

State of Texas

Comprehensive Annual Financial Report

For the Fiscal Year Ended August 31, 2019

**The spreadsheets in this publication are available
in accessible data form (Excel) for the sections below.**

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Section Two (continued)

Required Supplementary Information Other Than MD&A



STATE OF TEXAS

Budgetary Comparison Schedule General Fund

For the Fiscal Year Ended August 31, 2019 (Amounts in Thousands)

	Budgetary Amounts		Actual Amounts Budgetary Basis	Final to Actual Variance
	Original	Final		
REVENUES				
Taxes	\$ 48,839,954	\$ 48,839,954	\$ 51,501,820	\$ 2,661,866
Federal	38,883,387	41,458,317	41,704,470	246,153
Licenses, Fees and Permits	2,790,292	2,870,688	2,998,268	127,580
Interest and Other Investment Income	224,054	225,739	799,746	574,007
Land Income	18,075	20,039	13,427	(6,612)
Settlement of Claims	475,733	477,538	650,731	173,193
Sales of Goods and Services	4,428,663	4,819,623	3,483,457	(1,336,166)
Other	6,771,008	6,844,724	5,977,118	(867,606)
Total Revenues	<u>102,431,166</u>	<u>105,556,622</u>	<u>107,129,037</u>	<u>1,572,415</u>
EXPENDITURES				
General Government	8,771,497	4,791,650	3,108,255	1,683,395
Education	27,131,009	28,626,747	26,796,649	1,830,098
Teacher Retirement Benefits	3,067,744	3,067,744	2,991,655	76,089
Health and Human Services	45,850,562	55,280,919	55,864,022	(583,103)
Public Safety and Corrections	5,142,599	6,796,003	6,617,356	178,647
Transportation	144,774	147,243	7,561	139,682
Natural Resources and Recreation	3,083,471	3,518,823	2,079,624	1,439,199
Regulatory Services	332,017	431,684	376,519	55,165
Total Expenditures	<u>93,523,673</u>	<u>102,660,813</u>	<u>97,841,641</u>	<u>4,819,172</u>
Excess (Deficiency) of Revenues				
Over (Under) Expenditures	<u>8,907,493</u>	<u>2,895,809</u>	<u>9,287,396</u>	<u>6,391,587</u>
OTHER FINANCING SOURCES (USES)				
Transfer In	1,954,347	1,552,942	4,161,902	2,608,960
Transfer Out	(5,581,600)	(6,303,142)	(9,627,041)	(3,323,899)
Sale of Capital Assets	4,592	4,937	9,913	4,976
Insurance Recoveries	3,473	3,599	10,623	7,024
Available Beginning Balances	16,581,257	9,641,695	11,169,079	1,527,384
Total Other Financing Sources (Uses)	<u>12,962,069</u>	<u>4,900,031</u>	<u>5,724,476</u>	<u>824,445</u>
Excess of Revenues and Other				
Financing Sources Over Expenditures and Other Financing Uses	<u>\$ 21,869,562</u>	<u>\$ 7,795,840</u>	<u>\$ 15,011,872</u>	<u>\$ 7,216,032</u>

STATE OF TEXAS

Budgetary Comparison Schedule

Major Special Revenue Fund – State Highway Fund

For the Fiscal Year Ended August 31, 2019 (Amounts in Thousands)

	Budgetary Amounts		Actual Amounts Budgetary Basis	Final to Actual Variance
	Original	Final		
REVENUES				
Taxes	\$ 6,673,163	\$ 6,673,163	\$ 5,287,983	\$ (1,385,180)
Federal	5,323,135	5,323,135	3,972,286	(1,350,849)
Licenses, Fees and Permits	1,700,440	1,700,539	1,776,532	75,993
Interest and Other Investment Income	87,923	87,923	142,654	54,731
Land Income	12,310	12,310	29,567	17,257
Settlement of Claims	15,917	15,917	41,902	25,985
Sales of Goods and Services	46,000	50,500	76,155	25,655
Other	72,506	72,506	(51,038)	(123,544)
Total Revenues	<u>13,931,394</u>	<u>13,935,993</u>	<u>11,276,041</u>	<u>(2,659,952)</u>
EXPENDITURES				
General Government	118,900	212		212
Public Safety and Corrections			868	(868)
Transportation	12,784,664	13,657,773	10,054,922	3,602,851
Regulatory Services				
Total Expenditures	<u>12,903,564</u>	<u>13,657,985</u>	<u>10,055,790</u>	<u>3,602,195</u>
Excess (Deficiency) of Revenues				
Over (Under) Expenditures	<u>1,027,830</u>	<u>278,008</u>	<u>1,220,251</u>	<u>942,243</u>
OTHER FINANCING SOURCES (USES)				
Transfer In	1,370,487	1,370,487	1,891,938	521,451
Transfer Out			(982,048)	(982,048)
Sale of Capital Assets	41,500	41,500	10,122	(31,378)
Insurance Recoveries				
Available Beginning Balances	<u>2,140,663</u>	<u>1,622,127</u>	<u>6,412,101</u>	<u>4,789,974</u>
Total Other Financing Sources (Uses)	<u>3,552,650</u>	<u>3,034,114</u>	<u>7,332,113</u>	<u>4,297,999</u>
Excess (Deficiency) of Revenues and Other				
Financing Sources Over (Under) Expenditures and Other Financing Uses	<u>\$ 4,580,480</u>	<u>\$ 3,312,122</u>	<u>\$ 8,552,364</u>	<u>\$ 5,240,242</u>

Note to Budgetary Comparison Schedule

The budgetary comparison schedule presents comparisons of the legally adopted budget with actual data on a budgetary basis. Since accounting principles applied for purposes of developing data on a budgetary basis differ significantly from those used to present financial statements in conformity with generally accepted accounting principles (GAAP), a reconciliation of these differences is presented in the table below.

Reconciliation of Budgetary Basis to GAAP Basis		
Table RSI-1		
August 31, 2019 (Amounts in Thousands)		
	General Fund	State Highway Fund
Excess of Revenues and Other Financing Sources Over Expenditures and Other Financing Uses – Actual Budgetary Basis	\$ 15,011,872	\$ 8,552,364
Basis of Accounting Differences:		
Receivables and Unearned Revenues	(429,433)	353,056
Payables	(531,814)	(520,106)
Perspective Differences:		
Beginning Cash Balances Reported as Other Financing Sources	(11,169,079)	(6,412,101)
Revenues and Other Financing Sources Not Budgeted	424,133	(510)
Expenditures and Other Financing Uses Not Budgeted	<u>(203,112)</u>	<u>(159,018)</u>
Excess of Revenues and Other Financing Sources Over Expenditures and Other Financing Uses – GAAP Basis	<u>\$ 3,102,567</u>	<u>\$ 1,813,685</u>

The major reconciling items between the budgetary comparison schedule actual and the GAAP financial statements are:

- **Basis of Accounting Differences:** Revenues and expenditures are reported on the cash basis of accounting in the budgetary comparison schedule but are reported on the modified accrual basis on the GAAP financial statements. Therefore, unearned revenues, receivables and payables are included as reconciling items.
- **Perspective Differences:** Certain revenues and expenditures, including debt service and the disproportionate share portion of the Federal Medical Assistance program are not budgeted by

the Legislature. The activity for these programs is excluded from the budgetary comparison schedule.

- The beginning cash balances are included as other financing sources in the budgetary comparison schedule. The beginning fund balances are not included as financing sources on the GAAP financial statements.

- **Entity Differences:** Budgets are not established for sources from capital leases. These financing sources are not included in the budgetary comparison schedule.

Excess of Actual Budgetary Basis Expenditures over Final Budget

General fund – The \$583 million variance in health and human services is the result of increased expenditures made from the excess of federal revenues received over estimates by agencies in this particular function.

Major special revenue fund – state highway fund – The \$868 thousand variance in public safety and corrections are the result of expenditures made from available beginning cash balance in the fund.

Basis of Budgeting

The state's budget is prepared on a cash basis. The Texas Constitution limits appropriation bills to two years. The Legislative Budget Board (LBB) is required by statute to adopt an estimated rate of growth for the next biennium and calculate a limit on the amount of state tax revenue, not dedicated by the Texas Constitution that is available for spending in the next biennium. If the Legislature, by adoption of a resolution approved by a record vote of a majority of the members of each

house, finds that an emergency exists and identifies the nature of the emergency, the Legislature may provide appropriations in excess of the adopted limit. The Governor's Budget Office and LBB initiate the process by submitting budget requests to the Legislature. At final passage of the General Appropriations Act by the Legislature, it is sent to the Comptroller of Public Accounts (Comptroller) for certification. If the Comptroller certifies that appropriated amounts are available in the affected funds, the bill is sent to the governor. If not certified, the Legislature may pass the bill with a four-fifths majority vote. The governor has the option of vetoing the total bill or specific line-item appropriations, but does not have the authority to reduce an item of appropriation. Upon approval by the governor, the bill becomes law and is the budget authority for state agencies to spend state funds. The Comptroller is responsible for controlling, accounting and reporting expenditures in accordance with the expenditure budgets.

Legal Level of Budgetary Control

The Texas Constitution requires the Comptroller to submit a *Biennial Revenue Estimate* to the Texas Legislature prior to each regular session. This document contains an itemized estimate of beginning cash balances, anticipated revenues based on laws then in effect and estimated expenditures from prior appropriations. The Texas Constitution also requires the Comptroller to submit supplementary revenue estimates at any special

session of the Legislature and at other necessary times to show probable changes.

The level of legal control for the budget is established at the strategy (line item) level by agency. For example, "Highway Patrol" and "Vehicle Inspection Program" are two of the strategies for the Texas Department of Public Safety. The legal level of budgetary control is defined as the level at which the governing body must approve any over-expenditure of appropriations or transfers of appropriated amounts. Agencies are authorized limited transfer authority between strategies, not to exceed 20 percent, by the General Appropriations Act. Transfers and expenditures are monitored against the original budget by the Comptroller's office to ensure the agency's authorized budget is not exceeded.

The level of legal control for all agencies is documented in the *Appropriation Summary Report*, which is available by request from the Comptroller's office. This separate document includes budget and actual data by appropriation line item for each state agency. State agencies cannot exceed approved appropriations. In certain emergency situations, the governor may authorize additional appropriations from deficiency and emergency appropriation reserves. Unexpended appropriations generally lapse 60 days after the fiscal year unless they are encumbered during the 60-day "lapse" period. Other appropriations referred to as "reappropriated unexpended balances" represent the continuation of a prior year's balances for completion of a program.

Schedules of Changes in Net Pension Liability and Related Ratios

For each of the fiscal years presented, the measurement date for the information on the schedules of changes in net pension liability and related ratios was the prior fiscal year-end.

The schedules of changes in net pension liability and related ratios for the state's Employees Retirement System of Texas Plan (ERS Plan), Law Enforcement and Custodial Officer Supplemental Retirement Plan (LECOS Plan) and Judicial Retirement System of Texas Plan Two (JRS2 Plan) are presented in tables RSI-2, RSI-3 and RSI-4, respectively:

Schedule of Changes in Net Pension Liability and Related Ratios ***					
Employees Retirement System of Texas Plan					
Table RSI-2					
(Amounts in Thousands)					
	2019	2018	2017	2016	2015
Total Pension Liability					
Service Cost	\$ 1,445,557	\$ 1,457,263	\$ 1,146,791	\$ 1,231,203	\$ 1,139,451
Interest on the Total Pension Liability	2,559,723	2,510,128	2,522,625	2,373,850	2,324,180
Benefit Changes				(87,835)	
Difference between Expected and Actual Experience of the Total Pension Liability	91,881	115,632	133,557	(284,751)	(252,967)
Assumption Changes*	(1,982,914)	2,219,672	5,301,965	(3,429,167)	1,199,067
Benefit Payments and Refunds	(2,406,362)	(2,288,825)	(2,147,307)	(2,049,291)	(1,963,481)
Net Change in Total Pension Liability	(292,115)	4,013,870	6,957,631	(2,245,991)	2,446,250
Total Pension Liability – Beginning	48,236,427	44,222,557	37,264,926	39,510,917	37,064,667
Total Pension Liability – Ending	\$ 47,944,312	\$ 48,236,427	\$ 44,222,557	\$ 37,264,926	\$ 39,510,917
Plan Fiduciary Net Position					
Contributions – Employer	\$ 697,189	\$ 700,078	\$ 686,763	\$ 500,395	\$ 482,239
Contributions – Member	683,933	685,461	674,678	462,160	430,595
Pension Plan Net Investment Income	2,430,297	2,832,628	1,273,413	56,941	3,252,417
Benefit Payments and Refunds	(2,406,362)	(2,288,825)	(2,147,307)	(2,049,291)	(1,963,481)
Pension Plan Administrative Expense	(23,550)	(23,095)	(20,449)	(21,840)	(20,195)
Net Change in Plan Fiduciary Net Position	1,381,507	1,906,247	467,098	(1,051,635)	2,181,575
Plan Fiduciary Net Position – Beginning	26,371,827	24,465,580	23,998,482	25,050,117	22,868,542
Plan Fiduciary Net Position – Ending	\$ 27,753,334	\$ 26,371,827	\$ 24,465,580	\$ 23,998,482	\$ 25,050,117
Net Pension Liability – Beginning	21,864,600	19,756,977	13,266,444	14,460,800	14,196,125
Net Pension Liability – Ending	\$ 20,190,978	\$ 21,864,600	\$ 19,756,977	\$ 13,266,444	\$ 14,460,800
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	57.89%	54.67%	55.32%	64.40%	63.40%
Covered Payroll**	\$ 6,811,926	\$ 6,859,707	\$ 6,742,143	\$ 6,150,195	\$ 5,955,461
Net Pension Liability as a Percentage of Covered Payroll	296.41%	318.74%	293.04%	215.71%	242.82%
Notes to Schedule:					
* The change in the total pension liability due to the change in the single discount rate and the impact of new assumption changes adopted by the Board effective Aug. 31, 2017 is included as an assumption change.					
** The covered payroll is the payroll on which contributions to pension plan are based for the measurement period.					
*** This schedule is intended to present 10 years of information. Currently only five years of information is available. Information for future years will be added when it becomes available.					

Schedule of Changes in Net Pension Liability and Related Ratios^{***}

Law Enforcement and Custodial Officer Supplemental Retirement Plan

Table RSI-3

(Amounts in Thousands)

	2019	2018	2017	2016	2015
Total Pension Liability					
Service Cost	\$ 79,309	\$ 99,390	\$ 71,429	\$ 57,459	\$ 54,528
Interest on the Total Pension Liability	91,171	82,236	88,410	87,222	88,025
Difference between Expected and Actual Experience of the Total Pension Liability	(21,651)	(17,532)	(21,657)	(9,640)	(76,585)
Assumption Changes*	(87,015)	(144,398)	375,371	148,114	68,228
Benefit Payments and Refunds	(75,633)	(69,756)	(64,540)	(61,344)	(57,147)
Net Change in Total Pension Liability	<u>(13,819)</u>	<u>(50,060)</u>	<u>449,013</u>	<u>221,811</u>	<u>77,049</u>
Total Pension Liability – Beginning	<u>2,163,742</u>	<u>2,213,802</u>	<u>1,764,789</u>	<u>1,542,978</u>	<u>1,465,929</u>
Total Pension Liability – Ending	<u>\$ 2,149,923</u>	<u>\$ 2,163,742</u>	<u>\$ 2,213,802</u>	<u>\$ 1,764,789</u>	<u>\$ 1,542,978</u>
Plan Fiduciary Net Position					
Contributions – Employer	\$ 26,110	\$ 26,583	\$ 27,497	\$ 26,728	\$ 27,758
Contributions – Member	9,275	9,583	9,539	8,376	8,180
Pension Plan Net Investment Income	84,937	99,341	44,831	1,918	111,741
Benefit Payments and Refunds	(75,633)	(69,756)	(64,540)	(61,344)	(57,147)
Pension Plan Administrative Expense	(1,851)	(1,811)	(1,421)	(1,412)	(1,324)
Net Change in Plan Fiduciary Net Position	<u>42,838</u>	<u>63,940</u>	<u>15,906</u>	<u>(25,734)</u>	<u>89,208</u>
Plan Fiduciary Net Position – Beginning	<u>923,989</u>	<u>860,049</u>	<u>844,143</u>	<u>869,877</u>	<u>780,669</u>
Plan Fiduciary Net Position – Ending	<u>\$ 966,827</u>	<u>\$ 923,989</u>	<u>\$ 860,049</u>	<u>\$ 844,143</u>	<u>\$ 869,877</u>
Net Pension Liability – Beginning	<u>1,239,753</u>	<u>1,353,753</u>	<u>920,646</u>	<u>673,101</u>	<u>685,260</u>
Net Pension Liability – Ending	<u>\$ 1,183,096</u>	<u>\$ 1,239,753</u>	<u>\$ 1,353,753</u>	<u>\$ 920,646</u>	<u>\$ 673,101</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	44.97%	42.70%	38.85%	47.83%	56.38%
Covered Payroll**	\$ 1,689,590	\$ 1,746,349	\$ 1,725,880	\$ 1,506,028	\$ 1,496,013
Net Pension Liability as a Percentage of Covered Payroll	70.02%	70.99%	78.44%	61.13%	44.99%

Notes to Schedule:

* The change in the total pension liability due to the change in the single discount rate and the impact of new assumption changes adopted by the Board effective Aug. 31, 2017 is included as an assumption change.

** The covered payroll is the payroll on which contributions to pension plan are based for the measurement period.

*** This schedule is intended to present 10 years of information. Currently only five years of information is available. Information for future years will be added when it becomes available.

Schedule of Changes in Net Pension Liability and Related Ratios^{***}

Judicial Retirement System of Texas, Plan Two

Table RSI-4

(Amounts in Thousands)

	2019	2018	2017	2016	2015
Total Pension Liability					
Service Cost	\$ 16,056	\$ 20,420	\$ 19,429	\$ 16,244	\$ 17,805
Interest on the Total Pension Liability	34,440	31,671	30,980	30,786	28,004
Difference between Expected and Actual					
Experience of the Total Pension Liability	(1,463)	5,091	(5,833)	(10,067)	(640)
Assumption Changes*		(56,699)	23,396	35,653	(25,924)
Benefit Payments and Refunds	(24,866)	(23,361)	(21,154)	(19,238)	(16,420)
Net Change in Total Pension Liability	<u>24,167</u>	<u>(22,878)</u>	<u>46,818</u>	<u>53,378</u>	<u>2,825</u>
Total Pension Liability – Beginning	<u>463,604</u>	<u>486,482</u>	<u>439,664</u>	<u>386,286</u>	<u>383,461</u>
Total Pension Liability – Ending	<u>\$ 48,771</u>	<u>\$ 463,604</u>	<u>\$ 486,482</u>	<u>\$ 439,664</u>	<u>\$ 386,286</u>
Plan Fiduciary Net Position					
Contributions – Employer	\$ 12,560	\$ 12,495	\$ 12,374	\$ 12,457	\$ 12,211
Contributions – Member	5,940	6,017	5,754	5,465	5,195
Pension Plan Net Investment Income	39,192	44,875	19,862	820	46,186
Benefit Payments and Refunds	(24,866)	(23,361)	(21,155)	(19,238)	(16,420)
Pension Plan Administrative Expense	(296)	(295)	(225)	(284)	(267)
Net Change in Plan Fiduciary Net Position	<u>32,530</u>	<u>39,731</u>	<u>16,610</u>	<u>(780)</u>	<u>46,905</u>
Plan Fiduciary Net Position – Beginning	<u>420,851</u>	<u>381,120</u>	<u>364,510</u>	<u>365,290</u>	<u>318,385</u>
Plan Fiduciary Net Position – Ending	<u>\$ 453,381</u>	<u>\$ 420,851</u>	<u>\$ 381,120</u>	<u>\$ 364,510</u>	<u>\$ 365,290</u>
Net Pension Liability – Beginning	<u>42,753</u>	<u>105,362</u>	<u>75,154</u>	<u>20,996</u>	<u>65,076</u>
Net Pension Liability – Ending	<u>\$ 34,390</u>	<u>\$ 42,753</u>	<u>\$ 105,362</u>	<u>\$ 75,154</u>	<u>\$ 20,996</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	92.95%	90.78%	78.34%	82.91%	94.56%
Covered Payroll**	\$ 78,772	\$ 78,190	\$ 78,261	\$ 77,501	\$ 77,441
Net Pension Liability as a Percentage of Covered Payroll	43.66%	54.68%	134.63%	96.97%	27.11%

Notes to Schedule:

* The change in the total pension liability due to the change in the single discount rate and the impact of new assumption changes adopted by the Board effective Aug. 31, 2017 is included as an assumption change.

** The covered payroll is the payroll on which contributions to pension plan are based for the measurement period.

*** This schedule is intended to present 10 years of information. Currently only five years of information is available. Information for future years will be added when it becomes available.

Schedule of Changes in Total Pension Liability and Related Ratios

The measurement date for the information on the schedule of changes in total pension liability and related ratios was the prior fiscal year-end.

The schedule of changes in total pension liability and related ratios for the state's Judicial Retirement System Plan One (JRS1 Plan) is presented in table RSI-5.

Schedule of Changes in Total Pension Liability and Related Ratios ***, ****			
Judicial Retirement System of Texas, Plan One			
Table RSI-5			
(Amounts in Thousands)			
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Total Pension Liability			
Service Cost	\$ 411	\$ 378	\$ 357
Interest on the Total Pension Liability	9,071	8,977	11,265
Difference between Expected and Actual Experience of the Total Pension Liability	(1,643)	(718)	5,488
Assumption Changes**	(5,968)	(35,858)	26,760
Benefit Payments and Refunds	<u>(23,057)</u>	<u>(24,281)</u>	<u>(25,536)</u>
Net Change in Total Pension Liability	<u>(21,186)</u>	<u>(51,502)</u>	<u>18,334</u>
Total Pension Liability – Beginning	<u>276,542</u>	<u>328,044</u>	<u>309,710</u>
Total Pension Liability – Ending	<u>\$ 255,356</u>	<u>\$ 276,542</u>	<u>\$ 328,044</u>
Covered Payroll*	\$ 449	\$ 591	\$ 577
Total Pension Liability as a Percentage of Covered Payroll	56,868.89%	46,820.01%	56,891.02%
Notes to Schedule:			
* The covered payroll is the actual annual payroll for the fiscal year as reported by ERS.			
** The change in the total pension liability due to the change in the single discount rate is included as an assumption change. Assumption changes for FY 2017 include the impact of new assumptions adopted by the board effective Aug. 31, 2017.			
*** There are no assets accumulated in a trust that meets the criteria in Paragraph 4 of GASB Statement No. 73 to pay related benefits.			
**** This schedule is intended to present 10 years of information. Currently only three years of information is available. Information for future years will be added when it becomes available.			

Schedules of Proportionate Share of Net Pension Liability

For each of the fiscal years presented, the measurement date for the information on the schedules of proportionate share of net pension liability was the prior fiscal year-end.

The schedules of proportionate share of the net pension liability for the state's Teacher Retirement System of Texas Plan (TRS Plan) for the state as an employer and as a non-employer contributing entity are presented in tables RSI-6 and RSI-7, respectively.

Schedule of Proportionate Share of Net Pension Liability^{**}

Teacher Retirement System of Texas Plan

State as Employer

Table RSI-6

(Amounts in Thousands)

	2019	2018	2017	2016	2015
State's proportion of the net pension liability	16.42%	15.55%	14.86%	14.11%	16.97%
State's proportionate share of the net pension liability*	\$ 9,035,830	\$ 4,974,134	\$ 5,615,188	\$ 4,989,195	\$ 4,534,735
State's covered payroll	\$ 7,165,045	\$ 6,551,021	\$ 6,054,185	\$ 5,426,660	\$ 6,221,452
State's proportionate share of the net pension liability as a percentage of its covered payroll	126.11%	75.93%	92.75%	91.94%	72.89%
Plan fiduciary net position as a percentage of the total pension liability	73.74%	82.17%	78.00%	78.43%	83.25%

* The state's proportionate share of the net pension liability for the state as an employer consists of \$1,951,952 reported in governmental activity and \$7,083,878 reported in business-type activity.

** This schedule is intended to present 10 years of information. Currently only five years of information are available. Information for future years will be added when it becomes available.

Schedule of Proportionate Share of Net Pension Liability*

Teacher Retirement System of Texas Plan

State as Non-Employer Contributing Entity

Table RSI-7

(Amounts in Thousands)

	2019	2018	2017	2016	2015
State's proportion of the net pension liability	50.96%	51.82%	52.74%	53.75%	60.37%
State's proportionate share of the net pension liability	\$ 28,051,905	\$ 16,568,177	\$ 19,929,042	\$ 18,998,983	\$ 16,129,760
Plan fiduciary net position as a percentage of the total pension liability	73.74%	82.17%	78.00%	78.43%	83.25%

* This schedule is intended to present 10 years of information. Currently only five years of information is available. Information for future years will be added when it becomes available.

The schedule of proportionate share of the net pension liability for the Texas Emergency Services Retirement System Plan (TESRS Plan) for the state as a non-employer contributing entity is presented in table RSI-8.

Schedule of Proportionate Share of Net Pension Liability*

Texas Emergency Services Retirement System Plan

State as Non-Employer Contributing Entity

Table RSI-8

(Amounts in Thousands)

	2019	2018	2017	2016	2015
State's proportion of the net pension liability	27.75%	32.75%	34.57%	34.66%	33.79%
State's proportionate share of the net pension liability	\$ 6,009	\$ 7,860	\$ 10,070	\$ 9,252	\$ 6,140
Plan fiduciary net position as a percentage of the total pension liability	84.3%	81.4%	76.3%	76.9%	83.5%

* This schedule is intended to present 10 years of information. Currently only five years of information is available. Information for future years will be added when it becomes available.

Schedules of Employer Contributions Related to Pension

The information on the schedules of employer contributions was determined as of the end of the fiscal years presented.

The schedules of employer contributions comparing the actuarially determined contributions and the contributions recognized by the pension plan in relation to the actuarially determined contributions for the state's ERS, LECOS and JRS2 Plans are presented in tables RSI-9, RSI-10 and RSI-11, respectively.

Schedule of Employer Contributions⁴ Employees Retirement System of Texas Plan

Table RSI-9
(Amounts in Thousands)

	2019	2018	2017	2016	2015	2014
Actuarially determined contributions	\$ 946,266	\$ 933,915	\$ 713,528	\$ 679,806	\$ 737,111	\$ 727,892
Contributions in relation to the actuarially determined contributions	712,648	697,189	700,078	686,763	500,395	482,239
Contribution deficiency (excess)	233,618	236,726	13,450	(6,957)	236,716	245,653
Covered payroll	6,947,625	6,811,926	6,859,707	6,742,143	6,150,195	5,955,461
Contributions as a percentage of covered payroll	10.26%	10.23%	10.21%	10.19%	8.14%	8.10%

Notes to Schedule of Contributions

Valuation Date

Actuarially determined contribution rates are calculated as of Aug. 31 of the fiscal year. A new set of assumptions were adopted for the Aug. 31, 2017 actuarial valuation and were first reflected for the actuarially determined employer contribution (ADEC) determined for the fiscal year ended 2018.

Methods and Assumptions Used to Determine Contribution Rates

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Open
Remaining Amortization Period	31 years
Asset Valuation Method	Marked to market as of Aug. 31, 2017. Future gains and losses each recognized over closed five-year period, with allowance of direct offsetting of deferrals by subsequent gains or losses.
Inflation	2.5%
Salary Increases	0.00% to 9.50%
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates that are specific to the class of employee. Updated for the 2017 valuation pursuant to an experience study of the five-year period from Sept. 1, 2011 through Aug. 31, 2016
Mortality	2017 State Retirees of Texas (SRT) mortality table. Generational mortality improvements in accordance with the ultimate rates from the scale most recently published by Retirement Plans Experience Committee of the Society of Actuaries ("Scale U-MP") and projected from the year 2017. Rates for male LECO members are set forward one year.

Other Information:

1. Actuarially determined contributions are adjusted for actual payroll and administrative expenses.
2. Members and employers contribute based on statutorily fixed rates.
3. The covered payroll is the payroll on which contributions to pension plan are based for the fiscal year being reported.
4. This schedule is intended to present 10 years of information. Currently only six years of information is available. Information for future years will be added when it becomes available.

Schedule of Employer Contributions⁴ Law Enforcement and Custodial Officer Supplemental Retirement Plan

Table RSI-10

(Amounts in Thousands)

	2019	2018	2017	2016	2015	2014
Actuarially determined contributions	\$ 54,854	\$ 53,560	\$ 45,332	\$ 43,167	\$ 38,131	\$ 40,205
Contributions in relation to the actuarially determined contributions	25,864	26,110	26,583	27,497	26,728	27,758
Contribution deficiency	28,990	27,450	18,749	15,670	11,403	12,447
Covered payroll	1,682,633	1,689,590	1,746,349	1,725,880	1,506,028	1,496,013
Contributions as a percentage of covered payroll	1.54%	1.55%	1.52%	1.59%	1.77%	1.86%

Notes to Schedule of Contributions

Valuation Date

Actuarially determined contribution rates are calculated based on the actuarial valuation at the beginning of the fiscal year. A new set of assumptions were adopted for the Aug. 31, 2017 actuarial valuation and were first reflected for the ADEC determined for the fiscal year ended 2018.

Methods and Assumptions Used to Determine Contribution Rates

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Open
Remaining Amortization Period	31 years
Asset Valuation Method	Marked to market as of Aug. 31, 2017. Future gains and losses each recognized over closed five-year period, with allowance of direct offsetting of deferrals by subsequent gains or losses.
Inflation	2.50%
Salary Increases	4.50% to 9.50%
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Updated for the 2017 valuation pursuant to an experience study of the five-year period from Sept. 1, 2011 through Aug. 31, 2016.
Mortality	2017 State Retirees of Texas (SRT) mortality table. Generational mortality improvements in accordance with the ultimate rates from the scale most recently published by Retirement Plans Experience Committee of the Society of Actuaries ("Scale U-MP") and projected from the year 2017. Rates for male LECO members are set forward one year.

Other Information:

1. Actuarially determined contributions are adjusted for actual payroll and administrative expenses.
2. Members and employers contribute based on statutorily fixed rates.
3. The covered payroll is the payroll on which contributions to pension plan are based for the fiscal year being reported.
4. This schedule is intended to present 10 years of information. Currently only six years of information is available. Information for future years will be added when it becomes available.

Schedule of Employer Contributions⁴ Judicial Retirement System of Texas Plan Two

Table RSI-11

(Amounts in Thousands)

	2019	2018	2017	2016	2015	2014
Actuarially determined contributions	\$ 13,057	\$ 12,934	\$ 12,444	\$ 12,896	\$ 13,107	\$ 13,449
Contributions in relation to the actuarially determined contributions	13,100	12,560	12,494	12,374	12,457	12,211
Contribution deficiency (excess)	(43)	374	(50)	522	650	1,238
Covered payroll	79,711	78,772	78,190	78,261	77,501	77,441
Contributions as a percentage of covered payroll	16.43%	15.94%	15.98%	15.81%	16.07%	15.77%

Notes to Schedule of Contributions

Valuation Date

Actuarially determined contribution rates are calculated based on the actuarial valuation at the beginning of the fiscal year. A new set of assumptions were adopted for the Aug. 31, 2017 actuarial valuation and were first reflected for the ADEC determined for the fiscal year ended 2018.

Methods and Assumptions Used to Determine Contribution Rates

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Open
Remaining Amortization Period	31 years
Asset Valuation Method	Marked to market as of Aug. 31, 2017. Future gains and losses each recognized over closed five-year period, with allowance of direct offsetting of deferrals by subsequent gains or losses.
Inflation	2.50%
Salary Increases	3.00%
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2017 valuation pursuant to an experience study of the five-year period from Sept. 1, 2011 through Aug. 31, 2016.
Mortality	2017 State Retirees of Texas (SRT) mortality table. Generational mortality improvements in accordance with the ultimate rates from the scale most recently published by Retirement Plans Experience Committee of the Society of Actuaries ("Scale U-MP") and projected from the year 2017.

Other Information:

1. Actuarially determined contributions are adjusted for actual payroll and administrative expenses.
2. Members and employers contribute based on statutorily fixed rates.
3. The covered payroll is the payroll on which contributions to pension plan are based for the fiscal year being reported.
4. This schedule is intended to present 10 years of information. Currently only six years of information is available. Information for future years will be added when it becomes available.

The schedules of employer contributions comparing the statutorily required contributions and the contributions recognized by the pension plan in relation to the statutorily required contributions for the state's TRS Plan for the state as an employer and as a non-employer contributing entity are presented in tables RSI-12 and RSI-13, respectively.

Schedule of Employer Contributions*

Teacher Retirement System of Texas Plan

State as Employer

Table RSI-12

(Amounts in Thousands)

	2019	2018	2017	2016	2015	2014
Statutorily required contributions	\$ 612,078	\$ 516,850	\$ 495,500	\$ 466,216	\$ 417,698	\$ 430,321
Contributions in relation to the statutorily required contributions	612,078	516,850	495,500	466,216	417,698	430,321
Contribution deficiency (excess)	0	0	0	0	0	0
Covered payroll	7,425,351	6,789,858	6,257,506	5,750,539	5,408,293	6,221,452
Contributions as a percentage of covered payroll	8.24%	7.61%	7.92%	8.11%	7.72%	6.92%

* This schedule is intended to present 10 years of information. Currently only six years of information are available. Information for future years will be added when it becomes available.

Schedule of Employer Contributions*

Teacher Retirement System of Texas Plan

State as Non-Employer Contributing Entity

Table RSI-13

(Amounts in Thousands)

	2019	2018	2017	2016	2015	2014
Statutorily required contributions	\$ 2,326,680	\$ 1,715,785	\$ 1,697,963	\$ 1,675,631	\$ 1,591,483	\$ 1,530,624
Contributions in relation to the statutorily required contributions	2,326,680	1,715,785	1,697,963	1,675,631	1,591,483	1,530,624
Contribution deficiency (excess)	0	0	0	0	0	0

* This schedule is intended to present 10 years of information. Currently only six years of information is available. Information for future years will be added when it becomes available.

The schedule of contributions comparing the statutorily required contributions and the contributions recognized by the pension plan in relation to the statutorily required contributions for TESRS plan for the state as a non-employer contributing entity is presented in table RSI-14.

Schedule of Employer Contributions^{**}

Texas Emergency Services Retirement System Plan

State as Non-Employer Contributing Entity

Table RSI-14

(Amounts in Thousands)

	2019*	2018	2017	2016	2015	2014
Statutorily required contributions	\$ 1,329	\$ 1,329	\$ 1,584	\$ 1,584	\$ 1,637	\$ 1,530
Contributions in relation to the statutorily required contributions	1,329	1,329	1,584	1,584	1,637	1,530
Contribution deficiency (excess)	0	0	0	0	0	0

* Texas Emergency Services Retirement System was appropriated \$1,329 in each fiscal year of the 2018-19 biennium

** This schedule is intended to present 10 years of information. Currently only six years of information is available. Information for future years will be added when it becomes available.

Schedules of Proportionate Share of Net OPEB Liability

For each of the fiscal years presented, the measurement date for the information on the schedules of proportionate share of net OPEB liability was the prior fiscal year-end.

The schedules of proportionate share of the net OPEB liability for the state's Employees Retirement System of Texas State Retiree Health Plan (SRHP) for the state as an employer and as a non-employer contributing entity is presented in table RSI-15.

Schedule of Proportionate Share of Net OPEB Liability *

Employees Retirement System of Texas, SRHP Plan

Table RSI-15
(Amounts in Thousands)

	2019	2018
State as employer proportion of the net OPEB liability	85.44%	89.45%
Proportionate Shares of the net OPEB liability		
State as employer	\$ 25,323,500	\$ 30,477,926
State as non-employer contributing entity	1,821,019	1,637,246
Total net OPEB liability recognized by the state	<u>\$ 27,144,519</u>	<u>\$ 32,115,172</u>
State's covered-employee payroll	\$ 10,293,511	\$ 10,506,048
State's proportionate share of the net OPEB liability as a percentage of its covered-employee payroll	246.01%	290.10%
Plan fiduciary net position as a percentage of the total OPEB liability	1.30%	2.00%

Notes to Schedule

Actuarial Cost Method	Entry Age
Amortization Method	Level Percent of Payroll, Open
Remaining Amortization Period	30 Years
Actuarial Assumptions:	
Discount Rate	3.96%
Projected Salary Increase	2.5% to 9.5%, including inflation
Inflation Rate	2.50%
Healthcare Cost and Trend Rate	7.30% for FY 2020, 7.40% for FY 2021, 7.00% for FY 2022, decreasing 0.5% per year to an ultimate rate of 4.50% for FY 2027 and later years

* This schedule is intended to present 10 years of information. Currently only two years of information is available. Information for future years will be added when it becomes available.

The schedules of proportionate share of the net OPEB liability for the state's Teacher Retirement System of Texas Public School Retired Employees Group Insurance Program (TRS-Care) for the state as a non-employer contributing entity is presented in table RSI-16.

Schedule of Changes in Total OPEB Liability and Related Ratios

The measurement date for the information on the schedule of changes in total OPEB liability and related ratios is presented in each of the following tables for both plans.

The schedule of changes in total OPEB liability and related ratios for the state's Texas A&M University System Retiree Group Insurance Program (A&M Plan) and University of Texas System Employee Group Insurance Program (UT Plan) are presented in tables RSI-17 and RSI-18, respectively.

Schedule of Proportionate Share of Net OPEB Liability

Teacher Retirement System of Texas, TRS-Care Plan

State as Non-Employer Contributing Entity

Table RSI-16

(Amounts in Thousands)

	2019	2018
State's proportion of the net OPEB liability	57.43%	58.44%
State's proportionate share of the net OPEB liability*	\$ 28,673,029	\$ 25,413,891
Plan fiduciary net position as a percentage of the total OPEB liability	1.57%	0.91%

Notes to Schedule

* This schedule is intended to present 10 years of information. Currently only two years of information is available. Information for future years will be added when it becomes available.

Schedule of Changes in Total OPEB Liability and Related Ratios^{*,****}

Texas A&M University System, A&M Plan

Table RSI-17

(Amounts in Thousands)

	2019	2018
Measurement Date	Sept. 1, 2018	Sept. 1, 2017
Total OPEB Liability		
Service Cost	\$ 173,615	\$ 248,902
Interest on the Total OPEB Liability	163,593	159,723
Changes of benefit terms**	(1,050,344)	0
Difference between Expected and Actual Experience in the measurement of the Total OPEB Liability	0	(95,295)
Changes of assumptions or other inputs***	(361,071)	(1,128,792)
Benefit Payments (employer)	(71,054)	(73,981)
Other Changes	0	0
Net Change in Total OPEB Liability	(1,145,261)	(889,443)
Total OPEB Liability – Beginning	4,522,674	5,412,117
Total OPEB Liability – Ending	\$ 3,377,413	\$ 4,522,674
Covered-Employee Payroll	\$ 1,619,640	\$ 1,607,611
Total OPEB Liability as a Percentage of Covered-Employee Payroll	208.53%	281.33%

Notes to Schedule:

- * There are no assets accumulated in a trust that meets the criteria in Paragraph 4 of GASB Statement No. 75 to pay related benefits.
- ** Included Changes in benefit terms: Adopted in January 2018 and effective January 1, 2019, prescription drug coverage for all Medicare-primary participants is provided through a self-funded Employer Group Waiver Plan with Commercial Wrap (EGWP plus Wrap).
- *** Included Changes in Assumptions or Other Inputs: Changes of assumptions and other inputs reflect the changes in the discount rate each period. The following are the discount rates used in each period:
FY 2019 - 3.96%
FY 2018 - 3.51%
FY 2017 - 2.84%
In fiscal 2018, amounts reflect a 1-percentage-point decrease in the assumed rate of general inflation and adjustments to assumptions for expenses, assumed per capita health benefit costs and assumed trend for health benefit costs, retiree contributions and expenses.
In fiscal 2019, the Assumed Per Capital Health Benefit Costs were updated to reflect the changes in benefit terms due to the implementation of EGWP plus Wrap.
- **** This schedule is intended to present 10 years of information. Currently only two years of information are available. Information for future years will be added when it becomes available.

Schedule of Changes in Total OPEB Liability and Related Ratios^{* ***}

University of Texas System, UT Plan

Table RSI-18

(Amounts in Thousands)

	2019	2018
Measurement Date	Dec. 31, 2018	Dec. 31, 2017
Total OPEB Liability		
Service Cost	\$ 692,255	\$ 737,751
Interest on the Total OPEB Liability	498,239	552,440
Changes of benefit terms		
Difference between Expected and Actual Experience in the measurement of the Total OPEB Liability		(177,101)
Changes of assumptions or other inputs**	(1,805,442)	(1,012,995)
Benefit Payments (employer)	(193,743)	(177,742)
Other Changes		
Net Change in Total OPEB Liability	(808,691)	(77,647)
Total OPEB Liability – Beginning	13,888,295	13,965,942
Total OPEB Liability – Ending	\$ 13,079,604	\$ 13,888,295
Covered-Employee Payroll	\$ 6,062,198	\$ 5,820,998
Total OPEB Liability as a Percentage of Covered-Employee Payroll	215.76%	238.59%

Notes to Schedule:

* There are no assets accumulated in a trust that meets the criteria in Paragraph 4 of GASB Statement No. 75 to pay related benefits.

** Included Changes in Assumptions or Other Inputs:

Changes of assumptions and other inputs reflect the changes in the discount rate each period. The following are the discount rates used in each period:

FY 2019 - 4.10%

FY 2018 - 3.44%

FY 2017 - 3.78%

In fiscal 2018, amounts reflect a 1-percentage-point decrease in the assumed rate of general inflation and adjustments to assumptions for expenses, assumed per capita health benefit costs and assumed trend for health benefit costs, retiree contributions and expenses.

*** This schedule is intended to present 10 years of information. Currently only two years of information are available. Information for future years will be added when it becomes available.

Schedules of Employer Contributions Related to OPEB

The information on the schedules of employer contributions was determined as of the end of the fiscal years presented.

The schedule of employer contributions comparing the statutorily required contributions and the contributions recognized by the OPEB plan in relation to the statutorily required contributions for the SRHP plan for the state as an employer is presented in table RSI-19.

Schedule of Employer Contributions[*]			
Employees Retirement System of Texas, SRHP Plan			
State as Employer			
Table RSI-19			
(Amounts in Thousands)			
	2019	2018	2017
Statutorily required contributions	\$ 330,295	\$ 288,822	\$ 837,982
Contributions in relation to the statutorily required contributions	330,295	288,822	837,982
Contribution deficiency (excess)	0	0	0
Covered-employee payroll	10,526,653	10,776,055	10,506,048
Contributions as a percentage of covered-employee payroll	3.43%	2.70%	7.98%
* This schedule is intended to present 10 years of information. Currently only three years of information are available. Information for future years will be added when it becomes available			

The schedule of employer contributions comparing the state as a non-employer contributing entity's proportionate share of the net OPEB liability and contributions recognized in the SRHP plan is presented in table RSI-20.

Schedule of Employer Contributions[*]		
Employees Retirement System of Texas, SRHP Plan		
State as Non-Employer Contributing Entity		
Table RSI-20		
(Amounts in Thousands)		
	<u>2019</u>	<u>2018</u>
State's proportionate share of the net OPEB liability	\$ 1,821,019	\$ 1,637,246
Contributions recognized by the OPEB plan during the fiscal year	\$ 19,884	\$ 45,016
* This schedule is intended to present 10 years of information. Currently only two years of information are available. Information for future years will be added when it becomes available.		

The schedule of contributions comparing the statutorily required contributions and the contributions recognized by the OPEB plan in relation to the statutorily required contributions for TRS-Care plan for the state as a non-employer contributing entity is presented in table RSI-21.

Schedule of Employer Contributions[*]			
Teacher Retirement System of Texas, TRS-Care Plan			
State as Non-Employer Contributing Entity			
Table RSI-21			
(Amounts in Thousands)			
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Statutorily required contributions	\$ 478,578	\$ 790,189	\$ 319,320
Contributions in relation to the statutorily required contributions	478,578	790,189	319,320
Contribution deficiency (excess)	0	0	0
* This schedule is intended to present 10 years of information. Currently only three years of information are available. Information for future years will be added when it becomes available			

Significant Factors Affecting the Comparability of Amounts Reported

Pension Plans

The state implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions, an amendment of GASB Statement No. 27*, in fiscal 2015. The state implemented GASB Statement No. 82, *Pension Issues—an amendment of GASB Statements No. 67, No. 68, and No. 73*, in fiscal 2017. Paragraph 7 of GASB Statement No. 82 is not applicable to the state. All pension schedules related to ERS, LECOS, JRS2, TRS and TESRS Plans present information in accordance with the GASB Statement No. 68 and 82 standards. The state implemented GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*, in fiscal 2017. Pension schedule for JRS1 Plan presents information in accordance with GASB Statement No. 73.

A new set of assumptions were adopted for Aug. 31, 2017 actuarial valuations used to determine contributions rates; these changes include asset valuation methods, inflation, salary increase, investment rate of return and tables related to retirement age and mortality which are included in RSI tables RSI-9 through RSI-11 related to ERS, LECOS and JRS2 plans, respectively.

There have been no changes in the actuarial assumptions and methods since the prior valuation for TRS Plan. For the JRS1 Plan, membership continues to decrease as a result of new judicial officers participating in JRS2 Plan.

OPEB Plans

The state implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, in fiscal 2018. More detailed information on each OPEB plans' actuarial methods, assumptions and benefits may be obtained from Note 11.

