averages are computed and shown because of their general interest:

Age: 55.8 years Benefit Service: 11.0 years Eligibility Service: 15.2 years Annual Pay: \$39,817

# TOTAL DEFINED BENEFIT PLANS—BENEFIT PAYMENTS BY COUNTY - JUNE 30, 2017 -

	COUNTY	NUMBER OF PAYMENTS	AMOUNT PAID*	COUNTY	NUMBER OF PAYMENTS	AMOUNT PAID*
	ADAMS	1,268	27,936,112	LOWNDES	1,634	38,386,186
	ALCORN	1,208	26,901,283	MADISON	3,426	101,409,661
	AMITE	358	6,865,859	MARION	792	17,993,279
	ATTALA	834	17,908,697	MARSHALL	708	14,684,628
	BENTON	201	4,085,348	MONROE	1,129	25,656,320
	BOLIVAR	1,527	36,275,171	MONTGOMERY	554	12,562,484
	CALHOUN	582	13,549,501	NESHOBA	930	19,958,022
	CARROLL	467	10,204,645	NEWTON	768	17,487,408
	CHICKASAW	585	12,947,612	NOXUBEE	319	7,080,832
	CHOCTAW	357	7,484,219	OKTIBBEHA	2,423	80,443,265
	CLAIBORNE	356	8,302,363	PANOLA	1,125	23,457,255
	CLARKE	635	11,597,101	PEARL RIVER	1,246	24,536,925
	CLAY	619	15,256,012	PERRY	428	8,030,302
	СОАНОМА	1,029	25,429,788	PIKE	1,243	29,403,946
	COPIAH	1,004	22,708,055	PONTOTOC	762	18,483,764
	COVINGTON	727	15,818,584	PRENTISS	771	18,049,376
	DESOTO	1,622	34,086,089	QUITMAN	260	5,406,935
	FORREST	3,400	90,546,436	RANKIN	5,825	154,066,120
	FRANKLIN	358	7,380,379	SCOTT	842	17,458,987
	GEORGE	666	13,321,070	SHARKEY	208	4,883,698
	GREENE	345	6,523,297	SIMPSON	1,098	22,388,496
	GRENADA	799	18,414,637	SMITH	512	9,853,571
	HANCOCK	912	19,560,577	STONE	739	17,108,506
	HARRISON	4,717	113,657,663	SUNFLOWER	945	20,419,251
	HINDS	11,478	287,271,678	TALLAHATCHIE	446	9,427,750
	HOLMES	725	15,311,109	TATE	784	18,500,638
	HUMPHREYS	283	6,520,716	TIPPAH	786	16,889,952
	ISSAQUENA	25	395,757	TISHOMINGO	534	10,545,645
	ITAWAMBA	883	20,128,858	TUNICA	238	4,673,477
	JACKSON	3,639	84,236,705	UNION	853	19,480,169
	JASPER	584	11,450,056	WALTHALL	400	8,617,486
	JEFFERSON	418	9,527,324	WARREN	1,406	35,358,783
JEFF	ERSON DAVIS	401	7,720,404	WASHINGTON	1,678	38,047,822
	JONES	2,554	56,199,931	WAYNE	533	11,127,931
	KEMPER	347	7,610,866	WEBSTER	588	13,360,826
	LAFAYETTE	2,044	61,921,626	WILKINSON	285	6,151,982
	LAMAR	1,070	22,215,086	WINSTON	668	16,452,293
	LAUDERDALE	2,671	60,401,597	YALOBUSHA	620	13,544,266
	LAWRENCE	580	11,661,560	YAZOO	808	18,332,300
	LEAKE	687	14,431,730	MISSISSIPPI	\$96,791	\$2,304,344,763
	LEE	2,356	58,976,067	OUT-OF-STATE	8,133	172,926,479
*The percentage	LEFLORE	1,157	28,455,597	OUT-OF-COUNTRY	23	643,080
distribution is estimated.	LINCOLN	999	23,427,061	TOTAL	\$104,947	\$2,477,914,322

### TEN LARGEST PARTICIPATING EMPLOYERS

		2017			2008	
PARTICIPATING EMPLOYER Public Employees' Retirement System	COVERED EMPLOYEES	RANK	PERCENTAGE OF TOTAL SYSTEM	COVERED EMPLOYEES	RANK	PERCENTAGE OF TOTAL SYSTEM
UNIVERSITY MEDICAL CENTER	7,626	1	5.01%	6,332	1	3.82%
DESOTO COUNTY BOARD OF EDUCATION	4,127	2	2.71	3,426	4	2.85
JACKSON MUNICIPAL SEPARATE SCHOOLS	4,011	3	2.63	4,726	2	2.07
MISSISSIPPI STATE UNIVERSITY	3,570	4	2.34	3,736	3	2.25
MISSISSIPPI DEPARTMENT OF HUMAN SERVICES	3,232	5	2.12	3,133	6	1.89
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	3,115	6	2.04	3,368	5	2.03
RANKIN COUNTY BOARD OF EDUCATION	2,321	7	1.52	2,285	8	1.38
CORRECTIONS DEPARTMENT	2,096	8	1.38	3,114	7	1.88
UNIVERSITY OF MISSISSIPPI	2,071	9	1.36	1,832	-	1.11
MISSISSIPPI DEPARTMENT OF HEALTH	1,886	10	1.24	2,258	10	1.36
ALL OTHER*	118,327	-	77.65	131,523	-	79.36
TOTALS (861 EMPLOYERS)	152,382	-	100.00%	165,733	-	100.00%
Municipal Retirement Systems						
CITY OF CLINTON	2	1	33.33%	6	2	17.14%
CITY OF HATTIESBURG	1	2	16.67	6	1	17.14
CITY OF GREENWOOD	1	3	16.67	3	-	8.57
ALL OTHER*	2	-	33.33	20	-	57.15
TOTALS (17 EMPLOYERS)	6	-	100.00%	35	-	100.00%

<sup>\*</sup>In 2017, "All Other" consisted of:

TYPE Public Employees' Retirement System STATE AGENCIES	NUMBER OF EMPLOYERS	EMPLOYEES	TYPE Municipal Retirement Systems	NUMBER OF EMPLOYERS	EMPLOYEES
	107	18,105	STATE AGENCIES	-	-
STATE UNIVERSITIES	6	4,369	STATE UNIVERSITIES	-	-
PUBLIC SCHOOLS	140	51,050	PUBLIC SCHOOLS	-	-
COMMUNITY/ JUNIOR COLLEGES	15	6,100	COMMUNITY/ JUNIOR COLLEGES	-	-
COUNTIES	82	13,630	COUNTIES	-	-
MUNICIPALITIES	241	16,163	MUNICIPALITIES	2	2
OTHER POLITICAL SUBDIVISIONS	260	8,910	OTHER POLITICAL SUBDIVISIONS	-	-
TOTALS	851	118,327	TOTALS	2	2

### PUBLIC AGENCIES COVERED BY STATE RETIREMENT ANNUITY

#### Participating Employers Covered by Law

STATE AGENCIES
STATE UNIVERSITIES
COMMUNITY/JUNIOR COLLEGES
PUBLIC SCHOOL DISTRICTS

## Participating Employers Covered by Separate Agreement

COUNTIES

### Local Governmental Entities Covered by Separate Agreement

## Municipalities AREPDEEN

Municipalities				
ABERDEEN	CRAWFORD	INVERNESS	MYRTLE	SEMINARY
ACKERMAN	CRENSHAW	ITTA BENA	NATCHEZ	SENATOBIA
ALGOMA	CROSBY	IUKA	NETTLETON	SHANNON
AMORY	CRYSTAL SPRINGS	JACKSON	NEW ALBANY	SHAW
ANGUILLA	DECATUR	JONESTOWN	NEW AUGUSTA	SHELBY
ARCOLA	DE KALB	JUMPERTOWN	NEW HEBRON	SHERMAN
ARTESIA	D'LO	KILMICHAEL	NEWTON	SHUBUTA
ASHLAND	DERMA	KOSCIUSKO	NORTH CARROLLTON	SHUQUALAK
BALDWYN	D'IBERVILLE	LAKE	NOXAPATER	SILVER CITY
BASSFIELD	DREW	LAMBERT	OCEAN SPRINGS	SLEDGE
BATESVILLE	DUCK HILL	LAUREL	OKOLONA	SMITHVILLE
BAY SPRINGS	DURANT	LEAKESVILLE	OLIVE BRANCH	SOSO
BAY ST. LOUIS	ECRU	LELAND	OSYKA	SOUTHAVEN
BEAUMONT	EDWARDS	LENA	OXFORD	STARKVILLE
BELMONT	ELLISVILLE	LEXINGTON	PASCAGOULA	STATE LINE
BELZONI	ENTERPRISE	LIBERTY	PASS CHRISTIAN	STONEWALL
BENOIT	ETHEL	LONG BEACH	PEARL	STURGIS
BENTONIA	EUPORA	LOUIN	PELAHATCHIE	SUMMIT
BILOXI	FALKNER	LOUISE	PETAL	SUMNER
BLUE MOUNTAIN	FARMINGTON	LOUISVILLE	PHILADELPHIA	SUMRALL
BOONEVILLE	FLORA	LUCEDALE	PICAYUNE	SUNFLOWER
BOYLE	FLORENCE	LULA	PLANTERSVILLE	TAYLORSVILLE
BRANDON	FLOWOOD	LUMBERTON	POLKVILLE	TCHULA
BROOKHAVEN	FOREST	LYON	PONTOTOC	TISHOMINGO
BROOKSVILLE	FRENCH CAMP	MABEN	POPLARVILLE	TREMONT
BRUCE	FULTON	MACON	PORT GIBSON	TUNICA
BUDE	GAUTIER	MADISON	POTTS CAMP	TUPELO
BURNSVILLE	GLOSTER	MAGEE	PRENTISS	TUTWILER
BYHALIA	GOLDEN	MAGNOLIA	PUCKETT	TYLERTOWN
BYRAM	GOODMAN	MANTACHIE	PURVIS	UNION
CALEDONIA	GREENVILLE	MARIETTA	QUITMAN	VAIDEN
CALHOUN CITY	GREENWOOD	MARION	RALEIGH	VARDAMAN
CANTON	GRENADA	MARKS	RAYMOND	VERONA
CARTHAGE	GULFPORT	MATHISTON	RENOVA	VICKSBURG
CARY	GUNTOWN	MAYERSVILLE	RICHLAND	WALNUT
CENTREVILLE	HATLEY	MCCOMB	RICHTON	WALNUT GROVE
CHARLESTON	HATTIESBURG	MCLAIN	RIDGELAND	WALTHALL
CHUNKY	HAZLEHURST	MEADVILLE	RIENZI	WATER VALLEY
CLARKSDALE	HEIDELBERG	MENDENHALL	RIPLEY	WAVELAND
CLEVELAND	HERNANDO	MERIDIAN	ROLLING FORK	WAYNESBORO
CLINTON	HICKORY	MERIGOLD	ROSEDALE	WEIR
COFFEEVILLE	HICKORY FLAT	METCALFE	ROXIE	WESSON
COLDWATER	HOLLANDALE	MIZE	RULEVILLE	WEST
COLLINS	HOLLY SPRINGS	MONTICELLO	SALTILLO	WEST POINT
COLUMBIA	HORN LAKE	MOORHEAD	SALLIS	WIGGINS
COLUMBUS	HOULKA	MORTON	SANDERSVILLE	WINONA
COMO	HOUSTON	MOSS POINT	SARDIS	WOODLAND
CORINTH	INDIANOLA	MOUNT OLIVE	SEBASTOPOL	WOODVILLE
COMITTI	INDIANOLA	IVIOUNT OLIVE	JEDAS FOF OL	YAZOO CITY
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Statistical 2017

#### PUBLIC AGENCIES COVERED BY STATE RETIREMENT ANNUITY (CONTINUED)

#### Juristic Entities

ADAMS COUNTY AIRPORT COMMISSION

ADAMS COUNTY SOIL & WATER CONSERVATION DISTRICT

BOGUE PHALIA DRAINAGE DISTRICT

**BOLIVAR COUNTY SOIL & WATER CONSERVATION DISTRICT** 

CALEDONIA NATURAL GAS DISTRICT

CALHOUN COUNTY SOIL & WATER CONSERVATION DISTRICT

CANTON CONVENTION & VISITORS BUREAU
CANTON REDEVELOPMENT AUTHORITY
CHICKASAWHAY NATURAL GAS DISTRICT

CHOCTAW COUNTY ECONOMIC DEVELOPMENT DISTRICT

CLAIBORNE COUNTY HUMAN RESOURCE AGENCY

CLEARY WATER, SEWER & FIRE DISTRICT

COAHOMA COUNTY SOIL & WATER CONSERVATION DISTRICT

COLUMBUS LOWNDES COUNTY RECREATION COMMISSION

COPIAH COUNTY HUMAN RESOURCE AGENCY

CORINTH-ALCORN AIRPORT BOARD

CORINTH-ALCORN CONVENTION & AGRICULTURE EXPOSITION CENTER

COVINGTON COUNTY SOIL & WATER CONSERVATION DISTRICT

CULKIN WATER DISTRICT

**DELTA BLUES MUSEUM** 

DESOTO COUNTY CONVENTION & VISITORS BUREAU

DESOTO COUNTY REGIONAL UTILITY AUTHORITY

DESOTO COUNTY SOIL & WATER CONSERVATION DISTRICT

DIAMONDHEAD FIRE PROTECTION DISTRICT
EAST LEFLORE COUNTY WATER & SEWER DISTRICT

EMERGENCY MANAGEMENT DISTRICT

FORREST COUNTY SOIL & WATER CONSERVATION DISTRICT

GEORGE COUNTY SOIL & WATER CONSERVATION DISTRICT

GLENDALE UTILITY DISTRICT

GOLDEN TRIANGLE COOPERATIVE SERVICE DISTRICT

GOLDEN TRIANGLE REGIONAL AIRPORT

GOLDEN TRIANGLE REGIONAL SOLID WASTE MANAGEMENT AUTHORITY

GREENVILLE PORT COMMISSION
GREENWOOD TOURISM COMMISSION
GRENADA COUNTY CIVIL DEFENSE

GRENADA COUNTY SOIL & WATER CONSERVATION DISTRICT

GULF REGIONAL PLANNING COMMISSION

GULFPORT-BILOXI REGIONAL AIRPORT AUTHORITY
HANCOCK COUNTY HUMAN RESOURCE AGENCY
HANCOCK COUNTY PLANNING COMMISSION
HANCOCK COUNTY PORT & HARBOR COMMISSION
HANCOCK COUNTY SOIL CONSERVATION DISTRICT

HANCOCK COUNTY UTILITY AUTHORITY
HANCOCK COUNTY WATER & SEWER DISTRICT
HARRISON COUNTY DEVELOPMENT COMMISSION

HARRISON COUNTY SOIL & WATER CONSERVATION DISTRICT

HARRISON COUNTY UTILITY AUTHORITY
HATTIESBURG TOURISM COMMISSION

HINDS COUNTY SOIL & WATER CONSERVATION DISTRICT
HOLMES COUNTY SOIL & WATER CONSERVATION DISTRICT
ITAWAMBA COUNTY SOIL & WATER CONSERVATION DISTRICT
JACKSON COUNTY EMERGENCY/COMMUNICATIONS DISTRICT

JACKSON COUNTY PORT AUTHORITY
JACKSON COUNTY UTILITY AUTHORITY
JACKSON MUNICIPAL AIRPORT AUTHORITY

JONES COUNTY ECONOMIC DEVELOPMENT AUTHORITY

KILN WATER & FIRE PROTECTION DISTRICT-HANCOCK COUNTY
LAFAYETTE COUNTY SOIL & WATER CONSERVATION DISTRICT
LAMAR COUNTY SOIL & WATER CONSERVATION DISTRICT
LAUDERDALE COUNTY EMERGENCY MEDICAL SERVICE DISTRICT
LAUDERDALE COUNTY SOIL & WATER CONSERVATION DISTRICT

LAUREL AIRPORT AUTHORITY

LEE COUNTY SOIL & WATER CONSERVATION DISTRICT
MADISON COUNTY ECONOMIC DEVELOPMENT AUTHORITY
MADISON COUNTY SOIL & WATER CONSERVATION DISTRICT
MARION COUNTY SOIL & WATER CONSERVATION DISTRICT
MENTAL HEALTH & RETARDATION, REGION III (NE MS MHR)
MENTAL HEALTH & RETARDATION, REGION IV (CORINTH)
MENTAL HEALTH & RETARDATION, REGION VI (GREENWOOD)
MENTAL HEALTH & RETARDATION, REGION VIII (BRANDON)
MENTAL HEALTH & RETARDATION, REGION X (WEEMS MH)
MENTAL HEALTH & RETARDATION, REGION XI (SW MS MH/MR)
MENTAL HEALTH & RETARDATION, REGION XI (SW MS MH/MR)
MENTAL HEALTH & RETARDATION, REGION XIV (SINGING RIVER)

MERIDIAN AIRPORT AUTHORITY

MID-MISSISSIPPI DEVELOPMENT DISTRICT

MISSISSIPPI GULF COAST REGIONAL CONVENTION & VISITORS BUREAU

MISSISSIPPI LEVEE COMMISSIONERS

MUNICIPAL ENERGY AGENCY OF MISSISSIPPI NATCHEZ-ADAMS COUNTY PORT COMMISSION

NATCHEZ WATERWORKS

NESHOBA COUNTY SOIL CONSERVATION DISTRICT NEWTON COUNTY SOIL CONSERVATION DISTRICT NORTHEAST MISSISSIPPI NATURAL GAS DISTRICT

NORTHEAST MISSISSIPPI REGIONAL WATER SUPPLY DISTRICT

NROUTE TRANSIT COMMISSION OXFORD TOURISM COUNCIL

PANOLA COUNTY SOIL & WATER CONSERVATION DISTRICT PHILADELPHIA-NESHOBA COUNTY PARK COMMISSION

PIKE COUNTY SOIL CONSERVATION DISTRICT

PINE BELT REGION SOLID WASTE MANAGEMENT AUTHORITY
PONTOTOC COUNTY SOIL & WATER CONSERVATION DISTRICT
PRENTISS COUNTY SOIL & WATER CONSERVATION DISTRICT

RANKIN COUNTY HUMAN RESOURCE AGENCY
RANKIN-HINDS PEARL RIVER FLOOD
RESERVOIR FIRE PROTECTION DISTRICT
RIDGELAND TOURISM COMMISSION

ROSEDALE-BOLIVAR COUNTY PORT COMMISSION

RUNNELSTOWN UTILITY DISTRICT
SEBASTOPOL NATURAL GAS DISTRICT
SIMPSON COUNTY PARKS & RECREATION
SOUTH MISSISSIPPI FAIR COMMISSION
STONE COUNTY SOIL & WATER
STONE COUNTY UTILITY AUTHORITY

SUNFLOWER COUNTY SOIL & WATER CONSERVATION DISTRICT
TALLAHATCHIE COUNTY SOIL & WATER CONSERVATION DISTRICT
TENNESSEE-TOMBIGBEE WATERWAY DEVELOPMENT AUTHORITY

TUNICA COUNTY AIRPORT COMMISSION
TUNICA COUNTY TOURISM COMMISSION

TUPELO AIRPORT AUTHORITY

UNION COUNTY SOIL & WATER CONSERVATION DISTRICT

VICKSBURG CONVENTION & VISITORS BUREAU

WALTHALL COUNTY SOIL & WATER CONSERVATION DISTRICT

#### PUBLIC AGENCIES COVERED BY STATE RETIREMENT ANNUITY (CONTINUED)

#### Juristic Entities (continued)

WARREN COUNTY PARK COMMISSION

WARREN COUNTY SOIL & WATER CONSERVATION DISTRICT

WAYNE COUNTY ECONOMIC DEVELOPMENT DISTRICT
WAYNE COUNTY SOIL & WATER CONSERVATION DISTRICT

WEST JACKSON COUNTY UTILITY DISTRICT

WEST RANKIN UTILITY AUTHORITY

WINSTON COUNTY ECONOMIC DEVELOPMENT

WINSTON COUNTY SOIL & WATER CONSERVATION DISTRICT

YALOBUSHA WATER & SEWER DISTRICT

YAZOO COUNTY CONVENTION & VISITORS BUREAU
YAZOO COUNTY SOIL & WATER CONSERVATION DISTRICT

YAZOO-MISSISSIPPI DELTA JOINT WATER MANAGEMENT DISTRICT

YAZOO-MISSISSIPPI DELTA LEVEE COMMISSION

YAZOO RECREATION COMMISSION

#### Housing Authorities

ATTALA HATTIESBURG MS REG. V-NEWTON SHELBY

BALDWYN HAZLEHURST MS REG. VI-JACKSON SOUTH DELTA REGION

BAY WAVELAND **HOLLY SPRINGS** MS REG. VII-MCCOMB STARKVILLE ITTA BENA MS REG. VIII-GULFPORT SUMMIT BILOXI IUKA MOUND BAYOU TUPELO **BOONEVILLE** CANTON **JACKSON** NATCHEZ **VICKSBURG** CLARKSDALE LAUREL **OXFORD** WATER VALLEY COLUMBUS LOUISVILLE **PICAYUNE** WAYNESBORO CORINTH мссомв PONTOTOC WEST POINT MERIDIAN SARDIS WINONA FOREST GREENWOOD MS REG. IV-COLUMBUS SENATOBIA YAZOO CITY

#### Local Hospitals

CLAIBORNE COUNTY MEDICAL CENTER JEFFERSON COUNTY

FIELD MEMORIAL COMMUNITY MADISON COUNTY NURSING HOME
FRANKLIN COUNTY MEMORIAL MAGNOLIA REGIONAL HEALTH CENTER
HANCOCK MEDICAL CENTER NORTH SUNFLOWER MEDICAL CENTER

SOUTH SUNFLOWER COUNTY

TIPPAH COUNTY

#### Local Libraries

AMORY MUNICIPAL JENNIE STEPHENS SMITH
BENTON COUNTY JUDGE GEORGE W ARMSTRONG

BOLIVAR COUNTY KEMPER-NEWTON COUNTY REGIONAL
CARNEGIE PUBLIC LAMAR COUNTY

CARROLL COUNTY

CENTRAL MISSISSIPPI REGIONAL

COLUMBUS-LOWNDES PUBLIC

COPIAH-JEFFERSON REGIONAL

LAUREL-JONES COUNTY

LEE-ITAWAMBA COUNTY

LINCOLN-LAWRENCE-FRANKLIN

MADISON COUNTY-CANTON PUBLIC

COVINGTON COUNTY MARKS-QUITMAN COUNTY

DIXIE REGIONAL MARSHALL COUNTY

EAST MISSISSIPPI REGIONAL MERIDIAN-LAUDERDALE COUNTY

ELIZABETH JONES MID-MISSISSIPPI REGIONAL
EVANS MEMORIAL NESHOBA COUNTY PUBLIC
FIRST REGIONAL NORTHEAST REGIONAL
GREENWOOD-LEFLORE PUBLIC NOXUBEE COUNTY
HANCOCK COUNTY OKTIBBEHA COUNTY

HARRIETTE PERSON MEMORIAL PEARL RIVER COUNTY
HARRISON COUNTY PIKE-AMITE-WALTHALL COUNTY

HATTIESBURG-PETAL-FORREST COUNTY

HUMPHREYS COUNTY

JACKSON-GEORGE REGIONAL

JACKSON-HINDS

PINE FOREST REGIONAL

SHARKEY-ISSAQUENA COUNTY

SOUTH MISSISSIPPI REGIONAL

SUNFLOWER COUNTY

WASHINGTON COUNTY
WAYNESBORO-WAYNE COUNTY
WILKINSON COUNTY
YALOBUSHA COUNTY

YAZOO LIBRARY ASSOCIATION

TOMBIGBEE REGIONAL

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## **PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI**

429 Mississippi Street • Jackson, Mississippi • 39201-1005

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