



Glenn Hegar Texas Comptroller of Public Accounts

State of Texas Comprehensive Annual Financial Report



For the Fiscal Year Ended
August 31, 2017

The spreadsheets in this publication are available
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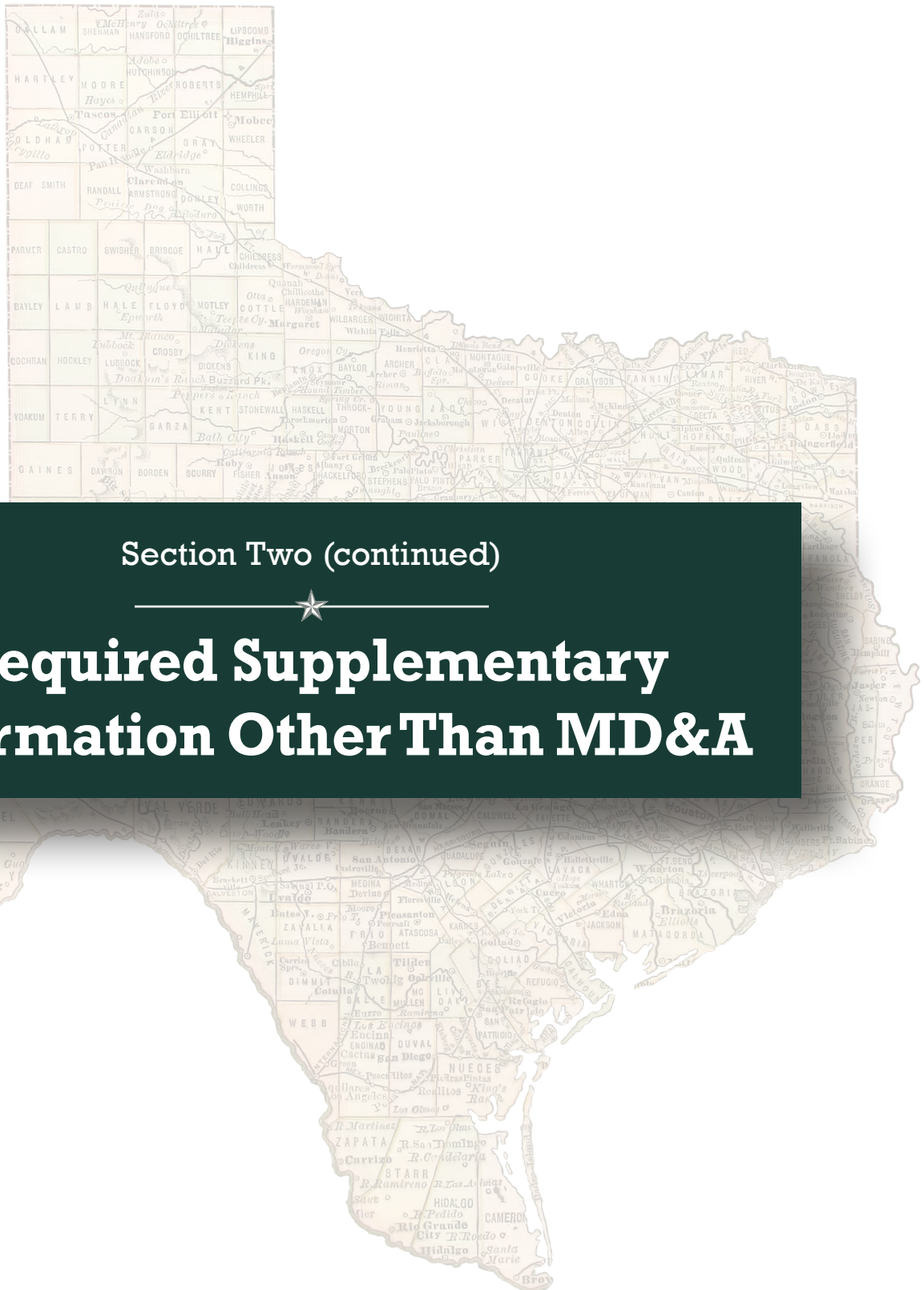
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Section Two (continued)



Required Supplementary Information Other Than MD&A

STATE OF TEXAS

Budgetary Comparison Schedule

General Fund

For the Fiscal Year Ended August 31, 2017 (Amounts in Thousands)

	Budgetary Amounts		Actual Amounts Budgetary Basis	Final to Actual Variance
	Original	Final		
REVENUES				
Taxes	\$ 46,943,636	\$ 46,943,636	\$ 44,856,562	\$ (2,087,074)
Federal	30,172,197	35,977,211	38,614,882	2,637,671
Licenses, Fees and Permits	2,656,774	2,771,699	2,966,989	195,290
Interest and Other Investment Income	178,061	182,125	110,320	(71,805)
Land Income	31,657	32,401	19,869	(12,532)
Settlement of Claims	537,554	538,104	502,650	(35,454)
Sales of Goods and Services	1,195,674	1,787,470	3,077,806	1,290,336
Other	5,392,699	5,498,919	5,357,887	(141,032)
Total Revenues	<u>87,108,252</u>	<u>93,731,565</u>	<u>95,506,965</u>	<u>1,775,400</u>
EXPENDITURES				
General Government	4,654,489	3,699,145	2,788,126	911,019
Education	27,301,187	28,084,280	26,046,473	2,037,807
Employee Benefits	2,133,445	43,808	2,191	41,617
Teacher Retirement Benefits	2,127,058	2,127,058	2,148,958	(21,900)
Health and Human Services	42,467,523	50,413,054	53,578,993	(3,165,939)
Public Safety and Corrections	5,171,207	6,649,126	6,244,864	404,262
Transportation	301,038	302,707	51,473	251,234
Natural Resources and Recreation	1,612,862	2,079,668	1,996,473	83,195
Regulatory Services	281,750	376,142	357,626	18,516
Total Expenditures	<u>86,050,559</u>	<u>93,774,988</u>	<u>93,215,177</u>	<u>559,811</u>
Excess (Deficiency) of Revenues				
Over (Under) Expenditures	<u>1,057,693</u>	<u>(43,423)</u>	<u>2,291,788</u>	<u>2,335,211</u>
OTHER FINANCING SOURCES (USES)				
Transfer In	1,566,082	1,198,882	3,083,126	1,884,244
Transfer Out	(4,617,676)	(5,089,891)	(7,879,077)	(2,789,186)
Sale of Capital Assets	7,328	7,626	14,560	6,934
Insurance Recoveries	814	928	9,875	8,947
Available Beginning Balances	10,217,894	7,858,745	6,800,522	(1,058,223)
Total Other Financing Sources (Uses)	<u>7,174,442</u>	<u>3,976,290</u>	<u>2,029,006</u>	<u>(1,947,284)</u>
Excess of Revenues and Other				
Financing Sources Over Expenditures and Other Financing Uses	<u>\$ 8,232,135</u>	<u>\$ 3,932,867</u>	<u>\$ 4,320,794</u>	<u>\$ 387,927</u>

STATE OF TEXAS

Budgetary Comparison Schedule

Major Special Revenue Fund – State Highway Fund

For the Fiscal Year Ended August 31, 2017 (Amounts in Thousands)

	Budgetary Amounts		Actual Amounts Budgetary Basis	Final to Actual Variance
	Original	Final		
REVENUES				
Taxes	\$ 2,645,747	\$ 2,645,747	\$ 2,674,080	\$ 28,333
Federal	4,791,707	4,791,707	3,900,295	(891,412)
Licenses, Fees and Permits	1,576,239	1,576,340	1,570,807	(5,533)
Interest and Other Investment Income	16,068	16,068	56,753	40,685
Land Income	11,315	11,315	13,222	1,907
Settlement of Claims	1,000	1,000	28,215	27,215
Sales of Goods and Services	166,692	171,192	12,177	(159,015)
Other	129,977	130,226	67,440	(62,786)
Total Revenues	<u>9,338,745</u>	<u>9,343,595</u>	<u>8,322,989</u>	<u>(1,020,606)</u>
EXPENDITURES				
General Government		687	512	175
Employee Benefits	105,216			
Public Safety and Corrections			574	(574)
Transportation	9,249,669	10,167,916	9,489,460	678,456
Regulatory Services			1,630	(1,630)
Total Expenditures	<u>9,354,885</u>	<u>10,168,603</u>	<u>9,492,176</u>	<u>676,427</u>
Excess (Deficiency) of Revenues Over (Under) Expenditures	<u>(16,140)</u>	<u>(825,008)</u>	<u>(1,169,187)</u>	<u>(344,179)</u>
OTHER FINANCING SOURCES (USES)				
Transfer In	594,182	594,182	943,558	349,376
Transfer Out			(532,259)	(532,259)
Sale of Capital Assets	5,085	5,085	8,469	3,384
Insurance Recoveries	275	275		(275)
Available Beginning Balances	4,039,338	3,939,082	4,035,032	95,950
Total Other Financing Sources (Uses)	<u>4,638,880</u>	<u>4,538,624</u>	<u>4,454,800</u>	<u>(83,824)</u>
Excess (Deficiency) of Revenues and Other Financing Sources Over (Under) Expenditures and Other Financing Uses	<u>\$ 4,622,740</u>	<u>\$ 3,713,616</u>	<u>\$ 3,285,613</u>	<u>\$ (428,003)</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 table RSI-1.

- **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 Texas 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.

Reconciliation of Budgetary Basis to GAAP Basis

Table RSI-1

August 31, 2017 (Amounts in Thousands)

	General Fund	State Highway Fund
Excess of Revenues and Other Financing Sources Over Expenditures and Other Financing Uses – Actual Budgetary Basis	\$ 4,320,794	\$3,285,613
Basis of Accounting Differences:		
Receivables and Unearned Revenues	710,400	(71,305)
Payables	(900,076)	(69,030)
Perspective Differences:		
Beginning Cash Balances Reported as Other Financing Sources	(6,800,522)	(4,035,032)
Revenues and Other Financing Sources Not Budgeted	470,308	1,088,227
Expenditures and Other Financing Uses Not Budgeted	(452,458)	(213,348)
Deficiency of Revenues and Other Financing Sources Under Expenditures and Other Financing Uses – GAAP Basis	<u>\$(2,651,554)</u>	<u>\$ (14,875)</u>

Excess of Actual Budgetary Basis Expenditures over Final Budget

General fund - The \$3.2 billion 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. The \$21.9 million variance in teacher retirement benefits results from prior year contributions/allocations reappropriated in fiscal year 2017 as stipulated by legislation.

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.

Major special revenue fund – state highway fund -

The \$600 thousand variance in public safety and corrections and the \$1.6 million variance in regulatory services 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 Texas 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 Texas 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 Texas Legislature. At final passage of the General Appropriations Act (GAA) by the Texas Legislature, it is sent to the Texas Comptroller of Public Accounts (Comptroller) for certification. If the Comptroller's office certifies that appropriated amounts are available in the affected funds, the bill is sent to the governor. If not certified, the Texas 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's office 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's office 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's office to submit supplementary revenue estimates at any special session of the Texas 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 GAA. 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)			
	2017	2016	2015
Total Pension Liability			
Service Cost	\$ 1,146,791	\$ 1,231,203	\$ 1,139,451
Interest on the Total Pension Liability	2,522,625	2,373,850	2,324,180
Benefit Changes	0	(87,835)	0
Difference between Expected and Actual Experience of the Total Pension Liability	133,557	(284,751)	(252,967)
Assumption Changes*	5,301,965	(3,429,167)	1,199,067
Benefit Payments and Refunds	(2,147,307)	(2,049,291)	(1,963,481)
Net Change in Total Pension Liability	6,957,631	(2,245,991)	2,446,250
Total Pension Liability – Beginning	37,264,926	39,510,917	37,064,667
Total Pension Liability – Ending	\$ 44,222,557	\$ 37,264,926	\$ 39,510,917
Plan Fiduciary Net Position			
Contributions – Employer	\$ 686,763	\$ 500,395	\$ 482,239
Contributions – Member	674,678	462,160	430,595
Pension Plan Net Investment Income	1,273,413	56,941	3,252,417
Benefit Payments and Refunds	(2,147,307)	(2,049,291)	(1,963,481)
Pension Plan Administrative Expense	(20,449)	(21,840)	(20,195)
Net Change in Plan Fiduciary Net Position	467,098	(1,051,635)	2,181,575
Plan Fiduciary Net Position – Beginning	23,998,482	25,050,117	22,868,542
Plan Fiduciary Net Position – Ending	\$ 24,465,580	\$ 23,998,482	\$ 25,050,117
Net Pension Liability – Beginning	13,266,444	14,460,800	14,196,125
Net Pension Liability – Ending	\$ 19,756,977	\$ 13,266,444	\$ 14,460,800
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	55.32%	64.40%	63.40%
Covered Payroll**	\$ 6,742,143	\$ 6,150,195	\$ 5,955,461
Net Pension Liability as a Percentage of Covered Payroll	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 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 three 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)

	2017	2016	2015
Total Pension Liability			
Service Cost	\$ 71,429	\$ 57,459	\$ 54,528
Interest on the Total Pension Liability	88,410	87,222	88,025
Difference between Expected and Actual Experience of the Total Pension Liability	(21,657)	(9,640)	(76,585)
Assumption Changes*	375,371	148,114	68,228
Benefit Payments and Refunds	(64,540)	(61,344)	(57,147)
Net Change in Total Pension Liability	<u>449,013</u>	<u>221,811</u>	<u>77,049</u>
Total Pension Liability – Beginning	<u>1,764,789</u>	<u>1,542,978</u>	<u>1,465,929</u>
Total Pension Liability – Ending	<u>\$ 2,213,802</u>	<u>\$ 1,764,789</u>	<u>\$ 1,542,978</u>
Plan Fiduciary Net Position			
Contributions – Employer	\$ 27,497	\$ 26,728	\$ 27,758
Contributions – Member	9,539	8,376	8,180
Pension Plan Net Investment Income	44,831	1,918	111,741
Benefit Payments and Refunds	(64,540)	(61,344)	(57,147)
Pension Plan Administrative Expense	(1,421)	(1,412)	(1,324)
Net Change in Plan Fiduciary Net Position	<u>15,906</u>	<u>(25,734)</u>	<u>89,208</u>
Plan Fiduciary Net Position – Beginning	<u>844,143</u>	<u>869,877</u>	<u>780,669</u>
Plan Fiduciary Net Position – Ending	<u>\$ 860,049</u>	<u>\$ 844,143</u>	<u>\$ 869,877</u>
Net Pension Liability – Beginning	<u>920,646</u>	<u>673,101</u>	<u>685,260</u>
Net Pension Liability – Ending	<u>\$ 1,353,753</u>	<u>\$ 920,646</u>	<u>\$ 673,101</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	38.85%	47.83%	56.38%
Covered Payroll**	\$ 1,725,880	\$ 1,506,028	\$ 1,496,013
Net Pension Liability as a Percentage of Covered Payroll	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 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 three 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)

	2017	2016	2015
Total Pension Liability			
Service Cost	\$ 19,429	\$ 16,244	\$ 17,805
Interest on the Total Pension Liability	30,980	30,786	28,004
Difference between Expected and Actual Experience of the Total Pension Liability	(5,833)	(10,067)	(640)
Assumption Changes*	23,396	35,653	(25,924)
Benefit Payments and Refunds	(21,154)	(19,238)	(16,420)
Net Change in Total Pension Liability	<u>46,818</u>	<u>53,378</u>	<u>2,825</u>
Total Pension Liability – Beginning	<u>439,664</u>	<u>386,286</u>	<u>383,461</u>
Total Pension Liability – Ending	<u>\$ 486,482</u>	<u>\$ 439,664</u>	<u>\$ 386,286</u>
Plan Fiduciary Net Position			
Contributions – Employer	\$ 12,374	\$ 12,457	\$ 12,211
Contributions – Member	5,754	5,465	5,195
Pension Plan Net Investment Income	19,862	820	46,186
Benefit Payments and Refunds	(21,155)	(19,238)	(16,420)
Pension Plan Administrative Expense	(225)	(284)	(267)
Net Change in Plan Fiduciary Net Position	<u>16,610</u>	<u>(780)</u>	<u>46,905</u>
Plan Fiduciary Net Position – Beginning	<u>364,510</u>	<u>365,290</u>	<u>318,385</u>
Plan Fiduciary Net Position – Ending	<u>\$ 381,120</u>	<u>\$ 364,510</u>	<u>\$ 365,290</u>
Net Pension Liability – Beginning	<u>75,154</u>	<u>20,996</u>	<u>65,076</u>
Net Pension Liability – Ending	<u>\$ 105,362</u>	<u>\$ 75,154</u>	<u>\$ 20,996</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	78.34%	82.91%	94.56%
Covered Payroll**	\$ 78,261	\$ 77,501	\$ 77,441
Net Pension Liability as a Percentage of Covered Payroll	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 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 three 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>2017</u>
Total Pension Liability	
Service Cost	\$ 357
Interest on the Total Pension Liability	11,265
Difference between Expected and Actual Experience of the Total Pension Liability	5,488
Assumption Changes**	26,760
Benefit Payments and Refunds	<u>(25,536)</u>
Net Change in Total Pension Liability	<u>18,334</u>
Total Pension Liability – Beginning	309,710
Total Pension Liability – Ending	<u>\$ 328,044</u>
Covered Payroll*	\$ 577
Total Pension Liability as a Percentage of Covered Payroll	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.	
*** 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 one year 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)

	2017	2016	2015
State's proportion of the net pension liability	14.86%	14.11%	16.97%
State's proportionate share of the net pension liability*	\$ 5,615,188	\$ 4,989,195	\$ 4,534,735
State's covered payroll	\$ 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	92.75%	91.94%	72.89%
Plan fiduciary net position as a percentage of the total pension liability	78.00%	78.43%	83.25%

* The state's proportionate share of the net pension liability for the state as an employer consists of \$1,245,414 reported in governmental activity and \$4,369,774 reported in business-type activity.

** 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.

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)

	2017	2016	2015
State's proportion of the net pension liability	52.74%	53.75%	60.37%
State's proportionate share of the net pension liability	\$ 19,929,042	\$ 18,998,983	\$ 16,129,760
Plan fiduciary net position as a percentage of the total pension liability	78.00%	78.43%	83.25%

* 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.

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)

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

* 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 Employer Contributions

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)				
	2017	2016	2015	2014
Actuarially determined contributions	\$ 713,528	\$ 679,806	\$ 737,111	\$ 727,892
Contributions in relation to the actuarially determined contributions	700,078	686,763	500,395	482,239
Contribution deficiency (excess)	13,450	(6,957)	236,716	245,653
Covered payroll	6,859,707	6,742,143	6,150,195	5,955,461
Contributions as a percentage of covered payroll	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 will be first reflected for the actuarially determined employer contribution (ADEC) determined for the fiscal year ending 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	20% of market plus 80% of expected actuarial value			
Inflation	3.5%			
Salary Increases	0% to 11.5%			
Investment Rate of Return	8.0%			
Retirement Age	Experience-based table of rates that are specific to the class of employee. Last updated for the 2013 valuation pursuant to an experience study of the five-year period from Sept. 1, 2006 through Aug. 31, 2011.			
Mortality	1994 Group Annuity Mortality with no setback for males and set forward two years for females. Generational mortality improvements in accordance with Scale AA are projected from the year 2000.			
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 four 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)

	2017	2016	2015	2014
Actuarially determined contributions	\$ 45,332	\$ 43,167	\$ 38,131	\$ 40,205
Contributions in relation to the actuarially determined contributions	26,583	27,497	26,728	27,758
Contribution deficiency	18,749	15,670	11,403	12,447
Covered payroll	1,746,349	1,725,880	1,506,028	1,496,013
Contributions as a percentage of covered payroll	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 will be first reflected for the ADEC determined for the fiscal year ending 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	20% of market plus 80% of expected actuarial value
Inflation	3.5%
Salary Increases	5% to 11.5%
Investment Rate of Return	8.0%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2013 valuation pursuant to an experience study of the five-year period from Sept. 1, 2006 through Aug. 31, 2011.
Mortality	1994 Group Annuity Mortality with no setback for males and set forward two years for females. Generational mortality improvements in accordance with Scale AA are projected from the year 2000.

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 four 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)

	2017	2016	2015	2014
Actuarially determined contributions	\$ 12,444	\$ 12,896	\$ 13,107	\$ 13,449
Contributions in relation to the actuarially determined contributions	12,494	12,374	12,457	12,211
Contribution deficiency	(50)	522	650	1,238
Covered payroll	78,190	78,261	77,501	77,441
Contributions as a percentage of covered payroll	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 will be first reflected for the ADEC determined for the fiscal year ending 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	20% of market plus 80% of expected actuarial value
Inflation	3.5%
Salary Increases	3.5%
Investment Rate of Return	8.0%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2013 valuation pursuant to an experience study of the five-year period from Sept. 1, 2006 through Aug. 31, 2011.
Mortality	1994 Group Annuity Mortality with no setback for males and set forward two years for females. Generational mortality improvements in accordance with Scale AA are projected from the year 2000.

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 four 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)				
	2017	2016	2015	2014
Statutorily required contributions	\$ 495,500	\$ 466,216	\$ 417,698	\$ 430,321
Contributions in relation to the statutorily required contributions	495,500	466,216	417,698	430,321
Contribution deficiency (excess)	0	0	0	0
Covered payroll	6,257,506	5,750,539	5,408,293	6,221,452
Contributions as a percentage of covered payroll	7.92%	8.11%	7.72%	6.92%

* This schedule is intended to present 10 years of information. Currently only four years of information is 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)

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

* This schedule is intended to present 10 years of information. Currently only four 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)

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

* Texas Emergency Services Retirement System was appropriated \$1,584 in each fiscal year of the 2016-17 biennium.

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

Schedules of Funding Progress

The schedule of funding progress for the state's other postemployment benefit (OPEB) plans for the three most recent actuarial valuations are presented in table RSI-15.

Schedule of Funding Progress – OPEB						
Table RSI-15						
(Amounts in Thousands)						
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b) - (a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAAL as a Percentage of Covered Payroll ((b-a)/c)
UT System Employee Group Insurance Program (UT Plan)						
12/31/15	\$ 0	\$ 8,584,045	\$ 8,584,045	0.0%	\$ 5,948,245	144.3%
12/31/14	0	8,274,414	8,274,414	0.0%	5,842,410	141.6%
12/31/12	0	6,939,197	6,939,197	0.0%	5,674,298	122.3%
A&M Care Health and Life Plan (A&M Plan)						
09/01/16	\$ 0	\$ 2,548,478	\$ 2,548,478	0.0%	\$ 1,607,611	158.5%
09/01/14	0	2,002,649	2,002,649	0.0%	1,440,510	139.0%
09/01/13	0	2,056,249	2,056,249	0.0%	1,176,080	174.8%
ERS State Retiree Health Plan (SRHP)*						
08/31/17	\$ 709,783	\$ 29,720,305	\$ 29,010,522	2.4%	\$ 11,745,310	247.0%
08/31/16	0	27,091,372	27,091,372	0.0%	11,786,869	229.8%
08/31/15	0	25,740,698	25,740,698	0.0%	11,176,584	230.3%
TRS-Care*						
08/31/17	\$ 399,536	\$ 43,885,785	\$ 43,486,249	0.9%	\$ 32,806,335	132.6%
08/31/16	641,486	50,198,450	49,556,964	1.3%	32,891,775	150.7%
08/31/15	972,919	44,203,329	43,230,410	2.2%	31,254,028	138.3%
* SRHP and TRS-Care are multiple-employer, cost-sharing plans. Amounts in this table represent the plan total, not the proportionate share of the state of Texas.						

Schedules of Employer Contributions

The schedule of contributions from the employer and other contributing entities for ERS and TRS OPEB plans for the three most recent actuarial valuations are presented in table RSI-16.

Schedule of Contributions from Employers and Other Contributing Entities						
Table RSI-16						
(Amounts in Thousands)						
Fiscal Year Ended	Annual Required Contributions	From State	From Reporting Entities	On-behalf from Federal Government	Total Contributions	Percentage Contributed
ERS State Retiree Health Plan (SRHP)*						
2017	\$ 2,317,585	\$ 935,169	\$	\$ 73,120	\$ 1,008,289	43.51%
2016	2,298,514	663,987		69,186	733,173	31.90%
2015	2,160,951	612,769		86,054	698,823	32.34%
TRS-Care*						
2017	\$ 4,228,737	\$ 319,320	\$ 215,361	\$ 101,719	\$ 636,400	15.05%
2016	3,853,953	297,071	212,936	124,740	634,747	16.47%
2015	2,357,011	1,049,199	202,976	126,807	1,378,982	58.51%

* SRHP and TRS-Care are multiple-employer, cost-sharing plans. Amounts in this table represent the plan total, not the proportionate share of the state of Texas.

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. There is no change in the actuarial methods and assumptions used to develop the required contributions in the schedules of employer contributions for the ERS, LECOS and JRS2 Plan since fiscal 2015.

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 Required Supplementary Information requirements in GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment*

Benefits Other Than Pensions, were applied for each plan. The Employees Retirement System of Texas (ERS) and Teacher Retirement System of Texas (TRS) implemented GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, in fiscal 2017. However, the state continues to follow GASB Statement No. 45 until the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, in fiscal 2018. The following disclosures are organized by OPEB plan administrator.

University of Texas and Texas A&M University Systems

The University of Texas System (UT) and the Texas A&M University System (A&M) opted to perform actuarial valuations of their respective OPEB plans on a biennial basis rather than on an annual basis starting with fiscal 2012. A new valuation was performed on Dec. 31, 2015 and Sept. 1, 2016 for UT and A&M respectively. However, some significant changes occurred after UT's Dec. 31, 2014 valuation that will affect the results of the 2014 valuation; therefore, a full valuation was performed as of Dec. 31, 2015 again for the UT Plan.

The following methods and assumptions were modified since the prior valuation of the UT Plan:

- The assumed salary increase, mortality rate, termination, disability and retirement were updated to be consistent with the assumptions used by the TRS retirement plan actuary. These assumptions were updated by the TRS actuary in fiscal 2015 to reflect the results of a recent experience study.
- The discount rate was updated to reflect a change in the investment policies of the assets of the employer and to reflect changes in expected returns of the various asset classes that comprise the assets of the employer.

- The Assumed Per Capita Health Benefit Costs and Assumed Expenses for retirees and dependents have been updated to reflect claims and expense experience in the 12 months following the date as of which the prior valuation assumptions were determined.
- The Assumed Per Capita Health Benefit Costs reflect the impact of benefit changes that occurred on Sept. 1, 2016 and will occur on Jan. 1, 2017.
- The Assumed Per Capita Health Benefit Costs reflect the implementation of Employer Group Waiver Plan (EGWP) plus Wrap prescription drug coverage for Medicare primary participants effective Jan. 1, 2017.
- The Health Benefit Cost Trend has been updated to reflect changes in short-term expectations of the annual rate of increase of the Assumed Per Capita Health Benefit Costs.

The following methods and assumptions were modified since the prior valuation of the A&M Plan:

- The assumed salary increase, mortality rate, termination, disability and retirement were updated to be consistent with the assumptions used by the TRS retirement plan actuary. These assumptions were updated by the TRS actuary in fiscal 2015 to reflect the results of a recent experience study.
- The discount rate was updated to reflect changes in expected returns of the various asset classes that comprise the assets of the employer.
- The Assumed Per Capita Health Benefit Costs and Assumed Expenses for retirees and dependents have been updated to reflect claims and expense experience in the 24 months following the date as of which the prior valuation's assumptions were determined.

- The Health Benefit Cost Trend has been updated to reflect changes in short-term expectations of the annual rate of increase of the Assumed Per Capita Health Benefit Costs.

Employees Retirement System of Texas

ERS performed an annual actuarial valuation for its OPEB plan – State Retiree Health Plan (SRHP). The state reported SRHP based on its Aug. 31, 2017 actuarial valuation report. The following methods and assumptions were modified since the prior valuation of SRHP:

- Demographic assumptions (including rates of retirement, disability, termination, and mortality, assumed salary increases and assumed age differences for future retirees and their spouses for select 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.
- Assumed Expenses, assumed Per Capita Health Benefit Costs and assumed Health Benefit Cost, Retiree Contribution and Expense trends have been updated to reflect recent experience and its effects on our short-term expectations and the revised assumed rate of general inflation.
- The percentage of current retirees and their spouses not yet eligible to participate in the HealthSelect Medicare Advantage Plan and future retirees and their spouses who will elect to participate in the plan at the earliest date at which coverage can commence, the proportion of future retirees covering dependent children and the percentage of future retirees assumed to

be married and electing coverage for their spouse have been updated to reflect recent plan experience and expected trends.

- The discount rate assumption was lowered to reflect the revised assumed rate of general inflation which is a component of the discount rate.
- Since the last valuation was prepared for this plan, benefit changes have been adopted. 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; and
 - 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.

Teacher Retirement System of Texas

The state reported TRS-Care based on the actuarial valuation performed on Aug. 31, 2017. The following assumptions were modified since the prior valuation of the TRS-Care:

- Significant health plan changes were adopted during fiscal year ending Aug. 31, 2017. Effective Jan. 1, 2018, only one health plan option will be offered and all retirees will be required to contribute monthly premiums for coverage. This plan change decreased the actuarial accrued liability.

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- The Medicare Part D subsidies are no longer assumed to gradually phase out. This assumption change decreased the actuarial accrued liability.
 - The discount rate was lowered from 4.75% to 3.42%, which increased the actuarial accrued liability.
 - The actuarial cost method was changed from the Projected Unit Credit Cost Method to the Individual Entry Age Normal Cost Method. This method change increased the actuarial accrued liability.