

# 2016



## COMPREHENSIVE ANNUAL FINANCIAL REPORT



*Employees Retirement System of Texas • A Component Unit of the State of Texas*

Fiscal Year Ended August 31, 2016



**ERS**  
EMPLOYEES RETIREMENT  
SYSTEM OF TEXAS

The mission of the Employees Retirement System of Texas is to support the state workforce by offering competitive benefits at a reasonable cost.

# 2016 Comprehensive Annual Financial Report

Porter Wilson, Executive Director

Prepared by: Finance Division



A Component Unit of the State of Texas  
Fiscal Year Ended August 31, 2016

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# INTRODUCTORY SECTION

Highlights of Retirement Programs

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Letter of Transmittal

Certificate of Achievement

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Summary of Plan Provisions



# Highlights of Retirement Programs

As of August 31, 2016

	ERS (Note A)	LECOS (Note A)	JRS I (Note B)	JRS II
<b>Retirement Census Data</b>				
Active Members	146,390	39,066	10	548
Terminated Employees Entitled to Benefits	108,873	15,203	2	166
<b>Total Retirement Accounts</b>	<b>255,263</b>	<b>54,269</b>	<b>12</b>	<b>714</b>
Retirees and Beneficiaries	103,758	11,515	374	331
Service Retirements	5,605	803	1	9
Disability Retirements	63	0	0	1
<b>Total Retirements During the Fiscal Year</b>	<b>5,668</b>	<b>803</b>	<b>1</b>	<b>10</b>
Funded Ratios (Note C)	75.2%	71.1%		92.9%
Plan Fiduciary Net Position as a Percentage of Total Pension Liability (Note D)	55.3%	38.9%		78.3%
<b>Results of Investments - Pension Trust Funds</b>				
Interest, Dividends & Securities Lending Income	\$ 587,320,027	\$ 20,681,186		\$ 9,050,985
Net Depreciation in Fair Value of Investments	719,036,784	25,276,016		11,253,680
<b>Other Transactions Summary</b>				
Member Contributions	\$ 674,677,886	\$ 9,538,658		\$ 5,754,349
State Retirement Contributions	686,840,854	27,497,297		12,374,200
Retirement Benefits	2,131,227,403	62,720,133	25,535,877	20,855,496
Member Contributions Withdrawn	84,444,507	1,825,600		299,268
Administrative Expenses	20,448,669	1,421,458		226,106
Investment Expenses	34,474,289	1,178,577		466,057
<b>Money-Weighted Rates of Return</b>	<b>5.40%</b>	<b>5.39%</b>		<b>5.47%</b>
<b>Time Weighted Rates of Return</b>				
Investment Pool Trust Fund	<b>1-Year</b> 5.32%	<b>3-Year</b> 6.68%	<b>5-Year</b> 7.66%	

- ERS - Employees Retirement Fund
- LECOS - Law Enforcement and Custodial Officer Supplemental Retirement Fund
- JRS I - Judicial Retirement System Plan One
- JRS II - Judicial Retirement System Plan Two

Note A: The members of the LECOS are also members of the ERS.

Note B: Member contributions for the Judicial Retirement System Plan One are deposited as unappropriated receipts in the State's General Revenue Fund, which is reported in an Agency Fund. Annuity payments and refunds for the Judicial Retirement System Plan One, which are funded on a pay-as-you-go basis, are appropriated by the Legislature each biennium. This fund has no invested assets.

Note C: Funded Ratios are based on actuarial calculations for funding purposes. The actuarial accrued liability used in the Funded Ratio calculation for ERS and LECOS is based on a total liability, which is based on the benefit provisions in effect for each active member and a normal cost rate based on the benefits in effect for members hired after August 31, 2013.

Note D: This calculation reflects market value, changes in single discount rate application, and other adjustments as required by GASB No. 67.

December 1, 2016

PORTER WILSON  
EXECUTIVE DIRECTOR

I. CRAIG HESTER  
CHAIR

DOUG DANZEISER  
VICE-CHAIR

BOARD OF TRUSTEES  
ILESIA DANIELS  
CYDNEY C. DONNELL  
BRIAN D. RAGLAND  
JEANIE WYATT

The Honorable Governor Abbott and Members of the Texas Legislature:

On behalf of the Employees Retirement System of Texas, I appreciate this opportunity to share with you our financial and programmatic activities of the past year. Legislative actions to protect the long-term health of the ERS Trust Fund, positive investment returns, and cost-saving activities in our health plans have made this a successful year. With your help, we continue to position ERS programs for future stability and growth.

The 84th Legislature took significant steps to protect and ensure the long-term health of state pension funds with the increase in direct contributions by the state and contributing members. These actions were critical in reversing a trend toward fund depletion and towards strengthening overall fund assets resulting in the period to cover the unfunded liability reduced from infinite to approximately 35 years. We are grateful for your efforts to achieve this positive outcome for our members and for the state as a whole. We look forward to working with the Governor's Office and the Legislature during the 85th Legislative Session to continue the progress made and work toward solutions to achieve actuarial soundness.

ERS faces unique funding challenges related to both the long-term investment environment and continuing changes in national health care structures and trends. ERS investments are highly diversified and designed to withstand market fluctuations. Because of this, ERS regularly reviews its full investment portfolio and actively manages assets to achieve the highest risk adjusted return possible given the existing market conditions. In fiscal years 2017 and 2018, ERS will undertake an asset allocation study and pension experience study. The asset allocation impacts both the short term return expectations that guide investment decisions and the long term assumption ERS' retirement actuaries can recommend during the pension experience study.

A number of initiatives to improve the quality of health-care benefits while maintaining lower than average costs for our members have been implemented. These initiatives include renegotiating the Pharmacy Benefit Manager Contract, resulting in an overall savings, Medicare Advantage PPO and HMO, combining out-of-pocket maximums for health and prescription drug services under the HealthSelect of Texas Plan, and the new Group Vision Plan. The Group Benefits Plan cost per employee is more than \$1,800 less than similar employer-based plans nationwide

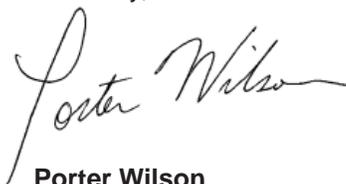
ERS will continue to face significant opportunities in the Group Benefit Plan because of the rising costs of health care delivery nationally. Health care costs increase faster than the national income and the overall inflation rate. The average cost trend is projected to be 8.5% from fiscal year 2017 through fiscal year 2019. Factors contributing to the increase include medical price increases and utilization of medical care services; the development of expensive new technologies and medical procedures; a rise in chronic diseases attributable to the aging population and the escalating obesity epidemic; and increasing use of drugs, particularly specialty drugs.

Beginning September 1, 2016, state employees now have the option of selecting a consumer-directed health plan (CDHP) as an alternative to the HealthSelect point of service plan and the health maintenance organizations (HMO). The CDHP allows state employees to have greater control of their healthcare expenses and to realize the tax benefits of a health savings account instead of the standard HealthSelect and HMO health plans.

ERS continues to monitor the cost and utilization of compound drugs and topical analgesics for fraud, waste and abuse. The agency's pharmacy benefit manager contract includes a provision to review and exclude charges for drug therapies that are not approved by the U.S. Food and Drug Administration. This monitoring has proven to reduce costs while maintaining the same level of health care.

Thank you for your ongoing support. ERS is proud of its role in supporting the mission of this great state, the leadership and the employees both active and retirees.

Sincerely,

A handwritten signature in cursive script that reads "Porter Wilson". The signature is written in black ink and is positioned to the left of the printed name and title.

**Porter Wilson**  
**Executive Director**



December 1, 2016

PORTER WILSON  
EXECUTIVE DIRECTOR

I. CRAIG HESTER  
CHAIR

DOUG DANZEISER  
VICE-CHAIR

BOARD OF TRUSTEES  
ILESA DANIELS  
CYDNEY C. DONNELL  
BRIAN D. RAGLAND  
JEANIE WYATT

To: The Board of Trustees and Members of the Employees Retirement System of Texas

Ladies and Gentlemen:

I am pleased to submit the Annual Financial Report of the Employees Retirement System of Texas (the System) for the year ended August 31, 2016, in compliance with TEX. GOV'T CODE ANN Sec. 2101.011 and in accordance with the requirements established by the Texas Comptroller of Public Accounts. This report is in compliance with generally accepted accounting principles as established by the Governmental Accounting Standards Board (GASB). Its purpose is to provide information as a basis for making management decisions, to determine compliance with legal provisions, and to determine responsible stewardship over the assets contributed by the members and the state.

The System's Finance Staff prepared this report. It has been audited by the State Auditors Office of Texas. For information regarding the scope of the audit, please see the Independent Auditors' Report in the Financial Section.

The responsibility for the accuracy, completeness, and fair presentation of the information, including all disclosures, rests with the management of the System. We believe that the System's internal accounting controls adequately safeguard assets and provide reasonable assurance of proper recording of financial transactions. Internal accounting controls are designed to provide reasonable, but not absolute, assurance regarding the safeguarding of assets and the reliability of financial records.

Please refer to the Management's Discussion and Analysis in the Financial Section for an overview of the financial activities of the current and prior fiscal years.

### **SYSTEM'S STRUCTURE AND SERVICES**

For financial reporting purposes, the System is considered a Retirement System of the State of Texas. The System's financial activities will be included in the annual financial report for the State of Texas for the fiscal year ended August 31, 2016.

The Employees Retirement Plan was established in 1947 by the Texas Constitution to provide benefits for officers and employees of the state. The System administers retirement and disability annuities and death and survivor benefits for employees of the State of Texas and their beneficiaries and proportional retirement benefits for members of the Proportionate Retirement Program.

The Law Enforcement and Custodial Officer Supplemental (LECOS) Retirement Plan was established in 1979 and is governed by Title 8, Subtitle B of the Texas Government Code. The program provides supplemental retirement benefits to certified peace officers or custodial officers employed by the Texas Department of Public Safety, the Texas Alcoholic Beverage Commission, the Texas Juvenile Justice Department, the Texas Parks and Wildlife Department, and the Texas Department of Criminal Justice.

The Judicial Retirement Plan I and Plan II were established to provide benefits for judges. Both Plans were created under Article XVI, Section 67 of the Texas Constitution and governed by Title 8, Subtitle E of the Texas Government Code. Plan I was established in 1949 as a pay-as-you-go pension plan rather than a funded pension plan. The Judicial Retirement Plan II is governed by Sections 840.103 and 840.106, Texas Government Code, and was established as a new plan of actuarially funded retirement benefits for judges becoming members of the Judicial Retirement System after August 31, 1985. Although the Texas Judicial Retirement Systems are separate legal entities, the Employees Retirement System of Texas and the Texas Judicial Retirement Systems are a single accounting entity because they are governed by the same Board of Trustees (the Board), directed by the same management, part of the ERS goal of administering comprehensive and actuarially sound retirement programs and supports the objective of retaining proper funding and investment growth for the programs.

Accountability for all fiscal and budgetary matters is the responsibility of the Board. Operating administrative expenses, including capital items, are budgeted annually. The Board must approve any subsequent increases in the budget. Budgetary control is maintained in the financial system with automated edits, and through processes and procedures for approvals, encumbrances, and reporting.

## **FINANCIAL CONDITION**

### **Investment Performance**

The investment portfolio closed the fiscal year with a fair value of \$25.5 billion, and had a gross return of 5.32% for the year. The investment portfolio's total return did not meet the actuarially assumed rate of return of 8.0% due to adverse market conditions at the end of the fiscal year. The time weighted rate of return for three and five years were 6.68% and 7.66% respectively.

The System's management remains confident in the financial markets and maintains a long term approach to investing the System's assets. The System's investments are highly diversified and are designed to withstand market fluctuations that have occurred recently. Please refer to the Investment Section for additional information on investment policies, strategies, and safeguards.

### **Funding**

A pension system instills confidence and trust when its assets are sufficient to meet the retirement benefit schedules of its members. For the Employees Retirement Fund, the August 31, 2016 actuarial valuation shows that the ratio of the actuarial value of assets to the actuarial accrued liability was 75.2% for funding purposes. The average actuarial funding level for state and local public pension plans nationwide is estimated at 74% for 2015 according to the National Data information presented on the Center for Retirement Research at Boston College in June 2016. The Employees Retirement Fund is in relatively good financial condition. The System worked with the 84th Legislature to improve the funding status of the fund. Effective September 1, 2015, Legislation increased State and member contributions and eliminated the 90-day wait, resulting in substantial improvements to the actuarial soundness of the Employees Retirement Plan. The System is committed to working with the Legislature to return the retirement plans to an actuarially sound status. Additional information on funding status and progress toward achieving funding goals is presented in the Financial and the Actuarial Sections.

In fiscal year 2016, The System implemented new reporting standards in accordance with the statements issued by the Governmental Accounting Standards Board. These standards will enhance the transparency of reporting fair value of investments and clarify the reporting requirements for pension plan that is not administered through a trust. As a result of the implementation, the Judicial Retirement Plan One was reclassified from a pension and other employee benefit trust fund to an agency fund. In addition, investments are disclosed by fair value hierarchy in the Notes to the Basic Financial Statements.

## **MAJOR INITIATIVES**

The System maintains a professional and diversified investment program optimizing the mix of internal management and external advisors, continuing to expand asset classes and reduce investment risk through additional portfolio management tools.

The System continues to analyze and design innovative approaches to provide a quality health care plan and other benefits at a reasonable cost. As directed by the 84th Legislature, the System implemented the Consumer Drive HealthSelect (CDHS) on September 1, 2016. CDHS is a high deductible health plan with the optional health savings account. The System has also implemented new benefits with minimal cost to the plan, which include: (1) Combined out-of-pocket maximum for health and prescription drug services under the HealthSelect Plan; (2) State of Texas Vision, which is a group vision insurance benefit, and (3) Commuter Spending Account providing members a pre-tax deduction from payroll for reimbursement of qualified parking and transportation expenses.

## **AWARDS**

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

The Government Finance Officers Association (GFOA) of the United States and Canada awarded the Certificate of Achievement for Excellence in Financial Reporting to the System for its Comprehensive Annual Financial Report for the fiscal year ended August 31, 2015. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports. To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report whose contents meet or exceed program standards. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for only one year. The System has received a Certificate of Achievement for each of the last 27 years. We believe our current report continues to meet the Certificate of Achievement program requirements and are submitting it to the GFOA for consideration again this year.

### **Public Pension Standards Award for Administration**

The Public Pension Coordinating Council (PPCC) gave the 2016 Public Pension Standards Award for Administration to the System in recognition of meeting professional standards for plan administration as set forth in the Public Pension Standards.

## **ACKNOWLEDGMENTS**

The preparation of this report on a timely basis was accomplished with the efficient and dedicated service of the Finance staff and other employees of the System. I would like to express my appreciation for management's support in preparing this report and to all the employees of the System who contributed to its preparation.



**MACHELLE PHARR, CPA**  
Chief Financial Officer



Government Finance Officers Association

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

Presented to

**Employees Retirement System  
of Texas**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**August 31, 2015**

Executive Director/CEO



Public Pension Coordinating Council

***Recognition Award for Administration  
2016***

Presented to

***Employees Retirement System of Texas***

In recognition of meeting professional standards for  
plan 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)

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

Alan H. Winkle  
Program Administrator

# Organizational Chart and Data

As of August 31, 2016



# Consultants and Advisors

As of August 31, 2016

## Consulting Actuaries

Philip S. Dial, F.S.A  
*Rudd and Wisdom, Inc.*  
Ryan Falls, F.S.A., FCA, EA, MAAA  
*Gabriel, Roeder, Smith & Company*  
Joseph Newton, F.S.A., FCA, EA, MAAA  
*Gabriel, Roeder, Smith & Company*  
Dana Woolfrey, F.S.A, FCA, EA, MAAA  
*Gabriel, Roeder, Smith & Company*

## Investment Advisory Committee

James Hille, CFA, CAIA, Chair  
*Texas Christian University Endowment*  
Caroline Cooley, Vice Chair  
*CIO-Diversified Funds, Crestline Investors. Inc.*  
Bob Alley, CFA  
Ken D. Mindell  
*Senior Vice-President, Rosewood Management Corp.*  
Laura T. Starks, Ph.D.  
*The University of Texas at Austin*  
Lenore Sullivan  
Vernon D. Torgerson, Jr., CFA  
*Chair, Frost National Bank of San Antonio*

## Investment Consultants

Albourne Partners  
Altius Associates  
Aon Hewitt Investment Consulting  
RV Kuhns & Associates, Inc.

## External Investment Advisors

### Domestic Equity

Barrow, Hanley, Mewhinney & Strauss, LLC

### International Equity

BlackRock, Inc.  
Fisher Investments Institutional Group  
Franklin Templeton Institutional, LLC  
JP Morgan Asset Management  
Lazard Asset Management

### Managers of Emerging Managers

Legato Capital Management, LLC

## Global Custodian

BNY Mellon Asset Servicing

## Medical Board

Ace Alsup, M.D.  
John A. Genung, M.D.  
William M. Loving, M.D.  
William P. Taylor, M.D.

# Summary of Plan Provisions

Effective since September 1, 2009 (Except as noted below)

The Employees Retirement System of Texas was created by the Texas Legislature in 1947 and is administered in accordance with the Texas Constitution. The System provides a retirement and disability pension system for State employees, law enforcement and custodial officers, elected state officials and two classes of judges. The System administers the trust funds, with a fiduciary obligation to the members and retirees of the System who are its beneficiaries.

The retirement programs complement the Social Security and Medicare programs by providing a retirement annuity with service, disability and survivorship benefits. The

Employees Retirement System of Texas Plan (ERS), the Law Enforcement and Custodial Officer Supplemental Retirement Plan (LECOS), the Judicial Retirement System of Texas Plan One (JRS I) and Judicial Retirement System of Texas Plan Two (JRS II) are single employer defined benefit pension plans.

For a complete description of the provision of the law that describes the Retirement Plans, see Vernon's Texas Statutes and Codes Annotated ( V.T.S.C.A. ), Texas Government Code, Title 8. The following is a summary of the various plan provisions.

ERS	LECOS	JRS I and JRS II
-----	-------	------------------

## Membership:

### *Employee Class Only:*

- Employees and appointed officers of every department, commission, board, agency, or institution of the State except those who are included in the coverage of Teacher Retirement System of Texas, JRS I, and JRS II.

### *Elected Class Only:*

- Persons who hold State offices that are normally filled by statewide election and that are not included in the coverage of JRS I and JRS II.
- Members of the Legislature.
- District and criminal district attorneys.

- Law enforcement officers recognized as commissioned law enforcement officers by the Commission on Law Enforcement Officer Standards and Education and employed at an agency defined by statute.
- Custodial officers certified in accordance with the statutory requirements as having a normal job assignment that requires frequent or infrequent planned contact with inmates of that institution and employed at an agency defined by statute

### *JRS I Only:*

- Judges, justices and commissioners of the Supreme Court, the Court of Criminal Appeals, the Court of Appeals, District Courts, and certain commissions to a court who commenced service before September 1, 1985.

### *JRS II Only:*

- Judges, justices and commissioners of the Supreme Court, the Court of Criminal Appeals, the Court of Appeals, District Courts, and certain commissions to a court who commenced service after August 31, 1985.

## Service Retirement Eligibility without Reduced Benefits:

### *Employee Class Only:*

Hire date prior to 9-1-2009:

- Age 60 with at least five years of service credit, or
- Rule-of-80 with at least five years of service credit, or
- Age 55 with at least 10 years of service credit as a certified peace officer or custodial officer.

Hire date on or after 9-1-2009 and prior to 9-1-2013:

- Age 65 with 10 years of service
- Rule-of-80, with at least 10 years of service at age 60.

Hire date on or after 9-1-2013:

- Age 65 with 10 years of service.
- Rule-of-80, with at least 10 years of service at age 62.

### *Elected Class Only:*

- Age 60 with eight years of service credit.
- Age 50 with 12 years of service credit.

Hire date prior to 9-1-2009:

- 20 years of service credit as a certified peace officer/custodial officer and the member's age is the earlier of either the age of 50 or the age at which the sum of age and years of service credit equals or exceeds the number 80.

Hire date on or after 9-1-2009 and prior to 9-1-2013:

- 20 years of service credit as a certified peace officer/custodial officer at or over age 55.

Hire date on or after 9-1-2013:

- 20 years of service credit as a certified peace officer/custodial officer at or over age 57.

- Age 65 with at least 10 years of service credit and currently holding a judicial office, or
- Age 65 with at least 12 years of service credit, regardless of whether the member currently holds a judicial office, or
- 20 years of service at any age, regardless of whether the member currently holds a judicial office, or
- The sum of age and years of service credit equals or exceeds the number 70 and served at least 12 years on an appellate court, regardless of whether the member currently holds a judicial office.

### Early Service Retirement Eligibility with Reduced Benefits:

Hire date on or after 9-1-2009 and prior to 9-1-2013:

- Rule-of-80, with at least 10 years of service. (5% annuity reduction for each year retired under age 60, up to 25%)
- Age 55 with at least 10 years of service credit as a certified peace officer or custodial officer. (5% annuity reduction for each year retired under age 60, up to 25%)

Hire date on or after 9-1-2013:

- Rule-of-80, with at least 10 years of service. (5% annuity reduction for each year retired under age 62, no cap)
- Age 55 with at least 10 years of service credit as a certified peace officer or custodial officer. (5% annuity reduction for each year retired under age 62, no cap)

Hire date prior to 09-01-2009:

- 20 years of service credit as a certified peace officer/custodial officer, under the age of 50. Actuarial reduction for those retire prior to age 50.

Hire date on or after 9-1-2009 and prior to 9-1-2013:

- 20 years of service credit as a certified peace officer/custodial officer (5% annuity reduction for each year retired under age 55, up to 25%)

Hire date on or after 9-1-2013:

- 20 years of service credit as a certified peace officer/custodial officer (5% annuity reduction for each year retired under age 57, no cap). Additional actuarial reduction for those that retire prior to age 50.

- Age 60 with 10 years of service credit and currently holding judicial office, or
- Age 60 with 12 years of service credit, regardless of whether the member currently holds a judicial office.

### Standard Service Retirement Benefits:

#### *Employee Class Only:*

- Standard monthly annuity is equal to 2.3% of average monthly compensation multiplied by the number of years of service credit.
- The average monthly compensation for those hired prior to 9-1-2009 is the average of the highest 36 months of compensation.
- The average monthly compensation for those hired on or after 9-1-2009 is the average of the highest 48 months of compensation.
- The average monthly compensation for those hired on or after 9-1-2013 is the average of the highest 60 months of compensation.
- Minimum standard annuity is \$150 per month.
- Maximum standard annuity is 100% of the average monthly compensation.

#### *Elected Class Only:*

- Standard monthly annuity is 2.3% of the current State salary of a district judge multiplied by the number of years of service credit.
- Retirement benefits are automatically adjusted should State judicial salaries change.
- Maximum standard annuity is 100% of the State salary being paid to a district judge.

- Standard monthly annuity is equal to 2.8% of average monthly compensation multiplied by the number of years of service credit.
- The average monthly compensation for those hired prior to 9-1-2009 is the average of the highest 36 months of compensation.
- The average monthly compensation for those hired on or after 9-1-2009 is the average of the highest 48 months of compensation.
- The average monthly compensation for those hired on or after 9-1-2013 is the average of the highest 60 months of compensation.
- Minimum standard annuity is \$150 per month.
- Maximum standard annuity is 100% of the average monthly compensation.

- Standard monthly annuity is equal to 50% of the salary for the last position from which the retiring member was elected or appointed.
- An additional 10% is paid when a member retires within one year of leaving office or within one year of last assignment as a visiting judge.
- The monthly annuity of a member who elects to make contributions after 20 years of service would be based on 50% of the State salary plus 2.3% for each subsequent year with the total, including the additional 10%, not to exceed 90%.

#### *JRS II Only:*

- The monthly annuity of a member who elects to make contributions after reaching the Rule of 70 with at least 12 years on an appellate court would be based on 50% of the State salary plus 2.3% for each subsequent year with the total, including the additional 10%, not to exceed 90%.

### Optional Annuity Plans:

*Employee Class and Elected Class:*  
Members can choose one of the following beneficiary options at retirement. Annuity is reduced for life and is actuarially reduced based on age of member and beneficiary at time of retirement.

- Lifetime with 100% to surviving beneficiary;
- Lifetime with 75% to surviving beneficiary;
- Lifetime with 50% to surviving beneficiary;
- Lifetime with five years certain to surviving beneficiary;
- Lifetime with 10 years certain to surviving beneficiary; and
- One-time partial lump sum of up to three years of standard annuity at retirement (annuity is reduced for life and the reduced annuity is in addition to the calculation of the six beneficiary options listed above).
- If beneficiary predeceases member, the annuity paid to the retired member who selected one of the lifetime survivor benefits is increased to the standard amount.

- Same as ERS.

- Same as ERS except for the one-time partial lump sum.

### Vesting Requirement:

Hire date prior to 09-01-2009:

- Five or more years of service credit for Employee Class.

Hire date on or after 09-01-2009 and prior to 9-1-2013:

- 10 or more years of service credit for Employee Class.

Hire date on or after 09-01-2013:

- 10 or more years of service credit for Employee Class.

*Elected Class Only:*

- Eight or more years of service credit.

- 20 or more years of service credit as a certified peace officer/custodial officer.

- 12 or more years of service credit.

### Vested Benefits after Termination of Employment:

- Member is entitled to a deferred retirement benefit based on service and compensation prior to termination.
- Member must leave accumulated contributions in the System to which the member contributed.
- Upon or after leaving State employment, member may apply for a refund of contributions plus accrued interest. A refund cancels membership, terminates the member's rights to benefits, and forfeits their retirement group should they return to state employment.

- Member is entitled to a deferred retirement benefit based on certified peace officer/custodial officer service and compensation prior to termination.
- Member must leave accumulated contributions in the System to which the member contributed.
- Upon or after leaving State employment, member may apply for a refund of contributions plus accrued interest. A refund cancels membership, terminates the member's rights to benefits, and forfeits their retirement group should they return to state employment.

- Member is entitled to a deferred retirement benefit based on service and compensation as a judge prior to termination.
- Member must leave accumulated contributions in the System and to which the member contributed.
- Upon or after leaving State judicial employment, member may apply for a refund of contributions plus accrued interest. A refund cancels membership and terminates the member's rights to benefits.

## Disability Retirement Eligibility:

### *Employee Class Only:*

- For occupational disability, the member must have at least one month of service and they must make a retirement contribution in the month they become permanently disabled.
- For non-occupational disability, at least 10 years of Employee Class service credit, which may include up to five years of purchased military service credit, and be a contributing member at the time of permanent disability.

### *Elected Class Only:*

- For occupational disability, no age or length of service requirement. Also one must be a contributing member at the time of permanent disability.
- For non-occupational disability, eight years of Elected Class service (exclusive of military service) or six years of Elected Class service plus two years of military service if purchased before January 1, 1978, and be a contributing member at the time of permanent disability.

- For occupational disability, the member must have at least one month of service and they must make a retirement contribution in the month they become permanently disabled.
- For non-occupational disability, at least 10 years of service credit, which may include up to five years of purchased military service credit, and also one must be a contributing member at the time of permanent disability.

- No age requirement.
- Seven years of judicial service and currently holding a judicial office.

## Disability Retirement Benefits:

### *Employee Class Only:*

- For occupational disability, the benefits are the same as those under the standard service retirement, except the standard annuity is equal to not less than 35% of the average monthly compensation regardless of the years of service credit or age.
- For non-occupational disability, the retirement benefits are actuarially reduced from normal retirement eligibility based on age and length of service.
- The optional annuity plans available are the same as those under a service retirement except there is no partial lump-sum option.

### *Elected Class Only:*

- For non-occupational retirement is calculated in the same manner as the standard retirement annuity, and is not reduced because of age.
- For occupational disability, the amount of a monthly annuity is 18.4% of the state salary of a district judge or 2.3% of the state salary of a district judge times the years of elected service, whichever is greater.
- Optional annuity plans available are the same as those under a service retirement except for the partial lump-sum option.

- For occupational disability, the standard annuity is a minimum of 50% of the monthly compensation regardless of the years of service credit or age.
- The standard annuity is increased to 100% of the average monthly compensation if the retired member can prove that their occupational disability makes them incapable of substantial gainful activity solely because of the occupational disability and they are considered totally disabled under federal social security law due to the same condition that qualified them for occupational benefits.
- For non-occupational disability, the retirement benefits are actuarially reduced from normal retirement eligibility based on age and length of service.
- The optional annuity plans available are the same as those under a service retirement except for the partial lump-sum option.

- Same as standard service retirement benefits without reduction for age.

## Death Benefits:

### *Employee Class and Elected Class:*

- A contributing member with a minimum of 10 years of service credit, or less than 10 years of service credit but eligible to retire may select a death benefit plan or the designated beneficiary can elect either a lifetime monthly payment, a 10-year guaranteed monthly payment or a one-time refund of the members retirement account balance at the time of the members death.
- For a contributing member that had less than 10 years of service the designated beneficiary of the active account will receive a one-time refund of the member's retirement account balance at the time of the member's death. If the member is contributing at the time of death, the beneficiary(ies) may be eligible for an Additional Death Benefit (ADB). This is an additional 5% of the member's retirement account balance for each full year of state service. The maximum is 100% of the member's retirement account balance. This option is not available if the beneficiary elects a lifetime or a 10-year guaranteed monthly payment.
- If an active state employee dies and the death is determined to be an occupational death, the surviving spouse or minor children is eligible for a one-time death benefit equal to one year of the member's salary. If there is not a surviving spouse or minor children, this occupational death benefit is not payable to anyone else.
- If a retired member selected a standard annuity and dies after retiring from the state, the designated beneficiary will receive a one-time refund of the member's retirement account balance if there is any money left in the account.
- If a member selected an optional service retirement, and dies, the beneficiary will receive a monthly payment based on the option chosen.
- If the member was retired, the designated beneficiary is eligible for a one-time Retiree Lump Sum Death Benefit in the amount of \$5,000.

- Members with 20 or more years of certified peace officer/custodial officer service, the death benefits are the same as the Employee Class.
- Members with less than 20 years of certified peace officer/custodial officer service, the death benefits are the same as the Employee Class.
- Members with at least 20 years of certified peace officer/custodial officer service, under age of 50 at the time of death, the designated beneficiary is eligible for a lifetime monthly payment, a 10-year guaranteed monthly payment, or a one-time refund of the member's retirement account balance. Due to the age of the member and the beneficiary at the time of death, the beneficiary's option amounts will be subjected to an age reduction factor.

A member with at least 10 years of service credit:

- may select one or more persons to receive a death benefit plan. The designated beneficiary may receive either a lifetime monthly payment or a 10-year guaranteed monthly payment.

A member with less than 10 years of service credit:

- The beneficiary is not eligible for a death benefit plan. The beneficiary is eligible for a one-time refund payment of the retirement account balance.
- If members is retired, the designated beneficiary(ies) is eligible for a one-time Retiree Lump Sum Death Benefit. In the amount of \$5000. This payment is paid by the State of Texas and is not a part of retirement or life insurance benefit.

## Death Benefits (Continued):

### *Elected Class Only:*

- For members with less than 8 years of service credit at the time of death, the designated beneficiary will receive a one-time refund of the member's retirement account balance. If contributing: The beneficiary is also eligible for a refund of the member's retirement account balance plus an additional 5% of the member's retirement account balance for each full year of state service.
- For a contributing member with at least 8 years of service credit and is age 60 or above, at the time of death, the surviving spouse is eligible for a lifetime monthly payment, a 10-year guaranteed monthly payment, or a one-time refund of the member's retirement account balance. If there is no surviving spouse, the surviving minor children are eligible for a lifetime monthly payment, a 10-year guaranteed monthly payment, or a one-time refund of the member's retirement account balance. If the surviving spouse/minor child selects the one-time refund, they are eligible for the additional 5% of the member's retirement account balance for each full year of state service. This option is not available if they select a monthly payment. If there is no surviving spouse/minor child, the beneficiary is eligible for a refund of the member's retirement account balance plus an additional 5% of the member's retirement account balance for each full year of state service only.
- A contributing or non-contributing member with at least 8 years of state service but less than 10 years of state service, the surviving spouse is eligible to receive a monthly payment that is one-half of the monthly standard annuity the member would have received at age 60. This annuity cannot be paid if there is no surviving spouse. The beneficiary would then be eligible for a refund of the member's retirement account balance plus an additional 5% of the member's retirement account balance for each full year of state service if the member was contributing to state service at the time of death.
- If a member is retired, the designated beneficiary(ies) is eligible for a one-time Retiree Lump Sum Death Benefit in the amount of \$5,000.

Independent Auditor's Report

Management's Discussion and Analysis

Basic Financial Statements

Required Supplementary Information

Other Supplementary Information





## Independent Auditor's Report

### Employees Retirement System's Board of Trustees

Mr. I. Craig Hester, Chair  
Mr. Doug Danzeiser, Vice Chair  
Ms. Ilesa Daniels  
Ms. Cydney Donnell  
Mr. Brian D. Ragland  
Ms. Jeanie Wyatt

### Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities and the aggregate remaining fund information of the Employees Retirement System (System), a component unit of the State of Texas, as of and for the year ended August 31, 2016, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

### *Management's Responsibility for the Financial Statements*

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

### *Auditor's Responsibility*

Our responsibility is to express opinions 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 from material misstatement.

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SAO Report No. 17-305

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 opinions.

### ***Opinions***

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and the aggregate remaining fund information of the System, a component unit of the State of Texas, as of August 31, 2016, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### ***Emphasis of Matters***

#### ***The System's Financial Statements***

As discussed in Note 1, the financial statements of the System, a component unit of the State of Texas, are intended to present the financial position, the changes in financial position and, where applicable, cash flows of only that portion of the governmental activities and the aggregate remaining fund information of the State of Texas that is attributable to the transactions of the System. They do not purport to, and do not, present fairly the financial position of the State of Texas as of August 31, 2016, the changes in its financial position, or where applicable, its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

### *Investments with Values that are not Readily Determined*

As discussed in Note 2, the financial statements include investments valued at approximately \$6.67 billion as of August 31, 2016, whose fair values have been estimated by management in the absence of readily determinable fair values. Our opinion is not modified with respect to this matter.

### **Other Matters**

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule of Changes in Net Pension Liability and Related Ratios – Defined Benefit Plans, Schedule of Funding Progress – Defined Benefit Plans, Schedule of Employer Contributions – Defined Benefit Plans, Schedule of Contributions from the Employers and Other Contributing Entities, Schedule of Investment Returns – Defined Benefit Plans, and Notes to the Required Supplementary Information, as listed in the table of contents 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 opinions on the financial statements that collectively comprise the System's financial statements. The information in the combining financial statements, supporting schedules, and other supplementary schedules are presented for purposes of additional analysis and are not a required part of the financial statements.

The information in the combining financial statements, supporting schedules, and other supplementary schedules are the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements

themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining financial statements, supporting schedules, and other supplementary 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 December 1, 2016, 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 the System's internal control over financial reporting and compliance.



Lisa R. Collier, CPA, CFE, CIDA  
First Assistant State Auditor

December 1, 2016

# Management's Discussion and Analysis

Year Ended August 31, 2016

We are pleased to provide this overview of the financial activities of the Employees Retirement System of Texas (the System) for the year ended August 31, 2016. Please read it in conjunction with the Basic Financial Statements, which begin after this discussion.

## Overview of the Basic Financial Statements

This discussion and analysis is intended to serve as an introduction to the System's financial statements. The Financial Section includes the following exhibits in the Basic Financial Statements Section.

- Exhibits I and II are the government-wide statements of governmental net position and activities. These exhibits exclude the Fiduciary Fund activities and balances.
- Exhibits III and IV are Special Revenue Funds statements for four of the programs presented in the government-wide statements.
- Exhibits V and VI are the Statement of Net Position and the Statement of Revenues, Expenses, and Changes in Net Position for the Employees Life, Accident and Health Insurance and Benefits Fund (Group Benefits Program). Highlights are presented under the heading Financial Analysis on Government-wide Statements below.
- Exhibit VII is a required Statement of Cash Flows for the Proprietary Fund under which the Employees Life, Accident and Health Insurance and Benefits Fund (Group Benefits Program) is reported. This statement reports the transactions for the year on a cash basis. It is similar to Exhibit VI, the Statement of Revenues, Expenses, and Changes in Net Position, except that the focus of this statement is on the change to cash balances with accrued income and expense items eliminated.
- Exhibits VIII and IX, the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position, report activities of the defined benefit plans, including the retiree insurance plan. These exhibits also report the cafeteria plan and other deferred compensation plans.

## Financial Analysis on Government-wide Statements

The government-wide activities of the System are comprised of five programs:

- Social Security Administration,
- Death Benefits for Public Safety Officers,
- Compensation to Victims of Crime,
- Death Benefits for Retirees, and

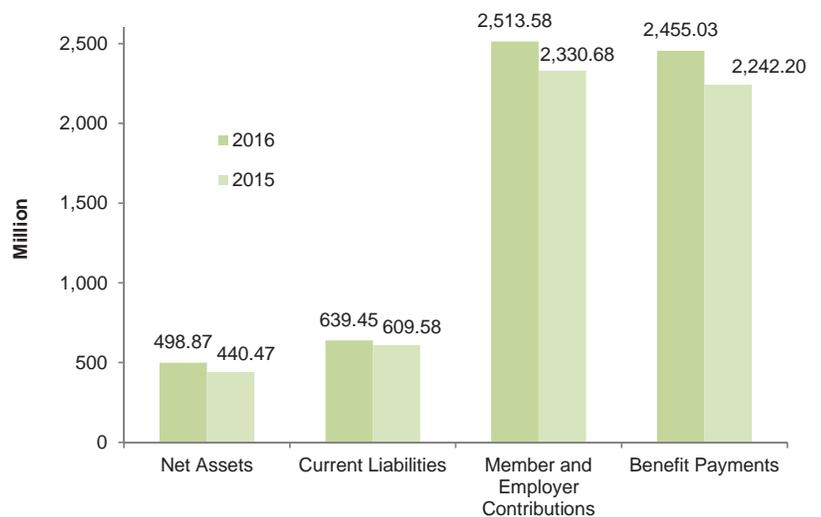
- Employees Life, Accident and Health Insurance and Benefits

The Employees Life, Accident and Health Insurance and Benefits in Exhibits I and II had significant changes from the prior year. Exhibits V and VI provide additional information on the Employees Life, Accident and Health Insurance and Benefits. The changes in the program are summarized in millions as follows:

	2016	2015	Changes
	\$	\$	%
Net Position	498.87	440.47	13.26
Current Liabilities	639.45	609.58	4.90
Member and Employer Contributions	2,513.58	2,330.68	7.85
Benefit Payments	2,455.03	2,242.20	9.49

The increase in Net Position resulted from health care cost trend actuals that were less than expected.

## Summary of Changes in Employees Life, Accident and Health Insurance and Benefits



## Financial Highlights – Fiduciary Funds

- Net position of the Fiduciary Funds administered by the System totaled \$25.72 billion as of August 31, 2016, compared with \$25.22 billion as of August 31, 2015. The investment portfolio returned 5.32% for the year. The \$500 million increase resulted primarily from improvement in market conditions. The time weighted rate of return for three and five years were 6.68% and 7.66%, respectively.
- The one year money-weighted rates of return for the Fiduciary Funds are summarized as follows:

# Management's Discussion and Analysis (Continued)

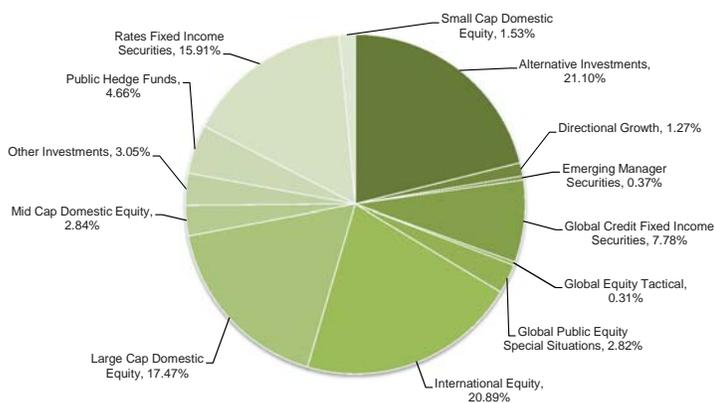
Year Ended August 31, 2016

Fund Name	Rate (%)
Employees Retirement System Fund	5.40
Law Enforcement and Custodial Officer Supplemental Retirement Fund	5.39
Judicial Retirement System Plan Two Fund	5.47
<b>Overall</b>	<b>5.40</b>

- The System's management has confidence in the financial markets and maintains a long term approach to investing the System's assets. The System's investments are highly diversified and are designed to withstand market fluctuations.

## Asset Allocation

Asset Class	%
Alternative Investments	21.10
Directional Growth	1.27
Emerging Manager Securities	0.37
Global Credit Fixed Income Securities	7.78
Global Equity Tactical	0.31
Global Public Equity Special Situations	2.82
International Equity	20.89
Large Cap Domestic Equity	17.47
Mid Cap Domestic Equity	2.84
Other Investments	3.05
Public Hedge Funds	4.66
Rates Fixed Income Securities	15.91
Small Cap Domestic Equity	1.53



For additional details, please see the *Report on Investment Activity* in the Investment Section.

- Changes in contributions and benefit payments in the Defined Benefit Plans are summarized in millions as follows:

	2016	2015	Changes
	\$	\$	%
<b>Contributions:</b>			
Retirement & Other	1,505.53	1,126.30	33.67
Insurance	916.46	867.90	5.60
<b>Total (Exh. IX)</b>	<b>2,421.99</b>	<b>1,994.20</b>	21.45
<b>Benefit Payments:</b>			
Retirement & Other	2,322.19	2,240.81	3.63
Insurance	912.89	863.93	5.67
<b>Total (Exh. IX)</b>	<b>3,235.08</b>	<b>3,104.74</b>	4.20

- The increase in retirement contributions is primarily due to a legislative rate increase. The benefit payments for retirement increased due to an increase in retirees. The most recent actuarial valuations of the funded defined benefit plans were completed as of August 31, 2016. The funded ratios are as follows:

Plans	2016	2015
	%	%
Employees Retirement System	75.2	76.3
Law Enforcement and Custodial Officer Supplemental Retirement Fund	71.1	72.0
Judicial Retirement System of Texas Plan Two	92.9	92.2

See Exhibits VIII and IX for more information regarding each of the defined benefit plans and the deferred compensation and cafeteria plans.

## Fiduciary Net Position

The amount of changes in fiduciary net position (in millions) were as follows:

	2016	2015	Changes
	\$	\$	%
<b>Changes in Fiduciary</b>			
Net Position (Exh. IX)	498.31	(1,076.06)	146.31
<b>Total Net Position</b>	<b>25,717.46</b>	<b>25,219.14</b>	1.98

The increase in changes in Fiduciary Net Position is due primarily to conditions in the financial markets. The gross time weighted rate of return was 5.32%, which was higher than the previous year return of 0.49%.

## Additions

Retirement benefits are financed through the collection of member and State retirement contributions, investment income, legislative appropriations, and contributions transferred from the Teacher Retirement System. Additions in Fiduciary Net Position have been extracted from Exhibit IX, Statement of Changes in

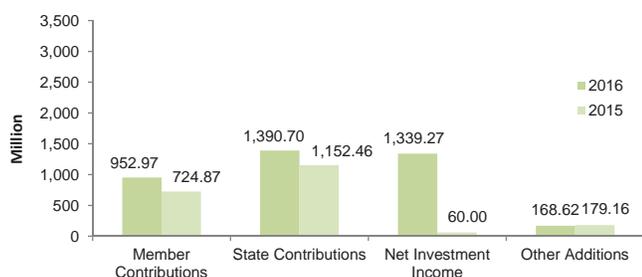
# Management's Discussion and Analysis (Continued)

Year Ended August 31, 2016

Fiduciary Net Position. The additions in millions were as follows:

	2016	2015	Changes
	\$	\$	%
Member Contributions	952.97	724.87	31.47
State Contributions	1,390.70	1,152.46	20.67
Net Investment Income	1,339.27	60.00	2,132.12
Other Additions	168.62	179.16	(5.88)
<b>Total Additions (Exh. IX)</b>	<b>3,851.56</b>	<b>2,116.49</b>	<b>81.98</b>

Summary of Changes in Additions



The increase in the net investment income is due primarily to the improvement in the financial markets compared to the previous year. State and member contributions increased due to legislative rate increases, effective September 1, 2016.

For the Employees Retirement Fund, member and State retirement contribution rates for fiscal year 2016 were 9.5% and 10.0% respectively. For the Law Enforcement and Custodial Officer Supplemental Retirement Fund (LECOS), both the State and member contributed 0.5% of the covered payroll. For the Judicial Retirement Plan II Fund, member and State retirement contribution rates were 7.2% and 15.663% respectively.

Net investment income is comprised of interest income, dividend income, securities lending income and related fees, and net appreciation or depreciation in fair value of investments, and is net of investment expenses.

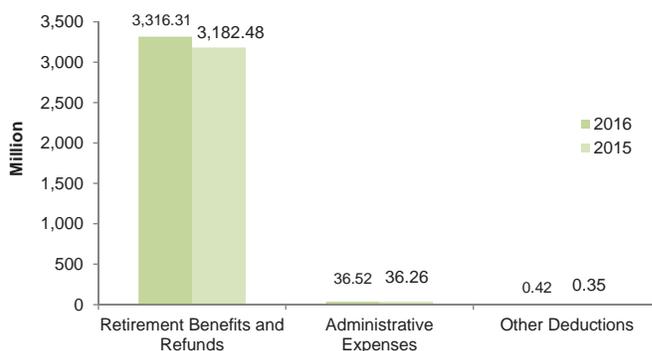
## Deductions

Benefit payments are the primary expense of a retirement system. Total deductions are comprised of benefit payments, refunds of contributions to members or beneficiaries for reasons of separation from service or death, other death benefit payments, contributions transferred to the Teacher Retirement System, and the cost of administering the System. Deductions in Net Position have been extracted from Exhibit IX,

Statement of Changes in Fiduciary Net Position. Changes in deductions are summarized in millions as follows:

	2016	2015	Changes
	\$	\$	%
Retirement Benefits and Refunds	3,316.31	3,182.48	4.21
Administrative Expenses	36.52	36.26	0.72
Other Deductions	0.42	0.35	20.00
<b>Total Deductions (Exh. IX)</b>	<b>3,353.25</b>	<b>3,219.09</b>	<b>4.17</b>

Summary of Changes in Deductions



## Assets

Investments, both short-term and long-term, are the primary asset of the System's pension and other employee benefit trust funds as shown in the following table. Asset information has been extracted from Exhibit VIII. Changes in assets are summarized in millions as follows:

	2016	2015	Changes
	\$	\$	%
Cash and Cash Equivalents	75.24	87.42	(13.93)
Securities Lending Collateral	175.15	596.48	(70.64)
Investments	25,764.73	25,474.33	1.14
Receivables	759.87	298.72	154.38
Due From Other Funds/Agencies	17.50	10.27	70.40
Capital Assets	7.59	8.96	(15.29)
Other Assets	-	0.25	(100.00)
<b>Total Assets (Exh. VIII)</b>	<b>26,800.08</b>	<b>26,476.43</b>	<b>1.22</b>

# Management's Discussion and Analysis (Continued)

Year Ended August 31, 2016

## Liabilities

The condensed liabilities have been extracted from Exhibit VIII, Statement of Fiduciary Net Position. Changes in liabilities are summarized in millions as follows:

	2016	2015	Changes
	\$	\$	%
Accounts Payable	393.44	334.39	17.66
Due To Other Funds/ Agencies	510.27	322.69	58.13
Compensable Leave	3.07	2.83	8.48
Securities Lending Obligations	174.84	596.14	(70.67)
Other Liabilities	1.00	1.53	(34.64)
<b>Total Liabilities (Exh. VIII)</b>	<b>1,082.62</b>	<b>1,257.58</b>	<b>(13.91)</b>

## Funding Status and Progress

Assets derived from investment asset appreciation and pension contributions in excess of pension benefit payments are accumulated by the System in order to meet future pension benefit obligations. Soundness in the funding of the System is sought through maintaining suitable reserves in the retirement annuity

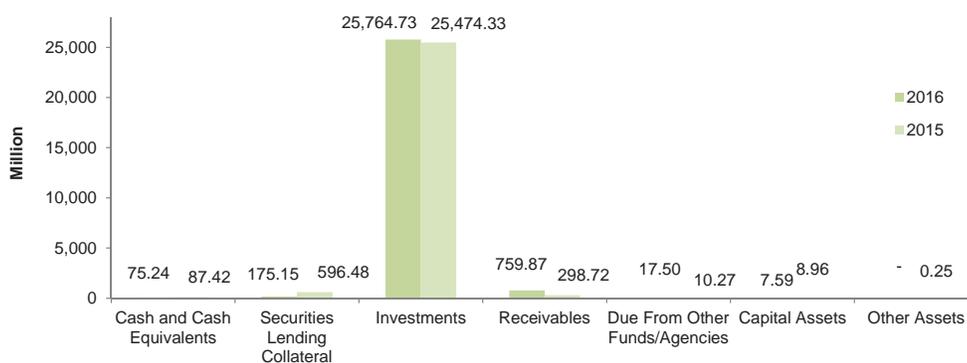
reserve account and the employee savings and state accumulation reserve accounts.

For funding purposes, the latest annual actuarial valuation of the System, as of August 31, 2016, (compared to the August 31, 2015 actuarial valuation) is summarized in millions as follows:

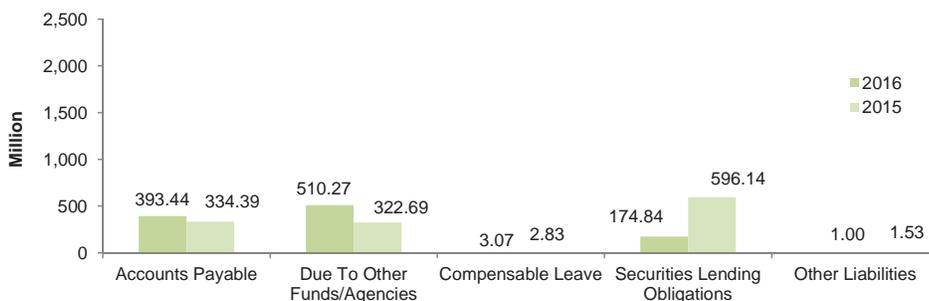
Plans	Actuarial Liability	
	2016	2015
	\$	\$
Employees Retirement System	(8,746.0)	(8,017.8)
Law Enforcement and Custodial Officer Supplemental Retirement Fund	(378.9)	(353.1)
Judicial Retirement System of Texas Plan Two	(30.4)	(31.4)

For the Employees Retirement System Fund, the August 31, 2016 actuarial valuation shows an unfunded accrued liability of \$8.7 billion. The funded ratio, the ratio of the actuarial value of assets to the actuarial accrued liability, is 75.2% as of August 31, 2016. The valuation shows that the total normal cost is 12.28% of payroll and total contributions are 19.5% of payroll. The total contribution

Summary of Changes in Assets



Summary of Changes in Liabilities



# Management's Discussion and Analysis (Concluded)

Year Ended August 31, 2016

rate exceeds the normal cost by 7.22% of payroll, which is sufficient to amortize the unfunded accrued liability in 35 years. The total contribution to fund the normal cost plus amortize the net liability balance over 31 years is 19.88% of payroll.

The August 31, 2016 actuarial valuation for the Law Enforcement and Custodial Officer Supplemental Retirement Fund shows that the total normal cost rate for fiscal year 2016 is 1.81% of payroll. At August 31, 2016, the unfunded accrued liability is \$378.9 million, and the funded ratio is 71.1%. Total contributions are 2.1% of payroll. The total contribution rate exceeds the normal cost by 0.29% for the current fiscal year and it is not sufficient to amortize the unfunded accrued liability over a defined period. For fiscal year 2016, the total contribution rate to fund the normal cost plus amortize the net liability balance over 31 years as a level percentage of payroll is 2.33% of payroll.

For the Judicial Retirement System of Texas Plan II, the August 31, 2016 actuarial valuation shows that the total normal cost is 21.18% of payroll and unfunded accrued liability is \$30.4 million. The funded ratio, the ratio of the actuarial value of assets to the actuarial accrued liability is 92.9% as of August 31, 2016. Total contributions are 23.103% of payroll. The total contribution rate exceeds the normal cost by 1.923% of payroll for the current fiscal year, which is sufficient to amortize the unfunded accrued liability in 49 years. The rate needed to fund normal cost plus amortize the unfunded accrued liability over 31 years is 23.48%.

The State Retiree Health Plan is currently funded on a pay-as-you-go basis. For the State Retiree Health

Plan, the August 31, 2016 actuarial valuation shows an unfunded accrued liability of \$27.09 billion. The funded ratio is 0.0%. The valuation shows that the total normal cost is 9.5% of payroll. The Actuarially Sound Contribution (ASC) as of August 31, 2016 is 19.5% of payroll. Total contributions are 29% of the actuarially sound contribution.

Contributions include health care premiums, State and member contributions, and retiree drug subsidy payments. Retiree premiums were \$183.3 million. Employer contributions were \$664 million. The Medicare Prescription Drug Improvement and Modernization Act of 2003, which was effective January 1, 2006, established prescription drug coverage for Medicare beneficiaries known as Medicare Part D. One of the provisions of Medicare Part D entitled ERS to receive retiree drug subsidy payments from the federal government to offset pharmacy claims paid by ERS on behalf of certain plan participants. The plan received payments in 2016 totaling \$69.2 million. The above amounts, along with other additions of \$6 million plus net investment income of \$1.1 million resulted in additions of \$923.6 million. These were offset entirely by \$912.9 million in benefit payments and \$10.7 million in administrative expense. The net plan assets are zero.

## Contacting the System's Financial Management

This financial report is designed to provide a general overview of the System's finances. If you have questions about this report or need additional financial information, please contact Mabelle Pharr, Chief Financial Officer at [Mabelle.Pharr@ers.state.tx.us](mailto:Mabelle.Pharr@ers.state.tx.us) or Eddie Chan, Assistant Director of Finance at [Eddie.Chan@ers.state.tx.us](mailto:Eddie.Chan@ers.state.tx.us)

**Exhibit I**  
**Statement of Net Position**  
August 31, 2016

	<b>Governmental Activities</b>
<b>Assets</b>	<b>\$</b>
Current Assets:	
Cash and Cash Equivalents:	
Cash on Hand	6,282
Cash in State Treasury	29,505,237
Total Cash and Cash Equivalents	29,511,519
Securities Lending Collateral	9,850,234
Short-Term Investments	47,905,769
Legislative Appropriations	4,600
Receivables	157,570,760
Due from Other Funds	506,799,882
Due from Other Agencies	175,952
Total Current Assets	751,818,716
Non-Current Assets:	
Global Credit Component	113,550,599
Rates Component	273,033,913
Total Non-Current Assets	386,584,512
<b>Total Assets</b>	<b>1,138,403,228</b>
<b>Liabilities</b>	
Current Liabilities:	
Payables	615,641,900
Due to Other Funds	8,118,940
Due to Other Agencies	4,939,825
Unearned Revenue	663,724
Obligations Under Securities Lending	10,143,175
Total Current Liabilities	639,507,564
<b>Total Liabilities</b>	<b>639,507,564</b>
<b>Net Position</b>	
Restricted for:	
Employee Benefits - Employees Life, Accident and Health Insurance and Benefits	498,873,933
Unrestricted	21,731
<b>Total Net Position (Exh. II &amp; III)</b>	<b>498,895,664</b>

The accompanying Notes to the Basic Financial Statements are an integral part of this exhibit.

**Exhibit II**  
**Statement of Activities**  
Year Ended August 31, 2016

Functions/Programs	Program Revenues			Net (Expense) Revenue and Changes in Net Position
	Expenses	Charges for Services	Operating Grants and Contributions	
	\$	\$	\$	\$
Governmental Activities:				
Social Security Administration	138,864	70,927		(67,937)
Death Benefits-Peace Officers, Firemen, etc.	7,281,045	7,281,045		
Compensation to Victims of Crime	2,000,000	2,000,000		
Death Benefits-Retiree \$5,000 Lump Sum	10,079,869	10,075,369		(4,500)
Employees Life, Accident and Health Insurance and Benefits	2,474,356,208	2,513,699,619	20,814,477	<b>60,157,888</b>
<b>Total Governmental Activities</b>	<b>2,493,855,986</b>	<b>2,533,126,960</b>	<b>20,814,477</b>	<b>60,085,451</b>
			<b>General Revenues:</b>	
			Transfers	(1,672,500)
			<b>Total General Revenues</b>	<b>(1,672,500)</b>
			<b>Change in Net Position (Exh. IV)</b>	<b>58,412,951</b>
			<b>Net Position - Beginning</b>	<b>440,482,713</b>
			<b>Net Position - Ending (Exh. I)</b>	<b>498,895,664</b>

The accompanying Notes to the Basic Financial Statements are an integral part of this exhibit.

**Exhibit III**  
**Balance Sheet – Governmental Funds**  
 August 31, 2016

	<b>Non-major Special Revenue Funds Totals (Note 1.E)</b>
<b>Assets</b>	<b>\$</b>
Current Assets:	
Cash and Cash Equivalents:	
Cash in State Treasury	58,115
Total Cash and Cash Equivalents	58,115
Legislative Appropriations	4,600
Accounts Receivable	4,527
Due From Other Funds (Note 5.A)	12,500
Total Current Assets	79,742
<b>Total Assets</b>	<b>79,742</b>
<b>Liabilities &amp; Fund Balances</b>	
Current Liabilities:	
Payables:	
Voucher/Accounts Payable	4,600
Due To Other Funds (Note 5.A)	53,137
Unearned Revenues	274
Total Current Liabilities	58,011
<b>Total Liabilities</b>	<b>58,011</b>
<b>Fund Balances:</b>	
Committed	21,731
<b>Total Fund Balances (Exh. IV)</b>	<b>21,731</b>
<b>Total Liabilities &amp; Fund Balances</b>	<b>79,742</b>
Total Fund Balances - Governmental Funds (above):	21,731
Amounts reported for 'Governmental Activities' in the Statement of Net Position (Exhibit I) are different because:	
An Internal Service Fund is used by the System to account for the assets and liabilities associated with the Employees Life, Accident and Health Insurance and Benefits for State employees and employees of certain institutions of higher education.	
The Net Position of the Internal Service Fund (Exhibit V) are included with 'Governmental Activities' in the Statement of Net Position.	498,873,933
<b>Net Position of Governmental Activities (Exh. I)</b>	<b>498,895,664</b>

The accompanying Notes to the Basic Financial Statements are an integral part of this exhibit.

## Exhibit IV

### Statement of Revenues, Expenditures and Changes in Fund Balances – Governmental Funds

Year Ended August 31, 2016

	<b>Non-major Special Revenue Funds Totals (Note 1.E)</b>
<b>Revenues</b>	<b>\$</b>
Legislative Appropriations Out of the State's General Revenue Fund:	
Appropriation Revenue:	
For Death Benefits Peace Officers, etc.	7,281,045
For Victims of Crime	2,000,000
For Death Benefits-Retirees	10,075,369
<u>Total Appropriation Revenue</u>	<u>19,356,414</u>
Administration Fees for Social Security Administration	70,927
<b>Total Revenues</b>	<b>19,427,341</b>
<b>Expenditures</b>	
Current:	
Death Benefits	19,360,914
Administrative Expenditures:	
Salaries & Wages	85,879
Payroll Related Costs	27,652
Professional Fees & Services	11,652
Travel	1,294
Materials & Supplies	4,490
Communications & Utilities	1,620
Repairs & Maintenance	2,338
Rentals & Leases	1,183
Printing & Reproduction	130
Other Expenditures	2,626
<u>Total Administrative Expenditures</u>	<u>138,864</u>
<b>Total Expenditures</b>	<b>19,499,778</b>
<b>Deficiency of Revenues Under Expenditures</b>	<b>(72,437)</b>
<b>Other Finance Sources</b>	
Transfers In-Retirement Membership Fees (Note 5.B)	77,500
<b>Excess (Deficiency) of Revenues Over (Under)</b>	<b>5,063</b>
<b>Fund Balances - Beginning</b>	<b>16,668</b>
<b>Fund Balances - Ending (Exh. III)</b>	<b>21,731</b>
Net Change in Fund Balances - Governmental Funds:	5,063
Amounts reported for 'Governmental Activities' in the Statement of Activities (Exhibit II) are different because:	
An Internal Service Fund is used by the System to account for the revenues and expenses associated with the Employees Life, Accident and Health Insurance and Benefits for State employees and employees of certain institutions of higher education.	
The net revenue (expense) of the Internal Service Fund (Exhibit VI) is included in 'Governmental Activities' in the Statement of Activities.	58,407,888
<b>Change in Net Position of Governmental Activities (Exh. II)</b>	<b>58,412,951</b>

The accompanying Notes to the Basic Financial Statements are an integral part of this exhibit.

## Exhibit V

### Statement of Net Position – Proprietary Fund

August 31, 2016

	<b>Internal Service Fund Employees Life, Accident and Health Insurance and Benefits Fund (0973) (U/F 0973)</b>
<b>Assets</b>	<b>\$</b>
Current Assets:	
Cash and Cash Equivalents:	
Cash on Hand	6,282
Cash in State Treasury	29,447,122
Total Cash and Cash Equivalents	29,453,404
Securities Lending Collateral	9,850,234
Short-Term Investments	47,905,769
Receivables:	
Interest Receivable	2,248,025
Accounts Receivable	155,318,208
Total Receivables	157,566,233
Due From Other Funds (Note 5.A)	506,787,382
Due From Other Agencies (Note 5.A)	175,952
Total Current Assets	751,738,974
Non-Current Assets:	
Investments: (Note 2.A)	
Global Credit Component	113,550,599
Rates Component	273,033,913
Total Non-Current Assets	386,584,512
<b>Total Assets</b>	<b>1,138,323,486</b>
<b>Liabilities</b>	
Current Liabilities:	
Payables:	
Claims Payable:	
Incurred, Self-Funded	38,348,114
Incurred But Not Reported, Self-Funded	541,245,886
Total Claims Payable	579,594,000
Premiums Payable	11,189,276
Administrative and Other Fees Payable	18,754,111
Unsettled Purchases-Investment Payables	4,468,942
Other Payable	1,630,971
Total Payables	615,637,300
Due To Other Funds (Note 5.A) :	
Depository Interest Payable to Retiree Insurance Plan	230,094
Other Interfunds Payable	7,835,709
Total Due To Other Funds	8,065,803
Due to Other Agencies	4,939,825
Unearned Revenue	663,450
Obligations Under Securities Lending	10,143,175
Total Current Liabilities	639,449,553
<b>Total Liabilities</b>	<b>639,449,553</b>
<b>Net Position</b>	
Restricted For:	
Employee Benefits - Employees Life, Accident and Health Insurance and Benefits	498,873,933
<b>Total Net Position (Exh. VI)</b>	<b>498,873,933</b>

The accompanying Notes to the Basic Financial Statements are an integral part of this exhibit.

## Exhibit VI

### Statement of Revenues, Expenses and Changes in Net Position – Proprietary Fund

Year Ended August 31, 2016

	<u>Internal Service Fund</u> <u>Employees Life, Accident and</u> <u>Health Insurance and Benefits</u> <u>Fund (0973) (U/F 0973)</u>
<b>Operating Revenues</b>	<b>\$</b>
Contributions to Insurance Program:	
From the State of Texas for Employees	1,992,219,546
From Members:	
For Employees	515,380,365
For COBRA	5,980,153
Total Contributions from Members	521,360,518
Total Contributions to Insurance Program	2,513,580,064
Other Operating Revenues:	
COBRA 2% Administration Fee:	119,555
Penalty Assessed to Insurance Carrier	984,410
Miscellaneous Operating Revenue	376,011
Total Other Operating Revenues	1,479,976
<b>Total Operating Revenues</b>	<b>2,515,060,040</b>
<b>Operating Expenses</b>	
Employee Benefit Payments:	
For Employees	2,428,066,257
For COBRA	26,963,288
Total Employee Benefit Payments	2,455,029,545
Administrative Expenses:	
Salaries & Wages	6,225,001
Payroll Related Costs	2,078,062
Professional Fees & Services	1,474,818
Travel	56,275
Materials & Supplies	603,287
Communications & Utilities	361,169
Repairs & Maintenance	354,138
Rentals & Leases	170,141
Printing & Reproduction	27,982
Other Operating Expenses	8,038,848
Total Administrative Expenses	19,389,721
<b>Total Operating Expenses</b>	<b>2,474,419,266</b>
<b>Operating Income</b>	<b>40,640,774</b>
<b>Non-Operating Revenues (Expenses)</b>	
Net Increase in Fair Value of Investments	7,771,407
Interest Revenue	11,632,000
Securities Lending Activities:	
Loan Premium on Securities Lending	25,530
Less: Broker Rebates	72,903
Agent Fees	(9,845)
Net Securities Lending Activity	88,588
Settlement Revenue	25,119
<b>Total Non-Operating Revenues</b>	<b>19,517,114</b>
<b>Transfer Out</b>	<b>1,750,000</b>
<b>Change in Net Position</b>	<b>58,407,888</b>
<b>Net Position - Beginning</b>	<b>440,466,045</b>
<b>Net Position - Ending (Exh. V)</b>	<b>498,873,933</b>

The accompanying Notes to the Basic Financial Statements are an integral part of this exhibit.



## Exhibit VII

### Statement of Cash Flows – Proprietary Fund

Year Ended August 31, 2016

	<b>Internal Service Fund Employees Life, Accident and Health Insurance and Benefits Fund (0973) (U/F 0973)</b>
<b>Cash Flows from Operating Activities:</b>	<b>\$</b>
Cash Received from Members	517,336,137
Cash Received from The State of Texas	1,808,371,837
Cash Payments to Insurance Carriers and Third Party Administrators	(2,434,256,763)
Cash Payments to Employees for Services	(5,246,053)
Cash Payments for Goods and Services	(2,615,321)
Other Cash Received	928,119
Other Cash Payments	(1,750,000)
<b>Net Cash Used by Operating Activities</b>	<b>(117,232,044)</b>
<b>Cash Flows from Investing Activities:</b>	
Net Sales of Short-Term Investment Fund	111,449,259
Interest on Deposit in State Treasury	401,943
<b>Net Cash Provided by Investing Activities</b>	<b>111,851,202</b>
<b>Net Decrease in Cash and Cash Equivalents</b>	<b>(5,380,842)</b>
<b>Cash and Cash Equivalents:</b>	
<b>Beginning of Year</b>	<b>34,834,246</b>
<b>End of Year</b>	<b>29,453,404</b>
<b>Reconciliation of Operating Income to Net Cash Provided by Operating Activities:</b>	
<b>Operating Income</b>	<b>40,640,774</b>
<b>Adjustments to Reconcile Operating Income to Net Cash Provided by Operating Activities:</b>	
Settlement Revenue	25,119
Transfer Out	(1,750,000)
Change in Assets and Liabilities:	
Increase in Accounts Receivable	(1,683,332)
Increase in Due From Other Agencies	(145,946)
Increase in Due From Other Funds	(186,531,016)
Increase in Accounts Payable	34,508,736
Increase in Due To Other Funds	5,672,665
Increase in Due To Other Agencies	4,939,825
Decrease in Unearned Revenue	(12,908,869)
<b>Total Adjustments</b>	<b>(157,872,818)</b>
<b>Net Cash Used by Operating Activities</b>	<b>(117,232,044)</b>
<b>Non-Cash Investing Activities:</b>	
Net Appreciation in Fair Value of Non-Cash Equivalent Investments	7,771,407

The accompanying Notes to the Basic Financial Statements are an integral part of this exhibit.

**Exhibit VIII**  
**Statement of Fiduciary Net Position**  
August 31, 2016

	Employees Retirement Fund (0955)	Law Enforcement and Custodial Officer Supplemental Fund (0977)	Judicial Retirement System Plan II (0993)	Excess Benefit Arrangement (5039)
<b>Assets</b>	\$	\$	\$	\$
Cash and Short-Term Investments:				
Cash and Cash Equivalents:				
Cash on Hand	564,900			
Cash in Bank	23,000			
Cash in State Treasury	37,781,258	1,781,565	866,522	
Total Cash and Cash Equivalents	38,369,158	1,781,565	866,522	-
Securities Lending Collateral	166,673,898	5,878,446	2,595,446	
Short-Term Investments	569,936,750	20,087,929	8,830,880	
Total Cash and Short-Term Investments	774,979,806	27,747,940	12,292,848	-
Legislative Appropriations				
Investments: (Note 1.G)				
Domestic Equities Component	6,056,115,586	213,703,559	94,447,835	
International Securities Component	4,931,465,422	174,017,767	76,908,411	
Global Credit Component	1,862,559,557	65,724,571	29,047,451	
Rates Component	3,890,273,292	137,276,977	60,670,554	
Public Real Estate Component	665,597,565	23,487,096	10,380,292	
Alternative Investments Component	6,016,599,159	212,309,133	93,831,558	
Total Investments	23,422,610,581	826,519,103	365,286,101	-
Receivables:				
Federal Receivable				
Interest and Dividends Receivable	62,712,390	2,214,170	977,992	
Contributions/Accounts Receivable	109,059,739	1,482,969	1,495,968	
Unsettled Sales-Investment Receivables	435,215,954	15,357,566	6,787,388	
Total Receivables	606,988,083	19,054,705	9,261,348	-
Due From Other Funds (Note 5.A)	9,535,206	2,448		
Due From Other Agencies (Note 5.A)	7,706,962			
Capital Assets:				
Non-Depreciable:				
Land and Land Improvements	874,889			
Depreciable, Net of Accumulated				
Depreciation/Amortization of \$19,063,796				
Building	5,567,290			
Furniture and Equipment	451,982			
Computer Software	696,709			
Total Capital Assets	7,590,870	-	-	-
<b>Total Assets</b>	<b>24,829,411,508</b>	<b>873,324,196</b>	<b>386,840,297</b>	<b>-</b>
<b>Liabilities</b>				
Payables:				
Voucher/Accounts Payable	22,701,167	578,310	289,420	
Unsettled Purchases-Investment Payables	169,279,510	5,973,405	2,639,990	
Total Payables	191,980,677	6,551,715	2,929,410	-
Due To Other Funds (Note 5.A)	21,968	851,028	196,646	
Due To Other Agencies (Note 5.A)	1,812,677			
Unearned Revenue	564,900	1,225		
Employees Compensable Leave	3,073,574			
Obligations Under Securities Lending	166,377,588	5,871,005	2,594,733	
Funds Held for Others				
<b>Total Liabilities</b>	<b>363,831,384</b>	<b>13,274,973</b>	<b>5,720,789</b>	<b>-</b>
<b>Net Position Restricted for</b>				
<b>Pension and Other Employee Benefits</b>	<b>24,465,580,124</b>	<b>860,049,223</b>	<b>381,119,508</b>	<b>-</b>

USAS Funds (U/F) are:

Fund 0955: 0955, 8955; Fund 0977: 0977, 8977; Fund 0001: 2001; Fund 0993: 0993, 8993; Fund 5039: 5039;  
Fund 3973: 0973, 3973; Fund 0946: 0946, 8946; Fund 0945: 0945, 8945; Fund 3944: 0973,3944; Fund 0943: 0943, 8943.  
Fund 0001:1001; Fund 8070: 8070; Fund 0900: 9015; Fund 0900: 9016, Fund 0980: 0980, Fund 0980: 9014

The accompanying Notes to the Basic Financial Statements are an integral part of this exhibit.

State Retiree Health Plan (3973)	Total Defined Benefit Plans	TexaSaver 401(k) Trust Fund (0946)	TexaSaver 457 Trust Fund (0945)	Commuter Spending Account Fund (3944)	Employees Cafeteria Plan Trust Fund (0943)	Pension and Other Employee Benefit Trust Funds	Total Agency Funds
\$	\$	\$	\$	\$	\$	\$	\$
6,282	571,182					571,182	
	23,000	4,203,573	1,653,533			5,880,106	
19,082,017	59,511,362	1,902,950	2,039,072	498,002	4,841,215	68,792,601	1,525
19,088,299	60,105,544	6,106,523	3,692,605	498,002	4,841,215	75,243,889	1,525
	175,147,790					175,147,790	
543,162,004	1,142,017,563			9,095	8,286,949	1,150,313,607	
562,250,303	1,377,270,897	6,106,523	3,692,605	507,097	13,128,164	1,400,705,286	1,525
							280,859
	6,364,266,980					6,364,266,980	
	5,182,391,600					5,182,391,600	
	1,957,331,579					1,957,331,579	
	4,088,220,823					4,088,220,823	
	699,464,953					699,464,953	
	6,322,739,850					6,322,739,850	
-	24,614,415,785	-	-	-	-	24,614,415,785	-
93,363,086	93,363,086					93,363,086	
166,142	66,070,694	1,365	1,411	3	6,660	66,080,133	
24,735,782	136,774,458	6,309	53,688	12,416	6,216,162	143,063,033	4,663
	457,360,908					457,360,908	
118,265,010	753,569,146	7,674	55,099	12,419	6,222,822	759,867,160	4,663
228,862	9,766,516			1,232		9,767,748	7,840
	7,706,962				22,110	7,729,072	
	874,889					874,889	
	5,567,290					5,567,290	
	451,982					451,982	
	696,709					696,709	
-	7,590,870	-	-	-	-	7,590,870	-
<b>680,744,175</b>	<b>26,770,320,176</b>	<b>6,114,197</b>	<b>3,747,704</b>	<b>520,748</b>	<b>19,373,096</b>	<b>26,800,075,921</b>	<b>294,887</b>
173,550,040	197,118,937	4,204,407	1,607,849	371	12,614,524	215,546,088	293,362
	177,892,905					177,892,905	
173,550,040	375,011,842	4,204,407	1,607,849	371	12,614,524	393,438,993	293,362
506,780,364	507,850,006	155,223	81,537	14,602	355,162	508,456,530	
	1,812,677					1,812,677	
413,771	979,896		2,740		13,007	995,643	
	3,073,574					3,073,574	
	174,843,326					174,843,326	
							1,525
<b>680,744,175</b>	<b>1,063,571,321</b>	<b>4,359,630</b>	<b>1,692,126</b>	<b>14,973</b>	<b>12,982,693</b>	<b>1,082,620,743</b>	<b>294,887</b>
-	<b>25,706,748,855</b>	<b>1,754,567</b>	<b>2,055,578</b>	<b>505,775</b>	<b>6,390,403</b>	<b>25,717,455,178</b>	-

# Exhibit IX

## Statement of Changes in Fiduciary Net Position – Pension and Other Employee Benefit Trust Funds

Year Ended August 31, 2016

	Employees Retirement Fund (0955)	Law Enforcement and Custodial Officer Supplemental Fund (0977)	Judicial Retirement System Plan II (0993)	Excess Benefit Arrangement (5039)
<b>Additions</b>	\$	\$	\$	\$
<b>Contributions:</b>				
Member Contributions	674,677,886	9,538,658	5,754,349	
Employer Contributions	686,840,854	27,497,297	12,374,200	
Service Contributions Transferred from Teacher Retirement System (Note 1.G)	88,854,383			
Federal Revenues				
Other Contributions - Forfeitures				
<b>Total Contributions</b>	<b>1,450,373,123</b>	<b>37,035,955</b>	<b>18,128,549</b>	<b>-</b>
<b>Investment Income:</b>				
From Investing Activities:				
Net Appreciation (Depreciation) in Fair Value of Investments	719,036,784	25,276,016	11,253,680	
Interest and Dividends	584,391,198	20,578,116	9,006,102	
Class Action Settlements	1,490,031	52,488	22,974	
<b>Total Investing Activity Income</b>	<b>1,304,918,013</b>	<b>45,906,620</b>	<b>20,282,756</b>	<b>-</b>
Less: Investment Expense	(34,474,289)	(1,178,577)	(466,057)	
<b>Net Income, Investing Activities</b>	<b>1,270,443,724</b>	<b>44,728,043</b>	<b>19,816,699</b>	<b>-</b>
From Securities Lending Activities:				
Loan Premium on Securities Lending	652,692	22,982	10,041	
Less: Broker Rebates	2,601,562	91,540	39,828	
Agent Fees	(325,425)	(11,452)	(4,986)	
<b>Total Securities Lending Expenses</b>	<b>2,276,137</b>	<b>80,088</b>	<b>34,842</b>	<b>-</b>
<b>Net Income, Securities Lending Activities</b>	<b>2,928,829</b>	<b>103,070</b>	<b>44,883</b>	<b>-</b>
<b>Net Investment Income</b>	<b>1,273,372,553</b>	<b>44,831,113</b>	<b>19,861,582</b>	<b>-</b>
<b>Other Additions:</b>				
Other Revenue:				
Warrants Voided by Statute of Limitations	139,950	4,014		
Reimbursements - Third Party				
Settlement Revenue				
Rental Income	37,450			
Miscellaneous Revenue	3,417			
Administration Fees				
<b>Total Other Revenue</b>	<b>180,817</b>	<b>4,014</b>	<b>-</b>	<b>-</b>
Interfund Transfers In (Note 1.G)				252,720
Interagency Transfers In (Note 5.C)				287,271
<b>Total Transfers In</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>539,991</b>
<b>Total Other Additions</b>	<b>180,817</b>	<b>4,014</b>	<b>-</b>	<b>539,991</b>
<b>Total Additions</b>	<b>2,723,926,493</b>	<b>81,871,082</b>	<b>37,990,131</b>	<b>539,991</b>

USAS Funds (U/F) are:

Fund 0955: 0955, 8955; Fund 0977: 0977, 8977; Fund 0001: 2001; Fund 0993: 0993, 8993; Fund 5039: 5039;  
Fund 3973: 0973, 3973; Fund 0946: 0946, 8946; Fund 0945: 0945, 8945; Fund 3944: 0973,3944; Fund 0943: 0943, 8943.

The accompanying Notes to the Basic Financial Statements are an integral part of this exhibit.

State Retiree Health Plan (3973)	Total Defined Benefit Plans Total	TexaSaver 401(k) Trust Fund (0946)	TexaSaver 457 Trust Fund (0945)	Commuter Spending Account Fund (3944)	Employees Cafeteria Plan Trust Fund (0943)	Total Pension and Other Employee Benefit Trust Funds
\$	\$	\$	\$	\$	\$	\$
183,284,339	873,255,232			73,292	79,640,119	952,968,643
663,986,538	1,390,698,889					1,390,698,889
	88,854,383					88,854,383
69,185,558	69,185,558					69,185,558
					1,312,703	1,312,703
<b>916,456,435</b>	<b>2,421,994,062</b>	-	-	<b>73,292</b>	<b>80,952,822</b>	<b>2,503,020,176</b>
	755,566,480					755,566,480
1,136,997	615,112,413	29,390	22,317	1,246	38,357	615,203,723
	1,565,493					1,565,493
1,136,997	1,372,244,386	29,390	22,317	1,246	38,357	1,372,335,696
	(36,118,923)	(11,032)	(5,403)	-	(4,041)	(36,139,399)
1,136,997	1,336,125,463	18,358	16,914	1,246	34,316	1,336,196,297
	685,715					685,715
	2,732,930					2,732,930
	(341,863)					(341,863)
-	2,391,067	-	-	-	-	2,391,067
-	3,076,782	-	-	-	-	3,076,782
<b>1,136,997</b>	<b>1,339,202,245</b>	<b>18,358</b>	<b>16,914</b>	<b>1,246</b>	<b>34,316</b>	<b>1,339,273,079</b>
	149,786					149,786
5,822	386,550				125,311	511,861
386,550	5,568,455	702	189			5,569,346
5,568,455	37,450					37,450
	3,417				68,741	72,158
		49,344	586,919			636,263
5,960,827	6,145,658	50,046	587,108	-	194,052	6,976,864
	252,720			1,750,000		2,002,720
	287,271					287,271
-	539,991	-	-	1,750,000	-	2,289,991
<b>5,960,827</b>	<b>6,685,649</b>	<b>50,046</b>	<b>587,108</b>	<b>1,750,000</b>	<b>194,052</b>	<b>9,266,855</b>
<b>923,554,259</b>	<b>3,767,881,956</b>	<b>68,404</b>	<b>604,022</b>	<b>1,824,538</b>	<b>81,181,190</b>	<b>3,851,560,110</b>

- to next page

**Exhibit IX (Concluded)**  
**Statement of Changes in Fiduciary Net Position –**  
**Pension and Other Employee Benefit Trust Funds**  
Year Ended August 31, 2016

	Employees Retirement Fund (0955)	Law Enforcement and Custodial Officer Supplemental Fund (0977)	Judicial Retirement System Plan II (0993)	Excess Benefit Arrangement (5039)
<b>Deductions</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
<b>Benefits:</b>				
Benefits	2,131,227,403	62,720,133	20,855,496	448,031
Refunds of Contributions	84,444,507	1,825,600	299,268	
Service Contributions Transferred to Teacher Retirement System (Note 1.G)	20,376,732			
<b>Total Benefits</b>	<b>2,236,048,642</b>	<b>64,545,733</b>	<b>21,154,764</b>	<b>448,031</b>
<b>Administrative Expenses:</b>				
Salaries & Wages	9,009,027	778,971	118,282	
Payroll Related Costs	3,052,932	284,279	41,744	
Professional Fees & Services	3,298,524	108,020	26,551	
Travel	62,430	2,745	546	
Materials & Supplies	970,052	66,809	11,819	
Communications & Utilities	602,929	67,048	8,784	
Repairs & Maintenance	555,434	37,868	6,396	
Rentals & Leases	308,469	20,003	3,732	
Printing & Reproduction	37,167	2,443	465	
Depreciation	976,733			
Amortization	497,806			
Interest Expense				
Other Operating Expenses	1,077,165	53,272	7,788	
<b>Total Administrative Expenses</b>	<b>20,448,668</b>	<b>1,421,458</b>	<b>226,107</b>	<b>-</b>
<b>Other Deductions:</b>				
Interfund Transfers Out (Note 1.G):				
Membership Fees	77,500			
Other Transfers	252,720			
Interagency Transfers Out (Note 5.C)				91,960
Total Transfers Out	330,220	-	-	91,960
<b>Total Other Deductions</b>	<b>330,220</b>	<b>-</b>	<b>-</b>	<b>91,960</b>
<b>Total Deductions</b>	<b>2,256,827,530</b>	<b>65,967,191</b>	<b>21,380,871</b>	<b>539,991</b>
<b>Net Increase/(Decrease)</b>	<b>467,098,963</b>	<b>15,903,891</b>	<b>16,609,260</b>	<b>-</b>
<b>Net Position</b>				
<b>Restricted for Pension and Other Employee Benefits:</b>				
Beginning of Year	23,998,481,161	844,145,332	364,510,248	
End of Year (Exh. VIII)	24,465,580,124	860,049,223	381,119,508	-

State Retiree Health Plan (3973)	Total Defined Benefit Plans Total	TexaSaver 401(k) Trust Fund (0946)	TexaSaver 457 Trust Fund (0945)	Commuter Spending Account Fund (3944)	Employees Cafeteria Plan Trust Fund (0943)	Total Pension and Other Employee Benefit Trust Funds
\$	\$	\$	\$		\$	\$
912,885,686	3,128,136,749 86,569,375			42,905	81,179,087	3,209,358,741 86,569,375
	20,376,732					20,376,732
<b>912,885,686</b>	<b>3,235,082,856</b>	-	-	<b>42,905</b>	<b>81,179,087</b>	<b>3,316,304,848</b>
2,658,376	12,564,656	247,460	139,434	617,822	304,837	13,874,209
887,618	4,266,573	79,635	44,852	198,441	104,722	4,694,223
532,017	3,965,112	34,421	20,281	243,429	23,805	4,287,048
22,963	88,684	3,456	2,069	3,840	2,118	100,167
256,315	1,304,995	13,432	7,570	56,945	42,278	1,425,220
154,326	833,087	5,526	2,846	35,478	19,639	896,576
151,400	751,098	6,700	3,670	75,453	19,574	856,495
72,666	404,870	3,505	1,936	21,143	13,988	445,442
11,952	52,027	987	487	2,776	3,439	59,716
	976,733					976,733
	497,806					497,806
13,974	13,974				218	14,192
5,906,966	7,045,191	38,262	9,591	20,531	1,280,518	8,394,093
<b>10,668,573</b>	<b>32,764,806</b>	<b>433,384</b>	<b>232,736</b>	<b>1,275,858</b>	<b>1,815,136</b>	<b>36,521,920</b>
	77,500					77,500
	252,720					252,720
	91,960					91,960
-	422,180	-	-	-	-	422,180
-	<b>422,180</b>	-	-	-	-	<b>422,180</b>
<b>923,554,259</b>	<b>3,268,269,842</b>	<b>433,384</b>	<b>232,736</b>	<b>1,318,763</b>	<b>82,994,223</b>	<b>3,353,248,948</b>
-	499,612,114	(364,980)	371,286	505,775	(1,813,033)	498,311,162
	<b>25,207,136,741</b>	<b>2,119,547</b>	<b>1,684,292</b>		<b>8,203,436</b>	<b>25,219,144,016</b>
-	<b>25,706,748,855</b>	<b>1,754,567</b>	<b>2,055,578</b>	<b>505,775</b>	<b>6,390,403</b>	<b>25,717,455,178</b>



# Notes to the Basic Financial Statements

August 31, 2016

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# Notes to the Basic Financial Statements

August 31, 2016

## 1. Summary of Significant Accounting Policies

The financial statements have been prepared in conformity with generally accepted accounting principles (GAAP) as established by the Governmental Accounting Standards Board (GASB).

### 1.A The Reporting Entity (In accordance with GASB Statement 14)

The Texas Constitution under Article XVI, Section 67 authorized the Texas Legislature to establish by law an Employees Retirement System of Texas (the System) to provide benefits for officers and employees of the State. The System was established in 1947 and operates primarily under Vernon's Texas Codes Annotated ( V.T.C.A. ), Texas Government Code, Title 8, Subtitle B.

The System has the powers, privileges and immunities of a corporation. The System is governed by a Board of Trustees, which is made up of six members responsible for the general administration and operations of the System. The six-member board is composed of three elected members and three members who are appointed respectively by the Governor, the Speaker of the Texas House of Representatives, and the Chief Justice of the Supreme Court of Texas. The Board appoints a person other than a member of the Board to serve at the Board's will as Executive Director to manage a staff of over 300 people to provide benefits to State and higher education employees, retirees, and beneficiaries. The Texas Legislature has the authority to set the contribution rates for both employee and employer retirement contributions.

Although the Employees Retirement System is a separate legal entity and by statute must prepare a separate annual financial report, it is also a retirement system of the State of Texas financial reporting entity and is included in the State's annual financial report as a blended component unit.

### 1.B New Accounting Pronouncements

On September 1, 2015, the System adopted Government Accounting Standards Board ("GASB") Statement No. 72, Fair Value Measurement and Application, which defines fair value as 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 requires that the System should use

valuation techniques consistent with one or more of three approaches: market approach, cost approach, or income approach.

GASB Statement No. 72 also measures fair value with a hierarchy of inputs in three levels. Level 1 inputs are quoted prices in active markets for identical assets or liabilities. Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs, and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability. The System describes the valuation techniques and the inputs for hierarchy of fair value in Note 1.G Assets, Liabilities, Fund Balances and Net Position.

On September 1, 2015, the System also implemented GASB Statement No. 73 Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68. This Statement establishes requirements for defined benefit pensions that are not within the scope of Statement No. 68, Accounting and Financial Reporting for Pensions, as well as for the assets accumulated for purposes of providing those pensions. In addition, it establishes requirements for defined contribution pensions that are not within the scope of Statement 68 and amends certain provisions of Statement No. 67, Financial Reporting for Pension Plans, and Statement 68 for pension plans and pensions that are within their respective scopes.

This Statement extends the approach necessary to reflect that for accounting and financial reporting purposes, any assets accumulated for pensions that are provided through pension plans that are not administered through trusts that meet the criteria specified in Statement 68 should not be considered pension plan assets. It also requires that information similar to that required by Statement 68 be included in notes to financial statements and required supplementary information by all similarly situated employers and nonemployer contributing entities.

The Judicial Retirement System Plan One Fund (JRSI) is a pay-as-you-go pension plan and not administered through a trust. In accordance with GASB Statement No. 73, a pension plan that is not administered through a trust should be reported as an agency fund. Therefore, JRSI is reclassified from a Pension and Other Employee Benefit Trust Fund to an Agency Fund, effective September 1, 2015.

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

## 1.C Basic Financial Statements (In accordance with GASB Statement 34)

The Basic Financial Statements consist of:

- Government-wide Financial Statements;
- Fund Financial Statements and Combining Financial Statements of the Defined Benefit Plans; and
- Notes to the Basic Financial Statements.

Government-wide financial statements report all assets, liabilities and net position of the System's Governmental Funds and Internal Service Fund. Governmental activities are generally financed through intergovernmental revenues and other non-exchange revenues. Fiduciary activities are excluded from the government-wide financial statements.

Fund financial statements are presented immediately after the government-wide financial statements. These statements present information for Governmental Funds, the Internal Service Fund, and the Fiduciary Funds. Fund financial statements have been prepared using the measurement focus appropriate for each type of fund.

## 1.D Measurement Focus – Basis of Accounting (In accordance with GASB Statement 34)

*Measurement focus* refers to the definition of the resource flows measured. *Basis of accounting* refers to when revenues and expenses are recognized in the accounts and reported in the financial statements. The government-wide Statement of Net Position and Statement of Activities use the economic resources measurement focus and the accrual basis of accounting.

The government-wide Statement of Activities presents the System's governmental activities by function and distinguishes between program revenues and general revenues. Program revenues are further broken down into charges for services, and operating grants and contributions.

Program revenues of the governmental activities are: appropriations from the State's General Revenue Fund for law enforcement and peace officer death benefits, lump sum retiree death benefits, benefits for victims of crime, insurance premiums received by the Internal Service Fund from employees and the State of Texas, and all investment income deposited or credited to the Internal Service Fund.

Program expenses of the governmental activities are: death benefit expenses of the appropriated Special

Revenue Funds, claims expenses, premium payments of the Internal Service Fund, and all administrative expenses. All other revenues and expenses of the governmental activities are considered to be general revenues/expenses.

Special Revenue Funds are accounted for under the modified accrual basis of accounting and current financial resources measurement focus. Under this combination, the financial statements focus on current assets and current liabilities and the changes in net current assets. All revenues reported are recognized based on the criteria of measurability and availability. Special Revenue Funds to be available if the revenues are due at year end and collected within 60 days thereafter. Amounts are defined as measurable if they can be estimated or otherwise determined. Expenditures are recognized when the related liability is incurred. Benefit payments to participants are recorded upon distribution.

Pension and Other Employee Benefit Trust Funds, and Internal Service Funds are maintained on the full accrual basis of accounting and the economic resources measurement focus. All economic resources, including financial and capital assets and related liabilities, both current and long-term, and the changes therein are reported in the fund's financial statements. Additions are recognized when earned, and deductions are recognized when the liability is incurred, regardless of the timing of related cash flows. Contributions are recognized when due, pursuant to state law. Benefits and refunds of contributions are recognized when due and payable in accordance with the terms of the plan. Capital assets are depreciated. Agency Funds are used to report resources held by the System in a purely custodial capacity. Assets and offsetting liabilities are accounted for using the full accrual basis. Agency Funds have no revenues, expenditures, expenses, or fund balance and typically involve only the receipt and remittance of resources to individuals, the state or other governments.

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses/expenditures during the reporting period. Actual results could differ from those estimates.

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

## 1.E Basis of Presentation (In accordance with GASB Statement 34)

### Fund Structure

The fund financial statements are organized on the basis of funds, each of which is considered to be a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts. These accounts are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with applicable statutory guidelines or restrictions.

The System's funds fall under three fund categories: Governmental Funds, Proprietary Funds, and Fiduciary Funds. Following is a brief description of each fund category and fund type used by the System.

### Governmental Fund Category

Governmental Fund reporting focuses primarily on the sources, uses, and balances of current financial resources and whether current-year revenues were sufficient to pay for current-year services.

For fiscal year 2016, the System continues to report the governmental funds as nonmajor funds. The reporting is based on a statement on page 58 of GASB Statement No. 34, published in June of 1999, "The provisions of this statement need not be applied to immaterial items." The total assets, liabilities, revenues, or expenditures/expenses of the individual governmental funds displayed in Exhibits III and IV are much less than 5% of the funds managed by ERS, and the activities in these funds are not the core of ERS business, which is pension and group benefits. Therefore, the System is reporting the governmental funds on Exhibits III and IV as nonmajor funds for fiscal year 2016.

### Special Revenue Funds

Special Revenue Funds are used to account for the proceeds from specific revenue sources that are legally restricted to expenditures for specific purposes. The System displays General Revenue Funds/Accounts of the State of Texas as Special Revenue Funds, except for the Judicial Retirement System Plan One Fund, which is a pension plan not administered through a trust and, therefore, reported as an Agency Fund.

- Social Security Administration Fund – This fund accounts for the expenditures of administration of the Social Security Program.
- Death Benefits Program for Commissioned Peace Officers, Firemen, etc. Fund (General Revenue Fund) – This fund accounts for payments of death benefits and administrative fees, which are funded

by an appropriation from the State's General Revenue Fund. Established by V.T.C.A., Texas Government Code, Title 6, Chapter 615.

- Compensation to Victims of Crime – This fund accounts for payments of death benefits to the beneficiaries of victims of crime. It is funded by an appropriation from the Victims of Crime Fund 0469, which was established by Texas Criminal Procedure Code, Article 56.54.
- Lump Sum Retiree Death Benefit Fund (General Revenue Fund) – This fund accounts for the payments of the \$5,000 lump sum benefit, which is an additional benefit provided by the System to the beneficiaries of retirees who die while still receiving a retirement annuity.

### Proprietary Fund Category

Proprietary Fund reporting focuses on the determination of operating income, changes in net position, financial position, and cash flows.

### Internal Service Fund

Internal Service Funds are used to report any activity that provides goods or services, on a cost-reimbursement basis, to other funds, departments, agencies of the reporting entity, or other governments.

Employees Life, Accident and Health Insurance and Benefits Fund – This fund accounts for the services provided to State of Texas agencies and higher education institutions that participate in the Texas Employees Group Benefits Program. Established by Chapter 1551, Texas Insurance Code.

### Fiduciary Fund Category

**The fiduciary funds are not part of the government-wide financial statements.**

### Pension and Other Employee Benefit Trust Funds

Pension and Other Employee Benefit Trust Funds (Pension Trust Funds) report the resources that are required to be held in trust for the members and beneficiaries of defined benefit pension plans, deferred compensation plans, and other employee benefit plans.

- Employees Retirement System Fund (ERS) – This fund is established by V.T.C.A., Texas Government Code, Title 8, Subtitle B and is used to account for the accumulation of resources for pension benefit payments to qualified State employees or beneficiaries.
- Law Enforcement and Custodial Officer Supplemental Retirement Fund (LECOS) – This fund is established by V.T.C.A., Texas Government

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

Code, Title 8, Subtitle B and is used to account for the payments of benefits as provided by the Commissioned Law Enforcement and Custodial Officer Supplemental Retirement Benefit Act.

- Judicial Retirement System Plan Two Fund (JRS II) – This fund is established by V.T.C.A., Texas Government Code, Title 8, Subtitle E and is used to account for the accumulation of resources for pension benefit payments to eligible judicial employees who commenced service after August 31, 1985.
- Excess Benefit Arrangement (EBA) – This fund is established by V.T.C.A., Texas Government Code, Title 8, Subtitle B and is used to account for the payments of annuities otherwise payable from the Employees Retirement Fund that exceed the limitations on benefits imposed by Internal Revenue Code (IRC) Section 415(b).
- State Retiree Health Plan (SRHP) – The System provides postemployment health care, life and dental insurance benefits through the Group Benefits Program in accordance with Chapter 1551. The State Retiree Health Plan (SHRP) is a cost-sharing multiple-employer postemployment health care plan that covers retired employees of the State, and other entities as specified by the state legislature.
- TexaSaver 401(k) Trust Fund – This fund is established by V.T.C.A., Article 6252-3g and is used to account for the costs of administering the IRC Section 401(k) deferred compensation plan.
- TexaSaver 457 Trust Fund – This fund is established by V.T.C.A., Article 6252-3g and is used to account for tax-deferred portions of salaries of State employees in accordance with the provisions of IRC Section 457 and the costs of administering the program.
- Commuter Spending Account Fund – This fund is a qualified transportation benefits plan authorized under Section 132 of the Internal Revenue Code. The Commuter Benefits program offers State employees pre-tax deduction for qualified parking expenses or mass transit expenses.
- State Employees Cafeteria Plan Trust Fund (TexFlex) – This fund is established by Chapter 1551, Texas Insurance Code and is used to account for before-tax salary reduction contributions from State employees and employees of higher education institutions, reimbursements for health care and dependent care, and the costs of administering the program.

## Agency Funds

Agency Funds are used to account for assets held by a governmental unit in a purely custodial capacity for individuals, other governmental entities, or private

organizations. Agency Funds report only the balances of assets and liabilities and do not measure results of operations.

- Judicial Retirement System Plan One Fund (JRS I) (General Revenue Fund) – This fund is established by V.T.C.A., Texas Government Code, Title 8, Subtitle D and is used to account for appropriations received from the State's General Revenue Fund for annuity and refund payments to eligible judicial employees who commenced service prior to September 1, 1985.
- Unappropriated Receipts (General Revenue Fund) – This fund accounts for member contributions received from the Judicial Retirement System Plan One Fund.
- Child Support Employee Deductions - Offset Account – This fund accounts for monies withheld in compliance with state and federal law for child support orders. The orders received by employers require that child support payments be deducted from the paychecks of employees. Texas enacted a statute mandating electronic submittal of child support payments deducted from non-custodial parent payrolls, effective September 1, 2009. This process allows all child support payments from an agency to be paid to the State Disbursement Unit (SDU). Once received by the SDU, the payment is sent to the custodial parent in compliance with the order.
- USPS - Overpayment to Employees – This fund is used to provide a temporary depository for money held in suspense pending final disposition. Items held in the fund are cleared to the various Special Funds or the General Revenue Fund, or refunded to the payer.
- Direct Deposit Correction Account – This fund accounts for monies which had been transmitted for direct deposit but were returned because problems prevented credit from being given to individual depositors. The System transfers the funds back to the original issuing fund.

## 1.F Budgets

### Appropriated Budgets

The Texas Legislature appropriates monies out of the State's General Revenue Fund for benefit payments of the Judicial Retirement System Plan One Fund and all Special Revenue Funds other than the Social Security Administration Fund on an 'estimated to be' basis.

This type of appropriation means that the System has the authority to increase the appropriations as needed during the time period that the appropriation is allowed to remain open. For benefit payments, expenditures in

# Notes to the Basic Financial Statements (Continued)

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excess of appropriations received are not a violation of budgetary authority.

The System is required to lapse all unencumbered appropriations by November 1 of each year.

## Non-appropriated Budget

The Texas Legislature does not appropriate monies to the System for administrative expenses. A non-appropriated budget for administrative expenses, including capital outlay, is prepared annually and approved by the System's Board of Trustees at the line-item level. The System's management must approve any transfers between line items, and the Board must approve any amendments to the approved budget. Administrative expenses are budgeted in and paid primarily from the Employees Retirement Fund. Expenses are allocated monthly to the other funds based on percentages determined by time sheets and resource requirements used to administer each fund within each division. Expenses are limited by a statutory provision that no expense can be made for more than the State of Texas pays for similar services. Non-appropriated budgets are not lapsed at year-end.

## 1.G Assets, Liabilities, Fund Balances and Net Position

(In accordance with GASB Statement 34)

### Cash and Short-Term Investments

Cash and Cash Equivalents (in accordance with GASB Statement 9), as reported in the Statement of Cash Flows for the Internal Service Fund, are composed of cash on hand, cash in local banks, cash in the State Treasury, and cash equivalents. Cash in local banks is held by Fiduciary Funds. Cash balances of most state funds are pooled and invested by the Treasury Operations Division at the Comptroller's office. Interest earned is deposited in the specified funds designated by law.

The Statement of Cash Flows for proprietary fund shows the change in cash and cash equivalents during the fiscal year. Both Cash Equivalents and Short-Term Investments are defined as short-term, highly liquid investments that are both (a) readily convertible to known amounts of cash and (b) so near maturity they present insignificant risk of changes in value due to changes in interest rates. Investments with an original maturity of three months or less and that are used for cash management rather than investing activities are considered cash equivalents. Restricted securities held as collateral for Securities Lending are not included as cash equivalents on the Statement of Cash Flows.

The petty cash and travel advance accounts, and the TexaSaver and State Employees Cafeteria Plan accounts (Cash in Bank) are maintained at a local commercial bank.

### Valuation

Cash Equivalents and Short-Term Investments are reported at fair value.

### Investments

Investments of the Employees Retirement System Fund, the Law Enforcement and Custodian Officer Supplemental Retirement Fund, the Judicial Retirement System Plan Two Fund, and the long-term portion of the Employees Life, Accidental and Health Insurance and Benefits Fund are consolidated in the Investments pool Fund. See also *Investment Unit Trust Accounting*.

### Valuation

Investments of the Pension Trust Funds and Internal Service Fund are reported at fair value in accordance with GASB Statements 31 and 72, respectively. Fair value is defined as the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller. The fair value of investments is based on published market prices and quotations from major investment brokers at current exchange rates, as available. Many factors are considered in arriving at that value. In general, however, corporate bonds are valued based on yields currently available on comparable securities of issuers with similar credit ratings. Public real estate are listed securities (Real Estate Investment Trusts or "REITs" and Real Estate Operating Companies or "REOCs") traded in the public exchange.

For alternative investments, the System has established a Valuation Committee that periodically reviews and approves the fair value of these investments. Certain foreign alternative investments in the inception year are reported at cost, which approximates fair value. Fair value at fiscal year-end is based on the fair value of net assets reported in the partnership's most recent financial statements available to the System's Valuation Committee, adjusted for any cash flows and material changes in fair value, according to the Valuation Committee guidelines, between the reporting date of partnership's most recent financial statements and the System's fiscal year end date. The System's alternative investments include private equity, private real estate, private infrastructure, private fixed income and hedge funds.

The general nature of the System's private equity funds is that distributions are received through the liquidation

# Notes to the Basic Financial Statements (Continued)

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of the underlying assets of the funds. Private equity partnerships have an expected life of approximately seven to fifteen years and are not liquid in nature. The fair value of the net assets is estimated using recent observable information for similar investments, such as discounted cash flows, earning multiples and company comparables.

The System's private real estate investments are limited partnerships. The partnerships participate in both closed-ended and open-ended commingled funds. The System does not directly own buildings. Closed-ended funds typically have a pre-determined life of seven to twelve years (plus possible extensions) and are illiquid in nature. Open-ended funds do not have a pre-determined liquidation date and the System has the ability to sell its interests periodically. The fair value of private real estate is based on the set asset values of limited partner interests in the commingled funds. Each commingled fund is audited annually and the underlying investments may be periodically appraised by an independent third party. Valuation assumptions can be subjective and are based on market and property specific inputs.

The System's hedge fund investments represent ownership interest in limited partnerships or limited liability companies. These types of investments consist of private comingled investment vehicles that issues securities to accredited investors or qualified purchasers. The fair values of hedge funds are based on the net assets of the limited partnership. These funds' valuations are appraised by an independent administrator and reconciled annually to the audited financial statements.

Private fixed income funds are ownership in limited partnerships which consists of private investment funds that are either comingled or separate. These funds are classified as predominately "credit" instruments that may be liquid or illiquid. The System will utilize a process similar to that of private equity funds in assessing the fair value of the fund. The expected life of the funds is approximately three to ten years, with the option of two one-year extensions. The valuations are reviewed at the end of each reporting period as financial statements or cash flow information becomes available.

The System's private infrastructure investments are in large-scale public systems, services and facilities that are necessary for economic activity. These types of relatively illiquid investments are often made in essential services with high barriers to entry and predictable cash flows and have expected life from ten to twelve years, with the option of one to three-year extension. The fair value of the net assets is estimated using a variety of approaches, which may involve using recent information

from comparable companies, replacement cost analysis, and discounted cash flows. Each investment is typically audited annually and appraised periodically by an independent third party.

If the System has investments where no readily ascertainable market value exists, the System's management, in consultation with their investment advisors and the Master Trust Custodian, will determine the fair values for those investments.

## Permissible Investments

Eligible securities are as follows:

- Domestic equities, screened to eliminate against any known bankruptcy proceedings, lawsuits, or breach of corporate ethics that might jeopardize the company's economic future or existence.
- Equities of companies domiciled in countries outside of the United States.
- Global fixed income securities, subject to a minimum credit rating of "CCC-, Caa3," or their equivalent as rated by two (NRSROs), and include in the Barclays Capital Universal Index or successor index. Fixed income and short-term securities that downgrade to below the acceptable rating described above will be exchanged or sold within one year, but special exceptions may be permitted and reported to the Board of Trustees.
- Interests in private securities exempted from registration under federal and state securities laws, including certain limited liability securities and vehicles, such as limited partner interests in limited partnerships, trusts and limited liability corporations as deemed appropriate by the System.
- Private equity and private real estate investments must be institutional in quality and meet the parameters specified in the System's investment policy.
- Global publicly traded real estate equities subject to the quality standards set for in the investment policy.
- Foreign currencies transactions and foreign currency derivatives are permitted as necessary to facilitate the settlement of foreign security transactions, consistent with industry best practices. These transactions are also permitted to settle private market transactions, meet capital calls or exchange distributions back into U.S. dollars.
- Forward, futures and options, subject to the restrictions set forth in the investment policy.

## Investment Asset Allocation

The System's policy in regard to the allocation of investment assets is established and may be amended by the Board of Trustees. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits

# Notes to the Basic Financial Statements (Continued)

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provided through the pension plans (See Figure 13 in Note 3.B for the most recent target asset allocation).

## Investment Unit Trust Accounting

In order to provide flexibility of asset allocation and effectively invest in a diversified manner, the Board of Trustees directed that investment unit trust accounting be implemented. The pension funds began the unit trust accounting on September 1, 2006 and the long term portion of the Employees Life, Accident and Health Insurance and Benefits Fund on January 1, 2009. Unit trust accounting involved assigning units to each fund based on the share of the funds' investment fair value to the total fair value of the consolidated investments. The custodian bank prepares consolidated bank statements and fund statements that show the unit trust accounting activity. Investment earnings and appreciation increase the per unit value of all participating funds. Deposits and withdrawals for each fund change the number of units held by each fund. These changes are recorded at the unit value of the transaction date. Investment earnings or losses and fees for the total consolidated fund are allocated to each of the participating funds on a daily basis using the pro rata fair value share.

## Investment Components

For the fiscal year beginning September 1, 2011, the System decided to change the presentation grouping for investments from asset classes to investment components. These components might be aligned with the System's investment strategies and unit trust accounting described above. See Note 2.A for descriptions of the investment components.

## Capital Assets

Pension Trust Funds are accounted for on a cost of service measurement focus. This means that all capital assets associated with the funds' activities are included in their statements of net position. Purchases of capital assets by these funds are reported at cost or, if donated, at fair market value on the acquisition date. Depreciation of all exhaustible capital assets is charged as an expense against the funds' operations. Accumulated depreciation is reported on the statements of net position.

Depreciation has been provided over the estimated useful lives, using the straight-line method. The capitalization thresholds and estimated useful lives are shown in Figure 1.

## Accounts Payable

Accounts Payable under the Internal Service Fund include claims incurred but not reported by the

**Figure 1**  
**Capitalization Thresholds and Useful Lives**

Asset Category	Capitalization Threshold	Estimated Useful Life (in Years)
	\$	
Land	0	N/A
Building and Improvements	100,000	40
Computer Software	100,000	5 - 6
Furniture and Equipment	5,000	3 - 10
Motor Vehicles	5,000	7
Internally Generated Computer Software	1,000,000	5 - 6

participants prior to fiscal year end and payable in future years as estimated by the System's actuary.

## Employees Compensable Leave

Under Section 661.062 of Texas Government Code Chapter 661, a State employee is entitled to be paid for all unused vacation time accrued, in the event of the employee's resignation, dismissal, or separation from State employment, provided the employee has had continuous employment with the State for six months.

In Fiduciary Fund types, salary costs related to employees' rights to be compensated for vacation time are accrued as expenses of the period in which the services were rendered. Accumulated compensable leave liabilities are reported in the Statement of Fiduciary Net Position for the Employees Retirement Fund.

No liability is recorded for non-vesting accumulating rights to receive sick leave benefits.

## Fund Balances – Governmental Funds

Fund balance is the difference between fund assets and liabilities on the governmental fund statements. Committed fund balance reports an amount that has spending limitations that are internally imposed by formal action of the government's highest level of decision-making authority (e.g., legislature). These committed fund balance amounts usually cannot be redeployed for other purposes unless the same decision makers reverse or modify the imposed restrictions by the same type of formal action that was originally used to create the restriction.

## Net Position – Restricted for Pension Benefits

The net position of the retirement trust funds consists of up to five reserve accounts, depending on the particular fund.

- The Employee Savings Account represents the accumulation of active and inactive member deposits plus interest.

# Notes to the Basic Financial Statements (Continued)

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- The State Accumulation Account represents reserves available to fund the future active member retirement, death, and survivor benefits.
- The Retirement Annuity Reserve Account represents reserves to pay retirement, death, and survivor benefits and post-retirement benefit increases for current retirees.
- The Interest Account represents the interest, dividends, securities lending income, and net appreciation or depreciation received and accrued on the invested assets of the fund. All investment income is transferred to the Employee Savings, State Accumulation, and Retirement Annuity Reserve accounts based on applicable Texas statutes.
- The Expense Account represents reserves to pay all administration and maintenance expenses of the retirement trust funds.

See Note 3.D for the balances of each funded plans' legally required reserves.

## **Restricted Net Position – Proprietary Fund** (In accordance with GASB Statement 34)

Chapter 1551 of the Texas Insurance Code requires that the System estimate funds needed for an average 60-day period, considering projected claims and administrative expenses for a contingency reserve fund for self-funded coverage. The System is further required to include this amount in its legislative appropriations request. Subject to adequate appropriation from the legislature, the estimated amount must be placed in the contingency reserve fund along with interest on, earnings of, and proceeds from the sale of investments of assets in the contingency reserve fund. This reserve amount is reported as 'Restricted Net Position' in both the government-wide and the proprietary fund Statement of Net Position.

## **Interfund Activity and Balances** (In accordance with GASB Statement 34)

Activities between the System and agencies of the State of Texas, and activities between the System's funds have been analyzed and classified in accordance with the following criteria.

### **Interfund Services Provided and Used**

This activity represents transactions that would be treated as revenues, expenditures or expenses if they involved organizations external to State government. They are accounted for as revenues by the recipient fund and as expenditures or expenses by the disbursing fund. Contributions for retirement and insurance from other funds within the State

of Texas reporting entity are reported as Interfund Services Provided and Used. The accrual of Interfund Services Provided and Used is classified as Accounts Receivable and Accounts Payable on the government-wide and the fund financial statements.

### **Interfund Reimbursements**

This activity represents expenditures or expenses applicable to a particular fund but paid from another fund. The transactions are reported as expenditures or expenses in the reimbursing fund and a reduction of corresponding amounts in the reimbursed fund. Administrative expenses paid by the Employees Retirement System Fund and subsequently reimbursed by the System's other funds are reported as Interfund Reimbursements in the financial statements. The accrual of Interfund Reimbursements is reported on the government-wide Statement of Net Position as Due From External Parties or Due To External Parties and on the fund financial statements as Due From Other Funds or Due To Other Funds.

### **Interfund Transfers**

This activity represents routine transfers of resources. Interfund transfers are reported in the Other Financing Sources (Uses) section for Governmental Funds and as Other Additions or Other Deductions in the Pension Trust Fund financial statements. The accrual of Interfund Transfers is reported on the government-wide Statement of Net Position as Due From External Parties or Due To External Parties and on the fund financial statements as Due From Other Funds or Due To Other Funds. Retirement Membership Fees received by the Employees Retirement System Fund and transferred to other funds of the System are reported as Interfund Transfers. See Note 5.B Interfund Transfers.

## **Interagency Activity and Balances** (In accordance with GASB Statement 34)

This activity represents routine transfers of funds between the System and other agencies and institutions within the State of Texas financial reporting entity.

At year end, the accrual of transfers from or to the funds of the System are reported as Due To Other Agencies or Due From Other Agencies on the Statements of Net Position. See Note 5.C Interagency Transfers.

### **Reclassifications**

Certain items from the prior year's financial statements have been reclassified for comparative purposes. Such reclassifications had no effect on previously reported net position.

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

## 2. Detail Disclosures on Funds

(In accordance with GASB Statements 3, 28, 31, 40, 67, and 72)

### 2.A Deposits, Investments, and Repurchase Agreements

#### Deposits

As of August 31, 2016, the total carrying amount of Deposits was \$9,768,012 as presented in Figure 2. The deposits in investment components are temporary deposits related to unsettled trade or income transactions.

**Figure 2  
Deposits**

Deposits	Carrying Value	Bank Balance
	\$	\$
<b>Fiduciary Funds:</b>		
Cash in Bank (Exh. VIII)	5,880,106	5,874,545
Deposits in Investment Components	3,887,906	3,887,906
<b>Totals</b>	<b>9,768,012</b>	<b>9,762,451</b>

#### Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the System will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The System does not have a deposit policy for custodial credit risk. As of August 31, 2016, the System was not exposed to custodial credit risk with respect to deposits.

#### Investments

##### Policy of Asset Allocation

The System categorizes investment assets into principal components that align with investment strategies. The System's investment strategies are domestic equities, international securities, global credit, rates, public real estate, and alternative investments. A principal component may include one or more investment asset classes, depending on the investment strategy.

The majority of the investments in the domestic equities component are equity securities that are issued in the United States. Real Estate Investment Trust (REITs), Exchange Traded Funds (ETFs), and international securities are also included in this component to

provide liquidity. The International securities component invests in equity securities that are mainly issued overseas. It also includes other investments classes similar to those of the domestic equities component. The rates component invests in domestic and international fixed income securities that have a relatively low risk of default. The global credit component invests in securities that have high risk and long maturity. It also invests in ETFs and hedge funds to provide liquidity and absolute returns. The public real estate component invests mainly in REITs. It also includes hedge funds, domestic and international equities to provide liquidity, diversification, and high returns to the component.

Alternative Investments include private equity, private real estate, private infrastructure, private fixed income and hedge funds. The private equity investments are in private equity limited partnerships. The private real estate investments are in limited partnerships that specialize in real estate. Private Infrastructure investments are limited partnerships based on event-driven strategies (e.g., tender offers, mergers, and acquisitions etc.). Hedge fund investments are in hedge fund limited partnership. Private fixed income funds are limited partnerships that invest in foreign and domestic fixed income securities.

#### Fair Value Measurement

The System use the following valuation techniques to measure fair value of investments:

- Market Approach:** Prices and other relevant information generated by market transactions involving identical or similar assets, liabilities, or group of assets and liabilities are used to measure fair value.
- Cost Approach:** The amount that would be required currently to replace the present service capacity of an assets is used to measure fair value.
- Income Approach:** Future amounts (for example, cash flows, or revenues and expenses) are converted to a single current amount to determine fair value.

The System categorizes their fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority (Level 1) to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority (Level 3) to unobservable inputs.

- Level 1:** Unadjusted quoted prices for identical instruments in active markets.

# Notes to the Basic Financial Statements (Continued)

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Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3: Valuations derived from valuation techniques in which significant inputs are unobservable. Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

U.S. treasury securities, equity securities, Real Estate Investment Trusts, and Exchange Traded Funds classified in Level 1 are valued using prices quoted in active markets for those securities.

Debt and debt derivative securities classified in Level 2 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features and ratings. Matrix pricing is used to value securities based on the securities relationship to benchmark quoted prices. Index linked debt securities are valued by multiplying the external market price feed by the applicable day's Index Ratio. Level 2 debt securities also have non-proprietary information from multiple independent sources that were readily available to market participants who are known to be actively involved in the market. Equity and equity derivative securities classified in Level 2 are securities whose values are derived daily from associated traded securities.

Level 3 debt securities use proprietary information or single source pricing. Value of equity securities classified in Level 3 is based on last trade data that is 30 days or more before the fiscal year end. Real assets, if any, classified in Level 3 are real estate investments generally valued using the income approach by internal manager reviews or independent external appraisers.

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. When 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 fair values of the following types of alternative investments are measured at net asset value (NAV) per share (or its equivalent). The valuation method using NAV per share (or its equivalent) is consistent with the Financial Accounting Standards Board's measurement principles for an investment company. The summary of unfunded commitments for these types of alternative investments is reported in Figure 8. The valuation

methods of these types of investments are described as follows:

- Equity Long/Short hedge funds — This strategy includes long and short investments made primarily in developed market common stocks. Management of each hedge fund has the ability to shift investments from value to growth strategies, from small to large capitalization stocks, and from a net long to a net short position. The redemption frequency of this fund type is monthly or quarterly and the redemption notice period is 30 – 90 days.
- Event-Driven hedge funds — These types of investments include hedge funds that aim to profit from a catalyst. In many instances, these catalysts can be associated with economic, political, corporate, and government-driven events. A majority of these investments are targeted at corporate actions. The redemption frequency of this fund type is monthly, quarterly, or three-year hard lock. The notice period for the monthly and quarterly redemption is 30 – 90 days.
- Macro hedge funds — These types of investments include hedge funds that invest in a range of strategies which are based on movements in macroeconomic variables. Management of each hedge fund can use a variety of instruments including fixed income, currency, commodity, or equity securities. The redemption frequency of this fund type is daily or quarterly and the redemption notice period is 2 – 30 days.
- Multi-Strategy hedge funds — These investments include hedge funds that pursue multiple strategies aimed at diversifying risks and reducing volatility. The System defines multi-strategy funds as having 50% of the funds' exposure to event-driven strategies and the other 50% to relative value strategies. The redemption frequency is quarterly and the redemption notice period is 45 days.
- Opportunistic hedge funds — These include investments in hedge funds that provide niche and often uncorrelated exposures. Management of such funds can use a variety of instruments including credit, equity, and derivative securities; some of which may be less-liquid in nature. The redemption frequency of this fund type is three or five-year hard lock or quarterly. The notice period for quarterly redemption is 60 days.
- Private equity funds, private fixed income funds, private infrastructure funds, and private real estate funds – See Note 1.G for details of valuation method. These funds, in general, do not allow redemption, except two private fixed income funds, which allow redemption with 90 days notice. Five private real estate funds also allow monthly or quarterly redemption with 45 – 90 days notice.
- Relative Value hedge funds — This strategy seeks to capitalize on the mispricing of related securities or financial instruments. The redemption frequency of this fund type is monthly or quarterly, or semiannually and the redemption notice period is 45 – 90 days.

Figures 3.a, 3.b, and 3.c show the fair value leveling of the System's investments.

# Notes to the Basic Financial Statements (Continued)

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**Figure 3.a**  
**Fair Value of Investments by Components**

	Components						Investments Totals	Short-Term Investments
	Domestic Equities	International Securities	Global Credit	Rates	Public Real Estate	Alternative Investments		
<b>Fiduciary Funds:</b>	\$	\$	\$	\$	\$	\$	\$	\$
U.S. Treasury Securities				3,143,369,752			3,143,369,752	422,519,342
Corporate Obligations			978,428,671	39,925,848			1,018,354,519	
Corporate Asset and Mortgage Backed Securities				159,582,373			159,582,373	
U.S. Government Agency Obligations				697,240,738			697,240,738	
Domestic Equities	5,515,427,771	96,747,197			8,462,060		5,620,637,028	
International Equities	421,658,080	4,939,330,979			16,147,352		5,377,136,411	
International Obligations			258,410,875	48,102,112			306,512,987	
Alternative Investments:			330,486,724			6,315,589,029	6,646,075,753	
Real Estate Investment Trust (REITs)	245,984,813	87,266,667	28,945,451		672,316,081		1,034,513,012	
Exchange Traded Funds (ETFs)	181,196,316	57,508,773	361,059,858		1,960,800		601,725,747	
Money Market and Bond Funds							-	730,883,716
Investment in Pool Cash							-	2,290,108
Derivatives							-	-
Deposits		1,537,984			578,660	7,150,821	9,267,465	(5,379,559)
<b>Totals (Exh. VIII)</b>	<b>6,364,266,980</b>	<b>5,182,391,600</b>	<b>1,957,331,579</b>	<b>4,088,220,823</b>	<b>699,464,953</b>	<b>6,322,739,850</b>	<b>24,614,415,785</b>	<b>1,150,313,607</b>
<b>Proprietary Fund:</b>								
U.S. Treasury Securities				209,931,549			209,931,549	1,419,480
Corporate Obligations			56,761,568	2,666,468			59,428,036	
Corporate Asset and Mortgage Backed Securities				10,657,791			10,657,791	
U.S. Government Agency Obligations				46,565,581			46,565,581	
International Obligations			14,991,173	3,212,524			18,203,697	
Alternative Investments			19,172,505				19,172,505	
Exchange Traded Funds (ETFs)			20,946,142				20,946,142	
Real Estate Investment Trust (REITs)			1,679,211				1,679,211	
Money Market and Bond Funds							-	46,486,289
<b>Totals (Exh. V)</b>	<b>-</b>	<b>-</b>	<b>113,550,599</b>	<b>273,033,913</b>	<b>-</b>	<b>-</b>	<b>386,584,512</b>	<b>47,905,769</b>

**Figure 3.b**  
**Fair Value of Investments by Components and Hierarchy Levels**

	Components						Investment Totals	Short-Term Investments
	Domestic Equities	International Securities	Global Credit	Rates	Public Real Estate	Alternative Investments		
<b>Fiduciary Funds:</b>	\$	\$	\$	\$	\$	\$	\$	\$
<b>By Fair Value Hierarchy:</b>								
Level 1	6,364,249,961	5,180,640,941	361,059,858	3,143,369,752	698,886,293		15,748,206,805	1,153,403,058
Level 2		212,675	1,264,418,757	944,851,071			2,209,482,503	
Level 3	17,019		1,366,240				1,383,259	
<b>Total by Fair Value Hierarchy Measured at the Net Asset Value (NAV):</b>	<b>6,364,266,980</b>	<b>5,180,853,616</b>	<b>1,626,844,855</b>	<b>4,088,220,823</b>	<b>698,886,293</b>	<b>-</b>	<b>17,959,072,567</b>	<b>1,153,403,058</b>
Equity Long/Short Hedge Funds						563,703,754	563,703,754	
Event Driven Hedge Funds						333,731,701	333,731,701	
Macro Hedge Funds						106,713,400	106,713,400	
Multi-Strategies Hedge Funds						124,147,813	124,147,813	
Opportunistic Hedge Funds			166,618,399			85,946,509	252,564,908	
Private Equity Funds						2,573,975,563	2,573,975,563	
Private Fixed Income Funds			163,868,325				163,868,325	
Private Infrastructure Funds						345,482,537	345,482,537	
Private Real Estate Funds						1,761,266,654	1,761,266,654	
Relative Value Funds						420,621,098	420,621,098	
<b>Total Measured at the NAV</b>			<b>330,486,724</b>			<b>6,315,589,029</b>	<b>6,646,075,753</b>	<b>-</b>
Deposits		1,537,984			578,660	7,150,821	9,267,465	(3,089,451)
<b>Total Investments (Exh. VIII)</b>	<b>6,364,266,980</b>	<b>5,182,391,600</b>	<b>1,957,331,579</b>	<b>4,088,220,823</b>	<b>699,464,953</b>	<b>6,322,739,850</b>	<b>24,614,415,785</b>	<b>1,150,313,607</b>
<b>Proprietary Fund:</b>								
<b>By Fair Value Hierarchy:</b>								
Level 1			20,946,142	209,931,549			230,877,691	47,905,769
Level 2			73,352,693	63,102,364			136,455,057	
Level 3			79,259				79,259	
<b>Total by Fair Value Hierarchy Measured at the Net Asset Value (NAV):</b>			<b>94,378,094</b>	<b>273,033,913</b>			<b>367,412,007</b>	<b>47,905,769</b>
Opportunistic Hedge Funds			9,666,022				9,666,022	
Private Fixed Income Funds			9,506,483				9,506,483	
<b>Total Measured at the NAV</b>			<b>19,172,505</b>				<b>19,172,505</b>	<b>-</b>
<b>Total Investments (Exh. V)</b>			<b>113,550,599</b>	<b>273,033,913</b>			<b>386,584,512</b>	<b>47,905,769</b>

# Notes to the Basic Financial Statements (Continued)

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**Figure 3.c**  
**Fair Value of Investments by Asset Class and Hierarchy Levels**

	Level 1	Level 2	Level 3	Total
<b>Fiduciary Funds:</b>	\$	\$	\$	\$
<b>By Fair Value Hierarchy:</b>				
U.S. Treasury Securities	3,143,369,752			3,143,369,752
Corporate Obligations		1,018,354,519		1,018,354,519
Corporate Asset and Mortgage Backed Securities		159,582,373		159,582,373
U.S. Government Agency Obligations		697,240,738		697,240,738
Domestic Equities	5,620,620,009		17,019	5,620,637,028
International Equities	5,376,923,736	212,675		5,377,136,411
International Obligations		305,146,747	1,366,240	306,512,987
Real Estate Investment Trusts (REITs)	1,005,567,561	28,945,451		1,034,513,012
Exchange Traded Funds (ETFs)	601,725,747			601,725,747
<b>Total by Fair Value Hierarchy</b>	<b>15,748,206,805</b>	<b>2,209,482,503</b>	<b>1,383,259</b>	<b>17,959,072,567</b>
<b>Measured at the Net Asset Value (NAV):</b>				
Equity Long/Short Hedge Funds				563,703,754
Event Driven Hedge Funds				333,731,701
Macro Hedge Funds				106,713,400
Multi-Strategies Hedge Funds				124,147,813
Opportunistic Hedge Funds				252,564,908
Private Equity Funds				2,573,975,563
Private Fixed Income Funds				163,868,325
Private Infrastructure Funds				345,482,537
Private Real Estate Funds				1,761,266,654
Relative Value Hedge Funds				420,621,098
<b>Total Measured at the NAV</b>				<b>6,646,075,753</b>
<b>Deposits</b>				<b>9,267,465</b>
<b>Total Investments</b>				<b>24,614,415,785</b>
				<b>(Exh. VIII)</b>
<b>Short-Term Investments:</b>				
<b>By Fair Value Hierarchy:</b>				
U.S. Treasury Securities	422,519,342			422,519,342
Money Market and Bond Funds	730,883,716			730,883,716
<b>Total by Fair Value Hierarchy</b>	<b>1,153,403,058</b>	<b>-</b>	<b>-</b>	<b>1,153,403,058</b>
Investment in Pool Cash				2,290,108
Deposits				(5,379,559)
<b>Total Short-Term Investments</b>				<b>1,150,313,607</b>
				<b>(Exh. VIII)</b>
<b>Proprietary Fund:</b>				
<b>By Fair Value Hierarchy:</b>				
U.S. Treasury Securities	209,931,549			209,931,549
Corporate Obligations		59,428,036		59,428,036
Corporate Asset and Mortgage Backed Securities		10,657,791		10,657,791
U.S. Government Agency Obligations		46,565,581		46,565,581
International Obligations		18,124,438	79,259	18,203,697
Exchange Traded Funds (ETFs)	20,946,142			20,946,142
Real Estate Investment Trusts (REITs)		1,679,211		1,679,211
<b>Total by Fair Value Hierarchy</b>	<b>230,877,691</b>	<b>136,455,057</b>	<b>79,259</b>	<b>367,412,007</b>
<b>Investments Measured at the Net Asset Value (NAV):</b>				
Opportunistic Hedge Funds				9,666,022
Private Fixed Income Funds				9,506,483
<b>Total Measured at the NAV</b>				<b>19,172,505</b>
<b>Total Investments</b>				<b>386,584,512</b>
				<b>(Exh. V)</b>
<b>Short-Term Investments:</b>				
U.S. Treasury Securities	1,419,480			1,419,480
Money Market and Bond Funds	46,486,289			46,486,289
<b>Total Short-Term Investments</b>	<b>47,905,769</b>	<b>-</b>	<b>-</b>	<b>47,905,769</b>
				<b>(Exh. V)</b>

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

## Money-Weighted Rate of Return

The money-weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested. For the year ended August 31, 2016, the annual money-weighted rate of return on the defined benefit plans was 5.40%. See Schedule of Investment Returns – Defined Benefit Plans in the Required Supplementary Information section for details.

## Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty, the System will not be able to recover the value of its investments

or collateral securities that are in the possession of an outside party. The System's investment policy limits holding of securities by counterparties to those involved with securities lending and those used as collateral for futures contracts.

## Foreign Currency Risk

Foreign currency risk for investments and deposits is the risk that changes in exchange rates will adversely affect the investments and deposits. The System does not have a policy for managing foreign currency risk. The System's investment and deposit exposure to foreign currency risk as of August 31, 2016 is summarized in Figure 4.

**Figure 4**  
**Foreign Currency Risk**

	Domestic Equities Component (USD)	International Securities Component (USD)	Global Credit Component (USD)	Public Real Estate Component (USD)	Alternative Investments Component (USD)
<b>Fiduciary Funds:</b>	\$	\$	\$	\$	\$
<b>Investments:</b>					
Australian Dollar	9,186,421	145,348,267		45,274,398	
Brazilian Real		49,801,110			
Canadian Dollar		335,363,415		11,366,280	
Chilean Peso	5,118,933	6,111,493			
Colombian Peso		2,527,118			
Czech Koruna		9,832,337			
Danish Krone		61,974,311			
Egyptian Pound		5,180,031			
Euro		1,335,240,799	2,184,313	65,786,876	313,840,466
Hong Kong Dollar		313,091,542		57,452,372	
Hungarian Forint		5,855,049			
Indian Rupee		101,068,811			
Indonesian Rupiah		33,440,698			
Japanese Yen		713,053,756		73,036,096	
Malaysian Ringgit		6,748,347			
Mexican Peso		45,817,748		2,335,035	
New Israeli Sheqel		3,900,657		2,137,277	
New Taiwan Dollar		101,527,869			
New Zealand Dollar		6,810,824			
Norwegian Krone		30,355,953			
Philippine Peso		22,980,029		3,026,977	
Polish Zloty		2,355,169			
Pound Sterling		794,420,075		34,043,112	78,834,050
Qatari Riyal		5,375,210			
Singapore Dollar		41,116,251		14,520,110	
South African Rand		48,973,512			
South Korean Won		146,168,596			
Swedish Krona		81,470,979		11,822,486	
Swiss Franc		231,497,051			
Thai Baht		30,147,297			
Turkish Lira		23,848,037			
<b>Investments Exposed to Foreign Currency Risk</b>	<b>14,305,354</b>	<b>4,741,402,341</b>	<b>2,184,313</b>	<b>320,801,019</b>	<b>392,674,516</b>
US Dollar	6,349,961,626	439,451,276	1,955,147,266	378,085,274	5,922,914,513
<b>Total Investments</b>	<b>6,364,266,980</b>	<b>5,180,853,617</b>	<b>1,957,331,579</b>	<b>698,886,293</b>	<b>6,315,589,029</b>
<b>Deposits:</b>					
Australian Dollar		84,566		466,565	
Canadian Dollar		206		616	
Egyptian Pound		30,102			
Hong Kong Dollar		56,970			
Indian Rupee		637,698			
New Taiwan Dollar		422,234			
<b>Deposits Exposed to Foreign Currency Risk</b>	<b>-</b>	<b>1,231,776</b>	<b>-</b>	<b>467,181</b>	<b>-</b>
US Dollar		306,207		111,479	7,150,821
<b>Total Deposits</b>	<b>-</b>	<b>1,537,983</b>	<b>-</b>	<b>578,660</b>	<b>7,150,821</b>
<b>Total (Exh. VIII)</b>	<b>6,364,266,980</b>	<b>5,182,391,600</b>	<b>1,957,331,579</b>	<b>699,464,953</b>	<b>6,322,739,850</b>

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# Notes to the Basic Financial Statements (Continued)

August 31, 2016

**Figure 4  
Foreign Currency Risk (Concluded)**

	Domestic Equities Component (USD)	International Securities Component (USD)	Global Credit Component (USD)	Public Real Estate Component (USD)	Alternative Investments Component (USD)
<b>Proprietary Fund:</b>					
<b>Investments:</b>					
Euro			126,718		
<b>Investments Exposed to Foreign Currency Risk</b>	-	-	<b>126,718</b>	-	-
US Dollar			113,423,881		
<b>Total Investments</b>	-	-	<b>113,550,599</b>	-	-
<b>Deposits:</b>					
US Dollar					
<b>Total Deposits</b>	-	-	-	-	-
<b>Total (Exh. V)</b>	-	-	<b>113,550,599</b>	-	-

## Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The general investment policies of the System require that non-cash interest paying securities in the high yield bond portfolios may not exceed 15% of the market value of the portfolio. Credit risk is managed through diversification and by operating within defined parameters versus a benchmark index. Excluding those securities *issued by or explicitly guaranteed* by the U.S. Government, which are not considered to have credit risk, the System's credit quality distribution for securities with credit risk exposure as of August 31, 2016 is summarized in Figure 5. The securities were rated and categorized according to Standard & Poor's rating standards.

The System earns failed interest on monies held at the custodial agent bank overnight when a security purchase transaction fails to be completed due to the broker not delivering the purchased security on settlement date. When this occurs, the System's money is invested overnight in a Common Trust Fund at the custodial agent bank. The System had no failed securities either during the fiscal year or at August 31, 2016.

## Concentration Risk

Concentration risk is the risk of loss attributable to the magnitude of investment in a single issuer. The System's investment policies stipulate that investments in the securities of any one corporation may not exceed 3% of the market value of the total fund. As of August 31, 2016, the System was not exposed to any concentration risk.

## Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As of August 31, 2016, the System invested \$170,240,164 in asset backed and mortgage backed obligations, which are subject to early principal payment in a period of declining interest rates and could reduce or eliminate the stream of income that would have been received. As a result, the fair value of these investments is highly sensitive to interest rate changes. The System does not have a policy for interest rate risk management. However, interest rate risk is managed through duration, by operating within defined risk parameters versus a benchmark index. As of August 31, 2016, the System's exposure to interest rate risk is summarized in Figure 6.

**Figure 6  
Investment Interest Rate Risk**

Investment Type	Fiduciary Funds		Proprietary Fund	
	Fair Value	Modified Duration	Fair Value	Modified Duration
	\$		\$	
U.S. Treasury Securities	3,565,889,094	3.79	211,351,029	4.21
U.S. Government Agency Obligations	697,240,738	3.68	46,565,581	3.68
Corporate Obligations	1,018,354,519	4.64	59,428,036	4.62
Corporate Asset and Mortgage Backed Securities	159,582,373	2.93	10,657,791	2.93
International Obligations	306,512,987	3.65	18,203,697	3.57
Real Estate Investment Trust (REITs)	28,945,451	5.87	1,679,211	5.87
Money Market and Bond Funds	730,883,716	0.08	46,486,289	0.08
<b>Totals</b>	<b>6,507,408,878</b>	<b>3.48</b>	<b>394,371,634</b>	<b>3.67</b>

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

**Figure 5**  
**Investment Credit Risk**

Investment Type	S & P Rating	Fiduciary Funds	Proprietary Fund
		\$	\$
U. S Treasury Securities	AA+	3,547,221,743	210,104,320
	Not Rated	18,667,351	1,246,709
U.S. Government Agency Obligations	AA+	658,332,966	43,967,105
	Not Rated	38,907,772	2,598,476
Corporate Obligations	A	9,385,046	626,834
	A-	14,282,760	911,191
	A+	15,466,546	1,032,941
	B	115,235,577	6,685,154
	B-	65,678,250	3,810,188
	B+	146,339,536	8,489,586
	BB	171,578,509	9,953,773
	BB-	162,134,910	9,405,922
	BB+	158,213,082	9,178,405
	BBB	10,193,417	616,284
	BBB-	60,780,647	3,526,064
	BBB+	2,815,651	188,045
	CCC	9,024,336	523,528
	CCC-	518,661	30,089
	CCC+	35,201,311	2,042,131
	D	3,168,676	183,824
Not Rated	38,337,604	2,224,077	
Corporate Asset and Mortgage Backed Securities	A	2,844,279	189,957
	A+	3,072,254	205,182
	AA	9,688,981	647,083
	AAA	49,509,100	3,306,491
	Not Rated	94,467,759	6,309,078
International Obligations	A	1,009,773	67,438
	A+	21,691,830	1,448,700
	AA-	6,557,504	437,946
	B	16,824,345	976,030
	B-	7,441,024	431,676
	B+	54,805,574	3,179,432
	BB	18,925,995	1,097,953
	BB-	74,782,062	4,338,327
	BB+	25,582,811	1,484,134
	BBB-	13,291,922	771,103
	BBB+	18,843,005	1,258,440
	CCC	10,516,767	610,108
	CCC+	2,254,226	130,774
Not Rated	33,986,149	1,971,636	
Real Estate Investment Trust (REITs)	BB	9,340,259	541,856
	BB+	18,600,951	1,079,096
	BBB-	1,004,241	58,259
Money Market and Bond Fund	Not Rated	730,883,716	46,486,289
<b>Totals</b>		<b>6,507,408,878</b>	<b>394,371,634</b>

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

## Securities Lending

Securities lending transactions are governed by the Texas Government Code Section 815.303. The System participates in a securities lending program, administered by the securities lending agent bank, whereby certain securities are transferred to an approved independent broker/dealer (borrower) with a simultaneous agreement to return the collateral for the same securities in the future. The contract with the System's securities lending agent bank requires the bank to indemnify the System for certain losses. In addition, the contract limits the total amount of securities that can be lent to 25% of holdings.

The System is permitted to loan securities under 1) open loans which are generally overnight loans, and 2) term loans with specified expected termination dates. Securities lent include fixed income securities and domestic and international equities. The System's securities lending agent bank lends the securities for initial collateralization in the form of cash or U.S. Government or Agency securities of 102% for domestic securities and 105% for international securities. Cash collateral is invested in repurchase agreements. The policy is to ensure that the difference in maturities between the cash collateral investments and the loan tenor is no more than five days.

The System cannot pledge or sell collateral securities received unless the borrower defaults and, therefore, the System does not establish an asset and a corresponding liability in the balance sheet for the collateral value of securities received. No significant violations of legal or contractual provisions and no borrower or lending agent default losses were reported in fiscal year 2016. The

System received net securities lending income totaling \$3,165,370 for the fiscal year ended August 31, 2016. The collateral information as of August 31, 2016 is summarized in Figure 7.

**Figure 7**  
**Securities Lending Collateral Summary**

Investment Type	Underlying Securities Fair Value	Cash Collateral Fair Value
	\$	\$
<b>Fiduciary Funds:</b>		
Exchange Traded Funds	170,992,843	175,147,790
<b>Totals</b>	<b>170,992,843</b>	<b>175,147,790</b>
		<b>Exh.VIII</b>
<b>Proprietary Fund:</b>		
Exchange Traded Funds	9,919,797	9,850,234
<b>Totals</b>	<b>9,919,797</b>	<b>9,850,234</b>
		<b>Exh. V</b>

## Repurchase Agreements

During the fiscal year 2016, the System invested the cash collaterals from the securities lending program in repurchase agreements. As of August 31, 2016, the System had \$184,998,024 balance in these assets.

## Alternative Investments

The System makes contingent commitments to investments in entities that manage private equity, private real estate, private infrastructure, private fixed income, and hedge fund portfolios. The categories of these investments as of August 31, 2016 are summarized in Figure 8.

**Figure 8**  
**Alternative Investments (Note A)**

Asset Class	No. of Funds	Commitment	Remaining Commitment	Adjusted Funded Amount	Fair Value
		\$	\$	\$	\$
<b>Private Equity</b>					
US Dollar	78	4,964,458,130	2,404,084,806	2,560,373,324	2,383,923,382
Euro Dollar	8	283,775,849	97,672,430	186,103,419	155,919,187
British Pound	1	39,291,000	11,427,946	27,863,054	34,132,995
<b>Totals</b>	<b>87</b>	<b>5,287,524,979</b>	<b>2,513,185,182</b>	<b>2,774,339,797</b>	<b>2,573,975,564</b>
<b>Private Real Estate (Note B)</b>					
US Dollar	40	2,393,982,071	778,967,870	1,615,014,201	1,567,434,153
Euro Dollar	4	251,707,500	75,500,066	176,207,434	158,299,347
British Pound	1	58,936,500	22,785,319	36,151,181	35,533,154
<b>Totals</b>	<b>45</b>	<b>2,704,626,071</b>	<b>877,253,255</b>	<b>1,827,372,816</b>	<b>1,761,266,654</b>
<b>Private Infrastructure</b>					
US Dollar	12	548,000,000	199,080,899	348,919,101	336,314,637
British Pound	1	9,167,900	-	9,167,900	9,167,900
<b>Totals</b>	<b>13</b>	<b>557,167,900</b>	<b>199,080,899</b>	<b>358,087,001</b>	<b>345,482,537</b>
<b>Private Fixed Income</b>					
US Dollar	3	206,000,000	38,500,000	167,500,000	173,374,806
<b>Hedge Funds</b>					
US Dollar	23	1,879,554,176	90,000,000	1,789,554,176	1,811,148,697
<b>Totals</b>	<b>171</b>	<b>10,634,873,126</b>	<b>3,718,019,336</b>	<b>6,916,853,790</b>	<b>6,665,248,258</b>

Note A: Commitment, Remaining Commitment, Adjusted Funded Amount, and Fair Value are reported in US Dollar.

Note B: Fair Value excludes \$7,150,821 in outstanding cash deposits reported in the Alternative Investments Component of Exh. VIII

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

## 2.B Fund Equity

### Fiduciary Net Position Held in Trust for Pension Benefits and Other Purposes

A summary of pension plan and other employee benefit fiduciary net position at August 31, 2016 and 2015 is presented in Figure 9.

### 2.C Derivative Investment

Derivatives are generally defined as contracts or securities whose value depends on, or derives from, the value of an underlying asset, reference rate, or index.

### Futures Contracts

The System purchases and sells futures contracts as a means of adjusting the portfolio mix and as a lower transaction cost substitute for transactions which would otherwise occur in the underlying portfolios.

A futures contract is a contract to buy or sell units of an index or financial instrument at a specified future date at a price agreed upon when the contract is originated. Upon entering into a futures contract, the System pledges to the broker cash or U.S. government securities equal to the minimum "initial margin" requirement of the futures exchange.

The System could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. The System's investment managers seek to control this risk through counterparty credit requirements and the use of Commodity Futures Trading Commission approved futures and exchange traded options. The System anticipates that the counterparties will be able to satisfy their obligations under the contracts.

The System receives or pays a daily "variation margin," which is an amount of cash equal to the daily

fluctuation in value of the contract. The accumulated value of the variation margin is the fair value of the futures contract. As of August 31, 2016, the System had no outstanding futures contracts.

### Forward Contracts

The System enters into forward contracts to minimize the short-term impact of foreign exchange rate fluctuations on the asset and liability positions of international equities. The System had no outstanding forward contracts on August 31, 2016.

### 2.D Leases

(In accordance with GASB Statement 38)

Included in rental expenses/expenditures are assets leased on a long-term basis that have been classified operating leases. Current year expenses for these leased assets totaled \$523,082. In addition, included in rental income are assets leased on a long-term basis that have been classified as operating leases. Current year revenue for these leased assets totaled \$37,450.

A schedule of future minimum lease payments and rental income on non-cancelable operating leases as of August 31, 2016 is presented in Figure 10.

Figure 10  
Non-Cancelable Operating Leases

Fiscal Year	Future Minimum Lease Rental Payments	Future Minimum Lease Rental Revenues
	\$	\$
2017	420,029	41,418
2018	420,029	41,418
2019	332,773	41,418
2020	109,213	41,418
2021	-	41,418
<b>Total</b>	<b>1,282,044</b>	<b>207,090</b>

Figure 9  
Net Position - Fiduciary Fund

Fund Type	2016	2015
	\$	\$
Defined Benefit Plans (Note A)	25,706,748,855	25,207,136,741
Deferred Compensation Plans and Cafeteria Plan:		
Administration - Deferred Compensation Plans	3,810,145	3,803,839
Administration - State Employees Cafeteria Plan	6,390,403	8,203,436
<b>Total Deferred Compensation Plans and Cafeteria Plan</b>	<b>10,200,548</b>	<b>12,007,275</b>
Commuter Spending Account Fund	505,775	
<b>Net Position Restricted for Pension and Other Benefits</b>	<b>25,717,455,178</b>	<b>25,219,144,016</b>

Exh. VIII

Note A: See Note 3.D Reserves for details of the statutorily required reserve balances of the Defined Benefit Plans.

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

## 3. Defined Benefit Plans

(In accordance with GASB Statements 67 and 73)

The Employees Retirement System of Texas Plan (ERS), the Law Enforcement and Custodial Officer Supplemental Retirement Plan (LECOS), the Judicial Retirement System of Texas Plan One (JRS I), and Judicial Retirement System of Texas Plan Two (JRS II) are single employer defined benefit pension plans. ERS, LECOS, and JRS II are administered through trust. Each plan provides service retirement, death and disability benefits. Benefit and contribution provisions of each plan are authorized by State law and may be amended by the Texas Legislature.

Member contribution rates of the ERS, LECOS, JRS I and JRS II and State contribution rates of the ERS, LECOS, and JRS II are set by State law. The law prohibits any amendment to the plan that would cause the period required to amortize any unfunded actuarial accrued liability to equal or exceed 31 years. Administrative expenses of the ERS, LECOS and JRS II are financed through investment earnings, and the administrative expenses of the JRS I are financed by State appropriations.

### 3.A Plan Descriptions and Contributions

#### Employees Retirement Plan

##### Plan Description

There are two classes of membership within this retirement plan: (1) the elected class and (2) the employee class.

Membership in the elected class is limited to persons who hold State offices that are normally filled by statewide election (including legislators) and excludes officials covered by the Judicial Retirement System of Texas Plans One and Two.

Membership in the employee class includes all employees and appointed officers of the State and excludes independent contractors and their employees and employees covered by the Teacher Retirement System of Texas.

##### System Employees

System employees are members of the Employees Retirement Plan.

##### Contributions

Employees are required to contribute a percentage of their monthly gross compensation, including base salary, longevity pay, hazardous duty pay, and benefit replacement pay and excluding overtime pay and emoluments other than housing and utilities. The contribution rate was 9.5% for fiscal year 2016. Legislators and other elected class members are required to contribute 9.5% of their compensation to the System.

For fiscal year 2016 the State contributed 10% of the payroll of members for both the employee class, legislators, and for other elected class members. See Note 3.B Funded Status and Funding Progress.

#### Law Enforcement and Custodial Officer Supplemental Retirement Plan

##### Plan Description

The plan covers custodial officers who are certified in accordance with the statutory requirements as having a normal job assignment that requires frequent or infrequent regularly planned contact with inmates managed by the hiring institutions. The plan also covers law enforcement officers who have been commissioned and recognized as commissioned law enforcement officers by the Commission on Law Enforcement Officer Standards and Education.

The monthly benefit amount payable from this fund is equal to the excess of the total benefit over the regular benefit payable to the member from the Employees Retirement System Fund.

##### Contributions

For fiscal year 2016, both employee members and the State contributed 0.5% of the covered payroll for LECOS members. An additional amount equivalent to 1.1% of payroll was contributed by the State from dedicated court fees. See Note 3.B Funded Status and Funding Progress.

#### Judicial Retirement System of Texas Plan One

##### Plan Description

The plan covers judges, justices and commissioners of the Supreme Court, the Court of Criminal Appeals, the Court of Appeals, District Courts, and certain commissions to a court who first became members before September 1, 1985. Members of the Judicial Retirement System of Texas Plan Two are excluded from this plan.

As a result of new judicial officers participating in the Judicial Retirement Plan Two, the Plan One membership continues to decrease while the annuity payroll increases as members retire.

The System no longer reports the actuarial information on JRSI because this plan is reclassified as an agency fund, effective September 1, 2015, in accordance with GASB Statement 73.

##### Contributions

Members are required to contribute 9.5% of their compensation to the State's General Revenue Fund.

The State is required to make appropriations from the General Revenue Fund sufficient to pay benefits on a pay-as-you-go basis.

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

## Judicial Retirement System of Texas Plan Two

### Plan Description

The plan covers judges, justices and commissioners of the Supreme Court, the Court of Criminal Appeals, the Court of Appeals, District Courts and certain commissions to a court who first become members after August 31, 1985. Members of the Judicial Retirement System of Texas Plan One are excluded from this plan.

### Contributions

Members are required to contribute 7.2% of their compensation to the System during fiscal year 2016. Members who accrue 20 years of service credit in the retirement system cease making contributions, but are considered contributing members for all other purposes; however, the State contribution continues.

For the fiscal year ended August 31, 2016 the State contributed 15.663% of the payroll of members. See Note 3.B Funded Status and Funding Progress.

## 3.B Funded Status and Funding Progress

### Summary of Actuarial Assumptions

The actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. The assumptions are presented in Figure 11.

See Note 1.C, Summary of Significant Accounting Policies, Basis of Accounting, for the System's policies regarding recognition of contributions, benefits paid and refunds paid. See Note 1.G, Summary of Significant Accounting Policies, Assets, Liabilities, Fund Balances and Net Position, for the System's policies regarding investment valuation.

### Net Pension Liability

(In accordance with GASB Statement 67)

Based on the actuarial assumptions listed in Figure 11, the components of the net pension liability as of August 31, 2016 are determined and summarized in Figure 12.

**Figure 11**  
**Actuarial Assumptions - Defined Benefit Plans**

	Employees Retirement Fund	Law Enforcement and Custodial Officer Supplemental Fund	Judicial Retirement System Plan II
(In accordance with GASB Statement No. 67)			
Valuation Date	August 31, 2016		
Actuarial Cost Method	Entry Age Normal		
Amortization Method	Level Percent of Payroll, Open		
Remaining Amortization Period	31 Years		
Asset Valuation Method	20% of market plus 80% of expected actuarial value.		
Investment Rate of Return	8%		
Projected Salary Increases	0.0% – 11.5%	5.0% – 11.5%	3.5%
Inflation Rate	3.5%		
Last Experience Study	5-year period from September 1, 2006 to August 31, 2011		
Mortality Rate	1994 Group Annuity Mortality with no setback for males and set forward two years for females. Generational mortality improvements in accordance with Scale AA are projected from the year 2000.		

**Figure 12**  
**Net Pension Liability ( \$ in Millions)**  
**(In accordance with GASB Statement No. 67)**

	ERS	LECOS	JRS II
	\$	\$	\$
Total Pension Liability	44,222.56	2,213.80	486.48
Plan Fiduciary Net Position	24,465.58	860.05	381.12
Net Pension Liability	19,756.98	1,353.75	105.36
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	55.32%	38.85%	78.34%

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

The projected cash flows from the employer are based on contributions for the most recent five year period, modified on consideration of subsequent events. The legislature passed House Bill No. 9 in the 84th legislative session during fiscal year 2015 to increase the State contributions for fiscal years 2016 and 2017 and maintained the changes made by the 83rd legislature session in Senate Bill No. 1459, which established proportional decreases to the employee contribution if the State contribution was decreased. The passage of this bill is an indicator that the legislature is committed to increase the funding levels for the pension funds. Considering the above events, projected employer contributions are based on fiscal year 2016 funding levels. See Note 3.A for descriptions of member and State contributions.

The long-term expected rate of return on the System's pension plan investments was determined using a building-block method in which best estimated ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of rates of return for each major asset class included in the System's target allocation as of August 31, 2016 are summarized in the Figure 13.

**Figure 13**  
**Target Allocations**

Asset Class	Target Allocation	Real Return Arithmetic Basis	Long-term Expected Portfolio Real Rate of Return
	%		%
Global Equity	55.00	7.31	4.02
Global Credit	10.00	1.94	0.19
Intermediate Treasuries	15.00	1.23	0.18
Real Estate	10.00	4.33	0.43
Infrastructure	4.00	6.21	0.25
Hedge Funds	5.00	7.03	0.35
Cash	1.00	0.00	0.00
Totals	100.00		5.42
Inflation			3.50
Expected Arithmetic Nominal Rate of Return			8.92

In 2013, the System Board of Trustees adopted a long-term rate of return assumption of 8.0% after considering 1) the long-term expected return from the building block method; 2) an analysis of long term-term expected return performed by the System investment consultant; and 3) analyses and recommendations of the System pension actuary.

A single discount rate was used to measure the total pension liability as of August 31, 2016. This single discount rate was based on an expected rate of return on pension plan investments and a municipal bond rate, if applicable. Based on the stated assumptions and the projection of cash flows, if the pension plan's fiduciary net position and future contributions were not sufficient to finance the benefit; the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the fiscal year before the fiduciary net position is depleted, and the municipal bond rate was applied to all benefit payments after that fiscal year. The single discount rate, the municipal bond rates, and the year when the fiduciary net positions that projected to be depleted are summarized in Figure 14.

**Figure 14**  
**Assumptions for Single Discount Rate**

	ERS	LECOS	JRS II
Expected investment rate of return	8.00%	8.00%	8.00%
Municipal bond rate (Note A)	2.84%	2.84%	2.84%
Year fiduciary net position depleted	2050	2035	2045
Single Discount Rate	5.73%	3.69%	6.53%

*Note A: The source of the municipal bond rate is the Federal Reserve Statistical Release H.15, citing the Bond Buyer Index of general obligation bonds with 20 years to maturity and mixed credit quality*

The sensitivity of the net pension liability to one percentage point increase or decrease to the single discount rate is summarized in Figure 15.

**Figure 15**  
**Sensitivity of Net Pension Liability (in Millions)**

	1% Decrease	Single Discount Rate	1% Increase
ERS:	4.73%	5.73%	6.73%
Net Pension Liability	\$25,445.34	\$19,756.98	\$15,011.94
LECOS:	2.69%	3.69%	4.69%
Net Pension Liability	\$1,723.38	\$1,353.75	\$1,057.97
JRS II:	5.53%	6.53%	7.53%
Net Pension Liability	\$155.04	\$105.36	\$62.71

### 3.C Retirement Systems Membership

The membership of the retirement plans as of August 31, 2016 is summarized in Figure 16. The System's actuary includes members who retired on August 31 and received their first annuity in September as retirees in the actuarial valuation.

### 3.D Reserves

The balances of legally required reserves in each funded retirement plan as of August 31, 2016 and 2015 are

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

presented in Figure 17 The State Retiree Health Plan is a pay-as-you-go plan and has no reserves. See Note 1.G, Net Position Held In Trust for Pension Benefits, for a description of each reserve account.

## 3.E Historical Trend Information

Historical trend information is designed to provide information about the ERS, LECOS, and JRS II's progress made in accumulating sufficient assets to pay benefits when due. This information is presented in the Required Supplementary Information immediately after the Notes to the Basic Financial Statements.

## 4. Other Postemployment Benefit Plan

### 4.A Plan Descriptions and Contributions

#### State Retiree Health Plan

##### Plan Description

(In accordance with GASB Statement 43)

In addition to the pension benefits described in Note 2, the System provides postemployment health care, life and dental insurance benefits through the Group Benefits Program in accordance with Chapter 1551, Texas Insurance Code. The State Retiree Health Plan (SRHP) is a cost-sharing multiple-employer postemployment health care plan that covers retired employees of the State, and other entities as specified by the State legislature. Benefit and contribution provisions of the State Retiree Health Plan are authorized by State law and may be amended by the

Texas Legislature. Participating entities are listed in Figure 18. The principal participating employer is the state of Texas. State agencies and universities employ 191,011 which is 81.2% of the employees covered by the State Retiree Health Plan.

**Figure 18**  
**Participating Reporting Entities**  
**for the State Retiree Health Plan**

	September 1, 2015
State Agencies	117
Universities	27
Junior and Community Colleges	51
Other Entities	8
<b>Total Participating Entities</b>	<b>203</b>

##### Contributions

Figure 19 summarizes the maximum monthly employer contribution toward eligible retirees' health and basic life premium.

**Figure 19**  
**Employer Contribution Rates –**  
**Retiree Health and Basic Life Premium –**  
**Fiscal Year 2016**

	September 1, 2015
	\$
Retiree Only	576.54
Retiree & Spouse	906.78
Retiree & Children	797.66
Retiree & Family	1,127.90

**Figure 16**  
**Retirement Systems Membership**

	ERS				
	Employee Class	Elected Class	LECOS	JRS I	JRS II
Retirees and Beneficiaries Currently Receiving Benefits	103,038	720	11,515	374	331
Terminated Employees Entitled to Benefits	108,766	107	15,203	2	166
Current Employees	146,068	322	39,066	10	548
<b>Totals</b>	<b>357,872</b>	<b>1,149</b>	<b>65,784</b>	<b>386</b>	<b>1,045</b>

Note: Estimated based on actuarial valuation as of August 31, 2016

**Figure 17**  
**Reserves**

		ERS	LECOS	JRS II	Totals	
					2016	2015
<b>Net Plan Assets Reserved For:</b>	\$	\$	\$	\$	\$	
Employee Savings		5,509,428,285	41,480,394	73,450,390	5,624,359,069	5,336,946,547
State Accumulation		(61,826,071)	199,581,059	110,889,831	248,644,819	1,016,738,947
Annuity Reserves		19,017,977,910	618,987,770	196,779,287	19,833,744,967	18,853,451,247
<b>Total Net Plan Assets Reserved</b>		<b>24,465,580,124</b>	<b>860,049,223</b>	<b>381,119,508</b>	<b>25,706,748,855</b>	<b>25,207,136,741</b>
		(Exh. VIII)	(Exh. VIII)	(Exh. VIII)		

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

Retirees pay any premium over and above the employer contribution. The employer does not contribute toward dental or optional life insurance. Surviving spouses and their dependents do not receive any employer contribution.

Figure 20 summarizes premium contributions by source and claims expenses on a pay-as-you-go basis for the current and prior fiscal years. The System's actuaries have estimated certain health, life, accidental death and dismemberment, and indemnity administrative fees.

**Figure 20**  
**Contributions by Source and Claims Expenses - Retirees**

	2016	2015
	\$	\$
Employers Contributions	663,986,538	612,769,060
Retiree Contributions	183,284,339	169,075,158
<b>Total Contributions</b>	<b>847,270,877</b>	<b>781,844,218</b>
<b>Claims Expenses</b>	<b>912,885,686</b>	<b>863,926,547</b>

The employer's share of the administrative expense and cost of retiree health care coverage above the cost charged using a blended rate is known as the implicit rate subsidy. It is measured as the difference between the claims costs for the retirees in the group and the amounts contributed for the retirees. For fiscal year 2016 there was a reverse implicit rate subsidy (retiree contributions subsidized actives) in the amount of \$182,644,683 primarily due to Federal subsidies for Medicare Part D, as well as the lower cost for retirees participating in the Medicare Advantage Plan.

## 4.B Funded Status and Funding Progress

The actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. The assumptions are presented in Figure 21.

**Figure 21**  
**Actuarial Assumptions - State Retiree Health Plan**

State Retiree Health Plan	
Valuation Date	August 31, 2016
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent of Pay, Open
Remaining Amortization Period	30 Years
Asset Valuation Method	Market
Actuarial Assumptions:	
Annual Investment Return Assumption (discount rate)	5.50%
Projected Annual Salary Increase	3.50% to 11.50%
Weighted-average at Valuation Date	6.57%
Annual Healthcare Trend Rate	8.50% in FY 2018 to 5.50% in FY 2024
Inflation Assumption Rate	3.50%

The initial healthcare trend rate is 8.5% and the ultimate rate is 5.5%. The amortization period is open. Figure 22 shows the System's Funded Status for the State Retiree Health Plan as of August 31, 2016. Calculations are based on the benefit provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing of cost between the employer and plan members to that point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effect of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

The actuarial calculations reflect a long term perspective. Consistent with that perspective, actuarial methods and assumptions used include techniques that are designed to reduce short term volatility in actuarial accrued liabilities and the actuarial value of assets. The required schedule of funding progress immediately following the notes to the financial statements presents multiyear trend information about whether the actuarial value of plan assets is increasing

**Figure 22**  
**Schedule of Funded Status (\$ in Millions)**  
**(In accordance with GASB Statement No. 43)**

(1) Actuarial Valuation Date	(2) Actuarial Value of Assets	(3) Actuarial Accrued Liability (AAL)	(4) Unfunded Actuarial Accrued Liability (UAAL) (3)-(2)	(5) Funded Ratio (2)/(3)	(6) Annual Covered Payroll	(7) Ratio of UAAL To Covered Payroll (4)/(6)
	\$	\$	\$	%	\$	%
August 31, 2016	0	27,091.37	27,091.37	0	11,786.87	229.8

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

or decreasing over time relative to the actuarial accrued liability for benefits.

## 4.C State Retiree Health Plan Membership

The membership of the State Retiree Health Plan includes retirees who retired with at least 10 years of service to eligible entities. These retirees must meet certain age requirements. Surviving spouses and dependents of these retirees are also covered.

The System's actuary includes members who retired on August 31 and received their first annuity in September as retirees in the actuarial valuation. The membership of the State Retiree Health Plan membership as of August 31, 2016 is summarized in Figure 23.

**Figure 23**  
**State Retiree Health Plan Membership**

Retirees	113,430
Covered spouses	29,153
Covered dependents	9,757
<b>Total</b>	<b>152,340</b>

*Note: Estimated based on actuarial valuation as of August 31, 2016*

As of August 31, 2016, there were 235,108 active members and 11,329 terminated employees who have accumulated benefits but are not yet receiving them.

## 4.D Reserves

The State Retiree Health Plan is a pay-as-you-go plan and has no reserves.

## 4.E Historical Trend Information

The historical trend information is designed to provide funding progress in the State Retiree Health Plan. This information is presented in the Required Supplementary Information immediately after the Notes to the Basic Financial Statements.

## 5. Interfund Activity and Transactions

### 5.A Interfund Receivables and Payables

(In accordance with GASB Statement 38)

At year-end, accruals related to interfund transfers and interfund reimbursements between the System's funds, are reported as Due From Other Funds or Due To Other Funds in the fund financial statements (See Note 1.G). Figure 24 presents individual interfund receivable and interfund payable balances at August 31, 2016.

**Figure 24**  
**Interfund Receivables and Payables**

	Due From Other Funds	Due to Other Funds
<b>Governmental Activities:</b>	\$	\$
Governmental Funds	12,500	53,137
Employees Life, Accident & Health Insurance and Benefits Fund	506,787,382	8,065,803
<b>Total Governmental Activities</b>	<b>506,799,882</b>	<b>8,118,940</b>
<b>Fiduciary Funds:</b>		
Pension & Other Employee Benefit Trust Funds	9,767,748	508,456,530
Agency Funds	7,840	
<b>Total - Interfund Receivables &amp; Payables</b>	<b>516,575,470</b>	<b>516,575,470</b>

### 5.B Interfund Transfers

(In accordance with GASB Statement 38)

Interfund Transfers include transfers of membership fees from the Employees Retirement Fund to other funds of the System and transfers between the Employees Retirement Fund and the Excess Benefit Arrangement Fund for retirement benefit payments (See Note 1.G).

Interfund Transfers between governmental activities and fiduciary funds are reclassified to revenues and expenses in the government-wide Statement of Activities. Figure 25 presents interfund transfers for the year ended August 31, 2016.

**Figure 25**  
**Interfund Transfers**

	Transfers In	Transfers Out
	\$	\$
<b>Governmental Activities:</b>		
<b>Non-Major Governmental Fund:</b>		
Social Security Administration (Agency 327, Fund 0955)	77,500	
<b>Proprietary Fund:</b>		
Employees Life, Accident & Health Insurance and Benefits Fund (Agency 327, Fund 3944)		1,750,000
<b>Total Governmental Activities</b>	<b>77,500</b>	<b>1,750,000</b>
<b>Fiduciary Funds:</b>		
Pension and Other Employee Benefit Trust Funds	2,002,720	330,220
<b>Total - Interfund Transfers</b>	<b>2,080,220</b>	<b>2,080,220</b>

### 5.C Interagency Transfers

Interagency Transfers include transfers between the System's funds and other funds of the State of Texas

# Notes to the Basic Financial Statements (Continued)

August 31, 2016

reporting entity that are for payment of benefits from the Compensation to Victims of Crime fund that are funded by the Office of the Attorney General. (See Note 1.G). Also included in this category is the amount transferred to the Teacher Retirement System for service established in the Employees Retirement Fund and payable from the Excess Benefit Arrangement Fund.

Interagency Transfers between Governmental Activities and other funds of the State are reclassified to revenues and expenses in the government-wide Statement of Activities.

## 6. Contingent Liability

### 6.A Litigation

The System is a defendant in various lawsuits. Although the outcome of these lawsuits is not presently determinable, in the opinion of the System's attorneys, the resolution of these matters will not have a material adverse effect on the financial condition of the System.

### 6.B Sick Leave

Sick leave, the accumulation of which is unlimited, is earned at the rate of eight hours per month and is taken only in the event of illness. In the event of an employee's death, a payment is made to the employee's estate for one-half of the accumulated leave or 336 hours, whichever is less. Such payments are recognized as expenses/expenditures when paid. Service credit is given upon retirement at the rate of one month of service for each 160 hours of an employee's accumulated sick leave balance. Effective August 28, 1995, accumulated sick leave may also be used to meet service requirements to qualify for retirement at a rate of one month of service for each 160 hours of accrued unused sick leave for employees hired before September 1, 2009. Employees hired after September 1, 2009 will not be able to use accumulated sick leave to meet retirement eligibility. The additional contingent liability for future compensation of sick leave, based on accumulated sick leave balances as of August 31 was not considered material.

## 7. Risk Management

(In accordance with GASB Statement 10)

### 7.A Risk Exposure

The System is exposed to the following types of claims for risk of loss:

- Health insurance
- Life insurance
- Accidental death and dismemberment (AD & D) insurance
- Disability insurance
- Dental insurance
- Property and casualty
- Unemployment
- Workers' compensation

### 7.B Risk Financing

Claims for health, life, accidental death and dismemberment (AD & D), disability, and dental insurance coverages are recorded in the Employees Life, Accident and Health Insurance and Benefits Fund under the Texas Employees Group Benefits Program (GBP). These coverages are provided through a combination of insurance contracts, a self-funded health plan, a self-funded dental indemnity plan, health maintenance organization (HMO) contracts, dental health maintenance organization (DHMO) contracts, and dental discount plan.

The System purchases commercial insurance to cover the risk of loss related to general liability; theft of, damage to, and destruction of assets; and natural disasters. Claims for unemployment and workers compensation are funded by the System on a pay-as-you-go basis, and they are paid out of the Employees Retirement System Fund. These claim expenses are allocated periodically to other funds based on percentages determined by a study of each fund's usage. The risk financing for different coverages is summarized in Figure 26.

**Figure 26**  
**Summary of Risk Financing**

Type of Coverage	Plan Name	Self-Funded	Risk Retained with
Health	• HealthSelect	Yes	System
	• HMOs	No	Insurance Carrier
	• Prescription Drug	Yes	System
Life	N/A	No	Insurance Carrier
Accidental Death and Dismemberment	N/A	No	Insurance Carrier
Disability	N/A	Yes	System
Dental	• DHMOs	No	Insurance Carrier
	• Dental Indemnity Plan	Yes	System
	• Dental Discount Plan	No	Insurance Carrier
Property and Casualty	N/A	No	Insurance Carrier
Unemployment	N/A	Yes	System
Workers' Compensation	N/A	Yes	System

# Notes to the Basic Financial Statements (Concluded)

August 31, 2016

## 7.C Liabilities

For self-funded coverages of the Internal Service Fund, the System's liabilities are reported when it is both probable that a loss has occurred and the amount of that loss can be reasonably estimated. Liabilities include an amount for claims that have been incurred but not reported. Based on the estimates provided by the System's insurance actuary (Rudd and Wisdom, Inc.), liabilities are reevaluated to consider current settlements, frequency of claims, past experience and economic factors. Changes in the balances of the self-funded claims liabilities for the current and prior fiscal years are presented in Figure 27.

**Figure 27**  
**Changes in Self-Funded Claims Liabilities**

	2016	2015
	\$	\$
Beginning Balance	541,074,000	542,189,379
Current-Year Claims and Changes in Estimates	(2,204,795,418)	2,039,904,058
Claim Payments	2,243,315,418	(2,041,019,437)
<b>Ending Balance</b>	<b>579,594,000</b>	<b>541,074,000</b>

For coverages that are insured (not self-funded), no significant reductions in insurance coverage occurred in the past year, and settled claims have not exceeded

commercial insurance coverage in any of the past four fiscal years.

For both self-funded and insured coverages of the Internal Service Fund, the balance of claims that have been incurred but not reported as of August 31, 2016 is \$541,245,886.

## 8. Termination Benefits

(In accordance with GASB Statement 47)

Termination benefits in the form of healthcare continuation under Consolidated Omnibus Budget Reconciliation Act (COBRA) are provided for both voluntary and involuntary terminations under the Group Benefits Program.

The System maintains the COBRA membership in the Group Benefits Program as part of a group without designating the entity where the members worked prior to being eligible for COBRA benefits. The Group Benefits Program has 984 COBRA participants.

The COBRA members are eligible to remain in the Group Benefits Program for 18 months, 29 months if disabled, and their dependents are eligible to remain in the program for 36 months. The premium rates are set annually, and are based on the experience of the group.

## Required Supplementary Information

### Schedule of Changes in Net Pension Liability and Related Ratios – Defined Benefit Plans (in 000's)

	2014	2015	2016
<b>Employees Retirement Fund (Note A)</b>			
<b>Total Pension Liability</b>			
Service Cost	1,139,451	1,231,203	1,146,791
Interest	2,324,180	2,373,849	2,522,626
Changes of Benefit Terms	-	(87,835)	-
Difference between Expected and Actual Experience	(252,967)	(284,751)	133,557
Changes of Assumptions	1,199,067	(3,429,167)	5,301,965
Benefit Payments and Refunds	(1,963,481)	(2,049,291)	(2,147,307)
<b>Net Change in Total Pension Liability</b>	<b>2,446,250</b>	<b>(2,245,992)</b>	<b>6,957,632</b>
<b>Total Pension Liability - Beginning</b>	<b>37,064,667</b>	<b>39,510,917</b>	<b>37,264,925</b>
<b>Total Pension Liability - Ending</b>	<b>39,510,917</b>	<b>37,264,925</b>	<b>44,222,557</b>
<b>Plan Fiduciary Net Position</b>			
Contributions - Employer	482,239	500,395	686,763
Contributions - Member	430,595	462,159	674,678
Pension Plan Net Investment Income	3,252,417	56,941	1,273,414
Benefit Payments and Refunds	(1,963,481)	(2,049,291)	(2,147,307)
Pension Plan Administrative Expense	(20,195)	(21,840)	(20,449)
<b>Net Change in Plan Fiduciary Net Position</b>	<b>2,181,575</b>	<b>(1,051,636)</b>	<b>467,099</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>22,868,542</b>	<b>25,050,117</b>	<b>23,998,481</b>
<b>Plan Fiduciary Net Position - Ending</b>	<b>25,050,117</b>	<b>23,998,481</b>	<b>24,465,580</b>
<b>Net Pension Liability - Ending</b>	<b>14,460,800</b>	<b>13,266,444</b>	<b>19,756,977</b>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	63.4%	64.4%	55.3%
Covered Employee Payroll (Note B)	5,955,461	6,150,195	6,742,143
Net Pension Liability as a Percentage of Covered Employee Payroll	242.8%	215.7%	293.0%

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## Required Supplementary Information

### Schedule of Changes in Net Pension Liability and Related Ratios – Defined Benefit Plans (Continued)

(in 000's)

	2014	2015	2016
<b>Law Enforcement and Custodial Officer Supplemental Fund (Note A)</b>			
<b>Total Pension Liability</b>			
Service Cost	54,528	57,459	71,429
Interest	88,025	87,224	88,410
Changes of Benefit Terms	-	-	-
Difference between Expected and Actual Experience	(76,585)	(9,640)	(21,657)
Changes of Assumptions	68,228	148,114	375,371
Benefit Payments and Refunds	(57,147)	(61,344)	(64,542)
<b>Net Change in Total Pension Liability</b>	<b>77,049</b>	<b>221,813</b>	<b>449,011</b>
<b>Total Pension Liability - Beginning</b>	<b>1,465,929</b>	<b>1,542,978</b>	<b>1,764,791</b>
<b>Total Pension Liability - Ending</b>	<b>1,542,978</b>	<b>1,764,791</b>	<b>2,213,802</b>
<b>Plan Fiduciary Net Position</b>			
Contributions - Employer	27,758	26,728	27,497
Contributions - Member	8,180	8,376	9,539
Pension Plan Net Investment Income	111,741	1,918	44,831
Benefit Payments and Refunds	(57,147)	(61,344)	(64,542)
Pension Plan Administrative Expense	(1,324)	(1,411)	(1,421)
<b>Net Change in Plan Fiduciary Net Position</b>	<b>89,208</b>	<b>(25,733)</b>	<b>15,904</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>780,670</b>	<b>869,878</b>	<b>844,145</b>
<b>Plan Fiduciary Net Position - Ending</b>	<b>869,878</b>	<b>844,145</b>	<b>860,049</b>
<b>Net Pension Liability - Ending</b>	<b>673,100</b>	<b>920,646</b>	<b>1,353,753</b>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	56.4%	47.8%	38.8%
Covered Employee Payroll (Note B)	1,496,013	1,506,028	1,725,880
Net Pension Liability as a Percentage of Covered Employee Payroll	45.0%	61.1%	78.4%

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## Required Supplementary Information

### Schedule of Changes in Net Pension Liability and Related Ratios – Defined Benefit Plans (Concluded)

(in 000's)

	2014	2015	2016
<b>Judicial Retirement System Plan II (Note A)</b>			
<b>Total Pension Liability</b>			
Service Cost	17,805	16,244	19,429
Interest	28,004	30,785	30,980
Changes of Benefit Terms	-	-	-
Difference between Expected and Actual Experience	(640)	(10,066)	(5,833)
Changes of Assumptions	(25,924)	35,653	23,397
Benefit Payments and Refunds	(16,420)	(19,238)	(21,155)
<b>Net Change in Total Pension Liability</b>	<b>2,825</b>	<b>53,378</b>	<b>46,818</b>
<b>Total Pension Liability - Beginning</b>	<b>383,461</b>	<b>386,286</b>	<b>439,664</b>
<b>Total Pension Liability - Ending</b>	<b>386,286</b>	<b>439,664</b>	<b>486,482</b>
<b>Plan Fiduciary Net Position</b>			
Contributions - Employer	12,211	12,457	12,374
Contributions - Member	5,195	5,465	5,754
Pension Plan Net Investment Income	46,186	820	19,862
Benefit Payments and Refunds	(16,420)	(19,238)	(21,155)
Pension Plan Administrative Expense	(267)	(284)	(226)
<b>Net Change in Plan Fiduciary Net Position</b>	<b>46,905</b>	<b>(780)</b>	<b>16,609</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>318,385</b>	<b>365,290</b>	<b>364,510</b>
<b>Plan Fiduciary Net Position - Ending</b>	<b>365,290</b>	<b>364,510</b>	<b>381,119</b>
<b>Net Pension Liability - Ending</b>	<b>20,996</b>	<b>75,154</b>	<b>105,363</b>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	94.6%	82.9%	78.3%
Covered Employee Payroll (Note B)	77,441	77,501	78,261
Net Pension Liability as a Percentage of Covered Employee Payroll	27.1%	97.0%	134.6%

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

Note B: The covered payroll is the actual annual payroll for the fiscal year as reported by the System. The change in the Total Pension Liability due to the change in the Single Discount Rate is included as an assumption change.

## Required Supplementary Information

### Schedule of Funding Progress – Defined Benefit Plans (in 000's)

Actuarial Valuation Date August 31	(a) Actuarial Value of Assets (000's)	(b) Actuarial Accrued Liability (AAL) (000's)	(c) (Overfunded) Unfunded AAL (UAAL) (b) - (a) (000's)	(b) Funded Ratio (a)/(b) %	(e) Covered Payroll (000's)	(f) UAAL As A Percentage Of Covered Payroll (c)/(e) %
<b>State Retiree Health Plan</b>						
2011	0	21,502,434	21,502,434	0.0	10,376,487	207.2
2012	0	20,823,410	20,823,410	0.0	10,268,696	202.8
2013	0	23,030,469	23,030,469	0.0	10,478,117	219.8
2014	0	24,701,904	24,701,904	0.0	10,963,773	225.3
2015	0	25,740,698	25,740,698	0.0	11,176,584	230.3
2016	0	27,091,372	27,091,372	0.0	11,786,869	229.8

### Schedule of Employer Contributions – Defined Benefit Plans

Fiscal Year (Note A)	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency/(Excess)	Cover Payroll	Actual Contribution as a % of Covered Payroll
\$	\$	\$	\$		%
<b>Employee Retirement Fund</b>					
2014	727,892,157	482,239,018	245,653,139	5,955,460,705	8.1
2015	737,111,059	500,394,986	236,716,073	6,150,194,660	8.1
2016	679,806,017	686,763,354	(6,957,337)	6,742,143,036	10.2
<b>Law Enforcement and Custodial Officer Supplemental Fund</b>					
2014	40,205,389	27,757,980	12,447,409	1,496,012,750	1.9
2015	38,131,404	26,728,318	11,403,086	1,506,027,764	1.8
2016	43,167,243	27,497,297	15,669,946	1,725,879,688	1.6
<b>Judicial Retirement System Plan II</b>					
2014	13,448,473	12,210,663	1,237,810	77,441,466	15.8
2015	13,107,449	12,457,095	650,354	77,500,736	16.1
2016	12,895,678	12,374,200	521,478	78,260,550	15.8

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

### Schedule of Contributions from the Employers and Other Contributing Entities

Fiscal Year	Contributions from Employers	Contributions from Federal Government	Annual Required Contribution (ARC)	Percentage Contributed
\$	\$	\$		%
<b>State Retiree Health Plan (Note A)</b>				
2011	444,894,921	68,382,666	1,882,731,828	27.3
2012	483,636,154	80,336,211	1,800,991,324	31.3
2013	535,905,107	50,874,160	1,935,921,646	30.3
2014	605,512,388	63,361,490	2,056,089,003	32.5
2015	612,769,060	86,053,570	2,160,950,964	32.3
2016	663,986,538	69,185,558	2,298,513,905	31.9

Note A: Percentage contributions on the Schedule of Employer Contributions includes both employer (State) and federal contributions.

## Required Supplementary Information

### Schedule of Investment Returns – Defined Benefit Plans (Note A)

	2014	2015	2016
	%	%	%
Employees Retirement Fund	14.58	0.23	5.40
Law Enforcement and Custodial Officer Supplemental Fund	14.55	0.22	5.39
Judicial Retirement System Plan II	14.55	0.23	5.47
<b>Overall</b>	<b>14.58</b>	<b>0.23</b>	<b>5.40</b>

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

### Notes to The Required Supplementary Information

#### Defined Benefit Plans

The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board of Trustees. Additional information on the actuarial assumptions as of the latest actuarial valuation is summarized in Figure 1.

The total pension liability reported in the Schedule of Changes in Net Pension Liability and Related Ratios was provided by the System's actuary. The net pension liability is measured as the total pension liability less the amount of fiduciary net position of the pension plans.

The actuarially determined contributions for the Employees Retirement Fund, the Law Enforcement and Custodial Officer Supplemental Fund, and Judicial Retirement System Plan II are calculated as of August 31, 2016, based on the actuarial assumptions described

in Figure 1. These contributions are reported in the Schedule of Employer's Contribution – Defined Benefit Plans.

#### Other Postemployment Benefit Plan

The following assumptions have been changed since the previous Other Postemployment Benefits (OPEB) valuation:

- the Assumed Per Capita Health Benefit Costs and Assumed Expenses for retirees and dependents have been updated to reflect recent health plan experience;
- the percentage of future retirees electing to participate in the HealthSelect Medicare Advantage program at the earliest date at which coverage can commence, the proportion of future retirees covering dependent children and the percentage of future retirees and retiree spouses assumed to use

Figure 1  
Summary of Actuarial Assumptions - Defined Benefit Plans

	Employees Retirement Fund	Law Enforcement and Custodial Officer Supplemental Fund	Judicial Retirement System Plan II
(In accordance with GASB Statement No. 67)			
Valuation Date	August 31, 2016	August 31, 2016	August 31, 2016
Actuarial Cost Method	Entry Age	Entry Age	Entry Age
Amortization Method	Level Percent Open	Level Percent Open	Level Percent Open
Remaining Amortization Period	31	31	31
Asset Valuation Method	20% of market plus 80% of expected actuarial value	20% of market plus 80% of expected actuarial value	20% of market plus 80% of expected actuarial value
Actuarial Assumptions:			
Investment Rate of Return	8.0%	8.0%	8.0%
Projected Salary Increases	0.0% – 11.5%	5.0% – 11.5%	3.5%
Inflation Rate	3.5%	3.5%	3.5%
Cost-of-living Adjustments	None – Employee 3.5% – Elected	None	None

## Required Supplementary Information

### Notes to The Required Supplementary Information (Concluded)

- tobacco have been updated to reflect recent plan experience and expected trends;
- assumed salary increases and rates of mortality, termination, disability and retirement for Higher Education members were updated to remain consistent with the assumptions which were adopted by the TRS Board earlier this year for use by the TRS retirement plan actuary; and
  - the Health Benefit Cost and Retiree Contribution Trends have been updated to reflect changes in short-term expectations due to recent health plan experience.

The following benefit revisions have been adopted since the prior valuation: (a) an increase in the overall annual out-of-pocket maximum in accordance with

the requirements of the Affordable Care Act (ACA) (effective January 1, 2017) and (b) implementation of (i) a program under which HealthSelect participants can consult with a licensed physician from their mobile device and (ii) an online weight loss program available to eligible HealthSelect participants not enrolled in Medicare Part B. These minor benefit changes have been reflected in the fiscal year 2017 Assumed Per Capita Health Benefit Costs. These changes became effective September 1, 2016 (excepted as noted) and are incorporated into this valuation in accordance with Question Number 49 of the Guide to Implementation of GASB Statements 43 and 45 on Other Postemployment Benefits.

# Other Supplementary Information - Schedule A-1

## Combining Statement of Net Position - Agency Funds

August 31, 2016

	Unappropriated Receipts General Revenue Fund (Note A) (0001) (U/F 1001)	Judicial Retirement System Plan I Fund (Note A) (0001) (U/F 2001)	Child Support Employee Deductions - Offset Account (0807) (U/F 8070)	USPS - Overpayments to Employees (0900) (U/F 9015)	Direct Deposit Correction Account (0980) (U/F 0980)	USPS - Direct Deposit Return Money (0980) (U/F 9014)	Totals
<b>Assets</b>	\$		\$	\$	\$	\$	\$
<b>Current Assets:</b>							
Cash and Cash Equivalents:							
Cash in State Treasury			1,525				1,525
<b>Total Cash and Cash Equivalents</b>	-	-	1,525	-	-	-	1,525
Legislative Appropriation		280,859					280,859
Accounts Receivable	4,663						4,663
Due From Other Funds (Note 5.A)	7,840						7,840
<b>Total Current Assets</b>	<b>12,503</b>	<b>280,859</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>293,362</b>
<b>Total Assets</b>	<b>12,503</b>	<b>280,859</b>	<b>1,525</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>294,887</b>
<b>Liabilities</b>							
<b>Current Liabilities:</b>							
Accounts Payable	12,503	280,859					293,362
Funds Held For Others			1,525				1,525
<b>Total Current Liabilities</b>	<b>12,503</b>	<b>280,859</b>	<b>1,525</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>294,887</b>
<b>Total Liabilities</b>	<b>12,503</b>	<b>280,859</b>	<b>1,525</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>294,887</b>

Note A: Judicial Retirement System Plan I Fund (JRSI) is used to account for appropriations received from the State's General Revenue Fund for annuity and refund payments to eligible judicial employees who commenced service prior to September 1, 1985. Unappropriated Receipts General Revenue Fund accounts for member contributions received from the JRSI Fund.

# Other Supplementary Information – Schedule A-2

## Combining Statement of Changes in Assets and Liabilities - Agency Funds

Year Ended August 31, 2016

	Beginning Balances	Additions	Deductions	Ending Balances
	\$	\$	\$	\$
<b>Unappropriated Receipts General Revenue Fund (Note A) (0001) (U/F 1001)</b>				
<b>Assets</b>				
Cash in State Treasury	-	62,619	62,619	-
Accounts Receivable	3,387	56,055	54,779	4,663
Due from Other Funds (Note 5.A)		7,840		7,840
<b>Total Assets</b>	<b>3,387</b>	<b>126,514</b>	<b>117,398</b>	<b>12,503</b>
<b>Liabilities</b>				
Accounts Payable	3,387	63,895	54,779	12,503
<b>Total Liabilities</b>	<b>3,387</b>	<b>63,895</b>	<b>54,779</b>	<b>12,503</b>
<b>Judicial Retirement System Plan I Fund (Note A) (0001) (U/F 2001)</b>				
<b>Assets</b>				
Legislative Appropriations	296,430	27,028,358	27,043,929	280,859
<b>Total Assets</b>	<b>296,430</b>	<b>27,028,358</b>	<b>27,043,929</b>	<b>280,859</b>
<b>Liabilities</b>				
Accounts Payable	-	280,859	-	280,859
<b>Total Liabilities</b>	<b>-</b>	<b>280,859</b>	<b>-</b>	<b>280,859</b>
<b>Child Support Employee Deductions - Offset Account (0807) (U/F 8070)</b>				
<b>Assets</b>				
Cash in State Treasury	576	16,289	15,340	1,525
<b>Total Assets</b>	<b>576</b>	<b>16,289</b>	<b>15,340</b>	<b>1,525</b>
<b>Liabilities</b>				
Vouchers Payable	-	14,765	14,765	-
Funds Held For Others	576	16,289	15,340	1,525
<b>Total Liabilities</b>	<b>576</b>	<b>31,054</b>	<b>30,105</b>	<b>1,525</b>
<b>USPS - Overpayments to Employees (0900) (U/F 9015)</b>				
<b>Assets</b>				
Cash in State Treasury	-	1,213	1,213	-
<b>Total Assets</b>	<b>-</b>	<b>1,213</b>	<b>1,213</b>	<b>-</b>
<b>Liabilities</b>				
Funds Held For Others	-	1,213	1,213	-
<b>Total Liabilities</b>	<b>-</b>	<b>1,213</b>	<b>1,213</b>	<b>-</b>
<b>Direct Deposit Correction Account (0980) (U/F 0980)</b>				
<b>Assets</b>				
Cash in State Treasury	-	623,204	623,204	-
<b>Total Assets</b>	<b>-</b>	<b>623,204</b>	<b>623,204</b>	<b>-</b>
<b>Liabilities</b>				
Funds Held For Others	-	623,204	623,204	-
<b>Total Liabilities</b>	<b>-</b>	<b>623,204</b>	<b>623,204</b>	<b>-</b>
<b>USPS - Direct Deposit Return Money (0980) (U/F 9014)</b>				
<b>Assets</b>				
Cash in State Treasury	-	1,033	1,033	-
<b>Total Assets</b>	<b>-</b>	<b>1,033</b>	<b>1,033</b>	<b>-</b>
<b>Liabilities</b>				
Funds Held For Others	-	1,033	1,033	-
<b>Total Liabilities</b>	<b>-</b>	<b>1,033</b>	<b>1,033</b>	<b>-</b>
<b>All Agency Funds</b>				
<b>Assets</b>				
Cash in State Treasury	576	704,358	703,409	1,525
Legislative Appropriations	296,430	27,028,358	27,043,929	280,859
Accounts Receivable	3,387	56,055	54,779	4,663
Due from Other Funds (Note 5.A)	-	7,840	-	7,840
<b>Total Assets</b>	<b>300,393</b>	<b>27,796,611</b>	<b>27,802,117</b>	<b>294,887</b>
<b>Liabilities</b>				
Vouchers Payable	-	14,765	14,765	-
Accounts Payable	3,387	344,754	54,779	293,362
Funds Held For Others	576	641,739	640,790	1,525
<b>Total Liabilities</b>	<b>3,963</b>	<b>1,001,258</b>	<b>710,334</b>	<b>294,887</b>

Note A: Judicial Retirement System Plan I Fund (JRSI) is used to account for appropriations received from the State's General Revenue Fund for annuity and refund payments to eligible judicial employees who commenced service prior to September 1, 1985. Unappropriated Receipts General Revenue Fund accounts for member contributions received from the JRSI Fund.

**Other Supplementary Information – Schedule 1**  
**Revenues, Expenses and Changes in Statutory Account Balances**  
(Non-GAAP Presentation) - Employees Retirement Fund  
Year Ended August 31, 2016

	Employee Savings Account	State Accumulation Account (Note A)	Retirement Annuity Reserve Account	Interest Account	Expense Account	Totals
<b>Operating Revenues</b>	\$	\$	\$	\$	\$	\$
Contributions to Retirement System:						
Member Contributions	667,479,495					667,479,495
Employer Contributions		686,332,193				686,332,193
Service Contributions from Teacher Retirement System			88,854,383			88,854,383
Membership Fees					508,661	508,661
Penalty Interest		7,198,391				7,198,391
Investment Income:						
Net Appreciation in Fair Value of Investments				719,036,784		719,036,784
Interest and Dividends				587,320,027		587,320,027
Class Action Settlements				1,490,031		1,490,031
Rental Income					37,450	37,450
Warrants Voided By Statute of Limitations		139,950				139,950
Miscellaneous					3,417	3,417
<b>Total Operating Revenues</b>	<b>667,479,495</b>	<b>693,670,534</b>	<b>88,854,383</b>	<b>1,307,846,842</b>	<b>549,528</b>	<b>2,758,400,782</b>
<b>Operating Expenses</b>						
Retirement System Benefits Paid:						
Retirement Benefits			2,126,145,277			2,126,145,277
Death Benefits:						
Active Members		3,448,856				3,448,856
Retirees			1,633,270			1,633,270
Member Contributions Withdrawn	84,444,507					84,444,507
Service Contributions to Teacher Retirement System			20,376,732			20,376,732
Administrative Expenses					53,448,418	53,448,418
Depreciation Expense					1,474,539	1,474,539
<b>Total Operating Expenses</b>	<b>84,444,507</b>	<b>3,448,856</b>	<b>2,148,155,279</b>	<b>-</b>	<b>54,922,957</b>	<b>2,290,971,599</b>
<b>Income (Loss) Before Non-Operating Expenses and Operating Transfers</b>	<b>583,034,988</b>	<b>690,221,678</b>	<b>(2,059,300,896)</b>	<b>1,307,846,842</b>	<b>(54,373,429)</b>	<b>467,429,183</b>
<b>Non-Operating Revenues (Expenses)</b>						
Loss on Disposal of Fixed Assets						
<b>Income (Loss) Before Operating Transfers</b>	<b>583,034,988</b>	<b>690,221,678</b>	<b>(2,059,300,896)</b>	<b>1,307,846,842</b>	<b>(54,373,429)</b>	<b>467,429,183</b>
<b>Operating Transfers In (Out)</b>						
Distribution of Interest	102,899,511	(277,705,947)	1,427,949,629	(1,253,143,193)		
Establishment of Benefit Reserves	(408,873,433)	(1,160,454,922)	1,569,328,355			
Distribution of Interest for Administrative Expenses				(54,703,649)	54,703,649	
Member Accounts-Escheated	(2,696,095)	2,696,095				
Membership Fees Transferred Out					(77,500)	(77,500)
Excess Benefit Arrangement Transfers					(252,720)	(252,720)
<b>Net Operating Transfers</b>	<b>(308,670,017)</b>	<b>(1,435,464,774)</b>	<b>2,997,277,984</b>	<b>(1,307,846,842)</b>	<b>54,373,429</b>	<b>(330,220)</b>
<b>Net Income (Loss)</b>	<b>274,364,971</b>	<b>(745,243,096)</b>	<b>937,977,088</b>	<b>-</b>	<b>-</b>	<b>467,098,963</b>
<b>Account Balances - Beginning</b>	<b>5,235,063,314</b>	<b>683,417,025</b>	<b>18,080,000,822</b>			<b>23,998,481,161</b>
<b>Account Balances - Ending</b>	<b>5,509,428,285</b>	<b>(61,826,071)</b>	<b>19,017,977,910</b>	<b>-</b>	<b>-</b>	<b>24,465,580,124</b>

Note A: As required by Texas Government Code Chapter 815.322, the System moved funds from the State Accumulation Account to the Retirement Annuity Reserve Account based on the actuarial determined present value of future benefits to be paid to retirees. Fund balance is sufficient to pay the future annuities to the current population of retirees.

## Other Supplementary Information – Schedule 2

### Revenues, Expenses and Changes in Statutory Account Balances

(Non-GAAP Presentation) - Law Enforcement and Custodial Officer Supplemental Retirement Fund  
Year Ended August 31, 2016

	Employee Savings Account	State Accumulation Account	Retirement Annuity Reserve Account	Interest Account	Expense Account	Totals
<b>Operating Revenues</b>	\$	\$	\$	\$	\$	\$
Contributions to Retirement System:						
Member Contributions	9,538,658					9,538,658
State Retirement Contributions		27,497,297				27,497,297
Penalty Interest						
Investment Income:						
Net Appreciation in Fair Value of Investments				25,276,016		25,276,016
Interest and Dividends				20,681,186		20,681,186
Class Action Settlements				52,488		52,488
Warrants Voided By Statute of Limitations		4,014				4,014
<b>Total Operating Revenues</b>	<b>9,538,658</b>	<b>27,501,311</b>	<b>-</b>	<b>46,009,690</b>	<b>-</b>	<b>83,049,659</b>
<b>Operating Expenses</b>						
Retirement System Benefits Paid:						
Retirement Benefits			62,698,473			62,698,473
Refunds of Retirement Contributions	1,825,600					1,825,600
Death Benefits:						
Active Members		21,660				21,660
Retirees						
Re-Issue Warrants Voided						
Administrative Expenses					2,600,035	2,600,035
<b>Total Operating Expenses</b>	<b>1,825,600</b>	<b>21,660</b>	<b>62,698,473</b>	<b>-</b>	<b>2,600,035</b>	<b>67,145,768</b>
<b>Income (Loss) Before Operating Transfers</b>	<b>7,713,058</b>	<b>27,479,651</b>	<b>(62,698,473)</b>	<b>46,009,690</b>	<b>(2,600,035)</b>	<b>15,903,891</b>
<b>Operating Transfers In (Out)</b>						
Distribution of Interest	803,459	(4,811,914)	47,418,110	(43,409,655)		
Establishment of Benefit Reserves	(1,491,634)	(53,850,474)	55,342,108			
Distribution of Interest for						
Administrative Expenses				(2,600,035)	2,600,035	
<b>Net Operating Transfers</b>	<b>(688,263)</b>	<b>(58,662,300)</b>	<b>102,760,218</b>	<b>(46,009,690)</b>	<b>2,600,035</b>	<b>-</b>
<b>Net Income (Loss)</b>	<b>7,024,795</b>	<b>(31,182,649)</b>	<b>40,061,745</b>	<b>-</b>	<b>-</b>	<b>15,903,891</b>
<b>Account Balances - Beginning</b>	<b>34,455,599</b>	<b>230,763,708</b>	<b>578,926,025</b>	<b>-</b>	<b>-</b>	<b>844,145,332</b>
<b>Account Balances - Ending</b>	<b>41,480,394</b>	<b>199,581,059</b>	<b>618,987,770</b>	<b>-</b>	<b>-</b>	<b>860,049,223</b>

**Other Supplementary Information – Schedule 3**  
**Revenues, Expenses and Changes in Statutory Account Balances**  
(Non-GAAP Presentation) - Judicial Retirement System Plan Two Fund  
Year Ended August 31, 2016

	Employee Savings Account	State Accumulation Account	Retirement Annuity Reserve Account	Interest Account	Expense Account	Totals
<b>Operating Revenues</b>	\$	\$	\$	\$	\$	\$
Contributions to Retirement System:						
Member Contributions	5,684,392					5,684,392
Employer Contributions		12,374,200				12,374,200
Penalty Interest		69,957				69,957
Investment Income:						
Net Appreciation in Fair Value of Investments				11,253,680		11,253,680
Interest and Dividends				9,050,985		9,050,985
Class Action Settlements				22,974		22,974
<b>Total Operating Revenues</b>	<b>5,684,392</b>	<b>12,444,157</b>	<b>-</b>	<b>20,327,639</b>	<b>-</b>	<b>38,456,188</b>
<b>Operating Expenses</b>						
Retirement System Benefits Paid:						
Retirement Benefits			20,824,830			20,824,830
Death Benefits:						
Active Members		4,867				4,867
Retirees			25,799			25,799
Member Contributions Withdrawn	299,268					299,268
Administrative Expenses					692,164	692,164
<b>Total Operating Expenses</b>	<b>299,268</b>	<b>4,867</b>	<b>20,850,629</b>	<b>-</b>	<b>692,164</b>	<b>21,846,928</b>
<b>Income (Loss) Before Operating Transfers</b>	<b>5,385,124</b>	<b>12,439,290</b>	<b>(20,850,629)</b>	<b>20,327,639</b>	<b>(692,164)</b>	<b>16,609,260</b>
<b>Operating Transfers In (Out)</b>						
Distribution of Interest	1,259,909	3,531,216	14,844,350	(19,635,475)		
Establishment of Benefit Reserves	(622,277)	(7,638,889)	8,261,166			
Distribution of Interest for Administrative Expenses				(692,164)	692,164	
<b>Net Operating Transfers</b>	<b>637,632</b>	<b>(4,107,673)</b>	<b>23,105,516</b>	<b>(20,327,639)</b>	<b>692,164</b>	<b>-</b>
<b>Net Income (Loss)</b>	<b>6,022,756</b>	<b>8,331,617</b>	<b>2,254,887</b>	<b>-</b>	<b>-</b>	<b>16,609,260</b>
<b>Account Balances - Beginning</b>	<b>67,427,634</b>	<b>102,558,214</b>	<b>194,524,400</b>	<b>-</b>	<b>-</b>	<b>364,510,248</b>
<b>Account Balances - Ending</b>	<b>73,450,390</b>	<b>110,889,831</b>	<b>196,779,287</b>	<b>-</b>	<b>-</b>	<b>381,119,508</b>

## Other Supplementary Information – Schedule 4

### Administrative and Investment Expenses/Expenditures

#### Statutory Administrative Funds and Accounts

Year Ended August 31, 2016

	Administrative Expenses	
	Non-Investment	Investment
<b>Personnel Services</b>	\$	\$
Salaries and Wages	20,055,655	13,231,872
Payroll Related Costs:		
Retirement Contributions	1,900,595	945,540
Retirement Membership Fees	862	216
Employees Insurance Contributions	2,199,396	670,687
Retirees Insurance Contributions	1,141,848	272,443
Social Security Contributions	1,466,160	671,618
Unemployment Compensation	68,146	16,259
Total Payroll Related Costs	6,777,007	2,576,763
<b>Total Personnel Services</b>	<b>26,832,662</b>	<b>15,808,635</b>
<b>Professional Fees and Services</b>		
Actuarial Services	862,497	
Audit Services	527,574	
Investment Consulting Fees	573	2,028,721
Investment Advisors		10,096,789
Medical Board Member Fees	41,050	
Legal Services	35,373	626,526
Computer Programming Services	3,666,220	273,455
Other Professional Services	610,301	111,075
<b>Total Professional Fees and Services</b>	<b>5,743,588</b>	<b>13,136,566</b>
<b>Other Services and Charges</b>		
Travel	153,464	535,447
Materials and Supplies:		
Postage	784,630	
General Office and Other Supplies	198,062	9
Subscriptions	23,135	8,661
Furniture and Equipment	424,705	58,137
Computer Software	602,000	233,000
Total Materials and Supplies	2,032,532	299,807
Communications and Utilities:		
Electricity, Gas and Water	230,581	
Telephone and Telegraph	825,559	4,799
Electronic Communication Services	163,455	5,324,229
Total Communications and Utilities	1,219,595	5,329,028
Repairs and Maintenance:		
Land and Building	171,270	
Furniture and Equipment	53,991	41
Computer Software and Equipment	987,708	103,000
Total Repairs and Maintenance	1,212,969	103,041
Rentals and Leases:		
Computer Software and Equipment	324,089	
Office Equipment	271,461	
Space	21,214	
Total Rentals and Leases	616,764	-
Printing and Reproduction Services	87,829	-
Depreciation	1,474,539	
Interest Expense	14,192	

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## Other Supplementary Information – Schedule 4

### Administrative and Investment Expenses/Expenditures

#### Statutory Administrative Funds and Accounts (Concluded)

Year Ended August 31, 2016

	<b>Administrative Expenses</b>	
	<b>Non-Investment</b>	<b>Investment</b>
	\$	\$
<b>Other Services and Charges (continued)</b>		
Other Operating Expenses/Expenditures:		
Membership Fees	43,527	52,832
Employee Training	187,403	57,835
Insurance - Building and Vehicle	28,426	
Fees and Other Charges	13,285,950	29,185
Investment Banking		896,529
Tenure Awards	2,488	13
Witness Fees	9	
Hazardous Waste Disposal	3,503	
Temporary Employment Agencies	493,090	108,128
Cleaning Services	153,945	
Advertising Services	5,543	2,174
Freight/Delivery Services	5,210	
Purchased Contracted Services	922,079	2,524
Prompt Payment Interest	156	
SORM Assessment	27,381	6,533
Third Party Administrator Fee - Cafeteria Plan	1,274,776	
<b>Total Other Operating Expenses/Expenditures</b>	<b>16,433,486</b>	<b>1,155,753</b>
<b>Total Other Services and Charges</b>	<b>23,245,370</b>	<b>7,423,076</b>
<b>Total Expenses/Expenditures</b>	<b>55,821,620</b>	<b>36,368,277</b>
<b>Method of Finance:</b>		
State Employees Retirement System (S.E.R.S.) Trust Account ( 0955)	20,448,670	34,474,288
Law Enforcement and Custodial Officer Supplement Retirement Trust Fund (0977)	1,421,457	1,178,578
Judicial Retirement System Plan Two Trust Fund (0993)	226,106	466,056
TexaSaver 401(k) Trust Fund (0946)	433,382	11,033
TexaSaver 457 Trust Fund (0945)	232,735	5,403
Commuter Spending Account Fund (3944)	1,275,859	
State Employees Cafeteria Plan Trust Fund (0943)	1,815,138	4,040
State Retiree Health Plan (3973)	10,668,570	
<b>Total Fiduciary Funds</b>	<b>36,521,917</b>	<b>36,139,398</b>
Employees Life, Accident, Health Insurance and Benefits Trust Account (0973)	19,160,840	228,879
<b>Total Proprietary Fund</b>	<b>19,160,840</b>	<b>228,879</b>
Social Security Administration Trust Account (0929)	138,863	
<b>Total Governmental Funds</b>	<b>138,863</b>	<b>-</b>
<b>Total Method of Finance</b>	<b>55,821,620</b>	<b>36,368,277</b>

Note A: \$117,062,480 management fees for Alternative Investments were accrued during fiscal year 2016. The unpaid balances were reported as part of the fair value of Investments. Details of the management fees are listed in the Investment Section.

# Other Supplementary Information – Schedule 5

## Professional and Consulting Fees

Year Ended August 31, 2016

Nature of Service	Totals
	\$
Actuarial Services - Retirement	309,906
Actuarial Services - Insurance	552,591
Audit Fees - Financial	218,000
Audit Fees - Insurance Carrier	215,280
Audit Fees - Other	94,294
Investment Consulting Fees	2,029,294
Investment Advisors	10,096,789
Medical Board	41,050
Legal Services	661,899
Computer Consultant Services	189,337
Information Technology Service	3,750,338
Educational Services	113,149
Other Professional Services	333,911
Other Consulting Services	274,316
<b>Total Professional and Consulting Fees</b>	<b>18,880,154</b>
<b>Method of Finance:</b>	
State Employees Retirement System (S.E.R.S.) Trust Account ( 0955)	15,789,231
Law Enforcement and Custodial Officer Supplement Retirement Trust Fund (0977)	538,708
Judicial Retirement System Plan Two Trust Fund (0993)	210,690
TexaSaver 401(k) Trust Fund (0946)	35,047
TexaSaver 457 Trust Fund (0945)	20,597
Commuter Spending Account Fund (3944)	243,429
State Employees Cafeteria Plan Trust Fund (0943)	23,964
State Retiree Health Plan (3973)	532,017
<b>Total Fiduciary Funds</b>	<b>17,393,683</b>
Employees Life, Accident, Health Insurance and Benefits Trust Account (0973)	1,474,819
<b>Total Proprietary Fund</b>	<b>1,474,819</b>
Social Security Administration Fund (0929)	11,652
<b>Total Governmental Funds</b>	<b>11,652</b>
<b>Total Method of Finance</b>	<b>18,880,154</b>



# INVESTMENT SECTION

Report on Investment Activity

Outline of Investment Policies

Time-weighted Rates of Return and Asset Allocations

Broker Commissions

Management Fees for Alternative Investments

Investment Advisory and Service Fees

List of Largest Assets Held

Investment Summary at Fair Value

# Report on Investment Activity

Fiscal Year 2016

## Overview

The System's investment portfolio closed the fiscal year with a fair value of \$25.5 billion, and received a net return of 5.28% for the year compared to the global policy benchmark return of 7.23%. Over the longer term, the fund returned 7.54% for the 5 years ended August 31, 2016, compared to the policy benchmark of 7.64%. For the 10 years ended August 31, 2016, the fund returned 5.70%, outperforming the policy benchmark of 5.40%. The fiscal year-end asset allocation stood at 23.7% fixed-income, 47.9% global public equity, 9.7% global real estate, 10.0% in private equity, infrastructure of 1.4%, 4.7% in absolute return funds, and 2.7% in cash.

During fiscal year 2016, the Investments Division continued to work with the Executive Director, Board of Trustees, Investment Advisory Committee and other divisions within the Agency to build a premier and competitive investment organization in the best interest of the Trust and its beneficiaries. The division increased economies of scale, reduced investment management costs and pursued new sources of investment return; and realized savings from negotiations of fee and terms for fiscal year to approximately \$10 million.

In collaboration with Benefit Contracts, Investments co-sponsored the investment product line up for investment program for the benefit of the Texa\$aver platform along with supporting Operations Services in the selection of the agency Space Planning Feasibility Study consultant. The division supported legislative initiatives and actively participated in the ERS Sunset review. Investments completed the annual verification of compliance with the Global Investment Performance Standards.

Investments hosted the National Association of State Investment Professionals (NASIP) conference, the ERS/TRS Annual Emerging Manager's Conference, and the Real Estate Emerging Managers (REEM) conference. Staff broadened educational in-house conferences and promoted strategic outreach to the Board of Trustees, Investment Advisory Committee and external stakeholders.

The asset allocation goals have prompted an increase in staff, and Investments filled vacancies for an external advisor analyst, global public equities analyst, private equity portfolio manager, risk management and applied research analyst and an administrative assistant.

Leaders of the division remain committed to developing a career path program and to attracting and retaining excellent investment professionals by several educational training including communications, succession planning, overall team development, and leadership/management, presentation and

communication training. In addition, the division continued to expand the internship program to include outreach to diversity candidates along with active collaboration with Texas university graduate programs, and the University of Washington.

Management continues to recognize the importance of optimizing the mix of internally managed and externally advised portfolios. Staff refreshed the select pool and initiated searches to refine the mix of internal and external management and at the same time leveraged external relationships for stronger resources. The division expanded the derivatives program to the equity team.

Numerous Investments team members were the recipients of industry awards this year. Tom Tull was named to Asset International Magazine international list of the Power 100 and he was awarded the Young Jewish Professionals Leadership and Achievement Award. The fixed income team won the Best Institutional ETF User award. Robert Sessa and the real estate team won the 2016 Investments and Pensions Europe (IPE) Real Estate Award for the best Listed Strategy. They were also short-listed on Indirect Strategy and the regional award for North America. Anthony Curtiss made the Ai-CIO Magazines 40 under 40 list. These awards, together with attendance and presentations at conferences throughout the year, demonstrate that the System's Investments is committed to the education and communication of the System and the System's Investments program.

## Domestic Equity

Fiscal Year 2016 closed with a late-summer period of low volatility in the US equity markets, as the S&P 500 went over seven weeks without a one percent move in either direction. Though there were a couple of sell-offs during the year, markets generally had healthy gains, reaching all-time highs in the final month of August. The S&P 500 hit a closing high of 2193.8 mid-month and finished the year at 2173.8 for a price return of 10.08%. Similarly, the Dow Jones Industrial Average, NASDAQ Composite, and Russell 2000 all hit new highs and then sold off slightly to finish the year up 11.33%, 9.14%, and 6.94%, respectively.

US equity markets started the fiscal year recovering from an August sell-off, initiated by a devaluation of the Chinese Yuan. After some continued September weakness, US equity markets recovered in October for the largest one-month gain in four years. Markets then drifted downward with increased volatility until the end of 2015 as falling crude prices and concerns over Fed tightening, exacerbated by the 25 basis point hike in December, pressured equity prices. This got worse early in the new year as additional concerns over economic growth in the US, slowing growth in China, falling commodity prices, and growing concerns over

# Report on Investment Activity (Continued)

Fiscal Year 2016

debt defaults took center stage. The sell-off reached a climax in mid-February when WTIC bottomed at \$26.31, and the S&P 500 hit a low of 1829.1, having fallen 13.3% from its early November high.

Markets steadily rebounded from these lows as fears receded throughout the spring. Oil and gold rose, the dollar weakened, middling world economic growth continued, and the Fed stayed on hold after the initial hike. This rise in equity markets became more gradual through late spring and early summer, and was briefly interrupted by a sharp two-day sell-off after the United Kingdom voted to exit the European Union. It took four days for the markets to recover. Markets continued moving higher in early July, after which they traded in a tight range for the rest of the fiscal year.

All ten of the S&P 500 economic sectors finished the fiscal year with positive returns. On a relative basis, Telecom Services, Information Technology, and Utilities were the top performers, while Health Care, Energy, and Financials were the laggards.

## International Equity

In fiscal year 2016, global markets ex-US slightly outperformed (+0.1%), driven by Emerging Markets (+9.2%), and Asia Pacific (+3.3%). Europe underperformed (-6.0%) (all on USD basis). One of the defining themes of the year was the crash in oil prices, which had begun their descent in 2015 and finally hit a bottom in February. Oil prices then slowly recovered to a \$40-50 range as US crude oil inventories slowly declined, even though there were demand concerns based on soft gasoline data. Europe's moment of the year was the surprise Brexit vote. The market digested the information relatively quickly, likely due to the unprecedented nature of the vote and the uncertainty as to the timing and consequences. Even the MSCI European Financials Index recovered in 3 months to the levels at which it had been trading before. By sector, healthcare (-10.9%) and financials (-6.6%) were the laggards, unsurprising given the large percentage by market capitalization that call Europe home. Information technology (+17.6%) and consumer staples (+8.6%) led the way on the positive side. The former is likely due to the Chinese giants (Tencent, Baidu, Alibaba) and strength in the semiconductor markets benefitting Samsung and TSMC, and the latter is likely due to deflationary conditions.

Emerging markets started the year from a dour place following the crash of the Chinese H share markets, political turmoil in Brazil, and depressed commodity markets. The People's Bank of China introduced circuit breaker instead of their intended stabilization effect, which actually increased panic as investors feared they wouldn't be able to sell fast enough. However, news flow for the rest of the year from China was relatively quiet, as the state continued to spend on

infrastructure and internal industry development to keep up with its growth targets. In Brazil, Vice President Temer assumed presidency in May as the country moved forward on impeachment proceedings for Dilma Rousseff. Rousseff was ultimately ousted immediately after the Olympics concluded in the summer. Brazil finished our fiscal year as one of the world's top performers, (+34.0%).

The biggest moves in currencies were in the yen, which strengthened (14.7%) against the efforts of the Bank of Japan and Prime Minister Abe, and in the pound, which weakened (-14.4%) in the wake of the United Kingdom's decision to leave the European Union.

## Real Estate

The global real estate equity markets as measured by the FTSE EPRA/NAREIT Developed Index posted a decent return of +18.4% for the fiscal year ending August 31, 2016, following a -4.0% retreat in fiscal year 2015. North America was the best performer and delivered an impressive return of 25.2%, followed by Continental Europe (+18.8%), Asia (+14.6%), and Middle East (+13.3%). The UK (-21.3%) was the only region with negative returns, affected primarily by the shocking Brexit vote results.

Despite the accommodative position of most major central banks around the world, the U.S. Federal Reserve raised interest rates by 25 bps in December 2015 to 0.50%, the first rate hike in almost 10 years. Despite the perceived path of the US tightening monetary policy in 2016, other global central banks remained in easing bias. Japan central bank surprised the market by adopting a negative interest rate policy in January 2016. The Swedish Risk bank pushed its repo rate further into negative territory in February. The market has been impacted by central bank policies and sentiment around the US presidential election, UK Brexit vote, China, and global terrorism threats. The UK Brexit vote in June 2016 shocked the market and the British pound plunged 11% on the vote result. UK REITs suffered a significant sell-off and were down 21.3% for fiscal year 2016.

Despite the anticipated weakening fundamentals, the Asian markets benefited from the fear of Brexit, thanks to the sector's undemanding valuations and attractive dividend yields. Hong Kong listed real estate share performance staged a decent turnaround from the February lows, up 13.0% for the fiscal year. The decline of the housing prices and retail sales seemed to be stabilizing in recent months. Singapore also delivered a decent total return of 16.6%, despite weakening fundamentals. Japan was the laggard in local currency terms, down 8.4%, but posted a positive 7.4% return thanks to the strong Yen relative to the USD. Continental Europe achieved a decent +18.8% return supported by accommodative monetary policy and

# Report on Investment Activity (Continued)

Fiscal Year 2016

perceived stabilized property fundamentals, despite the terrorist attack in the region (Paris, Brussels and Germany).

The US as measured by the FTSE EPRA / NAREIT United States Index gained 25.6% for the fiscal year. Market expectations were set for a steady increase of rate hikes that ultimately only materialized into one hike to date at the December 2015 meeting. As a result, many of the previously long duration and interest rate sensitive subsectors that had underperformed in the prior fiscal year showed robust performance in 2016. Over the course of the fiscal year central bank policies, investor global growth slowdown fears, the US presidential elections, the UK Brexit vote, a china slowdown, and global terrorism that all served to create a volatile market backdrop. This tended to favor lower beta and defensive REIT subsectors at the beginning of the year. Along these lines, the Retail subsector led by many triple-net lease REITs (+29.3%), the diversified subsector led by the Data Center REITs (+36.6%), and Healthcare (+29.4%) subsector outperformed the market.

After the February lows, many positive economic data points starting trickling in. This served to quell investor fears of a recession, which ultimately resulted in more of the cyclical and attractively valued subsectors at the time, such as Office (+29.0%) and Industrial (+46.8%), to catch a bid. Lastly, the Residential (+16.0%) and Self-Storage (+13.2%) subsectors were trading very expensive coming into the fiscal year with high expectations of continued earnings growth. These caused the sectors to underperform the broader market as soon as fundamentals started to decelerate due to increased supply and tougher year-over-year composite. Not surprisingly, the Lodging / Resorts (+4.3%) sector screened unattractive from both a top-down and bottom-up perspective as slowing global growth, reduced corporate profitability, and a strong dollar served to pressure RevPAR and earnings growth throughout the fiscal year.

Despite strong quarterly earnings results from REITs overall (especially in the context of S&P 500 earnings revisions expectations) as well as favorable supply / demand dynamics in most of the real estate subsectors, diverging central bank policy, the US elections, and credit market concerns served to create volatility in the REIT space at many points throughout the fiscal year.

## Private Real Estate

During fiscal year 2016, the System committed \$245 million across seven investments, which includes co-investments, one additional commitment to a

previously closed investment, and a “re-up” to a previous manager. These commitments exceeded the commitment target of \$200 million, but were below the upper range of \$300 million set forth in the fiscal year 2016 tactical plan. Approximately 43% (\$105 million in three commitments) of the System’s 2016 private real estate new commitments were committed to domestic U.S. strategies, 25% (\$60 million in one commitment) to global strategies, and 33% (\$80 million in three commitments) to Asian investments. The U.S. commitments included, in part, manufactured housing, core retail, and funds that invest in diversified property types. The global strategies are separate account commitments to a global co-investment mandate.

Co-investments typically have focused investments, lower management fees and stronger governance structures. The System’s team expects to make additional co-investments in 2017 as opportunities become available that meet risk and return parameters together with a strong “hands on” property management that can drive performance and create value for the System and complement the existing portfolio of investments. The Asian commitments were to a value add India fund, an office debt co-investment in the Philippines and a follow on investment to an existing investment in an open-ended core fund.

As of August 31, 2016, private real estate commitments totaled \$2.7 billion to 43 funds and two co-investments. The System continues to play an active role in monitoring and steering each investment and the System is on the Advisory Board on all but five fund investments. The net asset value of the the System’s private real estate portfolio stands at \$1.8 billion and since inception; \$2.2 billion in capital has been called. The System has also received back approximately \$1.2 billion as income or a return of principal. In fiscal year 2016, approximately \$430 million in equity capital was called for the System’s portfolio and \$340 million was returned as income or a return of principal. Staff is carefully monitoring the pace of capital calls and distributions from all of the System’s investments.

The portfolio is at its steady state and represents 6.9% of the overall Trust assets with a target weight of 7%. The portfolio has generated a net IRR of 12.8% since inception. Investing into the core open-end funds toward the bottom of the market cycle has mitigated the J-Curve effect to some extent. The program will continue to be selective in committing capital.

## Private Equity

For fiscal year 2016, Private Equity closed four existing funds and 12 new deals, including four co-investments, with commitments totaling \$749.7 million versus a goal of \$950 million and a range of \$714 - \$1,188 million.

# Report on Investment Activity (Continued)

Fiscal Year 2016

As of August 31, 2016, the Private Equity portfolio Net Asset Value was \$2.57 billion, compared to \$2.76 billion at fiscal year-ending August 31, 2015. Since inception Private Equity has closed on 74 funds and 24 co-investments with commitments totaling \$5.3 billion (adjusted for currency exchange rates). In addition, ERS has obtained LP Advisory Committee seats on 44 funds and two fund LP Advisory Observer seats.

## Fixed Income

In December 2015 the Federal Reserve began the process of normalizing interest rates with a 25 bps increase to the Fed Funds target rate. Following the increase in rates, market consensus was generally for 2-3 additional rate increases in calendar year 2016. However, with the New Year came collapsing commodity prices and renewed concerns over global growth. These concerns, coupled with mixed economic data in the U.S., have caused the Fed to refrain from increasing rates further. Now commodity prices appear to have stabilized and U.S. economic data appears to be improving once again, albeit modestly improving. The unemployment rate has declined from 5.1% to 4.9% over the course of fiscal year 2016 and the Fed still believes that there is room for more improvement. The economy added 426,000 jobs in July and August combined but the unemployment rate has held firm for now. We are starting to see some signs of wage growth; however through August wages grew only 2.4% YoY. As the labor market becomes tighter and the unemployment rate continues to decline, the Fed expects to see additional upward pressure on wages and overall inflation. Currently the Fed's broad gauge of overall inflation, Core PCE, is increasing at a rate of 1.6% YoY which is below the Fed's 2% target. Market participants are now looking to December for the next possible Fed Funds rate increase. In the FOMC's July meeting minutes, members of the committee indicated that they were more open to a rate increase before the end of the year. As of August 31st, the market was pricing in a 59% chance of a December rate increase.

## Interest Rates

Rates continued to grind tighter in fiscal year 2016. The Fed did raise the target Fed Funds rate to 50 bps in December, however, with the exception of the short end of the treasury curve, all key rates tightened, resulting in a flattening of the yield curve. We started the year with the 10 yr. treasury at 2.21% but as commodity prices declined from late 2015 to mid-February 2016, the market's risk-off demand for treasuries pushed yields lower. As commodity prices subsequently rebounded, economic growth concerns continued to fuel investors' demand for rates. In August we did start to see the yield on the 10 yr. slightly tick back up as

economic data improved and investors began betting on a potentially more hawkish Fed; the 10 yr. ended the year at 1.58%.

## Index Performance

Bond markets performed considerably better in fiscal year 2016 than they did in fiscal year 2015 as the overall decline in rates was very supportive of bonds. The Intermediate Treasury index returned 3.11% compared to 1.90% a year prior. Given the risk-on sentiment in the market and the yield curve flattening, longer duration and riskier assets outperformed. The longer duration U.S. Treasury Index returned 5.14%. A similar theme was seen when increasing exposure to credit risk. The Barclays Intermediate Credit Index returned 5.72% while Emerging Markets and High Yield returned 12.28% and 9.12% respectively.

## Private Infrastructure

For fiscal year 2016, Private Infrastructure closed on six deals, with commitments totaling \$177.2 million. The total commitment target for the fiscal year was \$250 million with a commitment range of +/- 25% (\$187.5-\$312.5 million).

Since inception, Private Infrastructure has closed on ten co-investments and three funds with commitments totaling \$557.2 million (adjusted for currency exchange rates). ERS holds an LP Advisory Committee seat on three funds. As of August 31, 2016 the Infrastructure portfolio Net Asset Value was \$345.5 million, compared to \$247.7 million at fiscal year-ending August 31, 2015.

## Hedge Funds

Hedge Funds experienced another volatile year of performance, but remained in positive territory for fiscal year 2016. The Absolute Return Portfolio ended the year up 4.22% while the benchmark return over the same period posted a gain of 4.80%. Performance for the year was reflected by risk-off/risk-on investor sentiment.

The start of fiscal year 2016 saw a continuation of challenging market conditions that persisted from fiscal year 2015. During August 2015, the Chinese government devalued their currency by 2%. This act triggered broad based fears across the investment community. Investors remained fearful of a Chinese hard landing along with the continued depreciation of the Renminbi. While this occurred in August, it had a spillover effect into September and caused heightened volatility across a number of markets. In particular, these fears put added pressure on emerging markets, notably on commodity producers/exporters. A flight to safety followed causing the U.S. dollar to rally and U.S. Treasury yields to fall.

# Report on Investment Activity (Concluded)

Fiscal Year 2016

During the fourth quarter of 2015, diverging global central bank policies added to market uncertainty. Within the U.S., the Federal Reserve was signaling a potential rate hike. Alternatively, central bankers within both Europe and Japan were signaling expectations for additional stimulus. This divergence caused heightened volatility across a number of strategies. This was most apparent in strategies which have a bias towards credit. In particular, Relative Value strategies negatively impacted the Absolute Return portfolio and the negative attribution was broad-based across most managers.

Entering into 2016, volatility spiked yet again, primarily due to a continuation of fear around a Chinese slowdown and further deflationary fears coming out of Europe and Japan. Global financial markets declined significantly during January and February as market participants continued to worry about the prospects of global growth. Recessionary fears caused investors to favor safer longer-duration fixed income securities. During this time, exposure to Equity Long/Short, Event Driven, and Relative Value strategies negatively impacted the portfolio.

In March and April, supportive central bank policies calmed global growth concerns. Within the U.S., equity markets rallied while credit markets tightened. Within Europe, equity markets were more range-bound but still positive. The Absolute Return portfolio performed well during this period, but performance was mixed across strategies. In April, credit-focused strategies outperformed, while in May, equity-oriented strategies drove performance.

June was a volatile month caused mainly by the U.K. referendum vote (Brexit) and uncertainties regarding a potential U.S. rate hike. After the "leave" vote was confirmed in the U.K., global equity markets weakened and government bond prices rallied as a flight to safety ensued. Nonetheless, global equity markets rebounded sharply during the last week of the month as investors realized that any potential exit would be a drawn out process. The intra-month volatility led to declines in equity strategies; however, positive performance from Global Macro strategies more than outweighed these losses. Strong performance for the Absolute Return portfolio continued through the end of fiscal year 2016 and performance across all strategies was positive.

To summarize, the Absolute Return portfolio posted relatively strong performance during fiscal year 2016 against several market headwinds. The portfolio remains focused on maintaining a low volatility and low beta to the overall Trust. A strategic overweight to Relative Value and Event Driven strategies remains a focus, but expectations are for further increases to both Global Macro and Opportunistic strategies.

## Key Portfolio Statistics

	2016	2015
	\$	\$
Contributions to Pool	1,181,700,000	767,800,000
Withdrawals from Pool	(2,065,300,000)	(1,936,700,000)
Interest & Dividends	613,975,416	579,420,537
Securities Lending Net Income	3,076,782	5,528,933
Net Appreciation in Fair Value	755,566,481	(495,657,201)

*Basis of Presentation: Master custodian and the System's financial records. The time weighted method is used to calculate the rates of return.*

# Outline of Investment Policies

Fiscal Year 2016

## Background

The Board of Trustees' investment policies are governed by the Texas Government Code and the Texas State Constitution. As fiduciaries of the System's funds, the Board of Trustees practices the following duties of care:

- Manage the assets for the exclusive benefit of the Plan Beneficiaries;
- Establish prudent investment policies defining investment objectives and strategies;
- Seek to maximize investment returns while maintaining the safety of principal;
- Diversify the assets to reduce risk of loss;
- Monitor investment performance;
- Efficiently manage the costs associated with implementation of its investment program; and
- Establish committees as necessary and prudent to fulfill its duties to the funds.

Investments shall be made in securities that are considered prudent investments, exercising the judgment and care, under the circumstances prevailing at the time of the investment, that persons of ordinary prudence, discretion, and intelligence exercise in the management of their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income from the disposition and the probable safety of their capital. However, the Board of Trustees shall not participate in individual investment selections unless it is specifically provided for herein because that responsibility has been delegated to the Executive Director and the System's investment staff, with oversight by the Board of Trustees.

Every investment will be subject to strict due diligence. Notwithstanding the performance of such due diligence, the determination of whether prudence has been exercised with respect to an investment decision shall be made by taking into consideration the investment of all the assets of the trust or all the assets of the collective investment vehicle, as applicable, over which the Board of Trustees has management and control, rather than considering the prudence of a single investment of the trust or collective vehicle, as applicable.

A staff of trained professional personnel in accordance with Trustee policies and Constitutional and Statutory regulations invests State contributions, member contributions, and investment income. To assist the staff with investment recommendations and

decisions, the Trustees have employed nationally recognized investment managers and have appointed an Investment Advisory Committee composed of prominent members of the financial and business community of Texas. In addition, the System retains an independent consultant to evaluate and analyze the investment results of the System.

The System's Executive Director is authorized to approve from time to time variances from the policies set forth herein in furtherance of such compliance or in the best interest of the System and consistent with both the System's fiduciary responsibilities and the purpose and scope of this policy.

## Diversification

The assets of the System's funds will be broadly diversified in order to minimize the risk of large losses in individual investments. Investments are restricted by the Texas Constitution to securities such as, but not limited to, cash equivalents, bonds, common stocks, and limited partner interests. The System's funds will have beneficial ownership of:

- No more than 3% of the Funds' assets at market value in the securities of any one corporation;
- No more than 5% of any class of voting securities of any one public corporation; and
- No more than 15% of an advisor's high yield bond portfolio based on market values, in combined Deferred Interest, Contingent Interest and Pay-In-Kind bonds.

## Permissible Investments

The Board of Trustees will consider investment instruments appropriate for the System's funds and deemed to be prudent based on:

- Their consistency with investment policy and portfolio objectives;
- Their application to the portfolio's diversification;
- Staff and/or advisor competency in evaluating and trading the securities;
- Consideration of their liquidity within the portfolio; and
- The cost of including them in the program.

## Eligible Securities

- Except as described in the Fixed Income Policies and Procedures for the credit portfolio, global fixed income securities, subject to a minimum credit rating of "CCC-, Caa3," or their equivalent as rated

# Outline of Investment Policies (Concluded)

Fiscal Year 2016

by two (NRSROs), and included in the Barclays Capital Universal Index or successor index. Fixed income and short-term securities that downgrade to below the acceptable rating described above will be exchanged or sold within one year, but special exceptions may be permitted and reported to the Board of Trustees.

- Cash and Cash equivalents as set forth in the Eligible Securities List for Cash and Cash Equivalents.
- Interests in private securities exempted from registration under federal and state securities laws, including certain limited liability securities and vehicles, such as limited partner interests in limited partnerships, trusts and limited liability corporations as deemed appropriate by The System's Investments and Legal staff.
- Private equity and private real estate investments must be institutional in quality and meet the parameters specified in the System's investment policy.

- Global publicly traded real estate equities subject to the quality standards set forth in the investment policy.
- Foreign currencies transactions and foreign currency derivatives are permitted as necessary to facilitate the settlement of foreign security transactions, consistent with industry best practices. These transactions are also permitted to settle private market transactions, meet capital calls or exchange distributions back into U.S. dollars.
- Forward, futures and options, subject to the restrictions set forth in the investment policy.

## Proxies and Bond Indenture Changes

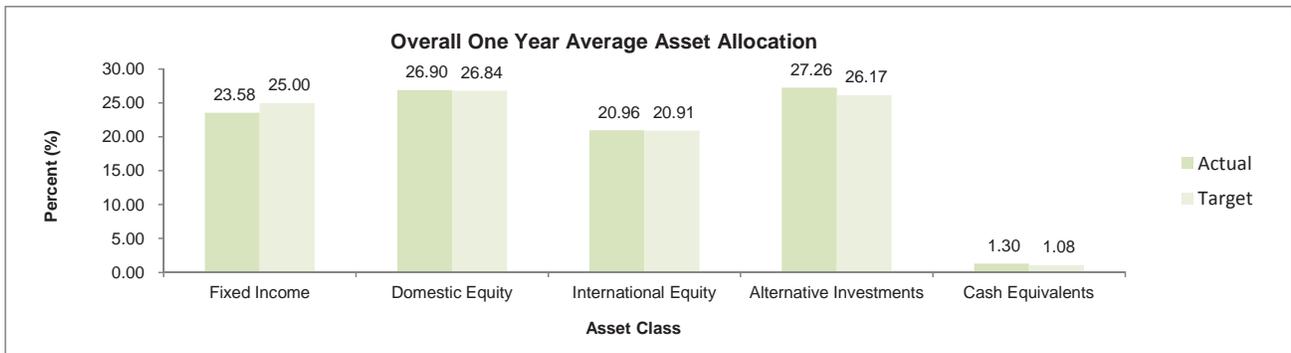
All proxies and bond exchanges shall be voted to consider only those factors that relate to the economic value of the System's investment, and such votes should cast in accordance with the System's best interest and investment objectives for the funds.

# Time-Weighted Rates of Return and Asset Allocations

## Investment Pool

August 31, 2016

	Time-Weighted Rates of Return (Note A)						3 Year	5 Year
	2012	2013	2014	2015	2016	(2014-2016)	(2012-2016)	
	%	%	%	%	%	%	%	
<b>Fixed Income</b>								
ERS	6.01	(1.45)	3.85	1.29	5.14	3.42	2.93	
Index	6.44	(1.69)	6.28	1.13	6.50	4.60	3.67	
<b>Domestic Equities</b>								
ERS	17.56	19.27	24.34	1.55	8.48	11.05	13.94	
Index	17.52	19.38	24.86	0.49	12.54	12.19	14.65	
<b>International Equities</b>								
ERS	0.09	13.97	16.28	(9.86)	1.44	2.07	3.94	
Index	(1.92)	12.98	17.75	(12.35)	2.92	2.03	3.31	
<b>Alternative Investments</b>								
ERS	7.67	13.43	15.70	7.89	6.76	9.92	9.71	
Index	NA	NA	NA	NA	NA	NA	NA	
<b>Cash Equivalents</b>								
ERS	0.96	(4.15)	0.61	2.71	0.76	1.36	0.15	
Index	0.06	0.11	0.05	0.03	0.23	0.10	0.09	
<b>ERS Overall</b>								
ERS	8.22	10.07	14.70	0.49	5.32	6.68	7.66	
Index	8.11	9.52	15.00	(1.03)	7.23	6.87	7.64	
<b>Change in CPI</b>	1.42	1.96	2.00	0.21	0.88	1.00	1.25	



Note A: The Time-Weighted Rate of Return measures the gross of fees performance of the total investment portfolio, considering income and market impact, including realized and unrealized gains, and eliminates the effect of timing of cash flows due to contributions and withdrawals which are not controllable by the investment managers. The 5-year return is used to smooth market swings and to maintain consistency with the long-term nature of the fund. The Time-Weighted Rate of Return is calculated as follows:

$$\text{Ending Market Value} / (\text{Beginning Market Value} + \text{Net Cash Flows})$$

The indices used for comparison are net of fees. The names of the index are listed as follows:

Fixed Income Securities Portfolio:	Barclays Capital Universal and Floating Fixed Income
Domestic Equities Portfolio:	S&P 1500/ S&P 1500 Blend
International Equities Portfolio:	MSCI EAFE/MSCI ACWI ex US Blended Index (i.e., Europe, Australia and Far East Index excluding securities unavailable to foreign investors)
Cash Equivalents Portfolio:	91-Day U.S. Treasury Bill

Basis of Presentation: Master custodian records.

# Broker Commissions

Year Ended August 31, 2016

## Domestic Equity

Brokerage Firm	No. of Shares Traded	Commissions	Commission Per Share
	\$	\$	
Baird, Robert W & Co., Inc.	6,983,803	135,107	0.019
Barclays Capital	12,072,946	202,934	0.017
Bloomberg Tradebook, LLC	2,887,143	57,743	0.020
BMO Capital Markets Corp.	5,902,872	118,057	0.020
BNY Mellon Clearing	5,366,376	129,537	0.024
Cantor Fitzgerald	1,629,908	32,598	0.020
Capital Institutional Services, Inc.	674,888	20,247	0.030
Citigroup Global Markets, Inc.	4,461,986	88,680	0.020
Cowen & Co., LLC	2,388,485	47,770	0.020
Credit Suisse	21,934,041	438,681	0.020
Deutsche Bank	3,043,282	57,106	0.019
Goldman Sachs	5,661,301	103,624	0.018
ICBC Financial Services LLC	1,470,604	73,530	0.050
Investment Technology Group, Inc.	840,419	8,404	0.010
Jefferies & Co, Inc.	14,592,363	252,006	0.017
JP Morgan Securities, LLC	7,862,874	157,417	0.020
Liquidnet, Inc.	383,200	5,748	0.015
Macquarie Securities (USA), Inc.	1,478,702	29,574	0.020
Merrill Lynch & Co., Inc.	7,290,722	144,534	0.020
Morgan Stanley Dean Witter & Co.	9,491,046	169,100	0.018
National Financial Services, LLC.	5,227,278	104,546	0.020
Piper Jaffray	1,058,428	21,169	0.020
Raymond James & Associates, Inc.	4,631,543	138,946	0.030
RBC Capital Markets	5,239,969	104,799	0.020
Sanford C Bernstein & Co., Inc.	1,099,541	21,991	0.020
State Street Brokerage Services	1,115,391	11,154	0.010
Stifel, Nicolaus & Co., Inc.	5,959,154	119,183	0.020
UBS	4,036,974	81,230	0.020
Wells Fargo Securities, LLC	1,219,194	21,884	0.018
	<b>146,004,433</b>	<b>2,897,299</b>	<b>0.020</b>

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## Broker Commissions (Concluded)

Year Ended August 31, 2016

### International Equity

Brokerage Firm	No. of Shares Traded	Commissions	Commission Per Share
	\$	\$	
Barclays Capital	3,747,571	35,544	0.009
BMO Capital Markets Corp.	179,300	2,785	0.016
BMO Nesbitt Burns	2,380,139	36,173	0.015
BNP Paribus	6,243,141	162,612	0.026
BNY Mellon Clearing	4,320,533	83,694	0.019
Caceis Bank	2,951,207	158,277	0.054
Citigroup Global Markets, Inc.	152,240,237	440,422	0.003
Clearstream Banking AG	618,279	44,474	0.072
CLSA Singapore PTE Ltd.	31,560,525	396,987	0.013
Credit Lyonnais Securities	84,441,248	372,005	0.004
Credit Suisse	28,110,553	343,537	0.012
Daiwa Securities	113,809,513	429,796	0.004
Deutsche Bank	56,412,400	163,349	0.003
Euroclear Bank SA	921,653	45,057	0.049
Fidelity Clearing Canada	1,437,814	15,972	0.011
HSBC	29,304,586	112,930	0.004
Instinet LLC	23,318,165	135,904	0.006
Investec Securities Limited	279,884	7,797	0.028
Investment Technology Group, Inc.	1,837,334	27,340	0.015
Jefferies & Co, Inc.	25,913,109	234,984	0.009
JP Morgan Securities, LLC	75,529,870	387,947	0.005
KEB Salomon Smith Barney Securities	438,442	26,036	0.059
Kepler Cheuvreux	974,596	25,147	0.026
Macquarie Securities (USA), Inc.	61,169,749	453,452	0.007
Merrill Lynch & Co., Inc.	91,002,731	338,320	0.004
Mitsubishi Securities	10,509,069	184,245	0.018
Morgan Stanley Dean Witter & Co.	29,663,428	156,865	0.005
Nomura Securities Co. Ltd.	301,284	8,260	0.027
Parel	303,436	5,495	0.018
RBC Capital Markets	27,000	420	0.016
Redburn Partners, LLP	8,297,512	76,713	0.009
Sanford C Bernstein & Co., Inc.	13,720,708	52,771	0.004
Societe Generale	2,989,966	19,782	0.007
The Depository Trust Company	30,800	485	0.016
UBS	56,144,843	392,004	0.007
	<b>921,130,625</b>	<b>5,377,581</b>	<b>0.006</b>

Basis of Presentation: Master custodian records.

# Management Fees for Alternative Investments

Year Ended August 31, 2016

Fund Name	Fees (Note A)
	\$
Abacus Multi-Family Partners III L.P.	12,691
Actis Energy 3 Co-Investment	217,831
Actis Energy 3 L.P.	858,142
Advent International GPE VI-C, L.P.	2,618,952
Advent International GPE VII-C L.P.	375,000
Aristeia Partners L.P.	424,892
Arrowgrass Partnership L.P.	1,536,807
Aspect Partnership L.P. - Class A USD	724,368
Aviva Investors Real Estate Capital Global Co-Investment LP	83,239
Baring Asia Private Equity Fund V, L.P.	551,544
Baring Asia Private Equity Fund VI, L.P.	2,590,133
BlackRock Credit Alpha Fund LLC	1,431,008
Blue Wolf Capital Fund III, L.P.	1,848,605
BPE Asia Real Estate L.P.	718,151
Brazos Equity Fund III, L.P.	1,586,218
Brookfield Strategic Real Estate Partners B L.P.	846,036
Brookfield Strategic Real Estate Partners II LP	1,104,087
Campus-Clarion Student Housing Partners L.P.	572,000
Carlyle Energy Mezzanine Opportunities Fund II LP	1,292,394
Carlyle Global Financial Services Partners II L.P.	1,252,995
Carlyle Partners V, L.P.	1,326,473
CC ARB Fund, LLC	1,036,739
Charterhouse Capital Partners IX, LP	1,357
CO04102012	99,483
CO07152015	87,881
CO103014	12,312
CO121313	8,729
CO20150901	160,247
CO20160329	75,000
Conatus Capital Partners L.P.	1,001,332
Cornerstone Core Mortgage Fund	103,320
Cotton Creek Capital Partners II L.P.	516,038
Court Square Capital Partners III, L.P.	831,064
Cube Hydro Co-Invest LP	218,659
CVC Capital Partners VI B LP	1,692,417
CVC European Equity Partners V (B) L.P.	3,310,194
DRA Growth & Income Fund VIII, LLC	690,351
Energy & Minerals Group Fund III L.P.	939,400
ERS Private Equity Emerging Manager Fund I, L.P.	387,064
ERS Private Equity Emerging Manager Fund II L.P.	380,752
ERS Private Equity International Fund I LP	220,967
ERS Private Equity International Fund II LP	565,877
ERS Private Real Estate Emerging Manager I - Exeter LP	3,400,024
ERS TA XII LP	30,233
Euroknights VI, L.P.	2,667,127
Frontier Fund III L.P.	501,137
Frontier Fund IV L.P.	297,924
GKC Credit Opportunities, L.P.	1,010,049
Glazer Enhanced Offshore Fund, Ltd. - USD Class	298,379
Glazer Enhanced Onshore fund	1,265,099
Gores Capital Partners III, L.P.	250,921
Hellman & Friedman Capital Partners VII, L.P.	2,426,623
HG Capital 6	5,550
HGCapital 7 A L.P.	1,056,617
HitecVision VI, L.P.	1,178,524
HitecVision VII L.P.	1,714,148
Horizon MH Communities Fund I LP	359,441
Iguazu Partners L.P.	1,184,668
Industry Ventures Special Opportunities Fund II-A LP	21,375
INVESCO Core Real Estate - U.S.A., LLC	1,054,590
Invesco Real Estate Asia Fund	232,520
ISQ Global Infrastructure Fund	2,813,559
ISQ Viridian Co-Invest LP	23,973
KSL Capital Partners Credit Opportunities Fund LP	4,857
KSL Capital Partners III, L.P.	1,168,222

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# Management Fees for Alternative Investments (Concluded)

Year Ended August 31, 2016

Fund Name	Fees (Note A)
	\$
KSL Capital Partners IV LP	975,570
Lexington Capital Partners VII, L.P.	639,031
Littlejohn Fund IV, L.P.	3,753,399
LLSD II L.P.	211,387
LLSD L.P.	348,967
Longitude Venture Partners II, L.P.	861,027
M&G Real Estate Debt Fund II LP	(21,186)
Madison International Real Estate Liquidity Fund IV LP	1,430,161
Madison International Real Estate Liquidity Fund V LP	(107,778)
Magnetar Structured Credit Fund L.P.	1,361,749
Marshall Wace Euro Tops	1,556,617
Mason Wells Buyout Fund III LP	1,065,496
Navis Asia Fund VI, L.P.	1,054,418
Navis Asia Fund VII L.P.	4,923,497
New Mountain Partners III, L.P.	3,437,827
Northwest Fund Limited, Series T Shares	1,140,813
Northwood Real Estate Partners L.P.	1,591,426
Orbimed Global Healthcare Fund LP	246,930
Orion European Real Estate Fund IV CV	988,846
Pennybacker III L.P.	63,413
Pentwater Event Fund LLC - Class F	767,795
Pharo Macro Fund, Ltd. - Class A	1,275,485
Private Real Estate Emerging Manager I, L.P.	459,385
Prologis European Property Fund II	386,996
Quantum Energy Partners V, L.P.	735,010
Quantum Energy Partners VI L.P.	1,143,750
Riverside Capital Appreciation Fund V, L.P.	416,689
Riverside Capital Appreciation Fund VI, L.P.	1,628,589
Riverside Europe Fund IV, L.P.	3,956,967
RLH Investors III, L.P.	644,642
Rockpoint Real Estate Fund IV, L.P.	869,334
Rockpoint Real Estate Fund V L.P.	1,028,006
Shiprock Midstream Holdings LLC	100,000
Southern Cross Latin America PE Fund IV Secondary, L.P.	422,089
Southern Cross Latin America PE Fund IV, L.P.	844,178
Southern Cross Latin America Private Equity Fund V LP	757,643
Southpaw Credit Opportunity Partners L.P.	941,548
Southwest Opps Partners L.P.	259,835
SRE Opportunity Fund II L.P.	305,455
Stonepeak Communication Holdings LP	124,270
Stonepeak Finland Co-Invest Holdings LP	43,416
Stonepeak Infrastructure Fund II LP	416,006
Summer Street Capital III, L.P.	850,499
TA Subordinated Debt Fund III, L.P.	432,692
TA XI, LP	1,573,225
TA XII-A LP	23,556
Taconic Opportunity Fund L.P.	750,359
The Energy & Minerals Group Fund IV LP	1,385,878
TIAA-CREF Asset Management Core Property Fund	1,160,433
Torchlight Debt Opportunity Fund IV LLC	344,164
Triton Fund IV LP	350,057
True North Real Estate Fund III LP	3,576,437
U.S. Self Storage Value Fund I LLC (Devon)	60,409
Waterton Residential Property Venture XI, L.P. & XI (PF-1) L.P.	1,188,510
Waterton Residential Property Venture XII L.P.	741,753
Wells Street Partners	343,612
Wheelock Street Real Estate Fund II LP	391,541
Wind Point Partners VII, L.P.	4,740,495
Xander JV Fund II Pte. Ltd.	(1,176,146)
<b>Grand Total</b>	<b>117,062,480</b>

Note A: The management fees for Alternative Investments were accrued during the fiscal year. Any unpaid accruals of management fees as of August 31, 2016 were reported as part of the fair value of Investments. Fees with negative balances are due to refunds of management fees paid in prior year.

Basis of Presentation: Master custodian records.

# Investment Advisory and Service Fees

Year Ended August 31, 2016

Advisory Service	Asset Value	Fees	Basis Points	Other Investment Services	Fees
	\$	\$			\$
Domestic Equity Advisors	785,327,371	2,417,313	30.8	Custodian Fees	847,917
International Equity Advisors	2,040,164,024	7,660,701	37.5	Security Lending Agent Fees	351,708
<b>Total</b>	<b>2,825,491,395</b>	<b>10,078,014</b>	<b>68.3</b>	Investment Consultant Fees	2,029,294
				Investment Banking Fees:	34,450
				<b>Total</b>	<b>3,263,369</b>

## Directed Commissions

Consistent with the System's Investment Policy as adopted by the Board of Trustees, and in order to maximize the System's resources including commission dollars generated through trade activity, directed commissions are sometimes used to fund a portion of budgeted investment program expenses. Trade activity in excess of the level required to support research products used by the System's investment staff is directed toward the payment of budgeted items. Directed Commissions totaled \$321,417 during fiscal year 2016.

## List of Largest Assets Held (Note A)

Year Ended August 31, 2016

### Ten Largest Stock Holdings

No. of Shares	Description	Fair Value
		\$
1,344,782	Apple, Inc.	142,681,370
1,948,200	Microsoft Corporation	111,943,572
728,668	Johnson & Johnson	86,959,239
994,910	Exxon Mobil Corporation	86,696,457
107,076	Amazon.com, Inc.	82,358,576
1,852,000	WisdomTree Japan Hedged Equity Fund	80,006,400
1,178,956	JP Morgan Chase & Company	79,579,530
581,142	Facebook, Inc.	73,293,629
1,437,176	Wells Fargo & Company	73,008,541
2,295,015	General Electric Company	71,696,269

### Ten Largest Fixed Income Security Holdings

Par Value	Description	Fair Value
\$		\$
4,000,000	IShares Iboxx \$ High Yield Corporate Bond ETF	346,840,000
126,280,000	U.S. Treasury Note 3.375% due on 11/15/2019, Rating AA+	135,829,925
94,000,000	U.S. Treasury Note 2.375% due on 08/15/2024, Rating AA+	100,146,754
90,000,000	U.S. Treasury Note 2.500% due on 05/15/2024, Rating AA+	96,700,770
88,000,000	U.S. Treasury Note 0.750% due on 12/31/2017, Rating AA+	88,006,864
70,000,000	U.S. Treasury Note 2.375% due on 05/31/2018, Rating AA+	71,916,810
67,556,000	U.S. Treasury Note 3.125% due on 05/15/2019, Rating AA+	71,590,917
65,000,000	U.S. Treasury Note 2.250% due on 07/31/2021, Rating AA+	68,222,050
65,000,000	U.S. Treasury Note 1.375% due on 09/30/2018, Rating AA+	65,741,390
64,500,000	U.S. Treasury Note 0.750% due on 03/31/2018, Rating AA+	64,482,392

Note A: The investment portfolio listing is available for review at the System's office or the listing will be mailed upon request.

Basis of Presentation: System's financial records.





## **Pension Plans:**

Actuary's Certification Letter

Actuarial Balance Sheets

Summary of Actuarial Methods and Assumptions

Active Member Valuation Data

Retirees and Beneficiaries Added to and Removed from the Annuity Payrolls

Schedule of Funding Progress — Defined Benefit Plans

Solvency Test

Analysis of Financial Experience

## **State Retirees Health Plan:**

Actuary's Certification Letter

Actuarial Valuation Results

Summary of Actuarial Methods and Assumptions

Active Member Valuation Data

Retirees and Nominees Added to and Removed

Schedule of Funding Progress — State Retiree Health Plan

# Actuary's Certification Letter – Pension Plans



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www.gabrielroeder.com

November 4, 2016

Board of Trustees  
Employees Retirement System of Texas  
200 East 18<sup>th</sup> Street  
Austin, TX 78701

**Re: Actuarial Certification for Funded Programs as of August 31, 2016**

Members of the Board:

At the request of the Employees Retirement System of Texas (ERS), Gabriel Roeder Smith & Company (GRS) has performed the actuarial valuations of the Employees Retirement Fund (ERF), including separate actuarial valuations of the Law Enforcement and Custodial Officer Supplemental Retirement Fund (LECOSRF) and the Judicial Retirement System of Texas Plan Two (JRS2). The information in the Actuarial Section is based on our annual actuarial valuation reports for the three programs, with the most recent valuations conducted as of August 31, 2016, and is intended to be used in conjunction with the full reports.

This letter and the schedules listed below represent GRS' certification of the funded status as required for the financial report for the fiscal year ended August 31, 2016 for ERF, LECOSRF and JRS2. GRS prepared the *Actuarial Balance Sheets* and the supporting schedules in the Actuarial Section. GRS prepared the *Schedule of Changes in the Employers' Net Pension Liability and Related Ratios* and the *Schedule of Employer Contributions* of the Required Supplementary Information and the *Notes to the Required Supplementary Information* presented in the Financial Section of this report. GRS also prepared the *Retired Members by Type of Benefit* schedule in the Statistical Section. Full actuarial valuation reports have also been provided to ERS.

## Data

In order to prepare the valuations as of August 31, 2016, we relied on information furnished by ERS staff concerning system benefits, financial transactions, benefit provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data and we are not responsible for its accuracy.

## Actuarial Assumptions and Methods

The assumptions and methods applied in these actuarial valuations were adopted by the Board of Trustees on February 26, 2013 based on the experience investigation completed by Buck Consultants that covered the five-year period from September 1, 2006 through August 31, 2011. We did not perform an independent analysis of the actuarial assumptions. We believe the assumptions are internally consistent and reasonable, based on the actual experience of ERF, LECOSRF and JRS2, and meet the parameters set by Actuarial Standards of Practice issued by the Actuarial Standards Board. The actuarial assumptions and methods used to develop the *Schedules of Changes in the Employers' Net Pension Liability and Related Ratios* and the *Schedule of Employer Contributions*, noted above, meet the parameters set forth in the disclosures presented in the Financial Section by Government Accounting Standards Board Statement No. 67. In particular, the actuarial accrued liability and corresponding normal cost rate are based on the benefit provisions in effect for each active member.

For financial reporting purposes, a blended discount rate, calculated under the methods prescribed by GASB Statement No. 67, was used to determine the actuarial present value of projected benefit payments. For ERF, LECOSRF and JRS2, the blended discount rate differs from the discount rate used for funding purposes.

For purposes of the funding valuation, the actuarial accrued liability and corresponding normal cost rate are based on the benefits payable to a new member and the entry age characteristics of the current active membership. This method was selected for funding purposes in order to provide a more stable normal cost, and resulting actuarially determined contribution, each year. Other than the difference in the actuarial cost method and discount rate, all other actuarial methods and assumptions are the same for both funding and financial reporting purposes.

The results of the actuarial valuations are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. A review of the impact of a different set of assumptions on the funded status of ERF, LECOSRF and JRS2 are outside the scope of these actuarial valuations.

The current actuarial assumptions are outlined in the section titled “Summary of Actuarial Methods and Assumptions.”

### **Benefits**

There were no changes to the plan provisions of ERF, LECOSRF or JRS2 during the past year. The current benefit provisions are outlined in the section titled “Summary of Plan Provisions.”

### **Funding Policy and Objectives – Employees Retirement Fund**

The funding objective of ERF is to fund the sum of the normal cost and the amount necessary to amortize any unfunded actuarial accrued liability over a period that does not exceed 30 years by one or more years. Contribution rates should be established which, over time, will remain level as a percent of payroll.

The member contribution rates are established by State statute and the State contribution rate is set by State statute and legislative appropriation. For the fiscal year beginning September 1, 2016, members contribute 9.50% of payroll and the State is expected to contribute 10.00% of payroll (9.50% from statewide appropriations and 0.50% from agency appropriations) for each year in the future based on appropriations for the current biennium and expectations regarding future biennia. The long-term State contribution rates are subject to future legislative appropriations.

The unfunded actuarial accrued liability (UAAL) of ERF increased from \$8.0 billion as of August 31, 2015 to \$8.7 billion as of August 31, 2016. Additionally, the funded ratio of ERF—actuarial value of assets divided by the actuarial accrued liability—decreased from 76.3% to 75.2% as of August 31, 2016.

The valuation shows that the total normal cost for funding purposes is 12.28% of payroll. The total contribution rate is currently 19.50% of payroll. Thus, the total contribution rate for the current fiscal year exceeds the normal cost by 7.22% of payroll, which is sufficient to amortize the unfunded liability over 35 years on an actuarial value of assets basis. **As a result, the current contribution rates are expected to eliminate the UAAL for ERF in 35 years based on the current benefit provisions and actuarial assumptions.**

Section 811.006 of the Texas Government Code limits the modifications to ERF that would, essentially, increase benefits or lower contributions to the trust unless the current level of benefits and contributions are considered actuarially sound. Section 811.006 determines actuarially sound as a retirement system that is receiving a total contribution rate sufficient to cover the normal cost, administrative expenses,

and amortize the UAAL over a period of 31 years, or less. Based on the actuarial valuation as of August 31, 2016, the actuarially sound contribution rate for ERF is 19.88% of payroll.

As noted, the actuarially sound contribution is currently calculated based on a 31-year open amortization period. This means that the actuarially sound contribution will always be calculated with the same 31-year period and the UAAL would never completely disappear. Even though the contributions to ERF are not based on this actuarially sound contribution, the Board may want to consider adopting a funding policy that includes an ultimate goal of eliminating the UAAL by a certain date. This type of funding policy will allow the Board to better assess the level of contributions received from the employers and the State.

### **Funding Policy and Objectives – Law Enforcement and Custodial Officer Supplemental Retirement Fund**

The funding objective of LECOSRF is to fund the sum of the normal cost and the amount necessary to amortize any unfunded actuarial accrued liability over a period that does not exceed 30 years by one or more years. Contribution rates should be established which, over time, will primarily remain level as a percent of payroll.

The member contribution rates are established by State statute and the State contribution rate is set by State statute and legislative appropriation. For the fiscal year beginning September 1, 2016, members contribute 0.50% of payroll and the State contributes 0.50% of payroll. LECOSRF also receives a portion of the court costs collected under Section 133.102 of the Local Government Code. Based on information provided by ERS, the contribution from this source is expected to be approximately \$19.2 million for fiscal year 2017 and all subsequent years. It should be noted that level dollar court cost contributions in future years will result in total contributions that are not expected to remain level as a percent of payroll over time. For fiscal year 2017, the court fee contribution is approximately 1.10% of payroll.

The UAAL of LECOSRF increased from \$353 million as of August 31, 2015 to \$379 million as of August 31, 2016. Additionally, the funded ratio of LECOSRF decreased from 72.0% to 71.1% as of August 31, 2016.

The valuation shows that the total normal cost for funding purposes is 1.81% of payroll. The approximate total contribution rate is 2.10% of payroll for the current fiscal year. The total contribution rate for the current fiscal year exceeds the normal cost by 0.29% of payroll, but it is not sufficient to amortize the UAAL over a finite period of time. **As a result, the UAAL is expected to grow indefinitely and the funding objective is not currently being realized.**

Section 811.006 of the Texas Government Code limits the modifications to LECOSRF that would, essentially, increase benefits or lower contributions to the trust unless the current level of benefits and contributions are considered actuarially sound. Section 811.006 determines actuarially sound as a retirement system that is receiving a total contribution rate sufficient to cover the normal cost, administrative expenses, and amortize the UAAL over a period of 31 years, or less. Based on the actuarial valuation as of August 31, 2016, the actuarially sound contribution rate for LECOSRF is 2.33% of payroll in addition to the annual court cost contribution of \$19.2 million.

### **Funding Policy and Objectives – Judicial Retirement System Plan Two**

The funding objective of JRS2 is to fund the sum of the normal cost and the amount necessary to amortize any unfunded actuarial accrued liability over a period that does not exceed 30 years by one or more years. Contribution rates should be established which, over time, will remain level as a percent of payroll.

The member contribution rates are established by State statute and the State contribution rate is set by State statute and legislative appropriation. For the fiscal year beginning September 1, 2016, members accruing benefits contribute 7.50% of payroll and the State contributes 15.663% of payroll. Since some

active JRS2 members have elected to cease contributing to the plan as well as cease accruing additional benefits, the effective member contribution rate for the fiscal year beginning September 1, 2016 is 7.44% of payroll. This rate is subject to future legislative appropriations.

The UAAL of JRS2 decreased from \$31 million as of August 31, 2015 to \$30 million as of August 31, 2016. Additionally, the funded ratio of JRS2 increased from 92.2% to 92.9% as of August 31, 2016.

The valuation shows that the total normal cost for funding purposes is 21.18% of payroll. The total contribution rate is 23.103% of payroll for the current fiscal year. The total contribution rate for the current fiscal year exceeds the normal cost by 1.923% of payroll, which is sufficient to amortize the unfunded liability over 49 years on an actuarial value of assets basis. **As a result, the current contribution rates are expected to eliminate the UAAL for JRS2 in 49 years based on the current benefit provisions and actuarial assumptions.**

Section 840.106 of the Texas Government Code limits the modifications to JRS2 that would, essentially, increase benefits or lower contributions to the trust unless the current level of benefits and contributions are considered actuarially sound. Section 840.106 determines actuarially sound as a retirement system that is receiving a total contribution rate sufficient to cover the normal cost, administrative expenses, and amortize the UAAL over a period of 31 years, or less. Based on the actuarial valuation as of August 31, 2016, the actuarially sound contribution rate for JRS2 is 23.48% of payroll.

#### Certification

All of our work conforms with generally accepted actuarial principles and practices, and to the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of, where applicable, the Governmental Accounting Standards Board, the Internal Revenue Code and ERISA.

The signing actuaries are independent of the plan sponsor. They are all Enrolled Actuaries, Fellows of the Society of Actuaries, and Members of the American Academy of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries. Finally, each of the undersigned are experienced in performing valuations for large public retirement systems.

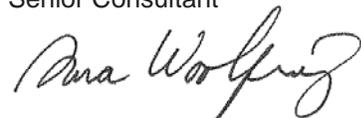
Respectfully submitted,  
**Gabriel, Roeder, Smith & Company**



R. Ryan Falls, FSA, EA, MAAA  
Senior Consultant



Joseph P. Newton, FSA, EA, MAAA  
Senior Consultant



Dana Woolfrey, FSA, EA, MAAA  
Consultant

# Actuarial Balance Sheet – Employees Retirement Fund

August 31, 2016 (With Comparative Totals at August 31, 2016)

<b>ACTUARIAL BALANCE SHEET</b>	<u>August 31, 2016</u>	<u>August 31, 2015</u>
<b>Assets:</b>		
Actuarial Value Assets	\$ 26,557,130,705	\$ 25,850,542,024
Present Value of Future Normal Cost (Note A)		
Member	4,300,601,742	4,024,238,698
Employer	<u>1,129,275,319</u>	<u>1,053,238,481</u>
Total	<u>5,429,877,061</u>	<u>5,077,477,179</u>
<b>Total</b>	<b>\$ 31,987,007,766</b>	<b>\$ 30,928,019,203</b>
<b>Liabilities:</b>		
Present Value of Benefits		
Active Members		
- service retirement	\$ 18,497,623,991	\$ 17,852,126,502
- disability	289,378,636	270,809,826
- death before retirement	305,729,174	292,430,946
- termination	<u>1,214,952,519</u>	<u>1,101,548,331</u>
- total	20,307,684,320	19,516,915,605
Inactive Members	<u>1,407,380,193</u>	<u>1,348,920,701</u>
Annuitants	<u>19,017,977,910</u>	<u>18,080,000,823</u>
<b>Total</b>	<b>\$ 40,733,042,423</b>	<b>\$ 38,945,837,129</b>
<b>Unfunded Accrued Liability (UAL) (Note B)</b>	<b>\$ 8,746,034,657</b>	<b>\$ 8,017,817,926</b>

## SUMMARY OF ACTUARIAL VALUATION RESULTS

Total Contribution Rate	19.50%	19.50%
Normal Cost (Note A)		
- dollars	\$ 835,832,959	\$ 817,138,674
- percent of payroll	12.28%	12.27%
Contribution Available to Amortize UAL	7.22%	7.23%
Accrued Liability (Note B)	\$ 35,303,165,362	\$ 33,868,359,950
Amortization Period in Years	35	33
Funded Ratio	75.2%	76.3%
Valuation Payroll	\$ 6,806,457,317	\$ 6,659,646,892
Active Members	146,390	142,409

Note A: The normal cost is based on the benefits in effect for members hired after August 31, 2013

Note B: The actuarial accrued liability along with the resulting amortization period and funded ratio are based on a total liability which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2013.

**Actuarial Balance Sheet –**  
**Law Enforcement and Custodial Officers Supplemental Retirement Fund**  
 August 31, 2016 (With Comparative Totals at August 31, 2016)

<b>ACTUARIAL BALANCE SHEET</b>	<u>August 31, 2016</u>	<u>August 31, 2015</u>
<b>Assets:</b>		
Actuarial Value Assets	\$ 933,534,062	\$ 909,249,614
Present Value of Future Normal Cost (Note A)		
Member	57,998,260	56,439,727
Employer	<u>140,523,140</u>	<u>132,312,210</u>
Total	<u>198,521,400</u>	<u>188,751,937</u>
<b>Total</b>	<b>\$ 1,132,055,462</b>	<b>\$ 1,098,001,551</b>
<b>Liabilities:</b>		
Present Value of Benefits		
Active Members		
- service retirement	\$ 853,320,981	\$ 837,392,693
- occupational disability	9,032,240	8,820,668
- death benefit plan	7,297,649	7,209,091
- termination	<u>12,791,181</u>	<u>11,295,818</u>
- total	882,442,051	864,718,270
Inactive Members	9,484,080	7,419,031
Annuitants	<u>618,987,770</u>	<u>578,926,025</u>
<b>Total</b>	<b>\$ 1,510,913,901</b>	<b>\$ 1,451,063,326</b>
<b>Unfunded Accrued Liability (UAL) (Note C)</b>	<b>\$ <u>378,858,439</u></b>	<b>\$ <u>353,061,775</u></b>

**SUMMARY OF ACTUARIAL VALUATION RESULTS**

Total Contribution Rate	1.00%	1.00%
Estimated Contribution from Court Fees (Note A)	\$ 19,200,000	1.20%
Normal Cost (Note B)		
- dollars	\$ 31,560,590	\$ 30,987,551
- percent of payroll	1.81%	1.77%
Contribution Available to Amortize UAL	0.29%	0.43%
Accrued Liability (Note C)	\$ 1,312,392,501	\$ 1,262,311,389
Amortization Period in Years	Never	Never
Funded Ratio	71.1%	72.0%
Valuation Payroll	\$ 1,743,679,004	\$ 1,750,709,090
Active Members	39,066	38,526

Note A: Estimated court fees stated as a percentage of pay as of August 31, 2015 and a dollar amount as of August 31, 2016.

Note B: The normal cost is based on the benefits in effect for members hired after August 31, 2013.

Note C: The actuarial accrued liability along with the resulting amortization period and funded ratio are based on a total liability which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2013.

**Actuarial Balance Sheet –**  
**Judicial Retirement System of Texas Plan Two Fund**  
 August 31, 2016 (With Comparative Totals at August 31, 2016)

<b>ACTUARIAL BALANCE SHEET</b>	<u><b>August 31, 2016</b></u>	<u><b>August 31, 2015</b></u>
<b>Assets:</b>		
Actuarial Value Assets	\$ 395,457,335	\$ 372,615,005
Present Value of Future Normal Cost		
Member	29,815,732	30,999,709
Employer	<u>52,705,161</u>	<u>56,218,333</u>
Total	<u>82,520,893</u>	<u>87,218,042</u>
<b>Total</b>	<b>\$ 477,978,228</b>	<b>\$ 459,833,047</b>
<b>Liabilities:</b>		
Present Value of Benefits		
Active Members		
- service retirement	\$ 273,908,650	\$ 259,495,191
- disability	3,610,321	3,705,899
- death before retirement	10,766,912	10,607,029
- termination	<u>11,896,756</u>	<u>12,266,936</u>
- total	300,182,639	286,075,055
Inactive Members	11,424,274	10,629,157
Annuitants	<u>196,779,287</u>	<u>194,524,402</u>
<b>Total</b>	<b>\$ 508,386,200</b>	<b>\$ 491,228,614</b>
<b>Unfunded Accrued Liability (UAL)</b>	<b>\$ <u>30,407,972</u></b>	<b>\$ <u>31,395,567</u></b>

**SUMMARY OF ACTUARIAL VALUATION RESULTS**

Total Contribution Rate	23.103%	22.823%
Normal Cost		
- dollars	\$ 16,570,808	\$ 17,195,328
- percent of payroll	21.18%	21.40%
Contribution Available to Amortize UAL	1.923%	1.423%
Accrued Liability	\$ 425,865,307	\$ 404,010,572
Amortization Period in Years	49	Never
Funded Ratio	92.9%	92.2%
Valuation Payroll	\$ 78,238,000	\$ 80,352,000
Active Members	548	563

# Summary of Actuarial Methods and Assumptions – Pension Plans

In February 2013, the Board of Trustees of the System adopted the actuarial methods and assumptions for the Employees Retirement System (ERS), the Law Enforcement and Custodial Officer Supplemental Retirement Fund (LECOS), and the Judicial Retirement Plan II Fund (JRS II) with assistance from the System's actuary and based on the actuarial experience study that covered the fiscal years from 2007 to 2011. This actuarial valuation also incorporates the most significant across-the-board pay increases budgeted by the State Legislature for the current biennium.

The System relies on the services of qualified actuaries to perform periodic valuations of the assets and liabilities of the pension funds. Gabriel, Roeder, Smith and Company has been the pension actuary for the System since June 2013. The actuarial methods used for the three funds are summarized in Figure 1.

## Actuarial Cost Method

The Entry Age Actuarial Cost Method was used for actuarial valuation. Actuarial gains and losses resulting from differences between actual and assumed experience are recognized as they occur each year. These gains or losses increase or decrease the unfunded actuarial accrued liability.

The calculation of the years required to amortize the unfunded actuarial accrued liability assumes that the unfunded actuarial accrued liability is amortized as a level percent of payroll, which is the total contribution rate minus the normal cost contribution rate. The normal cost rate is based on the benefits payable to a new member and the entry age characteristics of the current population. The total contribution rate is set by statute; the variable from year to year is the amortization period.

## Actuarial Valuation of Assets

The method used to value plan assets for actuarial purposes is based on the market-related value of plan assets, with smoothing of unexpected returns. The market-related value is equal to the fair value of investments plus the carrying value (net of depreciation) of other assets and liabilities as of the valuation date. The actuarial value of assets is determined as the expected value of plan assets as of the valuation date plus 20% of the difference between the market-related value and the expected value. The expected value equals the actuarial value of plan assets as of the prior valuation date, plus contributions, less benefit payments and administrative expenses, all accumulated at the assumed rate of interest to the current valuation date.

For actuarial assumptions, the members of the System are segregated into four classes – Employee Class, Elected Class, Supplemental Benefits for Commissioned Peace Officers and Custodial Officers (CPO/CO's), and Judicial Class. The Employee Class is further classified into Non-CPO/CO's and CPO/CO's with regular benefits. The *economic* assumptions for these classes are in Figure 1.

## Pension Liability for GASB Statement 67 Reporting

The calculation of the liability associated with the benefits to satisfy the reporting requirements of GASB No. 67 is not applicable for purposes of funding the plan. A calculation of the plan's liability for other purposes may produce significantly different results. The Schedule of Employer Contribution in the Required Supplementary Information section provides a comparison of the actuarial determined contribution to actual contribution.

**Figure 1**  
**Economic Assumptions for Employee Classes**

	Employee Class & Supplemental Benefits for CPO/CO's	Elected Class	Judicial Class
Investment Rate of Return	8% per year, compounded annually.		
Administrative Expenses (As a percentage of payroll per year, compounded annually)	ERS Fund: 0.25% LECOS Fund: 0.10%	0.25%	0.50%
Salary Increase:	<ul style="list-style-type: none"> <li>Include 3.5% annual increase for inflation plus increases for merit, promotion and longevity.</li> <li>See Table 1 on next page for rates of salary increase for sample ages.</li> </ul>	<ul style="list-style-type: none"> <li>3.5% annually with no increase for merit, promotion, and longevity.</li> <li>No salary increase for legislators.</li> </ul>	<ul style="list-style-type: none"> <li>3.5% annually with no increase for merit, promotion, and longevity.</li> </ul>
Payroll Growth	3.5% per year, compounded annually.		
Cost-of-Living Increase	N/A	3.5% per year, compounded annually	N/A

# Summary of Actuarial Methods and Assumptions – Pension Plans

Table 1  
**Economic Assumption –  
 Rates of Merit, Promotion and Longevity Salary Increases  
 For Male and Female Members in the Employee Class (Note A)**

Age	Years of Service – Non-CPO/CO							Years of Service – CPO/CO						
	0	1	2-4	5-9	10-14	15-19	20+	0	1	2	3	4	5-9	10+
20	6.80%	5.25%	4.75%	4.30%				8.0%	5.0%	4.5%	4.0%	3.5%	2.0%	1.5%
30	5.90	5.25	4.75	3.00	2.50%	2.00%		8.0	5.0	4.5	4.0	3.5	2.0	1.5
40	4.90	4.75	4.00	3.00	2.50	1.90	1.80%	8.0	5.0	4.5	4.0	3.5	2.0	1.5
50	3.90	3.70	3.20	2.70	2.20	1.70	1.60	8.0	5.0	4.5	4.0	3.5	2.0	1.5
60	2.90	2.70	2.30	2.00	1.60	1.40	1.30	8.0	5.0	4.5	4.0	3.5	2.0	1.5

Note A: No salary increases are assumed where no rates are shown.

The demographic assumptions are summarized in Tables 2 to 10.

Table 2  
**Demographic Assumption –  
 Annual Rates of Termination from Active Employment before Age and Service Retirement  
 For members hired before September 1, 2009**

Age	Years of Service – Male and Female Members in the Employee Class (Non-CPO/CO)					Years of Service – Male and Female Members in the Employee Class (CPO/CO) (Note B)			
	0	5	10	15	20+	0	5	10	15+
	20	50%	0%	0%	0%	0%	23%	0%	0%
30	28	12	6	0	0	16	10	8	0
40	25	9	6	3	3	14	7	5	2
50	22	7	4	2	1	12	6	3	2
60	20	0	0	0	0	13	0	0	0

**For members hired on or after September 1, 2009**

Age	Years of Service – Male and Female Members in the Employee Class (Non-CPO/CO)					Years of Service – Male and Female Members in the Employee Class (CPO/CO) (Note B)			
	0	5	10	15	20+	0	5	10	15+
	20	52%	0%	0%	0%	0%	24%	0%	0%
30	32	14	6	0	0	17	12	8	0
40	30	9	6	2	2	15	8	5	2
50	26	7	4	2	1	13	6	3	2
60	24	6	4	1	0	15	0	0	0

Elected and Judicial Class: 4 per 100 members not eligible for service retirement

Note B: It is assumed that no CPO/CO's will terminate after completing 20 years of service and defer receipt of their retirement benefit. CPO/CO's are eligible to retire with 20 years of service, regardless of age.

# Summary of Actuarial Methods and Assumptions – Pension Plans

Table 3  
Demographic Assumption –  
Mortality Rates for Active Members (Notes C & D)

Age	Females	Males
20	0.0289%	0.0507%
30	0.0397	0.0801
40	0.0825	0.1072
50	0.1734	0.2579
60	0.5832	0.7976
65	1.0764	1.4535

Note C: It is assumed that 2.0% of male Employee Class deaths and 0.3% of female Employee Class deaths are occupational. It is also assumed that there are no occupational deaths of members in the Elected and Judicial Classes.

Note D: The base rates indicated above are based on the 1994 Group Annuity Mortality Table with female ages set forward two years. Additionally, generational mortality improvements are projected from the year 2000 based on Scale AA.

Table 4  
Demographic Assumption –  
Mortality Rates for Service Retirees and  
Beneficiaries (Note E)

Age	Females	Males
20	0.0289%	0.0507%
30	0.0397	0.0801
40	0.0825	0.1072
50	0.1734	0.2579
60	0.5832	0.7976
65	1.0764	1.4535

Note E: The base rates indicated above are based on the 1994 Group Annuity Mortality Table with female ages set forward two years. Additionally, generational mortality improvements are projected from the year 2000 based on Scale AA.

Note F: The rates indicated above are based on the RP-2000 Disabled Retiree Mortality with male ages set forward six years and female ages set back one year.

Table 5  
Demographic Assumption –  
Mortality Rates for Disability Retirees  
(Note F)

Age	Females	Males
20	0.75%	2.26%
30	0.75	2.26
40	0.75	2.38
50	1.06	3.67
60	2.08	5.22
65	2.66	6.58

Table 6  
Demographic Assumption –  
Disability Retirement Rates (Note G)

Age	Employee Class (Non-CPO/CO)		Employee Class (CPO/CO)
	Females	Males	Females & Males
30	0.018	0.037	0.0123
40	0.120	0.100	0.0781
50	0.276	0.198	0.2365
60	0.744	0.499	0.4200

Note G: It is assumed that 99% of Employee Class (Non-CPO/CO) disability retirements are non-occupational and 1% of Employee Class (Non-CPO/CO) disability retirements are occupational. Similarly, it is assumed that 95% of Employee Class (CPO/CO) disability retirements are non-occupational, 4% of Employee Class (CPO/CO) disability retirements are non-total occupational, and 1% of Employee Class (CPO/CO) disability retirements are total occupational. It is also assumed that there are no occupational disability retirements in the Elected and Judicial Classes. Additionally, the rates do not apply before the member is eligible for the benefit.

# Summary of Actuarial Methods and Assumptions – Pension Plans

Table 7  
Demographic Assumption –  
Option Selection Percentage and Beneficiary Characteristics under Disability Retirement

	Option Selection Percentage (Note H)			Beneficiary Characteristics
	Standard	Option 1	Option 4	
Male	50%	40%	10%	Member is three years older than female beneficiary.
Female	75	20	5	Member is same age as male beneficiary.

Note H: Descriptions of Options 1 and 4 are presented in the Summary of Plan Provisions in the Introductory Section.

Table 8  
Demographic Assumption –  
Service Retirement Rate (Note I)

**Years of Service – Members in the Employee Class (Non-CPO/CO)**

**For members hired before September 1, 2009**

Age	Male						Female					
	5	10	15	20	25	30	5	10	15	20	25	30
50						35.0%						45.0%
55					22.5%	25.0					40.0%	25.0
60	10.0%	15.0%	17.5%	37.5%	20.0	27.5	10.0%	15.0%	15.0%	35.0%	20.0	20.0
65	20.0	45.0	45.0	35.0	35.0	35.0	20.0	45.0	45.0	32.5	32.5	32.5
70	20.0	37.5	27.5	32.5	32.5	32.5	20.0	37.5	27.5	32.5	32.5	32.5
75	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

# Summary of Actuarial Methods and Assumptions – Pension Plans

Table 9  
Demographic Assumption -  
Service Retirement Rate (Note I) continued

For members hired on or after September 1, 2009

Age	Male						Female					
	5	10	15	20	25	30	5	10	15	20	25	30
50						15.0%						20.0%
55					25%	7.5					30.0%	10.0
60				25.0%	57.5	67.5				25.0%	45.0	45.0
65		85.0%	37.5%	30.0	45.0	40.0		85.0%	37.5%	17.5	35.0	30.0
70		80.0	60.0	90.0	35.0	35.0		80.0	60.0	90.0	32.5	32.5
75	100.0%	100.0	100.0	100.0	100.0	100.0	100.0%	100.0	100.0	100.0	100.0	100.0

Years of Service – Members in the Employee Class (CPO/CO)  
Male and Female

Age	<u>For members hired before September 1, 2009</u>						<u>For members hired on or after September 1, 2009</u>					
	5	10	15	20	25	30	5	10	15	20	25	30
50	0%	0%	0%	45%	55%	55%	0%	0%	0%	5.0%	5%	5%
55	0	12	12	45	35	35	0	12	12	82.5	65	65
60	6	16	16	55	35	35	0	16	16	55.0	35	35
65	15	35	35	50	60	60	0	35	35	50.0	60	60
70	50	50	50	50	50	50	0	50	50	50.0	50	50
75	100	100	100	100	100	100	100	100	100	100.0	100	100

<u>Elected Class</u> (Note J)		<u>Judicial Class</u> (Note J)	
Age	Rate	Age	Rate
50-64	10%	50-69	20%
65-74	20	70-74	25
75+	100	75+	100

Note I: No service retirements are assumed where no rates are shown.

Note J: The rates are the same for all years of service. Judicial members are assumed to retire when they have accrued a standard retirement annuity of 90% of salary.

Table 10  
Demographic Assumption –  
Option Selection Percentage and Beneficiary Characteristics  
under Death Benefit Plan

	<u>Option Selection Percentage (Note K)</u>		<u>Beneficiary Characteristics</u>
	Option 1	Option 4	
Male	75%	25%	Member is three years older than female beneficiary.
Female	50	50	Member is same age as male beneficiary.

Note K: Descriptions of Options 1 and 4 are presented in the Summary of Plan Provisions in the Introductory Section.

## Active Member Valuation Data (Note A)

Valuation Year August 31,	Number (Note B)	Actual Annual Payroll	Average Pay (Note C)	% Change in Average Pay
		\$	\$	%
<b>Employees Retirement Fund:</b>				
2009	141,223	5,603,756,283	40,202	1.9
2010	142,490	5,878,680,811	41,022	2.0
2011	137,293	5,926,331,865	41,620	1.5
2012	132,669	5,720,722,855	42,188	1.4
2013	133,669	5,713,759,137	42,564	0.9
2014	134,162	5,955,460,705	44,374	4.3
2015	142,409	6,150,194,660	44,990	1.4
2016	146,390	6,742,143,036	46,495	3.3
<b>Law Enforcement and Custodial Officer Supplemental Retirement Fund:</b>				
2009	37,819	1,379,532,687	36,687	(0.9)
2010	39,052	1,494,510,816	37,979	3.5
2011	36,806	1,520,864,574	39,454	3.9
2012	37,404	1,457,492,314	39,444	0.0
2013	37,415	1,429,059,562	39,469	0.1
2014	37,084	1,496,012,750	41,584	5.4
2015	38,526	1,506,027,764	41,957	0.9
2016	39,066	1,725,879,688	44,634	6.4
<b>Judicial Retirement Plan Two Fund:</b>				
2009	533	66,463,534	127,519	(0.1)
2010	539	67,204,906	127,560	0.0
2011	546	67,927,624	127,573	0.0
2012	541	68,373,289	127,130	(0.3)
2013	545	68,781,009	127,550	0.3
2014	554	77,441,466	142,820	12.0
2015	563	77,500,736	142,721	(0.1)
2016	548	78,260,550	142,770	0.0

Note A: Ten years of data will be developed prospectively.

Note B: Number of active contributing members as of August 31, excluding those who retired August 31 because they were included as retirees in the actuarial valuation.

Note C: The average rate of salary is based on the salary for the month of August

## Retirees and Beneficiaries Added to and Removed from the Annuity Payrolls (Note A)

Valuation Year August, 31	Added to Rolls		Removed from Rolls		Other Beneficiaries		Rolls end of Year		% Increase Average	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	Annual Benefits	Annual Benefit
	\$		\$		\$		\$		% \$	
<b>Employees Retirement Fund:</b>										
2009	4,433	85,551,288	1,849	30,235,704	460	8,045,532	75,722	1,377,430,308	4.8	18,191
2010	4,870	100,938,168	1,828	30,584,136	547	9,281,208	79,311	1,457,065,548	5.8	18,372
2011	5,808	123,585,132	2,237	35,797,140	548	8,145,660	83,430	1,552,999,200	6.6	18,614
2012	5,928	124,604,412	2,128	35,049,012	569	7,965,072	87,799	1,650,519,672	6.3	18,799
2013	5,287	108,395,484	2,418	36,921,000	699	8,999,592	91,367	1,730,993,748	4.9	18,946
2014	6,231	132,027,948	2,331	38,751,696	573	11,250,312	95,840	1,835,520,312	6.0	19,152
2015	6,042	134,725,212	2,506	40,066,764	627	10,129,440	100,003	1,940,308,200	5.7	19,402
2016	5,668	132,332,424	2,555	42,411,504	642	10,458,660	103,758	2,040,687,780	5.2	19,668
<b>Law Enforcement and Custodial Officer Supplemental Retirement Fund:</b>										
2009	561	3,954,780	169	1,361,916	51	44,760	6,647	37,814,736	7.5	5,689
2010	635	3,604,140	147	1,163,112	40	(120,456)	7,175	40,135,308	6.1	5,594
2011	695	3,915,084	186	1,536,500	44	22,352	7,728	42,536,244	6.0	5,504
2012	895	5,069,712	195	1,439,820	49	202,200	8,477	46,368,336	9.0	5,470
2013	744	3,771,816	183	1,336,200	51	230,952	9,089	49,034,904	5.8	5,395
2014	1,071	5,376,924	194	1,238,712	58	225,252	10,024	53,398,368	8.9	5,327
2015	959	4,989,900	197	1,336,440	59	332,088	10,845	57,383,916	7.5	5,291
2016	803	4,540,728	205	1,149,108	72	305,328	11,515	61,080,864	6.4	5,304
<b>Judicial Retirement Plan Two Fund:</b>										
2009	36	2,220,108	1	70,656	0	16,308	152	8,876,549	32.3	58,398
2010	12	737,508	2	119,556	2	122,491	164	9,616,992	8.3	58,640
2011	43	2,792,244	1	29,580	2	152,880	208	12,532,536	30.3	60,253
2012	8	441,948	4	250,680	3	167,892	215	12,891,696	2.9	59,961
2013	43	2,571,696	5	278,964	1	68,580	254	15,253,008	18.3	60,051
2014	14	1,024,752	7	348,120	6	249,000	267	16,178,640	6.1	60,594
2015	57	4,365,012	9	467,832	7	403,020	322	20,478,840	26.6	63,599
2016	10	555,060	5	319,908	4	289,548	331	21,003,540	2.6	63,455

Note A: Ten years of data will be developed prospectively.

## Schedule of Funding Progress – Defined Benefit Plans

Actuarial Valuation Date August 31	(a) Actuarial Value of Assets (000's)	[Note A] (b) Actuarial Accrued Liability (AAL) (000's)	(c) (Overfunded) Unfunded AAL (UAAL) (b) - (a) (000's)	(b) Funded Ratio (a)/(b) %	[Note B] (e) Covered Payroll (000's)	(f) UAAL As A Percentage Of Covered Payroll (c)/(e) %
<b>Employees Retirement Fund:</b>						
2007	22,938,947	23,987,165	1,048,218	95.6	5,253,723	20.0
2008	23,511,918	25,403,280	1,891,362	92.6	5,379,527	35.2
2009	23,509,622	26,191,650	2,682,028	89.8	5,814,417	46.1
2010	23,628,567	27,668,876	4,040,309	85.4	5,930,141	68.1
2011	23,997,445	28,398,213	4,400,768	84.5	5,795,185	75.9
2012	24,272,514	29,377,069	5,104,555	82.6	5,676,509	89.9
2013	24,667,639	31,886,026	7,218,387	77.4	5,959,473	121.1
2014	25,431,922	32,924,737	7,492,815	77.2	6,171,443	121.4
2015	25,850,542	33,868,360	8,017,818	76.3	6,659,647	120.4
2016	26,557,130	35,303,165	8,746,035	75.2	6,806,457	128.5
<b>Law Enforcement and Custodial Officer Supplemental Retirement Fund:</b>						
2006	720,307	708,437	(11,870)	101.7	1,279,463	(0.9)
2007	747,765	762,666	14,901	98.0	1,360,819	1.1
2008	774,509	842,135	67,626	92.0	1,242,122	5.4
2009	780,808	870,179	89,371	89.7	1,464,483	6.1
2010	802,897	930,747	127,850	86.3	1,507,950	8.5
2011	830,522	960,953	130,431	86.4	1,475,432	8.8
2012	832,451	1,015,668	183,217	82.0	1,498,979	12.2
2013	843,017	1,197,164	354,147	70.4	1,627,699	21.8
2014	883,595	1,206,770	323,175	73.2	1,609,491	20.1
2015	909,249	1,262,311	353,062	72.0	1,750,709	20.2
2016	933,534	1,312,392	378,858	71.1	1,743,679	21.7
<b>Judicial Retirement System Plan Two Fund:</b>						
2007	211,933	220,884	8,951	95.9	64,654	13.8
2008	232,891	239,098	6,207	97.4	66,110	9.4
2009	248,279	255,569	7,290	97.1	67,968	10.7
2010	264,515	281,760	17,245	93.9	68,755	25.1
2011	283,936	300,163	16,227	94.6	69,655	23.3
2012	300,433	315,199	14,766	95.3	68,778	21.5
2013	318,026	359,059	41,033	88.6	77,854	52.7
2014	348,431	386,286	37,855	90.2	79,123	47.8
2015	372,615	404,011	31,396	92.2	80,352	39.1
2016	395,457	425,865	30,408	92.9	78,238	38.9

Note A: For ERS and LECOS, the actuarial accrued liability along with funded ratio are based on a total liability, which is based on the benefit provisions in effect for each active member and a normal cost rate that is based on the benefits in effect for new members after plan changes in August 31, 2009 and August 31, 2013.

Note B: Covered payroll is the expected payroll for the fiscal year following the valuation date.

# Solvency Test

## Funding Objective

The System's funding objective is to meet long term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will pay all promised benefits when due – the ultimate test of financial soundness.

## Evaluation of Funding Objective

A short-term solvency test is one way of evaluating a system's progress under its funding program. In a short-term solvency test, the plan's present assets are compared with:

1. Active member contributions on deposit;

2. The liabilities for future benefits to present retirees; and
3. The liabilities for service already rendered by active members.

In a system that has been following the level contribution rate of payroll financing principle, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retirees (liability 2) will be fully covered by present assets except in rare circumstances. In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of present assets. Generally, if the system has been using level contribution rate financing, the funded portion of liability 3 will increase over time. Following is a summary of the solvency test:

Valuation Year August 31,	Aggregate Accrued Liabilities For			Valuation Assets	Portion of Accrued Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Active Member Contributions	Retirees and Beneficiaries	Active Members (Employer Financed Portion)		(1)	(2)	(3)
	\$	\$	\$		%	%	%
<b>Employees Retirement Fund (Note A, Note B):</b>							
2009	4,460,644,477	12,648,155,181	9,798,979,599	23,509,621,791	100	100	65.3
2010	4,719,703,277	13,407,823,189	10,284,288,042	23,628,566,500	100	100	53.5
2011	4,943,684,166	14,325,177,797	9,781,265,638	23,997,444,804	100	100	48.3
2012	5,075,213,967	15,243,956,208	9,657,986,616	24,272,514,483	100	100	40.9
2013	5,201,006,487	16,148,245,090	10,536,774,798	24,667,639,104	100	100	31.5
2014	5,213,640,470	17,113,870,539	10,597,226,202	25,431,922,496	100	100	29.3
2015	5,235,063,313	18,080,000,823	10,553,295,814	25,850,542,024	100	100	24.0
2016	5,509,428,282	19,017,977,910	10,775,759,170	26,557,130,705	100	100	18.8
<b>Law Enforcement and Custodial Officer Supplemental Retirement Fund (Note A, Note B):</b>							
2009	-	334,638,616	572,463,018	780,807,727	-	100	77.9
2010	7,315,238	367,991,489	591,296,971	802,897,017	100	100	72.3
2011	13,897,600	400,877,467	578,021,779	830,522,385	100	100	71.9
2012	19,540,552	447,451,269	577,263,635	832,451,079	100	100	63.3
2013	24,432,912	482,687,108	690,043,817	843,016,798	100	100	48.7
2014	29,508,062	533,252,341	644,009,518	883,594,932	100	100	49.8
2015	34,455,599	578,926,025	648,929,765	909,249,614	100	100	45.6
2016	41,480,394	618,987,770	651,924,337	933,534,062	100	100	41.9
<b>Judicial Retirement Plan Two Fund (Note B):</b>							
2009	51,733,112	85,844,874	117,990,788	248,279,312	100	100	93.8
2010	57,347,421	92,253,133	132,159,921	264,515,185	100	100	87.0
2011	57,768,713	120,798,133	121,595,978	283,935,401	100	100	86.7
2012	63,677,503	122,570,887	128,950,762	300,433,111	100	100	88.5
2013	64,435,226	147,052,378	147,571,031	318,025,658	100	100	72.2
2014	69,364,268	153,382,909	163,539,195	348,430,575	100	100	76.9
2015	67,427,634	194,524,402	142,058,536	372,615,005	100	100	77.9
2016	73,450,388	196,779,287	155,635,632	395,457,335	100	100	80.5

Note A: The actuarial accrued liability for ERS and LECOS is based on a total liability which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2013.

Note B: Ten years of data will be developed prospectively.

## Analysis of Financial Experience

Actual financial experience will not coincide exactly with assumed financial experience because the future cannot be predicted with 100 percent precision. The assumed experience should be changed to reflect observed reality when an actuarial investigation reveals that the difference between actual and assumed experience in the various risk areas to be material and persistent.

If the differences between actual and assumed experience is financially favorable or unfavorable, such differences are called actuarial gains or losses. In the actuarial valuation of the System, actuarial gains and losses are recognized immediately, with actuarial gains decreasing the unfunded actuarial accrued liability and actuarial losses increasing the unfunded actuarial accrued liability. A general description of actuarial gains and losses for age and service retirements, disability retirements, death-in-service benefits, and withdrawal from employment is summarized as follows:

### Age and Service Retirement:

If members retire at younger (older) ages or with final average pay that is higher (lower) than assumed, there is a loss (gain).

### Disability Retirement:

If disability claims are more (less) than assumed, there is a loss (gain).

### Death-in-Service Benefit:

If survivor claims are more (less) more than assumed, there is a loss (gain).

### Withdrawal from Employment:

If withdrawals are less (more) less than assumed, there is a loss (gain).

The gains and losses in actuarial accrued liabilities resulting from differences between assumed experience and actual experience are summarized as follows:

Type of Activity	Increase/(Decrease) in Unfunded Accrued Liability for Year (in Millions)					
	ERS		LECOS		JRS II	
	2016	2015	2016	2015	2016	2015
<b>Contribution Income and Interest on Unfunded Actuarial Accrued Liability</b>						
If contributions are received in excess of both the normal cost and interest on the unfunded actuarial accrued liability, there is a decrease. If less, an increase.	120.6	395.2	22.5	19.6	1.4	1.7
<b>Components of (Gain)/Loss</b>						
<u>Investment Income</u>						
If there is greater investment income than assumed on the actuarial value of assets, there is a gain. If less income, a loss.	522.9	463.0	18.4	16.3	3.6	2.0
<u>Active Member Demographics</u>						
Combined (gain)/loss from age and service retirements, disability retirements, death-in-service benefits, and withdrawal from employment	(9.1)	14.3	(12.5)	(6.6)	(7.8)	5.6
<u>Pay Increases</u>						
If there are smaller pay increases than assumed, there is a gain. If greater increases occur, a loss.	39.1	(42.3)	(4.0)	(9.9)	0.0	0.2
<u>Death After Retirement</u>						
If retirees live longer than assumed, there is a loss. If not as long, a gain.	19.6	19.7	0.2	0.1	0.9	0.0
<u>Other</u>						
Miscellaneous (gains)/losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.	35.1	59.2	1.2	6.4	0.9	(2.0)
<b>Increase/(Decrease) in Unfunded Accrued Liability During Year from Financial Experience</b>	<b>728.2</b>	<b>909.1</b>	<b>25.8</b>	<b>25.9</b>	<b>(1.0)</b>	<b>7.5</b>
<b>Non-Recurring Items</b>						
Adjustments for plan amendments, changes in actuarial assumptions, increase in Service Retirement Formula, legislative action, etc.	0.0	(384.1)	0.0	4.0	0.0	(14.0)
<b>Composite Increase/(Decrease) During Year</b>	<b>728.2</b>	<b>525.0</b>	<b>25.8</b>	<b>29.9</b>	<b>(1.0)</b>	<b>(6.5)</b>

# Actuary's Certification Letter – State Retiree Health Plan



EMPLOYEES RETIREMENT SYSTEM OF TEXAS  
GROUP BENEFITS PROGRAM  
FY16 GASB No. 43 ACTUARIAL VALUATION

## **Section I - Certification of GASB No. 43 Actuarial Valuation**

At the request of the Employees Retirement System of Texas (ERS), we have performed an actuarial valuation of the Other Post-Employment Benefits provided under the Texas Employees Group Benefits Program (GBP) for the twelve-month period ending August 31, 2016 (GBP OPEB). The purpose of this report is to present the results of our valuation and provide the information necessary to determine financial statement entries consistent with the Governmental Accounting Standards Board Statement No. 43 Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans (GASB No. 43).

Actuarial computations under GASB No. 43 are for purposes of fulfilling governmental plan financial accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of GASB No. 43 and the GBP. The information presented in this report is solely for purposes of compliance with GASB No. 43. This report does not provide any advice with respect to the manner in which the benefits are funded (i.e., pay-as-you go funding as opposed to prefunding the benefits).

We have based our valuation on employee data as of August 31, 2016 provided by ERS and the Teachers Retirement System (TRS) and plan provisions provided by ERS. We have used the actuarial methods and assumptions described in Section VII of this report. The actuarial valuation has been performed on the basis of the plan benefits described in Section VIII.

To the best of our knowledge, all current active and retired employees eligible to participate in the plan as of the valuation date and all other individuals who have a vested benefit under the plan have been included in the valuation. Furthermore, to the best of our knowledge and belief, all plan benefits have been considered in the development of costs.

ERS and TRS remain solely responsible for the accuracy and comprehensiveness of the respective data provided. However, to the best of our knowledge, no material biases exist with respect to any imperfections in the data provided by these sources. To the extent that any imperfections exist in the data records, we have relied on best estimates provided by ERS and TRS. We have not audited the data provided, but have reviewed it for reasonableness and consistency relative to previously provided information.

To the best of our knowledge, the actuarial information supplied in this report is complete and accurate. In our opinion, each of the assumptions used is reasonably related to the experience of the plan and to reasonable expectations and represents our best estimate of anticipated experience under the plan solely with respect to that individual assumption. All of our work conforms to generally accepted actuarial principles and practices and to the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Rudd and Wisdom, Inc. prepared and presented in Section V of this report the Schedule of Funding Progress and the Schedule of Employer Contributions that are to be included in the Required Supplementary Information.

The undersigned individuals are members of the American Academy of Actuaries who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Mitchell L. Bilbe, F.S.A.  
Member of American Academy of Actuaries

Philip S. Dial, F.S.A.  
Member of American Academy of Actuaries

Christopher S. Johnson, F.S.A.  
Member of American Academy of Actuaries

# Actuarial Valuation Results – State Retiree Health Plan



EMPLOYEES RETIREMENT SYSTEM OF TEXAS  
GROUP BENEFITS PROGRAM  
FY16 GASB No. 43 ACTUARIAL VALUATION

## Summary of Results for FY 2016

Actuarial Valuation Results as of August 31, 2016		
	(\$ thousands)	As a % of Payroll
1. Number of Members (actual count, not in thousands)		
a. Actives	235,108	
b. Deferred Vesteds	11,329	
c. Retirees and Nominees	<u>113,430</u>	
d. Total Number of Members	359,867	
2. Payroll of Active Members for FY 2016	\$ 11,786,869	
3. Actuarial Present Value of Total Projected Benefits		
a. Actives	\$ 27,095,499	
b. Deferred Vesteds	1,363,010	
c. Retirees and Nominees	<u>10,719,971</u> <sup>1</sup>	
d. Total	\$ 39,178,481	332.4%
4. Actuarial Accrued Liability		
a. Actives	\$ 15,008,390	
b. Deferred Vesteds	1,363,010	
c. Retirees and Nominees	<u>10,719,971</u> <sup>1</sup>	
d. Total	\$ 27,091,372	229.8%
5. Actuarial Value of Assets	\$ 0	0.0%
6. Unfunded Actuarial Accrued Liability [4.d. – 5.]	\$ 27,091,372	229.8%
7. Annual Required Contribution for FYE August 31, 2016		
a. Normal Cost	\$ 1,122,825	9.5%
b. Amortization of UAAL	<u>1,175,689</u>	<u>10.0%</u>
c. Total ARC for FYE August 31, 2016	\$ 2,298,514	19.5%

<sup>1</sup> Adjusted due to rounding error caused by rounding individual components.

# Summary of Actuarial Methods and Assumptions – State Retiree Health Plan

## Consistency with Assumptions Used for Retirement Plan Valuations

Most of the employees and retirees covered by the Group Benefits Program are also covered by either the ERS or Teacher Retirement System (TRS) retirement plans that are subject to periodic actuarial valuations. Where appropriate, assumptions were utilized that were previously adopted by the ERS and TRS Boards for use in performing the retirement plan valuations. However, certain aspects of the OPEB valuation process require the use of assumptions that are unique to OPEB, specifically, the investment return assumption and the health benefit cost trend as discussed below.

## Changes in Actuarial Assumptions

Since the last valuation was prepared for this plan, assumed Expenses, assumed Per Capita Health Benefit Costs and assumed Health Benefit Cost and Retiree Contribution Trends have been updated to reflect recent experience and its effects on our short-term expectations. In addition, the percentage of future retirees electing to participate in the HealthSelect Medicare Advantage program at the earliest date at which coverage can commence, the proportion of future retirees covering dependent children and the percentage of future retirees and retiree spouses assumed to use tobacco have been updated to reflect recent plan experience and expected trends.

## Investment Return Assumptions (Discount Rate)

In accordance with GASB Statement 43, the investment return assumptions (discount rate) is the estimated long-term investment yield on investments expected to be used to finance the payment of benefits with consideration given to the nature and mix of current and expected investments. For this purpose, the investments expected to be used to finance the benefits are:

- (i) the plan assets, if the employer's funding policy is to contribute an amount at least equal to the ARC
- (ii) assets of the employers, for plans that have no plan assets, or
- (iii) a combination of (i) and (ii), for plans being partially funded.

Presently, the amount that the Employer contributes to the plan each year is equal to the expected cost of providing the benefits incurred during that year. This amount is determined on a pay-as-you-go basis (PAYGO) and does not accumulate funds in advance of retirement as ARC-level contributions would. Therefore, the PAYGO amount is significantly less than

the ARC. As a result of this funding policy and because the plan has no material level of assets held under a different investment policy that would materially affect the determination of the discount rate, under GASB No. 43 the investment return assumption must be based upon the expected yield of the "assets of the employer," as indicated in Item (ii) above. For the State of Texas, the "assets of the employer" are the assets held in the State Treasury Pool and managed by the Comptroller of Public Accounts.

Based upon the investment policy of the Treasury Pool, the historical returns of the Treasury Pool, and the long-term inflation assumption used in this report, we have utilized an investment return assumption (discount rate) of 5.50%.

If a policy was implemented to consistently fund the ARC or a significant portion thereof, the discount rate discussed above could be higher than the current 5.50% assumption if the underlying investments of the plan assets were expected to yield a return in excess of 5.50%. This higher discount rate would produce a smaller ARC.

## Health Benefit Cost Trend

For purposes of this valuation, the health benefit cost trend represents the expected annual rate of increase in health benefit costs, excluding the effects of changes in demographics and changes in plan provisions.

The health benefit cost trend has exceeded the rate of price increases in the general economy, as measured by changes in the Consumer Price Index (CPI), for many decades. Although this pattern is expected to continue for the foreseeable future, many economists anticipate that the degree to which the health benefit cost trend exceeds general inflation will eventually abate. These economists believe that the health benefit cost trend will reach an ultimate level that still exceeds general inflation, but not by as wide a margin as in past decades.

The health benefit cost trend assumption used in this report begins with the short term expectations of expected health benefit cost increases in the next year and gradually declines to a rate that exceeds the assumed rate of general price inflation by 2.0%.

## Changes in Plan Provisions

Under Q/A #49 of GASB's Guide to Implementation of GASB Statements 43 and 45 on Other Postemployment Benefits, any plan changes that have been adopted and communicated to plan members by

## Summary of Actuarial Methods and Assumptions – State Retiree Health Plan (Continued)

the time the valuation is prepared must be included in the valuation. Accordingly, this valuation reflects the benefit changes that became effective September 1, 2016 (except as note below), since these changes were communicated to plan members in advance of the preparation of this report. The benefit changes for retirees for whom Medicare is not primary include: (a) an increase in the overall annual out-of-pocket maximum in accordance with the requirements of the Affordable Care Act (ACA) (effective January 1, 2017) and (b) implementation of (i) a program under which HealthSelect participants can consult with a licensed physician from their mobile device and (ii) an online weight loss program available to eligible HealthSelect participants not enrolled in Medicare Part B. These minor benefit changes have been reflected in the FY 2017 Assumed Per Capita Health Benefit Costs. In addition, effective September 1, 2016, retirees for whom Medicare is not primary may elect to participate in Consumer Directed HealthSelect, a high deductible health plan and a health savings account, in lieu of HealthSelect. Retiree participation in Consumer Directed HealthSelect is expected to be minimal. There are no benefit changes for Medicare Primary retirees. Also, effective September 1, 2016, all employees, retirees and their dependents may elect to participate in the State of Texas Vision plan. This plan is self-funded through contributions made by employees and retirees. The State does not contribute towards vision coverage.

### High-Cost Plan Excise Tax

Consistent with the prior valuation, the effects of the High-Cost Plan Excise Tax imposed by the ACA under Internal Revenue Code Section 4980I (sometimes referred to as the “Cadillac Tax”) have been included in this valuation. The Excise Tax becomes effective in 2020, but the plan is not expected to be subject to the tax until 2065 based on current plan provisions, assumptions and participant demographics. The Unfunded Actuarial Accrued Liability is increased by the \$122 million present value of the estimated Excise Taxes in future years, and the associated increase to the ARC is \$5 million.

### Medicare Part D

The Medicare Prescription Drug Improvement and Modernization Act of 2003 introduced a prescription drug benefit under Medicare (Medicare Part D) as well as a federal subsidy to sponsors of retiree healthcare benefit plans that provide a prescription drug benefit that is at least actuarially equivalent to the basic coverage provided under Medicare Part D (the Retiree Drug Subsidy).

For purposes of GASB No. 43, the valuation of future OPEB may not reflect the anticipated receipt of future federal government subsidy payments under the Medicare Part D Prescription Drug Program as required under GASB Technical Bulletin No. 2006-1. The Bulletin requires that Retiree Drug Subsidy payments to an employer be reported by the employer as revenue, rather than being netted against the employer’s OPEB cost for prescription drug coverage.

ERS implemented an Employer Group Waiver Plan plus Commercial Wrap (EGWP plus Wrap) on January 1, 2013 in order to provide the plan with the benefit of increased subsidies and discounts available under such an arrangement. The Retiree Drug Subsidy is being phased out as a result of the implementation of the EGWP plus Wrap. The Retiree Drug Subsidies are excluded from this valuation in accordance with GASB Technical Bulletin No. 2006-1.

The projected cost of the EGWP plus Wrap reflects the subsidies to SilverScript Insurance Company, the administrator of the plan, which are expected to be provided by the Federal government under Medicare Part D and the discounts expected to be provided by drug manufacturers as required under the ACA.

## Economic Assumptions

### Expenses

The expenses to administer the Group Benefits Program health benefits are (i) \$224.84 (\$213.36 for medical plus \$11.48 for prescription drugs) per year per covered member for external HealthSelect administrative expenses for fiscal year 2017 and (ii) approximately \$54.09 per year per covered member for internal administrative expenses for fiscal year 2017 (including the ACA Patient-Centered Outcomes Research Institute (PCORI) fee). The external and internal administrative expenses per covered member are the same regardless of whether the member covers dependents. In addition, the ACA Transitional Reinsurance Program Fee on each non-Medicare participant (\$27 per year in 2016 (for 4 months) and \$0 thereafter) is included in this valuation.

### Stop-loss Reinsurance

Stop-loss reinsurance is not purchased for the Group Benefits Program.

### Discount Rate

The Discount Rate is equal to the assumed return on assets of the System of 5.50%.

# Summary of Actuarial Methods and Assumptions – State Retiree Health Plan (Concluded)

## Health Benefit Cost Trend

The Annual Rate of Increase in Per Capita Health Benefit Cost assumptions are shown below.

Fiscal Year	Annual Rate of Increase	
		%
2018	8.50	
2019	8.50	
2020	7.50	
2021	7.00	
2022	6.50	
2023	6.00	
2024 and beyond	5.50	

## Trend Rate for Retiree Contributions

The portions of retiree contributions attributable to non-life insurance benefits for both HealthSelect and HealthSelect Medicare Advantage Plans are assumed to increase from their amounts in fiscal year 2017 at the rates show below.

Fiscal Year	Annual Rate of Increase	
		%
2018	4.40	
2019	4.40	
2020	7.50	
2021	7.00	
2022	6.50	
2023	6.00	
2024 and beyond	5.50	

## Expense Trend Rate

Internal and external administrative expenses are assumed to increase 3.50% per annum.

## Trend Rate for the Opt-Out Credit

The monthly benefit of \$60 in fiscal year 2017 is not assumed to increase in the future.

## Health Coverage by Governmental Plans

There has been no consideration of anticipated changes in laws concerning health costs covered by governmental programs. However, presently enacted changes in the law that take effect in future periods that will affect future benefit coverages are considered. The proportion of health benefits which are currently covered by governmental programs has been assumed to remain constant in the future.

## Active Member Valuation Data

Valuation Year August 31,	Number (Note A)	Actual Annual Payroll	Average Pay	% Change in Average Pay
	\$	\$		%
<b>State Retiree Health Plan</b>				
2011	227,786	10,376,487,000	45,554	2.2%
2012	225,075	10,268,696,000	45,623	0.2%
2013	226,181	10,478,117,000	46,326	1.5%
2014	228,805	10,963,773,000	47,918	3.4%
2015	230,023	11,176,584,000	48,589	1.4%
2016	235,108	11,786,869,000	50,134	3.2%

Note A: Includes return-to-work retirees and employees who have not yet satisfied the 90-day waiting period.

## Retirees and Nominees Added and Removed

	Added to Rolls		Removed from Rolls		Rolls End of Year		Increase Annual Benefits	Average Annual Benefit
	No.	Annual Benefits	No.	Annual Benefits	No. (Note A)	Annual Benefits		
	\$		\$		\$		%	\$
<b>State Retiree Health Plan</b>								
2011	6,882	4,711,974	2,780	1,903,413	90,213	646,197,287	0.4	7,163
2012	7,869	76,049,400	2,707	26,161,612	95,375	696,085,075	7.7	7,298
2013	7,790	47,110,385	3,111	18,813,916	100,054	724,381,544	4.1	7,240
2014	7,950	150,776,296	3,234	61,334,659	104,770	813,823,181	12.3	7,768
2015	7,880	86,944,401	3,339	36,841,035	109,311	863,926,547	6.2	7,903
2016	7,431	88,326,138	3,312	39,366,999	113,430	912,885,686	5.7	8,048

Note A: Includes retirees who receive the Opt-Out Credit in lieu of health benefits.

## Schedule of Funding Progress – State Retiree Health Plan

Actuarial Valuation Date August 31	(a) Actuarial Value of Assets	(b) Actuarial Liability (AAL)	(c) (Overfunded) Unfunded AAL (UAAL) (b) - (a)	(b) Funded Ratio (a)/(b)	(e) Covered Payroll	(f) UAAL As A Percentage Of Covered Payroll (c)/(e)
	(000's)	(000's)	(000's)	%	(000's)	%
2007	0	17,675,000	17,675,000	0.0	8,836,000	200.0
2008	0	20,131,000	20,131,000	0.0	9,373,000	214.8
2009	0	21,992,356	21,992,356	0.0	10,045,849	218.9
2010	0	22,329,556	22,329,556	0.0	10,437,333	213.9
2011	0	21,502,434	21,502,434	0.0	10,376,487	207.2
2012	0	20,823,410	20,823,410	0.0	10,268,696	202.8
2013	0	23,030,469	23,030,469	0.0	10,478,117	219.8
2014	0	24,701,904	24,701,904	0.0	10,963,773	225.3
2015	0	25,740,698	25,740,698	0.0	11,176,584	230.3
2016	0	27,091,372	27,091,372	0.0	11,786,869	229.8

## Summary of Statistical Section

### Governmental Activities:

Net Position

Changes in Net Position

### Governmental Funds:

Fund Balances

Changes in Fund Balances

### Changes in Net Position:

Proprietary Fund

Defined Benefit Plans

Deferred Compensation Plan and Cafeteria Plan

Benefit and Refund Payments — Defined Benefit Plans

Average Benefit Payments — Employee Class

Retired Members by Type of Benefit

Contribution Rates

### Other Statistical Information:

Defined Benefit Plans

Other Programs

List of Participating Reporting Entities for State Retiree Health Plan

## Summary of Statistical Section

This section contains additional historical perspective, context, and detail to assist financial statement users in understanding the System's economic condition and benefit offerings.

### Financial Trends

The following statistical information provides trends to assist in understanding changes over time in financial performance of the benefit offerings:

- Net Position – Governmental Activities
- Changes in Net Position – Governmental Activities
- Fund Balances – Governmental Funds
- Changes in Fund Balances – Governmental Funds
- Changes in Net Position – Proprietary Fund
- Changes in Net Position – Defined Benefit Plans
- Changes in Net Position – Deferred Compensation Plan and Cafeteria Plan

### Operating Information

The following statistical information provides benefit and member data to assist in understanding of the System's operations and benefit offerings:

- Benefit and Refund Payments – Defined Benefit Plans
- Average Benefit Payments – Employee Class
- Retired Members by Type of Benefit
- Contribution Rates
- Other Information: Defined Benefit Plans
- Other Information: Other Programs
- List of Participating Reporting Entities for State Retiree Health Plan

## Net Position – Governmental Activities

Last Ten Fiscal Years (in 000's)  
(Accrual Basis of Accounting)

This schedule provides ten year trend information for restricted and unrestricted assets. The information source of this schedule is Exhibit I.

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Governmental Activities:</b>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Restricted	369,913	384,892	282,484	136,599	227,985	284,814	325,412	379,311	440,466	498,874
Unrestricted	45	56	59	45	8	18	-	5	17	22
<b>Total Governmental Activities</b>	<b>369,958</b>	<b>384,948</b>	<b>282,543</b>	<b>136,644</b>	<b>227,993</b>	<b>284,832</b>	<b>325,412</b>	<b>379,316</b>	<b>440,483</b>	<b>498,896</b>

## Changes in Net Position – Governmental Activities

Last Ten Fiscal Years (in 000's)  
(Accrual Basis of Accounting)

This schedule provides trend information for the last ten fiscal years for expenses, program revenues, general revenues, and net revenues. The information source of this schedule is Exhibits II and VI.

	Fiscal Year										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
<b>Expenses</b>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
<b>Governmental Activities:</b>											
Social Security Administration		70	54	61	101	102	105	92	156	178	139
<b>Death Benefits:</b>											
Peace Officers, Firemen, etc.		2,397	3,423	1,866	4,164	2,784	2,141	5,444	5,738	2,162	7,281
Compensation to Victims of Crime		1,500	2,250	2,000	1,250	1,750	1,000	2,000	1,625	1,000	2,000
Retiree \$5,000 Lump Sum		7,493	6,902	7,367	7,910	7,885	8,628	9,108	8,846	9,286	10,080
<b>Employees Life, Accident and Health Insurance and Benefits:</b>											
Claims Expenses		1,293,957	1,460,527	1,632,962	1,828,422	1,776,296	1,826,996	1,934,325	2,047,749	2,242,195	2,455,030
Administration		8,694	8,323	9,062	8,118	9,437	9,401	9,356	24,535	36,692	19,390
<b>Total Expenses</b>	<b>1,314,111</b>	<b>1,481,479</b>	<b>1,653,318</b>	<b>1,849,965</b>	<b>1,798,254</b>	<b>1,848,271</b>	<b>1,960,325</b>	<b>2,088,649</b>	<b>2,291,513</b>	<b>2,493,920</b>	
<b>Program Revenues</b>											
<b>Governmental Activities:</b>											
<b>Charges for Services:</b>											
Administration Fees		72	65	64	85	66	74	75	70	71	71
<b>Appropriations:</b>											
Administration		28	28	28							
<b>Death Benefits:</b>											
Peace Officers, Firemen, etc.		2,369	3,395	1,838	4,164	2,784	2,141	5,444	5,738	2,162	7,281
Compensation to Victims of Crime		1,500	2,250	2,000	1,250	1,750	1,000	2,000	1,625	1,000	2,000
Retiree \$5,000 Lump Sum		7,487	6,902	7,367	7,911	7,885	8,628	9,108	8,846	9,289	10,075
<b>Insurance Contributions:</b>											
State		1,024,636	1,075,354	1,108,150	1,233,781	1,414,732	1,434,186	1,527,002	1,631,916	1,834,956	1,992,220
Member		365,653	364,278	381,820	416,690	444,731	444,786	460,944	482,566	495,723	521,361
Other		150	163	161	157	209	192	179	141	121	120
<b>Federal Revenue-Medicare Part D</b>											
<b>Operating Grants and Contributions:</b>											
Investment Income		40,375	42,513	48,100	36,671	12,758	13,188	(5,885)	10,913	6,298	19,492
Other		272	1,521	1,385	3,357	4,688	875	2,039	647	2,945	1,386
<b>Total Program Revenues</b>	<b>1,442,542</b>	<b>1,496,469</b>	<b>1,550,913</b>	<b>1,704,066</b>	<b>1,889,603</b>	<b>1,905,070</b>	<b>2,000,906</b>	<b>2,142,462</b>	<b>2,352,565</b>	<b>2,554,006</b>	
<b>General Revenues</b>											
Transfers							40		90	115	(1,673)
<b>Total General Revenues</b>							<b>40</b>	<b>-</b>	<b>90</b>	<b>115</b>	<b>(1,673)</b>
<b>Net Revenue Governmental Activities</b>	<b>128,431</b>	<b>14,990</b>	<b>(102,405)</b>	<b>(145,899)</b>	<b>91,349</b>	<b>56,839</b>	<b>40,581</b>	<b>53,903</b>	<b>61,167</b>	<b>58,413</b>	

## Fund Balances – Governmental Funds

Last Ten Fiscal Years (in 000's)

(Modified Accrual Basis of Accounting)

This schedule provides information on the modified accrual basis of accounting for the last ten fiscal years for committed Social Security Administration Funds and Total Governmental Funds. The information source of this schedule is Exhibit III. Please see Note 1.D for the System's descriptions for modified accrual basis of accounting.

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Governmental Funds:</b>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Committed:										
Social Security Administration Fund	45	56	59	45	8	18		5	17	22
<b>Total Governmental Funds</b>	<b>45</b>	<b>56</b>	<b>59</b>	<b>45</b>	<b>8</b>	<b>18</b>	<b>-</b>	<b>5</b>	<b>17</b>	<b>22</b>

## Changes in Fund Balances – Governmental Funds

Last Ten Fiscal Years (in 000's)

(Modified Accrual Basis of Accounting)

This schedule provides trend information on the modified accrual basis of accounting for Revenues, Expenditures, and net change in Fund Balances. This information is obtained from Exhibit IV. Please see Note 1.D for the System's descriptions for modified accrual basis of accounting.

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Revenues</b>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Appropriations for (Note A):										
Administration	28	28	28							
Death Benefits:										
Public Employee Survivors	2,369	3,395	1,838	4,164	2,784	2,141	5,444	5,738	2,162	7,281
Victims of Crime	1,500	2,250	2,000	1,250	1,750	1,000	2,000	1,625	1,000	2,000
Retiree \$5,000 Lump Sum	7,487	6,902	7,367	7,911	7,885	8,628	9,108	8,847	9,289	10,075
Administration Fees	72	65	64	85	66	74	75	70	71	71
<b>Total Revenues</b>	<b>11,456</b>	<b>12,640</b>	<b>11,297</b>	<b>13,410</b>	<b>12,485</b>	<b>11,843</b>	<b>16,627</b>	<b>16,280</b>	<b>12,522</b>	<b>19,427</b>
<b>Expenditures</b>										
Death Benefits:										
Public Employee Survivors	2,397	3,423	1,866	4,164	2,784	2,141	5,444	5,738	2,162	7,281
Victims of Crime	1,500	2,250	2,000	1,250	1,750	1,000	2,000	1,625	1,000	2,000
Retiree \$5,000 Lump Sum	7,493	6,902	7,367	7,910	7,885	8,628	9,108	8,846	9,286	10,080
Administrative Expenditures	70	54	61	101	102	105	92	156	178	139
<b>Total Expenditures</b>	<b>11,460</b>	<b>12,629</b>	<b>11,294</b>	<b>13,425</b>	<b>12,521</b>	<b>11,874</b>	<b>16,644</b>	<b>16,365</b>	<b>12,626</b>	<b>19,500</b>
<b>Excess of Revenues Over (Under)</b>										
<b>Expenditures</b>	<b>(4)</b>	<b>11</b>	<b>3</b>	<b>(15)</b>	<b>(36)</b>	<b>(31)</b>	<b>(17)</b>	<b>(85)</b>	<b>(104)</b>	<b>(72)</b>
<b>Other Financing Sources (Uses)</b>										
Transfers In - Retirement Membership Fees						40		90	115	77
<b>Net Change in Fund Balances</b>	<b>(4)</b>	<b>11</b>	<b>3</b>	<b>(15)</b>	<b>(36)</b>	<b>9</b>	<b>(17)</b>	<b>5</b>	<b>11</b>	<b>5</b>

Note A: Include lapsed appropriations.

# Changes in Net Position – Proprietary Fund

Last Ten Fiscal Years (in 000's)

This schedule provides trend information on Operating Revenues, Operating Expenses and the resulting Operating Income or Loss. It also provides non-operating revenue and expense information and the resulting change in net position. The information source of this schedule is Exhibit VI.

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Operating Revenues</b>										
Insurance Contributions:										
State	1,024,636	1,075,354	1,108,150	1,233,781	1,414,731	1,434,186	1,527,002	1,631,916	1,834,956	1,992,220
Member	365,653	364,278	381,820	416,690	444,731	444,786	460,944	482,566	495,723	521,360
Federal Revenues-COBRA Stimulus				2,268	1,312	27				
Other	422	1,543	1,254	1,087	3,089	835	2,199	604	1,856	1,480
<b>Total Operating Revenues</b>	<b>1,390,711</b>	<b>1,441,175</b>	<b>1,491,224</b>	<b>1,653,826</b>	<b>1,863,863</b>	<b>1,879,834</b>	<b>1,990,145</b>	<b>2,115,086</b>	<b>2,332,535</b>	<b>2,515,060</b>
<b>Operating Expenses</b>										
Benefit Payments:										
Employee	1,275,725	1,437,632	1,609,991	1,797,659	1,743,897	1,792,645	1,900,026	2,017,586	2,213,193	2,428,066
COBRA	18,232	22,895	22,971	30,763	32,398	34,351	34,299	30,163	29,003	26,963
Administrative and Other Expenses	8,694	8,323	9,062	8,118	9,437	9,401	9,356	24,535	36,692	19,390
<b>Total Operating Expenses</b>	<b>1,302,651</b>	<b>1,468,850</b>	<b>1,642,024</b>	<b>1,836,540</b>	<b>1,785,732</b>	<b>1,836,397</b>	<b>1,943,681</b>	<b>2,072,284</b>	<b>2,278,888</b>	<b>2,474,419</b>
<b>Operating Income (Loss)</b>	<b>88,060</b>	<b>(27,675)</b>	<b>(150,800)</b>	<b>(182,714)</b>	<b>78,131</b>	<b>43,437</b>	<b>46,464</b>	<b>42,802</b>	<b>53,647</b>	<b>40,641</b>
<b>Non-Operating Revenues (Expenses)</b>										
Net Appreciation (Depreciation)										
in Fair Value of Investments	(730)	4,943	20,359	20,789	4,273	5,395	(17,215)	1,284	(3,195)	7,771
Investment Income	41,080	37,569	27,741	15,882	8,485	7,794	11,331	9,629	9,493	11,721
Other	25	141	292	158	496	204	18	184	1,210	25
<b>Total Non-Operating Revenues (Expenses)</b>	<b>40,375</b>	<b>42,653</b>	<b>48,392</b>	<b>36,829</b>	<b>13,254</b>	<b>13,393</b>	<b>(5,866)</b>	<b>11,097</b>	<b>7,508</b>	<b>19,517</b>
<b>Transfer Out</b>										<b>(1,750)</b>
<b>Change in Net Position</b>	<b>128,435</b>	<b>14,978</b>	<b>(102,408)</b>	<b>(145,885)</b>	<b>91,385</b>	<b>56,830</b>	<b>40,598</b>	<b>53,899</b>	<b>61,155</b>	<b>58,408</b>

# Changes in Net Position – Defined Benefit Plans

Last Ten Fiscal Years (in 000's)

This schedule provides summarized trend information on additions and deductions for each of the defined benefit plans. This information source of this schedule is Exhibit IX.

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Employees Retirement Fund (ERS)</b>										
<b>Additions</b>										
Member Contributions	328,039	337,040	353,299	410,134	425,811	411,066	422,588	430,595	462,160	674,678
Employer Contributions	329,981	342,092	363,023	400,252	414,084	347,121	375,737	482,329	500,510	686,841
Investment Income (Net of Expenses)	2,622,895	(1,294,063)	(1,616,258)	1,203,796	2,414,830	1,614,670	2,097,577	3,252,362	56,905	1,273,373
Other Additions	48,746	52,941	57,329	61,741	64,970	71,255	75,637	80,324	84,203	89,035
<b>Total Additions</b>	<b>3,329,661</b>	<b>(561,990)</b>	<b>(842,607)</b>	<b>2,075,923</b>	<b>3,319,695</b>	<b>2,444,112</b>	<b>2,971,539</b>	<b>4,245,610</b>	<b>1,103,778</b>	<b>2,723,927</b>
<b>Deductions</b>										
Retirement Benefits	1,299,964	1,360,380	1,433,011	1,505,585	1,593,537	1,712,821	1,819,779	1,933,694	2,041,389	2,146,522
Death Benefits	2,099	1,802	2,224	3,086	4,142	3,654	3,283	3,053	4,730	5,082
Refunds	79,564	74,504	70,958	65,334	79,535	88,060	86,668	106,809	87,167	84,445
Administrative and Other Expenses	16,475	16,730	17,690	19,083	19,000	18,024	18,911	20,480	22,127	20,779
<b>Total Deductions</b>	<b>1,398,102</b>	<b>1,453,416</b>	<b>1,523,883</b>	<b>1,593,088</b>	<b>1,696,214</b>	<b>1,822,559</b>	<b>1,928,641</b>	<b>2,064,036</b>	<b>2,155,413</b>	<b>2,256,828</b>
<b>Change in Net Position</b>	<b>1,931,559</b>	<b>(2,015,406)</b>	<b>(2,366,490)</b>	<b>482,835</b>	<b>1,623,481</b>	<b>621,553</b>	<b>1,042,898</b>	<b>2,181,574</b>	<b>(1,051,635)</b>	<b>467,099</b>
<b>Law Enforcement and Custodial Officer Supplemental Retirement Fund (LECOS)</b>										
<b>Additions</b>										
Member Contributions				7,473	7,604	7,287	7,185	8,180	8,377	9,539
Employer Contributions		20,191	20,657	27,799	24,228	(3)	7,117	27,758	26,728	27,497
Investment Income (Net of Expenses)	85,799	(42,917)	(51,743)	40,054	81,881	51,909	71,885	111,741	1,919	44,831
Other Additions				6	2	1			4	4
<b>Total Additions</b>	<b>85,799</b>	<b>(22,726)</b>	<b>(31,086)</b>	<b>75,332</b>	<b>113,715</b>	<b>59,194</b>	<b>86,187</b>	<b>147,679</b>	<b>37,028</b>	<b>81,871</b>
<b>Deductions</b>										
Retirement Benefits	32,149	34,908	38,641	41,001	42,914	46,868	50,848	55,222	59,211	62,698
Death Benefits					106	6	6	6	9	22
Refunds				162	694	1,220	1,531	1,919	2,128	1,826
Administrative and Other Expenses	504	366	434	595	937	844	805	1,324	1,412	1,421
<b>Total Deductions</b>	<b>32,653</b>	<b>35,274</b>	<b>39,075</b>	<b>41,758</b>	<b>44,651</b>	<b>48,938</b>	<b>53,190</b>	<b>58,471</b>	<b>62,760</b>	<b>65,967</b>
<b>Change in Net Position</b>	<b>53,146</b>	<b>(58,000)</b>	<b>(70,161)</b>	<b>33,574</b>	<b>69,064</b>	<b>10,256</b>	<b>32,997</b>	<b>89,208</b>	<b>(25,732)</b>	<b>15,904</b>
<b>Judicial Retirement System of Texas Plan Two (JRS II)</b>										
<b>Additions</b>										
Member Contributions	4,125	3,964	4,223	4,121	4,291	4,170	4,268	5,195	5,465	5,754
Employer Contributions	10,909	11,138	11,356	11,511	11,933	4,150	4,549	12,211	12,457	12,374
Investment Income (Net of Expenses)	24,245	(10,765)	(16,421)	13,586	30,189	41,181	28,753	46,186	820	19,862
Other Additions					2		1		2	
<b>Total Additions</b>	<b>39,279</b>	<b>4,337</b>	<b>(842)</b>	<b>29,218</b>	<b>46,415</b>	<b>49,501</b>	<b>37,571</b>	<b>63,592</b>	<b>18,744</b>	<b>37,990</b>
<b>Deductions</b>										
Retirement Benefits	5,747	6,645	8,023	9,289	11,722	12,782	14,586	16,166	19,158	20,825
Death Benefits						21			26	31
Refunds	58	73	206	118	48	179	285	254	56	299
Administrative and Other Expenses	395	244	239	277	286	230	228	267	284	226
<b>Total Deductions</b>	<b>6,200</b>	<b>6,962</b>	<b>8,468</b>	<b>9,684</b>	<b>12,056</b>	<b>13,212</b>	<b>15,099</b>	<b>16,687</b>	<b>19,524</b>	<b>21,381</b>
<b>Change in Net Position</b>	<b>33,079</b>	<b>(2,625)</b>	<b>(9,310)</b>	<b>19,534</b>	<b>34,359</b>	<b>36,289</b>	<b>22,472</b>	<b>46,905</b>	<b>(780)</b>	<b>16,609</b>

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# Changes in Net Position – Defined Benefit Plans (Concluded)

Last Ten Fiscal Years (in 000's)

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Excess Benefit Arrangement</b>										
<b>Additions</b>										
Other Additions	200	350	328	294	342	506	569	493	457	540
<b>Total Additions</b>	<b>200</b>	<b>350</b>	<b>328</b>	<b>294</b>	<b>342</b>	<b>506</b>	<b>569</b>	<b>493</b>	<b>457</b>	<b>540</b>
<b>Deductions</b>										
Retirement Benefits	141	298	279	251	297	436	488	422	392	448
Administrative and Other Expenses	59	52	49	43	45	70	81	71	65	92
<b>Total Deductions</b>	<b>200</b>	<b>350</b>	<b>328</b>	<b>294</b>	<b>342</b>	<b>506</b>	<b>569</b>	<b>493</b>	<b>457</b>	<b>540</b>
<b>Change in Net Position</b>	<b>-</b>									
<b>State Retiree Health Plan</b>										
<b>Additions</b>										
Member Contributions	108,387	109,447	114,360	126,073	135,133	134,993	141,008	155,276	169,075	183,284
Employer Contributions	438,242	417,106	447,765	478,348	444,895	483,636	535,905	605,512	612,769	663,986
Federal Revenues-Medicare Part D	28,558	32,964	35,784	40,988	38,207	39,612	50,874	63,362	86,054	69,186
Early Retirees Reinsurance Program					30,176	40,724				
Investment Income (Net of Expenses)	1,541	1,362	1,056	609	436	329	236	255	324	1,137
Other Additions			775	1					3,969	5,961
<b>Total Additions</b>	<b>576,728</b>	<b>560,879</b>	<b>599,740</b>	<b>646,019</b>	<b>648,847</b>	<b>699,294</b>	<b>728,023</b>	<b>824,405</b>	<b>872,191</b>	<b>923,554</b>
<b>Deductions</b>										
Healthcare Benefits	574,030	558,228	596,858	643,389	646,197	696,085	724,381	813,823	863,926	912,886
Administrative and Other Expenses	2,698	2,651	2,882	2,630	2,650	3,209	3,642	10,582	8,265	10,668
<b>Total Deductions</b>	<b>576,728</b>	<b>560,879</b>	<b>599,740</b>	<b>646,019</b>	<b>648,847</b>	<b>699,294</b>	<b>728,023</b>	<b>824,405</b>	<b>872,191</b>	<b>923,554</b>
<b>Change in Net Position</b>	<b>-</b>									

# Changes in Net Position – Deferred Compensation Plans and Cafeteria Plan

Last Ten Fiscal Years (in 000's)

This schedule provides summarized trend information on additions and deductions for the TexSaver 401(k) and 457 plans, the Commuter Spending Account, and the state employees' cafeteria plan (TexFlex). The information source of this schedule is Exhibit IX.

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>TexaSaver 401(k) Plan</b>										
<b>Additions</b>										
Investment Income (Net of Expenses)	459	116	476	42	43	26	27	(7)	7	18
Other Additions	301	464	215	1,439	830	607	550	398	188	50
<b>Total Additions</b>	<b>760</b>	<b>580</b>	<b>691</b>	<b>1,481</b>	<b>873</b>	<b>633</b>	<b>577</b>	<b>391</b>	<b>195</b>	<b>68</b>
<b>Deductions</b>										
Administrative and Other Expenses	448	581	457	513	615	596	759	590	529	433
<b>Total Deductions</b>	<b>448</b>	<b>581</b>	<b>457</b>	<b>513</b>	<b>615</b>	<b>596</b>	<b>759</b>	<b>590</b>	<b>529</b>	<b>433</b>
<b>Change in Net Position</b>	<b>312</b>	<b>(1)</b>	<b>234</b>	<b>968</b>	<b>258</b>	<b>37</b>	<b>(182)</b>	<b>(199)</b>	<b>(334)</b>	<b>(365)</b>
<b>TexaSaver 457 Plan</b>										
<b>Additions</b>										
Contributions			7							
Investment Income (Net of Expenses)	62	50	122	13	13	12	11	(2)	6	17
Other Additions	503	592	405	589	513	486	520	507	581	587
<b>Total Additions</b>	<b>565</b>	<b>642</b>	<b>534</b>	<b>602</b>	<b>526</b>	<b>498</b>	<b>531</b>	<b>505</b>	<b>587</b>	<b>604</b>
<b>Deductions</b>										
Administrative and Other Expenses	526	547	656	669	510	452	330	334	265	233
<b>Total Deductions</b>	<b>526</b>	<b>547</b>	<b>656</b>	<b>669</b>	<b>510</b>	<b>452</b>	<b>330</b>	<b>334</b>	<b>265</b>	<b>233</b>
<b>Change in Net Position</b>	<b>39</b>	<b>95</b>	<b>(122)</b>	<b>(67)</b>	<b>16</b>	<b>46</b>	<b>201</b>	<b>171</b>	<b>322</b>	<b>371</b>
<b>Commuter Spending Account Fund (Note A)</b>										
<b>Additions</b>										
Contributions										73
Investment Income (Net of Expenses)										1
Transfers In										1,750
<b>Total Additions</b>	<b>-</b>	<b>1,824</b>								
<b>Deductions</b>										
Reimbursement Account Claims										43
Administrative and Other Expenses										1,276
<b>Total Deductions</b>	<b>-</b>	<b>1,319</b>								
<b>Change in Net Position</b>	<b>-</b>	<b>505</b>								
<b>State Employees Cafeteria Plan (TexFlex)</b>										
<b>Additions</b>										
Contributions	68,425	76,780	83,244	90,290	96,033	95,986	95,578	83,214	83,092	80,953
Investment Income (Net of Expenses)	89	72	45	25	20	19	20	9	20	34
Other Additions	105	95	83	105	104	76	92	113	398	194
<b>Total Additions</b>	<b>68,619</b>	<b>76,947</b>	<b>83,372</b>	<b>90,420</b>	<b>96,157</b>	<b>96,081</b>	<b>95,690</b>	<b>83,336</b>	<b>83,510</b>	<b>81,181</b>
<b>Deductions</b>										
Reimbursement Account Claims	67,133	75,043	80,161	87,912	93,737	92,093	92,799	78,720	77,744	81,179
Administrative and Other Expenses	1,886	2,157	2,220	2,217	2,725	2,485	2,365	2,460	3,662	1,815
<b>Total Deductions</b>	<b>69,019</b>	<b>77,200</b>	<b>82,381</b>	<b>90,129</b>	<b>96,462</b>	<b>94,578</b>	<b>95,164</b>	<b>81,180</b>	<b>81,406</b>	<b>82,994</b>
<b>Change in Net Position</b>	<b>(400)</b>	<b>(253)</b>	<b>991</b>	<b>291</b>	<b>(305)</b>	<b>1,503</b>	<b>526</b>	<b>2,156</b>	<b>2,104</b>	<b>(1,813)</b>

Note A: The System implemented the Commuter Spending Accounts on January 1, 2016.

# Benefit and Refund Payments – Defined Benefit Plans

Last Ten Fiscal Years (in 000's)

This schedule provides trend information on benefit and refund payments by types from the defined benefit plans. This information is obtained from the System's detailed records for refunds and benefit payments

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Employees Retirement Fund:</b>										
<b>Type of Benefit</b>										
Retirement Benefits:										
Service:										
Retirees	1,195,432	1,254,754	1,324,897	1,394,889	1,476,597	1,585,066	1,649,308	1,799,608	1,906,043	2,013,347
Survivors	19,805	20,461	20,651	20,765	21,188	21,410	59,425	21,370	21,835	21,396
Disability	31,163	30,626	30,402	30,301	28,854	28,376	27,980	27,386	26,797	26,148
Partial Lump Sum Option	44,450	44,207	45,301	46,362	51,885	60,687	63,641	63,359	62,438	58,351
Proportional	9,114	10,332	11,760	13,270	15,013	17,282	19,425	21,971	24,276	27,280
<b>Total Retirement Benefits</b>	<b>1,299,964</b>	<b>1,360,380</b>	<b>1,433,011</b>	<b>1,505,587</b>	<b>1,593,537</b>	<b>1,712,821</b>	<b>1,819,779</b>	<b>1,933,694</b>	<b>2,041,389</b>	<b>2,146,522</b>
Death Benefits:										
Active Members:										
Occupational	91	35	100	76	189	117	86	32	116	132
Non-Occupational	1,373	1,266	1,275	1,526	2,308	1,920	1,999	1,453	2,909	3,317
Retiree	635	501	850	1,484	1,645	1,617	1,198	1,568	1,705	1,633
<b>Total Death Benefits</b>	<b>2,099</b>	<b>1,802</b>	<b>2,225</b>	<b>3,086</b>	<b>4,142</b>	<b>3,654</b>	<b>3,283</b>	<b>3,053</b>	<b>4,730</b>	<b>5,082</b>
Refunds:										
Resignation	75,864	71,717	67,405	61,235	74,640	84,004	82,026	102,175	80,876	78,206
Death	3,700	2,787	3,553	4,099	4,895	4,056	4,642	4,634	6,291	6,239
<b>Total Refunds</b>	<b>79,564</b>	<b>74,504</b>	<b>70,958</b>	<b>65,334</b>	<b>79,535</b>	<b>88,060</b>	<b>86,668</b>	<b>106,809</b>	<b>87,167</b>	<b>84,445</b>
<b>Law Enforcement and Custodial Officer Supplemental Retirement Fund:</b>										
<b>Type of Benefit</b>										
Retirement Benefits:										
Service	29,053	31,675	35,174	37,580	39,509	42,670	46,561	50,261	54,747	58,444
Disability	1,208	1,180	1,168	1,161	1,128	1,093	1,088	1,053	1,022	1,008
Partial Lump Sum Option	1,889	2,053	2,300	2,260	2,277	3,105	3,199	3,907	3,442	3,247
<b>Total Retirement Benefits</b>	<b>32,150</b>	<b>34,908</b>	<b>38,642</b>	<b>41,001</b>	<b>42,914</b>	<b>46,868</b>	<b>50,848</b>	<b>55,221</b>	<b>59,211</b>	<b>62,699</b>
Death Benefits:										
Active Members:										
Non-Occupational					106	6	6	6	9	21
<b>Total Death Benefits</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>106</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>9</b>	<b>21</b>
Refunds:										
Resignation				162	686	1,205	1,513	1,895	2,097	1,772
Death					9	15	18	24	31	54
<b>Total Refunds</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>162</b>	<b>695</b>	<b>1,220</b>	<b>1,531</b>	<b>1,919</b>	<b>2,128</b>	<b>1,826</b>
<b>Judicial Retirement System of Texas Plan Two:</b>										
<b>Type of Benefit</b>										
Retirement Benefits:										
Service	4,254	4,958	6,134	7,149	8,923	9,942	11,346	12,670	15,389	16,841
Disability	348	470	493	358	570	358	358	358	358	395
Proportional	1,145	1,216	1,396	1,782	2,229	2,482	2,882	3,138	3,411	3,589
<b>Total Retirement Benefits</b>	<b>5,747</b>	<b>6,644</b>	<b>8,023</b>	<b>9,289</b>	<b>11,722</b>	<b>12,782</b>	<b>14,586</b>	<b>16,166</b>	<b>19,158</b>	<b>20,825</b>
Death Benefits:										
Active Members:										
Non-Occupational						21				5
Annuity Death Refund	-	-	-	-	-	-	-	-	27	26
<b>Total Death Benefits</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>21</b>	<b>-</b>	<b>-</b>	<b>27</b>	<b>31</b>
Refunds:										
Resignation	58	73	206	118	47	117	210	228	56	224
Death						62	75	26		75
<b>Total Refunds</b>	<b>58</b>	<b>73</b>	<b>206</b>	<b>118</b>	<b>47</b>	<b>179</b>	<b>285</b>	<b>254</b>	<b>56</b>	<b>299</b>

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# Benefit and Refund Payments – Defined Benefit Plans (Concluded)

Last Ten Fiscal Years (in 000's)

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Excess Benefit Arrangement:</b>										
<b>Type of Benefit</b>										
Retirement Benefits:										
Service	141	298	279	251	297	436	488	422	392	448
<b>Total Retirement Benefits</b>	<b>141</b>	<b>298</b>	<b>279</b>	<b>251</b>	<b>297</b>	<b>436</b>	<b>488</b>	<b>422</b>	<b>392</b>	<b>448</b>
<b>State Retiree Health Plan:</b>										
<b>Type of Benefit</b>										
Insurance Benefits:										
Accrued Claims	67,920	50,858	50,800	55,675	53,835	50,148	36,356	22,706	9,848	(5,601)
Life Claims	22,140	18,514	20,839	24,430	24,663	29,722	37,349	41,763	45,740	46,994
Prescriptions Drugs	151,020	172,701	175,831	182,620	171,191	201,279	217,332	241,583	253,591	279,144
Administrative Fees	13,519	14,373	16,794	17,391	18,872	15,061	15,775	19,077	18,721	19,338
HMO Payments	26,422	30,985	35,036	31,606	32,349	73,491	98,107	110,232	139,696	156,418
Health	283,244	259,845	285,591	318,593	330,801	310,261	301,785	358,696	373,469	391,327
Dental	9,765	10,952	11,967	13,074	14,486	16,123	17,677	19,766	22,861	25,266
<b>Total Insurance Benefits</b>	<b>574,030</b>	<b>558,228</b>	<b>596,858</b>	<b>643,389</b>	<b>646,197</b>	<b>696,085</b>	<b>724,381</b>	<b>813,823</b>	<b>863,926</b>	<b>912,886</b>

# Average Benefit Payments – Employee Class

Last Ten Fiscal Years

This schedule provides ten years of information for service retirements. It shows the average monthly benefit, the average final salary and the number of retired members. The information source of this schedule is the System's member records.

Retirement Effective Dates (Note A)	Years of Credited Service					
	September 30, 2006 to August 31, 2016	5-10	10-15	15-20	20-25	25-30
<b>- Period 9/30/06 to 8/31/07:</b>						
Average Monthly Benefit	\$ 434.96	782.51	1,272.77	1,713.40	2,514.97	3,060.87
Average Final Average Salary	\$ 2,829.26	3,009.14	3,354.55	3,624.73	4,225.97	4,336.69
Number of Retired Members	174	425	379	638	576	400
<b>- Period 9/30/07 to 8/31/08:</b>						
Average Monthly Benefit	\$ 452.67	807.03	1,335.25	1,865.56	2,638.18	3,499.62
Average Final Average Salary	\$ 2,952.18	3,143.26	3,454.70	3,900.50	4,332.88	4,772.69
Number of Retired Members	186	460	418	641	616	432
<b>- Period 9/30/08 to 8/31/09:</b>						
Average Monthly Benefit	\$ 467.58	836.21	1,322.56	1,871.97	2,605.37	3,565.74
Average Final Average Salary	\$ 3,072.84	3,212.66	3,498.34	3,890.83	4,295.65	4,918.29
Number of Retired Members	185	447	492	646	549	407
<b>- Period 9/30/09 to 8/31/10:</b>						
Average Monthly Benefit	\$ 463.11	892.05	1,361.00	1,917.09	2,661.52	3,734.52
Average Final Average Salary	\$ 3,102.16	3,428.98	3,604.22	3,945.87	4,436.27	5,115.59
Number of Retired Members	197	482	543	694	644	538
<b>- Period 9/30/10 to 8/31/11:</b>						
Average Monthly Benefit	\$ 535.49	862.87	1,425.72	2,037.03	2,823.01	3,702.98
Average Final Average Salary	\$ 3,517.06	3,311.62	3,741.62	4,226.49	4,669.92	5,084.63
Number of Retired Members	245	608	610	810	782	643
<b>- Period 9/30/11 to 8/31/12:</b>						
Average Monthly Benefit	\$ 516.60	870.43	1,423.70	2,052.94	2,849.89	3,681.98
Average Final Average Salary	\$ 3,403.29	3,317.82	3,677.93	4,211.01	4,715.19	5,044.54
Number of Retired Members	235	570	691	834	754	567
<b>- Period 9/30/12 to 8/31/13:</b>						
Average Monthly Benefit	\$ 542.52	952.05	1,504.71	2,083.91	2,914.90	3,753.70
Average Final Average Salary	\$ 3,487.75	3,585.18	3,885.81	4,250.76	4,817.36	5,136.29
Number of Retired Members	301	623	739	883	821	569
<b>- Period 9/30/13 to 8/31/14:</b>						
Average Monthly Benefit	\$ 508.71	919.42	1,474.30	2,010.88	2,907.26	3,845.72
Average Final Average Salary	\$ 3,343.16	3,507.76	3,822.49	4,147.85	4,842.43	5,331.11
Number of Retired Members	343	640	734	896	738	559
<b>- Period 9/30/14 to 8/31/15:</b>						
Average Monthly Benefit	\$ 586.62	975.92	1,481.98	2,074.48	2,993.18	4,087.45
Average Final Average Salary	\$ 3,734.94	3,698.31	3,848.74	4,298.70	4,960.89	5,628.82
Number of Retired Members	265	605	666	896	846	610
<b>- Period 9/30/15 to 8/31/16:</b>						
Average Monthly Benefit	\$ 572.20	954.17	1,506.77	2,123.01	3,160.95	4,336.56
Average Final Average Salary	\$ 3,482.75	3,715.92	3,893.19	4,353.45	5,222.31	5,907.75
Number of Retired Members	209	596	610	807	829	609
<b>Five Year Average -</b>						
<b>Period 9/30/11 to 8/31/16:</b>						
Average Monthly Benefit	\$ 542.67	935.01	1,477.91	2,068.12	2,968.95	3,949.08
Average Final Average Salary	\$ 3,484.07	3,566.86	3,824.67	4,250.87	4,917.31	5,420.14
Average Number of Retired Members	271	607	688	863	798	583
<b>Ten Year Average -</b>						
<b>Period 9/30/06 to 8/31/16:</b>						
Average Monthly Benefit	\$ 514.12	892.41	1,425.36	1,988.99	2,832.41	3,765.51
Average Final Average Salary	\$ 3,331.89	3,418.06	3,711.83	4,110.38	4,693.30	5,177.00
Average Number of Retired Members	234	546	588	775	716	533

Note A: This schedule includes service retirements of the employee class as of October 21, 2016. It does not include disability retirements or the elected state official class. This schedule does not include Partial Lump Sum (PLSO) payments.

# Retired Members by Type of Benefit

August 31, 2016

This schedule provides the average amount of monthly benefit, the number of retirees and the type of retirement for ERS, LECOS, and JRS2. The information source of this schedule is the System's pension actuary.

Average Amount of Monthly Benefit	Number of Retirees	Type of Retirement		Option Selected (Note B)					
		Service	Disability	Life	Option 1	Option 2	Option 3	Option 4	Option 5
<b>Employees Retirement Fund (Note A)</b>									
<b>\$</b>									
0-300	6,823	6,593	230	4,464	1,366	389	148	261	195
301-600	12,453	11,762	691	8,696	2,078	594	297	379	409
601-900	13,274	12,524	750	9,205	2,098	798	354	344	475
901-1,200	12,304	11,912	392	8,344	1,993	941	279	303	444
1,201-1,500	11,961	11,780	181	7,680	2,044	1,098	291	244	604
1,501-2,000	15,361	15,252	109	9,676	2,393	1,706	339	356	891
2,001-2,500	11,220	11,193	27	6,619	1,802	1,511	235	329	724
2,501-3,000	7,716	7,705	11	4,231	1,298	1,180	157	236	614
3,001-4,000	7,857	7,853	4	4,263	1,406	1,097	126	237	728
4,001-10,999	4,789	4,788	1	2,356	1,090	649	69	121	504
<b>Total</b>	<b>103,758</b>	<b>101,362</b>	<b>2,396</b>	<b>65,534</b>	<b>17,568</b>	<b>9,963</b>	<b>2,295</b>	<b>2,810</b>	<b>5,588</b>
<b>Law Enforcement And Custodial Officer Supplemental Retirement Fund (Note A)</b>									
<b>\$</b>									
0-200	416	416	0	262	104	28	5	5	12
201-400	5,893	5,849	44	3,241	1,447	658	80	87	380
401-600	3,258	3,235	23	1,660	631	529	48	70	320
601-800	1,096	1,094	2	464	267	175	14	20	156
801-1,000	558	557	1	222	175	88	10	6	57
1,001-1,200	188	187	1	69	59	27	0	1	32
1,201-1,400	55	48	7	21	13	10	1	0	10
1,401-1,600	25	15	10	18	3	2	1	1	0
1,601-1,800	13	6	7	10	2	0	0	0	1
1,801-9,999	13	6	7	10	2	0	0	0	1
<b>Total</b>	<b>11,515</b>	<b>11,413</b>	<b>102</b>	<b>5,977</b>	<b>2,703</b>	<b>1,517</b>	<b>159</b>	<b>190</b>	<b>969</b>
<b>Judicial Retirement Plan Two Fund (Note A)</b>									
<b>\$</b>									
0-2,000	16	16	0	7	7	1	1	0	0
2,001-2,500	5	5	0	3	1	0	0	1	0
2,501-3,000	6	6	0	0	2	1	1	0	2
3,001-3,500	5	5	0	1	1	2	0	0	1
3,501-4,000	17	17	0	8	6	2	0	1	0
4,001-4,500	36	36	0	12	18	4	0	1	1
4,501-5,000	42	42	0	21	15	3	0	3	0
5,001-5,500	62	62	0	20	24	6	1	0	11
5,501-6,000	38	38	0	16	14	5	0	1	2
6,001-6,500	41	40	1	28	9	2	1	0	1
6,501-7,000	23	23	0	9	6	4	0	1	3
7,001-9,999	40	39	1	26	8	5	0	0	1
<b>Total</b>	<b>331</b>	<b>329</b>	<b>2</b>	<b>151</b>	<b>111</b>	<b>35</b>	<b>4</b>	<b>8</b>	<b>22</b>

Note A: These calculations are based on actuarial estimates.

Note B: Life - standard annuity.  
 Option 1 - a reduced annuity for the lifetime of the member, then pays the same amount throughout the life of the nominee.  
 Option 2 - a reduced annuity for the lifetime of the member, then pays one-half of that amount throughout the life of the nominee.  
 Option 3 - a reduced annuity to the member or the nominee for a guaranteed period of 5 years, and for the lifetime of the member.  
 Option 4 - a reduced annuity to the member or the nominee for a guaranteed period of 10 years, and for the lifetime of the member.  
 Option 5 - a reduced annuity for the lifetime of the member, then pays three-fourths of that amount throughout the life of the nominee.

# Contribution Rates

Last Ten Fiscal Years

This schedule provides the amounts contributed by the employer for the defined benefit plans including ERS, LECOS, JRS2 and the State Retiree Health Plan. The rates are determined by the General Appropriations Act. Employer contribution rates are also listed for the Group Benefits Program. Those rates are set by the System's Board of Trustees and incorporated into the system's records

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Defined Benefit Plans</b>	%	%	%	%	%	%	%	%	%	%
<b>Employees Retirement Fund</b>										
Employee Class:				Blended (Note A)						
Employee (Note A)	6.00	6.00	6.00	6.48	6.50	6.50	6.50	6.60	6.90	9.50
Employer (Note B)	6.45	6.45	6.45	6.78	6.95	6.00	6.50	8.00	8.00	10.00
Elected Class:										
Legislators	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	9.50
Employer	6.45	6.45	6.45	6.45	6.45	6.00	6.50	8.00	8.00	10.00
Other Elected Class (Note A)	6.00	6.00	6.00	6.48	6.50	6.50	6.50	6.60	6.90	9.50
Employer (Note B)	6.45	6.45	6.45	6.78	6.95	6.00	6.50	8.00	8.00	10.00
<b>Law Enforcement and Custodial Officer Supplemental Retirement Fund (Note C)</b>										
Employee				0.50	0.50	0.50	0.50	0.50	0.50	0.50
Employer		1.59	1.59	1.59	1.59	0.00	0.50	0.50	0.50	0.50
<b>Judicial Retirement System Plan Two Fund</b>										
Employee	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.60	6.90	7.20
Employer	16.83	16.83	16.83	16.83	16.83	6.00	6.50	15.663	15.663	15.663
<b>State Retiree Health Plan (Note D)</b>										
<hr/>										
<b>Group Benefits Program</b>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Employee Only:										
State Contribution Monthly Rate	360.54	360.54	360.54	385.38	411.04	438.30	470.38	503.14	537.66	576.54
HealthSelect Monthly Premium	360.54	360.54	360.54	385.38	411.04	438.30	470.38	503.14	537.66	576.54
Employee & Children:										
State Contribution Monthly Rate	498.49	498.49	498.49	532.90	569.30	606.20	650.62	696.00	743.80	797.66
HealthSelect Monthly Premium	636.44	636.44	636.44	680.42	727.56	774.10	830.86	888.86	949.94	1,018.78
Employee & Spouse:										
State Contribution Monthly Rate	566.57	566.57	566.57	605.70	647.38	689.04	739.58	791.16	845.54	906.78
HealthSelect Monthly Premium	772.60	772.60	772.60	826.02	883.72	939.78	1,008.78	1,079.18	1,153.42	1,237.02
Employee & Family:										
State Contribution Monthly Rate	704.52	704.52	704.52	753.22	805.64	856.94	919.82	984.02	1,051.68	1,127.90
HealthSelect Monthly Premium	1,048.50	1,048.50	1,048.50	1,121.06	1,200.24	1,275.58	1,369.26	1,464.90	1,565.70	1,679.26

Note A: For Fiscal Year 2010, members contributed 6.45% from September, 2009 through December, 2009. Members contributed 6.5% from Jan. to August, 2010.

Note B: For Fiscal Year 2010, employer contributed 6.45% from September, 2009 through December, 2009. Employer contributed 6.95% from Jan. to August, 2010.

Note C: Fiscal Year 2010 is the first year that members contributed 0.5% to the Law Enforcement and Custodial Officer Supplemental Retirement Fund. Beginning in Fiscal Year 2016, an additional amount equivalent to 1.2% of payroll is contributed by employer from dedicated court fees.

Note D: The State Retiree Health Plan is a pay-as-you-go plan. The monthly rates as shown above are the same for active and retired members of the Group Benefits Program.

# Statistical Information – Defined Benefit Plans

(All items expressed as numbers unless otherwise indicated)

This schedule provides member census information for active, non-contributing, and various retirement for ERS, LECOS, and JRS2 and the State Retiree Health Plan. The member records for retiree and actives are from the System's actuarial records and the refunds are obtained from the System's records.

	Fiscal Year (Note A)									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Employees Retirement Fund</b>										
Active Contributing Members	132,497	134,626	141,223	142,490	137,293	132,669	133,669	134,162	142,409	146,390
Non-Contributing Members	67,803	74,094	72,585	78,737	84,900	90,190	96,015	96,507	101,122	108,873
Retirees and Beneficiaries	70,456	72,678	75,722	79,311	83,430	87,799	91,367	95,840	100,003	103,758
Service Retirements	4,110	4,445	4,338	4,803	5,734	5,860	5,174	6,180	5,982	5,605
Disability Retirements	98	115	95	67	74	68	113	51	60	63
<b>Law Enforcement and Custodial Officer Supplemental Retirement Fund (Notes B)</b>										
Active Contributing Members	36,413	33,642	37,819	39,052	36,806	37,404	37,415	37,084	38,526	39,066
Non-Contributing Members	27	35	39	2,978	5,785	7,129	10,187	11,311	12,962	15,203
Retirees and Beneficiaries	5,805	6,204	6,647	7,175	7,728	8,477	9,089	10,024	10,845	11,515
Service Retirements	553	637	559	635	695	895	741	1,071	959	803
Disability Retirements	4		2				3			
<b>Judicial Retirement System of Texas Plan Two</b>										
Active Contributing Members	515	518	533	539	546	541	545	554	563	548
Non-Contributing Members	115	120	134	130	134	143	152	139	148	166
Retirees and Beneficiaries	116	117	152	164	208	215	254	267	322	331
Service Retirements	24	6	36	12	43	8	43	14	57	9
Disability Retirements										1
<b>State Retiree Health Plan (Note C)</b>										
Retirees	75,958	80,543	83,494	86,111	90,213	95,375	100,054	104,770	109,311	113,430
Dependents	30,653	31,293	32,067	32,408	32,412	35,549	35,830	36,933	38,130	38,910

Note A: The source of the retirement systems membership is the System's actuary. The System's actuary includes members who retired on August 31 and received their first annuity in September as retirees in the actuarial valuation.

Note B: The members of the LECOS are also members of the ERS.

Note C: Due to GASB 43, retiree and active member data under the Group Benefit Program is shown separately beginning with FY 2007 data. The data in the table is for retired members and their dependents.

# Statistical Information – Other Programs

(All items expressed as numbers unless otherwise indicated)

This schedule provides ten year historical trend information for members of the TexaSaver 457 and 401(k) deferred compensation plans, the Commuter Spending Accounts, the cafeteria plan, and the Group Benefits Program. It also provides death benefit program information. Participant counts, current market values, and death benefit payments are from the System's records. Group Benefit Program member counts are from the System's insurance actuary.

	Fiscal Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>457 Deferred Compensation Plan (Note A)</b>										
TexaSaver 457 Plan (Note A):										
Total Participants	16,646	15,980	16,727	18,479	21,153	23,219	24,689	26,902	29,129	31,515
Participants Currently Deferring	9,475	10,282	10,295	11,649	13,293	14,189	14,385	20,030	16,685	17,052
Current Market Value of Plan Assets (in millions)	\$ 325.7	266.8	274.0	334.5	380.6	442.6	494.7	591.1	603.7	669.7
Original 457 Plan (Notes A & B):										
Total Participants	2,780	2,527	2,278	1,293	734	657	598	580	513	468
Participants Currently Deferring	101	82	74	63	57	53	38	32	22	17
<b>TexaSaver 401(k) Deferred Compensation Plan</b>										
Total Participants	55,212	61,692	80,735	96,250	109,613	121,516	135,237	151,034	165,513	181,249
Participants Currently Deferring	28,587	37,399	52,347	69,311	64,704	66,910	69,692	89,774	82,851	92,527
Current Market Value of Plan Assets (in millions)	\$ 1,154.0	1,143.0	1,085.0	1,249.5	1,315.5	1,527.2	1,593.8	1,853.9	1,836.2	1,984.7
Deferrals (in millions)	\$ 94.7	103.8	168.0	108.2	107.3	105.5	145.7	152.2	160.3	182.3
<b>Commuter Spending Account (CSA)</b>										
Reimbursement Accounts:										
Parking										14
Transit										127
Participant Contributions (Note C)										
<b>Cafeteria Plan</b>										
Reimbursement Accounts:										
Health Care	35,342	40,685	43,001	46,556	48,807	47,591	46,942	46,173	46,609	48,010
Dependent Care	2,836	3,012	3,261	3,549	3,686	3,747	3,747	3,785	3,880	3,825
Total Redirected (in millions)	\$ 67.5	75.3	80.2	87.5	93.7	92.8	91.9	78.9	78.5	80.3
Premium Conversion:										
Participants	210,744	215,618	223,980	228,121	222,295	218,587	219,357	221,876	222,789	226,864
Premiums Redirected (in millions)	\$ 386.4	389.7	410.3	457.4	482.4	487.5	500.9	509.2	522.1	548.3
Tax Savings (in millions):										
Employees	\$ 87.5	88.3	92.9	103.6	109.2	110.4	113.5	115.3	118.3	124.2
State of Texas	\$ 29.6	29.8	31.4	35.0	36.9	37.3	38.3	39.0	39.9	41.9
<b>Group Benefits Program (Note D)</b>										
Membership:										
Active	216,958	222,660	230,285	234,057	239,138	237,041	226,181	228,805	230,023	235,108
Dependents	199,833	190,573	198,420	197,979	183,626	172,695	171,023	169,282	166,772	168,161
COBRA (Note E)	2,009	2,138	2,178	2,544	2,213	2,460	1,674	1,144	1,167	984
<b>Total Membership</b>	<b>418,800</b>	<b>415,371</b>	<b>430,883</b>	<b>434,580</b>	<b>424,977</b>	<b>412,196</b>	<b>398,878</b>	<b>399,231</b>	<b>397,962</b>	<b>404,253</b>
<b>Death Benefit Programs</b>										
Lump Sum Payments	12	13	6	18	14	9	23	29	8	14
Monthly Payments to Guardians	114	111	100	103	107	99	111	112	114	114
Victims of Violent Crime	2	8	8	5	13	5	11	8	4	4

Note A: In fiscal year 2001, a new TexaSaver 457 Plan was established with different investment options. The original 457 Plan only offers life insurance products.

Note B: Data for the original 457 Plan is as of June 30, 2016.

Note C: The System implemented the Commuter Spending Accounts on January 1, 2016. During 2016, the participant contributions to the reimbursement accounts were immaterial for reporting in this schedule.

Note D: In fiscal year 2007, the Group Benefits Program was separated into two funds (Active and Retiree) due to the implementation of GASB 43.

Retired members and their dependents were moved to a fiduciary fund named the State Retiree Health Plan.

Note E: Starting in fiscal year 2006, the COBRA membership includes the beneficiaries of the COBRA group plan.

# Listing of Participating Reporting Entities for State Retiree Health Plan

This schedule provides a list of state agencies, universities, junior and community colleges, and other entities participating in the plan. The source of the data is from the System's records.

## State Agencies

Attorney General  
Board of Examiners of Psychologists  
Board of Law Examiners  
Board of Plumbing Examiners  
Bond Review Board  
Cancer Prevention and Research Institute of Texas  
Commission on Jail Standards  
Commission on State Emergency Communications  
Comptroller - State Energy Conservation Office  
Comptroller of Public Accounts  
Court of Appeals - First Court of Appeals District  
Court of Appeals - Second Court of Appeals District  
Court of Appeals - Third Court of Appeals District  
Court of Appeals - Fourth Court of Appeals District  
Court of Appeals - Fifth Court of Appeals District  
Court of Appeals - Sixth Court of Appeals District  
Court of Appeals - Seventh Court of Appeals District  
Court of Appeals - Eighth Court of Appeals District  
Court of Appeals - Ninth Court of Appeals District  
Court of Appeals - Tenth Court of Appeals District  
Court of Appeals - Eleventh Court of Appeals District  
Court of Appeals - Twelfth Court of Appeals District  
Court of Appeals - Thirteenth Court of Appeals District  
Court of Appeals - Fourteenth Court of Appeals District  
Court of Criminal Appeals  
Credit Union Department  
Department of Aging and Disability Services  
Department of Agriculture  
Department of Assistive and Rehabilitative Services  
Department of Family and Protective Services  
Department of Information Resources  
Department of Public Safety  
Department of Savings and Mortgage Lending  
Department of State Health Services  
District Courts - Comptroller's Judiciary Section  
Employees Retirement System of Texas  
Executive Council of Physical and Occupational Therapy  
Examiners  
General Land Office  
Governor - Executive  
Governor - Fiscal  
Health and Human Services Commission  
Health Professions Council  
House of Representatives  
Legislative Budget Board  
Legislative Reference Library  
Office of Capital and Forensic Writs  
Office of Consumer Credit Commissioner  
Office of Court Administration  
Office of Injured Employee Counsel  
Office of Public Insurance Counsel  
Office of Public Utility Counsel  
Parks and Wildlife Department  
Public Utility Commission of Texas  
Railroad Commission of Texas  
Secretary of State  
Senate  
Soil and Water Conservation Board  
State Auditor  
State Bar of Texas  
State Board of Dental Examiners  
State Board of Podiatric Medical Examiners  
State Board of Veterinary Medical Examiners  
State Commission on Judicial Conduct  
State Law Library  
State Office of Administrative Hearings  
State Office of Risk Management  
State Pension Review Board  
State Preservation Board  
State Prosecuting Attorney, Office of  
State Securities Board  
Sunset Advisory Commission  
Supreme Court  
Teacher Retirement System of Texas  
Texas Alcoholic Beverage Commission  
Texas Animal Health Commission  
Texas Board of Architectural Examiners  
Texas Board of Chiropractic Examiners  
Texas Board of Nursing  
Texas Board of Professional Engineers  
Texas Board of Professional Geoscientists  
Texas Board of Professional Land Surveying  
Texas Commission on Environmental Quality  
Texas Commission on Fire Protection  
Texas Commission on Law Enforcement  
Texas Commission on the Arts  
Texas Department of Banking  
Texas Department of Criminal Justice  
Texas Department of Housing and Community Affairs  
Texas Department of Insurance  
Texas Department of Licensing and Regulation  
Texas Department of Motor Vehicles  
Texas Department of Transportation  
Texas Education Agency  
Texas Emergency Services Retirement System  
Texas Ethics Commission  
Texas Facilities Commission  
Texas Funeral Service Commission  
Texas Higher Education Coordinating Board  
Texas Historical Commission  
Texas Juvenile Justice Department  
Texas Legislative Council  
Texas Lottery Commission  
Texas Medical Board  
Texas Military Department  
Texas Optometry Board  
Texas Public Finance Authority  
Texas Racing Commission  
Texas Real Estate Commission

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# Listing of Participating Reporting Entities for State Retiree Health Plan (Concluded)

## State Agencies (Continued)

Texas School for the Blind and Visually Impaired  
Texas School for the Deaf  
Texas State Board of Pharmacy  
Texas State Board of Public Accountancy  
Texas State Library and Archives Commission  
Texas Treasury Safekeeping Trust Company  
Texas Veterans Commission  
Texas Water Development Board  
Texas Workforce Commission

## Universities

Angelo State University  
Lamar Institute of Technology  
Lamar State College - Orange  
Lamar State College - Port Arthur  
Lamar University  
Midwestern State University  
Sam Houston State University  
Stephen F. Austin State University  
Sul Ross State University  
Texas Southern University  
Texas State Technical College System  
Texas State University  
Texas State University System  
Texas Tech University  
Texas Tech University Health Sciences Center  
Texas Tech University Health Sciences Center - El Paso  
Texas Tech University System  
Texas Woman's University  
University of Houston  
University of Houston - Clear Lake  
University of Houston - Downtown  
University of Houston - Victoria  
University of Houston System  
University of North Texas  
University of North Texas at Dallas  
University of North Texas Health Science Center at Fort Worth  
University of North Texas System

## Junior and Community Colleges

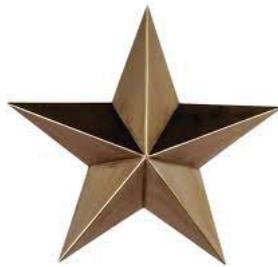
Alamo Community College  
Alvin Community College  
Amarillo College  
Angelina College  
Austin Community College  
Blinn College  
Brazosport College  
Central Texas College  
Cisco Junior College  
Clarendon College

Coastal Bend College  
College of the Mainland  
Collin County Community College District  
Dallas County Community College  
Del Mar College  
El Paso Community College  
Frank Phillips College  
Galveston College  
Grayson County College  
Hill College  
Houston Community College  
Howard College including Southwest Collegiate  
Institute for the Deaf  
Kilgore College  
Laredo Junior College  
Lee College  
Lone Star College System  
McLennan Community College  
Midland College  
Navarro College  
North Central Texas College  
Northeast Texas Community College  
Odessa College  
Panola College  
Paris Junior College  
Ranger Junior College  
San Jacinto College  
South Plains College  
South Texas Community College  
Southwest Texas Counties Junior College  
Tarrant County College District  
Temple College  
Texarkana College  
Texas Southmost College  
Trinity Valley Community College  
Tyler Junior College  
Vernon Regional Junior College  
Victoria College  
Weatherford College  
Western Texas College  
Wharton County Junior College

## Other Entities

Community Supervision & Corrections Departments  
Texas Cooperative Inspection Program  
Texas County and District Retirement System  
Texas Municipal Retirement System  
Texas Turnpike Authority  
University of Texas Medical Branch at Galveston  
University of Texas Mental Sciences Institute  
Windham School District

*The principal participating employer is the state of Texas. State agencies and universities employ 191,011, which is 81.2% of the employees covered by the State Retiree Health Plan.*





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