

CAFR 2018 ■ Comprehensive Annual Financial Report

Teacher Retirement System of Texas ■



The
Faces
of
TRS

A Component Unit of
the State of Texas

Fiscal Year Ended
August 31, 2018



Our Mission

Improving the retirement security of our members by prudently investing and managing the Trust assets and delivering benefits that make a **positive difference** in their lives.

As a part of this year's Comprehensive Annual Financial Report — *The Faces of TRS* — we're proud to honor the 2019 Texas Teacher of the Year finalists and winners. This program annually recognizes teachers from across Texas who have demonstrated outstanding leadership and excellence in classroom education. They inspire their students, their colleagues, their communities, and all of us at TRS.

Teacher Retirement System of Texas



**2018
Comprehensive
Annual
Financial Report**



A Component Unit of
the State of Texas

**Fiscal Year Ended
August 31, 2018**

Prepared by TRS Staff

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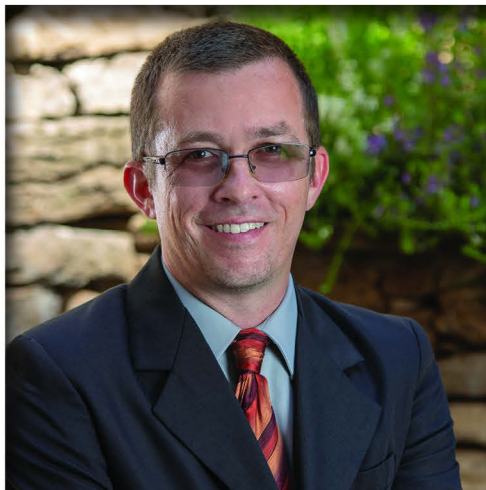
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Introductory Section ■ CAFR 2018



The Faces of TRS

2019 Texas Secondary School and Teacher of the Year Winner
Jeff Wheatcraft



Jeff's Snapshot

Position: Secondary School Science Teacher

Years Teaching: 12

Goals: Jeff believes in creating ever-evolving ways for students to engage in learning. His goal is to continue to run and develop a program that is rich in engagement and authentic learning.

Message: *The students I teach today will be entering a vastly different world in just a few years. When given a problem, they need to be able to find solutions without hand-holding. To promote this behavior in students, teachers must be willing to take more risks, venture out to find new problems, and facilitate students finding the solutions.*

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Jarvis V. Hollingsworth, Chair
Partner
Bracewell LLP
Missouri City
Direct appointment of the governor
Term expires 2023



Dolores Ramirez, Vice Chair
Teacher
San Benito CISD
San Benito
Active public education position
Term expires 2019



Joe Colonna
Private Investor
Dallas
Direct appointment of the governor
Term expires 2019



David Corpus
Senior Vice President
CommunityBank of Texas, N.A.
Humble
Position nominated by the State Board
of Education
Term expires 2019



John Elliott
Partner
Elliott Stratmann, PLLC
Austin
Direct appointment of the governor
Term expires 2021



Dr. Greg Gibson
Superintendent
Schertz-Cibolo-Universal City ISD
Schertz
Active public education position
Term expires 2021



Christopher Moss
President
Allendale, Inc.
DBA The Advanced Financial Group
Lufkin
Position nominated by the State Board
of Education
Term expires 2021

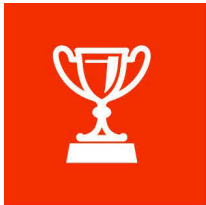


James Dick Nance
Former Texas Public School Teacher
Member of Texas Athletic Directors
Association
Hallettsville
Retiree position
Term expires 2023



Nanette Sissney
Counselor and Former Teacher
Whitesboro Independent School District
Whitesboro
At-Large position
Term expires 2023

For information on the board election process, please refer to Note 1 in the Financial Section.



Government Finance Officers Association

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Achievement
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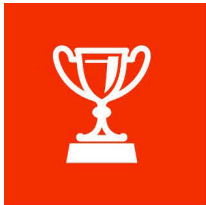
**Teacher Retirement System
of Texas**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

August 31, 2017

Christopher P. Morill

Executive Director/CEO



Public Pension Coordinating Council

***Recognition Award for Administration
2017***

Presented to

Teacher 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".

Alan H. Winkle
Program Administrator



www.trs.state.tx.us

800.223.8778

512.542.6400

Brian K. Guthrie

Executive Director

1000 Red River Street
Austin, Texas 78701-2698

November 20, 2018

Honorable Greg Abbott, Governor
Honorable Glenn Hegar, Texas Comptroller
Sarah Keyton, Legislative Budget Board
John McGeady, Legislative Budget Board
Lisa Collier, First Assistant State Auditor
The Board of Trustees and Members of the Teacher Retirement System

Ladies and Gentlemen,

On behalf of the board of trustees, I am pleased to present the Comprehensive Annual Financial Report (CAFR) of the Teacher Retirement System of Texas (TRS or System) for the fiscal year ended August 31, 2018, the System's 81st year of operation. During the past fiscal year, the System experienced modest growth as membership grew by 46,898, ending the year with 1,591,955 participants. The Pension Trust Fund saw positive returns in the past year, ending the 2018 fiscal year with a net position of \$154.6 billion compared to \$147.3 billion at the close of the 2017 fiscal year. TRS investment earnings, combined with contribution increases and benefit changes approved by the 85th Texas Legislature, are continuing to enable TRS to provide secure benefits for current and future retirees.

Management Responsibility

This report consists of management's representations concerning TRS finances. Management assumes full responsibility for the completeness and reliability of all information presented in this report. To provide a reasonable basis for making these representations, management maintains a comprehensive internal control framework designed to protect assets from loss, theft, or misuse and to compile sufficient, reliable information for the preparation of TRS' financial statements in conformity with Generally Accepted Accounting Principles (GAAP). The objective of the internal control framework is to provide reasonable rather than absolute assurance that the financial statements will be free from material misstatement since the cost of controls should not exceed the benefits to be derived. As management, we assert that, to the best of our knowledge and belief, this financial report is complete and reliable in all material respects.

Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded TRS the Certificate of Achievement for Excellence in Financial Reporting for its CAFR for the previous fiscal year. To be awarded the certificate, a report must meet or exceed program standards and must satisfy both GAAP and applicable legal requirements. TRS has received a Certificate of Achievement for the last 28 years. We believe that the current report continues to meet program requirements, and will be submitted to the GFOA for consideration again this year.

Financial Information

The Basic Financial Statements have been prepared in accordance with GAAP applied on a consistent basis as promulgated by the Governmental Accounting Standards Board (GASB). The Management's Discussion and Analysis (MD&A) includes a narrative introduction, overview, and analysis to accompany the financial statements. This transmittal letter is designed to complement the MD&A and should be read in conjunction with it. The MD&A can be found immediately following the Independent Auditor's Report.

Investments

For the twelve-month period ending August 31, 2018, the total portfolio delivered investment returns of 8.2 percent, which is 0.8 percent above the Fund's benchmark. By asset class, returns were 10.8 percent for Global Equity, 0.3 percent for Stable Value, and 8.7 percent for Real Return. On a three-year annualized basis, the Pension Trust Fund (Fund) has returned 9.4 percent, which is 0.6 percent above its benchmark. As a result, the total investment value of the Fund as of August 31 was \$154.1 billion, or \$8.0 billion more than this time last year, after contributions and benefit payouts. Annual rates of return for the five and ten-year periods ending August 31, 2018, were 8.8 percent and 7.1 percent, respectively.

Investment risks are diversified over a very broad range of market sectors and securities. TRS' investment strategy is designed to minimize downside risk while capturing upside performance, and it reduces portfolio risk from adverse developments in sectors and issuers experiencing unusual difficulties and offers opportunity to benefit from future markets.

Pension Plan Benefits

For fiscal year 2018, TRS made pension benefit payments to more than 420,000 retirees and their beneficiaries totaling \$10.3 billion. These benefits were funded from a combination of cumulative investment income, member contributions, and state and employer contributions.

Actuarial Soundness of the Pension Trust Fund

As of August 31, 2018, the System had a funded ratio of 76.9 percent with an Unfunded Actuarial Accrued Liability (UAAL) of \$46.2 billion. The unfunded actuarial liability grew materially since the previous valuation due to changes in the actuarial assumptions adopting during an experience study performed in 2018. Most other sources of change were immaterial.

The System earned a return of 7.7 percent on market value, compared to an assumed rate of 8.0 percent. This slight investment shortfall partially offset the prior year's deferred investment gains, but the net was a small gain on the actuarial value of assets. As a result, the System is now deferring net investment gains of \$0.5 billion.

The period of time necessary to amortize the unfunded liability has increased from 32 years to 87 years. Given that current contributions cannot amortize the unfunded liability in less than 31 years, the System does not meet the State's definition for actuarial soundness.

In 2013, the Legislature adopted Senate Bill 1458 that provided a stair-step increase in the member contribution rate from 6.4 percent in fiscal year 2015 to 7.7 percent in FY 2018. The State contribution rate for fiscal year 2018 was 6.8 percent, and districts that do not participate in Social Security pay a 1.5 percent contribution rate to the System. Based on this funding policy, it is estimated that the unfunded liability will increase for several decades before beginning to decline.

Retiree Health Benefits Program

TRS administers TRS-Care, a health benefits program for eligible retired public education employees and their eligible dependents that was established in 1985. TRS-Care is the source of health benefits coverage upon which a substantial portion of retired public education employees rely. Funding is provided by premium payments from retiree participants and contributions from the state, public schools, and active public education employees. TRS-Care also receives additional revenue from the Medicare Part D subsidy program.

An actuarial valuation for TRS-Care was conducted as of August 31, 2018. The valuation results indicate that TRS-Care has a Net Other Post-Employment Benefit Liability of \$49.9 billion. The program was 1.6 percent funded as of the end of the fiscal year 2018. More detailed information about the valuation results is included in the Notes to the Financial Statements and the Required Supplementary Information.

The current funding formula of 1.0 percent of public school payroll from the State, 0.55 percent from the participating employers and 0.65 percent from the active employees is insufficient to sustain the TRS-Care program. Funding from

the 84th legislature infused \$768 million into the program to ensure solvency of the TRS-Care fund through the 17-18 Biennium. Even with the additional funding, projections for the TRS-Care balance showed a shortfall ranging from \$230 to \$411 million for the 2020-21 biennium. The 85th Legislature, in regular and special sessions, contributed additional funding to address the current solvency and affordability of TRS-Care.

Active Member Health Benefits Program

TRS-ActiveCare, initiated in 2002, is a self-funded health benefits program that offers plan options that range from catastrophic coverage with reduced premiums to a comprehensive plan at higher premiums. TRS-ActiveCare covers active employees currently employed by public education employers that participate in the program, along with the employees' eligible dependents. TRS-ActiveCare is funded by State, employer, and active employee contributions. Each Plan year, the TRS Board of Trustees has made plan changes and increased premiums to sustain the program. For the 2019 plan year, the Board voted to eliminate new access to the highest plan level.

Agency Highlights

During the past year, TRS continued progress on the TRS Enterprise Application Modernization (TEAM) Program that launched in October 2017. Phase 1 included the new reporting entity portal and processes related to active membership. Since launching Phase 1, numerous enhancements have been made to improve service to our members and employers.

TRS completed the requirements gathering process stage for Phase 2, including functionality related to benefits, annuity payroll, and a new MyTRS portal for TRS participants in September 2018. TRS continues work on a separate Health Insurance Line of Business project that will provide enrollment functionality for TRS-Care. TRS successfully implemented the financial portion of the Centralized Accounting and Payroll/Personnel System (CAPPS) which replaced TRS' legacy financial and budgeting systems, beginning with September 2018.

At the end of fiscal year 2018, TRS implemented a powerful interactive voice recognition (IVR) call center software system. The IVR system allows customers to authenticate and use self-service options to obtain information at any time. The software will enable the contact center to operate more efficiently, increase the quality of customer service, and ensure focus on TRS members.

After a decade of level, full-time employee (FTE) counts in the member customer service area, TRS began hiring additional counselors to serve its growing membership. TRS increased the number of available appointments from 10,000 in previous fiscal years to 20,000 in fiscal 2019.

Acknowledgments

We wish to express our appreciation for the support of the Governor's, Lieutenant Governor's, and Speaker's Offices, as well as members of the legislature, in maintaining a strong retirement system, which provides valuable benefits for public education employees and retirees.

We are grateful for the dedicated service of all of our trustees. Trustee willingness to accept the substantial responsibilities of directing system administration is a great service to the State and to the members served by TRS.

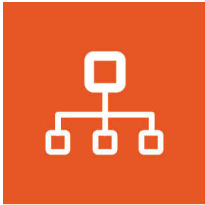
TRS trustees and staff are keenly focused on prudent Pension Trust Fund portfolio management and efficient, service-oriented delivery of valuable retirement and related benefits for public education employees and retirees. We are pleased to report on operational results for the year and to acknowledge the substantial support of state leadership, trustees, members, interested associations, and TRS staff.

Respectfully submitted,



Brian K. Guthrie
Executive Director

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Executive Administrative Staff

Brian K. Guthrie, *Executive Director*
Ken Welch, *Deputy Director*
Jerry Albright, *Chief Investment Officer*
Carolina de Onís, *General Counsel*
Amy L. Barrett, *Chief Audit Executive*
Barbie Pearson, *Chief Benefit Officer*
Don Green, *Chief Financial Officer*
Katrina Daniel, *Chief Health Care Officer*
Chris Cutler, *Chief Information Officer*
Janet L. Bray, *Chief Talent Officer*
Rebecca K. Merrill, *Chief Strategy Officer*
Heather Traeger, *Chief Compliance Officer
and Compliance Counsel*
Ray Spivey, *Special Advisor to the Executive Director*
Carolyn Perez, *Director, Communications*
Merita Zoga, *Director, Governmental Relations*
David Cook, *Director, Project Management Office*

General Investment Consultant

Aon Hewitt Investment Consulting, Inc., Chicago, IL

Consulting Actuary

Gabriel, Roeder, Smith & Company, Dallas

International Tax Consulting and Compliance Services

Ernst & Young, L.L.P., Austin and London, England

Investment Consultants

Albourne America, L.L.C.,
San Francisco, CA (Absolute Return)
BlackRock Investment Management, L.L.C.,
New York, NY (Private Equity Co-investments)
Grosvenor Capital Management, L.P.,
Chicago, IL (Emerging Managers)
Hamilton Lane Advisors, L.L.C.,
San Francisco, CA and Bala Cynwyd, PA (Private Equity)
LaSalle Investment Management, Inc.,
Chicago, IL (Real Estate)
Parella Weinberg Partners Capital Management, L.P.,
Houston (Energy and Natural Resources)
The Rock Creek Group, L.P.,
Washington, D.C. (Emerging Managers)
The Townsend Group, Inc.,
Cleveland, OH (Real Estate)
Valuation Research Corporation,
New York, NY (Private Investment Valuation)
W.D. Von Gonten & Co.,
Houston (Oil and Gas)

Investment Advisors

Keith C. Brown, Ph.D., Austin

Audit Services

Texas State Auditor's Office, Austin

Fiduciary Counsel

Reinhart Boerner Van Deuren, S.C., Milwaukee, WI

Medical Board

Dr. Alice Cox, Fredericksburg
Dr. James Reinartz, Austin
Dr. Larry D. Wilson, Austin

Texas Public School Retired Employees Group Insurance Program Advisory Committee

Nancy Byler, Early
Marcia McNeil, Austin
Grace Mueller, McQueeney
Teresa Koehler, Houston
Dr. Celeste Cardenas, McAllen
Dr. H. John Fuller, Mineola
Dr. Bruce Gearing, Austin
Jesus H. Soto, San Antonio
Andrea Avery, Lancaster

Health Care and Actuarial Consultant

Gabriel, Roeder, Smith & Company, Dallas

Master Custodian and Securities Lending Agent

State Street Bank and Trust Company, Boston, MA

Performance Measurement

State Street Bank and Trust Company, Boston, MA

*For a schedule of fees and commissions, please refer to the
Investment Section.*

Pension Trust Fund

Membership of the Teacher Retirement System of Texas includes employees and retirees of state-supported educational institutions in Texas. Participating employers for fiscal year 2018 are disclosed in the following table.

Participating Employers	2018
Public School Districts	1,024
Charter Schools	171
Community and Junior Colleges	50
Senior Colleges and Universities	47
Regional Service Centers	20
Medical Schools	9
Other Education Districts	4
State Agencies	1
Total	1,326

Member Categories	As of August 31,	
	2018	2017
Current Members		
Active Contributing	872,999	864,261
Inactive Non-vested	193,498	174,918
Inactive Vested	105,000	98,110
Total Current Members	1,171,497	1,137,289
Retirement Recipients		
Service	391,927	379,765
Disability	11,914	11,802
Survivor	16,617	16,201
Total Retirement Recipients	420,458	407,768
Total Membership	1,591,955	1,545,057

Population Changes	As of August 31,	
	2018	2017
Active Membership		
New Members	81,984	92,576
Members Withdrawing	(35,497)	(42,370)
Service Retirements	(19,580)	(20,986)
Disability Retirements	(693)	(791)
In-Service Deaths	1,191	(1,452)
Other Changes	6,803	286
Net Increase in Active Membership	34,208	27,263
Retired Membership		
Retirements	20,273	21,777
Deaths After Retirement	(9,042)	(8,700)
Option Continuations	2,591	2,745
Other Changes	(1,132)	(1,968)
Net Increase in Retired Membership	12,690	13,854

Active Member Profile	As of August 31,	
	2018	2017
Average Annual Salary	\$ 48,232	\$ 47,330
Average Age	44.7	44.6
Average Years of Service	10.4	10.3

Annuitant and Beneficiary Profile	As of August 31,	
	2018	2017
Average Monthly Annuities		
Life Annuities	\$ 2,078	\$ 2,060
Disability Annuities	1,188	1,178
Annuities Certain	1,153	1,125
Average Age of Current Retirees	71.4	71.2
Average Age at Retirement		
All Retirees	60.2	60.2
Current Year Retirees	62.1	61.9
Average Years of Service		
All Retirees	24.2	24.3
Current Year Retirees	22.9	23.1
Average Salary at Retirement		
All Retirees	\$ 45,246	\$ 44,527
Current Year Retirees	53,200	52,510
Ratio of Current Members to Retirees	2.8 to 1	2.8 to 1

Texas Public School Retired Employees Group Insurance Program (TRS-Care)

Membership of TRS-Care is eligible to TRS public school retirees. There were 1,219 participating employers during fiscal year 2018.

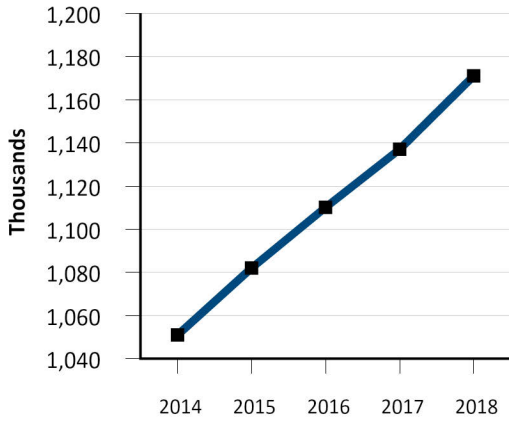
Member Categories	As of August 31,	
	2018	2017
Retirees	187,960	204,987
Surviving Spouses	6,283	6,672
Surviving Children	121	125
Dependent Spouses and Children	42,201	56,643
Total Membership	236,565	268,427

TRS-ActiveCare

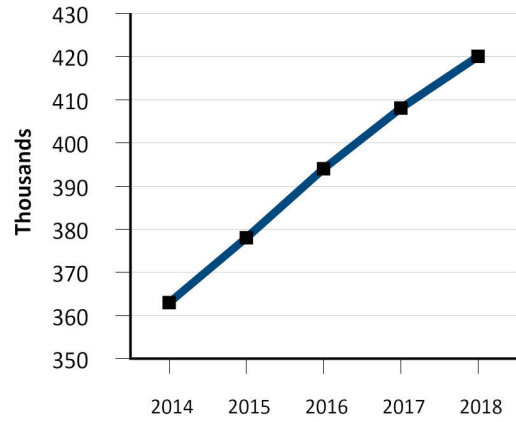
Membership of TRS-ActiveCare includes employees of public school districts, open enrollment charter schools, regional service centers, and other educational districts. There were 1,089 participating employers during fiscal year 2018.

Member Categories	As of August 31,	
	2018	2017
Employees	308,259	305,234
Dependents	177,638	187,083
Total Membership	485,897	492,317

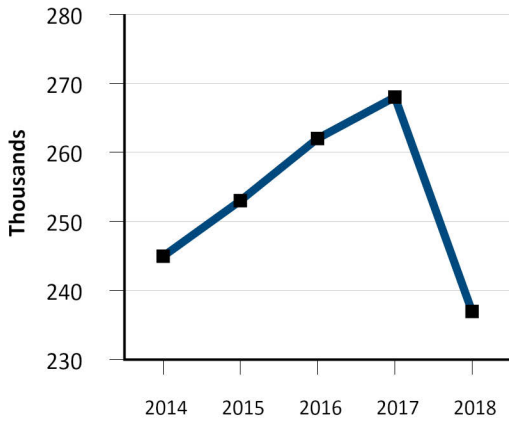
**Pension Trust Fund
Current Members**



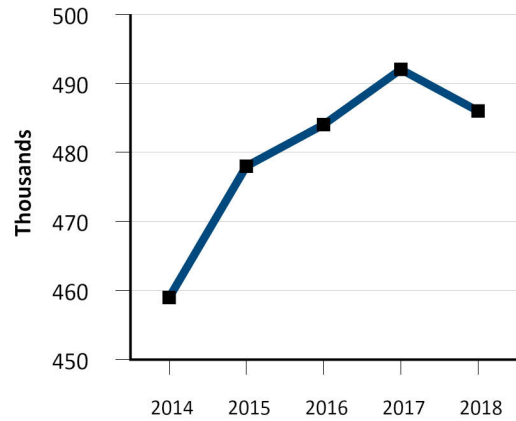
**Pension Trust Fund
Retirement Recipients**



**TRS-Care
Membership by Year**



**TRS-ActiveCare
Membership by Year**



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**The Faces
of TRS**

2019 Texas Elementary
Teacher of the Year Winner
Rhonda Peña



Rhonda's Snapshot

Position: Elementary School
Math Teacher

Years Teaching: 28

Goals: Rhonda has seen many children enter her classroom who are unsure of their abilities. It is her goal to build up their confidence so that they leave with a sense of pride and a love for learning.

Message: *My message to educators, parents, and the public is that "Building Relationships Will Build Respect and Success." Our students are our future and they deserve every ounce of our effort to help guide them toward a productive life. If, as a teacher, I am able to know my students' interests, I will be able to reach out and pull them into the classroom learning experience.*

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Independent Auditor's Report

Teacher Retirement System Board of Trustees

Mr. Jarvis V. Hollingsworth, Chairman
Ms. Dolores Ramirez, Vice Chair
Mr. Joe Colonna
Mr. David Corpus
Mr. John Elliott
Dr. Greg Gibson
Mr. Christopher Moss
Mr. James D. Nance
Ms. Nanette Sissney

Report on the Financial Statements

We have audited the accompanying financial statements of the major enterprise fund and the aggregate remaining funds information, consisting of the fiduciary funds and the non-major enterprise fund of the Teacher Retirement System (System), a component unit of the State of Texas, as of and for the year ended August 31, 2018, 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 an opinion on the 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.

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

Robert E. Johnson Building
1501 N. Congress Avenue
Austin, Texas 78701

P.O. Box 12067
Austin, Texas 78711-2067

Phone:
(512) 936-9500

Fax:
(512) 936-9400

Internet:
www.sao.texas.gov

SAO Report No. 19-303

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 major enterprise fund and aggregate remaining funds information, consisting of the fiduciary funds and the non-major enterprise fund of the System, as of August 31, 2018, 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

Teacher Retirement System Financial Statements

The financial statements of the System are intended to present the financial position, the changes in financial position and, where applicable, cash flows of only that portion of the major enterprise fund and the aggregate remaining funds information of the State 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, 2018, 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 3, the financial statements include investments valued at approximately \$65 billion as of August 31, 2018, 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.

Estimated Pension Liability

As discussed in Note 11, TRS calculates and discloses an estimated pension liability for the plan members. During fiscal year 2018, the System lowered the long-term rate of return used to calculate the pension liability from 8.00 percent to 7.25 percent. The pension liability for the System is disclosed in the notes to the financial statements and is estimated at \$55 billion as of August 31, 2018. Additionally as discussed in Note 11, the System chose to use the roll forward method to estimate the pension liability for the year ended 2018. 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, Pension Trust Fund schedules as listed in the Table of Contents, and TRS-Care schedules 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 basic financial statements. The information in Exhibit A and Schedules 1 through 3, as listed in the Table of Contents are presented for purposes of additional analysis and are not a required part of the financial statements.

The information in Exhibit A and Schedules 1 through 3, as listed in Table of Contents is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional

procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information in Exhibit A and Schedules 1 through 3, as listed in Table of Contents is fairly stated in all material respects in relation to the basic financial statements as a whole.

The Introductory, Investment, Actuarial, Statistical, and Benefits 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 it.

Report on Summarized Comparative Information

We have previously audited the System's fiscal year 2017 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated November 20, 2017. In our opinion, the summarized comparative information presented herein as of and for the year ended August 31, 2017, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we will issue a separate report 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 solely 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 the effectiveness of the System's 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

November 20, 2018

Management's Discussion and Analysis

We are pleased to provide this overview of the Teacher Retirement System's (TRS or System) financial performance for the fiscal year ended August 31, 2018. The information presented herein should be read in conjunction with other areas within the Financial Section.

Financial Highlights

- The net position of the TRS Pension Trust Fund was \$154.6 billion as of August 31, 2018, an increase of \$7.3 billion in fiscal year 2018.
- The net pension liability was \$55.0 billion, a \$23.1 billion increase from August 31, 2017 when the liability stood at \$32.0 billion.
- Fiscal year 2018 investment income was \$11.2 billion, a decrease of \$5.8 billion over 2017.
- Pension Plan investments experienced an 8.2 percent annual rate of return for the year ended August 31, 2018, compared with a 12.6 percent rate of return for fiscal year 2017.
- The net position of TRS-Care was \$798.6 million as of August 31, 2018, an increase of \$429.8 million from fiscal year end 2017.
- TRS-Care's net Other Post-Employment Benefit (OPEB) liability was \$49.9 billion. The liability increased \$6.4 billion from the prior year.
- TRS-ActiveCare had a net position of \$56.3 million as of August 31, 2018, a decrease of \$41.5 million in fiscal year 2018.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the TRS financial presentation, which consists of the following components:

- Basic Financial Statements
- Notes to the Financial Statements
- Required Supplementary Information
- Other Supplementary Information

This information presents the net position available for the funds TRS administers as of August 31, 2018 and any changes in net position for the year then ended. The information available in each of these sections is summarized below.

Basic Financial Statements

Basic Financial Statements are presented for the major funds for the fiscal year ended August 31, 2018, along with comparative data for the prior year. Financials presented include the Pension Trust Fund, TRS-Care Fund, TRS-ActiveCare Fund, Agency Fund, and the 403(b) Administrative Program Fund.

Notes to the Financial Statements

The Notes to the Financial Statements provide additional information that is essential to a full understanding of the financial position and are considered an integral part of the financial statements.

Required Supplementary Information

Required Supplementary Information (RSI) consists of the Governmental Accounting Standards Board (GASB) related requirements for the Pension, TRS-Care, and OPEB Funds.

Other Supplementary Information

Other Supplementary Information includes information, including administrative and investing activity expenses and payments to consultants.

Growth of the System

As of August 2018, the monthly annuity payroll had grown to \$822.7 million, and TRS was paying benefits to 420,458 recipients. Benefit payments by type of recipient is illustrated in a graph in the financial analysis of the TRS Pension Trust Fund on the following pages.

Pension recipients include retirees and beneficiaries. Disability recipients are disabled members who are receiving disability payments. Survivor recipients are beneficiaries who have elected to receive death benefits in the form of monthly payments. The number of retiree accounts increased by 12,690 during fiscal year 2018.

Of the current TRS member accounts, 872,999 active contributing and deferred retirement option participants were employed during fiscal year 2018 and made contributions to the System. The remaining 298,498 members were no longer employed by TRS covered employers but maintained their membership in TRS by leaving their contributions in the System. The number of current member accounts increased by 34,208 during fiscal year 2018.

Financial Analysis of TRS Funds

Pension Trust Fund

Net position held in trust for benefits at August 31, 2018 was \$154.6 billion, an increase of \$7.3 billion from the \$147.3 billion at August 31, 2017, which includes a prior period adjustment of \$(95.5) million to beginning net position.

Fiscal year 2018 investment income was \$11.2 billion, a decrease of \$5.8 billion over 2017. The year was characterized by moderate global growth and inflation, tightening global monetary policy in developed markets led by the United States, and the outperformance of developed markets versus emerging markets.

Total contributions and other additions increased \$214.9 million, or 3.3 percent, during fiscal year 2018. The increase is due to normal payroll growth.

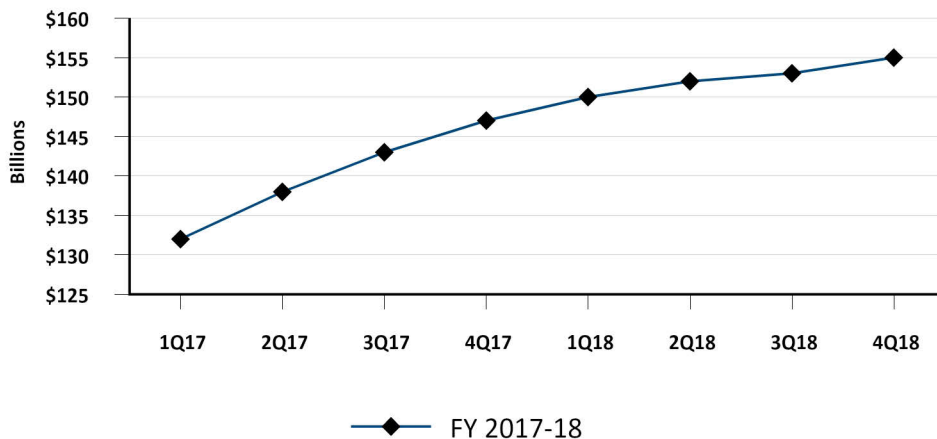
Deductions from net position are primarily retirement pension payments. For fiscal year 2018, benefit

payments totaled \$10.3 billion, an increase of \$401.7 million. This is in line with the increase in the number of retirees from the previous year. Administrative expenses were \$64.9 million compared to \$44.2 million from fiscal year 2017. This increase is a result of an increase in employee count and salary increases. Previous capital items related to the TRS Enterprise Application Modernization (TEAM) program, which are now being expensed, also impacted the increase.

Administrative expenses, excluding investing activities expenses, on a cost per member basis were \$40.78 for fiscal year 2018 compared to \$28.60 in fiscal year 2017.

Investment cost per member was \$133.85 for fiscal year 2018 as compared to \$141.17 in fiscal year 2017. Investment expense in basis points of net position was 14.10 for fiscal year 2018 and was calculated using average net asset value. Investment expense in basis points for fiscal year 2017 was 15.5.

**Pension Trust Fund
Net Position
Fiscal Years 2017-18**



Statement of Fiduciary Net Position**Pension Trust Fund**

As of August 31

(Dollars in Thousands)

	2018	2017	Dollar Change	Percentage Change
Assets				
Cash and Receivables	\$ 1,822,151	\$ 1,721,984	\$ 100,167	5.8 %
Investments	154,699,525	145,916,402	8,783,123	6.0
Invested Securities Lending Collateral	20,335,310	17,654,071	2,681,239	15.2
Capital Assets	85,468	86,885	(1,417)	(1.6)
Total Assets	\$ 176,942,454	\$ 165,379,342	\$ 11,563,113	7.0 %
Total Deferred Outflow of Resources	\$ 2,436	N/A	\$ 2,436	N/A
Liabilities				
Benefits Payable	\$ 120,465	\$ 128,998	\$ (8,533)	(6.6)%
Net Other Post Employment Benefit Liability	81,850	N/A	81,850	N/A
Investments Purchased Payable/Securities Sold Short	1,726,935	801,219	925,716	115.5
Accounts Payable and Other	107,990	51,548	56,442	109.5
Collateral Obligations	20,320,456	17,035,655	3,284,801	19.3
Total Liabilities	\$ 22,357,696	\$ 18,017,420	\$ 4,340,276	24.1 %
Total Deferred Inflow of Resources	\$ 18,292	N/A	\$ 18,292	N/A
Total Net Position	\$ 154,568,902	\$ 147,361,922		
Prior Period Adjustment		(95,543)		
Restated Net Position	\$ 154,568,902	\$ 147,266,379	\$ 7,302,523	5.0 %

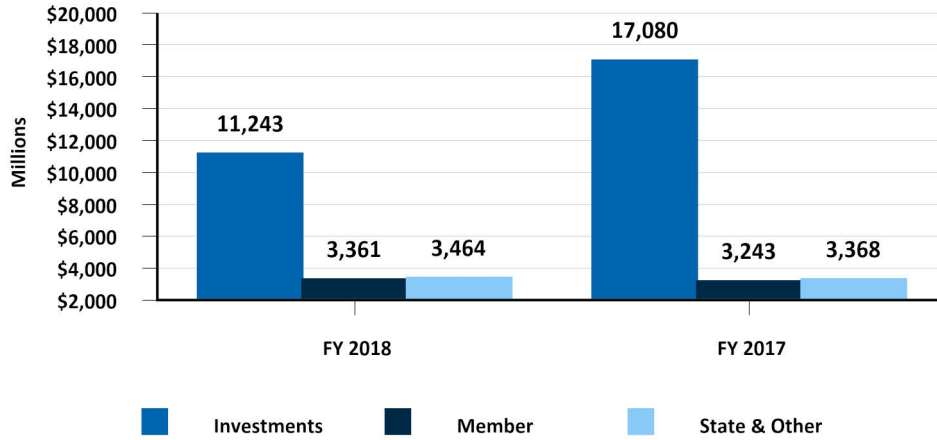
Statement of Changes in Fiduciary Net Position**Pension Trust Fund**

For the Fiscal Years Ended August 31

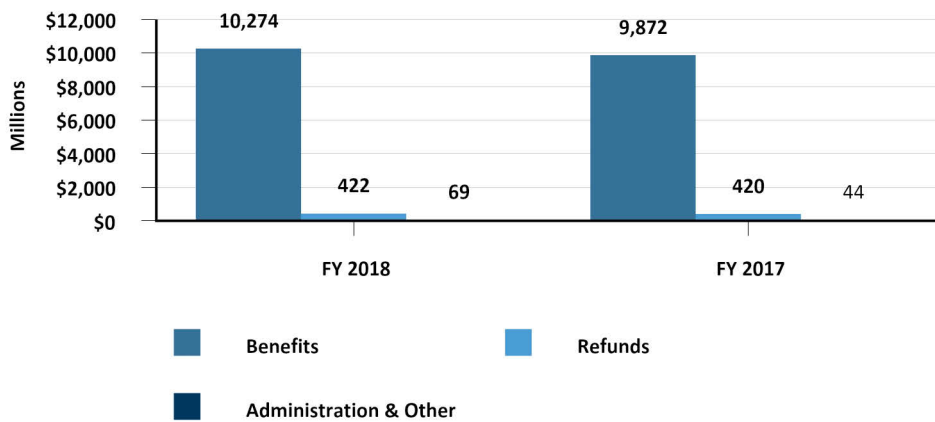
(Dollars in Thousands)

	2018	2017	Dollar Change	Percentage Change
Additions				
Member Contributions	\$ 3,360,773	\$ 3,242,556	\$ 118,217	3.6 %
Non-Employer Contributing Entity Contributions	1,715,785	1,697,963	17,822	1.0
Employer Contributions	1,671,257	1,588,309	82,948	5.2
Other Revenue	77,317	81,367	(4,050)	(5.0)
Investment Income	11,242,814	17,079,807	(5,836,993)	(34.2)
Total Additions	\$ 18,067,946	\$ 23,690,002	\$ (5,622,056)	(23.7)%
Deductions				
Retirement Benefits and Other	\$ 10,273,780	\$ 9,872,107	\$ 401,673	4.1 %
Refunds of Contributions	422,336	420,421	1,915	0.5
Other Post Employment Benefit Expense	4,380	N/A	4,380	N/A
Administrative Expenses	64,927	44,189	20,738	46.9
Total Deductions	\$ 10,765,423	\$ 10,336,717	\$ 428,707	4.5 %
Change in Net Position	\$ 7,302,523	\$ 13,353,285	\$ (6,050,763)	(45.3)%
Prior Period Adjustment		(95,543)		
Restated Change in Net Position	\$ 7,302,523	\$ 13,257,742	\$ (5,955,219)	(44.9)%

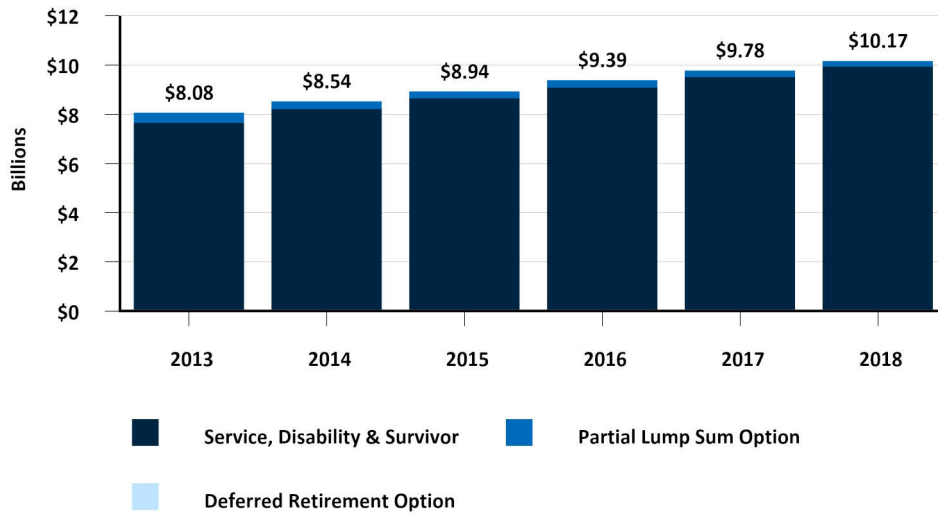
**Pension Trust Fund
Additions to Net Position
Fiscal Years 2017-18**



**Pension Trust Fund
Deductions from Net Position
Fiscal Years 2017-18**



Total Annual Benefit Payments

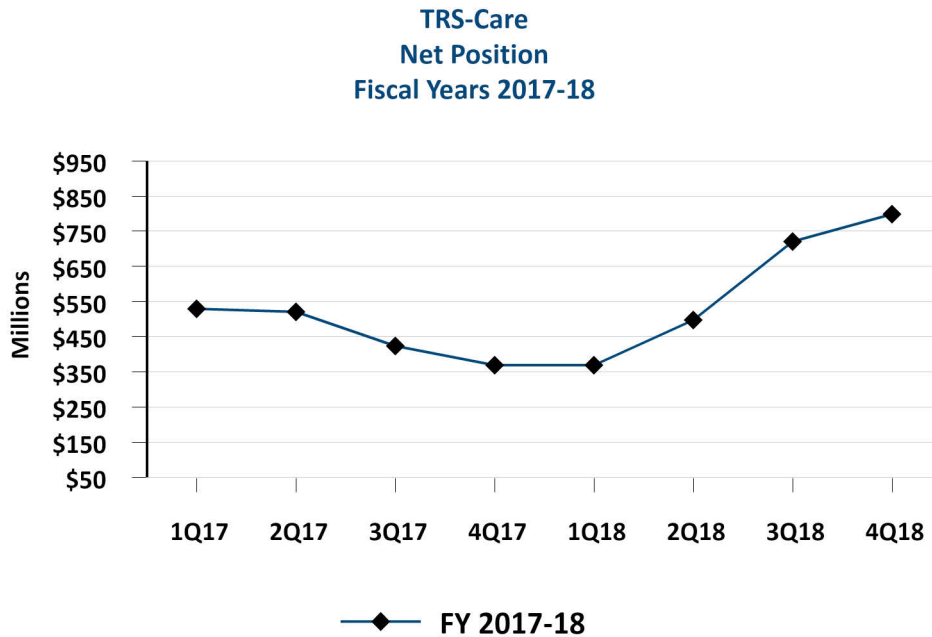


TRS-Care

The net position of TRS-Care at August 31, 2018 was \$798.6 million, an increase of \$429.8 million from the \$368.7 million at August 31, 2017, which includes a prior period adjustment of \$(30.8) million to beginning net position. The increase is primarily due to a supplemental appropriation from the State of Texas of \$394.6 million.

Total contributions of \$913.0 million increased \$180.7 million from \$732.4 million in fiscal year 2017 due to increases in the contributions rates for the State (1.00 percent to 1.25 percent) and employers (0.55 percent to 0.75 percent). Investment income totaled \$10.1 million, which was an increase of \$5.4 million million from 2017.

Deductions from net position totaled \$1.3 billion during fiscal year 2018 which was a decrease of \$112.1 million from fiscal year 2017. This was mainly due to a decrease of \$85.5 million in health care claims and an \$84.0 million increase in health care premiums paid by retirees, which is a contra expense of health care claims. The increase in health care fees of \$36.3 million is due to the reenactment of the Affordable Care Act Health Insurance Fee (HIF) that was suspended for 2017. Insurance premium fees increased by \$22.0 million due to increases in enrollment and premiums.



Statement of Fiduciary Net Position**TRS-Care**

As of August 31

(Dollars in Thousands)

	2018	2017	Dollar Change	Percentage Change
Assets				
Cash, Receivables and Capital Assets	\$ 1,001,650	\$ 526,398	\$ 475,252	90.3%
Total Assets	\$ 1,001,650	\$ 526,398	\$ 475,252	90.3%
Liabilities				
Accounts Payables and Other	\$ 6,668	\$ 926	\$ 5,742	620.1%
Health Care Fees Payable	36,945	360	36,585	10,162.5
Health Care Claims Payable	159,462	125,576	33,886	27.0
Total Liabilities	\$ 203,075	\$ 126,862	\$ 76,213	60.1%
Net Position	\$ 798,575	\$ 399,536		
Prior Period Adjustment		(30,798)		
Restated Net Position	\$ 798,575	\$ 368,738	\$ 429,838	116.6%

Statement of Changes in Fiduciary Net Position**TRS-Care**

For the Fiscal Years Ended August 31

(Dollars in Thousands)

	2018	2017	Dollar Change	Percentage Change
Additions				
Member Contributions	\$ 221,325	\$ 213,241	\$ 8,084	3.8 %
Non-Employer Contributing Entity Contributions	395,589	303,761	91,828	30.2
Participating Employers Contributions	296,099	215,360	80,739	37.5
Rebates and Discount Income	284,291	291,726	(7,435)	(2.5)
Federal Revenue	103,403	101,719	1,684	1.7
Other Revenue	803	529	274	51.8
Investment Income	10,127	4,697	5,430	115.6
Supplemental Appropriation from State's General Fund - Non-Employer Contributing Entity	394,600	15,559	379,041	2,436.2
Total Additions	\$ 1,706,237	\$ 1,146,592	\$ 559,645	48.8 %
Deductions				
Health Care Claims	\$ 1,593,382	\$ 1,678,892	\$ (85,510)	(5.1)%
Less: Health Care Premiums Paid by Retirees	(488,069)	(404,028)	(84,041)	20.8
Health Care Claims Processing	43,264	45,873	(2,609)	(5.7)
Insurance Premium Payments	83,829	61,793	22,036	35.7
Health Care Fees	37,321	1,058	36,263	3,427.5
Administrative Expenses	6,673	4,954	1,719	34.7
Total Deductions	\$ 1,276,400	\$ 1,388,542	\$ (112,142)	(8.1)%
Change in Net Position	\$ 429,838	\$ (241,950)		
Prior Period Adjustment		(30,798)		
Restated Change in Net Position	\$ 429,838	\$ (272,748)	\$ 702,586	(257.6)%

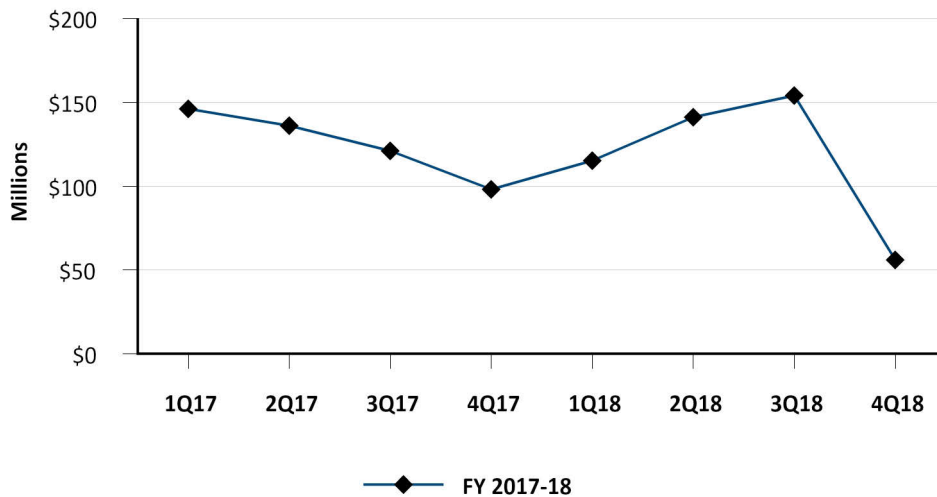
TRS-ActiveCare

The TRS-ActiveCare program operates under the authority of the Texas Insurance Code, Title 8, Subtitle H, Chapter 1579 and the Texas Administrative Code, Title 34, Part 3, Chapter 41, and began operations in fiscal year 2003. The net position was \$56.3 million at August 31, 2018, a decrease of \$41.5 million from \$97.8 million the previous fiscal year.

Investment income for the year was \$6.9 million, an increase of \$2.2 million.

Health care claims for fiscal year 2018 were \$2.0 billion, a \$155.6 million increase over \$1.8 billion in fiscal year 2017. This was due to an increase in the number of high claims and an increase in participants. Health care fees, mandated by the Affordable Care Act, ended during the prior fiscal year, 2017, which reflects a decrease in those fees for 2018 in the amount of \$3.3 million.

**TRS-ActiveCare
Net Position
Fiscal Years 2017-18**



Statement of Fiduciary Net Position**TRS-ActiveCare**

As of August 31

(Dollars in Thousands)

	2018	2017	Dollar Change	Percentage Change
Assets				
Cash and Receivables	\$ 351,541	\$ 373,677	\$ (22,136)	(5.9)%
Total Assets	\$ 351,541	\$ 373,677	\$ (22,136)	(5.9)%
Liabilities				
Accounts Payable and Other	\$ 481	\$ 551	\$ (70)	(12.8)%
Unearned Premium Revenue	—	402	(402)	(100.0)
Premiums and Fees Payable	20,426	19,534	892	4.6
Health Care Claims Payable	274,342	255,385	18,957	7.4
Total Liabilities	\$ 295,249	\$ 275,872	\$ 19,377	7.0 %
Total Net Position	\$ 56,292	\$ 97,805	\$ (41,513)	(42.4)%

Statement of Changes in Fiduciary Net Position**TRS-ActiveCare**

For the Fiscal Years Ended August 31

(Dollars in Thousands)

	2018	2017	Dollar Change	Percentage Change
Revenues (Operating and Non-Operating)				
Health Care Premiums	\$ 2,315,669	\$ 2,240,008	\$ 75,661	3.4 %
Investment Income	6,884	4,669	2,215	47.4
Other Revenue	259	321	(62)	(19.2)
Total Revenues	\$ 2,322,812	\$ 2,244,998	\$ 77,814	3.5 %
Operating Expenses				
Health Care Claims	\$ 2,002,143	\$ 1,846,526	\$ 155,617	8.4 %
Health Care Claims Processing	120,575	119,584	991	0.8
Health Care Fees	909	4,200	(3,291)	(78.4)
Premium Payments to HMOs	237,387	227,089	10,298	4.5
Administrative Expenses	3,313	3,345	(32)	(1.0)
Total Expenses	\$ 2,364,326	\$ 2,200,744	\$ 163,582	7.4 %
Change in Net Position	\$ (41,513)	\$ 44,254	\$ (85,767)	(193.8)%

Request for Information

Questions concerning any of the information provided in this report or requests for additional information should be addressed to the

Communications Department of the Teacher Retirement System, 1000 Red River Street, Austin, Texas 78701.

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Basic Financial Statements

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Exhibit I**Statement of Fiduciary Net Position**

As of August 31, 2018 (With Comparative Data as of August 31, 2017)

	Pension and Other Post-Employment Benefit (OPEB) Trust Funds	
	Pension Trust Fund	TRS-Care
Assets		
Cash		
Cash in State Treasury	\$ 266,104,453	\$ 835,406,293
Cash in Bank (Note 3B)	185,508,824	—
Cash on Hand (Note 3B)	2,803,483	—
Total Cash	\$ 454,416,760	\$ 835,406,293
Receivables		
Sale of Investments	\$ 724,326,292	\$ —
Interest and Dividends	257,453,245	1,494,510
Member and Retiree	2,007,864	730,788
Service Credit Purchase	16,080,819	—
Due from Employers	365,101,424	36,183,779
Due from State's General Fund	—	—
Due from Employees Retirement System of Texas	2,041,387	—
Prepaid Expenses and Deposits	565,170	—
Other	157,376	125,443,116
Total Receivables	\$ 1,367,733,577	\$ 163,852,193
Investments (Note 1F and 3)		
Short-Term Investments	\$ 5,345,619,565	\$ —
Equity Investments	48,187,952,545	—
Fixed Income Investments	23,020,637,600	—
Alternative Investments	65,075,665,805	—
Derivative Investments	27,974,338	—
Pooled Investments	13,041,675,296	—
Total Investments	\$ 154,699,525,149	\$ —
Invested Securities Lending Collateral	\$ 20,335,310,295	\$ —
Capital Assets (Note 2)		
Intangible Assets	\$ 55,247,353	\$ —
Less Accumulated Amortization	(11,533,797)	—
Depreciable Assets	54,906,059	—
Less Accumulated Depreciation	(35,406,961)	—
Non-Depreciable Assets	22,255,488	2,391,467
Total Capital Assets	\$ 85,468,142	\$ 2,391,467
Total Assets	\$ 176,942,453,923	\$ 1,001,649,953

(Continued)

Total Pension and Other Post-Employment Benefit (OPEB) Trust Funds		Agency Funds	
2018	2017	Child Support Employee Deductions	
\$ 1,101,510,746	\$ 525,297,631	\$	7,945
185,508,824	129,537,801		—
2,803,483	3,095,144		—
\$ 1,289,823,053	\$ 657,930,576	\$	7,945
\$ 724,326,292	\$ 670,312,268	\$	—
258,947,755	235,256,998		—
2,738,652	62,980,295		—
16,080,819	16,377,376		—
401,285,203	319,197,697		—
—	86,536,777		—
2,041,387	1,941,433		—
565,170	131,981		—
125,600,492	197,007,308		—
\$ 1,531,585,770	\$ 1,589,742,133	\$	—
\$ 5,345,619,565	\$ 3,910,139,417	\$	—
48,187,952,545	49,791,863,021		—
23,020,637,600	21,741,743,293		—
65,075,665,805	59,008,168,730		—
27,974,338	(27,791,460)		—
13,041,675,296	11,492,278,916		—
\$ 154,699,525,149	\$ 145,916,401,917	\$	—
\$ 20,335,310,295	\$ 17,654,070,642	\$	—
\$ 55,247,353	\$ 11,755,403	\$	—
(11,533,797)	(10,332,605)		—
54,906,059	57,348,438		—
(35,406,961)	(35,844,016)		—
24,646,955	64,667,445		—
\$ 87,859,609	\$ 87,594,665	\$	—
\$ 177,944,103,876	\$ 165,905,739,933	\$	7,945

Exhibit I**Statement of Fiduciary Net Position**

As of August 31, 2018 (With Comparative Data as of August 31, 2017)

	Pension and Other Post-Employment Benefit (OPEB) Trust Funds	
	Pension Trust Fund	TRS-Care
Deferred Outflow of Resources		
Related to Participation in ERS' OPEB Plan	\$ 2,436,007	\$ —
Total Deferred Outflow of Resources	\$ 2,436,007	\$ —
Liabilities (Note 1F)		
Accounts Payable	\$ 7,802,717	\$ 319,544
Payroll Payable	6,098,232	370,003
External Manager Fees Payable	11,817,065	—
Benefits Payable	120,464,638	—
Health Care Claims Payable	—	159,462,440
Fees Payable	—	36,945,192
Net Other Post-Employment Benefit Liability	81,850,260	—
Investments Purchased Payable	811,193,231	—
Securities Sold Short	915,741,979	—
Collateral Obligations	20,320,455,707	—
Due to State's General Fund	63,997,185	5,541,169
Due to Employees Retirement System of Texas	8,108,482	—
Employee Compensable Absences Payable (Note 4)	10,096,445	436,972
Other Liabilities	70,264	—
Funds Held for Others	—	—
Total Liabilities	\$ 22,357,696,205	\$ 203,075,320
Deferred Inflow of Resources		
Unrealized Lease Incentives	\$ 194,407	\$ —
Related to Participation in ERS' OPEB Plan	18,097,485	—
Total Deferred Inflow of Resources	\$ 18,291,892	\$ —
Net Position		
Net Investment in Capital Assets	\$ 85,468,142	\$ 2,391,467
Restricted for Pensions/Other Post-Employment Benefits	154,483,433,691	796,183,166
Net Position Restricted for Pensions and Other Post-Employment Benefits	\$ 154,568,901,833	\$ 798,574,633

See accompanying Notes to the Financial Statements.

(Continued)

Total Pension and Other Post-Employment Benefit (OPEB) Trust Funds		Agency Funds
2018	2017	Child Support Employee Deductions
\$ 2,436,007	\$ —	\$ —
\$ 2,436,007	\$ —	\$ —
\$ 8,122,261	\$ 6,908,627	\$ —
6,468,235	5,507,252	—
11,817,065	22,448,429	—
120,464,638	128,997,802	—
159,462,440	125,576,406	—
36,945,192	360,144	—
81,850,260	—	—
811,193,231	619,004,590	—
915,741,979	182,214,448	—
20,320,455,707	17,035,654,924	—
69,538,354	7,689	—
8,108,482	8,093,936	—
10,533,417	8,996,193	—
70,264	241,725	—
—	—	7,945
\$ 22,560,771,525	\$ 18,144,012,165	\$ 7,945
\$ 194,407	\$ 269,662	\$ —
18,097,485	—	—
\$ 18,291,892	\$ 269,662	\$ —
\$ 87,859,609	\$ 87,594,665	\$ —
155,279,616,857	147,673,863,441	—
\$ 155,367,476,466	\$ 147,761,458,106	\$ —

Exhibit II**Statement of Changes in Fiduciary Net Position**

For the Fiscal Year Ended August 31, 2018 (With Comparative Data for August 31, 2017)

	Pension and Other Post-Employment Benefit (OPEB) Trust Funds	
	Pension Trust Fund	TRS-Care
Additions		
Contributions		
Member	\$ 3,360,773,197	\$ 221,325,377
Non-Employer Contributing Entity - State	1,715,784,550	395,588,628
Employer (Notes 9, 11)		
Employer	1,131,661,045	255,797,140
State - Higher Education	119,464,838	—
Employer - Paid at State Rate	—	30,037,098
Employer Surcharges (Notes 9, 11)		
Employment after Retirement - Employee Rate	11,530,466	—
Employment after Retirement - Employer Rate	10,203,282	10,264,182
Non-OASDI Employers	398,397,672	—
Supplemental Appropriation - Non-Employer Contributing Entity	—	394,600,000
Service Credit Purchase - Refundable	18,361,492	—
Service Credit Purchase - Non-Refundable	23,176,879	—
State Contributions for 415 Excess Benefit Arrangement	3,658,286	—
Employees Retirement System of Texas		
Service Contributions	23,947,830	—
415 Excess Benefit Arrangement	64,186	—
Other		
Federal Revenue (Note 6)	—	103,402,579
Rebate and Discount Income	—	284,291,173
Total Contributions and Other	\$ 6,817,023,723	\$ 1,695,306,177
Net Investment Income		
Investment Income (Loss)	\$ 11,381,105,086	\$ 10,127,259
Less: Investing Activity Expenses (Schedule 1)	(213,078,019)	—
Total Investment Income (Loss)	\$ 11,168,027,067	\$ 10,127,259
Securities Lending Income (Loss)	\$ 379,683,903	\$ —
Less: Securities Lending Expenses	(304,897,313)	—
Total Securities Income (Loss)	\$ 74,786,590	\$ —
Total Net Investment Income	\$ 11,242,813,657	\$ 10,127,259
Other Additions		
Miscellaneous Revenue	\$ 8,108,248	\$ 803,022
Total Other Additions	\$ 8,108,248	\$ 803,022
Total Additions	\$ 18,067,945,628	\$ 1,706,236,458

(Continued)

Total Pension and Other Post-Employment Benefit (OPEB) Trust Funds	
2018	2017
\$ 3,582,098,574	\$ 3,455,797,440
2,111,373,178	2,001,723,240
1,387,458,185	1,210,511,174
119,464,838	128,713,466
30,037,098	24,302,720
11,530,466	11,480,134
20,467,464	19,957,634
398,397,672	408,704,737
394,600,000	15,559,552
18,361,492	27,561,982
23,176,879	27,530,759
3,658,286	2,930,399
23,947,830	21,965,490
64,186	78,439
103,402,579	101,718,551
284,291,173	291,725,635
\$ 8,512,329,900	\$ 7,750,261,352
\$ 11,391,232,345	\$ 17,208,410,608
(213,078,019)	(218,119,912)
\$ 11,178,154,326	\$ 16,990,290,696
\$ 379,683,903	\$ 237,357,886
(304,897,313)	(143,144,262)
\$ 74,786,590	\$ 94,213,624
\$ 11,252,940,916	\$ 17,084,504,320
\$ 8,911,270	\$ 1,828,304
\$ 8,911,270	\$ 1,828,304
\$ 19,774,182,086	\$ 24,836,593,976

Exhibit II**Statement of Changes in Fiduciary Net Position**

For the Fiscal Year Ended August 31, 2018 (With Comparative Data for August 31, 2017)

	Pension and Other Post-Employment Benefit (OPEB) Trust Funds	
	Pension Trust Fund	TRS-Care
Deductions		
Benefits	\$ 10,172,997,008	\$ —
Refunds of Contributions - Active	416,761,103	—
Refunds of Contributions - Death	5,574,637	—
415 Excess Benefit Arrangement Paid to Employees Retirement System of Texas	3,450,085	—
Benefits Paid to Employees Retirement System of Texas		
Service Contributions	97,061,015	—
415 Excess Benefit Arrangement	272,386	—
Other Post-Employment Benefit Expense	4,380,304	—
Health Care Claims	—	1,593,381,709
Less: Health Care Premiums Paid by Retirees (Note 1)	—	(488,069,004)
Health Care Claims Processing	—	43,264,359
Insurance Premium Payments	—	83,828,910
Affordable Care Act Fees	—	37,321,249
Administrative Expenses, Excluding Investing Activities Expenses		
Salaries and Wages	27,854,979	2,210,869
Payroll Related Costs	7,156,913	343,808
Professional Fees and Services	5,471,123	3,355,435
Travel	278,237	46,873
Materials and Supplies	4,307,882	162,588
Communications and Utilities	664,481	1,330
Repairs and Maintenance	3,808,742	287,139
Rentals and Leases	370,016	38,300
Printing and Reproduction	105,012	54,032
Depreciation Expense	2,712,909	—
Amortization Expense	10,054,900	—
Gain/Loss on Capital Assets	45,120	—
Other Expenses	2,095,855	172,114
Total Deductions	\$ 10,765,422,707	\$ 1,276,399,711
Net Increase (Decrease) in Net Position	\$ 7,302,522,921	\$ 429,836,747
Beginning Net Position Restricted for Pensions and Other Post-Employment Benefits	\$ 147,361,922,120	\$ 399,535,986
Prior Period Adjustments (Note 14)	(95,543,208)	(30,798,100)
Beginning Net Position, as Restated	\$ 147,266,378,912	\$ 368,737,886
Ending Net Position Restricted for Pensions and Other Post-Employment Benefits	\$ 154,568,901,833	\$ 798,574,633

See accompanying Notes to the Financial Statements.

(Continued)

Total Pension and Other Post-Employment Benefit (OPEB) Trust Funds	
2018	2017
\$ 10,172,997,008	\$ 9,775,775,472
416,761,103	414,049,308
5,574,637	6,371,748
3,450,085	2,721,567
97,061,015	93,321,903
272,386	287,271
4,380,304	—
1,593,381,709	1,678,892,217
(488,069,004)	(404,027,710)
43,264,359	45,873,396
83,828,910	61,792,671
37,321,249	1,058,163
30,065,848	25,608,482
7,500,721	7,475,923
8,826,558	5,397,466
325,110	213,237
4,470,470	2,565,491
665,811	456,798
4,095,881	2,197,446
408,316	145,077
159,044	246,475
2,712,909	2,706,732
10,054,900	411,935
45,120	—
2,267,969	1,718,428
\$ 12,041,822,418	\$ 11,725,259,496
\$ 7,732,359,668	\$ 13,111,334,480
\$ 147,761,458,106	\$ 134,650,123,626
(126,341,308)	—
\$ 147,635,116,798	\$ 134,650,123,626
\$ 155,367,476,466	\$ 147,761,458,106

Exhibit III
Statement of Net Position
Proprietary Funds

As of August 31, 2018 (With Comparative Data as of August 31, 2017)

	Enterprise Funds			
	Major Fund	Nonmajor Fund	Total	
	TRS-ActiveCare	403(b) Administrative Program	2018	2017
Assets				
Current Assets				
Cash				
Cash in State Treasury	\$ 290,056,674	\$ 570,011	\$ 290,626,685	\$ 339,352,690
Cash on Hand	—	—	—	12,000
Total Cash	\$ 290,056,674	\$ 570,011	\$ 290,626,685	\$ 339,364,690
Receivables				
Interest	\$ 617,590	\$ 1,048	\$ 618,638	\$ 422,192
Health Care Premiums	6,869,567	—	6,869,567	—
COBRA Premiums and Other	53,997,588	—	53,997,588	34,211,784
Total Receivables	\$ 61,484,745	\$ 1,048	\$ 61,485,793	\$ 34,633,976
Total Assets	\$ 351,541,419	\$ 571,059	\$ 352,112,478	\$ 373,998,666
Liabilities (Note 1F)				
Current Liabilities				
Accounts Payable	\$ 113,285	\$ 16,560	\$ 129,845	\$ 271,103
Payroll Payable	184,116	5,844	189,960	165,900
Unearned Premium Revenue	—	—	—	401,536
Fees Payable	1,036,000	—	1,036,000	996,244
Premiums Payable to HMOs	19,390,451	—	19,390,451	18,537,633
Health Care Claims Payable	274,342,037	—	274,342,037	255,385,246
Employee Compensable Absences Payable	123,091	2,976	126,067	137,397
Total Current Liabilities	\$ 295,188,980	\$ 25,380	\$ 295,214,360	\$ 275,895,059
Non-Current Liabilities				
Employee Compensable Absences Payable	\$ 60,055	\$ 1,516	\$ 61,571	\$ 44,185
Total Non-Current Liabilities	\$ 60,055	\$ 1,516	\$ 61,571	\$ 44,185
Total Liabilities	\$ 295,249,035	\$ 26,896	\$ 295,275,931	\$ 275,939,244
Net Position				
Restricted for Health Care Programs	\$ 56,292,384	—	\$ 56,292,384	\$ 97,804,829
Restricted for Administrative Expenses	—	544,163	544,163	254,593
Total Net Position	\$ 56,292,384	\$ 544,163	\$ 56,836,547	\$ 98,059,422

See accompanying Notes to the Financial Statements.

Exhibit IV**Statement of Revenues, Expenses, and Changes in Net Position****Proprietary Funds**

For the Fiscal Year Ended August 31, 2018 (With Comparative Data for August 31, 2017)

	Enterprise Funds			
	Major Fund	Nonmajor Fund	Total	
	TRS-ActiveCare	403(b) Administrative Program	2018	2017
Operating Revenues				
Health Care Premiums	\$ 2,171,125,097	\$ —	\$ 2,171,125,097	\$ 2,119,959,039
COBRA Premiums and Other	144,543,929	—	144,543,929	120,049,492
Administrative Fees	110,089	—	110,089	145,792
Certification Fees	—	44,000	44,000	135,000
Product Registration Fees	—	369,000	369,000	33,000
Total Operating Revenues	\$ 2,315,779,115	\$ 413,000	\$ 2,316,192,115	\$ 2,240,322,323
Operating Expenses				
Health Care Claims	\$ 2,002,142,744	\$ —	\$ 2,002,142,744	\$ 1,846,526,430
Health Care Claims Processing	120,574,675	—	120,574,675	119,583,574
Premium Payments to HMOs	237,386,929	—	237,386,929	227,088,895
Affordable Care Act Fees	908,733	—	908,733	4,200,173
Administrative Expenses				
Salaries and Wages	1,605,927	52,064	1,657,991	1,664,710
Payroll Related Costs	224,255	9,243	233,498	243,357
Professional Fees and Services	1,334,530	64,670	1,399,200	1,492,735
Travel	15,613	—	15,613	8,672
Materials and Supplies	50,872	2,612	53,484	47,225
Communications and Utilities	1	—	1	79
Repairs and Maintenance	19,498	1,122	20,620	16,968
Rentals and Leases	30,361	—	30,361	22,982
Printing and Reproduction	5,502	108	5,610	5,875
Other Operating Expenses	25,120	2,212	27,332	26,584
Total Operating Expenses	\$ 2,364,324,760	\$ 132,031	\$ 2,364,456,791	\$ 2,200,928,259
Operating Income (Loss)	\$ (48,545,645)	\$ 280,969	\$ (48,264,676)	\$ 39,394,064
Non-Operating Revenues				
Investment Income	\$ 6,883,872	\$ 8,601	\$ 6,892,473	\$ 4,671,672
Other Non-Operating Revenues	149,328	—	149,328	175,238
Total Non-Operating Revenues	\$ 7,033,200	\$ 8,601	\$ 7,041,801	\$ 4,846,910
Change in Net Position	\$ (41,512,445)	\$ 289,570	\$ (41,222,875)	\$ 44,240,974
Beginning Net Position	\$ 97,804,829	\$ 254,593	\$ 98,059,422	\$ 53,818,448
Ending Net Position	\$ 56,292,384	\$ 544,163	\$ 56,836,547	\$ 98,059,422

See accompanying Notes to the Financial Statements.

Exhibit V**Statement of Cash Flows****Proprietary Funds**

For the Fiscal Year Ended August 31, 2018 (With Comparative Data for August 31, 2017)

	Enterprise Funds			
	Major Fund	Nonmajor Fund	Total	
	TRS-ActiveCare	403(b) Administrative Program	2018	2017
Cash Flows from Operating Activities				
Receipts from Health Care Premiums	\$ 2,163,853,994	\$ —	\$ 2,163,853,994	\$ 2,120,291,921
Receipts from COBRA Premiums and Other	124,758,125	—	124,758,125	98,825,718
Receipts from Long-Term Care Administrative Fees	110,089	—	110,089	145,792
Receipts from Certification/Product Registration Fees	—	413,000	413,000	168,000
Payments for Administrative Expenses	(3,382,487)	(172,365)	(3,554,852)	(3,267,735)
Payments for Health Care Claims	(1,983,185,953)	—	(1,983,185,953)	(1,862,038,576)
Payments for Health Care Claims Processing	(120,574,675)	—	(120,574,675)	(119,583,574)
Payments for HMO Premiums	(236,534,111)	—	(236,534,111)	(226,210,181)
Payments for Affordable Care Act Fees	(868,977)	—	(868,977)	(10,739,873)
Net Cash Provided (Used) by Operating Activities	\$ (55,823,995)	\$ 240,635	\$ (55,583,360)	\$ (2,408,508)
Cash Flows from Non-Capital Financing Activities				
Proceeds from Other Non-Operating Revenues	\$ 149,328	\$ —	\$ 149,328	\$ 175,238
Net Cash Provided (Used) by Non-Capital Financing Activities	\$ 149,328	\$ —	\$ 149,328	\$ 175,238
Cash Flows from Investing Activities				
Interest Received	\$ 6,688,171	\$ 7,856	\$ 6,696,027	\$ 4,538,486
Net Cash Provided (Used) by Investing Activities	\$ 6,688,171	\$ 7,856	\$ 6,696,027	\$ 4,538,486
Net Increase (Decrease) in Cash	\$ (48,986,496)	\$ 248,491	\$ (48,738,005)	\$ 2,305,216
Beginning Cash and Cash Equivalents	\$ 339,043,170	\$ 321,520	\$ 339,364,690	\$ 337,059,474
Ending Cash and Cash Equivalents	\$ 290,056,674	\$ 570,011	\$ 290,626,685	\$ 339,364,690

See accompanying Notes to the Financial Statements.

Exhibit V**Statement of Cash Flows****Proprietary Funds**

For the Fiscal Year Ended August 31, 2018 (With Comparative Data for August 31, 2017)

	Enterprise Funds			
	Major Fund	Non-Major Fund	Total	
	TRS-ActiveCare	403(b) Administrative Program	2018	2017
Reconciliation of Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities				
Operating Income (Loss)	\$ (48,545,645)	\$ 280,969	\$ (48,264,676)	\$ 39,394,064
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities				
Changes in Assets & Liabilities				
Increase (Decrease) in Unearned Health Care Premium Revenue	\$ (7,271,103)	\$ —	\$ (7,271,103)	\$ 332,882
(Increase) Decrease in COBRA Premiums and Other Receivables	(19,785,804)	—	(19,785,804)	(21,223,774)
Increase (Decrease) in Premiums Payable to HMOs	852,818	—	852,818	878,714
Increase (Decrease) in Health Care Claims Payable	18,956,791	—	18,956,791	(15,512,146)
Increase (Decrease) in Affordable Care Act Fees Payable	39,756	—	39,756	(6,539,700)
Increase (Decrease) in Accounts Payable	(102,209)	(39,049)	(141,258)	139,701
Increase (Decrease) in Payroll Payable	24,801	(741)	24,060	40,232
Increase (Decrease) in Employee Compensable Absences Payable	6,600	(544)	6,056	81,519
Total Adjustments	\$ (7,278,350)	\$ (40,334)	\$ (7,318,684)	\$ (41,802,572)
Net Cash Provided (Used) by Operating Activities	\$ (55,823,995)	\$ 240,635	\$ (55,583,360)	\$ (2,408,508)

See accompanying Notes to the Financial Statements.

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Notes to the Financial Statements

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Note 1: Summary of Significant Accounting Policies

A. Reporting Entity

The Teacher Retirement System of Texas (TRS or System) is a separate legal entity and considered a discrete component unit of the State of Texas. The System is governed by a nine member board of trustees which has significant independence in the operation and management of the System under the provisions of the state constitution and laws. The trustees serve staggered six-year terms that expire on August 31 of odd numbered years and are all appointed by the Governor pursuant to Texas Government Code Title 8, Subtitle C. The trustees are appointed as follows:

- Three direct appointments by the Governor
- Two appointments from a list nominated by the State Board of Education
- Two appointments from three active member candidates from a public school, charter school, or regional service center, nominated by members of those districts
- One appointment from three retired member candidates nominated by TRS retirees
- One at-large appointment selected from three candidates nominated from active members of any public or charter school, regional service center, institute of higher learning, or from TRS retirees

The state legislature confirms trustees appointed by the governor, establishes laws with regard to structure, benefits and contributions, and authorizes Pension Trust Fund administrative expenses. State contributions and appropriations received by TRS are determined by the legislature.

This report includes all activities and programs for which TRS exercises fiscal control and responsibility and includes all funds that comprise the System's legal entity.

TRS administers retirement and related benefits to employees and beneficiaries of employees of public, state-supported, educational institutions of Texas. It operates primarily under the provisions of the Texas Constitution, Article XVI, Section 67 and Texas Government Code, Title 8, Subtitle C. The Pension Trust Fund is a multiple-employer, cost-sharing, defined benefit pension plan with a special funding situation that is a qualified pension trust under Section 401(a) of the Internal Revenue Code.

The System administers the Texas Public School Retired Employees Group Insurance Program and the Texas Active School Employees Uniform Group Benefits Program. These programs provide two separate health care plans, TRS-Care and TRS-ActiveCare, respectively.

TRS-Care is considered an employee benefit trust fund and provides health care coverage for certain persons (and their dependents) who retire under TRS. The statutory authority for the program is Texas Insurance Code, Title 8, Subtitle H, Chapter 1575 and Texas Administrative Code, Title 34, Part 3, Chapter 41. The inception of the plan was fiscal year 1986.

TRS-ActiveCare provides health care coverage to employees (and their dependents) of participating public education entities. Optional life and long-term care insurance, which are provided to active members and retirees, are also accounted for in the fund. Authority for the plan can be found in the Texas Insurance Code, Title 8, Subtitle H, Chapter 1579 and in the Texas Administrative Code, Title 34, Part 3, Chapter 41. The plan began operations on September 1, 2002.

The System also administers a 403(b) Administrative Program in which companies must be certified by TRS to offer qualified investment products to public education employees through payroll deductions in accordance with Internal Revenue Code section 403(b). Authority for the program can be found in Vernon's Civil Statutes, Title 109, Article 6228a-5, Sections 4-8A and in the Texas Administrative Code, Title 34, Part 3, Chapter 53. The program began operations on September 1, 2001.

An Agency Fund is used to account for garnishments of salaries and wages for child support payments from TRS employees.

B. Measurement Focus, Basis of Accounting, and Basis of Presentation

The System's accounts are organized on the basis of funds, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a self-balancing set of accounts that comprise its assets, liabilities, additions/revenues and deductions/expenses. The following fund types are used to reflect the System's transactions:

- Fiduciary Funds include the Pension Trust Fund, TRS-Care (employee benefits trust fund), and the Agency Fund.
- Proprietary Funds include TRS-ActiveCare and the 403(b) Administrative Program which are

both Enterprise funds. TRS-ActiveCare is considered a major fund.

Fiduciary funds are used to report assets held in a trustee or agency capacity on behalf of others. The reporting focus is on net position and changes in net position. The pension and other post-employment benefit trust funds are used to report resources held in trust for the members and beneficiaries of the defined benefit pension plan and the other post-employment benefit plan. Agency funds are a type of fiduciary fund used to report assets collected and transferred to the State or other entities. Agency funds are custodial in nature and do not measure the results of operations. Assets and liabilities are recorded using the accrual basis of accounting.

Enterprise funds are a type of proprietary fund used to report any activity for which a fee is charged to external users for goods or services. The reporting focus is on the determination of operating income, changes in net position, financial position, and cash flows. Proprietary funds distinguish operating activities from non-operating. Operating activities generally result from providing services and producing or delivering goods. Operating revenues for the System's proprietary funds are derived from self-insurance premiums and providing plan and product certification services to qualified 403(b) plans. Operating expenses include the costs of claims, costs of certification/product services and related administrative expenses. Non-operating revenues and expenses are those items that do not meet any of the above definitions.

Separate financial statements are provided for each fund. The fiduciary, excluding agency funds, and proprietary financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. 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 in the period in which amounts are due, pursuant to state law. Benefits and refunds of contributions are recognized when due and payable in accordance with the terms of the plan. All economic resources, including financial and capital assets, and related liabilities, both current and long-term, and the changes therein are reported in each funds' financial statements.

C. New Accounting Pronouncements

The accompanying financial statements were prepared in conformity with generally accepted accounting principles (GAAP) as prescribed by the Governmental Accounting Standards Board (GASB). GASB issued the following statements that are applicable to TRS.

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, relates to governmental employers that provide postemployment benefits other than pensions and is effective for fiscal years beginning after June 15, 2017. TRS issued audited GASB 75 Allocation Schedules for the current fiscal year that provided the information necessary for employers that participate in the TRS-CARE OPEB plan to comply with this statement.

TRS is also an employer in the Employee Retirement System of Texas (ERS) - Texas Employees Group Benefits Program OPEB plan and is subject to the requirements of GASB 75 for this fiscal year. See Note 10.

GASB Statement No. 85, *Omnibus 2017*, addresses issues related to blending component units, goodwill, fair value measurement, and application of postemployment benefits that have been identified during the implementation and application of certain GASB statements. It is effective for fiscal years beginning after June 15, 2017.

D. Comparative Data in Total

The basic financial statements include certain prior year summarized comparative data in total but not at the level of detail required for a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with the System's financial statements for the fiscal year ended August 31, 2017, from which the summarized information was derived.

E. Budgets and Appropriations

The administrative costs and capital asset outlay for each of the System's funds and programs are controlled by annual budgets approved by the Board of Trustees.

The Pension Trust Fund receives state contributions from the Texas Legislature's general revenue appropriations for retirement benefits for active members employed by a participating employer. In fiscal years 2018 and 2017, contributions were made by the State of Texas to the System at the rate of 6.8 percent of the pensionable compensation paid to active members for each year. Although appropriated by the legislature, expenses for the Pension Trust Fund administrative operations and capital expenditures are

paid from the Pension Trust Fund and not from the State's General Fund.

TRS-Care received contributions from the State's General Fund equal to 1.25 percent of salaries paid to public education employees in fiscal year 2018. Administrative expenses for this program are paid from the Pension Trust Fund.

The two Enterprise Funds, TRS-ActiveCare and the 403(b) Administrative Program, are supported by fees and receive no appropriations from the State for administrative expenses.

Effective September 1, 1997, legislation authorized TRS to administer a governmental excess benefit arrangement under section 415(m) of the Internal Revenue Code of 1986 (26 U.S.C.). This legislation created a separate, non-qualified, unfunded excess benefit arrangement outside the Pension Trust Fund of the retirement system. Contributions to this arrangement are made from the State's general revenue appropriations. These contributions are not held in trust and may not be commingled with other funds of the retirement system. They yield no net position. Therefore, for reporting purposes, only the contributions and benefits are reflected on Exhibit II, Statement of Changes in Fiduciary Net Position.

F. Assets, Liabilities, and Legal Reserves

Cash and Cash Equivalents

Investments with an original maturity of three months or less that are used for cash management instead of investing activities are considered cash equivalents. Highly liquid investments invested as part of a short-term investment fund are not considered cash equivalents.

Receivables

Receivables represent the amount of money owed to TRS for goods or services delivered or used that have not been received at fiscal year end.

- Sale of Investments receivables occur when the trade date is before the fiscal year end and the settlement date is in the next fiscal year.
- Interest and Dividends receivables represent distributions of income made on bank accounts and other investments that TRS earned in the current fiscal year but did not receive until after fiscal year end.
- Member and Retiree receivables represent contributions that are due from members for

the current fiscal year but not received until after fiscal year end.

- Service Credit Purchase receivables represent the outstanding balance due from members on service credit purchase installment contracts at fiscal year end. Payments can be made on a monthly basis for up to five years for purchasing additional creditable service. Receivables are recognized when an agreement is signed.
- Due from Employers receivables represent contributions that are due from participating employers for the current fiscal year but not received until after fiscal year end.
- Due from Employees Retirement System (ERS) of Texas receivables represent ERS' share of current year retirement benefits that are due to TRS retirees for service earned from ERS.
- Prepaid Expenses and Deposits receivables represent refundable security deposits paid on lease agreements that TRS has entered into.
- Other Receivables represent amounts owed to TRS such as refund or annuity repayments due at fiscal year end but not received until the next fiscal year.

Investments

TRS has investments that have values not based on quoted market prices. Investments are reported at fair value. Fair value is a market-based measurement, not an entity-specific measurement. It is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Measurement, recognition, or disclosure of an asset or liability depends on the aggregation or disaggregation of the unit of account of the asset or liability. TRS utilizes one or more of the following valuation techniques in order to measure fair value: the market approach, the cost approach, and the income approach.

Capital Assets

Capital assets associated with the funds' activities are included in the Statement of Net Position. Purchases of capital assets by the fund are reported at cost on the acquisition date. Donated capital assets, donated works of art, and similar items are reported at acquisition value. Depreciation of all exhaustible capital assets is charged as an expense against the fund's operations. Depreciation is calculated using the

straight-line method over the asset's useful life. Note 2 includes a table identifying the capitalization threshold and estimated useful life by asset type.

Deferred Outflow of Resources

Deferred outflow of resources represent a consumption of net position that applies to a future period and will not be recognized as an expense until that future period.

- Related to Participation in ERS' OPEB plan represents amounts for OPEB expenses that will be recognized in future periods. See Note 10.

Liabilities

- Accounts Payable represents the liability for assets or services received at fiscal year end for which payment has not been made.
- Payroll Payable represents the liability for employee salaries that is due and payable at fiscal year end.
- External Manager Fees Payable represent fees due to external investment managers that is due at fiscal year end.
- Benefits Payable represent the liability for retirement, disability, and death benefits due at fiscal year end and payable within the next 30 days.
- Health Care Claims Payable includes an estimate for health care claims incurred but not reported to the System at fiscal year end.
- Fees Payable represent health insurance provider fees payable at fiscal year end.
- Net Other Post-Employment Benefit Liability represents TRS' share of the ERS OPEB plan net OPEB liability.
- Investments Purchased Payable represent the liability for securities purchased prior to fiscal year end for which payment has not been made. Foreign investments purchased payable is reported at current exchange rates.
- Securities Sold Short represent obligations to deliver securities which include Equities and Rights.
- Collateral Obligations are the cash collateral received from borrowers in the securities lending program.

- Due to State's General Fund represents amounts owed to the State for excess contributions received at fiscal year end.
- Due to Employees Retirement System of Texas represents amounts owed for current year retirement benefits due to ERS retirees for service earned from TRS.
- Employee Compensable Absences Payable represents amounts owed to employees for compensatory time unpaid at fiscal year end.
- Other Liabilities represent taxes payable by the blended component unit, Teacher Retirement Investment Company of Texas, Ltd. (TRICOT) at fiscal year end. See Note 13.

Deferred Inflow of Resources

Deferred Inflow of Resources represent an acquisition of net position that applies to a future period and will not be recognized as income until that future period.

- Unrealized Lease Incentives represent amounts for lease incentives granted to TRS at the inception of a lease that is amortized over future periods.
- Related to Participation in ERS' OPEB represents amounts for OPEB revenues that will be recognized in future periods. See Note 10.

Interfund/Interagency Transactions and Balances

The Pension Trust Fund provides various administrative services to other TRS programs and accounts for these services as reciprocal interfund activity. These transactions are reported using the appropriate classification accounts for additions/revenues or deductions/expenses as if transacted with parties external to the State. They are not presented as transfers. The interfund receivables and payables related to reciprocal interfund activity are classified as receivables and accounts payable on the financial statements.

Interagency transactions have been classified using the above criteria for reciprocal interfund activity.

Note 2: Capital Assets

Capital assets are presented at historical cost or, if not purchased, at fair value at the date of acquisition. When appropriate, straight-line depreciation and amortization have been charged over the shorter of the estimated useful lives of the assets or the lease period.

All capital assets belong to either the Pension Trust Fund or the TRS-Care Fund. Capitalization thresholds, depreciable lives, and balances for all capital asset classes are shown in the following tables.

Asset Class	Capitalization Threshold	Depreciable Life
Land	\$ —	—
Construction in Progress	—	—
Artwork	—	—
Buildings and Building Improvements	100,000	10-50 years
Furniture and Equipment	5,000	3-10 years
Vehicles, Boats, and Aircraft	5,000	7 years
Leasehold Improvements	100,000	6-22 years
Facilities and Other Improvements	100,000	10-20 years
Internally Generated Computer Software	1,000,000	5 years
Other Computer Software	100,000	5 years

Asset Class	Balance 09/01/17	Adjustments	Reclasses & Completed CIP	Additions	Deletions	Balance 08/31/18 (Exhibit I)
Non-Depreciable Assets						
Land and Land Improvements	\$ 1,658,310	\$ —	\$ —	\$ —	\$ —	\$ 1,658,310
Construction in Progress	62,884,999	(18,190)	(52,644,117)	12,641,817		22,864,509
Artwork	124,136					124,136
Total Non-Depreciable Assets	\$ 64,667,445	\$ (18,190)	\$ (52,644,117)	\$ 12,641,817	\$ —	\$ 24,646,955
Depreciable Assets						
Buildings and Building Improvements	\$ 39,175,704	\$ —	\$ —	\$ —	\$ —	\$ 39,175,704
Furniture and Equipment	14,199,859			479,566	(3,185,980)	11,493,445
Vehicle, Boats, and Aircraft	81,538				(34,425)	47,113
Leasehold Improvements	3,547,715					3,547,715
Facilities and Other Improvements	343,622		298,460			642,082
Total Depreciable Assets	\$ 57,348,438	\$ —	\$ 298,460	\$ 479,566	\$ (3,220,405)	\$ 54,906,059
Accumulated Depreciation						
Buildings and Building Improvements	\$ (22,206,886)	\$ —	\$ —	\$ (1,352,113)	\$ —	\$ (23,558,999)
Furniture and Equipment	(10,219,787)			(1,310,821)	3,140,859	(8,389,749)
Vehicles, Boats, and Aircraft	(59,258)			(6,730)	34,425	(31,563)
Leasehold Improvements	(3,138,947)			(20,524)		(3,159,471)
Facilities and Other Improvements	(219,138)			(48,041)		(267,179)
Total Accumulated Depreciation	\$ (35,844,016)	\$ —	\$ —	\$ (2,738,229)	\$ 3,175,284	\$ (35,406,961)
Total Net Depreciable Assets	\$ 21,504,422	\$ —	\$ 298,460	\$ (2,258,663)	\$ (45,121)	\$ 19,499,098
Intangible Assets						
Computer Software	\$ 11,755,403	\$ —	\$ 52,345,657	\$ —	\$ (8,853,707)	\$ 55,247,353
Total Intangible Assets	\$ 11,755,403	\$ —	\$ 52,345,657	\$ —	\$ (8,853,707)	\$ 55,247,353
Accumulated Amortization						
Computer Software	\$ (10,332,605)	\$ —	\$ —	\$ (10,054,899)	\$ 8,853,707	\$ (11,533,797)
Total Accumulated Amortization	\$ (10,332,605)	\$ —	\$ —	\$ (10,054,899)	\$ 8,853,707	\$ (11,533,797)
Total Net Intangible Assets	\$ 1,422,798	\$ —	\$ 52,345,657	\$ (10,054,899)	\$ —	\$ 43,713,556
Total Net Capital Assets	\$ 87,594,665	\$ (18,190)	\$ —	\$ 328,255	\$ (45,121)	\$ 87,859,609

Note 3: Deposits and Investments

A. Investment Policy and Target Asset Allocation

The Board of Trustees has the primary fiduciary responsibility for investing TRS trust assets in accordance with Article XVI, Section 67 of the Texas Constitution and with applicable law. The Board adopts the Investment Policy Statement which establishes investment objectives and policy, obtains expert advice and assistance, and oversees the employment of a qualified and competent investment staff (Investment Management Division) and legal staff. The Board also monitors the actions of staff, consultants, and advisors to ensure compliance with

its policies. The current Investment Policy Statement has been in effect since October 1, 2016, and there were no significant investment policy changes during the reporting period. For the fiscal year ended August 31, 2018, there were no significant violations of state statute, investment policy, or contractual provisions. The Statement in its entirety can be accessed at www.trs.texas.gov.

The total or overall investment portfolio includes all assets invested by TRS to provide retirement, death, health, and disability benefits administered by the

System, and is structured and managed to achieve the following objectives:

- a. Control risk through proper diversification of asset classes and by establishing long-term risk and return expectations; and
- b. As applicable to the pension plan, achieve a long-term rate of return that:
 - i. Exceeds the assumed actuarial rate of return adopted by the Board;
 - ii. Exceeds the long-term rate of inflation by an annualized 5 percent; and

- iii. Exceeds the return of the Fund Policy Benchmark.

Categories of permissible investments include cash equivalents, debt securities, private markets, derivatives, mutual funds, closed-end funds, publicly traded or Rule 144A assets, and commingled funds. The target asset allocation, long-term expected real rate of return, and expected contribution to long-term portfolio returns by asset class set forth in the Investment Policy Statement is shown as of August 31, 2018.

Asset Class	Target Allocation ¹	Long-Term Expected Arithmetic Real Rate of Return	Expected Contribution to Long-Term Portfolio Returns
Global Equity			
U.S.	18.00%	5.70%	1.04%
Non-U.S. Developed	13.00	6.90	0.90
Emerging Markets	9.00	8.95	0.80
Directional Hedge Funds	4.00	3.53	0.14
Private Equity	13.00	10.18	1.32
Stable Value			
U.S. Treasuries	11.00	1.11	0.12
Absolute Return	0.00	0.00	0.00
Stable Value Hedge Funds	4.00	3.09	0.12
Cash	1.00	(0.30)	0.00
Real Return			
Global Inflation Linked Bonds	3.00	0.70	0.02
Real Assets	14.00	5.21	0.73
Energy and Natural Resources	5.00	7.48	0.37
Commodities	0.00	0.00	0.00
Risk Parity			
Risk Parity	5.00	3.70	0.18
Inflation Expectation			2.30
Volatility Drag ²			(0.79)
Total	100.00%		7.25%

¹ Target allocations are based on the FY2016 policy model.

² The Expected Contribution to Long-Term Portfolio Returns incorporates the volatility drag resulting from the conversion between arithmetic and geometric mean returns.

For the fiscal year ended August 31, 2018, the annual money-weighted rate of return on pension plan investments was 7.76 percent. The annual money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

B. Cash and Deposits

Cash and deposits of the System are maintained in bank accounts and in the State of Texas Treasury. The Treasury invests funds in time deposits, repurchase and

reverse repurchase agreements, obligations of the United States government, and obligations of federal credit organizations. The Treasury has an arrangement with financial institutions to collateralize state deposits in excess of depository insurance. As of August 31, 2018, the carrying amount and bank balance of cash and deposits at the Treasury totaled \$266,104,453. The carrying amount of the system's bank accounts totaled \$185,508,824, the bank balance totaled \$185,498,594, and cash on hand totaled \$2,803,483.

C. Investments

Fair Value Measurement Techniques

Fair value maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs. A fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value, assigning the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Fair value inputs are categorized into the following three levels:

- Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the System's measurement date;
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly;
- Level 3 - Unobservable inputs for an asset or liability.

For investments that do not have a readily determinable fair value and fall outside of the fair value hierarchy, the System establishes fair value by utilizing the Net Asset Value Per Share (NAVPS), or its equivalent, as a practical expedient, provided all of the following criteria are met:

- Fair value is not readily determinable;
- The NAVPS is calculated consistently with the Financial Accounting Standards Board's measurement principles for investment companies (Accounting and Standards Codification Topic 946);
- The NAVPS represents a proportionate share of the net assets to which it is attributed;
- And the NAVPS is provided by the investee.

The System obtains the NAVPS from the most recent capital account statement or audited financial statement issued by a General Partner or Fund Administrator. If either statement's fiscal year end does not coincide with the System's fiscal year end, the NAVPS is adjusted for any distributions or contributions that occur subsequent to the statement's measurement date through the System's fiscal year end.

Short-Term Investments

Short-Term Investments include Short-Term Foreign Currency Contracts, U.S. Treasury Bills, Short-Term Investment Funds (STIF), and Short-Term Commingled Funds.

Short-Term Foreign Currency Contracts are priced at the spot rate in active markets and valued at Level 1. U.S. Treasury Bills priced at the last sale price of the primary exchange are valued at Level 1.

The STIF is a 2a-7 like fund and is priced at the NAVPS by the custodian bank, State Street Bank and Trust Company. Short-Term Commingled Funds are valued at the NAVPS by the General Partner or Fund Administrator.

Equity Investments

Equity Investments include both Domestic and International Equities.

Equities priced at the last sale price in their respective active markets are valued at Level 1.

Equities that are not actively traded and have a stale price as of the System's measurement date are valued at Level 3.

Fixed Income Investments

Fixed Income Investments include Asset and Mortgage Backed Bonds, Domestic Corporate Bonds, International Corporate Bonds, Sovereign Government Issue Bonds, U.S. Government Agency Bonds, U.S. Treasury Bonds, U.S. Treasury STRIPS, and U.S. TIPS.

U.S. Treasury Bonds priced at the last sale price of the primary exchange are valued at Level 1.

Fixed Income Investments priced using a bid evaluation matrix pricing technique that is based on their relationship to non-proprietary index market quotations, yields, maturities, call features, and ratings are valued at Level 2.

Corporate Bonds priced at Level 3 are valued by a third party.

Alternative Investments

Alternative Investments include Privately Held Equity, Privately Held Debt, Absolute Return, Directional Hedge Funds, Energy, Natural Resources and Infrastructure, Private Equity, Real Assets, Risk Parity, and Stable Value Hedge Funds.

Privately Held Equity and Debt priced by a third party that uses a guideline market multiples approach and a sum of parts valuation analysis is valued at Level 3.

All other Alternative Investments are valued at the NAVPS by the General Partners or Fund Administrators.

Derivative Investments

Derivative Investments include Forwards, Futures, Options, Rights, Swaps, and Warrants, and they are either executed on an exchange or in a bilateral deal in an over-the-counter (OTC) market with an International Swaps and Derivatives Association (ISDA) counterparty as a broker.

Options priced at the mean and settle price, and Forwards, Rights, and Warrants priced at the last sale price in their respective active markets are valued at Level 1.

Derivative Investments that are valued using a matrix pricing technique that are based on their relationship to benchmark quoted prices are valued at Level 2.

Warrants priced at Level 3 are valued by a third party.

Pooled Investments

Pooled Investments include Commingled Equity, Commingled Fixed Income, and Mutual Funds and are priced at the NAVPS by the General Partners or Fund Administrators.

Other Fair Value Measurements

Invested Securities Lending Collateral is comprised of the reinvested cash collateral received from borrowers in the securities lending program, in addition to the operating costs of the program. Securities priced at the last sale price in their respective active markets are valued at Level 1. Securities priced using a bid evaluation matrix pricing technique that is based on their relationships to non-proprietary index market quotations, yields, maturities, call features, and ratings are valued at Level 2.

Securities Sold Short represent obligations to deliver securities which include Equities and Rights. These

obligations are priced at fair value at the last sale price in their respective active markets and valued at Level 1 in the fair value hierarchy.

Fair Value Measurements and Unfunded Commitments

The recurring fair value measurement of the System as of August 31, 2018 are reported on the following page.

The System manages unfunded capital commitments that it is legally obligated to fund when called by a General Partner. Funding of committed capital occurs over an extended time period and may take several years before the total allocation to each asset class is fully invested. Because an individual investment may begin to return capital to the system prior to the full funding of the system's commitment, the outstanding invested capital of the investment might at times be substantially less than the total commitment.

The System's unfunded capital commitment balance is presented as of August 31, 2018. Additionally, as of August 31, 2018, the System reported an unfunded capital commitment balance of \$635,527,947 that has not yet been allocated to a specific Alternative Investment type and an unfunded capital commitment balance of \$160,802,913 for externally managed funds that are not reported at the NAVPS.

As of August 31, 2018, the System has no plans to sell investments for an amount different from the NAVPS (or its equivalent), and all investments to be sold have been identified.

Investments and Other Items	Total Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Short-Term Investments				
Short-Term Foreign Currency Contracts	\$ 527,430	\$ 527,430	\$ —	\$ —
U.S. Treasury Bills	104,713,793	104,713,793	—	—
Total Short-Term Investments	\$ 105,241,223	\$ 105,241,223	\$ —	\$ —
Equity Investments				
Domestic Equity	\$ 20,313,184,245	\$ 20,313,157,058	\$ —	\$ 27,187
International Equity	27,874,768,300	27,873,618,150	—	1,150,150
Total Equity Investments	\$ 48,187,952,545	\$ 48,186,775,208	\$ —	\$ 1,177,337
Fixed Income Investments				
Asset and Mortgage Backed Bonds	\$ 151,073,759	\$ —	\$ 151,073,759	\$ —
Domestic Corporate Bonds	22,847,315	—	9,358	22,837,957
International Corporate Bonds	85,749	—	85,749	—
Sovereign Government Issue Bonds	1,124,604,320	—	1,124,604,320	—
U.S. Government Agency Bonds	36,115,630	—	36,115,630	—
U.S. Treasury Bonds	15,770,868,458	15,770,868,458	—	—
U.S. Treasury STRIPS	7,747,459	—	7,747,459	—
U.S. TIPS	5,907,294,910	—	5,907,294,910	—
Total Fixed Income Investments	\$ 23,020,637,600	\$ 15,770,868,458	\$ 7,226,931,185	\$ 22,837,957
Alternative Investments				
Privately Held Debt	\$ 78,220,150	\$ —	\$ —	\$ 78,220,150
Privately Held Equity	837,501,061	—	—	837,501,061
Total Alternative Investments	\$ 915,721,211	\$ —	\$ —	\$ 915,721,211
Derivative Investments				
Forwards	\$ 10,766,560	\$ 10,766,560	\$ —	\$ —
Futures	—	—	—	—
Options	(8,337,985)	(215,593)	(8,122,392)	—
Rights	416,906	416,897	9	—
Swaps	23,401,021	—	23,401,021	—
Warrants	1,727,836	1,259,480	—	468,356
Total Derivative Investments	\$ 27,974,338	\$ 12,227,344	\$ 15,278,638	\$ 468,356
Other Fair Value Measurements				
Invested Securities Lending Collateral*	\$ 20,311,803,534	\$ 7,504,179,664	\$ 12,807,623,870	\$ —
Securities Sold Short	(915,741,979)	(915,741,979)	—	—
Total Other Fair Value Measurements	\$ 19,396,061,555	\$ 6,588,437,685	\$ 12,807,623,870	\$ —
Total	\$ 91,653,588,472	\$ 70,663,549,918	\$ 20,049,833,693	\$ 940,204,861

*Excludes receivables and payables related to the Securities Lending Pool.

Investments	Net Asset Value Per Share (NAVPS)	Unfunded Capital Commitments
Short-Term Investments		
Short-Term Investment Funds	\$ 5,187,917,451	\$ —
Short-Term Commingled Funds	52,460,891	—
Total Short-Term Investments	\$ 5,240,378,342	\$ —
Alternative Investments		
Absolute Return	\$ 2,446,119,129	\$ 2,904,820,759
Directional Hedge Funds	6,070,382,986	130,000,000
Energy, Natural Resources, and Infrastructure	7,145,522,406	4,753,041,207
Private Equity	20,650,240,602	13,651,310,945
Real Assets	17,972,945,703	10,864,654,985
Risk Parity	3,375,882,367	—
Stable Value Hedge Funds	6,498,851,401	—
Total Alternative Investments	\$ 64,159,944,594	\$ 32,303,827,896
Pooled Investments		
Commingled Domestic Equity	\$ 7,910,407,574	\$ —
Commingled Fixed Income	97,112,027	—
Commingled International Equity	4,622,191,434	—
Domestic Mutual Funds	411,964,261	—
Total Pooled Investments	\$ 13,041,675,296	\$ —
Total	\$ 82,441,998,232	\$ 32,303,827,896

Significant Investment Strategies

The System achieves portfolio diversification by investing in a variety of strategies, geographies, and industry sectors for investments reported at the NAVPS.

Absolute Return

U.S. Investment Grade - Invests in U.S. dollar-denominated investment grade securities.

U.S. High Yield - Invests in U.S. dollar-denominated, high-yield corporate bonds issued in the U.S.

U.S. Securitized/Structured - Invests in bonds backed by securities.

Non-U.S. Developed Fixed Income - Primarily invests in sovereign debt issued by developed countries outside of the U.S.

Emerging Market Debt - Invests in debt issued by corporations or governments in emerging market countries.

Partnerships - Invests in fixed income related portfolios managed by strategic partners

Commingled Equity, Fixed Income, and Mutual Funds

External Public Total Non-U.S. Developed - Invests in long positions in equity securities as well as certain derivatives in non-U.S. developed markets.

External Public Total U.S. - Invests in long positions in equity securities as well as certain derivatives in US markets.

External Public Total World Equity - Invests in equity securities in countries represented in the MSCI ACWI Value Index, as well as certain other global markets. Instruments used include but are not limited to ADRs, swaps, warrants, and other derivative instruments, money market instruments, and currency forwards and/or futures.

External Public Strategic Partnership - Allocations to strategic partners that have a broad mandate to invest in a variety of public markets.

External Public Total Emerging Markets - Invests mainly in equity and equity-related securities traded in the securities markets of newly industrializing countries and emerging markets.

Directional Hedge Funds

Event Driven - Seeks to exploit pricing inefficiencies that may occur before or after a corporate event, such as an earnings call, bankruptcy, merger, acquisition, or spinoff.

Fixed Income - Invests in fixed income strategies which typically involve some amount of credit exposure.

Long Short Equity - Involves buying long equities that are expected to increase in value and selling short equities that are expected to decrease in value.

Multi-Strategy - Engages in a variety of investment strategies with the objective to smooth returns, reduce volatility, and decrease asset-class and single-strategy risks. Strategies adopted in a multi-strategy fund may include, but are not limited to, convertible bond arbitrage, equity long/short, statistical arbitrage and merger arbitrage.

Other - Trades in a broad range of instruments.

Energy, Natural Resources, and Infrastructure

Energy Diversified - Invests in exploration, production, or distribution of oil, gas and other energy sources.

Infrastructure - Invests in infrastructure projects like roads, railways, ports, airports, telecommunications facilities, etc...

Natural Resources - Invests in companies engaged in extractive practices of commodities, including mining for coal, metallic ore, sand, gravel and oil shale; logging of naturally occurring trees; and drilling for oil and gas.

Private Equity

Buyouts - Acquires shares of a company to gain a controlling interest.

Credit/Special Situations - Invests and trades in public and private debt obligations or equity securities or other indebtedness of companies undergoing financial distress, a turn-around in business operations, or companies which management believes are undervalued because of a discrete extraordinary event.

Emerging Managers - Trades in a broad range of instruments with emerging managers.

Venture/Growth Equity - Invests in companies with potential for significant growth.

Real Assets

Core - Invests in stable, fully leased, multi-tenant properties typically within strong, diversified metropolitan markets.

Emerging Managers - Trades in a broad range of instruments with emerging managers.

Opportunistic - Targets underperforming and/or undermanaged properties, or properties that are temporarily depressed in value.

Other - Trades in a broad range of instruments.

REIT - Invests in companies that own or finance income-producing real estate.

Special Situations - Typically provides both equity and debt capital to distressed properties.

Value Added - Involves buying a property, improving it in some way, and selling it at an opportune time for gain. Properties are considered value added when they exhibit management or operational problems, require physical improvement, and/or suffer from capital constraints.

Risk Parity

Targets specific levels of risk to certain factors and/or assets in order to achieve increased portfolio diversification.

Short-Term Investment and Commingled Funds

Invests in highly liquid short-term (cash-like) funds.

Stable Value Hedge Funds

Commodities and Trends - Trades in a number of debt, equity, foreign exchange and commodity instruments and derivative contracts relating to those instruments, including swaps, indices, forwards, futures and option contracts.

Equity Market Neutral - Seeks to exploit differences in stock prices by being long and short in stocks within the same sector, industry, market capitalization, country, etc.

Fixed Income - Assumes opposing positions in fixed income products to take advantage of small price discrepancies while limiting interest rate risk.

Macro and Volatility - Invests in instruments whose prices fluctuate based on the changes in economic policies, along with the flow of capital around the globe.

Multi-Strategy - Aims to deliver consistently positive returns regardless of the directional movement in equity, interest rate or currency markets.

Other - Trades in a broad range of instruments.

Reinsurance - Provides property catastrophe and specialty reinsurance coverages to insurers and reinsurers on a worldwide basis.

Redemptions

The System's Directional Hedge Funds, Stable Value Hedge Funds, Commingled Domestic Equity, and Commingled International Equity are subject to redemption restrictions that constrain the System's

ability to redeem these types of Alternative and Pooled Investments. The following table details the redemption frequency, redemption notice period, redemption restrictions, such as lockups and gates, and an estimate of the eventual lapse of those restrictions,

or, if an estimate cannot be made, the fiscal year in which the restriction took place, by fair value as of August 31, 2018.

Fair Value	Redemption Frequency	Redemption Notice Period	Redemption Restrictions	Redemption Restrictions Lapse
\$ 860,752,664	NA	NA	NA	NA
2,946,062,650	Daily	1-5 Days	NA	NA
803,123,507	Bi-Monthly	9 Days	30% Fund Gate	No Estimate; Effective 2017
2,344,272,404	Monthly	6-30 Days	NA	NA
(171,563)	Quarterly	95 Days	NA	NA
529,922,311	Quarterly	90 Days	2 Year Lockup; 50% Quarterly Investor Gate	Lockup Lapses 2018; Gate - No Estimate; Effective 2017.
426,445,601	Annually	90 Days	25% Fund Gate	No Estimate; Effective 2010
\$ 7,910,407,574	Total Commingled Domestic Equity			
\$ 1,087,145,212	NA	NA	NA	NA
1,878,040,343	Monthly	5-30 Days	NA	NA
606,133,041	Monthly	90 Days	12, 36, 48 Month Lockup	No Estimate; Rolling 3 Year Lock Up Period
1,050,872,838	Quarterly	60 Days	NA	NA
\$ 4,622,191,434	Total Commingled International Equity			
\$ 523,726,071	NA	NA	NA	NA
21,307,469	Daily	30 Days	NA	NA
418,795,485	Monthly	30-90 Days	NA	NA
17,632,819	Monthly	60 Days	25% Investor Gate	NA
300,000,000	Monthly	60 Days	1 Year Lockup; 20% Fund Gate; 25% Investor Gate	Lockup Lapses 2019; Gate - No Estimate; Effective 2018
316,144,507	Monthly	90 Days	36 Months, 10% of Capital Lockup Period	Lapses 2019
30,266,360	Quarterly	30-65 Days	25% Investor Gate	No Estimate; Effective 2016
629,023,832	Quarterly	45-90 Days	NA	NA
363,561,724	Quarterly	45 Days	3 Year Lockup; 25% Fund Gate	Lockup Lapses 2019; Gate - No Estimate; Effective 2017
377,367,241	Quarterly	45 Days	3 Year Lockup	Lockup Lapses 2020
965,191,288	Quarterly	40-65 Days	10%-25% Fund Gate	No Estimate; Effective 2011-2017
1,966,710	Quarterly	60 Days	20% Quarterly Fund Gate	No Estimate; Effective 2010
849,981,456	Quarterly	60-90 Days	16.7%-25% Investor Gate	No Estimate; Effective 2012-2017
59,779,015	Quarterly	65-90 Days	25% Quarterly Investor Gate	No Estimate; Effective 2014-2016
227,132,950	Quarterly	90 Days	25% Fund Gate; 3 Year Rolling Hard Lock	Lockup Lapses June 2019; Gate - No Estimate; Effective 2017
292,696,775	Quarterly	24 Months	35% Investor Gate	No Estimate; Effective 2014
391,181,451	Semi-Annually	95 Days	NA	NA
143,806,403	Semi-Annually	90 Days	20% Fund Gate	No Estimate; Effective 2010
120,712,372	Yearly	60 Days	NA	NA
20,109,058	24 Months	90 Days	2 Year Lockup	Lockup Lapses 2019
\$ 6,070,382,986	Total Directional Hedge Funds			

Fair Value	Redemption Frequency	Redemption Notice Period	Redemption Restrictions	Redemption Restrictions Lapse
\$ 294,285,683	Daily	15 Days	NA	NA
245,150,237	Bi-Monthly	15 or 30 Days	10% Fund Gate for 15 Day Notice	No estimate; Effective 2013
1,948,821,776	Monthly	2-60 Days	NA	NA
343,952,990	Monthly	45-90 Days	10%-20% Fund Gate	No estimate; Effective 2006-2012
281,342,328	Monthly	25-90 Days	20%-25% Investor Gate	No estimate; Effective 2010-2017
355,807,948	Monthly; Semi-Annual	Monthly, 20 Day Notice; Semi-Annual, 10/31 or 03/31 Notice	NA	NA
415,786,014	Monthly, Quarterly, 12/31	Monthly - 45-90 Days; Quarterly - 45 Days; 12/31 - 90 Days	1/6th Investor Gate	No estimate; Effective 2014
539,566,373	Quarterly	45-90 Days	NA	NA
625,907,895	Quarterly	45-90 Days	15%-25% Fund Gate	No estimate; Effective 2007-2015
756,291,110	Quarterly	90 Days	25% Quarterly Investor Gate	No estimate; Effective 2014-2015
150,000,000	Quarterly	90 Days	1-Year Soft Lock; 25% Investor Level per Quarter	Lockup Lapses 2019; Gate - No Estimate; Effective 2018
396,428,047	Semi-Annually	90 Days	16.67% Semi-Annual Investor Gate	No estimate; Effective 2013
145,511,000	Annually	3/1	Up to 50% can be redeemed at 25% Fund Gate	No estimate; Effective 2013
\$ 6,498,851,401 Total Stable Value Hedge Funds				

Liquidations

The System receives distributions through the liquidation of the underlying assets of the investees for a majority of its Alternative Investment interests in Private Equity, Real Assets, and Energy, Natural

Resources, and Infrastructure since these investments can never be redeemed with the investees. The following table discloses the System's estimate of the period over which the underlying assets are expected to be liquidated by the investees as of August 31, 2018.

Investment Type	Less than 1 Year	1-5 Years	6-10 Years	Greater than 10 Years	N/A	Total
Absolute Return	\$ —	\$ 54,717,700	\$ —	\$ —	\$ 2,391,401,429	\$ 2,446,119,129
Energy, Natural Resources, and Infrastructure	57,474,808	2,724,108,829	2,489,918,267	618,503,093	1,255,517,409	7,145,522,406
Private Equity	1,183,879,995	5,987,520,108	5,912,124,264	194,987,206	7,371,729,029	20,650,240,602
Real Assets	409,318,994	4,573,352,023	4,474,201,994	2,614,130,883	5,901,941,809	17,972,945,703
Risk Parity	—	—	—	—	3,375,882,367	3,375,882,367
Total	\$ 1,650,673,797	\$13,339,698,660	\$12,876,244,525	\$ 3,427,621,182	\$20,296,472,043	\$51,590,710,207

D. Derivative Investments

Derivatives are used to efficiently manage and reduce the risk of the overall investment portfolio. Through the use of derivatives, the risks that are bound together in traditional cash market investments can be

separated and managed independently. Derivative Investments are classified as Investments on the Statement of Fiduciary Net Position, and the changes in their fair value are classified as Investment Revenue

on the Statement of Changes in Fiduciary Net Position. The fair value, changes in fair value, and notional value of the System's Derivative Investments, classified by derivative type, are displayed in the following table as of August 31, 2018.

The System's over-the counter (OTC) Derivative Investments include contingent features that require the System to post collateral in the event that the fair

value surpasses a specified contractual threshold. The aggregate fair value of all Derivative Investments with these collateral posting provisions is \$29,675,205, and as of August 31, 2018, the System has posted \$18,710,235 in collateral. At August 31, 2018, the System has not triggered any events that would require the posting of additional collateral to its counterparties.

Fiduciary Funds Derivative Investments	Fair Value	Change in Fair Value Gain/(Loss)	Notional Value
Forwards			
FX Forwards	\$ 10,766,560	\$ 60,146,182	\$ (2,791,105,516)
Total Forwards	\$ 10,766,560	\$ 60,146,182	
Futures			
Commodity Futures	\$ —	\$ 21,633,394	323,180,543
Fixed Income Futures	—	(73,284,593)	2,519,198,682
Foreign Currency Futures	—	1,640,253	(109,090,000)
Index Futures	—	331,907,726	425,535,483
Total Futures	\$ —	\$ 281,896,780	
Options			
Equity Options	\$ —	\$ 530,184	—
Futures Options	—	(14,229)	—
Index Options	(8,337,985)	69,954,013	(14,941,802)
Total Options	\$ (8,337,985)	\$ 70,469,968	
Rights			
Rights	\$ 416,906	\$ 1,199,461	5,969,624
Total Rights	\$ 416,906	\$ 1,199,461	
Swaps			
Credit Default Swaps	\$ 19,723,333	\$ (8,654,352)	655,186,186
Interest Rate Swaps	(4,484,857)	(3,152,799)	561,714,560
Total Return Swaps	8,162,545	(10,781,141)	94,885,264
Total Swaps	\$ 23,401,021	\$ (22,588,292)	
Warrants			
Warrants	\$ 1,727,836	\$ 1,979,575	4,367,859
Total Warrants	\$ 1,727,836	\$ 1,979,575	
Total	\$ 27,974,338	\$ 393,103,674	

E. Securities Lending

The System is authorized by Texas Government Code, Section 825.303 to contractually lend securities to borrowers in accordance with the Securities Lending Policy established by the Board of Trustees and as required by statute. The System's lending agent, State Street Global Advisors, administers its securities lending program for domestic and international equity

and fixed income securities. TRS securities held by a prime broker are not eligible for securities lending by the prime broker. The current Policy has been in effect since January 1, 2017, and there were no significant securities lending policy changes during the reporting period. The Securities Lending Policy in its entirety can

be accessed at www.trstexas.gov. There were no significant policy violations during the fiscal year.

Collateral received from borrowers are delivered in the form of cash or government securities eligible for book entry in either the Federal Reserve system or the Participants Trust Company, or their respective successors. The initial collateral delivered to secure a loan of domestic securities must have a market value of at least 102 percent of the initial market value of the domestic loaned securities and at least 105 percent of the initial market value of the international loaned securities. Collateral is marked to market daily. If, while the loan is outstanding, the current market value of the collateral initially delivered is less than 100 percent or 105 percent of the current market value of the domestic or international securities, respectively, the securities lending agent must require the borrower to deliver additional collateral to restore the value to 102 percent or 105 percent of the current market value of the loaned securities for domestic or international securities, respectively. The System is authorized to invest cash collateral in the following types of instruments: U.S. government securities or U.S. government-sponsored enterprise (GSE) securities, money market instruments, repurchase agreements, fixed or floating rate debt obligations, and derivative instruments.

The securities lending contracts require the custodian to indemnify the system if the borrower fails to return the securities or income distributions made while the securities are on loan. Non-cash collateral cannot be pledged or sold unless the borrower defaults. All securities loans can be terminated on demand by the System or the borrower, and there are no restrictions on the amount of loans that can be made.

The par value, dollar-weighted average maturity of the collective cash collateral investment portfolio may not exceed 120 days. The expected final maturity of any individual fixed-rate instrument and individual floating-rate instrument may not exceed 36 months and seven years, respectively. As of August 31, 2018, the maturities of the investments made with cash collateral generally match the maturities of their securities loans, with the weighted average maturity of the invested cash collateral at 15 days, and the weighted average term of all securities on loan at 17 days.

As of August 31, 2018, the System reported Invested Securities Lending Collateral worth \$20,335,310,295. The System holds \$20,320,455,707 in cash collateral

and \$1,113,419,725 in non-cash collateral. Securities on loan totaled \$20,981,964,104 and include investments in Domestic Corporate Bonds, Domestic Equities, International Equities, U.S. Government Agency Bonds, and U.S. Treasury Bonds.

F. Deposit and Investment Risk Factors

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. Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of investment or collateral securities that are in the possession of an outside party.

Deposits

The System does not have a formal deposit policy for custodial credit risk. Deposits held at the State of Texas Treasury are not subject to custodial credit risk since the Treasury holds collateral in the System's name in excess of depository insurance. Deposits held in bank accounts in excess of depository insurance are uninsured and uncollateralized. As of August 31, 2018, \$185,114,617 of the System's bank balance was uninsured and uncollateralized.

Investments

The System has contracted with State Street Bank and Trust Company and Goldman Sachs to serve as custodians for the System's investments. The System does not have a formal investment policy for custodial credit risk. As of August 31, 2018, the Short-Term Investment Fund is held by the custodian in a 2a-7 like investment pool not evidenced by a security and is not exposed to custodial credit risk. These securities are held in the name of the system by the custodian. All other investments are registered in the name of the Teachers Retirement System of Texas or in the name of the System's custodian.

Securities Lending

The System does not have a formal investment policy for custodial credit risk for its securities lending program. The System reinvests all cash collateral received in an unrated cash collateral pool held by the System's securities lending agent and is, therefore, not exposed to custodial credit risk. Since non-cash collateral is not reported on the balance sheet, it is

exposed to custodial credit risk, as is the related underlying securities on loan. The following table shows the underlying securities for the non-cash

collateral loans, which are held by the counterparty, the securities lending agent, but not in the System's name and are not insured as of August 31, 2018.

Investment Type	Securities on Loan Fair Value	Non-Cash Collateral Value
Domestic Corporate Bonds	\$ 4,039	\$ 4,120
Domestic Equity	551,817,543	564,343,587
International Equity	314,601,024	335,315,412
U.S. Treasury Bonds	209,509,883	213,756,606
Total	\$ 1,075,932,489	\$ 1,113,419,725

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations.

Investments

The System does not have a formal credit risk policy for its investments. The S&P credit rating and fair value of

the System's Fixed Income Investments as of August 31, 2018 is disclosed in the following table.

Credit ratings of U.S. Treasuries, U.S. Treasury STRIPS, and U.S. TIPS are not disclosed since these investments are explicitly guaranteed by the U.S. Government. The System's Short-Term Investment Funds and Short-Term Commingled Funds are unrated.

S&P Rating	Fixed Income Investment Type					Total
	Asset and Mortgage Backed Bonds	Domestic Corporate Bonds	International Corporate Bonds	Sovereign Government Issue Bonds	U.S. Government Agency Bonds ¹	
AAA	\$ 2,169,587	\$ —	\$ —	\$ —	\$ —	\$ 2,169,587
AA+	43,140,115	—	—	—	22,876,466	66,016,581
AA	1,485,969	—	—	—	—	1,485,969
AA-	132,120	—	—	—	—	132,120
A+	421,627	—	—	—	—	421,627
A	1,283,465	—	—	—	—	1,283,465
BBB+	3,087,133	—	—	—	—	3,087,133
BBB	2,824,040	—	—	—	—	2,824,040
BBB-	517,053	—	—	—	—	517,053
BB+	2,530,251	—	—	4,433,382	—	6,963,633
BB	982,664	—	—	—	—	982,664
BB-	2,694,723	—	—	123,252,959	—	125,947,682
B+	2,489,666	—	—	54,275,611	—	56,765,277
B	2,948,216	—	—	—	—	2,948,216
B-	4,545,419	—	—	—	—	4,545,419
CCC	21,897,053	—	—	—	—	21,897,053
CC	1,175,568	—	—	—	—	1,175,568
D	3,013,496	—	—	—	—	3,013,496
NR2	53,735,594	22,847,315	85,749	942,642,368	13,239,164	1,032,550,190
Total	\$ 151,073,759	\$ 22,847,315	\$ 85,749	\$ 1,124,604,320	\$ 36,115,630	\$ 1,334,726,773

¹U.S. Government Agency Bonds (FHLB, FNMA, FHLMC) are implicitly guaranteed by the U.S. Government.

²NR represents unrated securities.

Derivative Investments

The maximum allowable unsecured counterparty exposure for over-the-counter (OTC) derivative transactions is \$500 million, based on the total net market value of all OTC positions held with each counterparty. The total counterparty exposure for each counterparty, including the collateralized portions of these agreements, may not exceed 5 percent of the System's total fund market value. The minimum credit rating, based on a Nationally Recognized Statistical Rating Organization (NRSRO), must be rated at least A- or better at the inception of the contract. For any counterparty that experiences deterioration in credit quality that results in a NRSRO rating below the A- level, subsequent to the inception of transaction, additional eligible collateral may be posted, or the transaction may be terminated.

All OTC derivatives must be governed by an International Swaps and Derivatives Association (ISDA) Master Agreement and Credit Support Annex or, if centrally cleared by clearing agreements, the close-out netting provisions and collateralization provisions must be included.

The counterparty limits for repurchase transactions and tri-party repurchase transactions may not exceed 5 percent of the System's total fund market value, unless the transactions are covered by a third-party indemnification agreement by an organization that bears a long-term NRSRO credit rating of A- or better and is enhanced by acceptable collateral. Each

repurchase agreement will be entered into under the Public Securities Association (PSA) and International Securities Market Association (ISMA) Global Master Repurchase Agreement. Each ISDA Master Agreement must also include a table that delineates the excess purchased securities margin (haircut) required, based on the collateral type, duration, and credit quality.

The following table discloses the net exposure to credit risk by counterparty and their corresponding credit rating by each of the Big Three credit rating agencies as of August 31, 2018.

The aggregate fair value of Derivative Investment instruments in asset positions as of August 31, 2018, was \$179,399,946, which represents the maximum amount of loss due to credit risk that would be recognized if all counterparties failed to perform as contracted. The exposure is reduced by \$23,990,122 of collateral held and \$125,079,453 of liabilities included in netting arrangements with those counterparties, resulting in a net exposure to credit risk of \$30,330,371.

The System's net exposure to credit risk is limited to 5% of the market value of the system's total fund value. As of August 31, 2018, significant concentrations of net exposure to credit risk existed at Citibank (44%) and at Goldman Sachs (36%), but the net exposure for the counterparty did not surpass 5% of the System's total fund market value.

Counterparty	Net Exposure	Percentage of Net Exposure	S&P Rating	Fitch Rating	Moody's Rating
Bank of America	\$ 337,264	1%	A+	AA-	Aa3
Citibank	13,317,902	44%	A+	A+	A1
Goldman Sachs	10,856,785	36%	A+	A	A1
Societe Generale	4,360,891	14%	A	A	A1
UBS AG	1,457,529	5%	A+	AA-	Aa3
Total	\$ 30,330,371	100%			

Securities Lending

Instruments having a maturity at the time of purchase of less than 13 months must be rated in one of the two highest short-term ratings categories of the following Nationally Recognized Statistical Ratings Organizations (NRSRO) - Moody's, Standard & Poor's, Fitch or DBRS - or be considered by the Board of Trustees to be of comparable quality. Instruments having a maturity at

the time of purchase greater than 13 months must be rated at the time of purchase within the highest major, long-term rating category of an NRSRO (e.g., Moody's A3 or Standard & Poor's A-), or, if unrated, be determined to be of comparable quality by the Board of Trustees. As of August 31, 2018, there was no credit

risk exposure because the amounts owed to borrowers exceeded the amounts owed to the system.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment.

Investments

The System does not have a formal interest rate risk policy for its investments. The following table presents

the fair value and the weighted effective duration rate for the System's Fixed Income Investments that are subject to interest rate risk as of August 31, 2018.

Asset and Mortgage Backed Bonds are based on cash flows from interest payments on underlying mortgages, which makes them sensitive to interest rate changes when mortgagees make prepayments in periods of declining interest rates.

Fixed Income Investment Type	Fair Value	Weighted Effective Duration Rate
Asset and Mortgage Backed Bonds	\$ 151,073,759	2.6
Domestic Corporate Bonds	22,847,315	—
International Corporate Bonds	85,749	2.4
Sovereign Government Issue Bonds	1,124,604,320	8.8
U.S. Government Agency Bonds	36,115,630	(1.2)
U.S. Treasury Bonds	15,770,868,458	17.1
U.S. Treasury STRIPS	7,747,459	7.8
U.S. TIPS	5,907,294,910	7.8
U.S. Treasury Bills	104,713,793	—
Total	\$ 23,125,351,393	14.1

Derivative Investments

The System does not have a formal interest rate risk policy for its Derivative Investments. The System's investments in Swaps are highly sensitive to interest rate changes because they are based on fluctuating Interbank Offered Rates.

As the Rates fluctuate, the total expected cash flows will fluctuate. The reference rates, embedded options, fair value, and notional value of the system's Interest Rate and Return Swaps that are exposed to interest rate risk, as of August 31, 2018, are presented in the following table.

Reference Rate & Embedded Options	Investment Maturities (in Years)				Notional Value
	Fair Value	Less than 1	1-5	6-10	
Interest Rate Swaps					
Receive Variable 6-month PRIBO, Pay Fixed 1.09900%	\$ 66,136	\$ —	\$ 66,136	\$ —	\$ (2,352,879)
Receive Variable 1-month MXIBO, Pay Fixed 7.94000%	58,012	—	—	58,012	(3,876,938)
Receive Variable 1-month MXIBO, Pay Fixed 7.94500%	123,075	—	—	123,075	(8,415,575)
Receive Variable 1-month MXIBO, Pay Fixed 8.01000%	191,259	—	—	191,259	(18,705,473)
Receive Variable 1-month MXIBO, Pay Fixed 8.00000%	93,264	—	—	93,264	(8,554,327)
Receive Variable 1-month MXIBO, Pay Fixed 8.01500%	147,373	—	—	147,373	(14,907,455)
Receive Variable 1-month MXIBO, Pay Fixed 8.12000%	41,908	—	—	41,908	(14,907,508)
Receive Variable 1-month MXIBO, Pay Fixed 8.15500%	6,713	—	—	6,713	(14,907,403)
Receive Variable 1-month MXIBO, Pay Fixed 8.14000%	21,888	—	—	21,888	(14,907,508)
Receive Variable 1-month MXIBO, Pay Fixed 8.10500%	48,182	—	—	48,182	(12,489,527)
Receive Variable 3-month LIBOR, Pay Fixed 2.42500%	148,036	—	—	148,036	(3,500,000)
Receive Variable 3-month LIBOR, Pay Fixed 2.90300%	18,671	—	—	18,671	(5,285,000)
Receive Variable 3-month LIBOR, Pay Fixed 2.89850%	8,724	—	—	8,724	(2,190,000)
Receive Fixed 7.32000%, Pay Variable 1-month MXIBO	(317,588)	—	(317,588)	—	33,815,381
Receive Fixed 7.31500%, Pay Variable 1-month MXIBO	(654,011)	—	(654,011)	—	69,230,041
Receive Fixed 7.63500%, Pay Variable 1-month MXIBO	(218,725)	—	(218,725)	—	34,470,699
Receive Fixed 7.62500%, Pay Variable 1-month MXIBO	(346,760)	—	(346,760)	—	53,622,029

Reference Rate & Embedded Options	Investment Maturities (in Years)				Notional Value
	Fair Value	Less than 1	1-5	6-10	
Interest Rate Swaps					
Receive Fixed 8.04000%, Pay Variable 1-month MXIBO	(38,659)	—	(38,659)	—	27,454,094
Receive Fixed 8.03500%, Pay Variable 1-month MXIBO	(68,021)	—	(68,021)	—	46,252,818
Receive Fixed 8.06000%, Pay Variable 1-month MXIBO	(113,455)	—	(113,455)	—	98,967,025
Receive Fixed 8.07500%, Pay Variable 1-month MXIBO	(28,470)	—	(28,470)	—	29,550,535
Receive Fixed 8.06500%, Pay Variable 1-month MXIBO	(51,334)	—	(51,334)	—	47,724,275
Receive Fixed 8.10000%, Pay Variable 1-month MXIBO	(30,226)	—	(30,226)	—	47,724,327
Receive Fixed 8.09000%, Pay Variable 1-month MXIBO	(36,275)	—	(36,275)	—	47,724,327
Receive Fixed 7.83100%, Pay Variable 3-month JIBAR	(2,568,285)	—	—	(2,568,285)	63,344,924
Receive Fixed 7.81100%, Pay Variable 3-month JIBAR	(195,174)	—	—	(195,174)	4,630,799
Receive Fixed 7.71000%, Pay Variable 1-month MXIBO	(123,774)	—	(123,774)	—	20,003,452
Receive Fixed 7.70500%, Pay Variable 3-month JIBAR	(360,463)	—	—	(360,463)	7,081,921
Receive Fixed 7.90000%, Pay Variable 3-month JIBAR	(107,169)	—	—	(107,169)	2,792,799
Receive Fixed 7.90000%, Pay Variable 1-month MXIBO	(81,329)	—	(81,329)	—	25,384,640
Receive Fixed 8.34250%, Pay Variable 3-month ZARBO	(139,444)	—	—	(139,444)	14,802,833
Receive Fixed 8.19500%, Pay Variable 1-month MXNLI	21,062	—	21,062	—	12,137,235
Total Interest Rate Swaps	\$ (4,484,859)	\$ —	\$ (2,021,429)	\$ (2,463,430)	
Total Return Swaps					
Receive Equity, Pay Variable 1-month FEDFU	\$ 44,558	\$ 44,558	\$ —	\$ —	\$ 3,109,538
Receive Equity, Pay Variable 1-month FEDLO	14,869	—	14,869	—	453,346
Receive Equity, Pay Variable 1-month LIBOR	4,159,345	4,159,345	—	—	132,943,347
Receive Equity, Pay Variable 3-month LIBOR	3,640,034	3,640,034	—	—	685,147,915
Receive Equity, Pay Variable 3-month EURIB	(589,618)	(589,618)	—	—	27,304,659
Receive Equity, Pay Variable 1-month OBFRO	(16,509)	—	(16,509)	—	666,669
Receive Variable 1-month FEDFU, Pay Equity	145,454	145,454	—	—	(13,281,938)
Receive Variable 1-month FEDLO, Pay Equity	(822,529)	(627,664)	(194,865)	—	(58,585,244)
Receive Variable 3-month LIBOR, Pay Equity	(7,542,498)	(7,542,498)	—	—	(452,937,476)
Receive Variable 1-month LIBOR, Pay Equity	(3,152,031)	(3,152,031)	—	—	(65,723,500)
Receive Variable 3-month EURIB, Pay Equity	(16,859)	(16,859)	—	—	(19,553,559)
Receive Variable 3-month CDOR, Pay Equity	(1,011,631)	(1,011,631)	—	—	(59,854,057)
Receive Variable 3-month AUDLI, Pay Equity	88,549	88,549	—	—	(20,331,184)
Receive Variable 1-month OBFRO, Pay Equity	(745,069)	—	(745,069)	—	(28,011,353)
Total Return Swaps	\$ (5,803,935)	\$ (4,862,361)	\$ (941,574)	\$ —	
Total	\$ (10,288,794)	\$ (4,862,361)	\$ (2,963,003)	\$ (2,463,430)	

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of a deposit or an investment. The System does not have a formal deposit policy for foreign currency risk. The risk of holding investments in foreign currency is managed by applying currency hedge ratios to the system's public markets and private markets non-dollar exposures.

Each currency hedge ratio is the percentage of aggregate, non-dollar currency exposure to be passively hedged, and the hedging horizon is intermediate (one to three years). The System's exposure to foreign currency risk as of August 31, 2018 is presented in the following table.

Currency by Country	Cash	Alternative Investments	Derivative Investments	Equity Investments	Fixed Income Investments	Pooled Investments	Total
Argentina Peso	\$ —	\$ —	\$ (4,632,423)	\$ —	\$ —	\$ —	\$ (4,632,423)
Australia Dollar	7,336,947	—	4,278,855	749,828,476	214,571,630	—	976,015,908
Bangladesh Taka	3	—	—	—	—	—	3
Botswana Pula	—	—	—	157,990	—	—	157,990
Brazil Real	2,068,416	—	11,214,731	565,175,084	123,252,959	—	701,711,190
Canada Dollar	8,845,079	—	(1,713,744)	1,433,708,550	—	—	1,440,839,885
Chile Peso	172,719	—	600,528	72,103,224	—	—	72,876,471
China Yuan Renminbi Offshore	—	—	3,151,960	—	—	—	3,151,960
China Yuan Renminbi	62,936	—	—	155,922,042	—	—	155,984,978
Colombia Peso	153,942	—	(424,877)	15,028,705	—	—	14,757,770
Czech Republic Koruna	2,107	—	(9,033,762)	18,211,791	—	—	9,180,136
Denmark Krone	49,351	—	840,618	207,695,295	—	—	208,585,264
Egypt Pound	129,940	—	—	32,316,430	—	—	32,446,370
Euro Member Countries	64,554,040	2,912,826,551	40,719,789	4,675,096,568	372,426,375	606,133,041	8,671,756,364
Hong Kong Dollar	26,213,154	—	3,732,437	3,269,925,094	—	—	3,299,870,685
Hungary Forint	6,308	—	(123,155)	60,594,758	—	—	60,477,911
India Rupee	18,349,234	—	(907,951)	900,840,098	85,749	—	918,367,130
Indonesia Rupiah	58,036	—	(75,424)	315,156,304	—	—	315,138,916
Israel Shekel	7,374	—	(1,162,750)	37,580,077	—	—	36,424,701
Japan Yen	21,434,887	—	1,438,375	3,605,870,294	6,792,443	—	3,635,535,999
Korea (South) Won	8,366,523	—	9,284	1,600,344,474	—	—	1,608,720,281
Kuwait Dinar	(466)	—	—	—	—	—	(466)
Malaysia Ringgit	49,701	—	10,468	196,295,137	—	—	196,355,306
Mexico Peso	437,825	—	744,264	347,069,102	—	—	348,251,191
New Zealand Dollar	38,028	—	3,961,233	5,877,203	—	—	9,876,464
Nigeria Naira	—	—	—	5,088	—	—	5,088
Norway Krone	103,070	—	(3,262,071)	360,199,993	—	—	357,040,992
Pakistan Rupee	11,967	—	—	19,046,816	—	—	19,058,783
Philippines Peso	2,184	—	(1,110)	65,813,681	—	—	65,814,755
Poland Zloty	19,298	—	(28,708)	115,713,011	—	—	115,703,601
Qatar Riyal	—	—	—	21,892,828	—	—	21,892,828
Romania New Leu	—	—	(161,480)	—	—	—	(161,480)
Russia Ruble	—	—	(1,858,037)	66,007,892	—	—	64,149,855
Singapore Dollar	121,905	—	74,357	146,223,703	—	—	146,419,965
South Africa Rand	315,203	—	459,278	626,937,843	4,433,382	—	632,145,706
Sweden Krona	127,896	—	530,960	280,003,683	—	—	280,662,539
Switzerland Franc	(179,557)	—	(8,848,591)	1,025,413,006	—	—	1,016,384,858
Taiwan New Dollar	1,321,786	—	251,826	1,037,760,663	—	—	1,039,334,275
Thailand Baht	88,967	—	76,154	286,139,721	—	—	286,304,842
Tunisia Dinar	—	—	2	—	—	—	2
Turkey Lira	20,076	—	(17,263,589)	81,102,232	—	—	63,858,719
United Arab Emirates Dirham	4,725	—	—	37,486,816	—	—	37,491,541
United Kingdom Pound	15,544,617	450,184,070	11,580,599	2,509,057,754	403,127,532	—	3,389,494,572
Viet Nam Dong	—	—	—	8,810	—	—	8,810
Total	\$ 175,838,221	\$ 3,363,010,621	\$ 34,178,046	\$24,943,610,236	\$ 1,124,690,070	\$ 606,133,041	\$30,247,460,235

Note 4: Employee Compensable Leave

Salary costs related to an employees' right to be compensated for leave balances are accrued as expenses in the period in which the services are rendered. Accumulated compensable leave liabilities are reported in the Statement of Fiduciary Net Position for the Pension and Other Post-Employment Benefit Trust Funds and in the Statement of Net Position for the Proprietary Funds.

Note 5: Operating Leases

In the fiscal year 2014, TRS entered into a non-cancelable operating lease agreement for building space which expires March 31, 2021. As part of the building lease, TRS received a construction allowance which is being amortized on a straight-line basis over the life of the lease as a reduction of rental expenses.

Rental expenses related to the lease for the fiscal year ended August 31, 2018 for the Pension Trust Fund were \$2,422,773, including an adjustment for amortization of unrealized lease incentives of \$75,254. Fees for off-site storage for data security, copier rentals, and a mail machine were \$15,176, \$390,797, and \$108,819, respectively. Rental expenses related to the Teacher Retirement Investment Company of Texas (TRICOT) located in London were \$456,277 for leases.

The future minimum lease payment for the next four years are listed in the following table.

Fiscal Year		Amount
2019	\$	2,624,538
2020		2,131,515
2021		1,506,059
2022		313,635
Total	\$	6,575,747

Note 6: Fringe Benefits Paid by the State of Texas and the Federal Government

The State has a joint contributory retirement plan for substantially all its employees. The employees of TRS participate in the same pension plan they administer (Note 11).

Federal legislation enacted in January 2006 established prescription drug coverage for Medicare beneficiaries known as Medicare Part D. One of the provisions of Medicare Part D provided Retiree Drug Subsidy (RDS) reimbursements to TRS-Care on behalf of certain plan participants. TRS returned a net overpayment of RDS reimbursements totaling \$(319,161) for the fiscal year ended August 31, 2018. TRS-Care's Employer Group

Waiver Plan (EGWP) reimbursements totaled \$29,334,576 for Medicare Part D direct subsidies, \$67,580,464 for catastrophic reinsurance subsidies, and \$6,806,700 for low income subsidies.

Note 7: Contingent Liabilities

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 or paid to the estate of an employee in the event of death. The maximum sick leave that may be paid to an employee's estate is one-half of the employee's accumulated entitlement or 336 hours, whichever is less. The System's policy is to recognize the cost of any sick leave when paid.

The System is contingently liable for benefits payable to retiring members who remain in a pending status longer than 30 days after fiscal year end. In addition, under Texas Insurance Code, Article 3.51-7, the System is contingently liable to pay a lump-sum death benefit not to exceed \$5,000 when added to the death benefit authorized under Texas Government Code, Title 8, Chapter 824, to the beneficiaries of deceased, retired employees.

A Performance Incentive Compensation Plan was adopted effective September 2007 and amended 2015, to enable the system to remain competitive in its efforts to attract, retain and motivate high caliber investment division staff. The purpose of the Plan is to provide the opportunity for investment division employees to earn performance incentive pay based on the fund's investment performance and the employee's job performance. The performance incentive pay is paid over the subsequent 2 years. The remaining liability for the incentive pay plan ending September 30, 2017 will not exceed \$4.5 million. For the incentive pay plan year ending September 30, 2018, the liability is estimated not to exceed \$10 million. Payments can only be earned following years in which the Pension Trust Fund experiences a positive return, and employees must be employed by TRS on the designated dates in the Plan in order to earn and receive payment. The Board of Trustees may cancel or modify the Plan at any time.

An Executive Performance Incentive Plan was adopted effective July 1, 2016 in order to remain competitive in its efforts to attract and retain high caliber executives. The purpose of the plan is to provide an opportunity for select executive management to earn performance incentive pay based on key objectives tied to the overall success of TRS. The performance incentive pay is paid over the subsequent 2 years. For the incentive pay plan

year ending June 30, 2017, the remaining liability is estimated at \$8,186. For the incentive pay plan year ending June 30, 2018, the liability is estimated at \$49,116.

TRS is a defendant in litigation involving issues arising from its normal activities. The outcome of this litigation cannot be determined at this time. Based upon consultation with legal counsel, management believes there will be no material adverse effect on the basic financial statements as a result of the ultimate outcome of these matters.

Note 8: Continuance Subject to Review

As provided by Texas Government Code, Title 8, Section 825.006, "The Board of Trustees of the Teacher Retirement System of Texas is subject to review under Chapter 325 (Texas Sunset Act), but is not abolished under that chapter. The Board shall be reviewed during the period in which state agencies abolished in 2025, and every 12th year after that year, are reviewed."

Note 9: Other Post-Employment Benefits (OPEB) Plan - TRS-Care

A. Plan Description

The Texas Public School Retired Employees Group Insurance Program (TRS-Care) is a multiple- employer, cost-sharing, defined benefit Other Post-Employment Benefit (OPEB) plan with a special funding situation. The TRS-Care program was established in 1986 by the Texas Legislature.

The Board of Trustees of TRS administers the TRS-Care program and the related fund in accordance with the Texas Insurance Code Chapter 1575. The Board of Trustees is granted the authority to establish basic and optional group insurance coverage for participants as well as to amend benefit terms as needed under Chapter 1575.052. The Board may adopt rules, plans, procedures, and orders reasonably necessary to administer the program, including minimum benefits and financing standards. Information regarding the TRS-Care board and its composition can be found in the CAFR on the "Board of Trustees" page and in Note 1.

B. Benefits Provided

TRS-Care provides a basic health insurance coverage at no cost to all retirees from public schools, charter schools, regional service centers, and other educational districts who are members of the TRS pension system. Eligible non-Medicare retirees and their dependents may pay premiums to participate in the high-deductible health plans. Eligible Medicare

retirees and their dependents may pay premiums to participate in the Medicare Advantage health plans. To qualify for TRS-Care coverage, a retiree must have at least 10 years of service credit in the TRS pension system. For more information on TRS-Care eligibility and detailed information on TRS-Care, please refer to the Benefits section.

The 85th Legislature, Regular Session, passed the following statutory changes in House Bill 3976 which became effective on September 1, 2017:

- Created a high-deductible health plan that provides a zero cost for generic prescriptions for certain preventive drugs and provides a zero premium for disability retirees who retired as a disability retiree on or before January 1, 2017 and are not eligible to enroll in Medicare
- Created a single Medicare Advantage plan and Medicare prescription drug plan for all Medicare-eligible participants
- Allowed the System to provide other, appropriate health benefit plans to address the needs of enrollees eligible for Medicare.
- Allowed eligible retirees and their eligible dependents to enroll in TRS-Care when the retiree reaches 65 years of age, rather than waiting for the next enrollment period
- Eliminated free coverage under TRS-Care, except for certain disability retirees enrolled during Plan Years 2018 through 2021, requiring members to contribute \$200 per month toward their health insurance premiums

C. Contributors to the Plan

Contributors to the plan include active and retired members, employers, and the State of Texas as the only non-employer contributing entity. Employers include public schools, educational districts, regional service centers and open-enrollment charter schools whose employees are members of the Teacher Retirement System of Texas.

During the fiscal year 2018, the number of participating employers are presented in the following table.

Participating Employers	
Independent School Districts*	1,024
Open Enrollment Charter Schools	171
Regional Service Centers	20
Other Educational Districts	4
Total	1,219

* Excludes Windham School District which is not covered by TRS-Care.

TRS-Care plan membership as of August 31, 2017 is shown in the following table. Because the actuarial valuation was based on a roll-forward (See Section F), the counts are as of August 31, 2017.

TRS-Care Plan Membership	
Active plan members	712,260
Inactive plan members currently receiving benefits	216,810
Inactive plan members entitled to but not yet receiving benefits	10,512
Total	939,582

The Average Expected Remaining Service Life (AERSL) of 9.0387 is based on the membership information as of the beginning of the fiscal year.

D. Contributions

Contribution rates for the TRS-Care plan are established in State Statute by the Texas Legislature, and there is no continuing obligation to provide benefits beyond each fiscal year. The TRS-Care plan is currently funded on a pay-as-you-go basis and is subject to change based on available funding. Funding for TRS-Care is provided by retiree premium contributions and contributions from the state, active employees, and participating employers are based on active employee compensation. The TRS Board does not have the authority to set or amend contribution rates.

At the inception of the plan, funding was projected to last 10 years through fiscal year 1995. The original funding was sufficient to maintain the solvency of the fund through fiscal year 2000. Since that time, appropriations and contributions have been established to be sufficient to provide benefits for each successive biennium.

Section 1575.202 of the Texas Insurance Code establishes the State's contribution rate which is 1.25 percent of the employee's salary. Section 1575.203 establishes the active employee rate which is 0.65 percent of pay. Section 1575.204 establishes a public school contribution rate of not less than 0.25 percent

or not more than 0.75 percent of the salary of each active employee of the public school. The actual public school contribution rate is prescribed by the Legislature in the General Appropriations Act, which is 0.75 percent of each active employee's pay for fiscal year 2018. The following table shows contributions to the TRS-Care plan by type of contributor.

2018 Contribution Rates		
Contributor	Rate	Amount
Active Employee	0.65%	\$ 221,325,377
Non-Employer Contributing Entity (State)	1.25	395,588,628
Participating Employers	0.75	255,797,140
Federal/Private Funding*	1.25	30,037,098
Total		\$ 902,748,243

*Contributions paid from federal funds and private grants are remitted by the employer and paid at the State rate.

All employers whose employees are covered by the TRS pension plan are also required to pay a surcharge of \$535 per month when employing a retiree of the TRS. The TRS Care surcharges for fiscal year 2018 totaled \$10,264,182.

To alleviate a funding shortfall for the 2018-2019 biennium, Senate Bill 1, 85th Legislature, Regular Session provided a one-time supplemental contribution in the amount of \$182.6 million and also provided the following increases in contributions for fiscal years 2018-19:

- Increased the State contribution rate by 0.25 percent of active employee payroll to 1.25 percent
- Increased the employer contribution rate by 0.20 percent of active employee payroll to 0.75 percent

House Bill 3976 made the 0.25 percent increase in the State contribution a permanent and ongoing increase of state funding to the program. The 85th Texas Legislature, House Bill 30 provided an additional \$212 million in one-time, supplemental funding for the FY2018-19 biennium to continue to support the program. One-time supplemental contributions during fiscal 2018 totaled \$394.6 million.

The premium rates for health insurance in the following table are based on the years of service of the retiree. The following schedule shows the monthly rates for an average retiree with 20 to 29 years of service for the standard plan with Medicare Part A and Part B.

TRS-Care Standard Plan Premium Rates Effective September 1, 2016 - December 31, 2017			
	TRS-Care 1	TRS-Care 2	TRS-Care 3
Retiree or Surviving Spouse	\$ —	\$ 70	\$ 100
Retiree and Spouse	20	175	255
Retiree or Surviving Spouse and Children	41	132	182
Retiree and Family	61	237	337
Surviving Children Only	28	62	82

The new premium rates for retirees with Medicare Part A and Part B became effective January 1, 2018 and are reflected in the following table.

TRS-Care Monthly Premium Rates Effective January 1, 2018 - December 31, 2018			
	Medicare	Non-Medicare	
Retiree or Surviving Spouse	\$ 135	\$ 200	
Retiree and Spouse	529	689	
Retiree or Surviving Spouse and Children	468	408	
Retiree and Family	1,020	999	

E. Net OPEB Liability

Components of the Net OPEB Liability of the TRS-Care plan as of August 31, 2018 are disclosed in the following table.

Components of Liability	Amount
Total OPEB Liability	\$ 50,729,490,103
Less: Plan Fiduciary Net Position	(798,574,633)
Net OPEB Liability	\$ 49,930,915,470
Net Position as a Percentage of Total OPEB Liability	1.57%

F. Actuarial Methods and Assumptions

Roll Forward

A change was made in the measurement date of the total OPEB liability (TOL) for this fiscal year. The actuarial valuation was performed as of August 31, 2017. Update procedures were used to roll forward the total OPEB liability to August 31, 2018. This is the first year using the roll forward procedures.

The actuarial valuation of TRS-Care is similar to the actuarial valuations performed for the pension plan, except that the OPEB valuation is more complex. All of the demographic assumptions, including rates of retirement, termination, and disability, and most of the economic assumptions, including general inflation, salary increases, and general payroll growth, used in this OPEB valuation were identical to those used in the respective TRS pension valuation. Since the assumptions were based upon a recent actuarial experience study performed and they were reasonable for this OPEB valuation, they were employed in this report.

The following assumptions used for members of TRS are identical to the assumptions employed in the August 31, 2018 TRS annual pension actuarial valuation:

- Rates of Mortality
- Rates of Retirement
- Rates of Termination
- Rates of Disability
- General Inflation
- Wage Inflation
- Expected Payroll Growth

The active mortality rates were based on 90 percent of the RP-2014 Employee Mortality Tables for males and females, with full generational mortality using Scale BB. The Post-retirement mortality rates were based on the 2018 TRS of Texas Healthy Pensioner Mortality Tables, with full generational projection using the ultimate improvement rates from the most recently published scale (U-MP).

Health Care Trend Rates

Initial medical trend rates of 107.74 percent and 9.00 percent for Medicare retirees and an initial medical trend rate of 6.75 percent for non-Medicare retirees. Initial prescription drug trend rate of 11.00 percent for all retirees. The first year trend increase for the Medicare Advantage (medical) premiums reflects the anticipated return of the Health Insurer Fee (HIF) in 2020.

Actuarial Methods and Assumptions

Valuation Date	August 31, 2017, rolled forward to August 31, 2018
Actuarial Cost Method	Individual Entry Age Normal
Inflation	2.30%
Single Discount Rate	3.69%. Sourced from fixed Income municipal bonds with 20 years to maturity that include only federal tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of August 31, 2018.
Aging Factors	Based on plan specific experience
Election Rates	Normal Retirement: 70% participation prior to age 65 and 75% after age 65.
Expenses	Third-party administrative expenses related to the delivery of health care benefits are included in the age-adjusted claims costs.
Projected Salary Increases**	3.05% to 9.05%, including inflation
Ad Hoc Post-Employment Benefit Changes	None

In this valuation, the impact of the Cadillac Tax has been calculated as a portion of the trend assumption. Assumptions and methods used to determine the impact of the Cadillac Tax include:

- 2018 thresholds of \$850/\$2,292 were indexed annually by 2.50 percent.
- Premium data submitted was not adjusted for permissible exclusions to the Cadillac Tax.
- There were no special adjustments to the dollar limit other than those permissible for non-Medicare retirees over 55.

Results indicate that the value of the excise tax would be reasonably represented by a 25 basis point addition to the long-term trend rate assumption.

G. Discount Rate

A single discount rate of 3.69 percent was used to measure the total OPEB liability. There was a change of 0.27 percent in the discount rate since the previous year. Because the plan is a pay-as-you-go plan, the single discount rate is equal to the prevailing municipal bond rate.

H. Change of Assumptions Since the Prior Measurement Date

The following assumptions, methods and plan changes which are specific to TRS-Care were updated from the prior year's report:

- The total OPEB liability as of August 31, 2018 was developed using the roll forward method of the August 31, 2017 valuation.
- Adjustments were made for retirees that were known to have discontinued their health care coverage in fiscal year 2018. This change increased the TOL.
- The health care trend rate assumption was updated to reflect the anticipated return of the Health Insurer Fee (HIF) in 2020. This change increased the TOL.
- Demographic and economic assumptions were updated based on the experience study performed for TRS for the period ending August 31, 2017. This change increased the TOL.
- The discount rate changed from 3.42 percent as of August 31, 2017 to 3.69 percent, as of August 31, 2018. This change lowered the total OPEB liability \$2.3 billion.

I. Change of Benefit Terms Since the Prior Measurement Date

See Section B that lists the changes made effective September 1, 2017 by the 85th Texas Legislature.

J. Sensitivity of the Net OPEB Liability to the Single Discount Rate Assumption

The following presents the net OPEB liability of the plan using the discount rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher, as well as what the net OPEB liability would be if it were calculated using a discount rate that is one-percentage point lower, 2.69 percent, or one-percentage point higher, 4.69 percent, than the AA/Aa rate.

Sensitivity of the Net OPEB Liability to the Single Discount Rate Assumptions		
1% Decrease (2.69%)	Current Single Discount Rate (3.69%)	1% Increase (4.69%)
\$59,434,944,462	\$49,930,915,470	\$42,412,615,881

K. Sensitivity of the Net OPEB Liability to the Healthcare Cost Trend Rate Assumptions

The following presents the net OPEB liability of the plan using the assumed healthcare cost trend rate, as well as what the net OPEB liability would be if it were calculated using a trend rate that is one-percentage point lower or one-percentage point higher than the assumed healthcare cost trend rate.

Sensitivity of the Net OPEB Liability to the Healthcare Cost Trend Rate Assumptions		
1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
\$41,468,438,436	\$49,930,915,470	\$61,076,180,591

Note 10: Other Post-Employment Benefits (OPEB) Plan - TRS Employees

A. Plan Description

The employees of TRS are provided post-employment health care and basic life insurance benefits through the Texas Employees Group Benefits Program (GBP). The GBP is administered by the board of trustees of the Employees Retirement System (ERS) of Texas and operates under the provisions of the Texas Insurance Code, Chapter 1551. The GBP is a cost-sharing, multiple-employer, post-employment benefit plan.

B. Benefits Provided

The Plan covers retired employees of the State and other entities as specified by the State legislature. Eligibility is limited to individuals who retire:

- with 10 or more years of eligible service credit, and
- the sum of a member’s age and years of credited service equals or exceeds 80 with at least five years of credited service, or are at least 65 years of age, and
- the individual was employed, as the last state employment before retirement, by a state agency whose employees are authorized to participate in the group benefits program

The benefits provided include a health plan providing medical and prescription drug coverage that is primary to Medicare prior to retirement and is secondary to Medicare upon retirement. Optional spouse and dependent coverage is available for a premium paid by the retiree. Retirees participating in the health coverage are eligible for \$2,500 life insurance coverage paid by the employer.

Optional benefits available to eligible retirees include dental, vision, additional group term life insurance, and dependent group term life insurance and are paid for 100 percent by the participant.

The Board of Trustees of ERS has the authority to establish and amend benefit terms. During fiscal year 2018, there were some minor changes to the benefits, and those changes are detailed in Section G. Actuarial Assumptions.

C. Contributors to the Plan

Contributors to the plan include active TRS employees and TRS as the employer on behalf of the State of Texas.

D. Contributions

Employer and employee contribution rates are determined and may be amended by the ERS Board of Trustees based upon the total amount appropriated by the Texas Legislature. The State of Texas is the only non-employer contributing entity in the Plan and is required to contribute the cost of the retiree’s group health coverage to the plan. TRS pays the State contribution for its employees. For the fiscal year ended August 31, 2018, the monthly contribution rates for TRS and the retiree are shown in the following table.

2018 Contribution Rates Retiree Health and Basic Life Premium		
Type of Coverage	Employer Pays	Employee Pays
Employee Only	\$ 621.90	\$ —
Employee & Spouse	978.22	356.32
Employee & Children	860.48	238.58
Employee & Family	1,216.80	594.90

TRS covers 100 percent of a Member Only premium and 50 percent of the additional premium for family coverage. The retiree contributes any premium over and above the system’s contribution for additional coverage. The amount of TRS contributions recognized by the OPEB plan during the reporting period was \$2,251,441.

E. OPEB Plan Fiduciary Net Position

The fiduciary net position of the Employees Retirement System of Texas (ERS) and their OPEB plan has been determined using the flow of economic resources measurement focus and full accrual basis of accounting. For purposes of measuring the net OPEB liability, this includes deferred outflows of resources and deferred inflows of resources related to OPEB, OPEB expense, and information about assets, liabilities

and additions to/deductions from ERS’ fiduciary net position. Benefits and refunds of contributions are recognized when due and payable in accordance with the benefit terms. The plan is a pay-as-you-go plan and does not accumulate funds in advance of retirement. The System’s Board of Trustees adopted the amendment to the investment policy in August 2017 requiring that all funds be invested in short-term fixed income securities and specified that the expected rate of return on these investments is 2.4 percent.

F. Net OPEB Liability

At August 31, 2017, the amounts recognized by TRS as its proportionate share of the ERS net OPEB liability, the related State support and the total net OPEB liability attributable to TRS are disclosed in the following table.

Components of the ERS OPEB Liability	Amount
TRS' proportionate share of the collective Net OPEB Liability	\$ 81,850,260
State's proportionate share of the collective Net OPEB Liability associated with TRS	N/A*
Total	\$ 81,850,260

*Pursuant to Texas Insurance Code, Sec. 1551.315, TRS paid the State contribution for TRS employees since they were compensated from funds not appropriated in the General Appropriations Act; so the State was not allocated any proportionate share of TRS’ Net OPEB Liability.

TRS’ portion of the collective net OPEB liability at August 31, 2017 was 0.24022021 percent and was based on TRS’ employer contributions to the OPEB plan relative to the employer contributions of all employers to the plan from the period September 1, 2016 through August 31, 2017. There was no change in TRS’ proportionate share from the prior year since this was the first year of measurement under GASB 75.

The net OPEB liability was measured as of August 31, 2017, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of that date.

G. Actuarial Assumptions

Significant assumptions and other inputs used to measure the total OPEB liability for the Group Benefits Program (GPB) are disclosed in the following table.

Actuarial Methods and Assumptions	
Valuation Date	August 31, 2017
Discount Rate	3.51%
Actuarial Cost Method	Entry Age
Amortization Method	Level % of Payroll, Open
Amortization Period	30 years
Asset Valuation Method	N/A
Salary Increases	2.50% to 9.50%, including inflation
Aggregate Payroll Growth	3.00%
Projected Annual Salary Increase	2.50% to 9.50%
Inflation	2.50%
Ad Hoc Post-Employment Benefit Changes	None
Annual Healthcare Trend Rates	8.50% for FY2019, decreasing 0.5% per year to 4.50% for FY2027 and later years

Projections of the sharing of benefit-related costs are based on an established pattern of practice.

The sources of the mortality assumptions are:

- For Service Retirees, Survivors and other Inactive Members - The 2017 State Retirees of Texas Mortality table with a 1 year set forward for male CPO/CO members and Ultimate MP Projection Scale projected from the year 2017
- For Disability Retirees - The RP-2014 Disabled Retiree Mortality with Ultimate MP Projection Scale projected from the year 2014
- For Active Members - RP-2014 Active Member Mortality tables with Ultimate MP Projection Scale from the year 2014

Many of the actuarial assumptions used were based on the results of actuarial experience studies performed by the ERS and TRS retirement plan actuaries for the period September 1, 2011 to August 31, 2016 for state agency members and for the period September 1, 2010 to August 31, 2014 for higher education members.

H. Discount Rate

The discount rate used to measure the total OPEB liability was 3.51 percent, and the change in the discount rate since the prior measurement date is a decrease of 1.99 percent in order to reflect the requirements of GASB Statement 74.

Projected cash flows into and out of the OPEB plan are the same.

The long-term expected rate of return on OPEB plan investments is not applicable since the plan operates on a pay-as-you-go basis and is not intended to accumulate assets.

The municipal bond rate was 3.51 percent and the source of the rate is the Bond Buyer Index of general obligation bonds with 20 years to maturity and mixed credit quality. The bonds' average credit quality is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA.

The periods of projected benefit payments to which the long-term expected rate of return applies is zero years.

The assumed asset allocation, the long-term expected real rate of return for each major asset class and arithmetic or geometric means is not applicable since the plan operates on a pay-as-you-go basis and is not intended to accumulate assets.

I. Sensitivity of the Net OPEB Liability

The sensitivity of the net OPEB liability to variations in the healthcare cost trend rate assumptions are disclosed in the following table.

Sensitivity of the Net OPEB Liability to the Healthcare Cost Trend Rate Assumptions		
1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
(7.50% decreasing to 3.50%)	(8.50% decreasing to 4.50%)	(9.50% decreasing to 5.50%)
\$68,809,052	\$81,850,260	\$98,771,973

Sensitivity of the net OPEB liability to variations in the discount rate assumptions is disclosed in the following table.

Sensitivity of the Net OPEB Liability to the Single Discount Rate Assumptions		
1% Decrease	Current Single Discount Rate	1% Increase
(2.51%)	(3.51%)	(4.51%)
\$97,705,292	\$81,850,260	\$69,569,123

J. Changes of Assumptions Since the Prior Measurement Date

Factors that significantly affect trends in the amounts reported include:

Demographic Assumptions

Since the last valuation was prepared for the plan, demographic assumptions (including rates of retirement, disability, termination, mortality, assumed salary increases, and assumed age differences for future retirees and their spouses for selected classes of State Agency employees), assumed aggregate payroll increases, and the assumed rate of general inflation have been updated to reflect assumptions recently adopted by the ERS Trustees. These new assumptions were adopted to reflect an experience study on the ERS retirement plan performed by the ERS retirement plan actuary.

In addition, the following assumptions have been updated since the previous valuation to reflect recent plan experience and expected trends:

- Percentage of current retirees and retiree spouses not yet eligible to participate in the HealthSelect Medicare Advantage Plan and future retirees and retiree spouses who will elect to participate in the plan at the earliest date at which coverage can commence
- Proportion of future retirees covering dependent children
- Percentage of future retirees assumed to be married and electing coverage for their spouse

Economic Assumptions

The assumed rate of general inflation has been updated since the previous valuation to remain consistent with the ERS retirement plan assumption previously adopted by the ERS Board of Trustees.

Assumptions for administrative expenses, assumed per capita health benefit costs, and health benefit costs and retiree contribution trends have been updated since the previous valuation to reflect recent health plan experience and its effects on the short-term expectations and the revised assumed rate of general inflation.

The discount rate was lowered as a result of requirements by GASB Statement 74 to utilize the yield or index rate for 20-year, tax-exempt general obligation bonds rated AA/Aa (or equivalent) or higher.

Minor benefit changes have been reflected in the FY 2018 assumed per capita health benefit costs.

K. Changes of Benefit Terms since prior Measurement Date

Benefit revisions have been adopted since the prior valuation.

The benefit changes for HealthSelect retirees and dependents for whom Medicare is not primary include:

- An increase in the out-of-pocket cost applicable to services obtained at a free-standing emergency facility
- Elimination of the copayment for virtual visits
- A reduction in the copayment for Airrosti
- For out-of-state participants, (i) elimination of the deductible for in-network services and (ii) application of a copayment rather than coinsurance to certain services like primary care and specialist office visits

These minor benefit changes are provided for in the FY 2018 assumed per capita health benefit costs.

There are no benefit changes for HealthSelect retirees and the dependents for whom Medicare is Primary.

L. OPEB Expense and Deferred Inflows and Outflows

TRS recognized \$4,380,304 in OPEB expense during fiscal year 2018.

At August 31, 2017, TRS reported its proportionate share of the ERS collective deferred outflows and deferred inflows of resources related to OPEB from the sources listed in the following table.

Category	Deferred Outflow of Resources	Deferred Inflow of Resources
Differences between expected and actual experience	\$ —	\$ 983,578
Changes in assumptions	—	17,113,907
Net difference between projected and actual earnings	24,233	—
Changes in proportion and differences between employer's contributions and employer's proportionate share of contributions	—	—
Total	\$ 24,233	\$ 18,097,485

The balances of deferred outflows and deferred inflows of resources related to OPEB that TRS will recognize as OPEB expense in future years is disclosed in the following table.

Year Ended August 31,	Pension Expense Amounts	Balance of Deferred Outflows (Inflows)
2019	\$ (4,069,952)	\$ (14,003,300)
2020	(4,069,952)	(9,933,348)
2021	(4,069,952)	(5,863,396)
2022	(4,069,951)	(1,793,445)
Thereafter	(1,793,445)	—
Total	\$ (18,073,252)	

M. OPEB Plan Financial Report

ERS issues a publicly available financial report that includes financial statements and required supplementary information for the GBP. The report may be obtained by visiting www.ers.texas.gov, by writing to the Finance Division of the Employees Retirement System of Texas at 200 East 18th Street, Austin, Texas 78701, or by calling 1-877-275-4377.

Note 11: TRS Pension Plan

A. Plan Description

The Teacher Retirement System of Texas (TRS or System) is a public employee retirement system (PERS) that is a multiple-employer, cost-sharing, defined benefit pension plan with a special funding situation. The Plan is administered by the Board of Trustees of TRS. Information regarding the Board and its composition can be found on the "Board of Trustees" page and in Note 1.

Benefits are established or amended under the authority of the Texas Constitution, Article XVI, Section 67 and by the Legislature in the Texas Government Code, Title 8, Subtitle C. The Board of Trustees does not have the authority to establish or amend benefits.

B. Benefits Provided

The TRS Pension Plan (Plan) provides service retirement, disability, and death benefits. Membership in the Plan includes all employees of public, state-supported educational institutions in Texas who are employed for one-half or more of the standard work load and who are not exempt from membership under Texas Government Code, Title 8, Section 822.002.

C. Contributors to the Plan

Contributors to the Plan include active members, employers, and the State of Texas as the only non-employer contributing entity. The State is also the employer for senior colleges, medical schools, and state agencies, including TRS. In each respective role, the State contributes to the plan in accordance with State Statutes and the General Appropriations Act.

The number of participating employers during fiscal year 2018 are disclosed in the following table.

Participating Employers	
Independent School Districts	1,024
Charter Schools (open enrollment only)	171
Community and Junior Colleges	50
Senior Colleges and Universities	47
Regional Service Centers	20
Medical Schools	9
Educational Districts	4
State Agency	1
Total	1,326

TRS Pension Plan membership as of August 31, 2017 is shown in the following table. Because the actuarial valuation was based on a roll forward from fiscal year 2017 (see Section F), the Pension Plan membership counts are as of August 31, 2017.

Pension Plan Membership	
Retired plan members or beneficiaries currently receiving benefits	407,768
Inactive plan members entitled to but not yet receiving benefits	273,028
Active plan members	864,261
Total	1,545,057

The Average Expected Remaining Service Life (AERSL) of 6.6554 is based on membership information as of the beginning of the fiscal year.

D. Contributions

Contribution requirements are established or amended pursuant to the following state laws:

- Article 16, Section 67 of the Texas Constitution requires the legislature to establish a member contribution rate of not less than 6 percent of the member's annual compensation and a state contribution rate of not less than 6 percent and not more than 10 percent of the aggregate annual compensation paid to members of the System during the fiscal year.

- Government Code section 821.006 prohibits benefit improvements, if it increases the amortization period of TRS' unfunded actuarial liabilities to greater than 31 years, or, if the amortization period already exceeds 31 years, the period would be increased by such action. Actuarial implications of the funding provided in this manner are determined by the System's actuary.

As the non-employer contributing entity, the State of Texas contributes to the retirement system the current employer contribution rate times the aggregate annual compensation of all members of the Pension Trust Fund during that fiscal year, reduced by the employer paid amounts described below.

All participating employers and the State of Texas, as the employer for senior universities and medical schools, are required to pay the employer contribution rate in the following situations:

- On the portion of the member's salary that exceeds the statutory minimum for members entitled to the statutory minimum under Section 21.402 of the Texas Education Code
- During a new member's first 90 days of employment
- When any part or all of an employee's salary is paid by federal funding sources, a privately sponsored source, non-educational and general funds, or local funds
- When the employing district is a public junior college or junior college district, the employer shall contribute to the retirement system an amount equal to 50 percent of the state contribution rate for certain instructional or administrative employees and 100 percent of the state contribution rate for all other employees.

The following table shows contributions to the Pension Trust Fund by type of contributor for the fiscal year 2018.

Contributor	Contribution Rate	Amount
Member	7.7%	\$ 3,360,773,197
Non-Employer Contributing Entity (State)	6.8	1,715,784,550
Employers	6.8	1,251,125,883
Total		\$ 6,327,683,630

Employers are also required to pay surcharges in the following cases:

- When a school district or charter school does not contribute to the Federal Old-Age, Survivors, and Disability Insurance (OASDI) Program for certain employees, they must contribute 1.5 percent of the applicable salary.
- When employing a retiree of TRS, the employer shall pay an amount equal to the member contribution and the state contribution as an employment after retirement surcharge.

Employer surcharges paid for the fiscal year 2018 are shown below.

Surcharge	Rate	Amount
Non-OASDI	1.5%	\$ 398,397,672
Employment after Retirement - Employer	6.8	10,203,282
Employment after Retirement - Employee	7.7	11,530,466
Total		\$ 420,131,420

E. Net Pension Liability

Components of the Net Pension Liability of the Pension Plan as of August 31, 2018 are disclosed below.

Components of Liability	Amount
Total Pension Liability	\$ 209,611,328,793
Less: Plan Fiduciary Net Position	(154,568,901,833)
Net Pension Liability	\$ 55,042,426,960
Net Position as Percentage of Total Pension Liability	73.74%

F. Actuarial Methods and Assumptions

Roll Forward

A change was made in the measurement date of the total pension liability for the current fiscal year. The actuarial valuation was performed as of August 31, 2017. Update procedures were used to roll forward the total pension liability to August 31, 2018. This is the first year using roll forward procedures.

The total pension liability is determined by an annual actuarial valuation. The actuarial methods and assumptions were selected by the Board of Trustees based upon analysis and recommendations by the System's actuary. The Board of Trustees has sole authority to determine the actuarial assumptions used for the Plan. The actuarial methods and assumptions were primarily based on a study of actual experience

for the three year period ending August 31, 2017 and were adopted in July 2018.

The active mortality rates were based on 90 percent of the RP 2014 Employee Mortality Tables for males and females. The post-retirement mortality rates were based on the 2018 TRS of Texas Healthy Pensioner Mortality Tables.

The long-term expected rate of return on pension plan investments is 7.25 percent. The long-term expected rate of return on Pension Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense, and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class included in the System's target asset allocation as of August 31, 2018 are summarized in Note 3.

The following table discloses the assumptions that were applied to this measurement period.

Actuarial Methods and Assumptions	
Valuation Date	August 31, 2017 rolled forward to August 31, 2018
Actuarial Cost Method	Individual Entry Age Normal
Asset Valuation Method	Market Value
Single Discount Rate	6.907%
Long-term Expected Rate	7.25%
	3.69%. Source for the rate is the Fixed Income Market Data/Yield Curve/Data Municipal Bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index."
Municipal Bond Rate as of August 2018	
Last year ending August 31 in Projection Period (100 years)	2116
Inflation	2.30%
Salary Increases	3.05% to 9.05% including inflation
Ad hoc post-employment benefit changes	None

G. Discount Rate

A single discount rate of 6.907 percent was used to measure the total pension liability. The single discount rate was based on the expected rate of return on pension plan investments of 7.25 percent and a municipal bond rate of 3.69 percent. The projection of cash flows used to determine this single discount rate assumed that contributions from active members, employers and the non-employer contributing entity will be made at the rates set by the Legislature during the 2013 legislative session. It is assumed that future employer and state contributions will be 7.76 percent of payroll. This includes a factor for the rehired retirees and the Non-OASDI surcharge. Based on these assumptions, the pension plan’s fiduciary net position and future contributions were sufficient to finance the benefit payments until the year 2069. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2069, and the municipal bond rate was applied to all benefit payments after that date.

H. Change of Assumptions Since the Prior Measurement Date

Assumptions, methods, and plan changes which are specific to the Pension Trust Fund were updated from the prior year’s report. The Net Pension Liability increased significantly since the prior measurement date due to a change in the following actuarial assumptions:

- The total pension liability as of August 31, 2018 was developed using a roll-forward method from the August 31, 2017 valuation.
- Demographic assumptions including post-retirement mortality, termination rates, and rates of retirement were updated based on the experience study performed for TRS for the period ending August 31, 2017.
- Economic assumptions including rates of salary increase for individual participants was updated based on the same experience study.
- The discount rate changed from 8.0 percent as of August 31, 2017 to 6.907 percent as of August 31, 2018.
- The long term assumed rate of return changed from 8.0 percent to 7.25 percent.

- The change in the long-term assumed rate of return combined with the change in the single discount rate was the primary reason for the increase in the net pension liability.

I. Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption

The following table presents the net pension liability of the plan using the discount rate of 6.907 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (5.907 percent) or one percentage point higher (7.907 percent) than the current rate.

Sensitivity of the Net Pension Liability to the Single Discount Rate Assumptions		
1% Decrease	Current Single Discount Rate	1% Increase
5.907%	6.907%	7.907%
\$83,072,220,959	\$55,042,426,960	\$32,350,646,325

J. Deferred Retirement Option Program

The Deferred Retirement Option Plan (DROP) was closed to new members on December 31, 2005. The Plan was available for active members who were eligible for normal age service retirement with at least 25 years of credited service. Participation options were in 12-month increments for up to five years. For detailed information on the Plan, see the Summary of Benefits section. The balance in the DROP reserve account at August 31, 2018 was \$10,003,322.

K. Funding Progress

The required Schedule of Changes in the Employer's Net Pension Liability and Related Ratios immediately following the Notes to the Financial Statements presents multi-year trend information about whether the net position of the Plan is increasing or decreasing relative to the pension liability over time.

Note 12: Risk Management

The 77th Texas Legislature enacted the Texas Active School Employees Uniform Group Benefits Act (H.B. 3343), establishing a new statewide health coverage program for public school employees and their dependents. TRS began administering this program, known as TRS-ActiveCare, September 1, 2002. The plan is available to all public school districts, charter schools with open enrollment, regional service centers and certain other employers. The risk associated with this program is retained by the plan's participants, and no risk is transferred to the plan's administrators, to employers, or to the state.

Note 13: Component Units

A. Description

Teacher Retirement Investment Company of Texas, Ltd. (TRICOT) is a limited liability corporation organized under United Kingdom (UK) law that began operating in November 2015. TRS is the sole shareholder of TRICOT. TRS formed TRICOT for the purpose of opening a London investment office and increasing investment opportunities for the TRS portfolio. TRICOT is presented as a blended component unit in the Pension Trust Fund fiduciary fund type of TRS with a fiscal year end of August 31.

B. Criteria for Inclusion as a Component Unit

TRS used the following criteria and determined TRICOT to be a component unit according to GASB 14, as modified by GASB 39 and 61:

- TRICOT is considered a special-purpose government entity engaged only in fiduciary activities on behalf of TRS.
- TRICOT is a part of the System. TRS maintains complete control over TRICOT and all related assets. If TRICOT were dissolved, any remaining assets, net of liabilities, would revert back to TRS.
- As a "private limited liability company" in the UK, TRICOT is legally separate according to GASB 14, paragraph 15.
- TRS' executive director, as a shareholder representative, appoints the sole director of TRICOT.
- TRICOT is financially dependent upon TRS and has no other sources of funding.
- TRICOT provides services exclusively to TRS.
- It would be misleading to exclude TRICOT in the financial statements.

Written requests for TRICOT's financial statements should be addressed to:

Communications Department
 Teacher Retirement System of Texas
 1000 Red River Street
 Austin, TX 78701
 1-800-223-8778

Note 14: Adjustments to Fund Balances and Net Position

During the fiscal year 2018, certain accounting changes were made that required the restatement of net position.

Pension Trust Fund

The restatement is due to the implementation of GASB 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. A restatement was required to properly report a beginning Net OPEB Liability and Deferred Outflow of Resources that had not previously been required. The Deferred Outflow of Resources are for contributions to the OPEB plan made subsequent to the measurement date of the beginning Net OPEB Liability but before the beginning of the fiscal year. This represents OPEB contributions made to the ERS Employee Group Benefit Program OPEB plan for TRS employees for the time period September 1, 2016 through August 31, 2017.

Pension Trust Fund Restatement	
Beginning Net Position as Previously Reported	\$ 147,361,922,120
Net OPEB Liability as of September 1, 2017	(97,793,657)
Deferred Outflows as of September 1, 2017	2,250,449
Beginning Net Position, As Restated	\$ 147,266,378,912

TRS-Care

The restatement is due to the overstatement in fiscal year 2017 of Health Care Premiums Paid by Retirees in the amount of \$30,798,100.

TRS-Care Restatement	
Beginning Net Position as Previously Reported	\$ 399,535,986
Health Care Premiums Paid by Retirees	(30,798,100)
Beginning Net Position, As Restated	\$ 368,737,886

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Required Supplementary Information

Pension Trust Fund

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Schedule of Changes in the Employers' Net Pension Liability and Related Ratios
Pension Trust Fund

For the Fiscal Years Ended August 31

Last Ten Fiscal Years*

(Dollars in Thousands)

	2018	2017	2016	2015
Total Pension Liability*				
Service Cost	\$ 4,654,171	\$ 4,489,046	\$ 4,392,077	\$ 4,225,449
Interest on Net Pension Liability	14,109,277	13,515,486	12,896,571	12,555,646
Differences between Expected and Actual Experience	—	(969,831)	373,669	(1,588,619)
Changes of Actuarial Assumptions	22,106,679	700,880	—	(1,474,724)
Benefit Payments	(10,172,997)	(9,775,775)	(9,379,123)	(8,935,112)
Refunds of Member Accounts	(422,336)	(420,421)	(373,419)	(391,341)
Net Change in Total Pension Liability	\$ 30,274,794	\$ 7,539,385	\$ 7,909,775	\$ 4,391,299
Beginning Total Pension Liability	\$ 179,336,535	\$ 171,797,150	\$ 163,887,375	\$ 159,496,076
Ending Total Pension Liability (a)	\$ 209,611,329	\$ 179,336,535	\$ 171,797,150	\$ 163,887,375
Plan Fiduciary Net Position				
Employer Contributions	\$ 1,671,257	\$ 1,588,309	\$ 1,483,390	\$ 1,377,973
Member Contributions	3,360,773	3,242,556	2,943,669	2,576,024
Non-Employer Contributing Entity Contributions	1,715,785	1,697,963	1,675,631	1,591,483
Net Investment Income	11,242,814	17,079,807	9,193,281	(412,759)
Benefit Payments	(10,172,997)	(9,775,775)	(9,379,123)	(8,935,112)
Refunds of Member Accounts	(422,336)	(420,421)	(373,419)	(391,341)
Administrative Expenses	(64,926)	(44,190)	(44,403)	(35,557)
Other	(123,390)	(14,964)	(29,095)	(11,248)
Net Change in Plan Fiduciary Net Position**	\$ 7,206,980	\$ 13,353,285	\$ 5,469,931	\$ (4,240,537)
Beginning Plan Fiduciary Net Position	\$ 147,361,922	\$ 134,008,637	\$ 128,538,706	\$ 132,779,243
Ending Plan Fiduciary Net Position (b)	\$ 154,568,902	\$ 147,361,922	\$ 134,008,637	\$ 128,538,706
Ending Net Pension Liability (a)-(b)	\$ 55,042,427	\$ 31,974,613	\$ 37,788,513	\$ 35,348,669
Plan Fiduciary Net Position as a Percentage of Total Pension Liability*	73.74%	82.17%	78.00%	78.43%
Covered Payroll*	\$ 43,646,405	\$ 42,111,120	\$ 40,742,826	\$ 38,448,124
Net Pension Liability as a Percentage of Covered Payroll*	126.11%	75.93%	92.75%	91.94%

*Total pension liability is presented on a prospective basis in accordance with GASB 67, paragraph 50.

**Prior period adjustment is reported in Net Change in Plan Fiduciary Net Position.

(Continued)

2014	2013	2012	2011	2010	2009
\$ 3,965,994	\$ —	\$ —	\$ —	\$ —	\$ —
11,813,446	—	—	—	—	—
482,639	—	—	—	—	—
2,028,541	—	—	—	—	—
(8,548,643)	—	—	—	—	—
(410,600)	—	—	—	—	—
\$ 9,331,377	\$ —	\$ —	\$ —	\$ —	\$ —
\$ 150,164,699	\$ —	\$ —	\$ —	\$ —	\$ —
\$ 159,496,076	\$ 150,164,699	\$ —	\$ —	\$ —	\$ —
\$ 984,552	\$ 925,694	\$ 760,838	\$ 856,220	\$ 835,605	\$ 791,450
2,357,686	2,252,095	2,188,020	2,243,955	2,205,017	2,107,058
1,530,624	1,337,215	1,299,078	1,484,286	1,461,035	1,378,304
19,434,430	9,834,136	7,847,298	14,636,935	9,411,447	(13,971,869)
(8,548,643)	(8,075,209)	(7,723,622)	(7,173,505)	(6,617,397)	(6,294,434)
(410,600)	(391,292)	(381,231)	(334,269)	(265,187)	(266,695)
(41,904)	(36,264)	(33,074)	(35,850)	(29,993)	(28,310)
84,954	91,882	71,793	54,610	34,906	26,970
\$ 15,391,099	\$ 5,938,257	\$ 4,029,100	\$ 11,732,382	\$ 7,035,433	\$ (16,257,526)
\$ 117,388,144	\$ 111,449,887	\$ 107,420,787	\$ 95,688,405	\$ 88,652,972	\$ 104,910,498
\$ 132,779,243	\$ 117,388,144	\$ 111,449,887	\$ 107,420,787	\$ 95,688,405	\$ 88,652,972
\$ 26,716,833	\$ 32,776,555				
83.25%	78.17%				
\$ 36,654,291	\$ 35,188,983				
72.89%	93.14%				

Schedule of Employer and Non-Employer Contributing Entity Actuarially Determined Contributions (ADC)

Pension Trust Fund

For the Fiscal Years Ended August 31

Fiscal Year	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2014	\$ 3,177,927,012	\$ 2,515,176,220	\$ 662,750,792	\$ 36,654,290,800	6.86%
2015	3,171,970,234	2,969,455,641	202,514,593	38,448,124,045	7.72
2016	3,226,831,846	3,159,020,596	67,811,250	40,742,826,333	7.75
2017	3,343,622,950	3,286,271,953	57,350,997	42,111,120,273	7.80
2018	3,426,242,805	3,387,041,853	39,200,952	43,646,405,156	7.76

This schedule will ultimately contain 10 years of information. Additional years will be presented on a prospective basis in accordance with GASB 67, paragraph 50.

Notes to the Schedule of Actuarially Determined Contributions

Valuation Date	August 31, 2017 (to determine contribution rate for fiscal year ending August 31, 2018)
Notes	Actuarially determined contribution rates are calculated as of August 31 of the preceding fiscal year. Members and employers contribute based on statutorily fixed rates.

Methods and Assumptions Used to Determine Contribution Rates

Actuarial Cost Method	For funding purposes, the Ultimate Entry Age normal actuarial cost method is used.
Amortization Method	Level Percentage of Payroll, Floating
Remaining Amortization Period	33 years
Asset Valuation Method	5 year smoothed market
Inflation	2.50%
Salary Increases	3.50% to 9.50%, including inflation
Investment Rate of Return	8.00%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2015 valuation pursuant to an experience study of the period September 1, 2010 through August 31, 2014.
Mortality	Active Mortality: 90% of the RP-2014 Employee Mortality Tables for males and females with full generational mortality using Scale BB. Post-Retirement: The 2015 TRS of Texas Healthy Pensioner Mortality Tables, with full generation projection using Scale BB.
Benefit Changes	None
Assumptions	The assumptions used to determine the ADC are those in effect for the August 31, 2017 actuarial valuation. Due to the lag between valuation date and the measurement date, they may not be the same as the assumptions used to measure the Net Pension Liability.

Schedule of Investment Returns
Annual Money-Weighted Rate of Return, Net of Investment Expense
Pension Trust Fund
 For the Fiscal Years Ended August 31

2018	2017	2016	2015	2014	2013	2012	2011
7.76%	12.98%	7.27%	(0.31)%	16.87%	9.01%	7.41%	15.60%

This schedule will ultimately contain 10 years of information. Additional years will be presented on a prospective basis in accordance with GASB 67, paragraph 50.

Schedule of Employer's (TRS) Proportionate Share of ERS' Net OPEB Liability
Pension Trust Fund
 For the Fiscal Years Ended August 31
 Last Ten Fiscal Years*

Fiscal Year	Employer's (TRS) Proportionate Share of Collective Net OPEB Liability	Employer's (TRS) Proportionate Share of Collective Net OPEB Liability %	Employer's (TRS) Covered Employee Payroll	Employer's Proportionate Share of Collective Net OPEB Liability as a % of Employer's (TRS) Covered Employee Payroll	ERS Fiduciary Net Position as a % of Total OPEB Liability
2018	\$81,850,260	0.24%	\$53,125,065	154.07%	2.04%

The amounts presented above are as of the measurement date of the collective Net OPEB Liability for the respective fiscal year.

* This schedule will ultimately contain 10 years of information. Additional years will be presented on a prospective basis in accordance with GASB 75, paragraph 245.

Schedule of Employer (TRS) Contributions to ERS' OPEB Plan
Pension Trust Fund
 For the Fiscal Years Ended August 31
 Last Ten Fiscal Years*

Fiscal Year	Statutory Employer (TRS) Contributions	Actual Employer (TRS) Contributions	Contributions Deficiency (Excess)	Employer's (TRS) Covered Employee Payroll	Employer (TRS) Contributions as a % of Covered Employee Payroll
2018	\$ 2,251,441	\$ 2,251,441	\$ —	\$ 53,125,065	4.24%

The amounts presented above are as of the employer's most recent fiscal year end.

* This schedule will ultimately contain 10 years of information. Additional years will be presented on a prospective basis in accordance with GASB 75, paragraph 245.

Schedule of Changes in Employers' Net OPEB Liability and Related Ratios
TRS-Care

For the Fiscal Years Ended August 31

Last Ten Fiscal Years*

(Dollars in Thousands)

	2018	2017**	2016	2015
Total OPEB Liability*				
Service Cost	\$ 2,284,418	\$ 4,312,406	\$ —	\$ —
Interest on the Total OPEB Liability	1,524,880	2,356,367	—	—
Changes of Benefit Terms	—	(18,610,363)	—	—
Differences between Expected and Actual Experience	2,979,259	(1,027,634)	—	—
Changes of Actuarial Assumptions	936,862	(19,563,767)	—	—
Benefit Payments	(881,714)	(995,486)	—	—
Net Change in Total OPEB Liability	\$ 6,843,705	\$ (33,528,477)	\$ —	\$ —
Beginning Total OPEB Liability	\$ 43,885,785	\$ 77,414,262	\$ —	\$ —
Ending Total OPEB Liability (a)	\$ 50,729,490	\$ 43,885,785	\$ —	\$ —
Plan Fiduciary Net Position				
Employer Contributions	\$ 296,098	\$ 215,361	\$ 212,936	\$ 202,976
Non-Employer Contributing Entity Contributions	789,869	324,662	297,071	1,049,199
Member Contributions	221,325	213,241	208,582	198,196
Net Investment Income	10,127	4,697	5,421	1,496
Benefit Payments	(1,757,796)	(1,787,616)	(1,769,301)	(1,660,560)
Less: Health Care Premiums Paid by Retirees	488,069	404,028	374,736	369,066
Administrative Expense	(6,672)	(4,953)	(4,702)	(3,770)
Other	358,019	388,630	343,824	358,376
Net Change in Plan Fiduciary Net Position***	\$ 399,039	\$ (241,950)	\$ (331,433)	\$ 514,979
Beginning Plan Fiduciary Net Position	\$ 399,536	\$ 641,486	\$ 972,919	\$ 457,940
Ending Plan Fiduciary Net Position (b)	\$ 798,575	\$ 399,536	\$ 641,486	\$ 972,919
Ending Net OPEB Liability (a)-(b)	\$ 49,930,915	\$ 43,486,249	\$ —	\$ —

Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability*

1.57% 0.91%

Covered Payroll*

\$ 34,050,058 \$ 32,806,335

Net OPEB Liability as a Percentage of Covered Payroll*

146.64% 132.55%

*Total OPEB liability is presented on a prospective basis in accordance with GASB 74, paragraph 62.

**2017 was revised due to an amended GASB 74 report.

***Prior period adjustment is reported in Net Change in Plan Fiduciary Net Position.

(Continued)

	2014	2013	2012	2011	2010	2009
\$	—	\$ —	\$ —	\$ —	\$ —	—
	—	—	—	—	—	—
	—	—	—	—	—	—
	—	—	—	—	—	—
	—	—	—	—	—	—
	—	—	—	—	—	—
\$	—	\$ —	\$ —	\$ —	\$ —	—
\$	—	\$ —	\$ —	\$ —	\$ —	—
\$	—	\$ —	\$ —	\$ —	\$ —	—
\$	193,125	\$ 172,613	\$ 179,002	\$ 184,509	\$ 181,543	\$ 171,423
	303,556	229,799	247,531	256,997	253,626	245,611
	189,004	180,825	176,751	183,809	181,513	173,856
	2,062	3,041	5,190	8,169	11,679	17,482
	(1,420,428)	(1,285,236)	(1,186,702)	(1,036,594)	(1,013,892)	(925,497)
	363,631	355,686	363,348	345,164	332,482	329,723
	(3,647)	(3,398)	(3,714)	(3,144)	(3,032)	(2,916)
	279,589	156,704	68,738	136,996	70,897	61,627
\$	(93,108)	\$ (189,966)	\$ (149,856)	\$ 75,906	\$ 14,816	\$ 71,309
\$	551,048	\$ 741,014	\$ 890,870	\$ 814,964	\$ 800,148	\$ 728,839
\$	457,940	\$ 551,048	\$ 741,014	\$ 890,870	\$ 814,964	\$ 800,148
\$	—	\$ —	\$ —	\$ —	\$ —	—

Schedule of the Net OPEB Liability

TRS-Care

For the Fiscal Years Ended August 31

Last Ten Fiscal Years*

Fiscal Year	Total OPEB Liability	Plan Net Position	Net OPEB Liability	Plan Net Position as a % of Total OPEB Liability	Covered Payroll	Net OPEB Liability as a % of Covered Payroll
2017	\$ 43,885,784,621	\$ 399,535,986	\$ 43,486,248,635	0.91%	\$ 32,806,335,231	132.55%
2018	50,729,490,103	798,574,633	49,930,915,470	1.57	34,050,058,000	146.64

*This schedule is presented on a prospective basis in accordance with GASB 74, paragraph 62.

Other Supplementary Information

Exhibit A	Statement of Changes in Assets and Liabilities	91
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Exhibit A
Statement of Changes in Assets and Liabilities
Agency Funds
 For the Fiscal Year Ended August 31, 2018

	Balances September 1, 2017	Additions	Deductions	Balances August 31, 2018
Child Support Employee Deductions				
Total Assets				
Cash in State Treasury	\$ 6,612	\$ 93,485	\$ 92,152	\$ 7,945
Total Assets	\$ 6,612	\$ 93,485	\$ 92,152	\$ 7,945
Total Liabilities				
Funds Held for Others	\$ 6,612	\$ 93,485	\$ 92,152	\$ 7,945
Total Liabilities	\$ 6,612	\$ 93,485	\$ 92,152	\$ 7,945

Schedule 1
Schedule of Administrative and Investing Activity Expenses
All Funds
For the Fiscal Year Ended August 31, 2018

	Pension Trust Fund		
	Benefits	Investments	TRS-Care
Administrative Expenses			
Personnel Services			
Salaries and Wages			
Salaries	\$ 27,030,798	\$ 38,041,247	\$ 2,148,556
Longevity Pay	79,129	80,521	11,966
Benefit Replacement Pay	7,520	7,666	1,086
Employee Compensable Absences	737,532	750,430	49,261
Payroll Related Costs			
Employer FICA Contributions	481,004	489,418	59,209
Employer Health Insurance Contributions	6,213,871	2,546,450	181,354
Other Employee Benefits	462,038	470,119	103,245
Total Personnel Services	\$ 35,011,892	\$ 42,385,851	\$ 2,554,677
Total Professional Fees and Services	\$ 5,471,123	\$ 2,513,421	\$ 3,355,435
Other Operating Expenses			
Travel	\$ 278,237	\$ 1,023,756	\$ 46,873
Materials and Supplies			
Consumable Supplies and Fuels	304,218	120,940	2,923
Subscriptions and Reference Information	441,076	180,754	17,321
Postage, Mailing and Delivery Services	2,499,988	1,024,497	90,300
Furniture and Equipment - Expensed	1,062,600	435,453	52,044
Communications and Utilities	664,481	151,619	1,330
Repairs and Maintenance			
Software Purchases and Maintenance	3,112,211	1,275,388	242,396
Computer Hardware Maintenance	501,321	205,443	40,474
Buildings and Equipment Maintenance	195,210	79,999	4,269
Rentals and Leases	370,016	2,906,029	38,300
Printing and Reproduction	105,012	43,034	54,032
Depreciation Expense	2,712,909	25,320	—
Amortization Expense	10,054,900	—	—
Gain/Loss on Capital Assets	45,120	—	—
Other Expenses			
Dues, Fees and Staff Development	391,918	160,608	15,061
Insurance Premiums	495,805	203,180	10,855
Miscellaneous Expenses	1,208,132	495,094	146,198
Total Operating Expenses	\$ 24,443,154	\$ 8,331,114	\$ 762,376
Total Administrative Expenses	\$ 64,926,169	\$ 53,230,386	\$ 6,672,488

(Continued)

TRS- ActiveCare	403(b) Administrative Program	Total
\$ 1,590,409	\$ 52,177	\$ 68,863,187
8,473	419	180,508
445	12	16,729
6,600	(544)	1,543,279
45,796	1,694	1,077,121
93,855	4,841	9,040,371
84,604	2,708	1,122,714
\$ 1,830,182	\$ 61,307	\$ 81,843,909
\$ 1,334,530	\$ 64,670	\$ 12,739,179
\$ 15,613	\$ —	\$ 1,364,479
140	—	428,221
3,627	115	642,893
40,537	2,135	3,657,457
6,568	362	1,557,027
1	—	817,431
15,306	887	4,646,188
2,556	148	749,942
1,636	87	281,201
30,361	—	3,344,706
5,502	108	207,688
—	—	2,738,229
—	—	10,054,900
—	—	45,120
6,074	1,336	574,997
8,013	423	718,276
11,033	453	1,860,910
\$ 146,967	\$ 6,054	\$ 33,689,665
\$ 3,311,679	\$ 132,031	\$ 128,272,753

Schedule 1
Schedule of Administrative and Investing Activity Expenses
All Funds
For the Fiscal Year Ended August 31, 2018

	Pension Trust Fund	
	Benefits	Investments
Investment Fees		
Bank Fees	\$ —	\$ 16,526,711
Research Fees	—	5,747,021
External Manager Fees*	—	112,200,201
External Legal Fees	—	3,373,700
External Custodial Fees	—	22,000,000
Total Investment Fees	\$ —	\$ 159,847,633
Total Administrative Expenses and Investment Fees**	\$ 64,926,169	\$ 213,078,019

* For more information on External Manager Fees, including fees that are netted against returns, please refer to the Investment Section.

** Pension Trust Fund - Investments reported as Investing Activity Expenses under Investment Income on Exhibit II.

(Continued)

TRS-Care	TRS-ActiveCare	403(b) Administrative Program	Total
\$ —	\$ —	\$ —	\$ 16,526,711
—	—	—	5,747,021
—	—	—	112,200,201
—	—	—	3,373,700
—	—	—	22,000,000
\$ —	\$ —	\$ —	\$ 159,847,633
\$ 6,672,488	\$ 3,311,679	\$ 132,031	\$ 288,120,386

Schedule 2
Schedule of Professional and Consulting Services
All Funds
For the Fiscal Year Ended August 31, 2018

	Amount		Amount
Consulting Services		Investment Research Fees	
Provaliant Holdings LLC	\$ 650,056	JP Morgan Securities	\$ 900,095
Addison Professional Financial Search	342,781	Credit Suisse	778,212
Langrand And Company LLC	282,021	Macquarie Group Limited	655,874
Rhyan Technology Services	269,119	Merrill Lynch	330,411
Truven Health Analytics Inc	169,717	Jefferies & Company, Inc	236,977
Focus Consulting Group Inc	148,500	CLSA Limited	211,068
Workers Assistance Program Inc	13,731	Green Street Advisors LLC	195,000
Total Consulting Services	\$ 1,875,925	Deutsche Bank, AG	171,305
Financial and Accounting Services		Nomura Group	160,146
Gabriel, Roeder, Smith, & Company	\$ 1,323,626	Cowen and Company	140,688
Ernst & Young LLP	947,949	Evercore ISI	139,632
State Auditors Office	263,000	Redburn (Europe) Limited	136,965
PricewaterhouseCooper Public Sector LLP	142,606	Bernstein	133,006
CEM Benchmarking Inc.	115,000	RS Energy Group	125,000
Workiva Inc	59,230	Sanford Bernstein	111,090
Peai Limited	15,900	Wood Mackenzie Inc	105,000
CEB Inc	13,795	SMBC Nikko Securities	103,465
Total Financial and Accounting Services	\$ 2,881,106	Cornerstone Macro LP	100,982
Investment Consulting Services		Empirical Research Partners	97,375
McKinsey & Co Inc	\$ 2,000,000	ISI Group	80,750
Hamilton Lane Advisors LLC	1,400,000	CFRA	75,000
Allied Consultants Inc	1,010,143	Keefe, Bruyette & Woods, Inc	72,582
Aon Consulting Inc	905,000	BMO Capital Markets Corp	65,895
The Townsend Group	650,000	Wolfe Trahan	63,985
Albourne America LLC	509,050	HSBC Bank PIC	60,467
Catapult Systems	216,124	Instinet LLC	55,787
McLagan Partners Inc	91,000	RBC Capital Markets	53,890
Brown, Keith C.	80,740	Wolfe Research LLC	53,074
Total Investment Consulting Services	\$ 6,862,057	Wells Fargo Securities	43,532
IT Consulting Services		Tudor Pickering Hold & Co Inc	34,576
Neos Consulting Group, LLC	\$ 918,328	Stifel Nicolaus & Co	33,970
GTS Technology Solutions Inc.	341,115	The Leuthold Group	32,000
Narda J Fisher dba NF Consulting Svcs	264,695	BCA Research Publications	29,808
Apex Systems LLC	174,778	Yardeni Research Inc	25,000
Unify Inc	19,305	Piper Jaffray & Co	23,714
Total IT Consulting Services	\$ 1,718,221	Zelman & Associates	21,255
		Renaissance Macro Research	20,000
		Scotia Capital	17,582
		Total Investment Research Fees	\$ 5,695,158

Schedule 2
Schedule of Professional and Consulting Services
All Funds
For the Fiscal Year Ended August 31, 2018

	Amount		Amount
Legal Services		Research Services	
Seyfarth Shaw LLP	\$ 882,867	Convergence Inc	\$ 40,000
Norton Rose Fulbright LLP	632,158	Total Research Services	\$ 40,000
Foster Pepper LLP	597,934	Temporary Employment Services	
Jackson Walker LLP	432,505	Teksystems	\$ 935,621
Squire Patton Boggs LLP	405,431	Soal Technologies LLC	785,080
Ice Miller	295,325	TIBH Industries Inc	378,491
Katten Munchin Roseman LLP	273,355	Total Temporary Employment Services	\$ 2,099,192
Reinhart Boerner Van Deuren Sc	133,922	Total Professional and Consulting Services	
Gartner	100,000		\$ 28,002,962
Gerson Lehrman Group	81,250	Prior Budget Year Expenditure Adjustment	(184,896)
Purrington Moody Well	60,975	Net Professional and Consulting Services	\$ 27,818,066
Munsch Hardt Kopf & Harr Pc	43,557		
Gardere Wynne Sewell LLP	38,777		
Grant Thornton LLP	23,449		
BLA Schwartz, PC	11,526		
Macro Risk Advisor LLC	37,500		
Furey Research Partners LLC	17,500		
Total Legal Services	\$ 4,068,031		
Medical Services			
Reinarz, James Allen Md	\$ 36,630		
Cox, Alice Md	36,630		
Wilson, Larry Md	36,630		
Total Medical Services	\$ 109,890		
Other Professional Services			
Advanced Call Center Technologies, LLC	\$ 1,533,670		
Access Sciences Corporation	802,300		
International Center For Management	76,000		
Customer Relationship Metrics LLC	67,071		
Print Mail Pro	66,311		
United States Postal Service	28,097		
Lyris Inc	16,041		
Laz Parking Texas LLC	12,625		
Aggregate Payees Less Than \$10,000	51,267		
Total Other Professional Services	\$ 2,653,382		

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The Faces of TRS

2019 Texas Elementary School
Teacher of the Year Finalist
Andrea Greimel



Andrea's Snapshot

Position: Bilingual Early Childhood
Educator

Years Teaching: 30

Goals: Andrea believes young English Language learners need to experience the joy in reading and learning. Her goal is to help students relate to literature in multi-disciplinary and multi-sensory ways and to establish a connection between literature and their lives.

Message: *Universal access to high-quality public education has the potential to strengthen community bonds across diverse groups, increase participation in our democracy, and diminish disparities in achievement and economic opportunities.*



MAILING ADDRESS
1000 Red River Street
Austin, Texas 78701

Brian K. Guthrie
Executive Director

512.542.6460
www.trs.texas.gov

PHYSICAL ADDRESS
816 Congress Avenue

Jerry Albright
Chief Investment Officer

The Teacher Retirement System of Texas Pension Trust Fund (TRS, Trust, or Fund) delivered investment returns of 8.2 percent, which was 80 basis points above the Fund's benchmark. On a three-year annualized basis, the Fund returned 9.4 percent, 60 basis points above its benchmark. As a result, the total investment value of the fund as of August 31, 2018 was \$154.1 billion, or \$8.0 billion more than this time last year. Annual rates of return for the five-year and 10-year periods ending August 31, 2018, were 8.8 percent and 7.1 percent, respectively.

Early in 2018, there was a renewed focus on the goal of retaining key investment personnel and the institutional knowledge the TRS relies on as it continues to scale up for expected growth of the Trust's valuation toward \$200 billion over the next five years. Branded as *Building the Fleet (Fleet)*, the TRS Investment Management Division (IMD) embarked on a multi-year initiative to strengthen the Trust's abilities to maintain total returns and a competitive advantage among peer funds. Among the *Fleet* priorities are:

- developing strong internal management capabilities for cost-effective investments in global public markets,
- increasing principal investment capabilities in global private markets, and
- increasing dedicated operations and analyst support for investment personnel.

As part of the *Fleet* initiative, IMD is maintaining core functions such as asset allocation, operations, and information technology within a central command structure while increasing capabilities within asset classes. One example of those capabilities is TRS's small London office, the Teacher Retirement Investment Company of Texas (TRICOT). TRICOT, as the three year-old office is known, is meeting expectations for generating more deal flow for IMD's highly accretive principal investments program overseas across private market asset classes such as Private Equity and Real Assets. An audit of TRICOT's first two years of performance confirmed external fee savings benefits.

On the Private Markets side, IMD continued its focus on being a preferred global destination for attractive investments with a goal of committing \$4.5 billion to Private Equity opportunities. Another \$6.7 billion in commitments were targeted at Energy, Natural Resources, and Infrastructure investments (\$2 billion) and Real Assets (\$4.7 billion), all under the *Fleet* initiative. The Private Markets component of the asset allocation comprised 30.6 percent of the Trust, and was valued at \$47.2 billion as of August 31, 2018. Overall, Private Markets returns were 13.1 percent for the fiscal year ended August 31, 2018.

The Global Public Equity Best Practices initiative continued from fiscal year 2017 and reached its goals of increasing the Trust's allocation to internal quantitative portfolios and management of compensated risk premia. As part of the initiative, the Public Equity team was integrated and aligned for a singular best result in both U.S. and international portfolios. The USA Public Equity portfolio was the best performer on an absolute basis for the fiscal year, returning 18.4 percent as of August 31, 2018. This was in an overall environment of a stronger U.S. dollar and the Federal Reserve's tightening of global monetary policies led by the U.S.

Developing ongoing relationships with emerging managers is a key diversification component for the Trust's long term growth. TRS's innovative Emerging Managers program (EMGR), which launched in 2005 continued to provide development outreach for smaller investment firms. Since inception, \$3.7 billion has been committed with funds under four major asset classes. Fiscal year 2018 marked the announcement of EMGR 3.0, two new programs committing an additional \$3 billion to innovate with emerging investors and further enhance the Trust's value. The \$1 billion EM Select program will launch in fiscal year 2019 and target top-performing Private Markets EMs with a direct investment from the Trust. The \$2 billion EM Innovation program will be invested over the next three to five years targeting both product innovation and manager elevation.

IMD continued to nurture innovative partnerships with public and private partners through its decade-old Strategic Partnership Network (SPN). Initially, TRS funded four investment partners with \$1 billion each to invest globally, mirroring the Trust's asset classes. As of August 31, 2018, the total Public SPN was valued at \$8.3 billion. Replicating the SPN concept in the private markets in 2012 with partners Apollo and KKR, the total Private SPN had commitments totaling \$8 billion and a net asset value of \$4.3 billion as of August 31, 2018. In 2015, TRS committed another \$1 billion to each of these two partners to be directed toward quick deployment and tactical opportunities, including non-traditional credit investments. As of August 31, 2018, the total Tactical Value SPN had commitments of \$3 billion and a net asset value of \$1.5 billion. The SPN also collaborates to produce research projects that are used to benefit the Trust as well as provide valuable insight into asset allocation.

TRS is vitally aware of long term risk in our capital markets and is working diligently to offset and plan for a number of financial market scenarios that could influence Trust value. To that end, IMD's Risk Group further applied its innovative *Identify, Prepare, Act* process across key risk areas and worked to rebalance the Risk Parity portfolio which makes up five percent of the total asset allocation.

Investment Staff of the System

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Report on Investment Activities

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A. Investment Policy

The Board of Trustees (Board) has the primary fiduciary responsibility for investing the Teacher Retirement System of Texas (TRS or System) trust assets in accordance with Article XVI, Section 67 of the Texas Constitution and with applicable law. The Board establishes investment objectives and policy, obtains expert advice and assistance, and oversees the employment of a qualified and competent investment staff, the Investment Management Division (IMD), and legal staff. The Board also monitors the actions of staff, consultants and advisors to ensure compliance with its policies. The Board has a Policy Committee of the Board ("Policy Committee"), an Investment Management Committee of the Board ("IMD Committee") and a Risk Management Committee of the Board ("Risk Management Committee"), each of which is a standing committee of the Board charged with those responsibilities set forth in the Bylaws of the Board. The Board and the IMD are assisted by outside investment consultants and internal and external legal counsel.

The total or overall investment portfolio includes all assets invested by TRS to provide retirement, death, health, and disability benefits administered by the System, and is structured and managed to achieve the following objectives:

- a. Control risk through proper diversification of asset classes and by establishing long-term risk and return expectations; and
- b. As applicable to the pension plan, achieve a long-term rate of return that:
 - i. Exceeds the assumed actuarial rate of return adopted by the Board;
 - ii. Exceeds the long-term rate of inflation by an annualized 5%; and
 - iii. Exceeds the return of the Fund Policy Benchmark.

B. Portfolio Structure

TRS follows a diversified investment approach that focuses on the three most common economic

scenarios. Scenario One is characterized by favorable Gross Domestic Product (GDP) growth and moderate inflation as measured by the Consumer Price Index (CPI), which has been the prevailing economic condition 68 percent of the time since 1948. Scenario Two is one of low GDP growth and high inflation, which has occurred 18 percent of the time. Finally, Scenario Three is characterized by stagnant GDP growth and low inflation, which has occurred 14 percent of the time. TRS is positioned to take advantage of any of these various market scenarios.

TRS' long-term asset allocation target is 57 percent to Global Equity markets, which should perform well under Scenario One, 22 percent to Real Return, which should perform well in Scenario Two, 16 percent to a Stable Value portfolio, which should perform well and minimize downside risk in Scenario Three, and 5 percent to the Risk Parity strategy, which has a balanced exposure to all three economic scenarios.

C. Asset Allocation

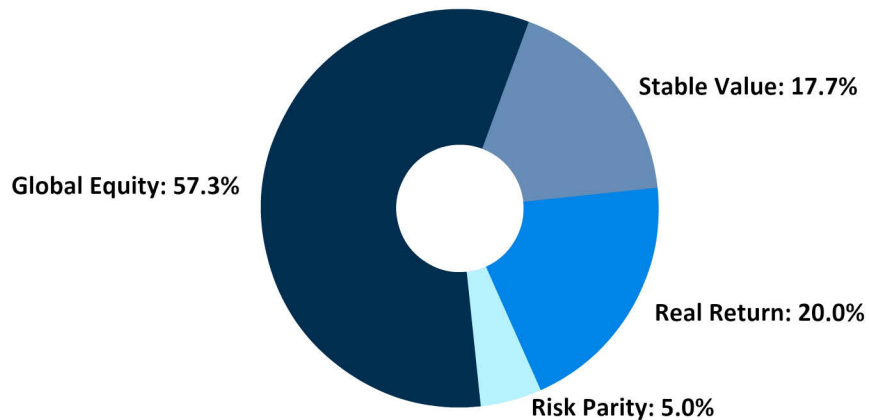
The normal portfolio mix represents the portfolio that is expected to meet the Board's actuarial return objectives for the Pension Trust Fund within the risk tolerances specified in the Investment Policy Statement. Each asset class allocation percentage has a "long-term target" position within the overall portfolio and a maximum and minimum range around that target allocation. All percentages refer to market value.

Generally Accepted Accounting Principles (GAAP) and the Governmental Accounting Standards Board (GASB) require that investments be reported at fair value in the basic financial statements (Exhibit 1 and Note 3). However, the System's asset allocation is based on market value, which includes investment-related cash, receivables, and payables and securities sold short. These items cannot be included as part of the fair value of investments under GAAP. Table 1 presents the asset allocation policy ranges and market values as of August 31, 2018. A reconciliation to fair value is provided following Table 1.

Table 1 | Asset Allocation as of August 31, 2018

Asset Class	Policy Range			Actual Value	
	Minimum Range	Maximum Range	Target	Market Value	% of Total Fund
Global Equity					
Public Equity					
USA	13%	23%	18%	\$ 27,150,890,513	17.6%
Non-US Developed	8	18	13	20,341,564,939	13.2
Emerging Markets	4	14	9	13,583,860,348	8.8
Directional Hedge Funds	0	10	4	6,072,996,145	3.9
<i>Total Public Equity</i>	<i>39</i>	<i>49</i>	<i>44</i>	<i>67,149,311,945</i>	<i>43.6</i>
Private Equity	8	18	13	21,238,747,565	13.8
Total Global Equity	50%	64%	57%	\$ 88,388,059,510	57.3%
Stable Value					
U.S. Treasuries	0%	20%	11%	\$ 16,334,653,515	10.6%
Absolute Return	0	20	0	3,830,033,770	2.5
Stable Value Hedge Funds	0	10	4	6,501,685,478	4.2
Cash	0	5	1	596,516,786	0.4
Total Stable Value	11%	21%	16%	\$ 27,262,889,549	17.7%
Real Return					
Global Inflation Linked Bonds	0%	8%	3%	\$ 4,774,226,943	3.1%
Real Assets	9	19	14	18,276,966,199	11.9
Energy, Natural Resources, and Infrastructure	0	10	5	7,695,966,584	5.0
Commodities	0	5	0	53,421,286	0.0
Total Real Return	17%	27%	22%	\$ 30,800,581,012	20.0%
Total Risk Parity	0%	10%	5%	\$ 7,675,153,445	5.0%
Total Fund Market Value				100% \$ 154,126,683,516	100.0%
Reconciling Items					
Investment-Related Cash				\$ (185,364,617)	
Investment-Related Receivables				(980,546,024)	
Investment-Related Payables				823,010,296	
Securities Sold Short				915,741,979	
Total Reconciling Items				\$ 572,841,633	
Total Fund Fair Value (Exhibit I)				\$ 154,699,525,149	

Pension Trust Fund Asset Allocation



D. Largest Holdings

Fixed Income Investments

Table 2 discloses the Fund's ten largest fixed income investments as of August 31, 2018 reported at GAAP fair value which constitute 39.6 percent of all fixed

income securities. A complete list of fixed income investments is available by contacting the TRS Communications Department.

Table 2 | Largest Fixed Income Investments as of August 31, 2018

Rank	Fixed Income Securities	Par Value	GAAP Fair Value	% of Total Fixed Income Investments
1	U.S. Treasury Bond 3.625% Due 02/15/2044	\$ 1,117,745,000	\$ 1,240,397,797	5.4%
2	U.S. Treasury Bond 2.875% Due 11/15/2046	1,259,190,000	1,227,557,334	5.3
3	U.S. Treasury Bond 3.000% Due 11/15/2045	1,212,890,000	1,211,552,025	5.3
4	U.S. Treasury Bond 3.000% Due 11/15/2044	1,022,700,000	1,021,448,205	4.4
5	U.S. Treasury Bond 3.375% Due 05/15/2044	833,700,000	888,602,630	3.9
6	U.S. Treasury Bond 3.000% Due 05/15/2045	832,725,000	831,816,256	3.6
7	U.S. Treasury Bond 3.000% Due 05/15/2047	816,992,500	815,698,735	3.5
8	U.S. Treasury Bond 2.875% Due 08/15/2045	667,900,000	651,367,819	2.8
9	U.S. Treasury Bond 2.500% Due 02/15/2045	677,900,000	614,961,913	2.7
10	U.S. Treasury Bond 3.125% Due 08/15/2044	598,245,000	610,923,588	2.7
Total Top Ten		\$ 9,039,987,500	\$ 9,114,326,302	39.6%
Total Fixed Income Securities			\$ 23,020,637,600	

Equity Investments

Table 3 discloses the Fund's ten largest equity investments as of August 31, 2018 reported at GAAP fair value which constitute 7.8 percent of the Fund's total equity exposure.

A complete list of equity investments is available by contacting the TRS Communications Department.

Table 3 | Largest Equity Investments as of August 31, 2018

Rank	Equity Holdings	Total Shares	GAAP Fair Value	% of Total Equity Investments
1	Apple Incorporated	2,341,517	\$ 532,999,515	1.1%
2	Tencent Holdings Limited	12,063,111	522,551,917	1.1
3	Samsung Electronics Company Limited	10,523,982	458,057,699	0.9
4	Microsoft Corporation	3,533,533	396,921,762	0.8
5	Amazon.Com Incorporated	191,483	385,399,749	0.8
6	Alibaba Group Holding Limited	2,113,180	369,827,632	0.8
7	Taiwan Semiconductor Manufacturing Company Limited	39,382,138	328,237,907	0.7
8	China Construction Bank	307,754,969	272,509,146	0.6
9	Facebook Incorporated	1,547,814	271,997,354	0.5
10	Alphabet Incorporated	200,433	244,165,476	0.5
Total Top Ten		379,652,160	\$ 3,782,668,157	7.8%
Total Equity Holdings			\$ 48,187,952,545	

E. Investment Results

Performance Reporting

Each asset class is described by an associated benchmark that describes, in general terms, the opportunity set and return characteristics associated with the asset class. For certain private or more complex asset classes, the benchmark serves as a proxy

for expected returns rather than an approximation of the actual investments that will characterize that component of the portfolio. Those benchmarks are identified in Table 4 and are referred to as the "Policy Benchmarks."

Table 4 Policy Benchmarks	
Asset Class	Benchmark Portfolio
Global Equity	
USA	MSCI USA Investable Market Index
Non-US Developed	MSCI EAFE + Canada Market Index
Emerging Markets	MSCI Emerging Markets Market Index
Directional Hedge Funds	Hedge Fund Research, Inc. (HFRI) Fund of Funds Composite
Private Equity	Customized State Street Private Equity Index - lagged one quarter
Stable Value	
US Treasuries	Barclays Capital (BarCap) Long Treasury Index
Absolute Return	3 Month LIBOR + 2%
Stable Value Hedge Funds	Hedge Fund Research, Inc. (HFRI) Fund of Funds Conservative
Cash	Citigroup 90-day US Treasury
Real Return	
Global Inflation Linked Bonds	Barclays Capital (BarCap) US Treasury TIPS Index
Real Assets	NCREIF ODCE Index - lagged one quarter
Energy, Natural Resources & Infrastructure	40% Cambridge Associates Natural Resources 40% Cambridge Associates Infrastructure 20% quarterly Consumer Price Index - lagged one quarter
Commodities	Goldman Sachs Commodity Index
Risk Parity	Calculated using a group of risk parity managers

Performance Results

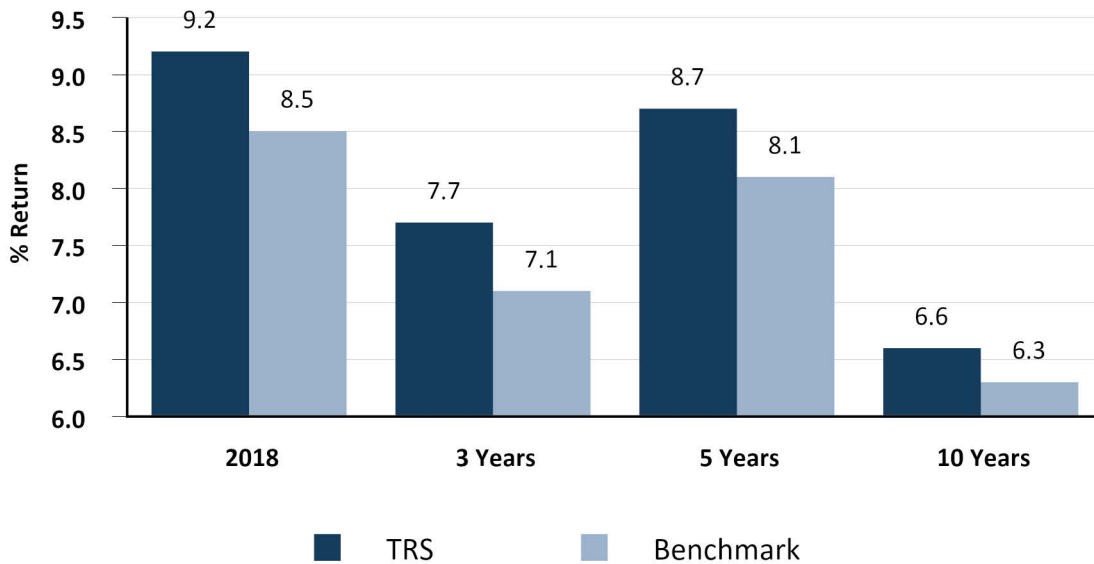
Investment performance is calculated using a time-weighted rate of return. Returns are calculated by State Street Bank and Trust Company, TRS' custodian bank, independently and using industry best practices. The total time-weighted rates of return have been adjusted for cash flows and are calculated net of bank fees, external manager fees, external legal fees, and external custodial fees. Administrative expenses for the IMD are not netted against or included in performance calculations.

Due to TRS' fiscal year ending on August 31, 2018, the most complete performance and benchmark information by asset class is available as of June 30, 2018, presented in Table 5. For a complete list of composite benchmark compositions, contact the TRS Communications Department.

Table 5 | Time-Weighted Returns as of June 30, 2018

Asset Class	2018	3 Years	5 Years	10 Years
Global Equity				
USA	13.4 %	9.9%	11.9%	9.4%
USA Composite Benchmark	14.9	11.7	13.4	10.2
Non-US Developed	7.5	4.9	7.1	3.5
Non-US Developed Composite Benchmark	7.0	4.9	6.2	2.6
Emerging Markets	7.5	6.2	5.5	2.6
Emerging Markets Composite Benchmark	8.2	5.6	5.0	2.3
Directional Hedge Funds	4.9	2.1	3.9	NA
Directional Hedge Fund Composite Benchmark	5.1	1.9	3.5	NA
<i>Total Public Equity</i>	9.6	7.1	8.5	5.6
<i>Public Equity Composite Benchmark</i>	10.4	7.6	8.7	5.8
Private Equity	15.2	11.6	13.8	10.2
Private Equity Composite Benchmark	14.1	11.0	11.7	10.0
Total Global Equity	10.9 %	8.0%	9.5%	6.5%
Global Equity Composite Benchmark	11.3 %	8.3%	9.4%	6.5%
Stable Value				
US Treasuries	(0.2)%	3.6%	5.1%	6.8%
US Treasuries Composite Benchmark	(0.1)	3.4	4.5	6.1
Absolute Return	5.8	6.2	8.8	NA
Absolute Return Composite Benchmark	3.8	3.1	2.8	NA
Stable Value Hedge Funds	6.7	5.4	5.3	3.0
Stable Value Hedge Fund Composite Benchmark	4.1	1.9	3.0	3.2
Cash	2.7	2.1	2.7	1.4
Cash Composite Benchmark	1.4	0.7	0.4	0.4
Total Stable Value	2.3 %	5.0%	5.7%	6.3%
Stable Value Composite Benchmark	1.0 %	3.0%	4.1%	5.3%
Real Return				
Global Inflation Linked Bonds	2.2 %	2.1%	1.8%	3.0%
Global Inflation Linked Bonds Composite Benchmark	2.1	1.9	1.7	2.6
Real Assets	13.4	12.0	12.5	6.7
Real Assets Composite Benchmark	7.1	9.0	10.4	4.4
Energy, Natural Resources & Infrastructure	7.8	NA	NA	NA
Energy, Natural Resources & Infrastructure Composite Benchmark	9.1	NA	NA	NA
Commodities	13.0	9.5	(5.7)	(13.1)
Commodities Composite Benchmark	30.0	(4.4)	(9.4)	(12.4)
Total Real Return	10.1 %	9.1%	8.9%	5.2%
Real Return Composite Benchmark	6.5 %	7.0%	7.6%	4.7%
Total Risk Parity	9.7 %	6.5%	6.8%	NA
Risk Parity Benchmark	8.0 %	5.1%	4.7%	NA
TRS	9.2 %	7.7%	8.7%	6.6%
Custom Benchmark	8.5 %	7.1%	8.1%	6.3%

Time-Weighted Returns as of June 30, 2018



F. Fees and Commissions

Investment Manager Fees

Management and Performance Fees that are paid from the Pension Trust Fund are charged by the manager or general partner to cover normal operating costs and the expenses of administering the partnership. The manager or general partner usually receives an annual management fee paid in quarterly, but sometimes in semi-annual or annual installments, from the limited partners. Management fees are typically 1.5 percent to 2 percent of the investment or the investment commitment during the investment period and are sometimes scaled down after the investment period. The management fee rate, basis for the calculation, and specific terms are agreed to in the Limited Partnership Agreement (LPA).

Performance fees/carried interest are accrued and paid based on the amount of profit or returns in excess of a benchmark or hurdle rate established in the LPA. Certain other management fees are charged by investment partnerships and netted against the investment earnings of the partnership. For investments in Private Equity, Real Assets, Energy, Natural Resources and Infrastructure, Performance Fees/Carried Interest represent the general partner's share of the partnership's profits, which is typically 20 percent, with 80 percent going to limited partners, such as TRS.

Carried interest is calculated and paid as partnership investments are realized, and carried interest on the unrealized investments is accrued over the life of the partnership based on the current valuation.

Fees paid from the Pension Trust Fund are booked as expenses on the income statement. Fees netted against returns are charged by investment partnerships and netted against the investment earnings of the partnership. Generally, the information for fees netted against returns are requested and received from Fund general partners on a quarterly basis. Due to the timing of information received from Fund general partners, fees paid or accrued in conjunction with investment activities, along with the related market value of assets under management, is presented for the calendar year ended June 30, 2018 in Table 6.

The amount of fees paid from the Pension Trust Fund and booked as expenses in Table 6 are for the calendar year ended June 30, 2018. The amount of fees paid from the Pension Trust Fund and booked as expenses for the fiscal year ended August 31, 2018, which appear in Exhibit II and Schedule 1 as External Manager Fees, amounted to \$112,200,201, which includes \$74,314,961 in management fees and \$37,885,240 in performance fees.

Table 6 Investment Manager Fees for the Period Ended June 30, 2018

Asset Class	Fees Paid from the Pension Trust Fund			Fees Netted Against Returns	
	Market Value of Assets Under Management	Management Fees	Performance Fees	Management Fees	Performance Fees/Carried Interest
Global Equity					
Public Equity					
USA	\$ 26,620,336,663	\$ 25,948,282	\$ 7,898,402	\$ 15,112,927	\$ 25,810,860
Non-US Developed	20,143,129,906	14,970,985	20,240,205	18,073,824	43,075,888
Emerging Markets	13,827,302,571	25,854,357	10,801,254	5,592,407	2,188,634
Directional Hedge Funds	5,993,811,349	1,261,454	—	53,331,951	58,411,340
<i>Total Public Equity</i>	66,584,580,489	68,035,078	38,939,861	92,111,109	129,486,722
Private Equity	19,935,350,059	—	—	175,065,412	202,218,680
Total Global Equity	\$ 86,519,930,548	\$ 68,035,078	\$ 38,939,861	\$ 267,176,521	\$ 331,705,402
Stable Value					
US Treasuries	\$ 16,392,299,986	\$ 2,523,353	\$ 1,005,537	\$ —	\$ —
Absolute Return	3,377,655,425	1,023,551	407,878	5,847,976	3,801,837
Stable Value Hedge Funds	6,508,116,503	—	—	91,052,734	68,150,312
Cash	507,646,555	—	—	—	—
Total Stable Value	\$ 26,785,718,469	\$ 3,546,904	\$ 1,413,415	\$ 96,900,710	\$ 71,952,149
Real Return					
Global Inflation Linked Bonds	\$ 4,949,243,340	\$ 1,431,161	\$ 570,307	\$ —	\$ —
Real Assets	17,833,475,508	799,871	—	150,389,567	126,506,668
Energy, Natural Resources & Infrastructure	7,384,993,948	953,596	517,927	70,555,677	24,205,677
Commodities	31,513,910	—	—	—	—
Total Real Return	\$ 30,199,226,706	\$ 3,184,628	\$ 1,088,234	\$ 220,945,244	\$ 150,712,345
Total Risk Parity	\$ 7,676,704,084	\$ 1,720,674	\$ —	\$ 11,884,766	\$ 859,431
Total Fund	\$ 151,181,579,807	\$ 76,487,284	\$ 41,441,510	\$ 596,907,241	\$ 555,229,327

Broker Commissions

Broker commissions are the incremental direct costs incurred to purchase, sell, or transfer investment assets and liabilities. Table 7 presents the commissions paid to brokers for the fiscal year ended August 31, 2018. Over 30 million shares were traded by 258 brokers, and commissions paid amounted to over \$64.8 million.

For the fiscal year ended August 31, 2018, a portion of the total commissions was paid through various Commission Sharing Arrangements (CSA) and Commission Recapture Arrangements (CRA). CSA proceeds generated \$9,737,650 and were used in accordance with Section 28(e) of the Securities Exchange Act of 1934 to acquire research services from

various investment-related firms, totaling \$14,678,604. CRA proceeds generated \$527,645 and were used to acquire services totaling \$523,399. Unspent CSA proceeds, totaling \$4,783,127, and unspent CRA proceeds, totaling \$859,879, were held by State Street Bank and Trust Company as the Fund's CSA and CRA Administrator.

Vendor paid expenses are legal arrangements that are used to acquire investment-related items other than those paid for with commission credit proceeds. Through contractual agreements with various firms, the Fund benefited from \$7,408,792 in vendor paid expenses and contractual allowances for the fiscal year ended August 31, 2018.

Table 7 | Broker Commissions for the Fiscal Year Ended August 31, 2018

Brokerage Firm	Shares Traded	Commissions Paid*
Merrill Lynch	425,008,579,873 \$	7,960,246
Goldman Sachs Group, Inc.	14,506,696,802,199	6,875,383
JPMorgan Chase	922,637,675,354	5,460,817
Morgan Stanley	640,678,818,911	5,229,646
Citigroup	8,841,439,800,825	4,597,836
Credit Suisse Group	1,610,976,824,883	3,566,278
Deutsche Bank AG	168,802,637,664	2,929,066
UBS AG	507,419,931,844	2,355,038
Barclays	24,684,070,799	1,949,329
Bank of New York Mellon	3,056,389,551	1,912,130
Summary of remaining 248 brokerage firms	3,016,040,155,331	21,996,741
Total	30,667,441,687,233 \$	64,832,510

*Commissions paid per share is less than \$0.01.

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The Faces of TRS

2019 Texas Elementary School
Teacher of the Year Finalist
Joe Parthemore



Joe's Snapshot

Position: Elementary School Math and Science Teacher

Years Teaching: 3.5 years teaching

Goals: Joe integrates real-world problems and hands-on learning into his instruction. His goal is to honor student-centered learning and use student interest to foster inquiry, questioning, critical thinking, and problem-solving skills.

Message: *By integrating the idea of empathy, students are truly invested in helping the world around them while learning. I believe students should come out of school with the skills of thinking critically, being creative, communicating effectively, and having a sense of empathy. With these skills that I cultivate, I hope to create the future problem solvers of the world.*

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Pension Trust Fund Actuarial Information

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October 27, 2017

Board of Trustees
Teacher Retirement System of Texas
1000 Red River Street
Austin, TX 78701-2698

Subject: Actuary's Certification of the Actuarial Valuation as of August 31, 2017

We certify that the information included herein and contained in the 2017 Actuarial Valuation Report is accurate and fairly presents the actuarial position of the Teacher Retirement System of Texas (TRS) as of August 31, 2017. This report was prepared at the request of the Board and is intended for use by the TRS staff and those designated or approved by the Board. This report may be provided to parties other than TRS staff only in its entirety and only with the permission of the Board.

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the results presented comply with the requirements of the Texas statutes and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries. Mr. Siblik and Mr. Newton are Enrolled Actuaries, members of the American Academy of Actuaries and are qualified to give a Statement of Opinion. All are experienced in performing valuations for large public retirement systems.

ACTUARIAL VALUATIONS

The primary purpose of the valuation report is to determine the adequacy of the statutory contribution rates through measuring the resulting funding period, to describe the current financial condition of the System, and to analyze changes in the System's condition. In addition, the report provides various summaries of the data. This report may not be appropriate for other purposes. The information required by the System in connection with Governmental Accounting Standards Board Statement No. 67 (GASB No. 67) will be provided under separate cover.

Valuations are prepared annually, as of August 31 of each year, the last day of the System's plan and fiscal year.

FINANCING OBJECTIVE OF THE PLAN

The employee, employer, and State contribution rates are established by Law that, over time, are intended to remain level as a percent of payroll and provide assets to cover benefits when due. The



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actuarially determined employer contribution rates determined in this actuarial valuation are intended to provide for the normal cost plus the level percentage of payroll required to amortize the unfunded actuarial accrued liability over a period not in excess of 30 years.

PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVE

The actuarial accrued liability, the unfunded actuarial accrued liability (UAAL), and the calculation of the resulting funding period illustrate the progress toward the realization of financing objectives. Based on this actuarial valuation as of August 31, 2017, the System's under-funded status has remained relatively unchanged at \$35.5 billion as of August 31, 2017 compared to \$35.5 billion as of August 31, 2016. The System's UAAL was expected to increase from the prior year based on the deferral of investment losses from prior valuations. However, due to higher than expected investment performance during the year, the System actually experienced a gain on the actuarial value of assets. In addition, the System also experienced a gain due to demographic experience. These two gains combined to decrease the UAAL by \$1.1 billion. However, there was also a legislative change to TRS-CARE which resulted in a change to the expected retirement patterns of TRS. The legislative change was a reversal of changes to the expected retirement behavior that were adopted following the 2013 session and increased the UAAL by \$0.7 billion.

This valuation shows a normal cost equal to 9.94% of pay plus an addition to the normal cost of 0.12% of pay to cover the annual cost of administrative expenses. The State began contributing the current contribution rate of 6.80% in fiscal year 2014 and it is assumed the rate will remain at that level. In addition, covered employers whose employees are not participating in Social Security began contributing 1.50% of salary (capped at the minimum salary schedule) in fiscal year 2015. Combined these contributions are assumed to approximate 7.70% of total payroll. The member contribution began increasing in fiscal year 2015 and reached its ultimate rate of 7.70% in fiscal year 2017. As a result, for FY2018 and thereafter, the System is expected to receive a total contribution rate of 15.40% of pay.

Hence, there is expected to be 5.34% of pay available to amortize the UAAL (15.40% less normal cost of 9.94% less administrative expenses of 0.12%). If payroll grows as expected (2.5% per year), the contributions provided by this portion of the contribution rate are sufficient to amortize the current unfunded actuarial accrued liabilities of the System over a period of 32.2 years based on the smoothed asset value as the valuation date. Therefore, the financing objectives of the System are not currently being met.

The actuarial valuation report as of August 31, 2017 reveals that the funded ratio (the ratio of actuarial assets to actuarial accrued liability) is 80.5%. The funded status is one of many metrics used to show trends and develop future expectations about the health of the System. The funded status measure itself is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations or assessing the need for or the amount of future contributions since it does not reflect normal cost contributions, the timing of amortization payments, or future experience other than expected.



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October 27, 2017
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The System earned more than the assumed rate of return during fiscal year 2017 (12.9% on market value compared to an assumed 8.0%). This return more than offset the prior year' deferred investment losses. In fact, the System experienced an actuarial gain on assets and is now deferring net investment gains of \$1.1 billion and the funded status using the market value of assets is 81.1%. If there are no significant investment losses or other actuarial losses over the next several years, the funded status of the System would be expected to increase towards this number. This \$1.1 billion in net deferred gains compares to the last valuation when the System was deferring \$4.8 billion in net deferred losses and had a 76.9% funded ratio based on the market value of assets.

As stated previously, the System's UAAL is relatively unchanged from the prior year. The UAAL had been expected to increase by \$0.4 billion without any gains or losses thus the UAAL decreased by \$0.4 billion more than expected during the year. The fiscal year 2017 investment return completely offset the prior years' deferred investment losses and resulted in a gain of \$0.3 billion on the actuarial value of assets. Therefore, the liabilities actually increased \$0.1 billion less than expected. This \$0.1 billion gain can split into the impact of the legislative change which increased the liabilities by \$0.7 billion and a liability experience gain of \$0.8 billion. This \$0.8 billion represents a gain of 0.46% of total liabilities and was due to the liabilities growing slower than expected due to salary increases being less than expected, more terminations than expected and fewer retirements than expected during the year.

Based on the actuarial (smoothed) value of assets, the number of years needed to amortize the UAAL will decrease annually if all assumptions are met. Please note that this annual decrease in the funding period will only occur if the currently scheduled contribution levels remain in place over the funding period. Any decrease in the contribution rates will result in higher funding periods. It should be noted that with the \$1.1 billion in deferred investment gains still to be recognized in the actuarial value of assets, future gains in the actuarial value of assets will result in a decrease in the funding period in future valuations until the gains are fully recognized.

Due to the current funding policy which utilizes level percentage of payroll amortization, the amortization payments will not be sufficient to cover all of the interest charges on the UAAL until the funding period reaches approximately 20 years. Table 11a provides a 10 year projection of various valuation results, including the UAAL, and that projection shows the UAAL is expected to increase to \$38.7 billion in 2027. Extending the projection further would show the UAAL starts to decrease in 2028 and is fully amortized 20 years after that (assuming 8% return on the market value of assets).

Please note these expectations are based on the current benefit provisions, assumptions, and contribution rates. Any additional benefit enhancements (ad hoc COLAs) granted without additional funding would increase the ultimate UAAL and extend the period before the funding status begins to improve. Thus, we continue to advise against any future benefit enhancements without additional sources of funding.

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October 27, 2017
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PLAN PROVISIONS

The plan provisions used in the actuarial valuation are described in Appendix 1 of the valuation report. There have been no changes to the benefit and contribution provisions of the System since the prior valuation.

DISCLOSURE OF PENSION INFORMATION

Beginning with fiscal year 2014, the System began reporting financial information in accordance with Governmental Accounting Standards Board (GASB) Statement No. 67. The disclosure information for GASB No. 67 is provided in a separate report and is not contained herein.

This report should not be relied on for any purpose other than the purpose described above. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

ACTUARIAL METHODS AND ASSUMPTIONS

The actuarial methods and assumptions have been selected by the Board of Trustees of the Teacher Retirement System of Texas based upon our analysis and recommendations. These assumptions and methods are detailed in Appendix 2 of the valuation report. The Board of Trustees has sole authority to determine the actuarial assumptions used for the plan. The actuarial methods and assumptions are primarily based on a study of actual experience for the four year period ending August 31, 2014 and adopted on September 24, 2015. The retirement rates for selected individuals were modified to reflect changes to TRS-CARE. No other changes in the actuarial assumptions or methods were made since the prior valuation. The next experience study is scheduled to be performed in the spring of 2018.

The results of the actuarial valuation are dependent on 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. To illustrate this point, on page 8 of this report we have shown illustrative results based on future investment experience deviating from the assumptions. Based on the scope of this engagement, we have not performed analysis on the potential range of future measurements based on other factors. The actuarial calculations are intended to provide information for rational decision making.

In our opinion, the actuarial assumptions used are appropriate for purposes of the valuation and are internally consistent and reasonably related to the experience of the System and to reasonable expectations.

Data

Member data for retired, active and inactive members was supplied as of August 31, 2017 by the TRS staff. The staff also supplied asset information as of August 31, 2017. We did not audit this

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data, but we did apply a number of tests to the data and concluded that it was reasonable and consistent with the prior year's data. GRS is not responsible for the accuracy or completeness of the information provided to us by TRS.

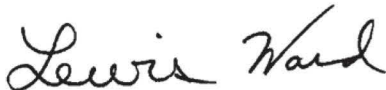
The following schedules in the Actuarial Section of the TRS CAFR were prepared by GRS:

- Actuarial Present Value of Future Benefits
- Schedule of Retirees and Beneficiaries Added to and Removed from Rolls
- Schedule of Funding Progress
- Post-Retirement Mortality
- Rates of Retirement
- Probability of Decrement due to Withdrawal
- Active Mortality


All other schedules shown in the actuarial section were prepared by TRS staff based upon our work. For further information please see the full actuarial valuation report.

This document and the PowerPoint presentation of the actuarial valuation results presented to the TRS Board on December 7, 2017 comprise the full actuarial report.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



Lewis Ward
Consultant



Daniel J. Siblik, ASA, EA, MAAA
Consultant



Joseph P. Newton, FSA, EA, MAAA
Pension Market Leader and Actuary

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Actuarial Disclosure

The Actuarial Section is based on a valuation as of August 31, 2017.

Actuarial Present Value of Future Benefits			
(With Comparative Data as of August 31, 2016)			
	2017		2016
Present Value of Benefits Presently Being Paid			
Service Retirement Benefits	\$ 88,265,853,858	\$	84,731,139,810
Disability Retirement Benefits	1,159,723,275		1,141,195,638
Death Benefits	878,484,700		867,637,073
Present Survivor Benefits	267,992,457		256,188,158
Total Present Value of Benefits Presently Being Paid	\$ 90,572,054,290	\$	86,996,160,679
Present Value of Benefits Payable in the Future to Present Active Members			
Service Retirement Benefits	\$ 106,686,289,188	\$	102,594,460,159
Disability Retirement Benefits	1,390,485,196		1,305,439,740
Termination Benefits	9,104,608,213		8,518,349,795
Death and Survivor Benefits	1,873,738,711		1,846,700,055
Total Active Member Liabilities	\$ 119,055,121,308	\$	114,264,949,749
Present Value of Benefits Payable in the Future to Present Inactive Members			
Inactive Vested Participants	\$ 4,591,531,545	\$	4,333,837,796
Refunds of Contributions to Inactive Non-vested Members	444,096,753		413,997,543
Future Survivor Benefits Payable On Behalf of Present Annuitants	1,462,466,211		1,401,763,178
Total Inactive Liabilities	\$ 6,498,094,509	\$	6,149,598,517
Total Actuarial Present Value of Future Benefits	\$ 216,125,270,107	\$	207,410,708,945

Summary of Cost Items			
(With Comparative Data as of August 31, 2016)			
	2017		2016
Actuarial Present Value of Future Benefits	\$ 216,125,270,107	\$	207,410,708,945
Present Value of Future Normal Costs	(34,372,473,392)		(33,171,982,143)
Actuarial Accrued Liability	\$ 181,752,796,715	\$	174,238,726,802
Actuarial Value of Assets	\$ (146,282,044,842)	\$	(138,786,120,728)
Unfunded Actuarial Accrued Liability	\$ 35,470,751,873	\$	35,452,606,074

Financing Objective and Funding Policy

The funding policy of the Teacher Retirement System (TRS) is established by the state legislature. Contribution rates may not be reduced or eliminated, or benefits may not be improved, if, as a result of the particular action, the time, as determined by an actuarial valuation, required to amortize the unfunded actuarial liabilities of the retirement system, would be increased to a period that exceeds 30 years by one or more years. For detailed information, see Note 1.

Plan Provisions

For plan provisions, see Note 11.

Actuarial Methods and Assumption

The actuarial valuation for TRS was prepared by Gabriel, Roeder, Smith & Company (GRS). The actuary relied on membership data and asset information provided by TRS staff. While not verifying the data at their source, the actuary performed such tests for consistency and reasonableness as was deemed necessary to be satisfied with the appropriateness of using the data supplied.

The actuarial methods and assumptions have been selected by the Board of Trustees of the Teacher Retirement System of Texas based upon GRS analysis and recommendations. The Board of Trustees has sole authority to determine the actuarial assumptions used for the plan. The actuarial methods and assumptions are primarily based on a study of actual experience for the four year period ending August 31, 2014 and was adopted on September 24, 2015. The results of the actuarial valuation are dependent on the assumptions used. Actual results can and will differ as actual experience deviates from these assumptions. Seemingly minor changes in assumptions can materially change the liabilities, calculated contribution rates and funding periods. There have been no changes in the actuarial assumptions or methods since the prior valuation. Post-Retirement Mortality rates for current and future retirees are prepared in accordance with the Actuarial Standards of Practice No. 35 which advises actuaries to "adjust mortality rates to reflect mortality improvement prior to the measurement date and to include an assumption as to the expected mortality improvement after the measurement date."

Actuarial Methods

The actuarial cost method used for financial reporting purposes was the Individual Entry Age Normal method

as prescribed by GASB 67 and the method used for funding purposes was the Ultimate Entry Age Normal (EAN) method. The Ultimate EAN cost method is used because it creates the most level funding requirement across the generations of members and stakeholders. The difference between the two methods resides in the calculation of the normal cost for the members in the system. Under Individual EAN, the normal cost for each member is based on the benefit tier for that member while the Ultimate EAN method uses the normal cost for the tier new members are currently being hired into; which reflects the longer term normal cost.

Actuarial Assumptions

A. Investment Rate of Return

8.00 percent per annum, compounded annually, composed of an assumed 2.50 percent inflation rate and a 5.50 percent real rate of return, net of investment expenses.

B. Post-Retirement Mortality, Assumed Retirement Age, Disability Retirement, Death, and Withdrawal from System

Rates and scales developed in the actuarial investigation as of August 31, 2014, with values at specimen ages shown in the tables below.

Table 1 | Post-Retirement Mortality

Age	Male Members	Female Members
40	0.001938	0.001585
50	0.004247	0.002791
60	0.005584	0.003882
70	0.015547	0.009613
80	0.053691	0.035591
90	0.162983	0.133727
100	0.407509	0.284047
110	0.500000	0.467915

For members hired after August 31, 2007 and who are vested as of August 31, 2014, the retirement rates for members once they reach unreduced retirement eligibility at age 60 are increased 10% for each year the member is beyond the Rule of 80 (i.e. if the member reached the Rule of 80 at age 58 then the probability of retirement at age 60 is 120% of the rate shown in Table 2).

For members hired after August 31, 2007 and who are not vested as of August 31, 2014, or, for members hired after August 31, 2014, the retirement rates for members once they reach unreduced retirement eligibility at age 62 are increased 10% for each year the

member is beyond the Rule of 80 (i.e. if the member reached the Rule of 80 at age 58, then the probability of retirement at age 62 is 140% of the rate shown in Table 2).

Table 2 Assumed Retirement Age					
Normal Retirement			Early Retirement		
Age	Male	Female	Age	Male	Female
50	0.1300	0.3000	45-46	0.0100	0.0100
51	0.1300	0.1200	47	0.0100	0.0200
52	0.1300	0.1300	48	0.0200	0.0300
53	0.1300	0.1400	49	0.0300	0.0400
54	0.1400	0.1500	50-58	0.0100	0.0100
55	0.1500	0.1600	59	0.0100	0.0200
56	0.1600	0.1700	60-61	0.0200	0.0200
57	0.1700	0.1800	62	0.0500	0.0400
58	0.1800	0.1900	63	0.0500	0.0500
59	0.1800	0.2000	64	0.0600	0.0600
60	0.2200	0.2100	65	0.0500	0.0500
61	0.2000	0.2200			
62	0.2400	0.2300			
63-64	0.2000	0.2300			
65-74	0.2200	0.2300			
75	1.0000	1.0000			

Table 3 Probability of Decrement Due to Disability				
Age	For Service >= 10		For Service < 10	
	Male	Female	Male	Female
20	0.000184	0.000276	0.000037	0.000055
30	0.000184	0.000276	0.000037	0.000055
40	0.000430	0.000469	0.000086	0.000094
50	0.001993	0.001817	0.000399	0.000363
60	0.003505	0.002754	0.000701	0.000551

Table 4 Active Mortality*

Age	Male Members	Female Members
20	0.000365	0.000146
30	0.000407	0.000196
40	0.000565	0.000356
50	0.001517	0.000992
60	0.004219	0.002198
70	0.012469	0.005678
80	0.034930	0.016542
90	0.123749	0.092945

*RP-2014 Employee Mortality Tables for male and female multiplied by 90 percent, with full generational projection using Scale BB.

Table 5 Probability of Decrement due to Withdrawal

Years of Service	Male Members	Female Members
1	0.149027	0.143098
2	0.119756	0.117329
3	0.096637	0.097896
4	0.072275	0.076765
5	0.062453	0.068443
6	0.055556	0.060368
7	0.047176	0.049631
8	0.041464	0.043108
9	0.036978	0.038477
10	0.033777	0.035264

C. Rates of Salary Increase

Table 6 reflects an inflation rate of 2.50 percent, plus productivity component of 1.00 percent, plus step-rate/promotional component as shown.

Table 6 Rates of Salary Increase due to Merit and Promotion

Years of Service	Longevity	General	Total
1	6.00%	3.50%	9.50%
2	2.50	3.50	6.00
3	1.90	3.50	5.40
4	1.70	3.50	5.20
5	1.50	3.50	5.00
6	1.40	3.50	4.90
7	1.20	3.50	4.70
8-12	1.00	3.50	4.50
13	0.80	3.50	4.30
14	0.70	3.50	4.20
15	0.60	3.50	4.10
16-17	0.50	3.50	4.00
18	0.40	3.50	3.90
19-20	0.30	3.50	3.80
21-22	0.20	3.50	3.70
23-24	0.10	3.50	3.60
25 or more	0.00	3.50	3.50

D. Actuarial Value of Assets

The intent of the actuarial asset valuation method is to smooth out year-to-year fluctuations in market rates of return. The current asset method determines the expected actuarial value of assets and then recognizes at least 20 percent of the difference between that expected actuarial value of assets and the actual market value of assets. Each year a base is set up to reflect this difference. If the current year's base is of the opposite sign from the remaining deferred bases then it is offset against any prior deferred bases of the opposite sign. Any remaining bases are then recognized over the remaining number of years. This is intended to ensure the smoothed value of assets will converge towards the market value in a reasonable and finite amount of time.

This year's excess investment income of \$6.1 billion completely offset the prior years' remaining investment losses, with \$1.3 billion remaining. After recognizing 20 percent of this amount (\$270 million) in this year's actuarial assets, \$1.1 billion in deferred investment gains remain to be recognized in the future valuations. The actuarial value of assets is \$146.3 billion.

E. Actuarial Cost Method

The normal cost of the Retirement System is developed based on the valuation method known as the entry-age-normal actuarial cost method.

Funding of Unfunded Actuarial Accrued Liability

The Unfunded Actuarial Accrued Liability (UAAL) is funded by the excess of future State and employer contributions required by law over the amount of such contributions required to fund the normal cost of benefits.

The normal cost for the System is deemed to be equal to the average cost of benefits for newly hired participants. The normal cost to pay for the benefits earned under the Retirement System is 9.94 percent of payroll, this amount being inclusive of the amount contributed by the employees. An additional estimated 0.12 percent of payroll is used to pay for administrative expenses of the System, bringing the total normal cost to 10.06 percent (9.94 percent plus .12 percent) of pay.

The actuarial accrued liability for benefits payable in the future to present active members is calculated as

the present value of benefits payable in the future to present active members less the present value of future normal costs.

The State's contribution rate increased to 6.8 percent beginning in fiscal year 2014. Beginning in fiscal year 2015, covered employers whose employees are not participating in Social Security began contributing 1.5 percent of the minimum salary schedule. Combined with the State contribution, it is expected that these aggregate contributions will be approximately 7.7 percent of total payroll. Since the total State/employer contribution rate is 7.70 percent, this allows 5.34 percent of pay contributed by the State to be available to amortize any unfunded actuarial accrued liabilities.

As of the valuation as of August 31, 2017, these excess contributions of 5.34 percent of pay are sufficient to amortize the UAAL over a period of 32.2 years (assuming all actuarial assumptions are exactly met).

Table 7 | Active Member Valuation Data

Valuation Year	Active Members	Annualized Payroll in Thousands	Average Annual Salary	Annual % Increase in Average Salary
2008	801,455	\$33,237,942	\$41,472	3.7%
2009	817,537	35,096,863	42,930	3.5
2010	834,060	36,628,579	43,916	2.3
2011	828,919	36,797,372	44,392	1.1
2012	815,155	36,309,449	44,543	0.3
2013	831,302	37,104,333	44,634	0.2
2014	857,342	39,195,104	45,717	2.4
2015	828,851	37,121,750	44,787	(2.0)
2016	847,631	39,281,763	46,343	3.5
2017	864,233	40,904,148	47,330	2.1

Table 8 Retirees, Beneficiaries, and Disabled Participants Added to and Removed from Rolls

Valuation as of August 31	Added to Rolls		Removed from Rolls		Rolls - End of Year		Average Annual Benefits	% Increase Average Annual Benefits
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2008	17,727	\$ 391,920,863	7,806	\$ 135,160,090	275,228	\$ 5,743,921,279	\$ 20,870	4.7%
2009	17,326	392,452,923	7,940	136,537,511	284,614	5,999,836,691	21,081	4.5
2010	20,076	473,512,423	8,199	142,187,645	296,491	6,331,161,469	21,354	5.5
2011	24,688	620,038,676	8,499	147,985,004	312,680	6,803,215,141	21,758	7.5
2012	27,915	697,134,389	8,848	155,597,838	331,747	7,344,751,692	22,140	8.0
2013	25,825	743,998,946	9,344	165,231,795	348,228	7,923,518,843	22,754	7.9
2014	24,429	573,876,713	9,475	174,915,127	363,182	8,322,480,429	22,915	5.0
2015	25,134	604,436,264	10,578	191,966,951	377,738	8,734,949,742	23,124	5.0
2016	27,018	673,313,552	10,842	195,097,916	393,914	9,213,165,378	23,389	5.5
2017	24,739	613,145,920	10,885	203,792,399	407,768	9,622,518,899	23,598	4.4

Table 9 Analysis of Financial Experience (Dollars in Billions)*

As of August 31	Investment Gains/ (Losses)	Contribution Experience	Assumption Changes	Liability Experience	Net Increase/ (Decrease)	Beginning UAAL	Ending UAAL
2017	\$ 0.270	\$ 0.415	\$ (0.701)	\$ 0.828	\$ 0.018	\$ 35.453	\$ 35.471
2016	(1.504)	0.525		(0.46)	2.485	32.968	35.453
2015	(1.237)	0.912	0.682	(1.501)	1.33	31.638	32.968
2014	1.095	1.157	2.282	0.358	2.702	28.936	31.638
2013	(2.045)	1.911	0.708	(1.829)	2.835	26.101	28.936
2012	(2.208)	1.258		(1.427)	2.039	24.062	26.101
2011	(1.958)	0.826	(0.271)	(1.35)	1.163	22.899	24.062
2010	(1.161)	0.797		(0.705)	1.253	21.646	22.899
2009	(10.321)	0.149		(0.347)	10.123	11.523	21.646
2008	1.232	0.228	0.676	(0.694)	(1.022)	12.545	11.523

*Resulting from differences between assumed experience and actual experience. Calculated on a 5-year smoothed market basis.

Solvency Test

A short-term solvency test is one means of checking a retirement System's progress under its funding program. The schedule below provides a historical illustration of a short-term solvency test for TRS wherein present assets are compared with:

- active member contributions on deposit
- the liabilities for future benefits to present annuitants (Retirees and Beneficiaries)
- the liabilities for active members under the entry age normal actuarial cost method including a projection of future salary

increases and anticipated future service Active Members-State Financed Portion)

Under the level percent of payroll financing followed by TRS, liabilities for active member contributions on deposit and the liabilities for future benefits to present retirees and beneficiaries will be fully covered by present assets except in rare circumstances. In addition, liabilities for active member benefits earned or to be earned in the future will be partially covered by the remainder of present assets. Generally, if the System has been using level cost financing, the funded portion of active member benefits will increase over time. The following table shows the solvency test:

Table 10 Solvency Test (Dollars in Millions)*

Valuation as of August 31	Aggregate Actuarial Accrued Liabilities For			Portion of Aggregate Actuarial Accrued Liabilities Covered by Valuation Assets			
	Active Member Contributions (1) *	Retirees and Beneficiaries (2) *	Active Members (State Financed Portion) (3)	Valuation Assets	Active Member Contributions (1) *	Retirees and Beneficiaries (2) *	Active Members (State Financed Portion) (3)
2008	\$ 23,928	\$ 53,243	\$ 44,585	\$ 110,233	100%	100%	74.2%
2009	23,914	55,484	48,632	106,384	100	100	55.5
2010	27,559	58,476	48,156	111,293	100	100	52.5
2011	28,911	63,470	46,934	115,253	100	100	48.7
2012	30,006	68,449	45,972	118,326	100	100	43.2
2013	31,365	73,841	45,460	121,730	100	100	36.4
2014	33,028	78,431	48,576	128,398	100	100	34.9
2015	33,856	82,535	50,062	133,485	100	100	34.1
2016	34,803	86,986	52,451	138,786	100	100	32.4
2017	36,513	90,573	54,667	146,282	100	100	35.1

*Adjusted for pending transfers to retired reserve at August 31 for pending retirements.

Schedule of Funding Progress

Taking into account only the dollar amounts of aggregate actuarial accrued liabilities and Unfunded Actuarial Accrued Liabilities (UAAL) can be misleading. The dollar amounts of these two items can be increasing at a time when their actual substance may be decreasing. Dividing valuation asset dollars by aggregate actuarial accrued liability dollars and dividing UAAL dollars by active member payroll dollars provide clarifying indices. The larger the ratio of

valuation assets to aggregate actuarial accrued liabilities, the stronger the system. Observation of these relative indices over a period of years will give an indication of whether the System is becoming stronger or weaker.

Table 11 | Schedule of Funding Progress (Dollars in Millions)*

Valuation as of August 31	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) (3)-(2)	Funded Ratio Assets as a % of AAL (2)/(3)	Projected Payroll	UAAL as a % of Covered Payroll (4)/(6)
[1]	[2]	[3]	[4]	[5]	[6]	[7]
2008	\$ 110,233	\$ 121,757	\$ 11,523	90.5%	\$ 33,238	34.7%
2009	106,384	128,029	21,645	83.1	35,097	61.7
2010	111,293	134,191	22,899	82.9	36,629	62.5
2011	115,253	139,315	24,062	82.7	36,797	65.4
2012	118,326	144,427	26,101	81.9	36,310	71.9
2013	121,730	150,666	28,936	80.8	37,104	78.0
2014	128,398	160,036	31,638	80.2	38,522	82.1
2015	133,485	166,453	32,968	80.2	39,620	83.2
2016	138,786	174,239	35,453	79.7	42,229	84.0
2017	146,282	181,753	35,471	80.5	43,164	82.2

The 10-year Schedule of Actuarially Determined Contributions is located in the Required Supplementary Information section.

TRS-Care Actuarial Information

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	Funding Objective and Funding Policy	132
Table 1	Retirees and Beneficiaries Added to and Removed from Rolls	130



November 16, 2018

Board of Trustees
Teacher Retirement System of Texas
1000 Red River Street
Austin, TX 78701-2698

Subject: Actuary's Certification of the GASB Statement No. 74 Actuarial Valuation as of August 31, 2018 for TRS-Care

Submitted in this report are the results of an Actuarial Valuation of the liabilities associated with the employer financed retiree health benefits provided through TRS-Care, a benefit program designed to provide post-retirement medical benefits for certain members of the Teacher Retirement System of Texas (TRS). The date of the valuation was August 31, 2017. Update procedures were used to roll forward the total OPEB liability to August 31, 2018. This report was prepared at the request of TRS.

The actuarial calculations were prepared for purposes of complying with the requirements of Statement No. 74 of the Governmental Accounting Standards Board (GASB). The calculations reported herein have been made on a basis consistent with our understanding of this accounting standard. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the financial reporting requirements of TRS-Care and participating employers may produce significantly different results. Actuarial valuations of the post-retirement benefits are performed annually.

The valuation was based upon information, furnished by TRS, concerning retiree health benefits, members' census, and financial data. Data was checked for internal consistency but was not otherwise audited. Certain demographic and economic assumptions were updated as a result of the 2017 Experience Study conducted for TRS. Assumptions applicable only to TRS-Care have also changed since the prior report, and they are disclosed in the assumptions section of this report.

The following CAFR schedules were prepared by GRS and can be found in Sections D and E of this report:

1. Key actuarial assumptions and methods
2. Analysis of Financial Experience
3. Schedule of Retirants and Beneficiaries Added and Removed from Rolls

GRS is not responsible for any trend data schedules not found in this report.

Board of Trustees
Teacher Retirement System of Texas
November 16, 2018
Page 2

The current objective is to fund the Trust in order to maintain benefits through individual biennial periods. There is no arrangement into which the participating employers would make contributions to advance-fund the obligation. However, a Trust does exist into which participating employers are making contributions based on the current funding policy.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

To the best of our knowledge, this report is complete and accurate. The assumptions and methods used for financial reporting purposes are in accordance with generally accepted actuarial principles set by the Actuarial Standards of Practice (ASOPs). Joseph Newton and Mehdi Riazi are members of the American Academy of Actuaries and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein. The signing individuals are independent of the plan sponsor.

Respectfully submitted,



Joseph P. Newton, FSA, EA, MAAA



Mehdi Riazi, FSA, EA, MAAA



Actuarial Disclosure

The Actuarial Section is based on a valuation as of August 31, 2017.

Funding Objective and Funding Policy

The current funding objective for the TRS-Care OPEB Trust fund is to provide sufficient funding through individual biennial legislative periods. There is no arrangement where the participating employers would make contributions to advance-fund the obligation. However, participating employers and the State are making contributions based on the current funding policy, which is a pay-as-you-go system.

The actuarial valuation of TRS-Care is prepared by Gabriel, Roeder, Smith & Company. The valuation was based on information provided by TRS concerning retiree health benefits, member census and financial data. While not auditing the data, the actuary checks for internal consistency.

The actuarial calculations were prepared for purposes of complying with the requirements of GASB Statement No. 74 for financial reporting purposes only. The calculation of the plan’s liability is not applicable for funding purposes of the plan. A calculation of the Plan’s liability for purposes other than satisfying the requirements of GASB Statement No. 74 may produce significantly different results.

The TRS-Care OPEB plan is discussed in detail in Note 9 and provides the following information:

- Plan provisions
- Identification of the Plan type
- Party responsible for establishing and maintaining the funding policy

Table 1 Retirees and Beneficiaries Added to and Removed from Rolls

Valuation as of August 31	Added to Rolls		Removed from Rolls		Rolls - End of Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances *		
2009	12,158	\$ 54,271,769	8,192	\$19,365,868	202,934	\$ 694,017,558	14.5%	\$3,420
2010	14,996	71,136,696	7,924	21,837,784	210,006	757,979,912	9.2	3,609
2011	20,467	109,331,023	8,019	24,802,618	222,454	898,001,599	18.5	4,037
2012	19,407	92,279,848	8,220	28,700,248	233,641	768,682,199	(14.4)	3,290
2013	19,798	98,603,255	10,176	25,946,471	243,263	824,715,257	7.3	3,390
2014	18,916	97,956,524	10,656	27,648,497	251,523	933,885,969	13.2	3,713
2015	19,171	106,177,651	11,116	31,400,277	259,578	1,050,329,854	12.5	4,046
2016	20,883	120,035,127	12,250	48,462,388	268,211	1,132,169,358	7.8	4,221
2017	19,121	105,535,109	13,113	59,695,737	274,219	986,039,302	(12.9)	3,596

* Expected employer provided claims and expenses (net of retiree premiums). Annual allowances include increases due to health care inflation and the impact of plan changes. As a result, the annual allowances are not equal to the beginning of year allowances plus the Added to Rolls allowances minus the Removed from Rolls allowances.

Note: The total OPEB liability as of August 31, 2018 was based on a roll forward of the August 31, 2017 valuation. As a result, the table above has not been updated for the year ending August 31, 2018. However, the roll-forward valuation excluded 32,439 of the

274,219 retirees and beneficiaries as of August 31, 2017, because they were known to have discontinued their health care coverage, for reasons other than death, during 2018.



The Faces of TRS

2019 Texas Secondary School
Teacher of the Year Finalist
Karyn Ard



Karyn's Snapshot

Position: Secondary School
Science Teacher

Years Teaching: 22

Goals: Karyn believes that teaching science by doing, not memorizing, is key to development. Her goal is to create lifelong learners and inspire students to chase their dreams, never settle, and to never stop learning.

Message: *As teachers, we know that education is the foundation for everything in life. Some of the most important things we can impart to our students are learning how to learn, and having a desire for knowledge. For public school teachers, our passion is to make our students more than good science, history, math or English students. We want them to find a passion and follow it.*

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Statistical Section Overview

The Statistical Section presents additional information to provide financial statement users with added historical perspective, context, and detail to assist in using the information in the Basic Financial Statements, Notes to the Financial Statements, and Required Supplementary Information to understand and assess the System's financial condition. Information is presented for the Pension Trust Fund, TRS-Care, TRS-ActiveCare, and the 403(b) Administrative Program.

Financial Trends Information

The financial trend schedules assist users in understanding and assessing how the System's financial position has changed over time and include:

Changes in Fiduciary Net Position - Pension Trust Fund	136
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Revenues, Expenses, and Changes in Net Position - TRS-ActiveCare	140
Revenues, Expenses, and Changes in Net Position - 403(b) Administrative Program	142
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Benefit Deductions from Net Position by Type - TRS-Care	144
Benefit Deductions from Net Position by Type - TRS-ActiveCare	144

Operating Information

The operating information schedules provide information containing contextual data about the System's benefit operations, resources, and the benefit services it provides and include:

Average Benefit Payments - Pension Trust Fund	146
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In addition, a complete list of participating employers has been included. The information was derived from internal sources.

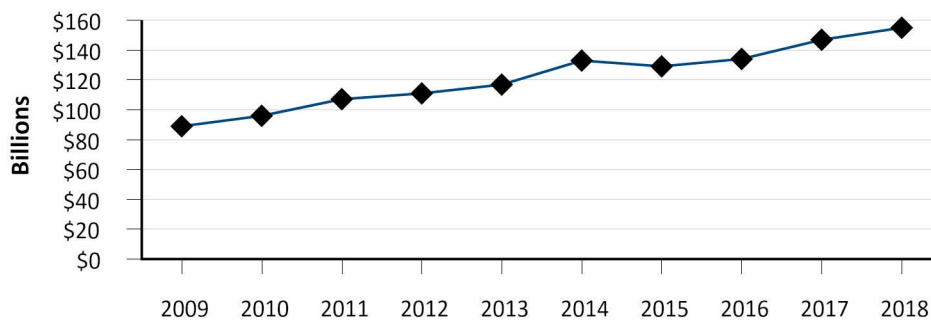
**Changes in Fiduciary Net Position
Pension Trust Fund**
For the Fiscal Years Ended August 31

	2018	2017	2016	2015
Additions				
Member Contributions	\$ 3,360,773,197	\$ 3,242,556,261	\$ 2,943,669,320	\$ 2,576,024,311
Non-Employer Contributing Entity Contributions	1,715,784,550	1,697,962,608	1,675,631,248	1,591,482,988
Employer Contributions*	1,671,257,303	1,588,309,345	1,483,389,348	1,377,972,653
Purchase of Service Credit	41,538,371	55,092,741	37,389,534	50,089,106
Contributions from ERS*	27,670,302	24,974,328	23,950,878	21,205,594
Net Investment Income	11,242,813,657	17,079,807,347	9,193,280,560	(412,759,100)
Other*	8,108,248	1,299,284	1,993,029	3,733,133
Total Additions	\$ 18,067,945,628	\$ 23,690,001,914	\$ 15,359,303,917	\$ 5,207,748,685
Deductions				
Benefits**	\$ 10,176,447,093	\$ 9,778,497,039	\$ 9,382,696,876	\$ 8,937,328,045
Refunds of Contributions	422,335,740	420,421,056	373,418,687	391,341,181
Service Contributions Transferred to ERS	97,333,401	93,609,174	88,854,383	84,059,353
Other Post-Employment Benefit Expense	4,380,304	—	—	—
Administrative Expenses, Excluding Investing Activity Expenses	64,926,169	44,189,998	44,402,710	35,556,979
Total Deductions	\$ 10,765,422,707	\$ 10,336,717,267	\$ 9,889,372,656	\$ 9,448,285,558
Net Increase (Decrease)	\$ 7,302,522,921	\$ 13,353,284,647	\$ 5,469,931,261	\$ (4,240,536,873)
Beginning Net Position	\$ 147,361,922,120	\$ 134,008,637,473	\$ 128,538,706,212	\$ 132,779,243,085
Prior Period Adjustment - See Note 14	(95,543,208)	—	—	—
Beginning Net Position, as Restated	\$ 147,266,378,912	\$ 134,008,637,473	\$ 128,538,706,212	\$ 132,779,243,085
Ending Net Position	\$ 154,568,901,833	\$ 147,361,922,120	\$ 134,008,637,473	\$ 128,538,706,212

*Changes in Additions Section include (1) combining Participating Employer Contributions, State Contributions as the Employer for Higher Ed, and Employer Surcharges as Employer Contributions, (2) including 415 Excess Benefit Arrangement and Service Contributions Transferred in from ERS as Contributions from ERS, and (3) reclassification of Employer Surcharges to Employer Contributions.

**Excess Benefits now included in Benefits.

**Pension Trust Fund
Net Position
Last Ten Years**



(Continued)

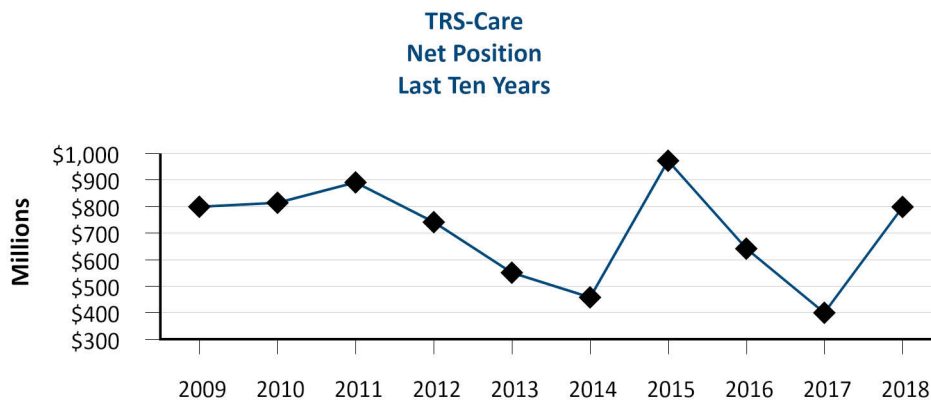
2014	2013	2012	2011	2010	2009
\$ 2,357,686,000	\$ 2,252,094,934	\$ 2,188,020,423	\$ 2,243,954,725	\$ 2,205,017,425	\$ 2,107,057,870
1,530,623,829	1,337,214,693	1,299,077,635	1,484,285,519	1,461,034,870	1,378,304,342
984,552,391	925,693,992	760,837,633	856,219,491	835,605,159	791,450,182
143,534,091	148,400,880	125,971,764	105,177,104	84,519,762	74,542,413
19,714,145	18,885,872	17,423,597	14,379,300	12,672,282	11,112,308
19,434,430,034	9,834,136,005	7,847,298,290	14,636,935,228	9,411,446,873	(13,971,868,722)
4,143,449	2,629,383	1,867,389	1,576,613	788,787	3,899
\$ 24,474,683,939	\$ 14,519,055,759	\$ 12,240,496,731	\$ 19,342,527,980	\$ 14,011,085,158	\$ (9,609,397,708)
\$ 8,550,916,357	\$ 8,077,729,314	\$ 7,726,105,535	\$ 7,175,255,376	\$ 6,618,901,884	\$ 6,295,987,496
410,600,319	391,292,412	381,231,352	334,268,822	265,186,589	266,695,076
80,163,847	75,513,146	70,985,963	64,772,079	61,570,750	57,135,135
—	—	—	—	—	—
41,904,190	36,264,062	33,073,740	35,849,819	29,992,608	28,310,448
\$ 9,083,584,713	\$ 8,580,798,934	\$ 8,211,396,590	\$ 7,610,146,096	\$ 6,975,651,831	\$ 6,648,128,155
\$ 15,391,099,226	\$ 5,938,256,825	\$ 4,029,100,141	\$ 11,732,381,884	\$ 7,035,433,327	\$ (16,257,525,863)
\$ 117,388,143,859	\$ 111,449,887,034	\$ 107,420,786,893	\$ 95,688,405,009	\$ 88,652,971,682	\$ 104,910,497,545
—	—	—	—	—	—
\$ 117,388,143,859	\$ 111,449,887,034	\$ 107,420,786,893	\$ 95,688,405,009	\$ 88,652,971,682	\$ 104,910,497,545
\$ 132,779,243,085	\$ 117,388,143,859	\$ 111,449,887,034	\$ 107,420,786,893	\$ 95,688,405,009	\$ 88,652,971,682

Changes in Fiduciary Net Position
TRS-Care

For the Fiscal Years Ended August 31

	2018	2017	2016	2015
Additions				
Member Contributions	\$ 221,325,377	\$ 213,241,179	\$ 208,581,990	\$ 198,196,273
Non-Employer Contributing Entity - State Contributions	395,588,628	303,760,632	297,070,920	281,098,358
Employer Contributions	296,098,420	215,360,520	212,936,351	202,976,470
Fringe Benefits Paid by State's General Fund on Behalf of TRS Employees	—	—	—	—
Supplemental Appropriation - Non-Employer Contributing Entity	394,600,000	15,559,552	—	768,100,754
Federal Revenue	103,402,579	101,718,551	124,739,649	126,806,652
Rebate and Discount Income*	284,291,173	291,725,635	218,995,436	231,569,472
Investment Income	10,127,259	4,696,973	5,421,446	1,495,680
Miscellaneous Revenue	803,022	529,020	89,388	—
Total Additions	\$ 1,706,236,458	\$ 1,146,592,062	\$ 1,067,835,180	\$ 1,810,243,659
Deductions				
Health Care Claims	\$ 1,593,381,709	\$ 1,678,892,217	\$ 1,651,712,836	\$ 1,554,181,197
Less: Health Care Premiums Paid by Retirees	(488,069,004)	(404,027,710)	(374,736,269)	(369,066,459)
Health Care Claims Processing and Other	80,585,608	46,931,559	48,361,151	47,380,407
Insurance Premium Payments	83,828,910	61,792,671	69,228,872	59,000,081
Administrative Expenses	6,672,488	4,953,492	4,701,677	3,769,680
Total Deductions	\$ 1,276,399,711	\$ 1,388,542,229	\$ 1,399,268,267	\$ 1,295,264,906
Net Increase (Decrease)	\$ 429,836,747	\$ (241,950,167)	\$ (331,433,087)	\$ 514,978,753
Beginning Net Position	\$ 399,535,986	\$ 641,486,153	\$ 972,919,240	\$ 457,940,487
Prior Period Adjustment - See Note 14	(30,798,100)	—	—	—
Beginning Net Position, as Restated	\$ 368,737,886	\$ —	\$ —	\$ —
Ending Net Position	\$ 798,574,633	\$ 399,535,986	\$ 641,486,153	\$ 972,919,240

*Prior to fiscal year 2013, rebates were offset within health care claims.



(Continued)

	2014	2013	2012	2011	2010	2009
\$	189,003,903	\$ 180,824,523	\$ 176,751,407	\$ 183,808,580	\$ 181,512,856	\$ 173,856,344
	267,497,910	139,095,786	271,925,242	282,782,431	279,250,547	267,471,299
	193,124,772	160,952,396	154,607,926	158,724,010	155,918,241	149,562,613
	139,422	117,770	103,676	108,440	101,511	95,929
	36,058,148	102,363,704	—	—	—	—
	78,589,415	74,511,473	68,633,946	136,887,805	70,795,686	61,530,735
	200,859,859	82,074,803	—	—	—	—
	2,061,745	3,041,001	5,189,934	8,168,640	11,679,229	17,482,143
	—	—	—	—	—	—
\$	967,335,174	\$ 742,981,456	\$ 677,212,131	\$ 770,479,906	\$ 699,258,070	\$ 669,999,063
\$	1,347,532,839	\$ 1,240,508,361	\$ 1,142,131,410	\$ 992,478,380	\$ 971,356,805	\$ 885,132,866
	(363,631,292)	(355,685,504)	(363,348,030)	(345,164,271)	(332,481,933)	(329,723,191)
	45,387,769	43,577,852	44,470,323	44,007,586	42,435,939	40,268,435
	27,507,106	1,148,013	101,060	108,286	99,662	95,627
	3,646,546	3,398,109	3,714,018	3,143,922	3,031,686	2,916,259
\$	1,060,442,968	\$ 932,946,831	\$ 827,068,781	\$ 694,573,903	\$ 684,442,159	\$ 598,689,996
\$	(93,107,794)	\$ (189,965,375)	\$ (149,856,650)	\$ 75,906,003	\$ 14,815,911	\$ 71,309,067
\$	551,048,281	\$ 741,013,656	\$ 890,870,306	\$ 814,964,303	\$ 800,148,392	\$ 728,839,325
	—	—	—	—	—	—
\$	—	\$ —	\$ —	\$ —	\$ —	\$ —
\$	457,940,487	\$ 551,048,281	\$ 741,013,656	\$ 890,870,306	\$ 814,964,303	\$ 800,148,392

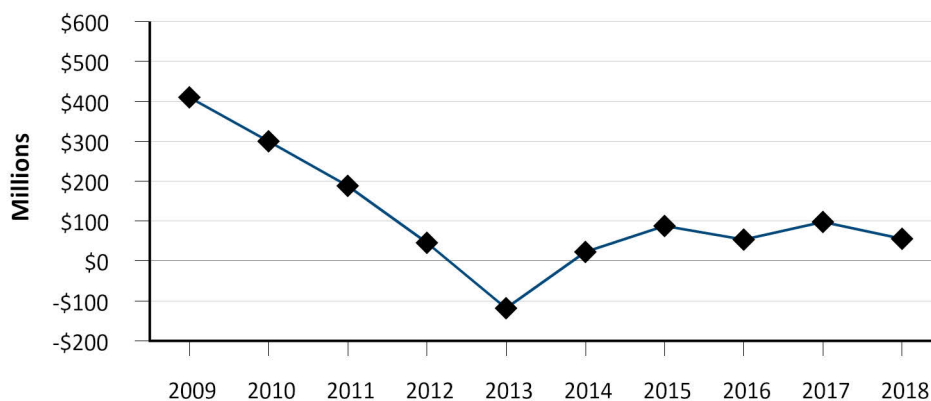
Revenues, Expenses, and Changes in Net Position

TRS-ActiveCare

For the Fiscal Years Ended August 31

	2018	2017	2016	2015
Revenues				
Health Care Premiums	\$2,171,125,097	\$2,119,959,039	\$2,055,658,822	\$1,938,621,262
COBRA Premiums and Other	144,543,929	120,049,492	17,904,885	5,328,003
Administrative Fees and Miscellaneous Revenue	259,417	321,030	356,054	236,749
Investment Income	6,883,872	4,668,888	3,079,039	1,537,408
Federal Revenue ARRA-COBRA Reimbursements				
Fringe Benefits Paid by State's General Fund on Behalf of TRS Employees				
Total Revenues	\$2,322,812,315	\$2,244,998,449	\$2,076,998,800	\$1,945,723,422
Expenses				
Health Care Claims	\$2,002,142,744	\$1,846,526,430	\$1,768,287,120	\$1,565,255,957
Health Care Claims Processing and Other	121,483,408	123,783,747	125,802,110	135,073,416
Premium Payments to HMOs	237,386,929	227,088,895	214,529,160	178,192,468
Administrative Expenses	3,311,679	3,345,442	2,644,792	2,225,417
Total Expenses	\$2,364,324,760	\$2,200,744,514	\$2,111,263,182	\$1,880,747,258
Net Increase (Decrease)	\$ (41,512,445)	\$ 44,253,935	\$ (34,264,382)	\$ 64,976,164
Beginning Net Position	\$ 97,804,829	\$ 53,550,894	\$ 87,815,276	\$ 22,839,112
Ending Net Position	\$ 56,292,384	\$ 97,804,829	\$ 53,550,894	\$ 87,815,276

**TRS-ActiveCare
Net Position
Last Ten Years**



(Continued)

2014	2013	2012	2011	2010	2009
\$ 1,919,557,855	\$ 1,797,745,785	\$ 1,738,705,410	\$ 1,540,604,828	\$ 1,322,426,709	\$ 1,164,113,369
9,337,610	10,775,898	11,199,707	8,926,063	6,744,702	7,897,679
139,608	137,630	136,324	135,917	125,321	187,813
940,022	746,936	1,697,553	3,387,062	6,421,269	11,597,992
		29,706	667,746	1,225,158	170,219
79,792	75,664	72,094	67,373	64,328	64,975
\$ 1,930,054,887	\$ 1,809,481,913	\$ 1,751,840,794	\$ 1,553,788,989	\$ 1,337,007,487	\$ 1,184,032,047
\$ 1,521,834,989	\$ 1,785,069,768	\$ 1,718,903,645	\$ 1,510,090,981	\$ 1,313,114,197	\$ 1,122,646,958
109,925,954	84,903,101	83,346,223	76,960,951	67,906,654	60,934,432
154,913,859	100,905,702	89,706,406	76,270,706	64,532,253	64,820,440
2,569,850	2,351,802	2,176,610	2,207,051	1,883,148	1,861,949
\$ 1,789,244,652	\$ 1,973,230,373	\$ 1,894,132,884	\$ 1,665,529,689	\$ 1,447,436,252	\$ 1,250,263,779
\$ 140,810,235	\$ (163,748,460)	\$ (142,292,090)	\$ (111,740,700)	\$ (110,428,765)	\$ (66,231,732)
\$ (117,971,123)	\$ 45,777,337	\$ 188,069,427	\$ 299,810,127	\$ 410,238,892	\$ 476,470,624
\$ 22,839,112	\$ (117,971,123)	\$ 45,777,337	\$ 188,069,427	\$ 299,810,127	\$ 410,238,892

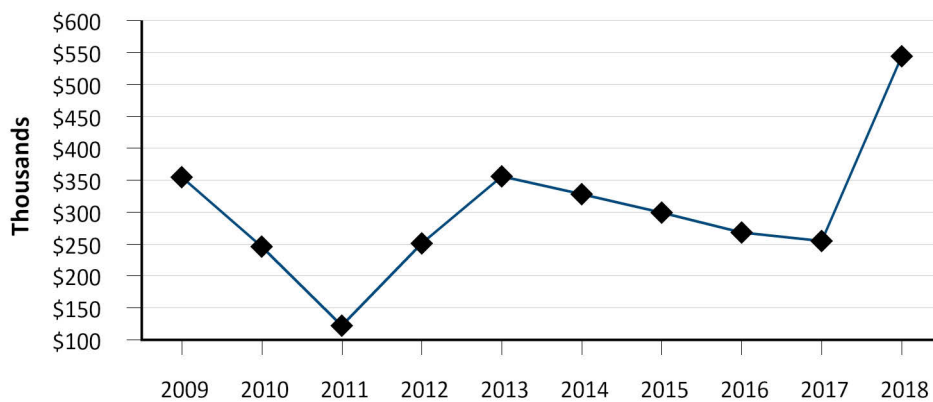
Revenues, Expenses, and Changes in Net Position

403(b) Administrative Program

For the Fiscal Years Ended August 31

	2018	2017	2016	2015
Revenues				
Certification Fees	\$ 44,000	\$ 135,000	\$ 12,000	\$ 27,000
Product Registration Fees	369,000	33,000	3,000	21,000
Investment Income	8,601	2,784	2,122	1,360
Fringe Benefits Paid by State's General Fund on Behalf of TRS Employees				
Total Revenues	\$ 421,601	\$ 170,784	\$ 17,122	\$ 49,360
Expenses				
Administrative Expenses	\$ 132,031	\$ 183,745	\$ 48,638	\$ 78,446
Total Expenses	\$ 132,031	\$ 183,745	\$ 48,638	\$ 78,446
Net Increase (Decrease)	\$ 289,570	\$ (12,961)	\$ (31,516)	\$ (29,086)
Beginning Net Position	\$ 254,593	\$ 267,554	\$ 299,070	\$ 328,156
Ending Net Position	\$ 544,163	\$ 254,593	\$ 267,554	\$ 299,070

**403(b) Administrative Program
Net Position
Last Ten Years**



(Continued)

	2014	2013	2012	2011	2010	2009
\$	15,000	\$ 60,000	\$ 114,000	\$ 12,000	\$ 30,000	\$ 6,000
	15,000	81,000	63,000	3,000	21,000	9,000
	1,324	1,333	707	1,801	4,318	8,558
	3,131	2,890	2,772	7,898	8,034	—
\$	34,455	\$ 145,223	\$ 180,479	\$ 24,699	\$ 63,352	\$ 23,558
\$	62,636	\$ 40,194	\$ 51,203	\$ 148,444	\$ 172,835	\$ 88,000
\$	62,636	\$ 40,194	\$ 51,203	\$ 148,444	\$ 172,835	\$ 88,000
\$	(28,181)	\$ 105,029	\$ 129,276	(123,745)	(109,483)	(64,442)
\$	356,337	\$ 251,308	\$ 122,032	\$ 245,777	\$ 355,260	\$ 419,702
\$	328,156	\$ 356,337	\$ 251,308	\$ 122,032	\$ 245,777	\$ 355,260

Benefit and Refund Deductions from Net Position by Type Pension Trust Fund

For the Fiscal Years Ended August 31

	2018	2017	2016	2015
Benefits				
Service Retirements*	\$ 9,495,487,665	\$ 9,059,855,790	\$ 8,633,505,859	\$ 8,215,765,876
Deferred Retirement Option	3,407,936	5,231,060	5,166,851	9,643,121
Partial Lump Sum Option	234,071,031	263,705,342	300,420,702	288,923,266
Disability Retirements	181,817,426	177,627,306	173,464,936	169,318,064
Death and Survivor Benefits:				
Annual Salary	35,735,208	44,398,830	44,952,730	39,574,595
Survivor Annuities	106,201,977	109,519,771	108,509,074	100,150,048
Life Annuities	94,809,551	93,714,871	92,087,967	90,563,081
60 Monthly Payments	16,184,228	15,518,472	15,523,059	14,443,193
Remainder of Contributions	5,281,986	6,204,030	5,491,553	6,730,215
Total Benefits	\$ 10,172,997,008	\$ 9,775,775,472	\$ 9,379,122,731	\$ 8,935,111,459
Refunds				
Death	\$ 5,574,637	6,371,748	7,379,576	5,474,475
Separation	416,761,103	414,049,308	366,039,111	385,866,706
Total Refunds	\$ 422,335,740	\$ 420,421,056	\$ 373,418,687	\$ 391,341,181

*For fiscal years 2010 and prior, service retirements changed due to the reclassification of transfers of service contributions with Employees Retirement System of Texas.

Benefit Deductions from Net Position by Type TRS-Care

For the Fiscal Years Ended August 31

	2018	2017	2016	2015
Claims				
Medical Claims and Insurance Premiums	\$ 840,420,584	\$ 807,831,048	\$ 858,985,138	\$ 805,668,819
Prescription Drugs**	669,082,905	734,805,874	716,536,786	649,457,501
Total Claims	\$ 1,509,503,489	\$ 1,542,636,922	\$ 1,575,521,924	\$ 1,455,126,320

** Note: For TRS-Care, 2013 and 2014 prescription claim amounts have been revised to reflect claims net of rebates. These two years were reported gross of rebates.

Benefit Deductions from Net Position by Type TRS-ActiveCare

For the Fiscal Years Ended August 31

	2018	2017	2016	2015
Claims				
Medical Claims and Insurance Premiums	\$ 1,826,632,040	\$ 1,653,483,496	\$ 1,644,795,868	\$ 1,479,302,696
Prescription Drugs	275,730,514	306,703,364	325,475,512	264,145,729
Total Claims	\$ 2,102,362,554	\$ 1,960,186,860	\$ 1,970,271,380	\$ 1,743,448,425

(Continued)

2014	2013	2012	2011	2010	2009
\$ 7,795,690,586	\$ 7,251,369,740	\$ 6,808,592,209	\$ 6,241,946,655	\$ 5,841,963,927	\$ 5,565,925,090
14,974,505	17,223,523	22,361,937	27,822,115	22,607,290	23,272,668
322,033,388	410,323,790	501,152,157	524,925,790	385,555,126	348,261,100
164,299,506	156,308,471	150,238,202	144,865,109	141,396,837	138,569,650
44,846,010	41,219,707	46,859,444	47,295,194	45,698,147	43,235,232
97,822,817	94,563,001	92,126,049	86,898,720	82,574,358	79,951,723
89,547,742	87,044,328	85,816,402	84,893,007	83,238,898	81,764,240
13,415,885	12,659,471	11,816,313	11,564,275	10,824,948	10,180,012
6,012,086	4,496,453	4,659,453	3,293,923	3,537,843	3,274,400
\$ 8,548,642,525	\$ 8,075,208,484	\$ 7,723,622,166	\$ 7,173,504,788	\$ 6,617,397,374	\$ 6,294,434,115
\$ 5,455,829	\$ 4,705,228	\$ 5,294,006	\$ 3,984,340	\$ 3,710,941	\$ 3,084,718
405,144,490	386,587,184	375,937,346	330,284,482	261,475,648	263,610,358
\$ 410,600,319	\$ 391,292,412	\$ 381,231,352	\$ 334,268,822	\$ 265,186,589	\$ 266,695,076

(Continued)

2014	2013	2012	2011	2010	2009
\$ 691,283,731	\$ 687,469,016	\$ 687,987,585	\$ 608,461,321	\$ 575,539,788	\$ 531,239,020
539,842,962	496,229,923	454,143,825	384,017,059	395,817,017	353,893,845
\$ 1,231,126,693	\$ 1,183,698,939	\$ 1,142,131,410	\$ 992,478,380	\$ 971,356,805	\$ 885,132,865

(Continued)

2014	2013	2012	2011	2010	2009
\$ 1,397,249,236	\$ 1,613,167,792	\$ 1,450,574,875	\$ 1,242,673,156	\$ 1,092,107,916	\$ 934,733,927
279,499,612	272,807,678	268,328,770	267,417,825	221,006,281	187,913,031
\$ 1,676,748,848	\$ 1,885,975,470	\$ 1,718,903,645	\$ 1,510,090,981	\$ 1,313,114,197	\$ 1,122,646,958

Average Benefit Payments
Pension Trust Fund
 Last Ten Fiscal Years

Retirements Effective	Years of Credited Service					
	5-10	11-15	16-20	21-25	26-30	30+
2018						
Average Monthly Benefit*	\$ 469	\$ 899	\$ 1,419	\$ 2,116	\$ 3,000	\$ 4,152
Average Final Average Salary	\$ 36,164	\$ 42,479	\$ 45,958	\$ 51,449	\$ 59,632	\$ 69,172
Number of Retirees	1,676	2,013	2,806	3,494	3,526	3,346
2017						
Average Monthly Benefit*	\$ 447	\$ 866	\$ 1,409	\$ 2,077	\$ 2,958	\$ 4,050
Average Final Average Salary	\$ 34,642	\$ 41,507	\$ 45,941	\$ 50,617	\$ 58,755	\$ 67,598
Number of Retirees	2,212	2,453	3,525	4,331	4,568	4,632
2016						
Average Monthly Benefit*	\$ 444	\$ 837	\$ 1,348	\$ 2,049	\$ 2,894	\$ 4,051
Average Final Average Salary	\$ 33,907	\$ 40,412	\$ 44,703	\$ 50,290	\$ 57,750	\$ 67,429
Number of Retirees	2,184	2,279	3,195	4,300	4,290	4,668
2015						
Average Monthly Benefit*	\$ 424	\$ 824	\$ 1,345	\$ 2,008	\$ 2,851	\$ 3,991
Average Final Average Salary	\$ 33,580	\$ 40,064	\$ 44,613	\$ 49,606	\$ 56,892	\$ 66,598
Number of Retirees	2,274	2,234	3,101	4,131	4,392	4,413
2014						
Average Monthly Benefit*	\$ 413	\$ 800	\$ 1,326	\$ 1,963	\$ 2,847	\$ 3,876
Average Final Average Salary	\$ 32,906	\$ 39,263	\$ 43,888	\$ 49,222	\$ 56,835	\$ 65,447
Number of Retirees	2,291	2,285	3,083	4,252	4,429	4,197
2013						
Average Monthly Benefit*	\$ 389	\$ 742	\$ 1,290	\$ 1,938	\$ 2,799	\$ 3,865
Average Final Average Salary	\$ 31,582	\$ 37,078	\$ 43,054	\$ 49,217	\$ 56,455	\$ 65,472
Number of Retirees	2,234	2,380	3,068	4,388	4,676	4,952
2012						
Average Monthly Benefit*	\$ 389	\$ 727	\$ 1,306	\$ 1,924	\$ 2,784	\$ 3,864
Average Final Average Salary	\$ 32,113	\$ 36,522	\$ 43,164	\$ 49,383	\$ 56,755	\$ 66,323
Number of Retirees	2,138	2,226	2,853	4,257	4,372	5,208
2011						
Average Monthly Benefit*	\$ 389	\$ 711	\$ 1,268	\$ 1,871	\$ 2,670	\$ 3,776
Average Final Average Salary	\$ 32,134	\$ 35,562	\$ 42,122	\$ 48,196	\$ 55,191	\$ 64,951
Number of Retirees	2,092	2,045	2,873	4,545	4,983	6,394
2010						
Average Monthly Benefit*	\$ 364	\$ 672	\$ 1,228	\$ 1,842	\$ 2,642	\$ 3,742
Average Final Average Salary	\$ 30,279	\$ 34,356	\$ 40,459	\$ 47,312	\$ 55,184	\$ 64,260
Number of Retirees	1,675	1,603	2,235	3,517	3,825	4,187
2009						
Average Monthly Benefit*	\$ 352	\$ 659	\$ 1,221	\$ 1,775	\$ 2,615	\$ 3,641
Average Final Average Salary	\$ 29,747	\$ 33,093	\$ 40,368	\$ 45,670	\$ 54,752	\$ 63,080
Number of Retirees	1,462	1,377	1,918	2,878	3,361	3,229

* Average monthly benefits have been reduced for Partial Lump Sum Option payments of \$348.3, \$385.6, \$524.9, \$501.2, \$410.3, \$322.0, \$288.9, \$300.4, \$263.7, and \$234.1 million in fiscal years 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, and 2018 respectively.

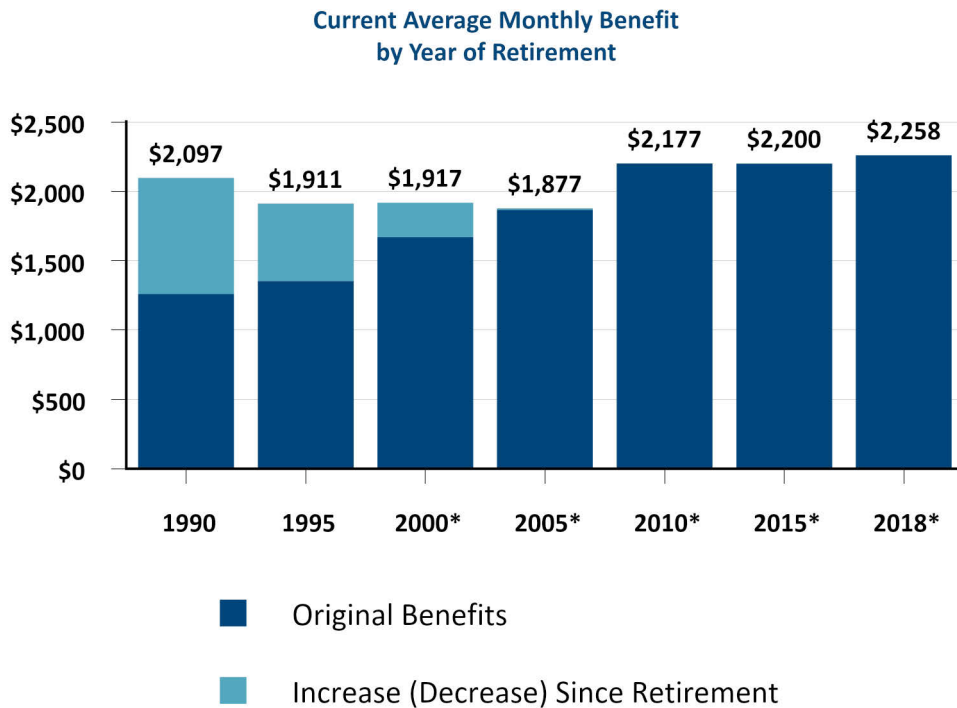
Average Monthly Benefits

Pension Trust Fund

For the Fiscal Years Ended August 31

	1990	1995	2000*	2005*	2010*	2015*	2018*
Benefits							
Original Benefits	\$ 1,258	\$ 1,354	\$ 1,670	\$ 1,868	\$ 2,201	\$ 2,199	\$ 2,259
Increase (Decrease) Since Retirement	839	557	247	9	(24)	1	(1)
Current Benefits	\$ 2,097	\$ 1,911	\$ 1,917	\$ 1,877	\$ 2,177	\$ 2,200	\$ 2,258
Number of Retirees**	2,904	4,832	9,660	10,068	15,895	20,320	17,039

The following graph of service retiree accounts as of August 31, 2018 reflects benefit increases and decreases since retirement.



*Before the Partial Lump Sum Option adjustment, average original benefits were \$1,808, \$2,041, \$2,379, \$2,309, and \$2,351 for fiscal years 2000, 2005, 2010, 2015, and 2018, respectively.

** For each of the retirement years shown, number of service retirees currently receiving benefits.

Average Benefit Payments

TRS-Care

Last Ten Fiscal Years

2018		
Average Benefit Per Participant	\$	6,074
Benefit Payments	\$	1,509,503,489
Average Participants		248,515
2017		
Average Benefit Per Participant	\$	5,755
Benefit Payments	\$	1,542,636,922
Average Participants		268,066
2016		
Average Benefit Per Participant	\$	6,062
Benefit Payments	\$	1,575,521,924
Average Participants		259,889
2015		
Average Benefit Per Participant	\$	5,780
Benefit Payments	\$	1,455,126,320
Average Participants		251,758
2014		
Average Benefit Per Participant	\$	5,059
Benefit Payments	\$	1,231,126,693
Average Participants		243,336
2013		
Average Benefit Per Participant	\$	5,053
Benefit Payments	\$	1,183,698,939
Average Participants		234,277
2012		
Average Benefit Per Participant	\$	5,115
Benefit Payments	\$	1,142,131,410
Average Participants		223,287
2011		
Average Benefit Per Participant	\$	4,718
Benefit Payments	\$	992,478,380
Average Participants		210,353
2010		
Average Benefit Per Participant	\$	4,790
Benefit Payments	\$	971,356,805
Average Participants		202,778
2009		
Average Benefit Per Participant	\$	4,464
Benefit Payments	\$	885,132,865
Average Participants		198,282

Average Benefit Payments

TRS-ActiveCare

Last Ten Fiscal Years

2018		
Average Benefit Per Participant	\$	4,267
Benefit Payments	\$	2,102,362,554
Average Participants		492,746
2017		
Average Benefit Per Participant	\$	3,932
Benefit Payments	\$	1,960,186,861
Average Participants		498,462
2016		
Average Benefit Per Participant	\$	4,053
Benefit Payments	\$	1,970,271,380
Average Participants		486,139
2015		
Average Benefit Per Participant	\$	3,607
Benefit Payments	\$	1,743,448,426
Average Participants		483,299
2014		
Average Benefit Per Participant	\$	3,603
Benefit Payments	\$	1,676,748,847
Average Participants		465,330
2013		
Average Benefit Per Participant	\$	3,966
Benefit Payments	\$	1,885,975,470
Average Participants		475,508
2012		
Average Benefit Per Participant	\$	3,868
Benefit Payments	\$	1,718,903,645
Average Participants		444,382
2011		
Average Benefit Per Participant	\$	3,662
Benefit Payments	\$	1,510,090,981
Average Participants		412,385
2010		
Average Benefit Per Participant	\$	3,509
Benefit Payments	\$	1,313,114,197
Average Participants		374,201
2009		
Average Benefit Per Participant	\$	3,324
Benefit Payments	\$	1,122,646,958
Average Participants		337,781

**Retired Members by Type of Benefit
Pension Trust Fund**

For the Fiscal Year Ended August 31, 2018

Amount of Monthly Benefit	Number of Retired Members	Type of Retirement*						
		1	2	3	4	5	6	7
\$ 1-200	14,954	5,946	6,978	231	1,692	53	40	14
201-400	41,849	11,491	12,248	652	2,784	939	1,080	12,655
401-600	26,567	13,337	8,758	1,319	2,588	374	191	
601-800	24,354	14,735	5,556	1,310	2,100	437	216	
801-1,000	23,604	16,022	3,919	1,188	1,880	421	174	
1,001-1,200	21,399	15,612	2,684	939	1,688	343	133	
1,201-1,400	18,297	13,462	2,066	761	1,641	261	106	
1,401-1,600	18,397	13,574	2,242	691	1,538	276	76	
1,601-1,800	18,532	14,090	2,196	589	1,352	235	70	
1,801-2,000	19,494	15,740	1,839	520	1,128	228	39	
2,001-3,000	98,494	86,020	5,491	1,361	4,653	892	77	
3,001-4,000	59,636	55,643	1,128	200	2,248	408	9	
4,001-5,000	22,219	21,016	240	29	781	148	5	
Over 5,000	12,662	12,015	102	5	451	88	1	
Totals	420,458	308,703	55,447	9,795	26,524	5,103	2,217	12,669

***Type of Retirement**

1 Normal Retirement of Age and Service	5 Survivor Payment, Death in Service
2 Early Retirement	6 Survivor Payment, After Disability Retirement
3 Disability Retirement	7 Survivor Payment, After Service Retirement
4 Survivor Payment, Joint Life or Guarantee	

Amount of Monthly Benefit	Number of Retired Members	Option Selected**					
		1	2	3	4	5	6
\$ 1-200	14,954	6,522	5,200	1,527	561	1,096	48
201-400	41,849	12,154	8,962	2,990	1,264	2,175	14,304
401-600	26,567	11,925	8,116	3,375	1,268	1,883	
601-800	24,354	10,699	7,384	3,625	1,187	1,459	
801-1,000	23,604	10,486	6,987	3,713	1,171	1,247	
1,001-1,200	21,399	8,933	6,694	3,603	984	1,185	
1,201-1,400	18,297	7,182	6,106	3,313	784	912	
1,401-1,600	18,397	7,097	6,269	3,301	790	940	
1,601-1,800	18,532	7,098	6,321	3,434	724	955	
1,801-2,000	19,494	7,372	6,815	3,605	716	986	
2,001-3,000	98,494	35,561	36,065	18,581	3,346	4,941	
3,001-4,000	59,636	22,103	20,918	11,917	1,880	2,818	
4,001-5,000	22,219	8,582	7,296	4,871	620	850	
Over 5,000	12,662	4,599	4,487	2,857	295	424	
Total	420,458	160,313	137,620	70,712	15,590	21,871	14,352

****Option Selected**

Option 1 - Life Annuity	Option 4 - 5-year Guarantee
Option 2 - Joint to Survivor	Option 5 - 10-year Guarantee
Option 3 - Joint to Survivor 50% / Joint to Survivor 75%	Option 6 - Survivor Benefit

Health Benefit Payments by Range

TRS-Care

For the Fiscal Year Ended August 31, 2018

Benefit Range	Average Participants
\$ 0	16,224
1 - 5,000	180,689
5,001 - 10,000	25,597
10,001 - 20,000	13,060
20,001 - 30,000	3,757
30,001 - 40,000	2,173
40,001 - 50,000	1,483
50,001 - 100,000	3,353
Over 100,000	2,179
Total	248,515

Health Benefit Payments by Range

TRS-ActiveCare

For the Fiscal Year Ended August 31, 2018

Benefit Range	Average Participants
\$ 0	61,197
1 - 5,000	371,790
5,001 - 10,000	23,996
10,001 - 20,000	17,361
20,001 - 30,000	5,924
30,001 - 40,000	3,311
40,001 - 50,000	2,081
50,001 - 100,000	4,166
Over 100,000	2,920
Total	492,746

Principal Participating Employers

Pension Trust Fund

For the Fiscal Years Ended August 31

Participating Reporting Entity	2018			2009		
	Covered Employees	Rank	Percentage of Total Covered Employment	Covered Employees	Rank	Percentage of Total Covered Employment
Houston ISD	26,032	1	2.61%	24,386	1	3.07%
Dallas ISD	23,063	2	2.31	19,870	2	2.50
UT MD Anderson Cancer Center	20,549	3	2.06	15,660	3	1.97
Cypress Fairbanks ISD	16,361	4	1.64	12,982	4	1.63
Northside ISD	15,640	5	1.57	12,352	5	1.56
UT SW Medical Center	14,713	6	1.47			
UT at Austin	12,856	7	1.29	10,340	8	1.30
Fort Worth ISD	12,476	8	1.25	10,852	7	1.37
UT Med Branch at Galveston	12,290	9	1.23			
Austin ISD	12,269	10	1.23	12,077	6	1.52
North East ISD				8,914	9	1.12
El Paso ISD				8,903	10	1.12
All Others	831,549		83.34	658,282		82.84
Total	997,798		100.00%	794,618		100.00%

Source: Information submitted to TRS by participating employers.

Principal Participating Employers

TRS-Care

For the Fiscal Years Ended August 31

Participating Reporting Entity	2018			2009		
	Covered OPEB Employees	Rank	Percentage of Total Covered OPEB Employment	Covered OPEB Employees	Rank	Percentage of Total Covered OPEB Employment
Houston ISD	26,032	1	3.22%	24,386	1	3.68%
Dallas ISD	23,063	2	2.86	19,870	2	3.00
Cypress Fairbanks ISD	16,361	3	2.02	12,982	3	1.96
Northside ISD	15,640	4	1.94	12,352	4	1.86
Fort Worth ISD	12,476	5	1.54	10,852	6	1.64
Austin ISD	12,269	6	1.52	12,077	5	1.82
Katy ISD	11,688	7	1.45			
Fort Bend ISD	10,494	8	1.30	8,649	10	1.30
Aldine ISD	10,416	9	1.29	8,716	9	1.32
North East ISD	10,368	10	1.28	8,914	7	1.35
El Paso ISD				8,903	8	1.34
All Others	659,158		81.58	534,954		80.73
Total	807,965		100.00%	662,655		100.00%

Source: Information submitted to TRS by participating employers.

Public Schools		
Abbott ISD	Avery ISD	Borger ISD
Abernathy ISD	Avinger ISD	Bosqueville ISD
Abilene ISD	Axtell ISD	Bovina ISD
Academy ISD	Azle ISD	Bowie ISD
Adrian ISD	Baird ISD	Boyd ISD
Agua Dulce ISD	Ballinger ISD	Boys Ranch ISD
Alamo Heights ISD	Balmorhea ISD	Brackett ISD
Alba Golden ISD	Bandera ISD	Brady ISD
Albany ISD	Bangs ISD	Brazos ISD
Aldine ISD	Banquete ISD	Brazosport ISD
Aledo ISD	Barbers Hill ISD	Breckenridge ISD
Alice ISD	Bartlett ISD	Bremond ISD
Alief ISD	Bastrop ISD	Brenham ISD
Allen ISD	Bay City ISD	Bridge City ISD
Alpine ISD	Beaumont ISD	Bridgeport ISD
Alto ISD	Beckville ISD	Broadus ISD
Alvarado ISD	Beeville ISD	Brock ISD
Alvin ISD	Bellevue ISD	Bronte ISD
Alvord ISD	Bells ISD	Brookeland ISD
Amarillo ISD	Bellville ISD	Brookesmith ISD
Amherst ISD	Belton ISD	Brooks County ISD
Anahuac ISD	Ben Bolt Palito ISD	Brownfield ISD
Anderson-Shiro Cons ISD	Benavides ISD	Brownsboro ISD
Andrews ISD	Benjamin ISD	Brownsville ISD
Angleton ISD	Big Sandy ISD - Big Sandy	Brownwood ISD
Anna ISD	Big Sandy ISD - Dallardsville	Bruceville-Eddy ISD
Anson ISD	Big Spring ISD	Bryan ISD
Anthony ISD	Birdville ISD	Bryson ISD
Anton ISD	Bishop Cons ISD	Buckholts ISD
Apple Springs ISD	Blackwell ISD	Buena Vista ISD
Aquilla ISD	Blanco ISD	Buffalo ISD
Aransas County ISD	Bland ISD	Bullard ISD
Aransas Pass ISD	Blanket ISD	Buna ISD
Archer City ISD	Bloomburg ISD	Burkburnett ISD
Argyle ISD	Blooming Grove ISD	Burkeville ISD
Arlington ISD	Bloomington ISD	Burleson ISD
Arp ISD	Blue Ridge ISD	Burnet Cons ISD
Aspermont ISD	Bluff Dale ISD	Burton ISD
Athens ISD	Blum ISD	Bushland ISD
Atlanta ISD	Boerne ISD	Bynum Cons ISD
Aubrey ISD	Boles ISD	Caddo Mills ISD
Austin ISD	Boling ISD	Calallen ISD
Austwell Tivoli ISD	Bonham ISD	Caldwell ISD
Avalon ISD	Booker ISD	Calhoun County ISD
	Borden County ISD	Callisburg ISD

List of Participating Employers

Calvert ISD	Cleveland ISD	Crystal City ISD
Cameron ISD	Clifton ISD	Cuero ISD
Campbell ISD	Clint ISD	Culberson County-Allamore ISD
Canadian ISD	Clyde ISD	Cumby ISD
Canton ISD	Coahoma ISD	Cushing ISD
Canutillo ISD	Coldspring Oakhurst ISD	Cypress Fairbanks ISD
Canyon ISD	Coleman ISD	D Hanis ISD
Carlisle ISD	College Station ISD	Daingerfield-Lone Star ISD
Carrizo Springs CISD	Collinsville ISD	Dalhart ISD
Carroll ISD	Colmesneil ISD	Dallas ISD
Carrollton-Farmers Branch ISD	Colorado ISD	Damon ISD
Carthage ISD	Columbia Brazoria ISD	Danbury ISD
Castleberry ISD	Columbus ISD	Darrouzett ISD
Cayuga ISD	Comal ISD	Dawson ISD - Dawson
Cedar Hill ISD	Comanche ISD	Dawson ISD - Welch
Celeste ISD	Comfort ISD	Dayton ISD
Celina ISD	Commerce ISD	De Kalb ISD
Center ISD	Community ISD	De Leon ISD
Center Point ISD	Como Pickton ISD	De Soto ISD
Centerville ISD - Centerville	Comstock ISD	Decatur ISD
Centerville ISD - Groveton	Connally Cons ISD	Deer Park ISD
Central Heights ISD	Conroe ISD	Del Valle ISD
Central ISD	Coolidge ISD	Dell City ISD
Channelview ISD	Cooper ISD	Denison ISD
Channing ISD	Coppell ISD	Denton ISD
Chapel Hill ISD - Mount Pleasant	Copperas Cove ISD	Denver City ISD
Chapel Hill ISD - Tyler	Corpus Christi ISD	Detroit ISD
Charlotte ISD	Corrigan Camden CISD	Devers ISD
Cherokee ISD	Corsicana ISD	Devine ISD
Chester ISD	Cotton Center ISD	Dew ISD
Chico ISD	Cotulla ISD	Deweyville ISD
Childress ISD	Coupland ISD	Diboll ISD
Chillicothe ISD	Covington ISD	Dickinson ISD
Chilton ISD	Crandall ISD	Dilley ISD
China Spring ISD	Crane ISD	Dime Box ISD
Chireno ISD	Cranfills Gap ISD	Dimmitt ISD
Chisum ISD	Crawford ISD	Divide ISD
Christoval ISD	Crockett Cty School Dist	Dodd City ISD
Cisco ISD	Crockett ISD	Donna ISD
City View ISD	Crosby ISD	Doss Cons CSD
Clarendon Cons ISD	Crosbyton Cons ISD	Douglass ISD
Clarksville ISD	Cross Plains ISD	Dripping Springs ISD
Claude ISD	Cross Roads ISD	Driscoll ISD
Clear Creek ISD	Crowell Cons ISD	Dublin ISD
Cleburne ISD	Crowley ISD	Dumas ISD

Duncanville ISD	Floydada ISD	Goodrich ISD
Eagle Mount Saginaw ISD	Follett ISD	Goose Creek CISD
Eagle Pass ISD	Forestburg ISD	Gordon ISD
Eanes ISD	Forney ISD	Gorman ISD
Early ISD	Forsan ISD	Grady ISD
East Bernard ISD	Fort Bend ISD	Graford ISD
East Central ISD	Fort Davis ISD	Graham ISD
East Chambers ISD	Fort Elliott Cons ISD	Granbury ISD
Eastland ISD	Fort Hancock ISD	Grand Prairie ISD
Ector Cty ISD	Fort Sam Houston ISD	Grand Saline ISD
Ector ISD	Fort Stockton ISD	Grandfalls Royalty ISD
Edcouch Elsa ISD	Fort Worth ISD	Grandview Hopkins ISD
Eden CISD	Franklin ISD	Grandview ISD
Edgewood ISD - Edgewood	Frankston ISD	Granger ISD
Edgewood ISD - San Antonio	Fredericksburg ISD	Grape Creek ISD
Edinburg CISD	Freer ISD	Grapeland ISD
Edna ISD	Frenship ISD	Grapevine-Colleyville ISD
El Campo ISD	Friendswood ISD	Greenville ISD
El Paso ISD	Friona ISD	Greenwood ISD
Electra ISD	Frisco ISD	Gregory-Portland ISD
Elgin ISD	Frost ISD	Groesbeck ISD
Elkhart ISD	Fruitvale ISD	Groom ISD
Elysian Fields ISD	Gainesville ISD	Groveton ISD
Ennis ISD	Galena Park ISD	Gruver ISD
Era ISD	Galveston ISD	Gunter ISD
Etoile ISD	Ganado ISD	Gustine ISD
Eula ISD	Garland ISD	Guthrie CSD
Eustace ISD	Garner ISD	Hale Center ISD
Evadale ISD	Garrison ISD	Hallettsville ISD
Evant ISD	Gary ISD	Hallsburg ISD
Everman ISD	Gatesville ISD	Hallsville ISD
Excelsior ISD	Gause ISD	Hamilton ISD
Ezzell ISD	George West ISD	Hamlin ISD
Fabens ISD	Georgetown ISD	Hamshire Fannett ISD
Fairfield ISD	Gholson ISD	Happy ISD
Falls City ISD	Giddings ISD	Hardin ISD
Fannindel ISD	Gilmer ISD	Hardin-Jefferson ISD
Farmersville ISD	Gladewater ISD	Harlandale ISD
Farwell ISD	Glasscock County ISD	Harleton ISD
Fayetteville ISD	Glen Rose ISD	Harlingen CISD
Ferris ISD	Godley ISD	Harmony ISD
Flatonia ISD	Goldburg ISD	Harper ISD
Florence ISD	Goldthwaite ISD	Harrold ISD
Floresville ISD	Goliad ISD	Hart ISD
Flour Bluff ISD	Gonzales ISD	Hartley ISD

List of Participating Employers

Harts Bluff ISD	Ingram ISD	Klondike ISD
Haskell CISD	Iola ISD	Knippa ISD
Hawkins ISD	Iowa Park Cons ISD	Knox City O'Brien CISD
Hawley ISD	Ira ISD	Kopperl ISD
Hays Cons ISD	Iraan-Sheffield ISD	Kountze ISD
Hearne ISD	Iredell ISD	Kress ISD
Hedley ISD	Irion County ISD	Krum ISD
Hemphill ISD	Irving ISD	La Feria ISD
Hempstead ISD	Italy ISD	La Gloria ISD
Henderson ISD	Itasca ISD	La Grange ISD
Henrietta ISD	Jacksboro ISD	La Joya ISD
Hereford ISD	Jacksonville ISD	La Porte ISD
Hermleigh ISD	Jarrell ISD	La Poynor ISD
Hico ISD	Jasper ISD	La Pryor ISD
Hidalgo ISD	Jayton Girard ISD	La Vega ISD
Higgins ISD	Jefferson ISD	La Vernia ISD
High Island ISD	Jim Hogg County ISD	La Villa ISD
Highland ISD	Jim Ned Cons ISD	Lackland ISD
Highland Park ISD - Amarillo	Joaquin ISD	Lago Vista ISD
Highland Park ISD - Dallas	Johnson City ISD	Lake Dallas ISD
Hillsboro ISD	Jonesboro ISD	Lake Travis ISD
Hitchcock ISD	Joshua ISD	Lake Worth ISD
Holland ISD	Jourdanton ISD	Lamar Cons ISD
Holliday ISD	Judson ISD	Lamesa ISD
Hondo ISD	Junction ISD	Lampasas ISD
Honey Grove ISD	Karnack ISD	Lancaster ISD
Hooks ISD	Karnes City ISD	Laneville ISD
Houston ISD	Katy ISD	Laredo ISD
Howe ISD	Kaufman ISD	Lasara ISD
Hubbard ISD - Dekalb	Keene ISD	Latexo ISD
Hubbard ISD - Hubbard	Keller ISD	Lazbuddie ISD
Huckabay ISD	Kelton ISD	Leakey ISD
Hudson ISD	Kemp ISD	Leander ISD
Huffman ISD	Kenedy County-Wide CSD	Leary ISD
Hughes Springs ISD	Kenedy ISD	Lefors ISD
Hull Daisetta ISD	Kennard ISD	Leggett ISD
Humble ISD	Kennedale ISD	Leon ISD
Hunt ISD	Kerens ISD	Leonard ISD
Huntington ISD	Kermit ISD	Levelland ISD
Huntsville ISD	Kerrville ISD	Leveretts Chapel ISD
Hurst-Euless-Bedford ISD	Kilgore ISD	Lewisville ISD
Hutto ISD	Killeen ISD	Lexington ISD
Idalou ISD	Kingsville ISD	Liberty Eylau ISD
Industrial ISD	Kirbyville Cons ISD	Liberty Hill ISD
Ingleside ISD	Klein ISD	Liberty ISD

Lindale ISD	Marlin ISD	Monahans-Wickett-Pyote ISD
Linden Kildare Cons ISD	Marshall ISD	Montague ISD
Lindsay ISD	Mart ISD	Monte Alto ISD
Lingleville ISD	Martins Mill ISD	Montgomery ISD
Lipan ISD	Martinsville ISD	Moody ISD
Little Cypress-Mauriceville CISD	Mason ISD	Moran ISD
Little Elm ISD	Matagorda ISD	Morgan ISD
Littlefield ISD	Mathis ISD	Morgan Mill ISD
Livingston ISD	Maud ISD	Morton ISD
Llano ISD	May ISD	Motley County ISD
Lockhart ISD	Maypearl ISD	Moulton ISD
Lockney ISD	McAllen ISD	Mount Calm ISD
Lohn ISD	McCamey ISD	Mount Enterprise ISD
Lometa ISD	McDade ISD	Mount Pleasant ISD
London ISD	McGregor ISD	Mount Vernon ISD
Lone Oak ISD	McKinney ISD	Muenster ISD
Longview ISD	McLean ISD	Muleshoe ISD
Loop ISD	McLeod ISD	Mullin ISD
Loraine ISD	McMullen County ISD	Mumford ISD
Lorena ISD	Meadow ISD	Munday Consolidated ISD
Lorenzo Cons ISD	Medina ISD	Murchison ISD
Los Fresnos Cons ISD	Medina Valley ISD	Nacogdoches ISD
Louise ISD	Melissa ISD	Natalia ISD
Lovejoy ISD	Memphis ISD	Navarro ISD
Lovelady ISD	Menard ISD	Navasota ISD
Lubbock Cooper ISD	Mercedes ISD	Nazareth ISD
Lubbock ISD	Meridian ISD	Neches ISD
Lueders-Avooca ISD	Merkel ISD	Nederland ISD
Lufkin ISD	Mesquite ISD	Needville ISD
Luling ISD	Mexia ISD	New Boston ISD
Lumberton ISD	Meyersville ISD	New Braunfels ISD
Lyford Cons ISD	Miami ISD	New Caney ISD
Lytle ISD	Midland ISD	New Deal ISD
Mabank ISD	Midlothian ISD	New Diana ISD
Madisonville Cons ISD	Midway ISD - Henrietta	New Home ISD
Magnolia ISD	Midway ISD - Waco	New Summerfield ISD
Malakoff ISD	Milano ISD	New Waverly ISD
Malone ISD	Mildred ISD	Newcastle ISD
Malta ISD	Miles ISD	Newton ISD
Manor ISD	Milford ISD	Nixon Smiley CISD
Mansfield ISD	Miller Grove ISD	Nocona ISD
Marathon ISD	Millsap ISD	Nordheim ISD
Marble Falls ISD	Mineola ISD	Normangee ISD
Marfa ISD	Mineral Wells ISD	North East ISD
Marion ISD	Mission Cons ISD	North Hopkins ISD

List of Participating Employers

North Lamar ISD	Pflugerville ISD	Redwater ISD
North Zulch ISD	Pharr-San Juan-Alamo ISD	Refugio ISD
Northside ISD - San Antonio	Pilot Point ISD	Ricardo ISD
Northside ISD - Vernon	Pine Tree ISD	Rice Cons ISD
Northwest ISD	Pittsburg ISD	Rice ISD
Nueces Canyon Cons ISD	Plains ISD	Richards ISD
Nursery ISD	Plainview ISD	Richardson ISD
O'Donnell ISD	Plano ISD	Richland Springs ISD
Oakwood ISD	Pleasant Grove ISD	Riesel ISD
Odem-Edroy ISD	Pleasanton ISD	Rio Grande City CISD
Oglesby ISD	Plemons-Stinnett-Phillips CISD	Rio Hondo ISD
Olfen ISD	Point Isabel ISD	Rio Vista ISD
Olney ISD	Ponder ISD	Rising Star ISD
Olton ISD	Poolville ISD	River Road ISD
Onalaska ISD	Port Aransas ISD	Rivercrest ISD
Orange Grove ISD	Port Arthur ISD	Riviera ISD
Orangefield ISD	Port Neches-Groves ISD	Robert Lee ISD
Ore City ISD	Post ISD	Robinson ISD
Overton ISD	Poteet ISD	Robstown ISD
Paducah ISD	Poth Cons ISD	Roby CISD
Paint Creek ISD	Pottsboro ISD	Rochelle ISD
Paint Rock ISD	Prairie Lea ISD	Rockdale ISD
Palacios ISD	Prairie Valley ISD	Rocksprings ISD
Palestine ISD	Prairiland ISD	Rockwall ISD
Palmer ISD	Premont ISD	Rogers ISD
Palo Pinto ISD	Presidio ISD	Roma ISD
Pampa ISD	Priddy ISD	Roosevelt ISD
Panhandle ISD	Princeton ISD	Ropes ISD
Panther Creek Cons ISD	Pringle-Morse Cons ISD	Roscoe ISD
Paradise ISD	Progreso ISD	Rosebud-Lott Cons ISD
Paris ISD	Prosper ISD	Rotan ISD
Pasadena ISD	Quanah ISD	Round Rock ISD
Patton Springs ISD	Queen City ISD	Round Top Carmine ISD
Pawnee ISD	Quinlan ISD	Roxton ISD
Pearland ISD	Quitman ISD	Royal ISD
Pearsall ISD	Rains ISD	Royse City ISD
Peaster ISD	Ralls ISD	Rule ISD
Pecos Barstow Toyah ISD	Ramirez Common SD	Runge ISD
Penelope ISD	Randolph Field ISD	Rusk ISD
Perrin Whitt Cons ISD	Ranger ISD	S & S Cons ISD
Perryton ISD	Rankin ISD	Sabinal ISD
Petersburg ISD	Raymondville ISD	Sabine ISD
Petrolia ISD	Reagan County ISD	Sabine Pass ISD
Pettus ISD	Red Lick ISD	Saint Jo ISD
Pewitt Cons ISD	Red Oak ISD	Salado ISD

Saltillo ISD	Simms ISD	Sweet Home ISD
Sam Rayburn Cons ISD	Sinton ISD	Sweetwater ISD
San Angelo ISD	Sivells Bend ISD	Taft ISD
San Antonio ISD	Skidmore Tynan ISD	Tahoka ISD
San Augustine ISD	Slaton ISD	Tarkington ISD
San Benito Cons ISD	Slidell ISD	Tatum ISD
San Diego ISD	Slocum ISD	Taylor ISD
San Elizario ISD	Smithville ISD	Teague ISD
San Felipe Del Rio CISD	Smyer ISD	Temple ISD
San Isidro ISD	Snook ISD	Tenaha ISD
San Marcos Cons ISD	Snyder ISD	Terlingua Csd
San Perlita ISD	Socorro ISD	Terrell County ISD
San Saba ISD	Somerset ISD	Terrell ISD
San Vicente ISD	Somerville ISD	Texarkana ISD
Sands Cons ISD	Sonora ISD	Texas City ISD
Sanford-Fritch ISD	South San Antonio ISD	Texhoma ISD
Sanger ISD	South Texas ISD	Texline ISD
Santa Anna ISD	Southland ISD	Thorndale ISD
Santa Fe ISD	Southside ISD	Thrall ISD
Santa Gertrudis ISD	Southwest ISD	Three Rivers ISD
Santa Maria ISD	Spearman ISD	Three Way ISD
Santa Rosa ISD	Splendora ISD	Throckmorton ISD
Santo ISD	Spring Branch ISD	Tidehaven ISD
Savoy ISD	Spring Creek ISD	Timpson ISD
Schertz-Cibolo-Universal City ISD	Spring Hill ISD	Tioga ISD
Schleicher Cty ISD	Spring ISD	Tolar ISD
Schulenburg ISD	Springlake-Earth ISD	Tom Bean ISD
Scurry Rosser ISD	Springtown ISD	Tomball ISD
Seagraves ISD	Spur ISD	Tornillo ISD
Sealy ISD	Spurger ISD	Trent ISD
Seguin ISD	Stafford Muncpl Sch Dist	Trenton ISD
Seminole Public Schools	Stamford ISD	Trinidad ISD
Seymour ISD	Stanton ISD	Trinity ISD
Shallowater ISD	Stephenville ISD	Troup ISD
Shamrock ISD	Sterling City ISD	Troy ISD
Sharyland ISD	Stockdale ISD	Tulia ISD
Shelbyville ISD	Stratford ISD	Tuloso-Midway ISD
Sheldon ISD	Strawn ISD	Turkey-Quitaque CISD
Shepherd ISD	Sudan ISD	Tyler ISD
Sherman ISD	Sulphur Bluff ISD	Union Grove ISD
Shiner ISD	Sulphur Springs ISD	Union Hill ISD
Sidney ISD	Sundown ISD	United ISD
Sierra Blanca ISD	Sunnyvale ISD	Utopia ISD
Silsbee ISD	Sunray ISD	Uvalde Cons ISD
Silverton ISD	Sweeny ISD	Valentine ISD

List of Participating Employers

Valley Mills ISD	White Settlement ISD	Amigos Por Vida-Friends For Life Ch Sc
Valley View ISD - Pharr	Whiteface ISD	Aristoi Classical Academy
Valley View ISD - Valley View	Whitehouse ISD	Arlington Classics Academy
Van Alstyne ISD	Whitesboro ISD	Arrow Academy
Van ISD	Whitewright ISD	Austin Achieve Public Schools
Van Vleck ISD	Whitharral ISD	Austin Discovery School
Vega ISD	Whitney ISD	Basis San Antonio
Venus ISD	Wichita Falls ISD	Beatrice Mayes Institute
Veribest ISD	Wildorado ISD	Beta Academy
Vernon Cons ISD	Willis ISD	Bexar County Academy
Victoria ISD	Wills Point ISD	Big Springs Charter School
Vidor ISD	Wilson ISD	Bob Hope School
Vysehrad ISD	Wimberley ISD	Brazos River Charter School
Waco ISD	Windham School District	Brazos School For Inquiry & Creativity
Waelder ISD	Windthorst ISD	Bridgeway Preparatory Academy
Walcott ISD	Winfield ISD	Brooks Academy Of Science & Engineering
Wall ISD	Wink-Loving Cons ISD	Burnham Wood Charter School
Waller ISD	Winnsboro ISD	Calvin Nelms Charter School
Walnut Bend ISD	Winona ISD	Carpe Diem Schools
Walnut Springs ISD	Winters ISD	Cedars International Academy
Warren ISD	Woden ISD	Chaparral Star Academy
Waskom ISD	Wolfe City ISD	Chapel Hill Academy
Water Valley ISD	Woodsboro ISD	Cityscape Schools, Inc.
Waxahachie ISD	Woodson ISD	Compass Academy
Weatherford ISD	Woodville ISD	Compass Rose Education, Inc.
Webb CISD	Wortham ISD	Comquest Academy
Weimar ISD	Wylie ISD - Abilene	Corpus Christi Montessori School
Wellington ISD	Wylie ISD - Wylie	Crosstimbers Academy
Wellman-Union ISD	Yantis ISD	Cumberland Academy
Wells ISD	Yoakum ISD	Dallas Comm Charter School
Weslaco ISD	Yorktown ISD	Dr M L Garza-Gonzalez Charter School
West Hardin County CISD	Ysleta ISD	Draw Academy
West ISD	Zapata County ISD	Eagle Advantage School
West Orange-Cove CISD	Zavalla ISD	East Fort Worth Montessori School
West Oso ISD	Zephyr ISD	East Texas Charter School
West Rusk Cty Cons ISD		Eden Park Academy
West Sabine ISD	Charter Schools	Education Center Int Academy
Westbrook ISD	A Plus Academy	El Paso Academy East
Westhoff ISD	A W Brown Flwshp Charter School	El Paso Leadership Academy
Westphalia ISD	A+ Unlimited Potential	Eleanor Koltitz Hebrew Language Academy
Westwood ISD	Academy Of Accelerated Learning	Erath Excels Academy
Wharton ISD	Academy Of Dallas	Etoile Academy Charter School
Wheeler ISD	Accelerated Intermediate Academy	Evolution Academy Charter School
White Deer ISD	Alief Montessori School	Excellence In Leadership Academy
White Oak ISD	Ambassadors Preparatory Academy	Faith Fam Acad Waxahachie

Ft Worth Acad Fine Arts	Midland Academy Charter School	The East Austin College Prep Academy
Gateway Academy	Mid-Valley Academy	The Ehrhart School
Gateway Charter Academy	Montessori For All	The Excel Center
George Gervin Academy	New Frontiers Public Schools	The Lone Star Language Academy
George I Sanchez Charter	Newman International Academy	The Pro-Vision Academy
Golden Rule Charter School	North Texas Elementary School Of Arts	The Rhodes School
Goodwater Montessori School	Nova Charter School	TLC Academy
Great Hearts Academy - San Antonio	Nova Charter Southeast	Treetops International
Gulf Coast Trades Center	Nyos Charter School	Trinity Basin Preparatory
Harmony School Of Excellence - Houston	Odyssey Academy	Trinity Charter School
Harmony School Of Science - Houston	Orenda Charter School	Trinity Environmental Academy
Harmony Science Academy - Austin	Panola Charter School	Trivium Academy
Harmony Science Academy El Paso	Paso Del Norte Academy	Two Dimensions Prep Academy
Harmony Science Academy Houston	Pegasus School Of Liberal Arts & Science	UME Preparatory Academy
Harmony Science Academy San Antonio	Pineywoods Academy	Universal Academy
Harmony Science Academy Waco	Pioneer Technology & Arts Academy	Uplift Education
Henry Ford Academy - San Antonio	Por Vida Academy	Valor Public Schools
Heritage Academy	Premier High Schools	Vanguard Academy
High Point Academy	Priority Charter Schools	Varnett Charter School
Houston Gateway Charter School	Promise Community School	Village Tech Schools
Houston Heights High School	Ranch Academy	Vista Del Futuro Charter School
Idea Public Schools	Rapoport Academy	Waco Charter School
Inspired Vision Academy	Raul Yzaguirre School	Walipp Academy
International Leadership Of Texas	Richard Milburn - Killeen	Westlake Academy
Jean Massieu Academy	Rise Academy	Winfree Academy Charter Schools
John H Wood Charter School	San Antonio School Inquiry	Yellowstone College Preparatory
Jubilee Academies	School Of Excellence In Education	Yes Prep Public Schools
Katherine Anne Porter School	School Of Science & Tech-Discovery	Zoe Learning Academy
Kauffman Leadership Academy	School Of Science & Technology	
Ki Charter Academy	Seashore Charter Schools	Community and Junior Colleges
Kipp Aspire Academy	Ser-Ninos Charter School	Alamo Community College District
Kipp Austin College Prep	South Plains Academy	Alvin Community College
Kipp Inc Charter	South Texas Educational Tech Inc	Amarillo College
Kipp Truth Academy	Southwest High School	Angelina College
La Academia De Estrellas	Southwest Preparatory School	Austin Community College
La Fe Preparatory School	St Anthony School	Blinn College
Leadership Prep School	St Marys Charter School	Brazosport College
Legacy Preparatory	Stepping Stones Charter Elementary	Central Texas College
Legacy School Of Sport Sciences	Tekoa Academy	Cisco Junior College
Life School	Texans Can Academies	Clarendon College
Lighthouse Charter School	Texas College Preparatory Academies	Coastal Bend College
Manara Academy	Texas Education Center	College Of The Mainland
Meadowland Charter School	Texas Empowerment Academy	Collin County Comm College
Meridian World School	Texas Preparatory School	Dallas County Comm College Dist
Meyerpark Elementary Charter	Texas Serenity Academy	Del Mar College

List of Participating Employers

El Paso Community College
 Frank Phillips College
 Galveston College
 Grayson County College
 Hill College
 Houston Comm College System
 Howard County Jr College Dist
 Kilgore College
 Laredo Community College
 Lee College
 Lone Star College System
 McLennan Community College
 Midland College
 Navarro College
 North Central Tx College
 Northeast TX Community College
 Odessa College
 Panola College
 Paris Junior College
 Ranger Junior College
 San Jacinto College District
 South Plains College
 South Texas College
 Southwest TX Jr College
 Tarrant County College District
 Temple College
 Texarkana College
 Texas Southmost College
 Trinity Valley Jr College
 Tyler Junior College
 Vernon College
 Victoria College
 Weatherford College
 Western Texas College
 Wharton County Jr College

Senior Colleges and Universities

Angelo State University
 Lamar Inst of Technology
 Lamar State College - Orange
 Lamar State College - Port Arthur
 Lamar University - Beaumont
 Midwestern State University
 Prairie View A & M University
 Sam Houston State University

Stephen F Austin State University
 Sul Ross State University
 Tarleton State University
 Texas A&M Agrilife Extension Service
 Texas A&M Agrilife Research
 Texas A&M Eng Exp Station
 Texas A&M Eng Ext Service
 Texas A&M Forest Service
 Texas A&M International University
 Texas A&M Transportation Inst
 Texas A&M University
 Texas A&M University - Central Texas
 Texas A&M University - Commerce
 Texas A&M University - Corpus Christi
 Texas A&M University - Galveston
 Texas A&M University - Kingsville
 Texas A&M University - San Antonio
 Texas A&M University - Texarkana
 Texas A&M University Systems Office
 Texas Southern University
 Texas State Tech College
 Texas State University - San Marcos
 Texas State University System
 Texas Tech University
 Texas Woman's University
 University of Houston
 University of North TX
 UNT at Dallas
 U of N Texas System Admin
 University of Texas System
 Univ of TX - Arlington
 Univ of TX - Austin
 Univ of TX - Dallas
 Univ of TX - El Paso
 Univ of TX - Permian Basin
 Univ of TX - Rio Grande Valley
 Univ of TX - San Antonio
 Univ of TX - Tyler
 West Texas A & M University

Medical Schools

Texas A&M University System HSC
 Texas A&M Vet Medical Diagnostic Lab
 U N T HSC at Fort Worth
 UT Health Ctr at Tyler

UT HSC at Houston
 UT HSC at San Antonio
 UT MD Anderson Cancer Center
 UT Med Br at Galveston
 UT SW Medical Center

Regional Service Centers

Region 01 Ed Service Center
 Region 02 Ed Service Center
 Region 03 Ed Service Center
 Region 04 Ed Service Center
 Region 05 Ed Service Center
 Region 06 Ed Service Center
 Region 07 Ed Service Center
 Region 08 Ed Service Center
 Region 09 Ed Service Center
 Region 10 Ed Service Center
 Region 11 Ed Service Center
 Region 12 Ed Service Center
 Region 13 Ed Service Center
 Region 14 Ed Service Center
 Region 15 Ed Service Center
 Region 16 Ed Service Center
 Region 17 Ed Service Center
 Region 18 Ed Service Center
 Region 19 Ed Service Center
 Region 20 Ed Service Center

Other Educational Districts

Anderson County Spc Ed Co Op
 Bowie County Sch Dist
 Dallas County School Dist
 Harris County Dept Education

Other Entities

Teacher Retirement System

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The Faces of TRS

2019 Texas Secondary School
Teacher of the Year Finalist
Megan Holden



Megan's Snapshot

Position: Secondary School
English/AP Art History Teacher

Years Teaching: 21

Goals: Megan believes that people are learners by nature, and all students deserve access to a profound and well-rounded education. Her goal is to use teaching moments to create new patterns in a student's way of thinking about the world.

Message: *Teachers work hard. We are not only called on to teach our next generation the academic skills they need to succeed in the 21st century, but we also must instill the social and emotional lessons that every adult must master to be a contributing member of society.*

Changes in State Law

The Texas Legislature did not meet in fiscal year 2018. No noteworthy state law developments affecting TRS occurred during the current fiscal year.

Changes in Federal Law

A. Investments

Implementation of Rulemaking Under the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) (Dodd-Frank)

During this fiscal year, TRS amended all of its International Swaps and Derivatives Association (ISDA) documentation to take into account margin requirements for uncleared swaps recently issued by the Commodities Futures Trading Commission (CFTC) and the U.S. Prudential Regulators. Those amendments, which represent implementation of the first phase of the new regulations, addressed the treatment of variation margin, for example shortening the transfer timing and removing thresholds for movements of margin and providing maximum valuation percentages for non-cash collateral. The second implementation phase of the new margin requirements will address initial margin, for example requiring two-way posting and segregation of initial margin. While the initial-margin regulations should not apply to TRS for another two or three years, TRS will again amend its ISDA agreements to account for the new requirements in advance of their application. Finally, TRS anticipates additional rule making from the CFTC in the coming fiscal year now that the U.S. Senate has voted to confirm the appointment of additional Commissioners.

B. Health Care Benefits

Federal Patient Protection and Affordable Care Act of 2010 (PPACA)

During this fiscal year, TRS continued to monitor regulations issued with regard to the PPACA and implemented various provisions of the PPACA that impact the health benefit plans administered by TRS. TRS continued to implement regulations under Section 1557, which prohibit discrimination on the basis of race, color, national origin, sex, age, or disability in certain health programs or activities. TRS continues to allow certain participating employers in TRS-ActiveCare to designate TRS, acting in its capacity as trustee of TRS-ActiveCare, to fulfill the reporting requirements under Internal Revenue Code Section 6055 for months of enrollment in calendar year 2018.

Section 6055 addresses the reporting of health care coverage selected by active employees and COBRA qualified beneficiaries (and their dependents) who are enrolled in one of the PPO plans offered under TRS-ActiveCare.

C. Pension

Tax Laws, Regulations, and Guidance

Tax Cuts and Jobs Act

The Tax Cuts and Jobs Act (TCJA), enacted by the U.S. Congress and signed by President Trump in December 2017, made certain changes to the Internal Revenue Code provisions affecting individuals for the 2018 through 2025 tax years. The changes impacted the amount of federal income tax withholding for TRS annuitants receiving monthly annuity payments and TRS active members receiving compensation for work performed for their employers.

D. Other Developments

Iran Sanctions

For 2018, TRS continued to adhere to the investment restrictions contained in Texas Government Code Chapter 807 and will continue to monitor developments going forward.

Summary of Benefits

The Teacher Retirement System of Texas (TRS) administers the TRS Pension Trust Fund, a defined benefit retirement plan that is a qualified pension trust under Section 401(a) of the Internal Revenue Code. The Pension Trust Fund provides service retirement, disability retirement, death and survivor benefits to eligible employees of public and higher education in Texas. The TRS Benefits Handbook, a general information booklet, is available to TRS members, annuitants, and the public on the TRS website, www.trs.texas.gov.

TRS also administers two separate health care related trust funds:

- TRS-ActiveCare is the statewide health benefits program for eligible active public education employees of participating employers and their eligible dependents.
- TRS-Care is the statewide health benefits program for eligible retired public education employees and their eligible dependents.

TRS also administers an optional long-term care insurance program for eligible retirees, public school employees, their dependents, and other family members. The Plan is available on an enrollee-pay-all-basis.

Retirement Plan Benefits

This summary of benefits is based on statutory provisions of the plan, effective for fiscal year 2018.

A. Service Retirement

Normal Retirement Eligibility

For members whose membership began prior to September 1, 2007, who had at least five years of service credit as of August 31, 2014, and who maintained membership until retirement:

- Age 65 with at least five years of credited service, or
- The sum of the member's age and years of credited service equals or exceeds 80 with at least five years of credited service.

For members whose membership began on or after September 1, 2007 but prior to September 1, 2014, who had at least five years of service credit as of August 31, 2014, and who maintained membership until retirement:

- Age 65 with at least five years of credited service, or
- Age 60 and the sum of the member's age and years of credited service equals or exceeds 80 with at least five years of credited service.

For members who did not have at least five years of service credit as of August 31, 2014, who established TRS membership on or after September 1, 2014, or who had at least five years of service credit as of August 31, 2014 but terminated membership in TRS by withdrawal of accumulated contributions and later resumed TRS membership:

- Age 65 with at least five years of credited service, or
- Age 62 and the sum of the member's age and years of credited service equals or exceeds 80 with at least five years of credited service.

Standard Annuity

A monthly benefit payable at retirement throughout the retiree's lifetime and calculated according to the statutory benefit formula.

Benefit Formula

The annual standard annuity is based on the average of the five highest annual creditable salaries multiplied by the years of credited service multiplied by 2.3 percent. For members who are grandfathered, the three highest annual salaries are used in the benefit formula.

Minimum Benefit

\$150 per month less any reduction for early age retirement or optional annuity selection.

Early Age Retirement Eligibility

For members whose membership began prior to September 1, 2007, who had at least five years of service credit as of August 31, 2014, and who maintained membership until retirement:

- At least 55 with five or more years of service credit, but the sum of the member's age and years of service credit total less than 80, or
- 30 or more years of service credit, but the sum of the member's age and years of service credit total less than 80.

For members whose membership began on or after September 1, 2007 but prior to September 1, 2014, who had at least five years of service credit as of August

31, 2014, and who maintained membership until retirement:

- At least 55 with five or more years of service credit, but the sum of the member's age and years of service credit total less than 80, or
- 30 or more years of service credit, but the sum of the member's age and years of service credit total less than 80, and the member is less than age 60, or
- The sum of the member's age and years of service credit total at least 80, but the member is less than age 60.

For members who met the requirements to be grandfathered before September 1, 2005, there is no reduction to their benefit based on actuarial tables if they are at least age 55, the sum of their age and years of service credit total at least 80, and they are below age 60. These members are still considered early-age retirees.

For members who did not have at least five years of service credit as of August 31, 2014, who established TRS membership on or after September 1, 2014, or who had at least five years of service credit as of August 31, 2014 but terminated membership in TRS by withdrawal of accumulated contributions and later resumed TRS membership:

- At least 55 with five or more years of service credit, but the sum of the member's age and years of service credit total less than 80, or
- 30 or more years of service credit, but the sum of the member's age and years of service credit total less than 80, and the member is less than age 62, or
- the sum of the member's age and years of service credit total at least 80, but the member is less than age 62.

For members who met the requirements to be grandfathered before September 1, 2005, there is no reduction to their benefit based on actuarial tables if they are at least age 55, have at least 20 years of service credit, the sum of their age and years of service credit total at least 80, and they are below age 62. These members are still considered early-age retirees.

Early Age Retirement Benefit

The standard annuity amount calculated under the benefit formula (or the minimum benefit, if applicable) and used to determine the amount of any optional

retirement annuity is reduced for early age retirement. The amount of the reduction varies depending on age, years of service credit, and whether a member is grandfathered.

B. Disability Retirement

Eligibility

Physical or mental disability precludes the member's continued performance of current duties and the disability is probably permanent, as certified by the TRS Medical Board.

Benefit

For disabled members with at least 10 years of credited service, the greater of the standard annuity unreduced for early age or \$150 per month minimum benefit, less any reduction for the selection of an optional annuity. For disabled members with fewer than 10 years of credited service, \$150 per month. The minimum benefit amounts are subject to reduction for the selection of an optional retirement annuity.

Duration

For retirees with 10 or more years of credited service, payments continue for as long as the disability continues. For those with fewer than 10 years of credited service, payments continue for the life of the retiree, the duration of the disability, or the number of months of credited service, whichever is shorter.

Earnings Limit

Disability retirees who applied and retired after August 31, 2007 are subject to an annual limit on earnings from any employment. The current limit is the greater of the highest annual salary before retirement or \$40,000. Excess earnings will cause benefits to be forfeited until such time as the excess earnings cease or are reduced to an allowable amount.

C. Annuity Payment Options

All service and eligible disability retirees may select an optional form of payment that reduces the standard annuity by application of actuarial reduction factors in order to continue payment to a beneficiary after the retiree's death. Actuarial factors for disability retirees are different from those for service retirees because of different assumptions about life expectancy for the two groups. The available options include 100, 75, and 50 percent joint and survivor annuities, and five and ten year guaranteed period annuities. Selection of a 100 or 75 percent joint and survivor annuity and a five or ten year guaranteed period annuity may not be

allowed in certain situations based on the minimum distribution provisions of federal tax law.

D. The Pop-Up Provision

If a designated beneficiary under any of the joint and survivor options dies while the retiree is still living, the retiree's future monthly payment increases to the amount of the standard annuity.

E. Partial Lump Sum Option

Under the Partial Lump Sum Option (PLSO), available for election at the time of retirement, eligible members may elect to receive an actuarially reduced service retirement annuity plus a lump sum distribution.

Members may elect to receive a PLSO if they are eligible for service retirement, meet the Rule of 90 (age and years of service credit equal at least 90), are not participating in the Deferred Retirement Option Plan (DROP), and are not retiring with disability retirement benefits. Grandfathered members may elect PLSO at retirement if they are eligible for normal age service retirement under the pre-September 1, 2005 law (age 65 with at least five years of credited service, or the sum of the member's age and years of credited service equals or exceeds 80 with at least five years of credited service), are not participating in DROP, and are not retiring with disability retirement benefits. Members retiring under the proportionate retirement program are not eligible to elect the PLSO.

Partial lump sum distributions equal to 12, 24, or 36 months of a standard service retirement annuity may be selected. When a member selects this option, the monthly annuity is actuarially reduced to reflect the lump sum distribution. Flexible annual distribution options are available, including rollovers to another eligible retirement plan.

F. Deferred Retirement Option Plan

The TRS Pension Plan permitted eligible members to participate in a Deferred Retirement Option Plan (DROP) by enrolling no later than December 31, 2005. DROP participants continued employment while accumulating a portion of their standard retirement annuity in a special account that is disbursed beginning at the time of their retirement or death.

Members who elected DROP chose to participate in 12-month increments for up to five years. During DROP participation, the member did not accrue additional service credit for their pension annuity, nor is any compensation earned during DROP participation considered in calculating the standard pension annuity.

During DROP participation, the member's statutory contributions to TRS continue. However, contributions were not credited to the member's contribution account and are not refundable.

Interest on the DROP account balance prior to September 1, 2014 was computed at an annual rate of five percent. Subsequent to that date, the interest rate changed to two percent.

Members who participated in DROP but continued working in membership eligible employment after the close of their participation period earn post-DROP retirement benefits based solely on creditable compensation received and service credit earned after their DROP participation period ended. Post-DROP benefits are distributed with the retirement and DROP benefits.

G. Minimum Service Credit Required for Service Retirement Benefits

Under current law, a member who has completed at least five years of credited service has earned a right to service retirement benefits after reaching eligible retirement age, provided that the member's accumulated contributions are not withdrawn from the system.

Service credited in another retirement system that participates in the Proportionate Retirement Program may be combined with TRS service credit to determine eligibility for TRS service retirement benefits. Any qualifying USERRA military service, up to a maximum of five years, may also be counted in determining eligibility for TRS service retirement benefits. The USERRA service and/or compensation credit may also be purchased to increase the amount of the retirement benefit or may simply be verified and used to establish eligibility.

An eligible member must apply for benefits and meet other requirements, such as termination of Texas public education employment, in order to begin receiving benefits.

H. Death and Survivor Benefits

Active Members

The beneficiary of an active member may elect to receive one of the following benefits in the event of the member's death before retirement in any of the following situations:

- if the member dies during a school year in which the member performed service, or
- if the member was absent from service because of sickness, accident or another reason TRS determines is involuntary, or
- in furtherance of the objectives or welfare of the public school system, or
- if the member dies when eligible to retire, or
- would have become eligible without further service before the fifth anniversary of the members last day of service as a member
- if the member dies while performing qualified military service as defined by applicable federal law
- when the member is absent from service as described by law, such as when the absence is due to sickness, accident, or other involuntary cause
- when the member is within five years of being eligible to retire when leaving employment.

Benefit Options

- A lump sum payment equal to twice the member's annual rate of compensation or \$80,000, whichever is less, or
- Sixty monthly payments equal to the member's standard annuity without reduction for early age, provided the member had at least five years of service credit at the time of death, or
- Lifetime payments equal to a 100 percent joint and survivor annuity, provided the member had at least five years of service credit, and is subject to any reduction applicable for early age. This benefit is only available when there is a sole beneficiary, or
- An amount equal to a return of the member's contributions with accumulated interest, or
- Survivor benefits of \$2,500 lump sum payment plus a monthly benefit to eligible beneficiaries. For example, \$350 per month to a beneficiary spouse with minor children, continuing until the youngest child reaches age 18. When the spouse turns age 65, or when the youngest child reaches age 18, whichever is later, the spouse would begin receiving \$250 per month for life.

In addition to these five options, a lump sum death benefit of \$160,000 is available if the active member is employed in a TRS-covered position and dies as the result of a physical assault during the performance of the employee's regular job duties.

Also, the beneficiary of a DROP participant will receive the accumulated DROP account balance, payable as a lump sum or in periodic installments.

Retirees

In addition to any joint and survivor or guaranteed period annuity that may be payable under an optional form of payment a retiree elected, the beneficiary of a service or disability retiree is entitled to a \$10,000 lump sum payment. Eligible survivors may select alternate payment options in lieu of the lump sum benefit. The alternate payment options include a lump sum payment of \$2,500 plus an applicable monthly survivor benefit.

If total payments made before death to a retiree and, when applicable, to a beneficiary for an optional service retirement annuity, are less than accumulated contributions at retirement, an amount equal to the remainder of the balance of accumulated contributions is paid to the beneficiary or as otherwise provided by law. Should a retiree die prior to receiving all PLSO payments that are due, TRS will pay any remaining PLSO payments in a single lump sum payment to the beneficiary. If the retiree participated in DROP and died before receiving all DROP distributions, any unpaid DROP payments are paid to the beneficiary designated by the retiree.

I. Grandfathered Provisions

A person who, as a member, met any one of the following criteria on or before Aug. 31, 2005, is grandfathered under plan provisions repealed with respect to non-grandfathered members:

- the member was at least 50 years old, or
- the member's age and years of service credit equaled at least 70 ("Rule of 70"), or
- the member had at least 25 years of service credit.

Members who are grandfathered will have their benefits determined in the following manner:

- Final Average Salary at retirement will be determined by the highest three years (instead of five years) of salary.

- Preservation of certain retirement reduction factors means that members age 55 or older with 20 to 24 years of credited service who take early retirement will receive a lesser reduction to their annuities than those members who are not grandfathered.
- Partial Lump Sum Option eligibility will require either age 65 with at least five years of service credit, or a combined age plus years of credited service that equals at least 80 ("Rule of 80") instead of 90.

supervision or verbal direction from another person in order to protect the member or others from serious injury.

Health Benefits

A. Health Benefits for Active Public School Employees

TRS-ActiveCare, the statewide health benefits program for eligible full-time and part-time employees of participating employers of public schools, open enrollment charter schools, regional service centers, and other educational districts, went into effect on September 1, 2002. The program initially focused on smaller districts, where affordable health coverage was often harder to find, and later expanded to include larger school districts. In fiscal year 2018, 1,089 entities participated in the program.

Employees can choose from three plan options and in certain areas, employees also have the option of enrolling in a health maintenance organization.

For information on TRS-ActiveCare, please refer to the TRS website.

B. Retiree Health Coverage

TRS administers TRS-Care, a health benefits program for eligible retired public education employees and their eligible dependents that was established in 1985. TRS-Care is the source of health benefits coverage which a substantial portion of retired public education employees rely upon. Details of the plan can be found in Note 9.

For information on TRS-Care eligibility, please refer to the TRS website.

C. Long-Term Care Insurance Program

Eligible retirees and eligible public school employees, their eligible dependents, and certain other family members may participate in the TRS long-term care insurance program. The plan pays benefits if the participant becomes unable to perform at least two activities of daily living without substantial assistance from another person. The plan also pays benefits as a result of a severe cognitive impairment that requires

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Thank You

The collage features a central red box with white text. Surrounding it are various icons and photos: a magnifying glass, a woman's portrait, a group of children, a classical building, a woman's portrait, a bar chart with an upward arrow, a calculator, a man's portrait, a document icon, a woman's portrait, a hand on a chalkboard, and a man's portrait. There are also several solid-colored squares in shades of blue, green, yellow, and red.

We are extremely grateful to all of our members who graciously took the time to share their stories within the pages of this report.



Teacher Retirement System of Texas

1000 Red River Street

Austin, Texas
78701-2698

1-800-223-8778

www.trs.texas.gov