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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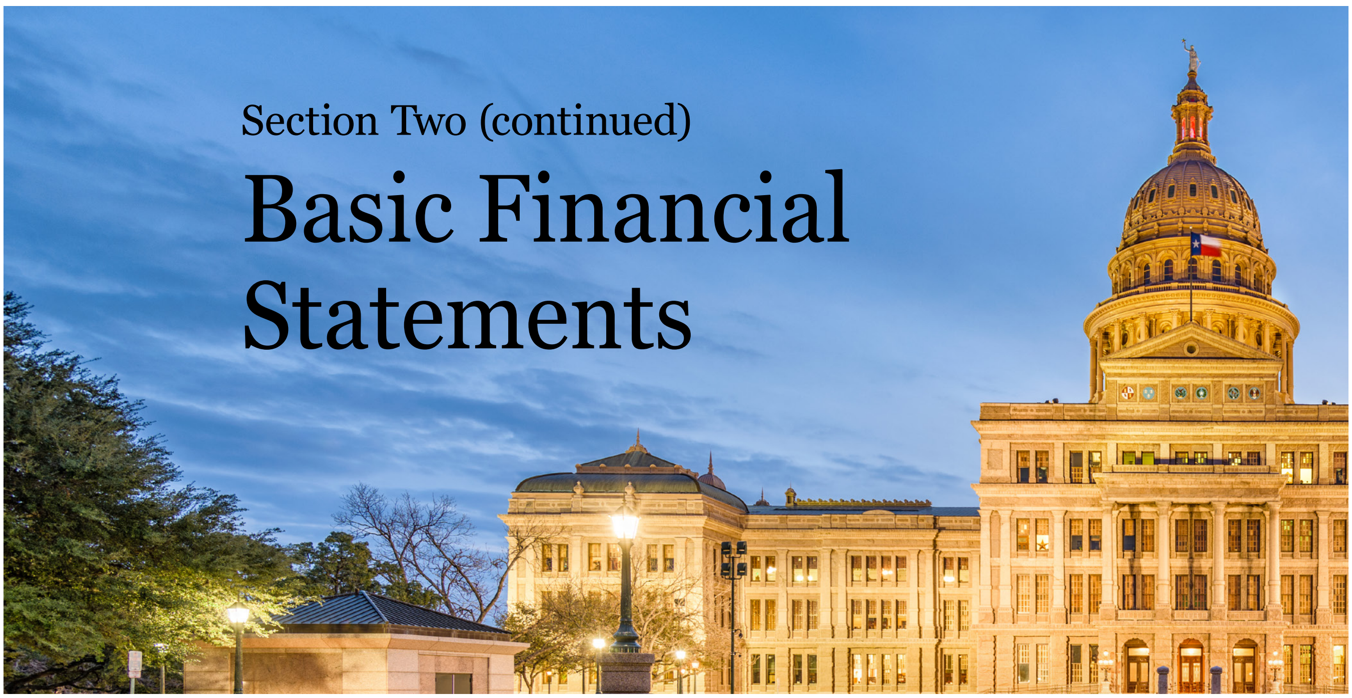

Section Two (continued)

Basic Financial Statements

STATE OF TEXAS

Statement of Net Position

August 31, 2019 (Amounts in Thousands)

	Primary Government			
	Governmental Activities	Business-Type Activities	Total	Component Units
ASSETS				
Current Assets:				
Cash and Cash Equivalents	$ 30,005,800	$ 7,223,431	$ 37,229,231	$ 1,270,520
Short-Term Investments	1,961,322	1,122,642	3,083,964	49,022
Securities Lending Collateral	1,747,053	482,342	2,229,395	
Receivables:				
Taxes (Note 23)	3,542,734		3,542,734	
Federal	3,813,273	829,234	4,642,507	336
Other Intergovernmental	685,987	143,640	829,627	4,030
Accounts	1,050,758	2,350,216	3,400,974	72,657
Interest and Dividends	138,155	226,109	364,264	1,918
Gifts	1,112	318,194	319,306	5,000
Investment Trades	26,614	784,927	811,541	
Other	67,916	531,900	599,816	6,386
From Fiduciary Funds	50,764		50,764	
Inventories	336,244	247,117	583,361	6,293
Prepaid Items	2,643	262,401	265,044	7,646
Loans and Contracts	85,291	459,827	545,118	521
Other Current Assets		449,983	449,983	25,218
Restricted:				
Cash and Cash Equivalents	63,501	5,225,598	5,289,099	47,628
Short-Term Investments	4,971	1,508,695	1,513,666	17,542
Loans and Contracts	131,405	221,416	352,821	1,966
Total Current Assets	43,715,543	22,387,672	66,103,215	1,516,683
Noncurrent Assets:				
Internal Balances (Note 12)	14,249	(14,249)		
Loans and Contracts	1,582,884	10,224,721	11,807,605	4,120
Investments	48,488,326	18,048,140	66,536,466	10,035
Receivables:				
Taxes (Note 23)	157		157	
Gifts		632,826	632,826	17,317
Other	402,294	73,424	475,718	430
Restricted:				
Cash and Cash Equivalents		88,220	88,220	13,478
Short-Term Investments		301	301	
Investments	2,497	49,576,193	49,578,690	473,682
Receivables		210,108	210,108	
Loans and Contracts	1,567,121	3,880,989	5,448,110	4,698
Other	102,035	15,800	117,835	
Assets Held in Trust		5,144	5,144	
Investment Derivative Instrument Asset	2		2	
Prepaid Items				3,389
Intangible Assets – Service Concession Arrangements (Note 26)		2,553,937	2,553,937	
Other Noncurrent Assets	64,397	334,616	399,013	214
Capital Assets: (Note 2)				
Non-Depreciable or Non-Amortizable	34,790,600	7,225,256	42,015,856	4,638
Depreciable or Amortizable, Net	81,574,604	28,472,121	110,046,725	23,905
Total Noncurrent Assets	168,589,166	121,327,547	289,916,713	555,906
Total Assets	212,304,709	143,715,219	356,019,928	2,072,589
DEFERRED OUTFLOWS OF RESOURCES				
Deferred Outflows of Resources (Note 27)	19,794,406	7,957,438	27,751,844	
Total Deferred Outflows of Resources	19,794,406	7,957,438	27,751,844	0

Concluded on the following page

The accompanying notes to the financial statements are an integral part of this statement.

Statement of Net Position (concluded)

August 31, 2019 (Amounts in Thousands)

	Primary Government			
LIABILITIES	Governmental Activities	Business-Type Activities	Total	Component Units
Current Liabilities:				
Payables:				
Accounts	$ 6,749,406	$ 2,229,774	$ 8,979,180	$ 465,750
Payroll	804,943	1,072,322	1,877,265	656
Other Intergovernmental	549,036	3,249	552,285	
Federal	7,631	51,984	59,615	
Investment Trades	50,781	1,301,280	1,352,061	
Interest	339,280	216,194	555,474	16,084
Tax Refunds (Note 23)	520,347		520,347	
Annuities		6,679	6,679	
To Fiduciary Funds	32,057		32,057	
Internal Balances (Note 12)	1,084,732	(1,084,732)		
Unearned Revenue	876,594	4,266,219	5,142,813	247,620
Obligations/Reverse Repurchase Agreement	19,765		19,765	
Obligations/Securities Lending	1,768,923	482,342	2,251,265	
Claims and Judgments (Note 5)	42,034	153,241	195,275	
Capital Lease Obligations (Note 5, 8)	4,010	19,778	23,788	38
Employees' Compensable Leave (Note 5)	627,493	499,824	1,127,317	1,629
Notes and Loans Payable (Note 5)	196,381	28,435	224,816	43,000
General Obligation Bonds Payable (Note 5, 6)	642,643	269,541	912,184	
Revenue Bonds Payable (Note 5, 6)	293,098	2,537,180	2,830,278	670
Pollution Remediation Obligation (Note 5)	58,202		58,202	
Asset Retirement Obligation (Note 5)	211		211	
Liabilities Payable From Restricted Assets (Note 5)		549,339	549,339	
Hedging Derivative Liability	264		264	
Short Term Debt (Note 4)		1,944,779	1,944,779	
Funds Held for Others		160,579	160,579	113,840
OPEB Liability	1,075,405	340,585	1,415,990	
Other Current Liabilities	426,401	286,951	713,352	204,407
Total Current Liabilities	16,169,637	15,335,543	31,505,180	1,093,694
Noncurrent Liabilities:				
Internal Balances (Note 12)				
Claims and Judgments (Note 5)	58,305	41,011	99,316	
Capital Lease Obligations (Note 5, 8)	12,433	242,567	255,000	
Employees' Compensable Leave (Note 5)	253,031	447,299	700,330	1,240
Notes and Loans Payable (Note 5)	1,124,388	2,040,014	3,164,402	331,038
General Obligation Bonds Payable (Note 5, 6)	14,619,830	3,847,543	18,467,373	
Revenue Bonds Payable (Note 5, 6)	4,212,954	30,322,683	34,535,637	66,472
Pollution Remediation Obligation (Note 5)	222,204	1,023	223,227	
Asset Retirement Obligation (Note 5)	1,689	41,710	43,399	
Liabilities Payable From Restricted Assets (Note 5)		1,861,846	1,861,846	
Assets Held for Others		1,111,456	1,111,456	
Pension Liability (Note 9)	51,673,688	7,083,878	58,757,566	
OPEB Liability (Note 11)	56,209,641	14,648,936	70,858,577	
Investment Derivative Instrument Liability		103,797	103,797	
Hedging Derivative Liability (Note 7)		606,848	606,848	
Other Noncurrent Liabilities		348,764	348,764	10,433
Total Noncurrent Liabilities	128,388,163	62,749,375	191,137,538	409,183
Total Liabilities	144,557,800	78,084,918	222,642,718	1,502,877
DEFERRED INFLOWS OF RESOURCES				
Deferred Inflows of Resources (Note 27)	41,318,145	4,730,479	46,048,624	
Total Deferred Inflows of Resources	41,318,145	4,730,479	46,048,624	0
NET POSITION				
Net Investment in Capital Assets	80,632,585	13,571,180	94,203,765	16,954
Restricted for:				
Education	691,762	3,625,793	4,317,555	146
Transportation	7,284,272		7,284,272	
Debt Service	403,160	450,309	853,469	
Capital Projects	870,777	754,468	1,625,245	
Veterans Land Board Housing Programs		706,050	706,050	
Unemployment Trust Fund		2,322,005	2,322,005	
Funds Held as Permanent Investments:				
Nonexpendable	46,194,729	28,061,518	74,256,247	363,977
Expendable	2,663,606	12,564,053	15,227,659	
Other	4,893,581	5,144,884	10,038,465	24,187
Unrestricted	(97,411,302)	1,657,000	(95,754,302)	164,448
Total Net Position	$ 46,223,170	$ 68,857,260	$ 115,080,430	$ 569,712

STATE OF TEXAS

Statement of Activities

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

		Program Revenues		
Functions/Programs	Expenses	Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions
PRIMARY GOVERNMENT				
Governmental Activities:				
General Government	$ 5,371,436	$ 1,443,433	$ 937,025	$ 121
Education	29,599,638	1,181,424	8,403,379	
Teacher Retirement State Contributions	2,991,655			
Health and Human Services	56,958,226	4,544,376	36,657,137	
Public Safety and Corrections	6,479,379	301,923	696,844	154
Transportation	6,484,481	3,159,690	4,467,984	117,128
Natural Resources and Recreation	2,311,393	676,790	1,151,278	2,696
Regulatory Services	427,790	589,380	3,263	
Interest on General Long-Term Debt	164,480			
Total Governmental Activities	110,788,478	11,897,016	52,316,910	120,099
Business-Type Activities:				
General Government	179,604	121,877	108,016	
Education	32,919,256	17,879,346	9,072,128	319,590
Health and Human Services	2,072,611	2,293,686	56,648	
Public Safety and Corrections	109,443	124,251		
Transportation	559,047	454,697	76,727	11,879
Natural Resources and Recreation	538,560	41,379	528,572	
Lottery	4,621,619	6,252,347		
Total Business-Type Activities	41,000,140	27,167,583	9,842,091	331,469
Total Primary Government	$151,788,618	$ 39,064,599	$ 62,159,001	$ 451,568
COMPONENT UNITS				
Component Units	$ 2,562,966	$ 2,635,580	$ 279,240	$ 0
Total Component Units	$ 2,562,966	$ 2,635,580	$ 279,240	$ 0

Concluded on the following page

The accompanying notes to the financial statements are an integral part of this statement.

STATE OF TEXAS

Statement of Activities (concluded)

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

	Net (Expense) Revenue and Changes in Net Position			
	Primary Government			
Functions/Programs	Governmental Activities	Business-Type Activities	Total	Component Units
PRIMARY GOVERNMENT				
Governmental Activities:				
General Government	$ (2,990,857)	$	$ (2,990,857)	$
Education	(20,014,835)		(20,014,835)	
Teacher Retirement State Contributions	(2,991,655)		(2,991,655)	
Health and Human Services	(15,756,713)		(15,756,713)	
Public Safety and Corrections	(5,480,458)		(5,480,458)	
Transportation	1,260,321		1,260,321	
Natural Resources and Recreation	(480,629)		(480,629)	
Regulatory Services	164,853		164,853	
Interest on General Long-Term Debt	(164,480)		(164,480)	
Total Governmental Activities	(46,454,453)	0	(46,454,453)	0
Business-Type Activities:				
General Government		50,289	50,289	
Education		(5,648,192)	(5,648,192)	
Health and Human Services		277,723	277,723	
Public Safety and Corrections		14,808	14,808	
Transportation		(15,744)	(15,744)	
Natural Resources and Recreation		31,391	31,391	
Lottery		1,630,728	1,630,728	
Total Business-Type Activities	0	(3,658,997)	(3,658,997)	0
Total Primary Government	(46,454,453)	(3,658,997)	(50,113,450)	0
COMPONENT UNITS				
Component Units				351,854
Total Component Units	0	0	0	351,854
General Revenues				
Taxes:				
Sales and Use	34,013,595		34,013,595	
Motor Vehicle and Manufactured Housing	5,028,763		5,028,763	
Motor Fuels	3,763,178		3,763,178	
Franchise	4,233,528		4,233,528	
Oil and Natural Gas Production	5,565,378		5,565,378	
Insurance Occupation	2,591,631		2,591,631	
Cigarette and Tobacco	1,405,669		1,405,669	
Other	2,720,710		2,720,710	
Unrestricted Investment Earnings	1,174,955	156,819	1,331,774	11,849
Settlement of Claims	656,055	2,066	658,121	
Gain on Sale of Capital Assets	8,030	3	8,033	228
Loss on Other Financial Activity	(1,348)		(1,348)	
Other General Revenues	3,543,038	145,227	3,688,265	7,672
Capital Contributions	767	61,561	62,328	
Distributions from Permanent Fund Principal (Note 12)	(9,616)		(9,616)	
Contributions to Permanent and Term Endowments		276,276	276,276	
Transfers - Internal Activities (Note 12)	(5,367,035)	5,367,035		
Total General Revenues, Contributions, Special Items and Transfers	59,327,298	6,008,987	65,336,285	19,749
Change in Net Position	12,872,845	2,349,990	15,222,835	371,603
Net Position, September 1, 2018	33,004,172	66,533,931	99,538,103	173,146
Restatements (Note 14)	346,153	(26,661)	319,492	24,963
Net Position, September 1, 2018, as Restated	33,350,325	66,507,270	99,857,595	198,109
Net Position, August 31, 2019	$ 46,223,170	$ 68,857,260	$115,080,430	$ 569,712

STATE OF TEXAS

Balance Sheet – Governmental Funds

August 31, 2019 (Amounts in Thousands)

	General	State Highway Fund	Permanent School Fund	Nonmajor Funds	Totals
ASSETS					
Cash and Cash Equivalents	$ 15,016,863	$ 6,906,422	$ 4,736,638	$ 3,207,126	$ 29,867,049
Short-Term Investments	637,995	17,275		190,885	846,155
Securities Lending Collateral			1,733,293		1,733,293
Receivables:					
Accounts	381,162	190,434	224,399	17,760	813,755
Taxes (Note 23)	3,213,422	246,938		82,531	3,542,891
Federal	2,822,433	983,072		7,769	3,813,274
Gifts and Pledges				1,112	1,112
Investment Trades			21,344		21,344
Other Intergovernmental	541,463	144,523			685,986
Interest and Dividends	19,122	9,478	82,495	16,022	127,117
Other	470,210				470,210
Due From Other Funds (Note 12)	227,200	1,914,759	282	157,731	2,299,972
Interfund Receivable (Note 12)	23,476			29	23,505
Inventories	197,036	138,937		272	336,245
Prepaid Items	2,637			6	2,643
Investments	2,698,001		41,668,997	2,904,447	47,271,445
Loans and Contracts	261,547	765,596	90	640,942	1,668,175
Other Assets	64,397				64,397
Restricted:					
Cash and Cash Equivalents	54,089	7,668		1,744	63,501
Short-Term Investments		4,971			4,971
Investments		2,497			2,497
Loans and Contracts	546,050			1,152,478	1,698,528
Other Assets				102,035	102,035
Total Assets	$ 27,177,103	$ 11,332,570	$ 48,467,538	$ 8,482,889	$ 95,460,100
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES					
Liabilities:					
Payables:					
Accounts	$ 4,419,135	$ 1,568,288	$ 9,187	$ 99,609	$ 6,096,219
Investment Trades	3,052		39,300	389	42,741
Other Intergovernmental	549,036				549,036
Tax Refunds (Note 23)	520,347				520,347
Payroll	714,939	82,089	2,369	5,545	804,942
Federal	7,631				7,631
Due To Other Funds (Note 12)	3,286,079	3,091	101	54,395	3,343,666
Interfund Payable (Note 12)	1,390			1,824	3,214
Unearned Revenues	644,158	16,862	147,229	471,321	1,279,570
Hedging Derivative Liability				264	264
Obligations/Reverse Repurchase Agreements	19,765				19,765
Obligations/Securities Lending			1,754,112		1,754,112
Other Liabilities	429,822	6,600		8,751	445,173
Total Liabilities	10,595,354	1,676,930	1,952,298	642,098	14,866,680
Deferred Inflows of Resources:					
Deferred Inflows of Resources (Note 27)	303,327	392,836	14,860	4,881	715,904
Total Deferred Inflows of Resources	303,327	392,836	14,860	4,881	715,904
Fund Balances					
Nonspendable (Note 13)	711,515	138,936	45,295,575	899,427	47,045,453
Restricted (Note 13)	1,372,275	7,284,275	1,204,805	6,636,782	16,498,137
Committed (Note 13)	5,154,363	720,346		295,572	6,170,281
Assigned (Note 13)	50,648	1,119,247		4,129	1,174,024
Unassigned (Note 13)	8,989,621				8,989,621
Total Fund Balances	16,278,422	9,262,804	46,500,380	7,835,910	79,877,516
Total Liabilities, Deferred Inflows of Resources and Fund Balances	$ 27,177,103	$ 11,332,570	$ 48,467,538	$ 8,482,889	$ 95,460,100

The accompanying notes to the financial statements are an integral part of this statement.

Reconciliation of the Governmental Funds Balance Sheet to the Statement of Net Position

August 31, 2019 (Amounts in Thousands)

Total Fund Balance – Governmental Funds		$ 79,877,516
Amounts reported for governmental activities in the Statement of Net Position are different because:		
Capital assets less accumulated depreciation and amortization are included in the Statement of Net Position. (Note 2)		
Capital Assets – Non-Depreciable or Non-Amortizable	$ 34,790,600	
Capital Assets – Depreciable or Amortizable, Net	81,574,604	
		116,365,204
Reversal of prior year unearned tax revenues recorded in governmental funds but not in the Statement of Net Position.		403,006
Investment derivative instrument asset was reported in the Statement of Net Position to reflect the fair value of derivative instruments.		2
Deferred inflows of resources represent revenues the state earned after fiscal year-end but not available to pay current year's expenditures, therefore, the revenues are deferred in the funds, but not reported in the Statement of Net Position. (Note 27).		715,904
Deferred outflows of resources were reported in the Statement of Net Position to reflect the loss on bond/debt refunding and impact of pension OPEB, asset retirement obligation implementation. (Note 27)		19,794,406
Deferred inflows of resources were reported in the Statement of Net Position to reflect the unamortized upfront payments received and capital assets acquired in connection with the Service Concession Arrangements and impact of pension and OPEB. implementation. (Note 26, 27)		(41,318,145)
Long-term liabilities applicable to the state's governmental activities are not due and payable in the current period and accordingly are not reported in the funds. These liabilities, however, are included in the Statement of Net Position. (Note 5, 9, and RSI)		
Claims and Judgments	(100,339)	
Capital Lease Obligations	(16,443)	
Employees' Compensable Leave	(880,524)	
Notes and Loans Payable	(1,320,769)	
General Obligation Bonds Payable	(15,262,473)	
Revenue Bonds Payable	(4,506,052)	
Pollution Remediation Obligation	(280,406)	
Net Pension Liability	(51,418,332)	
Total Pension Liability	(255,356)	
Net OPEB Liability	(53,036,342)	
Total OPEB Liability	(4,248,704)	
Asset Retirement Obligation	(1,900)	
		(131,327,640) *
* current portion = $2,939,477 and noncurrent portion = $128,388,163		
Interest payable applicable to the state's governmental activities are not due and payable in the current period and accordingly are not reported in the funds. These liabilities, however, are included in the Statement of Net Position.		(320,512)
The internal service fund is used by management to charge the costs of employees life, accident and health insurance benefits fund to individual funds. Since governmental activities are the predominant activities of internal service funds, the assets and liabilities of the internal service funds are included in governmental activities in the Statement of Net Position.		2,033,429
Net Position of Governmental Activities		$ 46,223,170

STATE OF TEXAS

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

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

	General	State Highway Fund	Permanent School Fund	Nonmajor Funds	Totals
REVENUES					
Taxes	$ 51,014,744	$ 5,302,372	$	$ 3,018,788	$ 59,335,904
Federal	42,563,092	4,204,305		61,516	46,828,913
Licenses, Fees and Permits	3,084,575	1,820,962		911,884	5,817,421
Interest and Other Investment Income	801,658	145,349	2,632,260	287,081	3,866,348
Land Income	13,428	29,567	1,070,018	6,599	1,119,612
Settlement of Claims	650,732	41,902	276		692,910
Sales of Goods and Services	4,315,422	84,641	57,251	248,143	4,705,457
Other	6,013,571		1,874	32,716	6,048,161
Total Revenues	108,457,222	11,629,098	3,761,679	4,566,727	128,414,726
EXPENDITURES					
Current:					
General Government	3,326,517			276,556	3,603,073
Education	27,143,166		72,930	2,472,994	29,689,090
Employee Benefits				19,738	19,738
Teacher Retirement State Contributions	2,991,655				2,991,655
Health and Human Services	57,207,785			1,548	57,209,333
Public Safety and Corrections	6,535,934			62,721	6,598,655
Transportation	8,494	3,933,245		132,664	4,074,403
Natural Resources and Recreation	2,087,160		80,815	73,382	2,241,357
Regulatory Services	450,801			91	450,892
Capital Outlay	363,622	6,642,650	608	855,108	7,861,988
Debt Service:					
Principal	4,001	158,066		792,035	954,102
Interest	6			865,070	865,076
Other Financing Fees	5	952		5,319	6,276
Total Expenditures	100,119,146	10,734,913	154,353	5,557,226	116,565,638
Excess (Deficiency) of Revenues Over (Under) Expenditures	8,338,076	894,185	3,607,326	(990,499)	11,849,088
OTHER FINANCING SOURCES (USES)					
Transfer In (Note 12)	4,161,902	1,891,938		3,832,180	9,886,020
Transfer Out (Note 12)	(9,627,041)	(982,048)	(1,535,835)	(2,915,496)	(15,060,420)
Bonds and Notes Issued	207,700			454,186	661,886
Bonds Issued for Refunding				651,725	651,725
Premiums on Bonds Issued				91,278	91,278
Payment to Escrow for Refunding				(737,263)	(737,263)
Increase in Obligation for Capital Leases	1,395				1,395
Sale of Capital Assets	9,913	10,122		7	20,042
Service Concession Arrangement		510			510
Gain (Loss) on Other Financial Activity					
Insurance Recoveries	10,623		6		10,629
Distributions from Permanent Fund Principal (Note 12)				(9,616)	(9,616)
Total Other Financing Sources (Uses)	(5,235,508)	920,522	(1,535,829)	1,367,001	(4,483,814)
Net Change in Fund Balances	3,102,568	1,814,707	2,071,497	376,502	7,365,274
Fund Balances, September 1, 2018	13,187,561	7,447,229	44,067,480	7,459,393	72,161,663
Restatements (Note 14)	(11,707)	868	361,403	15	350,579
Fund Balances, September 1, 2018, as Restated	13,175,854	7,448,097	44,428,883	7,459,408	72,512,242
Fund Balances, August 31, 2019	$ 16,278,422	$ 9,262,804	$ 46,500,380	$ 7,835,910	$ 79,877,516

The accompanying notes to the financial statements are an integral part of this statement.

Reconciliation of the Governmental Funds Statement of Revenues, Expenditures and Changes in Fund Balances to the Statement of Activities

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

Net Change in Fund Balances		$ 7,365,274
Amounts reported for governmental activities in the Statement of Activities are different because:		
Governmental funds report capital outlays as expenditures. In the Statement of Activities, however, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. The amount by which capital outlay exceeds depreciation in the current period is:		
Capital Outlay	$ 7,861,988	
Depreciation Expense (Note 2)	(2,213,369)	
Amortization Expense (Note 2)	(47,446)	
		5,601,173
The effect of various miscellaneous transactions involving capital assets (i.e., sales and trade-ins) is to decrease net position.		(12,012)
Revenues in the Statement of Activities that do not provide current financial resources are not reported as revenues in the funds.		(2,594,659)
The internal service fund is used by management to charge the costs of the employees life, accident and health insurance benefits fund to individual funds. The adjustments for the internal service fund "close" the fund by allocating these amounts to participating governmental activities.		972,742
Bond proceeds provide current financial resources to governmental funds, but increase long-term liabilities in the Statement of Net Position. Repayment of long-term debt consumes current financial resources and is an expenditure in the governmental funds, but reduces long-term liabilities in the Statement of Net Position.		
Bonds and Notes Issued	(1,313,611)	
Premiums on Bond Proceeds	(91,278)	
Increase in Obligations Under Capital Leases	(1,395)	
Repayment of Bond and Capital Lease Principal	1,691,365	
		285,081
Some expenses reported in the Statement of Activities do not require the use of current financial resources and therefore are not reported as expenditures in governmental funds.		1,447,850
Transfers of capital assets are not reported in the governmental funds. In addition, resource flows between fiduciary funds and governmental funds are converted to revenues or expenses on the Statement of Activities.		
Capital Asset Transfers (Note 2)	(192,604)	
Increase in Revenues	31	
Net Change in Transfers	(31)	
		(192,604)
Change in Net Position of Governmental Activities		$ 12,872,845

Statement of Net Position – Proprietary Funds

August 31, 2019 (Amounts in Thousands)

	Business-Type Activities – Enterprise Funds					Governmental Activities – Internal Service Fund*
	Colleges and Universities	Unemployment Trust Fund	Lottery Fund	Nonmajor Enterprise Funds	Totals	
ASSETS						
Current Assets:						
Cash and Cash Equivalents	$ 5,547,932	$ 402	$ 238,853	$ 1,436,244	$ 7,223,431	$ 138,752
Short-Term Investments	335,863			786,779	1,122,642	1,115,168
Securities Lending Collateral	453,059			29,283	482,342	13,760
Restricted:						
Cash and Cash Equivalents	1,751,406	2,338,848		1,135,344	5,225,598	
Short-Term Investments	94,330		79,390	1,334,975	1,508,695	
Loans and Contracts				221,416	221,416	
Receivables:						
Federal	809,480	4,584		15,170	829,234	
Other Intergovernmental	143,640				143,640	
Accounts	2,024,318	229,076	41,086	55,736	2,350,216	237,004
Interest and Dividends	104,450	9,495		112,164	226,109	11,037
Gifts	318,194				318,194	
Investment Trades	784,927				784,927	5,270
Other	526,189			5,711	531,900	
Due From Other Funds (Note 12)	1,247,148	2,461		50,688	1,300,297	3,657
Interfund Receivable (Note 12)	69,302			322	69,624	
Inventories	200,604		33,519	12,994	247,117	
Prepaid Items	261,160		197	1,044	262,401	
Loans and Contracts	131,898			327,929	459,827	
Other Current Assets	440,634			9,349	449,983	
Total Current Assets	15,244,534	2,584,866	393,045	5,535,148	23,757,593	1,524,648
Noncurrent Assets:						
Restricted:						
Cash and Cash Equivalents	88,220				88,220	
Short-Term Investments	301				301	
Investments	46,231,386		418,830	2,925,977	49,576,193	
Receivables	102,240			107,868	210,108	
Loans and Contracts	67,250			3,813,739	3,880,989	
Other	15,011			789	15,800	
Loans and Contracts	18,012			10,206,709	10,224,721	
Investments	17,581,166			466,974	18,048,140	1,216,882
Interfund Receivable (Note 12)	1,224,283			1,645	1,225,928	
Gifts Receivable	690,627				690,627	
Other Receivable		15,623			15,623	
Capital Assets (Note 2):						
Non-Depreciable or Non-Amortizable	6,163,382			1,061,874	7,225,256	
Depreciable or Amortizable, Net	26,523,217		426	1,948,478	28,472,121	
Intangible Assets-Service Concession Arrangements				2,553,937	2,553,937	
Assets Held in Trust	362			4,782	5,144	
Other Noncurrent Assets	334,574			42	334,616	
Total Noncurrent Assets	99,040,031	15,623	419,256	23,092,814	122,567,724	1,216,882
Total Assets	114,284,565	2,600,489	812,301	28,627,962	146,325,317	2,741,530
DEFERRED OUTFLOWS OF RESOURCES						
Deferred Outflows of Resources (Note 27)	7,649,689			307,749	7,957,438	
Total Deferred Outflows of Resources	7,649,689	0	0	307,749	7,957,438	0
LIABILITIES						
Current Liabilities:						
Payables:						
Accounts	$ 2,021,553	$ 75,789	$ 32,780	$ 99,652	$ 2,229,774	$ 653,186
Payroll	1,064,925		2,215	5,182	1,072,322	
Other Intergovernmental	3,249				3,249	
Federal	51,536	448			51,984	
Investment Trades	1,301,269			11	1,301,280	8,039
Interest	38,413			177,781	216,194	
Annuities			6,679		6,679	

Concluded on the following page

Statement of Net Position – Proprietary Funds (concluded)

August 31, 2019 (Amounts in Thousands)

	Business-Type Activities – Enterprise Funds					Governmental
	Colleges and Universities	Unemployment Trust Fund	Lottery Fund	Nonmajor Enterprise Funds	Totals	Activities – Internal Service Fund*
LIABILITIES (concluded)						
Due To Other Funds (Note 12)	$ 30,531	$	$ 170,465	$ 8,527	$ 209,523	$ 32,031
Interfund Payable (Note 12)	75,629			38	75,667	
Unearned Revenue	4,055,298	202,247		8,674	4,266,219	34
Obligations/Securities Lending	453,059			29,283	482,342	14,811
Short-Term Debt (Note 4)	1,810,449			134,330	1,944,779	
Claims and Judgments (Note 5)	153,241				153,241	
Capital Lease Obligations (Note 5, 8)	19,778				19,778	
Employees' Compensable Leave (Note 5)	495,116		1,577	3,131	499,824	
Notes and Loans Payable (Note 5)	17,679			10,756	28,435	
General Obligation Bonds Payable (Note 5, 6)	2,582			266,959	269,541	
Revenue Bonds Payable (Note 5, 6)	2,351,904			185,276	2,537,180	
Liabilities Payable from Restricted Assets (Note 5)	57,432		187,309	304,598	549,339	
Funds Held for Others	160,579				160,579	
OPEB Liability (Note 11)	340,585				340,585	
Other Current Liabilities	281,384		2,733	2,834	286,951	
Total Current Liabilities	14,786,191	278,484	403,758	1,237,032	16,705,465	708,101
Noncurrent Liabilities:						
Interfund Payable (Note 12)	1,240,176				1,240,176	
Claims and Judgments (Note 5)	41,011				41,011	
Capital Lease Obligations (Note 5, 8)	242,567				242,567	
Employees' Compensable Leave (Note 5)	444,920		1,208	1,171	447,299	
Notes and Loans Payable (Note 5)	367,398			1,672,616	2,040,014	
General Obligation Bonds Payable (Note 5, 6)	17,571			3,829,972	3,847,543	
Revenue Bonds Payable (Note 5, 6)	16,400,216			13,922,467	30,322,683	
Liabilities Payable from Restricted Assets (Note 5)	3,480		377,996	1,480,370	1,861,846	
Pollution Remediation Obligation (Note 5)	1,023				1,023	
Asset Retirement Obligation	41,710				41,710	
OPEB Liability (Note 11)	14,648,936				14,648,936	
Pension Liability (Note 9)	7,083,878				7,083,878	
Hedging Derivative Liability (Note 7)	325,363			281,485	606,848	
Investment Derivative Instrument	103,797				103,797	
Assets Held for Others	1,106,674			4,782	1,111,456	
Other Noncurrent Liabilities	211,883			136,881	348,764	
Total Noncurrent Liabilities	42,280,603	0	379,204	21,329,744	63,989,551	0
Total Liabilities	57,066,794	278,484	782,962	22,566,776	80,695,016	708,101
DEFERRED INFLOWS OF RESOURCES						
Deferred Inflows of Resources (Note 27)	4,730,479				4,730,479	
Total Deferred Inflows of Resources	4,730,479	0	0	0	4,730,479	0
NET POSITION						
Net Investment in Capital Assets	12,694,048		426	876,706	13,571,180	
Restricted for:						
Education	3,625,793				3,625,793	
Debt Service	70,559			379,750	450,309	
Capital Projects	747,991			6,477	754,468	
Veteran Land Board Housing Programs				706,050	706,050	
Unemployment Trust Funds		2,322,005			2,322,005	
Funds Held as Permanent Investments:						
Nonexpendable	28,061,291			227	28,061,518	
Expendable	12,564,053				12,564,053	
Other			5,000	5,139,884	5,144,884	2,033,429
Unrestricted	2,373,246		23,913	(740,159)	1,657,000	
Total Net Position	$ 60,136,981	$ 2,322,005	$ 29,339	$ 6,368,935	$ 68,857,260	$ 2,033,429

The accompanying notes to the financial statements are an integral part of this statement.

* Employees life, accident and health insurance benefits fund is the only internal service fund. Combining statements are not presented.

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

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

	Business-Type Activities – Enterprise Funds					Governmental Activities – Internal Service Fund*
	Colleges and Universities	Unemployment Trust Fund	Lottery Fund	Nonmajor Enterprise Funds	Totals	
OPERATING REVENUES						
Lottery Collections	$	$	$ 6,251,833	$	$ 6,251,833	$
Tuition Revenue	104,992				104,992	
Tuition Revenue – Pledged	7,082,655				7,082,655	
Discounts and Allowances	(1,979,069)				(1,979,069)	
Hospital Revenue – Pledged	16,469,453				16,469,453	
Discounts and Allowances	(9,452,270)				(9,452,270)	
Professional Fees	7,695,886				7,695,886	
Professional Fees – Pledged	31,301				31,301	
Discounts and Allowances	(5,396,451)				(5,396,451)	
Auxiliary Enterprises	2,965				2,965	
Auxiliary Enterprises – Pledged	1,722,818			122,166	1,844,984	
Discounts and Allowances	(95,529)				(95,529)	
Unemployment Taxes		2,293,029			2,293,029	
Other Sales of Goods and Services	19,155			42,522	61,677	
Other Sales of Goods and Services – Pledged	1,090,927			456,264	1,547,191	
Discounts and Allowances	(7,892)			(9,930)	(17,822)	
Interest and Investment Income	588			484,456	485,044	
Interest and Investment Income – Pledged	915			(87,267)	(86,352)	
Federal Revenue	2,229,115	56,648		70,499	2,356,262	
State Grant Revenue	27,860				27,860	
Premium Revenue						3,091,997
Other Operating Grant Revenue	990,507				990,507	
Other Operating Grant Revenue – Pledged	1,196,507				1,196,507	
Other Revenues	62,757	136,313	1,005	157,812	357,887	14,956
Other Revenues – Pledged	514,910			10	514,920	
Total Operating Revenues	22,312,100	2,485,990	6,252,838	1,236,532	32,287,460	3,106,953
OPERATING EXPENSES						
Cost of Goods Sold	105,510			87,967	193,477	
Salaries and Wages	14,417,499		19,924	50,114	14,487,537	6,402
Payroll Related Costs	4,388,925		6,992	14,931	4,410,848	2,146
Professional Fees and Services	1,441,372		5,164	124,310	1,570,846	1,379
Travel	368,076		339	811	369,226	60
Materials and Supplies	3,093,611		1,513	13,194	3,108,318	510
Communication and Utilities	706,544		611	3,013	710,168	395
Repairs and Maintenance	661,720		522	25,506	687,748	421
Rentals and Leases	348,242		5,943	2,155	356,340	163
Printing and Reproduction	73,944		36,068	204	110,216	25
Depreciation and Amortization	2,484,803		142	125,620	2,610,565	
Unemployment Benefit Payments		2,072,611			2,072,611	
Bad Debt Expense	10,041		243	1,671	11,955	
Interest Expense	295			427,024	427,319	
Scholarships	1,272,475				1,272,475	
Lottery Fees and Other Costs			460,034		460,034	
Lottery Prize Payments			4,056,494		4,056,494	
Employee/Participant Benefit Payments				26,789	26,789	2,212,805
Claims and Judgments	292,981				292,981	
Net Change in Asset Retirement Obligation	2,511				2,511	
Other Expenses	2,097,342		27,630	155,242	2,280,214	1,565
Total Operating Expenses	31,765,891	2,072,611	4,621,619	1,058,551	39,518,672	2,225,871
Operating Income (Loss)	(9,453,791)	413,379	1,631,219	177,981	(7,231,212)	881,082

Concluded on the following page

Statement of Revenues, Expenses and Changes in Net Position – Proprietary Funds (concluded)

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

	Business-Type Activities – Enterprise Funds					Governmental Activities – Internal Service Fund*
	Colleges and Universities	Unemployment Trust Fund	Lottery Fund	Nonmajor Enterprise Funds	Totals	
NONOPERATING REVENUES (EXPENSES)						
Federal Revenue	$ 1,183,143	$	$	$ 165,297	$ 1,348,440	$
Gifts	670,089			2,399	672,488	
Gifts – Pledged	215,166				215,166	
Land Income				14	14	
Interest and Investment Income	1,166,638	44,269	26,760	164,856	1,402,523	91,534
Interest and Investment Income – Pledged	1,166,565				1,166,565	
Loan Premium and Fees on Securities Lending				2	2	218
Investing Activities Expense	(195,290)			(496)	(195,786)	
Depreciation and Amortization				27,237	27,237	
Interest Expense	(686,408)			(365,780)	(1,052,188)	
Borrower Rebates and Agent Fees	(5,464)			(54)	(5,518)	(92)
Gain/(Loss) on Sale of Capital Assets	(54,360)			(10)	(54,370)	
Settlement of Claims	2,065			1	2,066	
Claims and Judgments	(3,079)			(6)	(3,085)	
Other Revenues	74,588				74,588	
Other Revenues – Pledged	144,476				144,476	
Other Expenses	(144,787)			(51,642)	(196,429)	
Total Nonoperating Revenues (Expenses)	3,533,342	44,269	26,760	(58,182)	3,546,189	91,660
Income (Loss) Before Capital Contributions, Endowments and Transfers	(5,920,449)	457,648	1,657,979	119,799	(3,685,023)	972,742
CAPITAL CONTRIBUTIONS, ENDOWMENTS AND TRANSFERS						
Capital Contributions – Federal	848				848	
Capital Contributions – Other	380,344			204,441	584,785	
Contributions to Permanent and Term Endowments	276,276				276,276	
Transfer In (Note 12)	6,981,609			443,450	7,425,059	
Transfer Out (Note 12)	(556,816)		(1,636,590)	(58,549)	(2,251,955)	
Total Capital Contributions, Endowments and Transfers	7,082,261	0	(1,636,590)	589,342	6,035,013	0
Change in Net Position	1,161,812	457,648	21,389	709,141	2,349,990	972,742
Net Position, September 1, 2018	59,002,184	1,864,357	7,950	5,659,440	66,533,931	1,060,699
Restatements (Note 14)	(27,015)			354	(26,661)	(12)
Net Position, September 1, 2018, as Restated	58,975,169	1,864,357	7,950	5,659,794	66,507,270	1,060,687
Net Position, August 31, 2019	$ 60,136,981	$ 2,322,005	$ 29,339	$ 6,368,935	$ 68,857,260	$ 2,033,429

The accompanying notes to the financial statements are an integral part of this statement.

* Employees life, accident and health insurance benefits fund is the only internal service fund. Combining statements are not presented.

STATE OF TEXAS

Statement of Cash Flows – Proprietary Funds

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

	Business-Type Activities-Enterprise Funds					Governmental
	Colleges and Universities	Unemployment Trust Fund	Lottery Fund	Nonmajor Enterprise Funds	Totals	Activities-Internal Service Fund*
CASH FLOWS FROM OPERATING ACTIVITIES						
Proceeds from Customers	$ 9,864,207	$ 2,329,119	$ 6,245,208	$ 718,040	$ 19,156,574	$ 469,548
Proceeds from Tuition and Fees	5,269,702				5,269,702	
Proceeds from Research Grants and Contracts	4,559,623	53,190			4,612,813	
Proceeds from Gifts				26	26	
Proceeds from Loan Programs	306,428			2,081,226	2,387,654	
Proceeds from Auxiliaries	1,628,503				1,628,503	
Proceeds from Other Operating Revenues	1,105,285	136,634		128,167	1,370,086	2,719,571
Payments to Suppliers for Goods and Services	(9,385,705)		(539,725)	(408,100)	(10,333,530)	(14,613)
Payments to Employees	(17,600,012)		(26,638)	(62,468)	(17,689,118)	
Payments for Loans Provided	(288,196)			(2,319,016)	(2,607,212)	
Payments for Lottery Prizes			(4,035,960)		(4,035,960)	
Payments for Unemployment Benefits		(2,027,176)			(2,027,176)	
Payments for Other Operating Expenses	(1,184,073)			(245,808)	(1,429,881)	(2,365,914)
Net Cash Provided (Used) by Operating Activities	(5,724,238)	491,767	1,642,885	(107,933)	(3,697,519)	808,592
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES						
Proceeds from Debt Issuance				7,195,224	7,195,224	
Proceeds from Gifts	872,544				872,544	
Proceeds from Endowments	513,465				513,465	
Proceeds from Transfers from Other Funds	7,283,075	658		2,560,155	9,843,888	
Proceeds from Interfund Payables				8,333	8,333	
Proceeds from Loan Programs	23,486				23,486	
Proceeds from Grant Receipts	1,216,344			154,349	1,370,693	
Proceeds from Other Noncapital Financing Activities	636,585		989	219,492	857,066	
Payments of Principal on Debt Issuance				(4,961,007)	(4,961,007)	
Payments of Interest	(21)			(580,034)	(580,055)	
Payments of Other Costs on Debt Issuance	(1,532)			(8,598)	(10,130)	
Payments for Transfers to Other Funds	(1,330,663)		(1,612,815)	(2,175,343)	(5,118,821)	
Payments for Grant Disbursements	(21,422)			(60,005)	(81,427)	
Payments for Interfund Receivables				(8,168)	(8,168)	
Payments for Other Noncapital Financing Uses	(502,123)		(70,149)	(244,637)	(816,909)	
Net Cash Provided (Used) by Noncapital Financing Activities	8,689,738	658	(1,681,975)	2,099,761	9,108,182	0
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES						
Proceeds from Sale of Capital Assets	5,090			284	5,374	
Proceeds from Debt Issuance	3,573,228			260,960	3,834,188	
Proceeds from State Grants and Contracts	43,564				43,564	
Proceeds from Federal Grants and Contracts				19,300	19,300	
Proceeds from Gifts	30,612			5	30,617	
Proceeds from Other Capital and Related Financing Activities	296,689			11,892	308,581	
Proceeds from Capital Contributions	232,625				232,625	
Payments for Additions to Capital Assets	(4,179,848)		(211)	(165,913)	(4,345,972)	
Payments of Principal on Debt Issuance	(3,001,195)			(20,365)	(3,021,560)	
Payments for Capital Leases	(23,327)				(23,327)	
Payments of Interest on Debt Issuance	(789,400)			(110,409)	(899,809)	
Payments of Other Costs on Debt Issuance	(288,660)			(1,568)	(290,228)	
Payments for Interfund Receivables	(5,015)			(254)	(5,269)	
Net Cash (Used) by Capital and Related Financing Activities	(4,105,637)	0	(211)	(6,068)	(4,111,916)	0

Concluded on the following page

Statement of Cash Flows – Proprietary Funds (concluded)

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

	Business-Type Activities-Enterprise Funds					Governmental
	Colleges and Universities	Unemployment Trust Fund	Lottery Fund	Nonmajor Enterprise Funds	Totals	Activities-Internal Service Fund*
CASH FLOWS FROM INVESTING ACTIVITIES						
Proceeds from Sale of Investments	$ 38,493,978	$	$ 70,149	$ 3,531,422	$ 42,095,549	$
Proceeds from Interest and Investment Income	2,408,737	41,717		1,212,232	3,662,686	3,512
Proceeds from Principal Payments on Loans	6			816,779	816,785	
Payments to Acquire Investments	(39,167,411)		(993)	(4,468,417)	(43,636,821)	(675,802)
Payments for Nonprogram Loans Provided				(3,688,529)	(3,688,529)	
Net Cash Provided (Used) by Investing Activities	1,735,310	41,717	69,156	(2,596,513)	(750,330)	(672,290)
Net Increase (Decrease) in Cash and Cash Equivalents	595,173	534,142	29,855	(610,753)	548,417	136,302
Cash and Cash Equivalents, September 1, 2018	6,792,385	1,805,108	208,998	3,182,318	11,988,809	2,450
Restatements				23	23	
Cash and Cash Equivalents, September 1, 2018, as Restated	6,792,385	1,805,108	208,998	3,182,341	11,988,832	2,450
Cash and Cash Equivalents, August 31, 2019	$ 7,387,558	$ 2,339,250	$ 238,853	$ 2,571,588	$ 12,537,249	$ 138,752
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES						
Operating Income (Loss)	$ (9,453,791)	$ 413,379	$ 1,631,219	$ 177,981	$ (7,231,212)	$ 881,082
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities:						
Depreciation and Amortization	2,484,803		142	125,620	2,610,565	
Bad Debt Expense	380,308		243	1,671	382,222	
Pension Expense	852,484				852,484	
OPEB Expense	764,435				764,435	
Operating Income (Loss) and Cash Flow Categories Classification Differences	(5,104)			15,131	10,027	
Changes in Assets and Liabilities:						
(Increase) Decrease in Receivables	(426,471)	11,107	(7,629)	115,362	(307,631)	39,366
(Increase) Decrease in Due From Other Funds	(5,352)			64,829	59,477	(3,192)
(Increase) in Inventories	(18,122)		(9,758)	(186)	(28,066)	
Decrease in Notes Receivable	5				5	
(Increase) Decrease in Loans and Contracts	25,702			(2,103,131)	(2,077,429)	
(Increase) Decrease in Other Assets	(89,362)			198,751	109,389	
(Increase) in Deferred Outflows of Resources - Pensions	(2,748,546)				(2,748,546)	
(Increase) in Deferred Outflows of Resources - OPEB	(2,950,989)				(2,950,989)	
(Increase) Decrease in Prepaid Expenses	(35,990)		197	25,536	(10,257)	
Increase (Decrease) in Payables	219,235	42,998	28,471	(159,993)	130,711	13,961
(Decrease) in Deposits	(25,323)			(286,875)	(312,198)	
(Decrease) in Due To Other Funds	(686)			(3,760)	(4,446)	(122,658)
Increase (Decrease) in Unearned Revenue	232,362	24,283		(64,732)	191,913	33
Increase (Decrease) in Employees' Compensable Leave	39,423			(41)	39,382	
(Decrease) in Benefits Payable	(25,732)				(25,732)	
Increase in Liabilities to Employees for Defined Benefit Pensions	2,522,718				2,522,718	
Increase in Liabilities to Employees for Defined Benefit OPEB	511,372				511,372	
Increase in Other Liabilities	43,343			1,785,904	1,829,247	
(Decrease) in Deferred Inflows of Resources - Pensions	(229,827)				(229,827)	
Increase in Deferred Inflows of Resources - OPEB	2,200,008				2,200,008	
Increase in Asset Retirement Obligation	14,859				14,859	
Total Adjustments	3,729,553	78,388	11,666	(285,914)	3,533,693	(72,490)
Net Cash Provided (Used) by Operating Activities	$ (5,724,238)	$ 491,767	$ 1,642,885	$ (107,933)	$ (3,697,519)	$ 808,592
NONCASH TRANSACTIONS						
Donation of Capital Assets	$ 117,868	$	$	$ 191,847	$ 309,715	$
Net Change in Fair Value of Investments	$ (2,436,918)	$	$ 26,760	$ 79,070	$ (2,331,088)	$ 33,360
Borrowing Under Capital Lease Purchase	$ 166,407	$	$	$	$ 166,407	$
Other	$ 221,233	$	$	$ 72,769	$ 294,002	$

The accompanying notes to the financial statements are an integral part of this statement.

* Employees life, accident and health insurance benefits fund is the only internal service fund. Combining statements are not presented.

STATE OF TEXAS

Statement of Fiduciary Net Position

August 31, 2019 (Amounts in Thousands)

	Pension and Other Employee Benefit Trust Funds	External Investment Trust Fund*	Private-Purpose Trust Funds	Agency Funds
ASSETS				
Cash and Cash Equivalents	$ 2,286,726	$	$ 584,171	$ 1,882,540
Restricted Cash and Cash Equivalents			14	
Securities Lending Collateral	18,986,698			
Investments:				
U.S. Government	27,757,777	10,364,182	55,908	369,743
Corporate Equity	20,934,313		16,728	194,083
Corporate Obligations	1,773,233	3,922,139	3,392	423
Repurchase Agreements		9,807,486		34,397
Foreign Securities	33,496,911		8,425	
Externally Managed Investments	82,467,954			
Other	20,768,037	1,120,428	3,372,021	177,327
Restricted Investments				
Receivables:				
Federal	145,014			
Interest and Dividends	364,828	29,943	1,005	4,667
Accounts	1,020,857		478	7,746
Taxes				20
Investment Trades	3,228,668			
Other			602	
Other Intergovernmental				
From Fiduciary Funds				
Due From Other Funds (Note 12)	44,021			
Due From Primary Government				
Interfund Receivable				
Inventories				
Prepaid Items	2,021			
Loans and Contracts			1,356	
Properties, at Cost, Net of Accumulated Depreciation or Amortization	90,036		572	
Other Assets	106			1,444,213
Total Assets	213,367,200	25,244,178	4,044,672	4,115,159
LIABILITIES				
Payables:				
Accounts	938,473	50,607	25,611	410
Investment Trades	4,785,057	173,609	742	
Payroll	6,159			
Other Intergovernmental				1,233,995
Interest			19	
Annuities	109,861			
Due To Other Funds (Note 12)	61,993			734
Unearned Revenue	850		1,012	
Employees' Compensable Leave	15,441			
Obligations/Securities Lending	18,963,463			
Funds Held for Others			80	2,880,020
Payables from Restricted Assets			1,322	
Other Liabilities	179,224	1,579	231,166	
Total Liabilities	25,060,521	225,795	259,952	4,115,159
NET POSITION				
Restricted for Pensions	186,931,639			
Restricted for OPEB **	1,352,416			
Other Purposes	22,624			
Held in Trust for Individuals, Organizations and Other Governments			3,784,720	
Pool Participants		25,018,383		
Total Net Position	$ 188,306,679	$ 25,018,383	$ 3,784,720	$ 0

The accompanying notes to the financial statements are an integral part of this statement.

* The activities of the Texas local government investment pool (TexPool) and the Texas local government investment pool prime (TexPool Prime) are reported as an external investment trust fund. Combining statements are not presented.

** Other Post Employment Benefits (OPEB)

Statement of Changes in Fiduciary Net Position

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

	Pension and Other Employee Benefit Trust Funds	External Investment Trust Fund*	Private-Purpose Trust Funds
ADDITIONS			
Contributions:			
Member Contributions	$ 4,516,578	$	$
State Contributions	4,109,765		
Federal Contributions	310,173		5,497
Other Contributions	2,263,975		241,645
Total Contributions	11,200,491	0	247,142
Investment Income:			
From Investing Activities:			
Net Increase in Fair Value of Investments	1,289,240		51,724
Interest, Dividend and Other	7,400,731	636,851	127,909
Total Investing Income	8,689,971	636,851	179,633
Less Investing Activities Expense	247,738	12,137	4,759
Net Income from Investing Activities	8,442,233	624,714	174,874
From Securities Lending Activities:			
Securities Lending Income	525,155		
Less Securities Lending Expense:			
Borrower Rebates*	466,290		
Management Fees	5,876		
Net Income from Securities Lending	52,989	0	0
Total Net Investment Income	8,495,222	624,714	174,874
Capital Share and Individual Account Transactions:			
Net Increase in Participant Investments	0	4,418,064	0
Other Additions:			
Settlement of Claims	2,168		4,259
Other Revenue	(3,624)		403,390
Transfer In (Note 12)	130,805		
Total Other Additions	129,349	0	407,649
Total Additions	19,825,062	5,042,778	829,665
DEDUCTIONS			
Benefits	15,727,230		225,492
Refunds of Contributions	632,746		
Transfer Out (Note 12)	129,509		
Intergovernmental Payments			79,360
Administrative Expenses	83,763		21,255
Depreciation and Amortization Expense	15,403		39
Settlement of Claims			16,362
Interest Expense	1		19
Gain/Loss on Sale of Capital Assets	456		
Other Expenses	84,039		195,102
Total Deductions	16,673,147	0	537,629
INCREASE (DECREASE) IN NET POSITION	3,151,915	5,042,778	292,036
NET POSITION			
Net Position, September 1, 2018	185,152,455	19,975,605	3,492,684
Restatements (Note 14)	2,309		
Net Position, September 1, 2018, as Restated	185,154,764	19,975,605	3,492,684
Net Position, August 31, 2019	$ 188,306,679	$ 25,018,383	$ 3,784,720

The accompanying notes to the financial statements are an integral part of this statement.

* The activities of the Texas local government investment pool (TexPool) and the Texas local government investment pool prime (TexPool Prime) are reported as an external investment trust fund. Combining statements are not presented.

** The pension funds of the Employees Retirement System of Texas received rebates from borrowers in excess of payments made to borrowers due to increased demand in the securities lending market.

State of Texas
Notes to Financial Statements

Note 1

Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements of the state of Texas were prepared in accordance with generally accepted accounting principles (GAAP) as prescribed by the Governmental Accounting Standards Board (GASB). The state implemented the following three GASB statements in fiscal 2019.

GASB Statement No. 83, *Certain Asset Retirement Obligations,* relates to accounting and financial reporting for certain asset retirement obligations (AROs) as a legally enforceable liability associated with the retirement of a tangible capital asset. The GASB statement establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for the ARO. This Statement also requires disclosure of information of the governmental entity's AROs, the methods and assumptions used for the estimated liabilities and the estimated remaining life of the associated tangible capital assets.

GASB Statement No. 88, *Certain Disclosures related to Debt, including Direct Borrowings and Direct Placements*, defines debt for purposes of disclosure in notes to the financial statements as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date a contractual obligation is established. The GASB statement expands the additional essential information related to debt disclosures including unused lines of credit, assets pledged as collateral of debt and terms specified in debt agreements. For note disclosure, direct borrowings and direct placements should be reported separately from other debt.

GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period,* requires interest cost incurred before the end of the construction period to be recognized as an expense in the period incurred for financial statements prepared using the economic resources measurement focus.

Financial Reporting Entity

For financial reporting purposes, the state of Texas includes all agencies, boards, commissions, authorities, institutions of higher education and other organizations that compose its legal entity. The reporting entity also includes legally separate organizations for which the state is financially accountable and any other organizations that would cause the financial statements to be misleading if they were excluded. All activities considered part of the state are included. These activities provide a range of services in the areas of:

- General government
- Education
- Employee benefits
- Teacher retirement state contributions
- Health and human services
- Public safety and corrections
- Transportation
- Natural resources and recreation
- Regulatory services

The reporting entity for the state is in accordance with the criteria established by GASB. Note 19 provides a listing and brief summary of the component units and their relationship to the state of Texas. The government-wide financial statements present the balances and activities of the state of Texas (the primary government) and its component units.

The state's public school districts, junior colleges and community colleges are excluded from the state's financial reporting entity. These entities are legally separate and fiscally independent from the state. The state is not financially accountable for these entities and it does not make the state's financial statements misleading to exclude them.

Financial Reporting Structure

The basic financial statements include government-wide financial statements, fund financial statements and notes to the financial statements. The reporting model based on GASB Statement No. 34, *Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments*, focuses on the state as a whole in the government-wide financial statements and major individual funds in the fund financial statements.

Government-wide Financial Statements

The government-wide financial statements (statement of net position and statement of activities) display information about the state as a whole - its financial position at the end of the fiscal year and the change in financial position resulting from the activities of the fiscal year, except for its fiduciary activities. These statements include separate columns for the governmental and business-type activities of the state (including its blended component units), and its discretely presented component units. These statements also report all current and noncurrent assets and liabilities, revenues, expenses and gains and losses of the state using an economic resources measurement focus and an accrual basis of accounting.

The statement of net position is presented in a net position format. The net position is displayed in three components: net investment in capital assets; restricted (presented with major categories of restrictions); and unrestricted. This statement reports deferred outflows of resources and deferred inflows of resources in separate categories from assets and liabilities and distinguishes between restricted and unrestricted current and noncurrent assets.

The statement of activities reflects both the gross expense and net expense/revenue by function (public safety and corrections, transportation, etc.) The net expense/revenue is calculated by netting program expenses, including depreciation and amortization, against program revenues for each program. The net expense/revenue identifies the extent to which each function draws from the general revenues of the state or is self-financing through fees and intergovernmental aid.

Program revenues are directly associated with a function of governmental or business-type activities. Internally-dedicated resources are reported as general revenues rather than program revenues.

Program revenues include charges for services, operating grants and contributions, and capital grants and contributions. Charges for services arise from charges to customers or applicants who purchase, use or directly benefit from the goods, services or privileges provided. Charges for services include special assessments and payments made by parties outside of the state's citizenry if that money is restricted to a particular program.

Operating grants include operating-specific and discretionary (either operating or capital) grants while capital grants reflect capital-specific grants from other governments, organizations or individuals. Multipurpose grants that provide financing for more than one program are reported as program revenue if the amounts restricted to each program are specifically identifiable. Multipurpose grants that do not provide for specific identification of the programs and amounts are reported as general revenues.

Certain general government administrative overhead expenses are charged to the various functions of the state. These charges are paid from applicable funding sources and are reflected as direct expenses. Other expenses reported for each function are clearly identifiable to that particular function and are direct expenses. The amount of direct interest expense included in direct expenses in the statement of activities is $670.4 million.

Fiduciary funds are presented in the fund financial statements by type (pension and other employee benefit trust, external investment trust, private-purpose trust and agency). The assets of fiduciary funds are held for the benefit of others and cannot be used to finance activities or obligations of the government. They are, therefore, not incorporated into the government-wide financial statements.

Fund Financial Statements

The fund financial statements are presented after the government-wide financial statements. They display information about major funds individually and in the aggregate for governmental and proprietary nonmajor funds. In governmental and fiduciary funds, assets and liabilities are presented in order of relative liquidity. In proprietary funds, assets and liabilities are presented in a classified format that distinguishes between all current and noncurrent assets and liabilities. Current assets in the classified format are those considered available for appropriation and expenditure. Examples of expendable financial resources include cash, various receivables and short-term investments not restricted for specific purposes. All other assets are considered noncurrent. Current liabilities are obligations to be paid within the next fiscal year. Examples include payables and the current portion of long-term liabilities.

The governmental funds in the fund financial statements are presented on a current financial resources measurement focus and modified accrual basis of accounting. This presentation is deemed most appropriate to demonstrate compliance with legal and covenant requirements, the source and use of financial resources, and how the state's actual results of activities conform to the budget. A reconciliation between the governmental fund financial statements and the governmental activities column of the government-wide financial statements is presented since a different measurement focus and basis of accounting is used. The reconciliation explains the adjustments required to convert the fund-based financial statements to the reporting entity-based financial statements.

The state uses funds to report its financial position and the results of its operations. Fund accounting is designed to demonstrate legal compliance and to aid financial management by segregating transactions related to certain government functions or activities. A fund is a separate accounting entity with a self-balancing set of accounts. State transactions are recorded in the fund types described below.

Governmental Fund Types

Governmental funds focus on the sources and uses of funds. Included in the governmental fund financial statements are general, special revenue, debt service, capital projects and permanent funds. The general fund is the principal operating fund used to account for most of the state's general activities. It accounts for all financial resources except those accounted for in other funds. Special revenue funds account for and report the proceeds of specific revenue sources that are restricted or committed to expenditure for specified purposes other than debt service or capital projects. Debt service funds are used to account for and report financial resources that are restricted, committed or assigned to expenditure for principal and interest payments. Capital projects funds are used to account for and report financial resources that are restricted, committed or assigned to expenditure for capital outlays, including the acquisition or construction of capital facilities and other capital assets. Capital projects funds exclude those types of capital-related outflows financed by proprietary funds or for assets that will be held in trust for individuals, private organizations or other governments. Permanent funds are used to report resources legally restricted to the extent that only earnings, and not principal, may be used for purposes that support the state's programs.

The state's major governmental funds are listed below.

The **General Fund** is the primary operating fund for the state and includes transactions for general government, education, employee benefits, teacher retirement state contributions, health and human services, public safety and corrections, transportation, natural resources and recreation, and regulatory services.

The **State Highway Fund**, a special revenue fund, receives funds allocated by law for public road construction, maintenance, monitoring and law enforcement of the state's highway system.

The **Permanent School Fund** is an investment fund consisting of land and proceeds from the sale of land that establishes a perpetual provision for the support of the public schools of Texas. All dividends and other income are allocated to the credit of the available school fund.

Proprietary Fund Types

Proprietary funds focus on determining operating income, changes in financial position and cash flows.

Proprietary funds are reported using economic resources measurement focus and full accrual basis of accounting. GAAP similar to those used by private-sector businesses are applied in accounting for these funds. Included in proprietary fund financial statements are enterprise funds and an internal service fund.

Enterprise funds are used to report any activity for which a fee is charged to external users for goods or services. Activities must be reported as enterprise funds if any one of the following criteria is met:

- The activity is financed with debt secured solely by a pledge of the net revenues from fees and charges of the activity.
- Laws or regulations require the activity's costs of providing services, including capital costs (such as depreciation, amortization or debt service), to be recovered with fees and charges.
- The pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs.

Internal service funds are used to report any activity that provides goods or services, on a cost reimbursement basis, to other funds, departments or agencies of the reporting entity or other governments. The Employees Life, Accident and Health Insurance Benefits Fund accounts for the services provided to state of Texas agencies and institutions of higher education that participate in the Texas Employees Group Benefits Program.

The major enterprise funds for the state are listed below. The **Colleges and Universities** include:

- University of Texas System
- Texas A&M University System
- Texas Tech University System
- University of Houston System
- Texas State University System
- University of North Texas System
- Texas Woman's University
- Stephen F. Austin State University
- Texas Southern University
- Midwestern State University
- Texas State Technical College

These institutions of higher education are represented as a single column in the proprietary fund financial statements and individually in the schedules of colleges and universities in the other supplementary information section of this report.

The **Unemployment Trust Fund** contains the activity of the state related to the administration of state and federally financed unemployment benefits.

The **Lottery Fund** receives fees from external users and uses the fees to operate the state lottery, finance debt and make investments to meet future installment obligations to prize winners.

Fiduciary Fund Types

Fiduciary funds account for assets held in either a trustee capacity or as an agent for individuals, private organizations, other governmental units or other funds. When assets are held under the terms of a formal trust agreement, either a pension trust fund or a private-purpose trust fund is used.

Pension and other employee benefit trust funds report resources held in trust for the members and beneficiaries of defined benefit pension plans.

External investment trust funds report the external portions of investment pools reported by the sponsoring government.

Private-purpose trust funds report all other trust arrangements whose principal and interest benefit individuals, private organizations or other governments. These trusts include tobacco settlement money, reserve for insurance company liquidations, relief of catastrophic insurance losses, contributions of prison inmates, educational savings plans and others.

Agency funds report assets the state holds on behalf of others in a purely custodial capacity. Agency funds involve only the receipt and remittance of fiduciary resources to individuals, private organizations or other governments. Agency funds include those funds established to account for the collection of sales and use tax for distribution to localities, bond escrow funds, deposits of insurance carriers, child support collections and other miscellaneous accounts.

Component Units

All component units of the state of Texas are reported as nonmajor component units. The combining statement of net position - component units and the combining statement of activities - component units are discretely presented.

Additional information about blended and discretely presented component units can be found in Note 19. More detailed information of the individual component units is available from the component units' separately issued financial statements.

Basis of Accounting, Measurement Focus and Financial Statement Presentation

Government-wide financial statements are presented using the economic resources measurement focus and the accrual basis of accounting. Under the economic resources measurement focus, all economic resources and obligations of the reporting entity, both current and noncurrent, are reported. Under the accrual basis of accounting, revenues, expenses, gains, losses, assets and liabilities resulting from exchange and exchange-like transactions are recognized when the exchange takes place. Revenues, expenses, gains, losses, assets and liabilities resulting from nonexchange transactions are recognized in accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions* and GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*, which partially amended GASB Statement No. 33.

The accounting and financial reporting treatment applied to a fund is determined by its measurement focus.

Governmental funds use the flow of current financial resources measurement focus and the modified accrual basis of accounting. With this measurement focus, generally only current assets and current liabilities are included on the balance sheet. Operating statements of these funds present increases (such as revenues and other financing sources) and decreases (such as expenditures and other financing uses) in current financial resources.

Under the modified accrual basis of accounting, revenues are recognized in the period in which they become both measurable and available to finance operations of the fiscal year or liquidate liabilities existing at fiscal year-end. The state of Texas considers all major revenues (such as operating grants and contributions and taxes) reported in the governmental funds to be available if the revenues are due at fiscal year-end and collected within 60 days thereafter.

In the governmental fund financial statements, revenues that are earned but not expected to be collected within 60 days are not available to liquidate the liabilities of the current period and are reported as deferred inflows of resources. Unearned revenue is recorded when cash or other assets are received prior to being earned.

Under the accrual basis of accounting, as used in the government-wide financial statements, proprietary fund financial statements and fiduciary fund financial statements, unearned revenue is recorded when cash or other assets are collected in advance before the revenue recognition criteria are met. Revenues are recognized when earned and expenses are recognized at the time liabilities are incurred. Amounts paid to acquire capital assets are capitalized as assets rather than reported as expenditures as they would be under the modified accrual basis of accounting used in the governmental fund financial statements. Proceeds of long-term debt are recorded as liabilities rather than other financing sources under the modified accrual basis. Amounts paid to reduce long-term indebtedness of the state are reported as reductions of the related liabilities rather than expenditures.

Proprietary funds distinguish operating from nonoperating items. Operating revenues and expenses result from providing services or producing and delivering goods in connection with the proprietary funds' principal ongoing operations. Operating expenses for enterprise and internal service funds include the cost of sales and services, administrative expenses, and capital asset depreciation and amortization. Revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Although agency funds use the accrual basis of accounting, they do not have a measurement focus because they do not recognize revenues and expenses.

Budgetary Information

The budgetary comparison schedule and the notes to the budgetary comparison schedule are in the required supplementary information other than management's discussion and analysis (MD&A) section. The budgetary comparison schedule presents the original budget, the final budget and the actual activity of the major governmental funds. Reconciliations for the general fund and the state highway fund budgetary basis to the GAAP basis are presented as required supplementary information with explanations of the reconciling items. Budgetary information for nonmajor governmental funds is presented as other supplementary information. The governmental funds with legally adopted annual budgets are the general fund, the state highway fund and the other nonmajor special revenue funds listed in other supplementary information.

Cash and Cash Equivalents

For reporting purposes, cash and cash equivalents includes cash on hand, cash in transit, cash in local banks, cash in the federal and state treasuries, and cash equivalents. Cash in local banks is primarily held by enterprise funds, discrete component units and employee benefit trust funds. Cash balances of most state funds are pooled and invested by the Treasury Operations Division of the Comptroller's office. Interest earned is deposited in the general revenue fund and specified funds designated by law.

The statement of cash flows for proprietary funds presents the change in cash and cash equivalents during the fiscal year. Cash equivalents are defined as short-term, highly-liquid investments that are both readily convertible to known amounts of cash and so near maturity they present insignificant risk of a decrease in value due to changes in interest rates. Investments with an original maturity of three months or less and used for cash management rather than investing activities are considered cash equivalents. Restricted securities held as collateral for securities lending are not included as cash equivalents on the statement of cash flows.

Investments

Investments are reported at fair value in the balance sheet or other statements of net financial position with exceptions. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Texas local government investment pool (TexPool) and Texas local government investment pool prime (TexPool Prime) meet the criteria for a qualifying external investment pool under GASB Statement No. 79, *Certain External Investment Pools and Pool Participants*. Certain money market investments may be reported at amortized cost provided the investment has a remaining maturity of one year or less at date of purchase. All investment income, including changes in the fair value of investments, is recognized as revenue in the operating statement or statement of activities.

Receivables and Payables

The major receivables for governmental activities are federal revenue and taxes receivable. The major receivables for business-type activities are patient receivables, federal receivables and gifts, pledges and donations. Receivables represent amounts due to the state as of Aug. 31, 2019, from private persons or organizations. Amounts expected to be collected within the next fiscal year are classified as current and amounts expected to be collected beyond the next fiscal year are classified as noncurrent. All receivables are recorded net of allowances for uncollectible accounts.

Taxes receivable represent amounts earned in fiscal 2019 that will be collected sometime in the future. In the government-wide financial statements, a corresponding amount is recorded as revenue. In the governmental fund financial statements, the portion considered available is recorded as revenue; the remainder is recorded as unearned revenue. Taxes receivable are estimated based on collection experience. Tax refunds payable represent amounts owed to taxpayers for overpayments or amended tax returns. See Note 23 for details on taxes receivable and tax refunds payable.

Other receivables in the general fund consist primarily of program receivables for health care, supplemental nutrition assistance program and temporary assistance for needy families. Other receivables in the colleges and universities fund consist primarily of receivables from investments, from external parties and other companies. Other receivables in proprietary funds other than the colleges and universities fund consist of receivables related to unemployment benefit overpayments. Activities between funds that represent lending/borrowing arrangements outstanding at fiscal year-end are interfund loans. All other outstanding balances between funds are reported as due from/due to other funds. Any residual balances between governmental and business-type activities are reported in the government-wide financial statements as "internal balances".

Noncurrent interfund receivables in the general fund, as shown in Note 12, are reported as nonspendable fund balance. Noncurrent interfund receivables in other governmental funds are reported as committed, restricted or assigned fund balance.

Investment trade receivables are reported for sales of investments pending settlement. Investment trade payables are purchases of investments pending settlement.

Inventories and Prepaid Items

Inventories include both merchandise inventories on hand for sale and consumable inventories. Inventories are valued at cost generally utilizing the last-in, first-out method.

The consumption method of accounting is used to account for inventories and prepaid items that appear in both governmental and proprietary fund types. The costs of inventories are expensed when they are consumed. Prepaid items reflect payments for costs applicable to future accounting periods and are recorded in both government-wide financial statements and fund financial statements.

Restricted Assets

Restricted assets include monies or other resources restricted by legal or contractual requirements. These assets include certain proceeds of enterprise fund general obligation and revenue bonds, as well as certain revenues, set aside for statutory or contractual requirements.

Capital Assets

Capital assets are reported in proprietary funds, fiduciary funds and on the government-wide financial statements. The capitalization threshold and the estimated useful life of the assets vary depending upon the asset type. Note 2 includes a table identifying the capitalization threshold and the estimated useful life by asset type. It also provides information on the state's depreciation/amortization policy and other detailed information.

The state has adopted the depreciation method for reporting its highway system. The Texas Department of Transportation, the state agency responsible for construction and maintenance of the state's road and highway systems, adopted the composite approach for reporting infrastructure and bridges. The composite approach is a method for calculating depreciation of a group of similar and dissimilar assets of the same class (all the roads and bridges of the state) using the same depreciation rate. The composite depreciation rate for fiscal 2019 is 2.5 percent based on a 40-year weighted average life expectancy of the assets in service.

Long-Term Liabilities

Reporting long-term liabilities in the statement of net position requires two components - the amount due within one year (current) and the amount due in more than one year (noncurrent).

General long-term liabilities consist of claims and judgments, capital lease obligations, employees' compensable leave and other noncurrent liabilities. General long-term liabilities are not reported as liabilities in governmental funds but are reported in the governmental activities column in the government-wide statement of net position. The state reports rebatable arbitrage in claims and judgments. General long-term debt is not limited to liabilities arising from debt issuances, but may also include noncurrent liabilities on lease-purchase agreements and other commitments that are not current liabilities.

In the government-wide financial statements and proprietary fund financial statements, bond premiums and discounts are currently amortized over the life of the bonds using the straight-line method. State agencies also have the option of using bonds outstanding or the effective interest method. Bonds payable are reported net of the applicable bond accretion, premium or discount. Gain or loss on refunding is reported as deferred inflows of resources or deferred outflows of resources, respectively, and amortized over a shorter final maturity of the refunded or the refunding bonds. Issuance costs are expensed in the fiscal year in which they were incurred.

In the governmental fund financial statements, bond premiums, discounts and bond issuance costs are recognized during the current fiscal year. The face amount of the debt issued and the related premiums are reported as other financing sources while discounts on debt issuances are reported as other financing uses. Issuance costs, whether or not withheld from the actual debt proceeds received, are reported as debt service expenditures.

Employees' Compensable Leave Balances

Annual leave, commonly referred to as vacation leave, and other compensated absences with similar characteristics are accrued as a liability as the benefits are earned by the employee. Benefits are earned when the employee's right to receive compensation is attributable to services already rendered and it is probable the employer will compensate the employee for the benefits through paid time off or some other means, such as cash payments at termination or retirement. Employees accrue vacation time at a rate of eight to 21 hours per month depending on years of employment. The maximum number of hours that can be carried forward to the next fiscal year ranges from 180 hours to 532 hours based on years of service.

Under the federal Fair Labor Standards Act and state laws for nonexempt, nonemergency employees overtime can be accumulated in lieu of immediate payment as compensatory leave (at one-and-one-half hours for each overtime hour worked) to a maximum of 240 hours. All overtime exceeding 240 hours must be paid with the next regular payroll. At termination or death, all overtime balances must be paid in full. For emergency personnel (firefighters, law enforcement, prison officers, etc.), overtime can be accumulated to a maximum of 480 hours.

Unused overtime is included in the calculation of current and noncurrent liabilities because each employee may be paid for the overtime or use it as compensatory time.

Compensatory leave is allowed for exempt employees not eligible for overtime pay. This leave is accumulated on an hour-for-hour basis and must be taken within one year from the date earned or it lapses. There is no death or termination benefit for compensatory leave and it is nontransferable. Compensatory leave is reported as a current liability.

Sick leave is accrued at a rate of eight hours per month with no limit on the amount that can be carried forward to the next fiscal year. Accumulated sick leave is not paid at employee termination, although an employee's estate may be paid for one-half of the accumulated sick leave to a maximum of 336 hours. In 2009, the 81st Legislature passed House Bill 2559, which does not allow employees hired on or after Sept. 1, 2009, to apply unused sick or annual leave as service credit to meet retirement eligibility. State employees hired before Sept. 1, 2009, are entitled to service credit in the retirement system for unused sick or annual leave on the last day of employment. The maximum amount of the state's contingent obligation for sick leave was not determined. The probability of a material impact on state operations in any given fiscal year is considered remote.

Capital Lease Obligations

Capital lease contracts payable, which are not funded by current resources, represent the liability for future lease payments under capital lease contracts. Note 8 provides details for capital lease obligations.

Conduit Debt Obligations

Conduit debt issued by the state in the form of bonds is for the express purpose of providing capital financing for a specific third party that is not part of the state's financial reporting entity. The bonds are secured by the property financed and are payable solely from payments received from the third party on the underlying loans. The state has no obligations for the debt beyond the resources provided by the third party on whose behalf the bonds were issued. The state has chosen to continue reporting conduit debt obligations as long-term liabilities on the balance sheet for debt issued prior to GASB Interpretation No. 2, *Disclosure of Conduit Debt Obligations, an Interpretation of NCGA Statement 1*, as well as subsequent debt obligations that are substantially the same as those already reported. GASB Interpretation No. 2, which was effective for Texas beginning Sept. 1, 1996, requires only note disclosure for issuance of all other conduit debt. Note 6 provides details on conduit debt obligations.

Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred outflows of resources and deferred inflows of resources are defined in GASB Concepts Statement No. 4, *Elements of Financial Statements*, as the consumptions and acquisitions of net assets by the government that are applicable to future periods.

Note 27 provides details on deferred outflows of resources and deferred inflows of resources.

Net Position and Fund Balances

The state reports restricted net position when constraints placed on resources are either:

- externally imposed by creditors (such as debt covenants), grantors, contributors, laws or regulations of other governments; or
- imposed by law through constitutional provisions or enabling legislation.

Enabling legislation authorizes the government to assess, levy, charge or otherwise mandate payment of resources (from external resource providers) and includes a legally enforceable requirement that those resources can only be used for the specific purposes stipulated in the legislation. Restricted net position is designated as either expendable or nonexpendable. Expendable restricted resources are those that may be expended for either a stated purpose or for a general purpose subject to externally imposed stipulations. Nonexpendable restricted resources are those required to be retained in perpetuity. Restricted resources include the state's permanent endowment funds subject to externally imposed restrictions governing their use.

Net investment in capital assets, consists of capital assets - including restricted capital assets - net of accumulated depreciation/amortization and reduced by the outstanding balances of bonds, mortgages, notes or other debt attributable to the acquisition, construction or improvement of such assets. Significant unspent related debt proceeds are not included in the calculation of net investment in capital assets. The unspent portion of the debt is included in the restricted for capital projects category of net position.

Fund balances for governmental funds are classified as nonspendable, restricted, committed, assigned or unassigned. Nonspendable fund balances include amounts that cannot be spent because they are either not in a spendable form or they are legally or contractually required to be maintained intact. Fund balances are reported as restricted when constraints placed upon the use of resources are either:

- externally imposed by creditors (such as debt covenants), grantors, contributors, laws or regulations of other governments; or
- imposed by law through constitutional provisions or enabling legislation.

Committed fund balances are amounts that can only be used for specific purposes pursuant to constraints imposed through legislation passed into law by formal action of the Texas Legislature, the state's highest level of decision-making authority. These committed amounts cannot be used for any other purpose unless the Texas Legislature removes or changes the specified use by taking the same type of action it employed to previously commit those amounts. Fund balances are reported as assigned when the state intends for resources to be used for specific purposes, yet the constraints do not meet the requirements to be reported as restricted or committed. Intent is expressed by either the Texas Legislature, agency governing board or the agency head/official to which the governing body has delegated the authority to assign amounts to be used for specific purposes. Unassigned fund balances represent amounts that have not been restricted, committed or assigned to specific purposes. The Texas Legislature, agency governing board/the agency head or official to which the governing body has delegated the authority to assign amounts shall determine the procedures and policies for determining assigned fund balances.

The general fund is the only fund that can report a deficit unassigned fund balance. Note 13 presents disaggregated fund balances.

When both restricted and unrestricted resources are available for use, it is the state's policy to use restricted resources first and then unrestricted resources as they are needed. When only unrestricted resources are available for use, it is the state's policy to use committed resources first, then assigned resources, and lastly unassigned resources.

Interfund Activity and Transactions - Government-wide Financial Statements

Interfund activities are presented on the fund financial statements but are not carried forward to the government-wide financial statements. The interfund activities on the government-wide financial statements are consolidated to present only the activities between governmental activities and business-type activities. Interfund services provided and used are allocated to various functions within the primary government. Interfund activity with fiduciary funds is reclassified and reported as external activity.

Interfund payables and receivables are also presented on the fund financial statements but are not carried forward to the statement of net position except for amounts due between governmental and business-type activities. These amounts are reported as internal balances on the statement of net position. Interfund activities between the primary government and component units with a different fiscal year-end are limited and immaterial.

Interfund transactions with discretely presented component units are reclassified and reported as external activity. Note 12 provides details of interfund activities and transactions.

Risk Financing

The state maintains a combination of commercial insurance and self-insurance programs. The state is self-insured for workers' compensation and unemployment compensation claims. The liabilities are funded on a pay-as-you-go basis. The group insurance programs are provided through a combination of insurance contracts, self-funded health plans and health maintenance organization contracts.

Liabilities are reported when it is probable that a loss has been incurred at the date of the financial statements and the amount of that loss can be reasonably estimated. Liabilities include an amount for claims incurred but not reported. See Note 17 for additional information.

Note 2

Capital Assets

Capital assets of governmental funds, which include land, infrastructure, buildings, equipment and intangible assets, are recorded as expenditures at the time of purchase and capitalized in the governmental activities column of the government-wide statement of net position. Capital assets of other funds and component units are capitalized in the fund in which they are utilized. Capital assets are assets with a cost above a set minimum capitalization threshold that, when acquired, have an estimated useful life of more than one year. The capitalization thresholds and estimated useful lives of the state's various categories of capital assets are presented in table 2A.

Capitalization of Assets

Table 2A

Type	Capitalization Threshold	Estimated Useful Life
Land and Land Improvements	$ 0	Not applicable
Infrastructure, Non-Depreciable	0	Not applicable
Construction in Progress	0	Not applicable
Buildings and Building Improvements	100,000	5-30 years
Infrastructure, Depreciable	500,000	10-50 years
Facilities and Other Improvements	100,000	10-60 years
Furniture and Equipment	5,000	3-15 years
Vehicles, Boats and Aircraft	5,000	5-40 years
Other Capital Assets (Library Books, Leasehold Improvements and Livestock)		
Depreciable	Various	3-22 years
Non-Depreciable	0	Not applicable
Internally Generated Computer Software	1,000,000	3-10 years
Other Computer Software	100,000	3-10 years
Land Use Rights – Permanent	0	Not applicable
Land Use Rights – Term	100,000	10-60 years
Other Intangible Capital Assets	100,000	3-15 years

Table 2B on the following pages presents the composition of the state's capital assets, adjustments, reclassifications, additions and deletions during fiscal 2019. The adjustments column includes assets not previously reported, accounting errors and other changes. The reclassifications column includes amounts for transfers of capital assets between agencies and reclassifies amounts for completed construction projects previously reported as construction in progress. The additions column includes current year purchases, depreciation and amortization. The deletions column includes assets removed during the current fiscal year.

All capital assets are capitalized at cost or estimated historical cost if actual historical cost is not available. Depreciation or amortization is reported on all exhaustible assets. Inexhaustible assets, such as works of art and historical treasures, are not depreciated. Professional, academic and research library books and materials are considered exhaustible assets and are depreciated. Intangible assets with determinable useful lives are amortized. Donated assets are reported at the acquisition value. Assets are depreciated or amortized over their estimated useful life using the straight-line method.

Most land improvements (infrastructure), including curbs, sidewalks, fences, bridges and lighting systems, are capitalized. The state's highway infrastructure is reported using the depreciation approach.

Capital Asset Activity

Table 2B

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

	PRIMARY GOVERNMENT					
	Balance 9/1/18	Adjustments	Reclassifications	Additions	Deletions	Balance 8/31/19
GOVERNMENTAL ACTIVITIES						
Non-Depreciable & Non-Amortizable Assets						
Land and Land Improvements	$ 14,228,715	$ 1,512	$ (45,832)	$ 962,586	$ (4,047)	$ 15,142,934
Infrastructure	636					636
Construction in Progress	18,587,042	(2,920)	(5,766,016)	6,689,312		19,507,418
Other Capital Assets	72,623			98	(1)	72,720
Land Use Rights – Permanent	27,306			39,617	(31)	66,892
Total Non-Depreciable & Non-Amortizable Assets	32,916,322	(1,408)	(5,811,848)	7,691,613	(4,079)	34,790,600
Depreciable Assets						
Buildings and Building Improvements	6,361,288	3,116	130,148	10,891	(2,104)	6,503,339
Infrastructure	95,598,031		5,416,336	136,696	(3,662)	101,147,401
Facilities and Other Improvements	250,220		11,310	683		262,213
Furniture and Equipment	1,245,144	2,426	13,653	50,920	(36,779)	1,275,364
Vehicles, Boats and Aircraft	1,359,680	(1,111)	17,073	150,581	(46,394)	1,479,829
Other Capital Assets	157,500		458	2,657	(4,173)	156,442
Total Depreciable Assets at Historical Cost	104,971,863	4,431	5,588,978	352,428	(93,112)	110,824,588
Less Accumulated Depreciation for:						
Buildings and Building Improvements	(4,507,449)	(6,413)		(176,150)	820	(4,689,192)
Infrastructure	(20,610,938)	(111)		(1,854,074)	662	(22,464,461)
Facilities and Other Improvements	(184,525)			(7,243)		(191,768)
Furniture and Equipment	(971,746)	(660)	117	(76,758)	34,346	(1,014,701)
Vehicles, Boats and Aircraft	(848,878)	36	(3)	(93,241)	42,674	(899,412)
Other Capital Assets	(99,772)			(5,903)	4,039	(101,636)
Total Accumulated Depreciation*	(27,223,308)	(7,148)	114	(2,213,369)	82,541	(29,361,170)
Depreciable Assets, Net	77,748,555	(2,717)	5,589,092	(1,860,941)	(10,571)	81,463,418
Intangible Capital Assets – Amortizable						
Land Use Rights – Term	15,880			446		16,326
Computer Software	547,845	(5,889)	30,152	8,513	(8,462)	572,159
Other Intangible Capital Assets – Term	79,673					79,673
Total Intangible Assets at Historical Cost	643,398	(5,889)	30,152	8,959	(8,462)	668,158
Less Accumulated Amortization for:						
Land Use Rights – Term	(14,880)			(770)		(15,650)
Computer Software	(459,910)	5,630		(38,709)	8,222	(484,767)
Other Intangible Capital Assets – Term	(48,588)			(7,967)		(56,555)
Total Accumulated Amortization*	(523,378)	5,630	0	(47,446)	8,222	(556,972)
Amortizable Assets, Net	120,020	(259)	30,152	(38,487)	(240)	111,186
Governmental Activities Capital Assets, Net	$ 110,784,897	$ (4,384)	$ (192,604)	$ 5,792,185	$ (14,890)	$ 116,365,204

* Depreciation and amortization expense was charged to governmental activities as follows:

General Government	$ 46,327
Education	19,519
Employee Benefits	4
Health and Human Services	51,796
Public Safety and Corrections	168,378
Transportation	1,929,636
Natural Resources and Recreation	40,672
Regulatory Services	4,483
Total	$ 2,260,815

Continued on the following page

Capital Asset Activity (continued)

Table 2B

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

	PRIMARY GOVERNMENT					
	Balance 9/1/18	Adjustments	Reclassifications	Additions	Deletions	Balance 8/31/19
BUSINESS-TYPE ACTIVITIES						
Non-Depreciable & Non-Amortizable Assets						
Land and Land Improvements	$ 2,221,174	$ (48)	$ 46,731	$ 78,482	$ (1,351)	$ 2,344,988
Construction in Progress	4,355,328	289	(3,435,902)	3,063,130	(40,574)	3,942,271
Other Capital Assets	830,689		3,164	66,184	(3,725)	896,312
Land Use Rights – Permanent	22,892					22,892
Other Intangible Capital Assets - Permanent	17,498		1,295			18,793
Total Non-Depreciable & Non-Amortizable Assets	7,447,581	241	(3,384,712)	3,207,796	(45,650)	7,225,256
Depreciable Assets						
Buildings and Building Improvements	35,423,996	(111)	3,049,160	504,058	(56,315)	38,920,788
Infrastructure	4,177,181		169,356	2,872	(2,955)	4,346,454
Facilities and Other Improvements	3,081,221		138,953	24,972	(44,257)	3,200,889
Furniture and Equipment	6,268,288	(124)	81,520	709,848	(314,646)	6,744,886
Vehicles, Boats and Aircraft	326,464	(24)	282	22,958	(13,653)	336,027
Other Capital Assets	1,775,286		2,136	84,551	(46,478)	1,815,495
Total Depreciable Assets at Historical Cost	51,052,436	(259)	3,441,407	1,349,259	(478,304)	55,364,539
Less Accumulated Depreciation for:						
Buildings and Building Improvements	(16,932,522)			(1,513,607)	34,219	(18,411,910)
Infrastructure	(1,210,776)			(129,974)	354	(1,340,396)
Facilities and Other Improvements	(1,219,875)			(124,047)	43,063	(1,300,859)
Furniture and Equipment	(4,401,917)	253	(117)	(532,396)	242,054	(4,692,123)
Vehicles, Boats and Aircraft	(240,828)	23	(17)	(22,540)	11,406	(251,956)
Other Capital Assets	(1,193,919)	(22)		(80,326)	38,014	(1,236,253)
Total Accumulated Depreciation**	(25,199,837)	254	(134)	(2,402,890)	369,110	(27,233,497)
Depreciable Assets, Net	25,852,599	(5)	3,441,273	(1,053,631)	(109,194)	28,131,042
Intangible Capital Assets – Amortizable						
Land Use Rights – Term	255					255
Computer Software	1,582,332	10,237	136,043	37,760	(51,011)	1,715,361
Other Intangible Capital Assets – Term	1,777			700		2,477
Total Intangible Assets at Historical Cost	1,584,364	10,237	136,043	38,460	(51,011)	1,718,093
Less Accumulated Amortization for:						
Land Use Rights – Term	(217)			(26)		(243)
Computer Software	(1,268,383)	(4,958)		(143,052)	39,877	(1,376,516)
Other Intangible Capital Assets – Term	(126)			(129)		(255)
Total Accumulated Amortization**	(1,268,726)	(4,958)	0	(143,207)	39,877	(1,377,014)
Amortizable Assets, Net	315,638	5,279	136,043	(104,747)	(11,134)	341,079
Business Activities Capital Assets, Net	$ 33,615,818	$ 5,515	$ 192,604	$ 2,049,418	$ (165,978)	$ 35,697,377

** Depreciation and amortization expense was charged to business-type activities as follows:

Education	$ 2,484,503
Transportation	54,493
Lottery	142
Other Business-Type Activities	6,959
Total	$ 2,546,097

Concluded on the following page

Capital Asset Activity (concluded)

Table 2B

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

	Balance 9/1/18	Adjustments	Reclassifications	Additions	Deletions	Balance 8/31/19
COMPONENT UNITS						
Non-Depreciable & Non-Amortizable Assets						
Land and Land Improvements	$ 3,896	$	$	$ 348	$ (998)	$ 3,246
Construction in Progress	1,885			1,848	(2,341)	1,392
Total Non-Depreciable & Non-Amortizable Assets	5,781	0	0	2,196	(3,339)	4,638
Depreciable Assets						
Buildings and Building Improvements	14,187			3,227	(206)	17,208
Facilities and Other Improvements	414					414
Furniture and Equipment	29,121			338	(801)	28,658
Vehicles, Boats and Aircraft	5,867			1,296	(675)	6,488
Other Capital Assets	1,957			246	(80)	2,123
Total Depreciable Assets at Historical Cost	51,546	0	0	5,107	(1,762)	54,891
Less Accumulated Depreciation for:						
Buildings and Building Improvements	(6,559)			(221)	20	(6,760)
Facilities and Other Improvements	(401)			(3)		(404)
Furniture and Equipment	(19,028)			(2,593)	789	(20,832)
Vehicles, Boats and Aircraft	(3,316)			(1,180)	576	(3,920)
Other Capital Assets	(1,053)			(205)	80	(1,178)
Total Accumulated Depreciation	(30,357)	0	0	(4,202)	1,465	(33,094)
Depreciable Assets, Net	21,189	0	0	905	(297)	21,797
Intangible Capital Assets – Amortizable						
Computer Software	6,413			2,366	(123)	8,656
Total Intangible Assets at Historical Cost	6,413	0	0	2,366	(123)	8,656
Less Accumulated Amortization for:						
Computer Software	(6,182)			(489)	123	(6,548)
Total Accumulated Amortization	(6,182)	0	0	(489)	123	(6,548)
Amortizable Assets, Net	231	0	0	1,877	0	2,108
Component Units Capital Assets, Net	$ 27,201	$ 0	$ 0	$ 4,978	$ (3,636)	$ 28,543

The state's capitalization policy regarding works of art and historical treasures states that capitalization is encouraged, but not required, for works of art and historical treasures that meet certain conditions. Works of art and historical treasures not required to be capitalized are those that are:

- Held for public exhibition, education or research in furtherance of public service, rather than for financial gain;
- Protected, kept unencumbered, cared for and preserved; and/or
- Subject to an organizational policy that requires the proceeds from sales of collection items to be used to acquire other items for the collection.

Assets of this nature include the historical archives of the Texas General Land Office. This vast collection includes more than 36.5 million documents and approximately 45 thousand maps, dating back to 1561.

Note 3

Deposits, Investments and Repurchase Agreements

Authority for Investments

All monies in funds established in the Texas Comptroller of Public Accounts (Comptroller) Treasury Operations Division (Treasury) by the Texas Constitution or by an act of the Legislature are pooled for investment purposes. State statutes authorize the Treasury to invest state funds in fully collateralized time deposits, direct security repurchase agreements, reverse repurchase agreements, obligations of the United States and its agencies and instrumentalities, bankers' acceptances, commercial paper and contracts written by the Comptroller's office, which are commonly known as covered call options.

The Treasury obtains direct access to the services of the Federal Reserve System through the Texas Treasury Safekeeping Trust Company (Trust Company). The Federal Reserve Bank requires that the Trust Company maintain a positive cash balance in the account during and at the end of the day. The Trust Company met those requirements throughout fiscal 2019. The Trust Company safe-keeps U.S. Government securities in book-entry form for the major investment funds, safe-keeps collateral pledged to secure deposits of the Treasury in financial institutions, and acts as trustee for other public bodies to hold and manage funds on their behalf.

Certain state agencies, component units, public employee retirement systems and institutions of higher education are authorized to invest funds not deposited with the Treasury. As of Aug. 31, 2019, the Teacher Retirement System of Texas (TRS), the permanent school fund (PSF), the Employees Retirement System of Texas (ERS) and the University of Texas System (UT) reported more than 88.6 percent of the total investment fair value; this does not include the investments held by the Texas Comptroller's Treasury Pool, Texpool and Texpool Prime. TRS, PSF, ERS, UT and Texas Prepaid Higher Education Tuition Board (TPHETB) make investments following the "prudent investor rule." Authorized investments include equities, fixed income obligations, cash equivalents and other investments.

Collateralization

State law requires all treasury funds deposited in financial institutions above the amounts insured by the Federal Deposit Insurance Corporation be fully collateralized by pledging, to the Treasury, securities valued at market excluding accrued interest. Generally, the list of eligible securities includes all U.S. Treasury obligations, most federal agency obligations, and securities issued by state agencies and political subdivisions within the state. All securities pledged to the Treasury must be held by a third-party bank doing business in the state through a main office or one or more branches, any Federal Reserve Bank, the Trust Company, any Federal Home Loan Bank or in the vault of the Treasury. During fiscal 2019, no depository holding state funds failed.

State agencies and institutions of higher education with deposits of public funds not managed by the Treasury are required to secure deposits through collateral pledged by depository banks and savings and loan institutions. Eligible collateral securities are prescribed by state law; however, retirement systems and PSF are exempt by statute from this requirement.

External Investment Pool

The activities of the Texas local government investment pool (TexPool) and the Texas local government investment pool prime (TexPool Prime) are reported as an external investment trust fund. Separate audited financial statements may be obtained by contacting:

Texas Treasury Safekeeping Trust Company
208 E. 10th St., 4th floor
Austin, Texas 78701.

Deposits

As of Aug. 31, 2019, the carrying amounts of deposits for governmental and business-type activities, fiduciary funds and discretely presented component units were $1.1 billion, $258.7 million and $439.1 million, respectively. These amounts consist of all cash in local banks and a portion of short-term investments. These amounts are included on the combined statement of net position as part of the cash and cash equivalents and investment related line items. As of Aug. 31, 2019, the total bank balances for governmental and business-type activities, fiduciary funds and discretely presented component units were $1.2 billion, $256.9 million and $422 million, respectively.

Custodial Credit Risk: Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, deposits or collateral securities in the possession of an outside party will not be recovered. There is no formal deposit policy for managing custodial credit risk. The state's securities lending programs are subject to custodial credit risk. This type of risk is inherent to the securities lending programs. The bank balances exposed to custodial credit risk as of Aug. 31, 2019, are presented in table 3A.

Bank Balances Exposed to Custodial Credit Risk

Table 3A

August 31, 2019 (Amounts in Thousands)

	Uninsured and Uncollateralized	Uninsured and Collateralized with Securities Held by the Pledging Financial Institution
GOVERNMENTAL ACTIVITIES		
Permanent School Fund	$ 7,860	$
Total Governmental Activities	7,860	0
BUSINESS-TYPE ACTIVITIES		
College and Universities	1,912	78,478
Total Business-Type Activities	1,912	78,478
Total Governmental and Business-Type Activities	$ 9,772	$ 78,478
FIDUCIARY FUNDS	$ 123,682	$ 0
COMPONENT UNITS	$ 636,236	$ 0

Foreign Currency Risk: Foreign currency risk for bank balances is the risk that changes in exchange rates will adversely affect the deposit. There is no formal deposit policy for managing foreign currency risk. Foreign currency deposits are intended for settlement of pending international investment trades. Table 3B presents the bank balances exposed to foreign currency risk as of Aug. 31, 2019.

Bank Balances Exposed to Foreign Currency Risk

Table 3B

August 31, 2019 (Amounts in Thousands)

	Governmental and Business-Type Activities	Fiduciary Funds
Argentine Peso	$ 15	$
Australian Dollar	207	3,435
Brazilian Real	398	434
British Pound	333	3,581
Canadian Dollar	365	3,996
Chilean Peso	1	2
Chinese Yuan (Offshore)		(1,810)
Chinese Yuan Renminbi	22	2,844
Colombian Peso		56
Czech Koruna		3,620
Danish Krone	324	34
Egyptian Pound		763
Euro	347	68,813
Hong Kong Dollar	171	12,706
Hungarian Forint		7
Indian Rupee		2,466
Indonesian Rupiah	1	255
Japanese Yen	146	8,223
Malaysian Ringgit	144	9
Mexican Peso	315	2,469
New Israel Shekel		1,307
New Taiwan Dollar	846	2,004
New Turkish Lira	1	4
New Zealand Dollar		27
Norwegian Krone		101
Philippine Peso	3	21
Polish Zloty	7	604
Qatari Rial	1,212	112
Saudi Riyal		956
Singapore Dollar	188	351
South African Rand	67	310
South Korean Won	614	5,379
Swedish Krona	147	363
Swiss Franc	14	205
Thai Baht	87	1,865
United Arab Emirates Dirham	796	306
Total	$ 6,771	$ 125,818

Investments

The state's investments are recorded at fair value and have been categorized based upon a fair value hierarchy in accordance with GASB Statement No. 72, *Fair Value Measurement and Application*.

In accordance with GASB Statement No. 72, valuation techniques used for assets and liabilities accounted for at fair value are generally categorized into three types:

a. Market approach valuation techniques use prices and other relevant information from market transactions involving identical or comparable assets or liabilities. Valuation techniques consistent with the market approach include comparables and matrix pricing. Comparables use market multiples, which may be in ranges with a different multiple for each comparable. The selection of where within the range the appropriate multiple falls requires judgment to consider both quantitative and qualitative factors specific to the measurement. Matrix pricing is a mathematical technique used to value certain securities without relying exclusively on quoted prices for those securities by comparing them to benchmark or comparable securities.
b. Income approach valuation techniques convert future amounts, such as cash flows or earnings, to a single present amount. These techniques rely on current market expectations of future amounts. Examples of income approach valuation techniques include present value techniques, option-pricing models, binomial or lattice models that incorporate present value techniques and the multi-period excess earnings method.
c. Cost approach valuation techniques are based upon the amount that, at present, would be required to replace the service capacity of an asset or its current replacement cost. From the perspective of a market participant (seller), the price that would be received for the asset is determined based on the cost to a market participant (buyer) to acquire or construct a substitute asset of comparable utility.

GASB Statement No. 72 defines "fair value" as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Where available, fair value is based on observable market prices or parameters or derived from such prices or parameters. The availability of valuation techniques and observable inputs can vary from security to security and is affected by a wide variety of factors including the type of security, whether the security is new and not yet established in the marketplace and other characteristics particular to the transaction.

GASB Statement No. 72 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 inputs) and the lowest priority to unobservable inputs (Level 3 inputs). The three levels of the fair value hierarchy under GASB Statement No. 72 are described below:

Level 1 inputs - Unadjusted, quoted prices in active markets that are accessible at the measurement date for identical assets or liabilities. An active market is defined as a market where transactions for the financial instrument occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2 inputs - Inputs, other than quoted prices in active markets that are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Level 3 Inputs - Inputs are unobservable inputs and should be used only if relevant Level 1 and Level 2 inputs are not available. The state may use their own data or assumptions to develop unobservable inputs.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, an investment's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. Management's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and consideration of factors specific to the investment.

The state has some investments that are not subject to GASB Statement No. 72. Investments not measured at fair value include money market investments and participating interest-earning investment contracts that have a remaining maturity at the time of purchase of one year or less. These investments are reported at amortized cost.

U.S. treasury securities, equity securities, fixed income money market and bond mutual funds classified in Level 1 are valued using prices quoted in active markets for those securities.

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

Level 3 debt securities use proprietary information or single source pricing. Value of equity securities classified in Level 3 is based on last trade data that is 30 days or more before the fiscal year-end or not qualified to be reported in Level 1, Level 2 or at net asset value (NAV). Real assets classified in Level 3 are real estate investments generally valued using the income approach by internal manager reviews or independent external appraisers, except for the lands with interest in oil and gas described below.

The fair value of the state permanent school fund (PSF) and permanent university fund (PUF) lands' interest in oil and gas is based on a third party reserve study of proved reserves. The present value of the royalty cash flows is calculated by applying a 10 percent discount rate to future expected production volumes of oil and gas based on the price of oil and gas on Aug. 31, 2019. A percentage of probable and possible reserves of oil and gas are included in the fair value estimate. The PSF and PUF lands' surface interests are reported at the price per acre from the American Society of Farm Managers and Rural Appraisers. The PSF and PUF lands are categorized as Level 3 in the fair value hierarchy. The remaining minerals, the trust minerals, because of size, distribution, and limited production histories are valued at three times the previous 12 months revenue. This measure has been used historically to determine the selling price of these types of properties by willing parties. Other types of real estate holdings are reported by one of the following methods of valuation: the latest available appraised amount as determined by an independent state certified or other licensed appraiser or tax assessments used for real estate investments with values that are not significant or by any other generally accepted industry standard. The fair values of investments as of Aug. 31, 2019 are presented in tables 3C, 3D and 3E.

Investments Fair Values
Governmental & Business Type Activities

Table 3C

August 31, 2019 (Amounts in Thousands)

	Fair Value Hierarchy Level 1	Level 2	Level 3	Total
INVESTMENTS AT FAIR VALUE				
U.S. Treasury Securities	$ 4,751,421	$ 8,095,573	$	$ 12,846,994
U.S. Treasury Strips	223,993			223,993
U.S. Treasury TIPS	1,195,842			1,195,842
U.S. Government Agency Obligations	1,189,915	6,921,402		8,111,317
Corporate Obligations	207,710	5,285,783	13,975	5,507,468
Corporate Asset and Mortgage Backed Securities	156	3,756,668		3,756,824
Equity	9,198,385	93,240	1,119	9,292,744
International Obligations (Govt and Corp)	559	6,040,528	891	6,041,978
International Equity	9,412,097	5,459	1,892	9,419,448
International Other Commingled Funds	14,746	6,427	202,108	223,281
Repurchase Agreement	13,992	610,746		624,738
Mutual Funds - Domestic/International	781,187	43,813	135,146	960,146
Fixed Income Money Market and Bond Mutual Fund	7,795,307	8,285		7,803,592
Other Commingled Funds	2,552,442	11,239	39,203	2,602,884
Commercial Paper	425,005	9,790,845		10,215,850
Invested Collateral	13,760	2,186,352		2,200,112
Securities Lending Collateral Investment Pool	29,283			29,283
Real Estate	13,915	5,503	11,737,569	11,756,987
Derivatives - Domestic/International	2,252	141,514		143,766
Alternative Investments - Domestic/International	69,978	199,569	527,734	797,281
Miscellaneous	2,568,546	90,159	30,266	2,688,971
Total Investments at Fair Value	40,460,491	43,293,105	12,689,903	96,443,499
INVESTMENTS AT NAV				
U.S. Treasury Securities				20,166
Equity				788,929
International Equity				131,953
International Other Commingled Funds				4,640,835
Repurchase Agreement				11,145
Mutual Funds - Domestic/International				138,115
Fixed Income Money Market and Bond Mutual Fund				1,636,370
Other Commingled Funds				2,468,413
Real Estate				3,332,450
Derivatives - Domestic/International				2
Alternative Investments - Domestic/International				47,037,831
Miscellaneous				158,107
Total Investments at NAV				60,364,316
INVESTMENTS AT AMORTIZED COSTS OR NOT SUBJECT TO GASB STATEMENT NO. 72				
U.S. Treasury Securities				821,035
U.S. Government Agency Obligations				463,501
Repurchase Agreement				3,543,085
Fixed Income Money Market and Bond Mutual Fund				630,004
Other Commingled Funds				88,734
Miscellaneous				239,550
Total Investments at Amortized Costs or not subject to GASB Statement No. 72				5,785,909
Total of Investments - Governmental & Business Type Activities				$ 162,593,724

Investments Fair Values
Fiduciary Funds

Table 3D

August 31, 2019 (Amounts in Thousands)

	Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total
INVESTMENTS AT FAIR VALUE				
U.S. Treasury Securities	$ 21,684,140	$ 4,234,129	$	$ 25,918,269
U.S. Treasury Strips		35,770		35,770
U.S. Treasury Tips		5,590,895		5,590,895
U.S. Government Agency Obligations	3,386	8,392,297		8,395,683
Corporate Obligations	6,859	1,820,642	526	1,828,027
Corporate Asset and Mortgage Backed Securities	18,645	612,536	3,470	634,651
Equity	21,136,408	3,819	342	21,140,569
International Obligations (Govt and Corp)		1,934,761		1,934,761
International Equity	31,889,748		2,403	31,892,151
International Other Commingled Funds	5,486	2,622		8,108
Repurchase Agreement	34,397	9,807,486		9,841,883
Mutual Funds - Domestic/International	1,192,122		109	1,192,231
Fixed Income Money Market and Bond Mutual Fund	266,922			266,922
Other Commingled Funds	429,299	3,374	8,908	441,581
Commercial Paper		5,103,239		5,103,239
Invested Collateral	154,222	18,354,568	477,908	18,986,698
Real Estate	1,203,233	43,883		1,247,116
Derivatives - Domestic/International	38,885	(25)		38,860
Alternative Investments - Domestic/International			930,736	930,736
Miscellaneous	758,779	4,495		763,274
Total Investments at Fair Value	78,822,531	55,944,491	1,424,402	136,191,424
INVESTMENTS AT NAV				
International Other Commingled Funds				5,175,957
Mutual Funds - Domestic/International				527,560
Fixed Income Money Market and Bond Mutual Fund				952,567
Other Commingled Funds				6,741,355
Real Estate				5,130
Alternative Investments - Domestic/International				83,801,652
Miscellaneous				5,806,807
Total Investments at NAV				103,011,028
INVESTMENTS AT AMORTIZED COSTS OR NOT SUBJECT TO GASB STATEMENT NO. 72				
U.S. Treasury Securities				37,457
U.S. Government Agency Obligations				13,985
Repurchase Agreement				789,022
Fixed Income Money Market and Bond Mutual Fund				92,295
Miscellaneous				2,375
Total Investments at Amortized Costs or not subject to GASB Statement No. 72				935,134
Total of Investments - Fiduciary Funds				$ 240,137,586

Investments Fair Values Discrete Components

Table 3E

August 31, 2019 (Amounts in Thousands)

	Fair Value Hierarchy Level 1	Level 2	Level 3	Total
INVESTMENTS AT FAIR VALUE				
U.S. Treasury Securities	$ 47,057	$ 89,270	$	$ 136,327
U.S. Government Agency Obligations	10,596	47,610		58,206
Corporate Obligations		29,599		29,599
Corporate Asset and Mortgage Backed Securities		80,279		80,279
Equity	35,976	556		36,532
International Obligations (Govt and Corp)		32,763		32,763
International Equity	16,700			16,700
International Other Commingled Funds		21,017		21,017
Mutual Funds - Domestic/International	137,795		10	137,805
Fixed Income Money Market and Bond Mutual Fund		40,161		40,161
Commercial Paper		115,410		115,410
Real Estate			17,235	17,235
Derivatives - Domestic/International		(104)		(104)
Alternative Investments - Domestic/International	2,237	14,560		16,797
Miscellaneous	92,034	15,364	31,233	138,631
Total Investments at Fair Value	342,395	486,485	48,478	877,358
INVESTMENTS AT NAV				
Mutual Funds - Domestic/International				475
Fixed Income Money Market and Bond Mutual Fund				11,853
Real Estate				3,985
Alternative Investments - Domestic/International				96,430
Miscellaneous				310,247
Total Investments at NAV				422,990
INVESTMENTS AT AMORTIZED COSTS OR NOT SUBJECT TO GASB STATEMENT NO. 72				
Repurchase Agreement				121,063
Fixed Income Money Market and Bond Mutual Fund				19,289
Other Commingled Funds				154
Miscellaneous				10,531
Total Investments at Amortized Costs or not subject to GASB Statement No. 72				151,037
Total of Investments - Discrete Components				$ 1,451,385

The state utilizes the NAV per share as a method for determining fair value for certain investments in equity, repurchase agreements, commingled funds, mutual funds, real estate, fixed income money market and externally managed investment. These investments calculate the NAV consistent with the Financial Accounting Standards Board's (FASB) measurement principles for investment companies and the state does not intend to sell all or portion of the investment for an amount that is different from the NAV. These investments are exempt from classification within the fair value hierarchy.

TRS, PSF, ERS and UT account for 91.2 percent of the value reported at NAV. For more detailed information about the redemption frequency, redemption notice period, related unfunded commitments, redemption restrictions and the significant investment strategies of these agencies pertaining to their investments reported at NAV, please refer to the individual financial statements of the agency by contacting:

Employees Retirement System of Texas
P.O. Box 13207
Austin, Texas 78711

Teacher Retirement System of Texas
1000 Red River St.
Austin, Texas 78701

Texas Permanent School Fund
400 W. 15th St.
Austin, Texas 78701

The University of Texas
210 W. 7th St.
Austin, Texas 78701

The investments measured at NAV per share as of Aug. 31, 2019, including unfunded commitments, are presented in table 3F.

Investments Reported at Net Asset Value (NAV)

Table 3F

August 31, 2019 (Amounts in Thousands)

INVESTMENT TYPE	Fair Value	Redemption Frequency	Redemption Notice Period	Unfunded Commitment
Alternative	$ 7,749,397	Daily - Annually	3 - 90 days	$ 3,911,122
Commingled Funds	25,885,785	Daily - Annually	1 - 95 days	267,682
Energy, Natural Resources, Infrastructure	12,566,375	Daily - 4yr	1 day - 1yr	8,962,143
Fixed Income	3,026,635	Daily - Annually	1 day - 90 days	314,027
Hedge funds	32,887,919	Daily - 3yr	1 day - 2yr	1,289,104
Mutual Funds	3,150,454	Daily - Annually	1 - 90 days	108,661
Private Equity	44,689,182	Daily - 5yr	2 days - 1yr	27,485,711
Real Estate	27,802,332	Monthly - 5yr	15 days - 1yr	18,278,590
Risk Parity	6,020,089	Daily - Monthly	1 - 15 days	
US Government Obligations	20,166	N/A	N/A	
Total Investments at Fair Value	$163,798,334			$60,617,040

Alternative: These investments are externally managed and invest in multiple types of assets and securities, which may include hedge funds, private equity and the other types described in the following paragraphs.

Commingled Funds: An external manager pools and invests the funds of several institutional investors. Securities are owned by the overall fund and each investor owns a pro rata share of the fund. The U.S. Securities and Exchange Commission (SEC) does not regulate commingled funds.

Energy, Natural Resources and Infrastructure: Energy, natural resources and infrastructure funds are also referred to as real assets. Real assets are physical assets that have value due to their substance and properties. Real assets include precious metals, commodities, agricultural land, machinery and oil.

Fixed Income: Fixed income investments generally pay a return on a fixed schedule, though the amount of the payments can vary. These investments include private fixed income funds and bonds issues by countries in emerging markets.

Hedge Funds: Hedge funds may be broadly defined as pooled funds that are not registered with the SEC, are typically available only to institutional investors or individuals with a high net worth and use advanced trading strategies such as leverage, derivatives, short selling and arbitrage.

Mutual Funds: Similar to commingled funds, the funds of multiple investors are pooled by the external manager. The investors own shares of the fund but do not own the individual securities. The public, as well as institutional investors can invest in mutual funds. In contrast with commingled funds, mutual funds are regulated by the SEC.

Private Equity: Private equity funds are privately managed investment pools, typically organized as limited partnerships. They are managed by the fund's general partners who typically make long-term investments in private companies and who may take a controlling interest with the aim of increasing the value of these companies, often by helping to manage the companies. Private equity fund strategies include venture capital investments and leveraged buyouts among others.

Real Estate: Includes real estate held for investment directly or through investment vehicles such as private investment funds, which are limited partnerships that invest in real estate. Such investments are designed to produce high current income and/or capital gains through appreciation in the underlying real estate.

Risk Parity: Risk parity is a portfolio allocation strategy based on targeting risk levels across the various components of an investment portfolio. The risk parity approach to asset allocation allows investors to target specific levels of risk and to divide that risk equally across the entire investment portfolio in order to achieve optimal portfolio diversification for each individual investor. Risk parity strategies are in contrast to traditional allocation methods that are based on holding a certain percentage of investment classes, such as 60 percent stocks and 40 percent bonds, within one's investment portfolio.

U.S. Government Obligations: These investments are made in an index fund which invests in securities issued by the U.S. Treasury and U.S. Government Agencies.

TRS, PSF, ERS, UT and TPHETB participate in individual securities lending programs. Cash collateral received by the lending agent on behalf of each entity is invested in a non-commingled pool exclusively for the benefit of the individual entity. Additional information about securities lending activity is disclosed in the "Securities Lending" section of this note. As of Aug. 31, 2019, the investment type balances for the invested securities lending cash collateral are presented in table 3G.

Invested Securities Lending Collateral Fair Value

Table 3G

August 31, 2019 (Amounts in Thousands)

Governmental and Business Type Activities

	Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total
INVESTMENTS AT FAIR VALUE				
Corporate Obligations	$	$ 1,260,742	$	$ 1,260,742
Corporate Asset and Mortgage Backed Securities		354,207		354,207
International Obligations (Govt and Corp)		120,017		120,017
Repurchase Agreement	13,760	377,874		391,634
Commercial Paper		12,307		12,307
Miscellaneous		61,205		61,205
Total Investments at Fair Value	$ 13,760	$ 2,186,352	$ 0	$ 2,200,112

Fiduciary Funds

	Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total
INVESTMENTS AT FAIR VALUE				
Repurchase Agreement	$ 154,222	$ 7,256,024	$	$ 7,410,246
Commercial Paper		11,077,416	477,908	11,555,324
Miscellaneous		21,128		21,128
Total Investments at Fair Value	$ 154,222	$ 18,354,568	$ 477,908	$ 18,986,698

Custodial Credit Risk: Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty, the value of its investments or collateral securities in the possession of an outside party will not be recovered. There is no formal investment policy for managing custodial credit risk. Consistent with the securities lending program, underlying securities on loans are subject to custodial credit risk.

As of Aug. 31, 2019, the investments exposed to custodial credit risk are presented in the table 3H.

Investments Exposed to Custodial Credit Risk

Table 3H

August 31, 2019 (Amounts in Thousands)

	Fair Value that is Uninsured and Unregistered with Securities Held by the Counterparty	Fair Value that is Uninsured and Unregistered with Securities Held by the Counterparty's Trust Department or Agent but Not in the State's Name
GOVERNMENTAL ACTIVITIES		
Permanent School Fund		
Corporate Obligations	$	$ 1,222,997
Corporate Asset and Mortgage Backed Securities		354,207
Repurchase Agreement		94,787
Miscellaneous		61,302
Total Governmental Activities	0	1,733,293
BUSINESS-TYPE ACTIVITIES		
Colleges and Universities		
Equity	3,544	
Total Business-Type Activities	3,544	0
Total Governmental and Business-Type Activities	$ 3,544	$ 1,733,293

Foreign Currency Risk: Foreign currency risk for investments is the risk that changes in exchange rates will adversely affect the investment. TRS, PSF, ERS and UT are exposed to investment foreign currency risk. TRS, PSF and ERS do not have an investment policy for managing foreign currency risk. UT's investment policy has no limitation on investments in non-U.S. denominated bonds or common stocks.

The investments exposed to foreign currency risk as of Aug. 31, 2019, are presented on table 3I.

Investments Exposed to Foreign Currency Risk

Table 3I

August 31, 2019 (Amounts in Thousands)

	Governmental and Business-Type Activities				Fiduciary Funds				Component Units
	International Obligations	International Equity	International Other Commingled Funds	Other Investments	International Obligations	International Equity	International Other Commingled Funds	Other Investments	Other Investments
Argentine Peso	$ 57	$	$	$ 1,642	$	$	$	$	$ 80
Australian Dollar	82,540	240,438	66	142,587	216,004	928,533	345	31,992	173
Botswana Pula						64			
Brazilian Real	116,984	567,050	28,735	8,556		733,821			817
British Pound	95,910	705,584	(1,207)	122,521	400,525	2,903,415	528	575,150	1,939
Bulgarian Lev				1,052					49
Canadian Dollar	146,493	395,960	504	253,606		1,957,488	489		476
Cayman Islands Dollar						43			
CFA Franc				619					29
Chilean Peso		13,980	31	29		46,964			1
Chinese Yuan (Offshore)	54					18,356			
Chinese Yuan Renminbi	731	647,234	30,450	17,711		197,053			1,640
Colombian Peso	90,838	6,326	1,286	6,210		9,397			568
Czech Koruna		2,485	84	125		24,773			
Danish Krone	82,253	91,411	(152)	3,794		256,335	160		106
Egyptian Pound		15,660	10	169		33,403			
Euro	502,442	1,499,064	10,397	478,859	417,675	6,045,255	483,668	3,597,773	6,089
Hong Kong Dollar		596,208	2,630	2,951		2,915,172	60		82
Hungarian Forint	14,639	7,103	100	333		68,163			6
Indian Rupee	1	87,340	493	3,027		1,077,256	1		346
Indonesian Rupiah	66,186	64,393	230	391		379,250			11
Israeli New Shekel		30,613	2	842		62,688			23
Japanese Yen	439,584	1,274,299	25,472	6,862	7,991	4,537,423	969		191
Malaysian Ringgit	86,859	51,757	137	2,668		184,852			318
Mexican Peso	307,382	149,449	1,115	1,757		348,864			98
New Zealand Dollar	1,044	9,120	2	221		19,918			12
Nigerian Naira						6			
Norwegian Krone	25,977	44,392	1,520	249		319,734			19
Pakistan Rupee						8,204			
Peruvian Nuevo Sol	17,612	109	9	1,022		21			41
Philippine Peso		16,394	18			104,481			
Polish Zloty	109,956	24,099	643	248		92,181			3
Qatari Rial		20,211	286			42,064			
Romanian Leu	9,600								
Russian Ruble	944	37,438	(1)	9,246		155,842			927
Saudi Riyal		2,968		261		32,538			7
Singapore Dollar	85,300	59,760	47	334		228,062			9
South African Rand	68,635	109,997	1,785	628		591,362			18
South Korean Won	12,227	547,768	7,659	2,900		1,396,849		22,129	118
Sri Lankan Rupee		3,224							
Swedish Krona	349	93,066	67	189		312,523	275		5
Swiss Franc		380,020	488	5,096		1,366,155	924		144
Taiwan Dollar		312,546	1,501	1,227		1,105,554	60		34
Thai Baht		71,292	64	87		366,754	86		2
Turkish Lira		55,798	126	(47)		132,720			(7)
Ukranian Hryvnia				708					33
United Arab Emirates Dirham		47,635	42			58,820			
Venezuelan Bolivar				1,032					48
Vietnamese Dong		20,053							
Total	$ 2,364,597	$ 8,302,244	$ 114,639	$ 1,079,712	$ 1,042,195	$ 29,062,356	$ 487,565	$ 4,227,044	$ 14,455

Credit Risk: Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Credit risk ratings are assigned by a nationally recognized statistical rating organization (NRSRO).

TRS' investment policy states that for over-the-counter derivatives, the minimum credit rating, based on a NRSRO, must be at least A- or better at the inception of the contract. The net market value of all over-the-counter derivative positions, less collateral posted, may not exceed $500 million and all over-the-counter derivative positions without collateral may not exceed 5 percent of the total market value of the fund. Repurchase agreements may not exceed 5 percent of the market value of the total investment portfolio. A securities lending agent must be an organization rated A or better by a NRSRO.

PSF's investment policy requires investments to adhere to specific Standard & Poor's rating guidelines. Fixed income securities must be rated at least BBB and short-term money market instruments must be rated at least A-1.

ERS' general investment policy requires that non-cash interest paying securities in the high yield bond portfolios not exceed 15 percent of the market value of the portfolio.

UT's investment policy has no requirements or limitations for investment ratings.

As of Aug. 31, 2019, the credit quality distribution for securities with credit risk exposure is presented on table 3J.

Investments Exposed to Credit Risk*

Table 3J

August 31, 2019 (Amounts in Thousands)

	Governmental and Business-Type Activities								
	U.S. Government Agency	Corporate Obligations	Corporate Asset/Mortgage Backed	International Obligations	Repurchase Agreements	Fixed Income/Bond Mutual Fund	Commercial Paper	Other Investments	Totals
AAA	$ 905,705	$ 532,675	$ 3,499,805	$ 3,012,455	$ 273,554	$	$	$ 275,830	$ 8,500,024
AA	9,526,836	2,176,331	74,977	265,947	2,507,123			286,202	14,837,416
A	729,199	2,010,165	22,040	710,557	114,999			57,294	3,644,254
BBB	11,309	1,681,584	321,469	398,605				2,443	2,415,410
BB		151,420	5,359	232,399				8,915	398,093
B	1,039	117,757	2,220	51,857				2,271	175,144
CCC		17,880	7,919	9,172					34,971
CC			905	94					999
D		1,531	23	2,914					4,468
AAAf						7,443,802			7,443,802
AAAm						2,231,969			2,231,969
Aaf						2,702			2,702
Af						42,129			42,129
BBBf						29,864			29,864
BBf						35,143			35,143
Bf						52,854			52,854
CCCf						5,343			5,343
A-1							9,901,683		9,901,683
Not Rated	831,601	40,202	181,236	1,358,901	754,813	2,346,460	131,617	3,705,103	9,349,933
Total	$ 12,005,689	$ 6,729,545	$ 4,115,953	$ 6,042,901	$ 3,650,489	$ 12,190,266	$ 10,033,300	$ 4,338,058	$ 59,106,201

Concluded on the following page

Investments Exposed to Credit Risk* (concluded)

Table 3J

August 31, 2019 (Amounts in Thousands)

Fiduciary Funds	U.S. Government Agency	Corporate Obligations	Corporate Asset/Mortgage Backed	International Obligations	Repurchase Agreements	Fixed Income/Bond Mutual Fund	Commercial Paper	Other Investments	Totals
AAA	$ 7,716,048	$ 60,209	$ 427,375	$ 327,551	$ 10,591,622	$	$	$ 1,365,093	$ 20,487,898
AA	1,086,370	195,368	21,571	6,539	600,643			1,980	1,912,471
A	21,804	38,818	16,300	16,241				7,818	100,981
BBB		13,010	36,138	29,797					78,945
BB	902	519,141	15,660	102,495				64,374	702,572
B	1,507	812,000	8,750	303,142				5	1,125,404
CCC		130,696	18,483	76,108					225,287
CC			494	766					1,260
C								2	2
D		12,417	3,006	23,716					39,139
AAAf						422,822			422,822
AAAm						35,488			35,488
Af						17,538			17,538
BBBf						26,395			26,395
BBf						51			51
Bf						72			72
CCCf						9			9
A-1							5,347,485		5,347,485
Not Rated	48,927	43,507	86,877	1,048,406		782,907	414	305,668	2,316,706
Total	$ 8,875,558	$ 1,825,166	$ 634,654	$ 1,934,761	$ 11,192,265	$ 1,285,282	$ 5,347,899	$ 1,744,940	$ 32,840,525

Component Units	U.S. Government Agency	Corporate Obligations	Corporate Asset/Mortgage Backed	International Obligations	Repurchase Agreements	Fixed Income/Bond Mutual Fund	Commercial Paper	Other Investments	Totals
AAA	$ 15,073	$ 5,618	$ 79,385	$ 30,633	$ 92,574	$	$	$ 310,247	$ 533,530
AA	72,250	18,176		611	27,813			154	119,004
A		2,559		1,519				72,459	76,537
BBB		3,245							3,245
AAAf						32,308			32,308
A-1							115,411		115,411
C							951		951
Not Rated	48		738		93	13,025		12,893	26,797
Total	$ 87,371	$ 29,598	$ 80,123	$ 32,763	$ 120,480	$ 45,333	$ 116,362	$ 395,753	$ 907,783

* Credit risk exposure for investments may be less than their fair values due to classification differences.
The total fair value of investments is appropriately greater than the credit risk exposure.
Invested collateral reported in fair value is reported by investment type for credit risk.

Concentration of Credit Risk: Concentration of credit risk is the risk of loss attributed to the magnitude of the investment in a single issuer. UT's investment policy states that no more than 5 percent of its cumulative market value of fixed income securities may be invested in a single issuer. PSF's policy precludes exceeding 2.5 percent, ERS employs a limit of 3 percent, TRS sets the limit at 5 percent. The Texas Comptroller limits the amount the Treasury Pool may invest in a single issuer in certain asset classes, tailored to the asset class and issuer's rating. As of Aug. 31, 2019, governmental and business-type activities did not hold more than 5 percent of investments in any one issuer.

Interest Rate Risk: Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of an investment. TRS and PSF use the effective weighted duration method to identify and manage interest rate risk. ERS and UT use the modified duration method.

Duration is a measure of the price sensitivity of a debt investment to changes arising from movements in interest rates. Duration is the weighted average maturity of an instrument's cash flows, where the present value of the cash flows serves as the weights. The duration of an instrument can be calculated by multiplying the time until receipt of cash flow by the ratio of the present value of that cash flow to the instrument's total present value. The sum of these weighted time periods is the duration of the instrument. Effective duration extends this analysis to incorporate an option-adjusted measure of an instrument's sensitivity to changes in interest rates. It incorporates the effect of embedded options for corporate bonds and changes in prepayments for mortgage backed securities.

Modified duration estimates the sensitivity of the fund's investments to changes in interest rates.

The investment policy of PSF mandates the average duration of the fixed income portfolio to be consistent with the Barclay Aggregate Bond Index's duration and the duration of the real return portfolio to be consistent with the Barclay's Capital U.S. Treasury Inflation Protected Securities (TIPS) Index. As of Aug. 31, 2019, the Barclay's Aggregate Bond Index duration was 6.1 years, the Barclay's TIPS Index was 7.97 years and the JPM GBI-EM Global Diversified Index was 5.49 years. The maximum maturity for invested securities lending collateral is 397 days except for bank time deposits, which is 60 days; bankers' acceptances, which is 45 days, reverse repurchase agreements, which is 180 days and floating rate securities, which is three years. The maximum weighted average maturity of the entire collateral portfolio must be 180 days or less. The maximum weighted average interest rate exposure of the entire collateral portfolio must be 60 days or less. TRS, ERS and UT do not have a formal investment policy for managing interest rate risk.

As of Aug. 31, 2019, PSF's investments by investment type, fair value and the effective weighted duration rate are presented in the table 3K.

Investments Exposed to Interest Rate Risk

Table 3K

August 31, 2019 (Amounts in Thousands)

PSF Investment Type	Fair Value	Effective Weighted Duration Rate
Asset Backed Securities	$ 3,167	1.75
Collateralized Loan Obligations	308,318	1.00
Commercial Mortgage Backed Securities	73,803	3.48
Corporate Obligations	1,225,902	8.11
Non Agency Mortgage Backed Securities	92,293	3.26
Non U.S. Government Agency Obligations	75,388	3.41
Non-U.S. Sovereign Government Debt	70,530	8.75
U. S. Government Agency Commercial Mortgage Backed Securities	67,747	6.05
U. S. Government Agency Mortgage Backed Securities	696,838	4.00
U. S. Government Agency Obligations	92,717	8.28
U.S. Taxable Municipal Bonds	67,759	11.77
U. S. Treasury Securities	1,696,036	6.73
U. S. Treasury TIPS	56,002	6.25
Total	$ 4,526,500	6.21
U.S. Treasury TIPS	$ 1,080,482	8.27
U.S. Treasury Securities	194,902	0.19
Emerging Market Debt	2,411,234	5.77
Total Real Return	$ 8,213,118	

Table 3L provides information about PSF's interest rate risks and maturities associated with its invested securities lending collateral by investment type as of Aug. 31, 2019.

Invested Securities Lending Collateral Exposed to Interest Rate Risk

Table 3L

August 31, 2019 (Amounts in Thousands)

PSF Investment Type	Fair Value	Investment Maturities in Less Than One Year	Investment Maturities Greater Than One Year
Asset Backed Floating Rate Notes	$ 354,207	$ 237,257	$ 116,950
Commercial Paper	18,702	18,702	
Floating Rate Notes	1,222,997	1,190,343	32,654
Repurchase Agreements	94,787	94,787	
Time Deposits	42,600	42,600	
Total	$ 1,733,293	$ 1,583,689	$ 149,604

Table 3M presents TRS' investments by investment type, fair value and the effective weighted duration rate as of Aug. 31, 2019.

Investments Exposed to Interest Rate Risk

Table 3M

August 31, 2019 (Amounts in Thousands)

TRS Investment Type	Fair Value	Effective Weighted Duration Rate
U.S. Government Obligations	$ 17,261,110	18.10
U.S. Government STRIPS and TIPS	5,626,664	8.20
U.S. Government Agency Obligations	48,317	2.10
Asset and Mortgage Backed Obligations	162,754	1.30
Corporate Obligations	10	3.00
International Government Obligations	1,049,536	10.80
International Corporate Obligations	24,735	3.60
Total	$ 24,173,126	15.32

As of Aug. 31, 2019, ERS' investments by investment type, fair value and the modified duration rate are presented in table 3N.

Investments Exposed to Interest Rate Risk

Table 3N

August 31, 2019 (Amounts in Thousands)

	Fair Value		Modified Duration Rate	
ERS Investment Type	Fiduciary Funds	Proprietary Fund	Fiduciary Funds	Proprietary Fund
U.S. Treasury Securities	$ 4,415,558	$ 750,121	3.71	3.83
U.S. Government Agency Obligations	544,291	95,559	4.03	4.03
Corporate Obligations	1,520,838	186,872	4.15	4.15
Corporate Asset and Mortgage Backed Securities	74,184	12,515	2.03	2.03
International Obligations	510,158	62,685	3.47	3.47
Real Estate Investment Trust	43,883	5,392	5.03	5.03
Total	$ 7,108,912	$ 1,113,144	3.80	3.87

As of Aug. 31, 2019, UT's investments by investment type, fair value and the modified duration rate are presented in table 3O.

Investments Exposed to Interest Rate Risk

Table 3O

August 31, 2019 (Amounts in Thousands)

UT Investment Type	Fair Value	Modified Duration Rate
INVESTMENTS IN SECURITIES		
U.S. Government Guaranteed:		
U.S. Treasury Bills	$ 302,944	0.41
U.S. Treasury Bonds and Notes	782,227	10.40
U.S. Treasury Inflation Protected	50,904	11.34
U.S. Agency Asset Backed	12,815	1.83
Total U.S. Government Guaranteed	1,148,890	7.71
U.S. Government Non-Guaranteed:		
U.S. Agency	564,562	2.89
U.S. Agency Asset Backed	402,202	2.23
Total U.S. Government Non-Guaranteed	966,764	2.62
Total U.S. Government	2,115,654	5.38
Corporate Obligations:		
Domestic	1,244,439	5.00
Foreign	492,234	6.04
Total Corporate Obligations	1,736,673	5.30
Foreign Government and Provincial Obligations	2,237,976	4.17
Other Debt Securities	13,471	8.30
Total Debt Securities	6,103,774	4.92
Other Investment Funds – Debt	34,942	7.50
Fixed Income Money Market Funds	2,443,065	0.31
Total	$ 8,581,781	3.62

Investments with Fair Values Highly Sensitive to Interest Rate Changes

In accordance with the applicable investment policies, TRS, PSF, ERS and UT may invest in asset backed and mortgage backed obligations. Mortgage backed obligations are subject to early principal payment in a period of declining interest rates. The resultant reduction in expected cash flows will affect the fair value of these securities. Asset backed obligations are backed by home equity loans, auto loans, equipment loans and credit card receivables. Prepayments by the obligee of the underlying assets in periods of declining interest rates could reduce or eliminate the stream of income that would have been received. As of Aug. 31, 2019, the fair value of investments in asset and mortgage backed obligations highly sensitive to interest rate changes for TRS, PSF, ERS and UT was $2.1 billion.

Reverse Repurchase Agreements

Investments in reverse repurchase agreements by the Treasury and the Trust Company are permitted by statute. A reverse repurchase agreement consists of a sale of securities with a simultaneous agreement to repurchase them in the future at the same price plus a contract rate of interest. Sale proceeds are invested in securities or repurchase agreements that mature at or almost at the same time as the reverse repurchase agreement. Proceeds from the matured securities are used to liquidate the agreement resulting in a matched position. With a matched position, there is minimal market risk because the seller-borrower will hold the securities to maturity and liquidate them at face value. In the event of default on a reverse repurchase agreement, the Treasury would potentially suffer a loss. The loss occurs if the cash received does not exceed the fair value of the securities underlying the reverse repurchase agreements. The amount of the loss would equal the difference between the fair value plus accrued interest of the underlying securities and the agreement price plus accrued interest. To minimize the risk of default, all securities backing reverse repurchase agreements are held by the Federal Reserve Bank in the state's name.

As of Aug. 31, 2019, the Treasury's aggregate amount of reverse repurchase agreement obligations was $19.8 million, including accrued interest. The aggregate fair value of the securities underlying those agreements, including accrued interest, was $19.9 million. There was no credit exposure during fiscal 2019.

Securities Lending

TRS, PSF, ERS, UT, TPHETB and the Veterans Land Board (VLB) participate in securities lending programs as authorized by state statute. TRS, PSF, ERS and UT established their own separately managed securities lending programs. TPHETB has its own separately managed securities lending programs but also participates in collateral investment pools. VLB participates in collateral investment pools that commingle the cash collateral of several entities. Under these programs, the governmental entities transfer securities to an independent broker or dealer in exchange for collateral in the form of cash, governmental securities or bank letters of credit. In addition, PSF may receive collateral in the form of other assets that it specifically agrees to with its lending agent. TRS, ERS, UT and VLB receive collateral equal to 102 percent of the value of domestic securities lent and 105 percent for international securities. PSF receives collateral in an amount of 102 percent of the fair value plus accrued income for domestic corporate securities and 105 percent of the fair value plus accrued income for foreign securities. However, the required percentage is 102 percent for foreign securities denominated and payable in U.S. dollars. TPHETB receives collateral of 102 percent of the value of domestic securities lent plus accrued interest and 105 percent plus accrued interest for foreign securities. There is a simultaneous agreement to return the collateral for the same securities in the future.

The custodians of the securities are the security lending agents. The securities lending contracts do not allow the governmental entities to pledge or sell collateral securities unless the borrower defaults. The lending agents are required to indemnify TRS, PSF, ERS, UT, TPHETB and VLB if the borrowers fail to return the securities.

TRS, PSF, ERS, UT, TPHETB and VLB loans are terminable at will. There were no significant violations of legal or contractual provisions, no borrower or lending agent default losses and no recoveries of prior period losses during the year.

Differences between the fair value of the invested cash collateral and the cash collateral liability are recorded as part of the net increase/(decrease) in fair value of investments. There is no credit risk exposure to the lender when the fair value of the security on loan is less than the cash collateral liability. The overall securities lending activity as of Aug. 31, 2019, is summarized in table 3P.

Securities Lending Activity Summary

Table 3P

August 31, 2019 (Amounts in Thousands)

Entity	Fair Value of Securities on Loan	Non-Cash Collateral*	Cash Collateral Liability (Obligation/ Securities Lending)	Fair Value of Invested Cash Collateral (Securities Lending Collateral)	Net Increase/ (Decrease) In Fair Value
TRS	$ 20,549,515	$ 1,464,576	$ 18,821,814	$ 18,832,476	$ 10,662
ERS	153,127		156,461	167,983	11,522
PSF	1,869,258	162,398	1,754,112	1,733,293	(20,819)
UT*,**	782,945	354,669	453,059	453,059	
VLB**	28,644		29,283	29,283	
Total	$ 23,383,489	$ 1,981,643	$ 21,214,729	$ 21,216,094	$ 1,365

* Non-cash collateral received for securities lending activities is not recorded as assets because the underlying investments remain under the control of the borrower, except in the event of default.

** UT and VLB did not experience any net change in fair value because the cash collateral pools they participated in were maintained at amortized cost as of Aug. 31, 2019.

Investment Derivative Instruments

Derivatives are financial instruments (securities or contracts) whose value is linked to or "derived" from changes in interest rates, currency rates and stock and commodity prices. These securities or contracts serve as components of the investment strategies of certain state agencies, public employee retirement systems and institutions of higher education. Those investment strategies are utilized to manage and reduce the risk of the overall investment portfolio. Investment derivative levels and types are monitored to ensure that portfolio derivatives are consistent with the intended purpose and at the appropriate level.

All investment derivative instruments are reported at fair value on the statement of net position and the statement of fiduciary net position. The changes in the fair value of investment derivative instruments are reported as investment revenue in the operating statements. As of Aug. 31, 2019, TRS, PSF, UT, Texas A&M University System (A&M), Texas Tech University System (TTU) and VLB held investment derivatives (swaps, options, futures and forwards).

Forward foreign currency exchange contracts are used for the purchase or sale of a specific foreign currency at a fixed quantity and price on a future date as a hedge against either specific transactions or portfolio positions. The contracts are in the currency native to the security transactions for settlement date and are marked-to-market daily with the change in market value recorded as an unrealized gain or loss. Realized gain or loss is recorded at the closing of the contract. Risks associated with such contracts include the potential inability of the counterparties to meet the terms of their contracts and unanticipated movements in currency exchange rates.

Futures contracts are standardized exchange-traded contracts to purchase or sell a specific financial instrument at a predetermined price and date. Futures contracts are used to facilitate various trading strategies, primarily as a tool to hedge against the increase or decrease of market exposure to various asset classes. Upon entering into a futures contract, an initial margin deposit is pledged to the broker equal to a percentage of the contract amount.

Contracts are marked-to-market, settled in cash with the broker and recorded as an unrealized gain or loss daily. The daily gain or loss difference is referred to as the daily variation margin. Realized gain or loss is recorded at the closing of the contract. Holders of futures contracts look to the exchange for performance under the contract and not to the entity holding the offsetting futures. Accordingly, the amount of risk posed by the nonperformance of counterparties to futures contracts is minimal. Risks due to movements in the value of the futures contracts and the inability to close out futures contracts due to a non-liquid secondary market remain.

Options are used to alter market (systematic) exposure without trading the underlying cash market securities and to hedge and control risks so the actual risk/return profile is more closely aligned with the target risk/return profile. Option contracts provide the option purchaser with the right, but not the obligation, to buy or sell the underlying security at a set price during a period or a specified date. The option writer is obligated to buy or sell the underlying security if the option purchaser chooses to exercise the option. With written options, market risk arises from an unfavorable change in the price of the derivative instrument, security or currency underlying the written option.

Swaps represent contracts that obligate two counterparties to exchange a series of cash flows at specified intervals. The ultimate gain or loss depends upon the price or rate at which the underlying financial instrument of the swap is valued at the settlement date. Swaps are used to manage risk and enhance returns. As of Aug. 31, 2019, swap investments were interest rate, credit default, commodity, equity and total return swaps.

VLB invested in pay-variable, receive-variable interest rate swap agreements that are reported as investment derivatives because they are ineffective hedges.

Foreign Currency Risk: TRS, UT and A&M have exposure to investment foreign currency risk inswaps, options, futures and forwards derivative investments. As of Aug. 31, 2019, derivative investments exposed to foreign currency risk are presented in table 3Q.

Derivative Investments Exposed to Foreign Currency Risk

Table 3Q

August 31, 2019 (Amounts in Thousands)

	Governmental and Business-Type Activities				Fiduciary Funds			
	Swaps	**Options**	**Futures**	**Forwards**	**Swaps**	**Options**	**Futures**	**Forwards**
Argentine Peso	$	$	$	$ (243)	$	$	$	$ (1,745)
Australian Dollar	11,596	(70)		(33)	(1,506)		56,645	10,140
Brazilian Real		(566)		2,989		13	(1,039)	(5,979)
British Pound	(2,693)			3,274	4,177		(5,709)	16,456
Canadian Dollar	1,895			206			1,746	213
Chilean Peso				(1,754)				710
Chinese Yuan (Offshore)								(8,456)
Chinese Yuan Renminbi	453			(71)	8			
Colombian Peso				1,939				438
Czech Koruna	58			(716)				(529)
Danish Krone				1,704				3
Euro	27,738		(100)	14,884	25,669		4,695	31,518
Hong Kong Dollar				66	1,111		54	(10)
Hungarian Forint				1,620				1,000
Indian Rupee				510				(1,617)
Indonesian Rupiah				193				85
Israeli New Shekel	649			2				580
Japanese Yen	604	(7)		(13,174)	(1,071)		(4,717)	4,143
Malaysian Ringgit				43				
Mexican Peso	27			5,522				1,010
New Zealand Dollar	9			1,156				2,029
Norwegian Krone				(1,306)				(12,879)
Peruvian New Sol				666				158
Philippine Peso				1				113
Polish Zloty	77			1,240				(103)
Qatari Riyal				(1)				
Romanian Leu				317				(139)
Russian Ruble				(241)				218
Singapore Dollar				774			772	(37)
South African Rand	72			465			(2,161)	(706)
South Korean Won	669			(1,209)			337	(136)
Swedish Krona	160			(3,330)	(836)		2,756	1,326
Swiss Franc				(140)			104	(544)
Taiwan Dollar				(141)				(234)
Thai Baht				(673)		107		(122)
Turkish Lira							(6)	1,097
Total	$ 41,314	$ (643)	$ (100)	$ 14,539	$ 27,552	$ 120	$ 53,477	$ 38,001

Credit Risk: TRS and UT instituted policies to mitigate counterparty credit risk for investment derivatives by having master netting agreements and collateral posting arrangements. TRS and UT negotiated thresholds or limits for each counterparty above which collateral must be posted.

TRS' investment policy limits the net market value of all over-the-counter derivative positions, less collateral posted, to an amount not exceeding $500 million for any individual counterparty.

UT requires collateral to be posted on a daily basis by the counterparty to cover exposure to a counterparty above the limits set in place by the master netting agreement. Collateral posted by counterparties is held by UT in one of its accounts at their custodian bank.

The aggregate fair value of investment derivative instruments in asset positions as of Aug. 31, 2019, was $250.1 million. The investment derivative instruments were executed with counterparties that had a credit rating of no less than A using the Standard & Poor's rating scale. This represents the maximum amount of loss that would have been recognized as of Aug. 31, 2019, if all counterparties failed to perform as contracted. This maximum exposure is reduced by $150.6 million of collateral held and by $187.5 million in liabilities included in netting arrangements with those counterparties, resulting in a negative $88 million net exposure of investment derivative instruments to credit risk.

Interest Rate Risk: TRS, UT and VLB are exposed to interest rate risk on swap transactions. Investments in pay-variable, receive-variable interest rate swaps ranged from payment of 100 to 131.25 percent of Securities Industry and Financial Markets Association (SIFMA). Investments in pay-variable, receive-fixed interest rate swaps ranged from payment of various foreign currency rates (Euro Interbank Offered Rate (EURIBOR), London Interbank Offered Rate (LIBOR), Stockholm Interbank Offered Rate, Bank Bill Swap Rate or Canadian Dollar Offered Rate) and receipt of 0 to 3 percent. Investments in pay-fixed, receive-variable interest rate swaps ranged from receipt of various foreign currency rates (EURIBOR, LIBOR, Mexican Interbank Rate, Johannesburg Interbank Agreed Rate or Canadian Dollar Offered Rate) and payment of 0 to 8.1 percent. As of Aug. 31, 2019, the investment maturities for the state's swap contracts exposed to interest rate risk are presented in table 3R.

Derivative Investments Exposed to Interest Rate Risk

Table 3R

August 31, 2019 (Amounts in Thousands)

		Investment Maturities (in years)				
Investment Type	**Fair Value**	**Less Than 1**	**1-5**	**6-10**	**11-15**	**More than 15**
Interest Rate Swaps	$(6,060)	$(9,522)	$(7,150)	$9,137	$(1,445)	$2,920

Investment Funds

Investment funds include hedge fund pools, private investment pools, public market funds and other alternative investments managed by external investment managers. Risks associated with these investments include investment manager risk, liquidity risk, market risk and leverage risk. Investment manager risk is substantially dependent upon key investment managers; therefore, the loss of those individuals may adversely impact the return on investment.

Also, some investment funds are not subject to regulatory controls. Liquidity may be limited due to imposed lock-up periods, with penalties to redeem units or restricting redemption of shares until a certain period of time has elapsed. Investment funds may employ sophisticated investment strategies using leverage, which could result in the loss of invested capital. As of Aug. 31, 2019, the fair value of various investment funds was $132.7 billion.

Note 4

Short-Term Debt

On Aug. 21, 2019, (with an issue date of Sept. 4, 2019) $8 billion of state of Texas Tax and Revenue Anticipation Notes, Series 2019 (Series 2019 Notes) were sold to coordinate cash flow for the state for fiscal 2020. Issuance of the Series 2019 Notes enhanced the state's ability to make timely payments of expenditures payable from the general revenue fund. On Aug. 22, 2019, good faith funds in the amount of $80 million were received. The Series 2019 Notes bore interest at 4 percent and were priced to yield 1.3357 percent. The balance of $8 billion was received on Sept. 4, 2019.

On Aug. 22, 2018 (with an issue date of Sept. 5, 2018), $7.2 billion in state of Texas Tax and Revenue Anticipation Notes, (Series 2018 Notes) were sold for the purpose of coordinating the cash flow of the state for the fiscal year ended Aug. 31, 2019. Issuance of the Series 2018 Notes also enhanced the state's ability to make timely payments of expenditures which are payable from the general revenue fund. The Series 2018 Notes matured on Aug. 29, 2019 and bore an interest rate of 4 percent and was priced to yield at 1.8393 percent as determined by the bids of the initial purchasers.

The Texas Workforce Commission received temporary transfers (loans) for $289 million from the Texas State Comptroller's office to avoid interest liabilities related to the Cash Management Improvement Act (CMIA). The loans were repaid in full during fiscal 2019.

The Texas Department of Housing and Community Affairs (TDHCA) executed an advance and security agreement with the Federal Home Loan Bank of Dallas (FHLB). The maximum aggregate principal amount available for advances under the advance agreement was $250 million. As of Aug. 31, 2019, $115.7 million was available for use in the line of credit and the balance outstanding was $134.3 million. The TDHCA pledges the mortgage loans, plus additional amounts deposited in an escrow account, as collateral for the advances. Terms specified in the debt agreements related to default events include:

- Default in the payment of principal or interest of the loan when such payments become due and payable.
- Failure of the TDHCA to perform any promise or obligation or satisfy any condition or liability.
- Evidence coming to the attention of the FHLB that any representation, statement or warranty made or furnished by the FHLB in connection with any advance, any specification of qualifying collateral or any certification of fair market value that was false in any material respect.
- Issuance of any tax, levy, seizure, attachment, garnishment, levy of execution or other legal process with respect to the collateral.
- Suspension of payment made by the TDHCA to any creditor or any event that results in the acceleration of any of its indebtedness.
- The appointment of a conservator or receiver for the TDHCA under the federal bankruptcy laws.
- The sale by the TDHCA of all or material part of its assets.
- The cessation of the TDHCA to be a type of institution that is eligible to become a borrower of FHLB.
- The merger or consolidation or other combination by the TDHCA with any other non-eligible entity.
- FHLB reasonably and in good faith determines that a material adverse change has occurred in the financial condition of the TDHCA and FHLB deems itself insecure even though the TDHCA is not otherwise in default.

The Texas Tech University System issued commercial paper notes for $19.5 million to serve as an interim financing source for long-term construction projects in advance of issuing authorized bonds, and $21.4 million matured. $50.8 million was remaining at the end of the fiscal year.

The University of North Texas System issued commercial paper notes for $47.1 million to finance project costs of eligible projects and to refinance, renew or refund commercial paper notes, prior encumbered obligations and parity debt, including interest. $49.2 million was remaining at the end of the fiscal year.

The Texas State University System issued commercial paper notes for $348.2 million to finance various construction projects, and $271.8 million matured. $125 million was remaining at the end of the fiscal year.

The University of Houston System issued commercial paper notes for $27 million to finance various capital projects, and $15.6 million matured. $95 million was remaining at the end of the fiscal year.

The University of Texas System issued commercial paper notes for $1 billion to provide interim financing for capital improvements and to finance capital equipment purchases, and $710.5 million matured. $1.5 billion was remaining at the end of the fiscal year.

Short-term debt activity for the fiscal year ended Aug. 31, 2019, is presented in table 4A.

Short-Term Debt

Table 4A

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

	Beginning Balance 9/1/18	Issued	Redeemed	Ending Balance 8/31/19
Tax and Revenue Anticipation Notes	$	$ 7,200,000	$ 7,200,000	$
Commercial Paper	1,372,800	1,456,892	1,019,243	1,810,449
Other Advances (Loans)	67,843	4,230,752	4,164,265	134,330
General Revenue Advances		288,957	288,957	
	$ 1,440,643	$ 13,176,601	$ 12,672,465	$ 1,944,779

Note 5

Long-Term Liabilities

Direct borrowings and direct placements beginning balances, from implementing GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowing and Direct Placements*, are shown as restatements for this year of implementation. Long-term liabilities activity for the fiscal year ended Aug. 31, 2019, is presented in table 5A.

Long-Term Liabilities Activity

Table 5A

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

	Balance 9/1/18	Restatements /Adjustments*	Additions**	Reductions	Balance 8/31/19	Amounts Due Within One Year	Amounts Due Thereafter
GOVERNMENTAL ACTIVITIES							
Claims and Judgments	$ 97,264	$	$ 42,561	$ 39,486	$ 100,339	$ 42,034	$ 58,305
Capital Lease Obligations	19,086		1,395	4,038	16,443	4,010	12,433
Employees' Compensable Leave	863,549	(2,083)	1,295,133	1,276,075	880,524	627,493	253,031
Notes and Loans Payable	1,607,250	(301,641)	267,979	554,765	1,018,823	196,381	822,442
Notes and Loans - Direct Borrowings		294,304	7,642		301,946		301,946
General Obligation Bonds Payable	15,416,099	(356,051)	943,021	1,027,509	14,975,560	640,657	14,334,903
General Obligation Bonds - Direct Placements		286,913			286,913	1,986	284,927
Revenue Bonds Payable	4,495,617	(153,990)	249,135	234,710	4,356,052	293,098	4,062,954
Revenue Bonds - Direct Placements		150,000			150,000		150,000
Asset Retirement Obligation		1,900			1,900	211	1,689
Pollution Remediation Obligation	278,082		96,918	94,594	280,406	58,202	222,204
Governmental Activities Long-Term Liabilities	$ 22,776,947	$ (80,648)	$ 2,903,784	$ 3,231,177	$ 22,368,906	$ 1,864,072	$ 20,504,834
BUSINESS-TYPE ACTIVITIES							
Claims and Judgments	$ 183,934	$	$ 1,385,602	$ 1,375,284	$ 194,252	$ 153,241	$ 41,011
Capital Lease Obligations	113,022	(104,429)	158,517	4,569	162,541	7,720	154,821
Capital Lease - Direct Borrowings/Placements		104,429	7,890	12,515	99,804	12,058	87,746
Employees' Compensable Leave	906,923		394,152	353,952	947,123	499,824	447,299
Notes and Loans Payable	2,203,859	(1,028,682)	367,350	522,225	1,020,302	26,489	993,813
Notes and Loans - Direct Borrowings/ Placements		1,018,150	32,947	2,950	1,048,147	1,946	1,046,201
General Obligation Bonds Payable	4,409,919	(178,645)	321,455	574,470	3,978,259	237,531	3,740,728
General Obligation Bonds - Direct Placements		172,415		33,590	138,825	32,010	106,815
Revenue Bonds Payable	29,967,142	(342,881)	4,366,845	1,643,140	32,347,966	2,518,193	29,829,773
Revenue Bonds - Direct Placements		618,835	24,000	130,938	511,897	18,987	492,910
Asset Retirement Obligation		38,667	4,177	1,134	41,710		41,710
Pollution Remediation Obligation	1,023				1,023		1,023
Liabilities Payable From Restricted Assets	2,631,847		82,817	303,479	2,411,185	549,339	1,861,846
Business-Type Activities Long-Term Liabilities	$ 40,417,669	$ 297,859	$ 7,145,752	$ 4,958,246	$ 42,903,034	$ 4,057,338	$ 38,845,696
COMPONENT UNITS							
Capital Lease Obligations	$ 85	$	$	$ 47	$ 38	$ 38	$
Employees' Compensable Leave	2,719		991	841	2,869	1,629	1,240
Notes and Loans Payable	6,840		750	2,052	5,538	2,056	3,482
Notes and Loans - Direct Placements			561,943	193,443	368,500	40,944	327,556
Revenue Bonds Payable	31,093	1,719	40,000	5,670	67,142	670	66,472
Component Units Long-Term Liabilities	$ 40,737	$ 1,719	$ 603,684	$ 202,053	$ 444,087	$ 45,337	$ 398,750

* Includes current year amortization or premiums and discounts

** Includes current year amortization of accretion of $28.8 million for Governmental and $84 million for Business-Type Activities. An additional $125.3 million in bond issuances were classified and not depicted as other financing sources related to long-term debt.

Claims and judgments are payments on behalf of the state, its agencies and employees for various legal proceedings, self-insurance and workers' compensation claims. Tort claims are covered under the Texas Tort Claims Act. Numerous miscellaneous claims are covered under the Miscellaneous Claims Act for legal liabilities against the state for which no appropriation otherwise exists. Individual claims above $50 thousand or numerous separate claims from the same individual or entity that in total exceed $50 thousand must be approved by the Texas Legislature before being paid. Claims are paid from governmental funds. Workers' compensation claims are usually paid from the same funding source(s) from which the employees' salary or wage compensation was paid.

Capital lease obligations are described in detail in Note 8.

Employees' compensable leave is the state's liability for all unused vacation and unpaid overtime accrued by employees, payable as severance pay under specified conditions. This obligation is paid only at the time of termination, usually from the same funding source(s) from which the employees' salary or wage compensation was paid.

Notes and loans payable consist of amounts used to purchase capital equipment. Other uses include the acquisition, construction and renovation of other capital assets, including the interim financing of higher education projects; software/database acquisition and development; refinancing of existing debt; and the funding of agency specific missions such as economic development projects and pest eradication programs. The Texas Department of Transportation (TxDOT) entered into pass-through toll agreements with local entities as a means of financing state highway capital improvements and maintenance. In fiscal 2019, TxDOT recognized an additional $12.8 million as a long-term liability for pass-through toll payables related to highway projects constructed under pass-through financing agreements. At Aug. 31, 2019, there was a pass-through toll payable of $786.5 million. See Note 15 for additional details.

The Texas Windstorm Insurance Association (TWIA), a discretely presented component unit, has direct placements that are subject to optional make-whole redemption, in whole or in part. The outstanding balance as of Aug. 31, 2019 was $368.5 million. Redemptions are either 100 percent of the principal amount or the sum of the present value of the remaining schedule of principal and interest payments.

As of Aug. 31, 2019, three notes and loan agreements are outstanding for TxDOT. The outstanding direct loan related to governmental activities of $301.9 million contains various provisions resulting from certain events of default with various remedies. In the case of a payment default, interest is charged on the overdue balance of the note at the default rate (an additional 2 percent) until the payment default is cured (overdue balance repaid). In the case of project abandonment, the default rate is charged until the note is paid in full. In the case of certain bankruptcy related event defaults, the note becomes secured by a first priority security interest in the trust estate. TxDOT has an outstanding direct loan related to business-type activities of $927.4 million which contains the following default provisions. Of note, in the case of (i) a payment default, interest is charged on the overdue balance of the note at the default rate (an additional 2 percent) until the overdue balance is repaid, (ii) a development default (which occurs upon failure of the borrower to prosecute the work related to the applicable project or to complete the applicable project in accordance with the financial plan), interest is charged at the default rate until such development default is cured, and (iii) a default due to project abandonment, the default rate is charged until the note is paid in full. Additionally, in the case of certain bankruptcy related event defaults, the note becomes secured by a first priority security interest in the trust estate.

Texas State Technical College's (TSTC) direct loan borrowings of $1.2 million, consist of an amount used to finance a portion of the renovation costs of the 11-1 hangar at the TSTC Waco airport. The loan is secured by all the revenues derived from the airport and two certificates of deposits amounting to $505 thousand. In the event of a default, the overdue amount, including principal and accrued interest, shall bear interest at a default rate and continue as an obligation until such overdue amount and such interest shall be paid in full. In such an event, TSTC will also have to pay all reasonable out of pocket expenses and internal charges in connection with the collection and enforcement of the loan documents.

Stephen F. Austin State University (SFA) had direct loan placements related to business-type activities as of Aug. 31, 2019 totaling $10 million. In the event of default, the notes payable have the following remedies: by written notice to SFA, all payments, including future payments, become due; the equipment may be repossessed, with SFA remaining liable for any difference between those payments required in the note and any proceeds from the sale or leasing/subleasing of the equipment; lessor may terminate the Escrow Agreement relating to such Lease and apply any proceeds in the Escrow Fund thereunder to the Rental Payments due; lessor may take whatever action at law or in equity may appear necessary or desirable to enforce its rights under such Lease or the Escrow Agreement relating thereto or as a secured party in any or all of the Equipment subject to such Lease or with respect to the related Escrow Fund. The lessor may take one or any combination of the remedies listed above.

The Revenue Financing System Note (2007 TIPS Project) was issued on July 12, 2007 to fund $4 million of costs for the Texas Institute for Preclinical Studies (TIPS) within Texas A&M University (A&M System). The note is structured as a loan with the Office of the Governor, Economic Development and Tourism Division through the Texas Economic Development Bank; all authorized debt has been issued. The loan is secured by a lien on and pledge of the Pledged Revenues. In the event of default or failure to make required loan payments, the A&M System will be required to perform any conditions or obligations described in the loan agreement. The A&M System is responsible for all reasonable expenses related to the enforcement. The outstanding balance as of Aug. 31, 2019 was $1 million.

The Texas Department of Housing and Community Affairs (TDHCA) has notes and loans payable from direct borrowings in the amount of $22 million and direct placements in the amount of $86.5 million as of Aug. 31, 2019 related to business-type activities. TDHCA has two Issuer Notes from direct borrowings and four Multifamily Notes from direct placements. TDHCA's two Issuer notes from direct borrowings are subordinate lien obligations to provide funding for down payment assistance in connection with Texas Homeownership Programs. The 2016 Issuer Note has a loan agreement with Woodforest National Bank secured by the RMRB Indenture and the 2018 Issuer Notes with Woodforest National Bank, Tolleson Private Bank and Hancock Whitney Bank secured by the Single Family Indenture. They contain the following events of default:

- A default in payment of any interest upon the loan when such interest becomes due and payable;
- A default in payment of principal of the loan when such principal becomes due and payable;
- A default in the Asset Test if the amount calculated pursuant to such test equals an amount less than 102 percent for the 2016 Note and 105 percent for the 2018 Note, plus the current outstanding amount of the loan.

The occurrence of any event of default would trigger remedies ranging from demand of immediate payment to the acceleration of the loan causing it to be immediately due and payable.

The TDHCA's four notes from direct placements were primarily issued to provide funding to nonprofit and for-profit developers of multifamily properties to construct or rehabilitate rental housing and are secured by these assets and their respective revenue. These notes are limited obligations of the TDHCA and are payable solely from the payments received from the assets and guarantors, which secure the notes. They contain the following events of default:

- A default in payment of any interest upon the loan when such interests become due and payable;
- A default in payment of principal of the loan when such principal becomes due and payable.

The occurrence of any event of default would trigger remedies ranging from demand of immediate payment to the acceleration of the loan causing it to be immediately due and payable.

Debt service requirements for notes and loans payable and notes and loans payable from direct borrowings and direct placements in long-term liabilities are presented in tables 5B, 5C and 5D.

Notes and Loans Payable Debt Service Requirements Governmental Activities

Table 5B

(Amounts in Thousands)

				Direct Borrowings		
Year	**Principal**	**Interest**	**Total**	**Principal**	**Interest**	**Total**
2020	$ 196,381	$ 10,526	$ 206,907	$	$	$
2021	162,738	9,790	172,528			
2022	144,937	11,632	156,569		4,136	4,136
2023	118,256	10,778	129,034		8,341	8,341
2024	92,827	10,070	102,897		8,353	8,353
2025 - 2029	258,809	40,448	299,257	7,724	41,582	49,306
2030 - 2034	53,894	24,599	78,493	42,379	38,859	81,238
2035 - 2039	43,325	8,885	52,210	78,186	31,665	109,851
2040 - 2044	7,839	42	7,881	92,511	19,564	112,075
2045 - 2049				61,593	10,125	71,718
2050 - 2054				40,903	2,128	43,031
Total Requirements	1,079,006	126,770	1,205,776	323,296	164,753	488,049
Unamortized Accretion	(60,184)		(60,184)	(21,349)		(21,349)
Total Requirements	$ 1,018,822	$ 126,770	$ 1,145,592	$ 301,947	$ 164,753	$ 466,700

Notes and Loans Payable Debt Service Requirements Business-Type Activities

Table 5C

Amounts in Thousands

Year	Principal	Interest	Total	Direct Borrowings/Direct Placements Principal	Direct Borrowings/Direct Placements Interest	Direct Borrowings/Direct Placements Total
2020	$ 26,489	$ 37,593	$ 64,082	$ 1,946	$ 5,139	$ 7,085
2021	35,257	37,293	72,550	1,459	39,608	41,067
2022	16,603	36,510	53,113	1,609	39,608	41,217
2023	653,848	31,138	684,986	1,337	39,557	40,894
2024	17,258	5,588	22,846	1,398	39,564	40,962
2025 - 2029	91,598	22,642	114,240	34,884	195,710	230,594
2030 - 2034	101,089	13,160	114,249	33,529	190,765	224,294
2035 - 2039	78,159	4,210	82,369	109,919	170,343	280,262
2040 - 2044				166,196	150,537	316,733
2045 - 2049				480,630	97,439	578,069
2050 - 2054				235,051	8,751	243,802
Total Requirements	1,020,301	188,134	1,208,435	1,067,957	977,021	2,044,979
Unamortized Accretion				(19,810)		(19,810)
Total Requirements	$ 1,020,301	$ 188,134	$ 1,208,435	$ 1,048,148	$ 977,021	$ 2,025,169

Notes and Loans Payable Debt Service Requirements Component Units

Table 5D

Amounts in Thousands

Year	Principal	Interest	Total	Direct Placements Principal	Direct Placements Interest	Direct Placements Total
2020	$ 2,056	$ 78	$ 2,134	$ 40,944	$ 30,401	$ 71,345
2021	1,911	69	1,980	40,944	27,023	67,967
2022	311	63	374	40,944	23,645	64,589
2023	65	59	124	40,945	20,268	61,213
2024	626	34	660	40,945	16,890	57,835
2025 - 2029	569	35	604	163,778	33,779	197,557
Total Requirements	$ 5,538	$ 338	$ 5,876	$ 368,500	$ 152,006	$ 520,506

General obligation bonds and revenue bonds are described in detail in Note 6.

Long-term liabilities associated with the acquisition of restricted assets or long-term liabilities that will be liquidated with restricted assets are classified as liabilities payable from restricted assets.

Asset Retirement Obligations

GASB Statement No. 83, *Certain Asset Retirement Obligations*, defines an asset retirement obligation (ARO) as a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets recognize a liability based on the guidance in this GASB Statement.

Texas Southern University (TSU) purchased radiation equipment with an ARO. TSU must estimate the new obligation amount using probability weighting and record the initial measurement as a deferred outflows of resources ARO and a noncurrent ARO. TSU must assess any relevant factors annually to determine if a significant change in current value has occurred and, if so, record the change in deferred outflows of resources ARO and noncurrent ARO. When the radiation equipment reaches the end of its useful life, the value of the ARO is moved to current ARO. Current ARO is then reduced by the amount of actual expenditures to retire the asset, with an offset to deferred outflows of resources. The estimated remaining useful life of the associated tangible capital assets ranges from 0 to 73 months. The ARO obligation as of Aug. 31, 2019 was $295.6 thousand.

As of Aug. 31, 2019, the University of North Texas System (UNT) held two radioactive material licenses. The estimated remaining useful life of the associated tangible capital assets is 263 months and 178 months, respectively. Licensing of Radioactive Materials is regulated by the state of Texas (Texas Administrative Code Title 25 Health Services, Part 289 Radiation Control, Subpart 252 Licensing of Radioactive Materials). UNT estimated the obligation amount using best-estimate current value based on settlement amount and recorded the initial measurement as deferred outflows of resources and a noncurrent liability. UNT will assess the ARO account balances annually for any significant changes in current value and make all necessary adjustments. ARO balances are reduced annually by the amount of actual expenditures to retire the asset. In accordance with the Texas Administrative Code Title 25, Part 289, subpart 201(c), UNT is exempted from posting the financial instruments specifically based upon being a state funded academic facility actively working to reduce the amount of radioactive material authorized on its licenses. The ARO obligation as of Aug. 31, 2019 was $2.4 million.

The University of Texas A&M System (A&M) has two nuclear reactors which were placed in service in 1957 and 1965, respectively. The U.S. Nuclear Regulatory Commission (NRC) requires a decommissioning plan for the retirement of these assets. The estimated liability for the decommissioning plan is $9.7 million. The estimate was calculated using NRC publications NUREG/CR-1756 and NUREG-1307 Rev. 15, adjusted using the consumer price index inflation calculator. A 25 percent contingency is also included in the estimate. The A&M also has five radioactive material licenses authorizing the possession and use of radioactive materials. The estimated remaining useful life of the associated tangible capital assets ranges from 12 to 96 months. The A&M is financially accountable for any decommissioning or decontamination costs as required by the Texas Department of State Health Services (Texas Administrative Code, Title 25, Part 1, Chapter 289, Subchapter F, Rule 289.252), and the U.S. Nuclear Regulatory Commission (10 CFR 30.35). The total ARO obligation as of Aug. 31, 2019 was $12.7 million.

The University of Texas System liability related to clean-up and decommissioning of items using radiation such as broadscope licenses, cyclotrons and nuclear reactors is reported as an ARO. The liability is measured using best estimates of expected outlays for clean-up and decommissioning costs. The Texas Administrative Code, Title 25, Part 1, Chapter 289. Subchapter F, Rule 289.252 (gg)(6)(D) exempts state licensees from providing financial assurances and no assets have been restricted for payment of the liability. The estimated remaining useful life of the associated tangible capital assets ranges from 0 to 89 months. The total ARO obligation as of Aug. 31, 2019 was $26.3 million.

Texas Health and Human Services Commission's (HHSC) ARO is related to a sewage treatment plant in Mexia, Texas with an estimated remaining useful life of 9 years. The ARO was calculated using a weighted average methodology. Based on an initial regional assessment, HHSC did not receive enough information to reasonably estimate a weighted average for lab equipment, e.g. X-ray equipment. The ARO obligation as of Aug. 31, 2019 was $1.9 million.

Pollution Remediation Obligations

Pollution remediation obligations are recognized in the financial statements for existing pollution sites after the occurrence of one or more of the following events:

- The pollution creates an imminent endangerment to public health or the environment.
- The state is in violation of a pollution prevention-related permit or license.
- The state is named as a potentially responsible party by a regulator.
- The state is named in a lawsuit that compels it to participate in remediation.
- The state has commenced or legally obligated itself to begin cleanup activities.

Under applicable accounting standards, estimated expected recoveries from insurance policies and other responsible parties that are not yet realizable in the financial statements reduce the measurement of the pollution remediation obligation liability. A realized or realizable recovery involves the acknowledgment or recognition by the third party of its responsibility. Realized or realizable recoveries are recognized as assets.

Federal Regulatory Cleanup Requirements: Pollution remediation obligations are associated with projects initiated under federal regulatory requirements. Applicable federal laws and regulations include the Comprehensive Environmental Response, Compensation and Liability Act (also known as Superfund), the National Emissions Standards for Hazardous Air Pollutants and United States Environmental Protection Agency (EPA) Class V Wells regulations.

The Superfund obligation estimates are based on budgeted projections to cover necessary activities for the upcoming fiscal year, along with estimated costs for future years and phases, plus direct salaries and benefits. For sites without available budget projections, estimated costs were provided for the Superfund phases of investigation and cleanup, based on staff experience with similar sites.

Federal reimbursements are expected to offset a portion of these expected costs. The potential for changes due to price increases or reductions, technology or applicable laws or regulations was incorporated into these estimates.

State Regulatory Cleanup Requirements: Other pollution remediation obligations are associated with cleanups required under state of Texas law. The Texas Commission on Environmental Quality (TCEQ) operates as a regulatory agency to ensure cleanups are conducted within applicable state laws and regulations contained in the Texas Administrative Code, Title 30; Texas Water Code; Texas Health and Safety Code; Texas Occupations Code; and Texas Natural Resources Code.

Major Remediation Activity: TCEQ oversees the cleanup of leaking petroleum storage tanks (LPST). Cleanup costs are paid by the owners' environmental liability insurance or other financial assurance mechanisms or from their own funds. If the responsible party is unknown, unwilling or financially unable to do the work, state and federal funds are used to pay for the corrective actions. Revenue is generated from a fee on the delivery of petroleum products removed from bulk storage facilities. State statutes allow cost recovery from the current owner or any previous responsible owner, however, to date this has not been necessary.

TCEQ calculates expected outlays related to this pollution remediation by establishing the average cost of cleanup and multiplying that cost by the number of active sites, plus direct salaries and benefits for the duration of the cleanup. This methodology is based upon historical experience in estimating these cleanups. At Aug. 31, 2019, there were 301 active state lead sites, with a total estimated pollution remediation obligation of $66.3 million.

The TCEQ Superfund Section (Section) includes the State Superfund, Federal Superfund, Superfund Site Discovery and Assessment (SSDAP) and the Preliminary Assessment/Site Inspection (PA/SI) Programs. On behalf of TCEQ, the Section identifies, ranks, and addresses sites contaminated with hazardous substances, which no parties are willing to address through a permit, corrective action, voluntary cleanup or enforcement program. These sites are identified through referral from internal and external groups such as TCEQ Enforcement, TCEQ Regional Offices, TCEQ Water Supply Division, public complaints and the EPA.

Site estimates may change drastically from one year to another as the investigations progress and a better understanding of site conditions is obtained. The estimate of liabilities is limited to sites that have been, or are, being assessed and ranked for the Superfund program. Cost recovery activities during fiscal 2019 resulted in collections of $904.7 thousand.

At the end of fiscal 2019, Texas had 68 sites with pollution remediation obligations in the state and federal Superfund programs and two sites that required an immediate response or removal action. The current total Superfund liability, as of Aug. 31, 2019, is $138.3 million.

TCEQ is responsible for collecting fees for a remediation fund designed to help pay for the cleanup of contaminated dry cleaner sites. The fees are generated from the annual registration of facilities and drop stations, as well as from the sale of perchloroethylene and other dry cleaning solvents. TCEQ receives applications for remediation, and then ranks and prioritizes them for corrective action. Legislation in 2007 established requirements for property owners and preceding property owners who wish to claim benefits from the remediation fund, and authorized a lien against property owners and preceding property owners who fail to pay registration fees due during corrective action. No additional cost recovery is allowed by statute.

The pollution remediation obligation is measured by the national average cleanup cost, as calculated by the State Coalition for Remediation of Drycleaners. Direct salary and benefit costs are added to the national average and the total cost is multiplied by the number of active sites. At Aug. 31, 2019, there were 222 active sites, with a total estimated pollution remediation obligation of $49.9 million.

The Railroad Commission of Texas (Commission) currently has three areas of remediation: abandoned oil and gas wells, oil and gas sites and mines. Under Texas Natural Resource Code, Section 89.043, the Commission may plug abandoned wells if the wells have not been properly plugged or need replugging and the responsible party cannot be found or is not financially able to plug the well, or if the wells will cause or are likely to cause a serious threat of pollution or injury to the public health. The Commission has 23 active well plugging projects as of Aug. 31, 2019, with an estimated cost of $5.7 million.

Under Texas Natural Resource Code, Section 91.113, the Commission may clean up abandoned oil and gas sites that are causing or are likely to cause the pollution of surface or subsurface water. The Commission has 23 active site remediation projects as of Aug. 31, 2019, with an estimated cost of $8.8 million. Funding for these programs comes from regulatory and permit fees paid by the oil and gas industry.

The Commission enters into contracts with third parties for abandoned site remediation and abandoned well plugging. These contracts are used to estimate the amount of the plugging and pollution remediation obligation.

TxDOT is responsible for the cleanup and remediation of several polluted sites. Regulatory requirements established by federal and state law obligate TxDOT to perform these pollution remediation activities. Historical cost averages were used to calculate the estimated pollution remediation obligation liabilities. The areas of remediation include compliance with asbestos regulations, lead based paint regulations, Federal Safe Drinking Water Act, state LPST cleanup requirements, Occupational Safety and Health Administration Health and Safety Plan requirements, waste disposal regulations and state non-LPST cleanup requirements at an estimated cost of $8.2 million for fiscal 2019.

Note 6

Bonded Indebtedness

Description of Bond Issues

The state of Texas had 416 bond issues outstanding as of Aug. 31, 2019. Scheduled debt service payments from the general revenue fund for fiscal 2019 totaled $716.6 million.

Information on Bond Issuances

Table 6A

August 31, 2019

Description of Issue	Bond Issues Outstanding Number	Bond Issues Outstanding Amount Issued (in Thousands)	Range of Interest Rates Lowest	Range of Interest Rates Highest	Maturities First Year	Maturities Last Year	First Call Date
GOVERNMENTAL ACTIVITIES							
General Obligation Bonds	67	$ 15,524,381	0.18	6.00	2005	2046	05/18/2005
General Obligation Bonds - Direct Placements	1	254,105	5.00	5.00	2031	2036	10/01/2025
Revenue Bonds	13	4,768,585	1.00	5.25	2010	2039	04/01/2018
Revenue Bonds - Direct Placements	1	150,000	var	var	2032	2032	*
Governmental Activities Total	82	20,697,071					
BUSINESS-TYPE ACTIVITIES							
General Obligation Bonds	60	4,941,070	0.23	5.00	2003	2050	03/22/2001
General Obligation Bonds - Direct Placements	4	278,795	var	var	2014	2027	04/01/2014
Revenue Bonds	230	36,124,049	0.12	8.00	1999	2058	07/01/2000
Revenue Bonds - Direct Placements	36	635,836	1.00	15.00	2001	2059	05/01/2001
Business-Type Activities Total	330	41,979,750					
COMPONENT UNITS							
Revenue Bonds	4	263,340	1.65	4.25	2011	2050	12/01/2011
Total	416	$ 62,940,161					

* Bonds are subject to redemption prior to their respective maturities at the option of the Commission.

Changes in Bonds Payable

Table 6B

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

	Bonds Outstanding 9/1/18	Adjustments *	Bonds Issued**	Bonds Matured or Retired	Bonds Refunded	Bonds Outstanding 8/31/19	Due Within One Year
GOVERNMENTAL ACTIVITIES							
General Obligation Bonds	$15,416,099	$ (356,051)	$ 943,021	$ 535,894	$ 491,615	$14,975,560	$ 640,657
General Obligation Bonds - Direct Placements		286,913				286,913	1,986
Revenue Bonds	4,495,617	(153,990)	249,135	234,710		4,356,052	293,098
Revenue Bonds - Direct Placements		150,000				150,000	
Governmental Activities Total	19,911,716	(73,128)	1,192,156	770,604	491,615	19,768,525	935,741
BUSINESS-TYPE ACTIVITIES							
General Obligation Bonds	4,409,919	(178,645)	321,455	225,675	348,795	3,978,259	237,531
General Obligation Bonds - Direct Placements		172,415		33,590		138,825	32,010
Revenue Bonds	29,967,142	(342,881)	4,366,845	931,856	711,284	32,347,966	2,518,193
Revenue Bonds - Direct Placements		618,835	24,000	21,714	109,224	511,897	18,987
Business-Type Activities Total	34,377,061	269,724	4,712,300	1,212,835	1,169,303	36,976,947	2,806,721
COMPONENT UNITS							
Revenue Bonds	31,093	1,719	40,000	5,670		67,142	670
	31,093	1,719	40,000	5,670	0	67,142	670
Total	$54,319,870	$ 198,315	$5,944,456	$1,989,109	$1,660,918	$56,812,614	$3,743,132

* Includes current year amortization of premiums and discounts.
** Includes current year amortization of accretion.

Debt Service Requirements

Table 6C

(Amounts in Thousands)

GOVERNMENTAL ACTIVITIES

Year	General Obligation Bonds Principal	General Obligation Bonds Interest	General Obligation Bonds Total	General Obligation Bonds - Direct Placements Principal	General Obligation Bonds - Direct Placements Interest	General Obligation Bonds - Direct Placements Total
2020	$ 532,069	$ 624,939	$ 1,157,008	$	$ 12,705	$ 12,705
2021	551,884	601,026	1,152,910		12,705	12,705
2022	570,169	575,759	1,145,928		12,705	12,705
2023	591,085	550,695	1,141,780		12,705	12,705
2024	608,705	523,136	1,131,841		12,705	12,705
2025-2029	3,046,240	2,188,067	5,234,307		63,526	63,526
2030-2034	2,989,280	1,483,952	4,473,232	63,450	58,028	121,478
2035-2039	3,075,325	827,959	3,903,284	190,655	18,480	209,135
2040-2044	1,425,765	222,688	1,648,453			
2045-2049	293,575	10,241	303,816			
	13,684,097 *	7,608,462	21,292,559	254,105 *	203,559	457,664
Premium	1,293,055		1,293,055	32,808		32,808
Discount	(1,591)		(1,591)			
Total	$ 14,975,561	$ 7,608,462	$ 22,584,023	$ 286,913	$ 203,559	$ 490,472

* Includes accretion adjustments on deep discount bonds.

Continued on the following page

Debt Service Requirements (continued)

Table 6C

(Amounts in Thousands)

GOVERNMENTAL ACTIVITIES (concluded)

	Revenue Bonds			Revenue Bonds - Direct Placements		
Year	Principal	Interest	Total	Principal	Interest	Total
2020	$ 251,550	$ 194,842	$ 446,392	$	$ 3,660	$ 3,660
2021	261,120	182,155	443,275		3,650	3,650
2022	275,450	169,605	445,055		3,650	3,650
2023	285,175	158,222	443,397		3,650	3,650
2024	297,475	144,104	441,579		3,660	3,660
2025-2029	1,689,015	482,433	2,171,448		18,260	18,260
2030-2034	965,685	122,962	1,088,647	150,000	9,284	159,284
2035-2039	63,645	6,364	70,009			
	4,089,115 *	1,460,687	5,549,802	150,000 *	45,814	195,814
Premium	266,937		266,937			
Total	$ 4,356,052	$ 1,460,687	$ 5,816,739	$ 150,000	$ 45,814	$ 195,814

BUSINESS-TYPE ACTIVITIES

	General Obligation Bonds			General Obligation Bonds - Direct Placements		
Year	Principal	Interest	Total	Principal	Interest	Total
2020	$ 230,445	$ 112,055	$ 342,500	$ 32,010	$ 3,440	$ 35,450
2021	246,100	105,385	351,485	25,805	2,626	28,431
2022	249,305	98,349	347,654	22,960	1,974	24,934
2023	238,665	91,846	330,511	15,460	1,459	16,919
2024	231,960	85,175	317,135	15,100	1,031	16,131
2025-2029	1,067,275	324,913	1,392,188	27,490	1,024	28,514
2030-2034	754,470	192,219	946,689			
2035-2039	470,980	101,722	572,702			
2040-2044	336,665	32,947	369,612			
2045-2049	58,060	2,223	60,283			
2050-2054	735	8	743			
	3,884,660 *	1,146,842	5,031,502	138,825 *	11,554	150,379
Premium	93,599		93,599			
Total	$ 3,978,259	$ 1,146,842	$ 5,125,101	$ 138,825	$ 11,554	$ 150,379

* Includes accretion adjustments on deep discount bonds.

Concluded on the following page

Debt Service Requirements (concluded)

Table 6C

(Amounts in Thousands)

BUSINESS-TYPE ACTIVITIES (concluded)

Year	Revenue Bonds			Revenue Bonds - Direct Placements		
	Principal	Interest	Total	Principal	Interest	Total
2020	$ 2,340,398	$ 1,215,603	$ 3,556,001	$ 18,987	$ 20,954	$ 39,941
2021	1,076,864	1,180,586	2,257,450	19,554	20,380	39,934
2022	1,027,621	1,138,844	2,166,465	20,170	19,785	39,955
2023	1,002,924	1,095,900	2,098,824	20,714	19,169	39,883
2024	1,020,191	1,067,526	2,087,717	105,162	17,614	122,776
2025-2029	5,034,225	4,761,013	9,795,238	94,977	75,458	170,435
2030-2034	4,731,010	3,766,846	8,497,856	58,722	57,023	115,745
2035-2039	4,925,211	2,743,744	7,668,955	77,814	35,996	113,810
2040-2044	4,091,705	1,715,178	5,806,883	46,997	20,526	67,523
2045-2049	3,966,083	855,653	4,821,736	34,384	7,942	42,326
2050-2054	1,601,610	222,120	1,823,730	10,931	2,674	13,605
2055-2059	120,645	13,638	134,283	3,485	443	3,928
	30,938,487 *	19,776,651	50,715,138	511,897 *	297,964	809,861
Accretion	(686,010)		(686,010)			
Premium	2,112,281		2,112,281			
Discount	(16,792)		(16,792)			
Total	$ 32,347,966	$ 19,776,651	$ 52,124,617	$ 511,897	$ 297,964	$ 809,861

COMPONENT UNITS

Year	Revenue Bonds		
	Principal	Interest	Total
2020	$ 670	$ 2,331	$ 3,001
2021	1,210	2,301	3,511
2022	1,300	2,258	3,558
2023	1,335	2,209	3,544
2024	1,410	2,158	3,568
2025-2029	8,125	9,899	18,024
2030-2034	10,800	8,308	19,108
2035-2039	14,095	6,392	20,487
2040-2044	12,540	3,951	16,491
2045-2049	11,170	1,832	13,002
2050-2054	2,615	79	2,694
	65,270	41,718	106,988
Premium	1,872		1,872
Total	$ 67,142	$ 41,718	$ 108,860

* Includes accretion adjustments on deep discount bonds.

See Note 5 for additional disclosures regarding general obligation bonds - direct placements and revenue bonds - direct placements. See Note 16 for debt issued subsequent to Aug. 31,2019.

General Obligation Bonds and General Obligation Bonds - Direct Placements - General Comments

The Texas Constitution authorizes the state to issue several types of general obligation bonds and general obligation bonds - direct placements. Each issue of general obligation bonds and general obligation bonds - direct placements is designed to be self-supporting from a primary revenue source related to the program being financed, except for the general obligation bonds of the Texas Public Finance Authority (TPFA), the Texas Water Development Board (TWDB), the Constitutional Appropriation Bonds (CABs) and the Texas Transportation Commission Highway Improvement Bonds.

The purpose and primary pledged revenue sources of each type of general obligation bond and general obligation bond - direct placement are summarized below.

The Texas Higher Education Coordinating Board issues bonds for educational loans to eligible Texas college students. Payments received on the loan contracts are applied to debt service on the bonds.

The Texas Parks and Wildlife Department (TPWD) issues bonds to finance the acquisition and development of state park sites. Park entrance fees, sporting goods sales tax revenue and investment earnings are applied to debt service on the bonds.

TPFA issues bonds to finance the acquisition, construction or renovation of buildings for the use of state agencies and institutions of higher education and to fund cancer research. The TPFA is also authorized to issue bonds to assist local government economic development projects and the Texas Military Value Revolving Loan Fund (TMVRLF). The bonds are payable from state appropriations.

TWDB issues bonds to provide financial assistance to political subdivisions for water conservation and development, water quality enhancement projects and flood control projects. Debt service payments are funded by principal and interest received on loans to political subdivisions, repayments of purchased water storage contracts, earnings on temporary investments and general revenues.

The Veterans Land Board (VLB) issues bonds to provide funds to loan to eligible Texas veterans for the purchase of land, housing or home improvements. Principal and interest payments on loans, plus investment earnings, are the primary source of repayment for bonds.

The Texas Department of Transportation (TxDOT), prior to Jan. 1, 2015, through the Texas mobility fund, issued general obligation bonds and general obligation bonds - direct placements to pay or reimburse the state highway fund for the payment of part of the costs of constructing, reconstructing, acquiring and expanding state highways. In addition, the bond proceeds provided funds for participation by the state in the payment of part of the costs of constructing and providing certain publicly owned toll roads and other public transportation projects. After Jan. 1, 2015, TxDOT may only issue debt to refund existing debt in certain circumstances. Sources of pledged revenue for the Texas mobility fund include the "United We Stand" license plate fees, investment income, motor vehicle inspection fees, driver record information fees, driver license fees and certificate of title fees. Debt service for highway improvement bonds is provided by the state's general revenue.

CABs are issued in support of the construction programs of institutions of higher education not benefiting from the permanent university fund (PUF), which is dedicated to the University of Texas System (UT) and

Texas A&M University System (A&M). Debt service payments on bonds issued are limited to the $197 million in general revenue funds available for debt service each year.

The Economic Development and Tourism Office (EDTO), a division within the Office of the Governor, issues general obligation bonds to provide financial assistance to export businesses, promote domestic business development, provide loans to finance the commercialization of new and improved products and processes, and provide loans to defense-related communities for economic development projects. Debt service payments are funded from revenues of the EDTO, primarily from the repayment of loans and the disposition of debt instruments.

General Obligation Bonds - Authorized But Unissued

The Texas Constitution limits the amount of bonds that can be issued in any of the general obligation categories. As of Aug. 31, 2019, the amounts of general obligation bonds, other than CABs, authorized but unissued, are presented in table 6D.

General Obligation Bonds Authorized But Unissued

Table 6D

(Amounts in Thousands)

SELF-SUPPORTING	
Texas Agricultural Finance Authority Bonds	$ 55,000
Farm and Ranch Loan Bonds	475,000
Veterans Land and Housing Bonds	1,046,456
Texas Water Development Bonds	5,945,878
College Student Loan Bonds	947,545
Texas Military Value Revolving Loan Fund	200,405
Total	8,670,284
NOT SELF-SUPPORTING	
Agricultural Water Conservation Bonds	164,840
Texas Public Finance Authority Bonds	1,315,937
Total	1,480,777
Total General Obligation Bonds	$10,151,061

Revenue Bonds and Revenue Bonds - Direct Placements - General Comments

Each series of revenue bonds and revenue bonds - direct placements is backed by the pledged revenue sources and restricted funds specified in the bond resolution. The purpose and primary pledged revenue sources of each type of revenue bond are summarized below.

Self-Supporting

The VLB issues bonds to assist in the construction of skilled nursing care facilities for veterans and to make land and home mortgage loans to veterans. The bonds are limited and special revenue obligations payable solely from the income, revenues, receipts and collateral pledged under the related trust indentures.

The Texas Department of Housing and Community Affairs (TDHCA) issues bonds to assist in financing the purchase of homes by or the construction of rental housing for families with very low to moderate incomes and persons with special needs. Loan payments provide the revenues for debt service payments. The agency also issued taxable bonds for investment in collateralized mortgage obligations of federal agencies, to finance mortgage loans and to carry out financial assistance programs.

TWDB issues bonds for the state water pollution control revolving fund. The proceeds are used to provide financial assistance to political subdivisions for water quality enhancement purposes. Principal and interest repayments from political subdivision loans are pledged for debt service requirements of the bonds.

UT and A&M issue PUF bonds to build, equip or buy buildings or other permanent improvements. The Texas Constitution limits UT's and A&M's PUF debt to an amount not to exceed 20 percent and 10 percent, respectively, of the cost value of PUF assets, excluding real estate. Revenue from investments of the PUF is pledged to secure the payment of principal and interest. The cost value of PUF assets as of Aug. 31, 2019, excluding real estate, was $19.8 billion. A comparison between the legal debt limits and the actual bonds outstanding at that date is presented in table 6E.

Permanent University Fund Bonds

Table 6E

(Amounts in Thousands)

	Legal Debt Limits	Actual Bonds Payable	Authorized But Unissued
University of Texas System	$ 3,957,160	$ 2,416,760	$ 1,540,400
Texas A&M University System	1,978,580	1,133,580	845,000
Total	$ 5,935,740	$ 3,550,340	$ 2,385,400

Miscellaneous college, university revenue bonds and university revenue bonds-direct placements are issued to provide funds to acquire, construct, improve, enlarge and equip property, buildings, structures or facilities. The revenue bonds and revenue bonds - direct placements issued by each institution's governing board are secured by the pledged revenue of the respective institutions and are not an obligation of the state of Texas.

TxDOT issues revenue bonds and revenue bonds-direct placements to finance state highway improvement projects. Pledged revenues include all revenues deposited to the credit of the state highway fund, including dedicated registration fees, dedicated taxes, dedicated federal revenues, amounts collected or received pursuant to other state highway fund revenue laws and any interest or earnings from the investment of these funds.

The Texas Transportation Commission issued bonds to pay a portion of the costs of planning, designing, engineering, developing and constructing the initial phase of the Central Texas Turnpike System located in the greater city of Austin metropolitan area in Travis and Williamson counties. The bond obligations are payable from and secured solely by a first and second lien as applicable and pledge of the trust estate.

Not Self-Supporting

The following revenue bonds are supported by pledged lease or rental revenue derived from contracts with other state agencies, which in turn comes from legislative appropriations.

The Texas Military Department (TMD), previously named the Adjutant General's Department, assumed the Texas Military Facilities Commission's (TMFC) responsibilities on Sept. 1, 2007. The TMFC's title to facilities, rental and other income pledged to the bonds was transferred to the TPFA. Title will pass to TMD upon final discharge of all bond obligations. Bonds are issued for the construction, expansion and renovation of armories. The bonds are payable from certain pledged revenues, primarily rentals from the TMD. As of Aug. 31, 2019, the bond obligations were still outstanding.

TPFA issues bonds to finance the acquisition of real property and to construct, equip or renovate buildings for the use of state agencies and institutions of higher education. The bonds are payable from specified pledged revenues, collected primarily from occupant-agency rentals.

TPWD issues bonds for infrastructure repairs and construction. The bonds are payable from rent payments, funded by state appropriations, made by the TPWD to the TPFA.

Pledged Future Revenues

Pledged revenues are those specific revenues that are formally committed to directly secure revenue bonds and revenue bonds-direct placements. Table 6F provides information on pledged revenue and pledged future revenue for the state's revenue bonds and revenue bonds-direct placements.

Pledged Future Revenue

Table 6F

(Amounts in Thousands)

	General Obligation Bonds	Revenue Bonds and Revenue Bonds – Direct Placements		
	Governmental Activities	Governmental Activities	Business-Type Activities	Component Units
Pledged Revenue Required for Future Principal and Interest on Existing Bonds	$ 9,920,826	$ 5,745,616	$ 51,524,999	$ 106,988
Current Year Pledged Revenue	496,636	8,979,087	21,331,158	34,110
Current Year Principal and Interest Paid	367,695	435,038	2,186,137	6,667
Term of Commitment Fiscal Year Ending August 31,	2045	2039	2059	2050
Percentage of Revenue Pledged	100%	100%	95%	100%

Build America Bonds (BABs)

The American Recovery and Reinvestment Act (ARRA) of 2009 was implemented in February 2009. As part of this federal legislation, a new bond program called BABs was created. Authority to issue BABs expired on Dec. 31, 2010.

TxDOT, UT and the University of Houston System (UOH) had $3.5 billion, $1.3 billion and $67.7 million of direct payment BABs outstanding, respectively, as of Aug. 31, 2019.

Under the Budget Control Act of 2011, across-the-board sequestration took effecton March 1, 2013. This resulted in the 35 percent federal subsidy for BABs interest payments being reduced by the applicable federal sequestration reduction rate.

Variable Rate Bonds

Six state agencies had a total of 79 variable rate bond issues with outstanding balances as of Aug. 31, 2019.

Most of the issues' interest rates reset every seven days. The remaining issues' interest rates reset daily or monthly. The potential volatility for related debt service increases with these interest rate reset provisions.

Demand Bonds

The Office of the Governor, the VLB, TDHCA, TxDOT and UT had outstanding demand bonds as of Aug. 31, 2019.

A bond holder may tender any of these bonds for repurchase prior to maturity, usually every seven days. Any bonds so tendered will be purchased either by the proceeds of the remarketing of such bonds or, if not successfully remarketed, from amounts drawn under a letter of credit, liquidity agreement or standby purchase agreement of the respective agency until such time as the remarketing is finalized. As of Aug. 31, 2019, there were no purchased bonds held by liquidity providers under the terms of the various agreements. Details are presented in tables 6G and 6H.

Demand Bonds

Table 6G

August 31, 2019

	Demand Bond Issues	Number of Standby Purchase Agreements	Other	Principal Balance Outstanding (In Thousands)
GOVERNMENTAL ACTIVITIES				
General Obligation Bonds				
Texas Department of Transportation	1		1 (b)	$ 150,000
Office of the Governor	2	2 (a)		45,000
Total	3	2	1	195,000
Revenue Bonds				
Texas Department of Transportation	1	1 (a)		150,000
Total	1	1	0	150,000
Governmental Activities Total	4	3	1	$ 345,000
BUSINESS-TYPE ACTIVITIES				
General Obligation Bonds				
Veterans Land Board	32	32 (a)		$ 2,245,035
Total	32	32	0	2,245,035
Revenue Bonds				
University of Texas System	4		4 (b)	1,376,205
Texas Department of Housing and Community Affairs	5		5 (b)	76,305
Total	9	0	9	1,452,510
Business-Type Activities Total	41	32	9	$ 3,697,545

(a) – See Demand Bonds - Standby Purchase Agreements table 6H.
(b) – In the event redeemed bonds are not remarketed, internal funds of the agency are available for redemption.

Demand Bond – Standby Purchase Agreements

Table 6H

August 31, 2019

Counterparties	Number of Secured Bond Issue Agreements	Annual Liquidity Fee	Agreement Termination Date
Federal Home Loan Bank of Dallas	2	0.20%	11/01/22
Federal Home Loan Bank of Dallas	1	0.20%	06/27/23
JPMorgan Chase Bank, National Association	1	0.35%	04/10/24
Landesbank Hessen-Thuringen Girozentrale	1	0.28%	01/20/21
Landesbank Hessen-Thuringen Girozentrale	1	0.32%	12/31/19
State Street Bank and Trust Company	7	0.33%	11/14/19
State Street Bank and Trust Company	3	0.33%	07/24/23
State Street Bank and Trust Company	7	0.33%	09/25/23
State Street Bank and Trust Company	6	0.33%	11/14/23
State Street Bank and Trust Company	2	0.36%	11/14/25
Sumitomo Mitsui Banking Corp	1	3.00%	01/18/22
Sumitomo Mitsui Banking Corp	1	0.3 - 3.0%	04/01/22
U.S. Bank National Association	2	0.29%	05/17/21
Total	35		

Takeout agreements are used by TxDOT to provide an alternative debt instrument to replace any repurchased bonds that were not remarketed within the prescribed time constraints. Table 6I provides the estimated impact of such an event.

Demand Bonds – Takeout Agreement Provisions

Table 6I

August 31, 2019

	Estimated Debt Service (In Thousands)	Rate	Basis
GOVERNMENTAL ACTIVITIES			
Revenue Bonds			
Texas Department of Transportation			
State Highway Fund Revenue Bonds			
Series 2014B1	$ 174,947 (a)	9.50%	2.00%

(a) – Replacement debt is subject to semi-annual payments over three years starting the first day of the sixth month of that period.

Early Extinguishment of Debt

Table 6J presents early debt extinguishments in fiscal 2019. The source of funds used for the extinguishments included loan repayments and other available funds.

Early Extinguished Debt Issues

Table 6J

(Amounts in Thousands)

BUSINESS-TYPE ACTIVITIES	
General Obligation Bonds	
Texas Water Development Board	$ 206,545
Veterans Land Board	66,085
Total	272,630
Revenue Bonds	
Texas Department of Housing and Community Affairs	85,019
Revenue Bonds - Direct Placements	
Texas Department of Housing and Community Affairs	64,237
Business-Type Activities Total	$ 421,886

Refunding Issues

Table 6K

(Amounts in Thousands)

	Types of Refunding	Par Value of Refunding Issue*	Par Value Refunded	Cash Flow Difference Increase (Decrease)	Economic Gain (Loss)
GOVERNMENTAL ACTIVITIES					
General Obligation Bonds					
Texas Public Finance Authority	Advanced Refunding	$ 164,510	$ 181,780	$ 11,778	$ 8,440
Texas Higher Education Coordinating Board	Current Refunding	140,880	165,985	3,528	28,541
Texas Water Development Board	Current Refunding	129,345	133,425	19,006	13,973
Governmental Activities Total		434,735	481,190	34,312	50,954
BUSINESS-TYPE ACTIVITIES					
General Obligation Bonds					
Texas Water Development Board	Current Refunding	71,455	76,165	9,466	8,128
Revenue Bonds					
Texas A&M University System	Advanced Refunding	260,870	230,525	34,251	24,055
Texas Woman's University	Advanced Refunding	7,885	8,955	1,123	1,024
University of Texas System	Current Refunding	320,435	386,785	94,198	67,897
Business-Type Activities Total		660,645	702,430	139,038	101,104
Total		$ 1,095,380	$ 1,183,620	$ 173,350	$ 152,058

* Other funds totaling approximately $21.2 million were used to refund/defease additional bonds.

Refunding

Table 6K summarizes bonds refunded during fiscal 2019 to lower interest rates or to restructure debt service requirements for cash management purposes.

Defeased Bonds

Texas defeases various bond issues by placing funds in irrevocable trusts with external financial institutions to provide for all future debt service payments on the old bonds. As of Aug. 31, 2019, the amounts of defeased bonds, at par, that remain outstanding for all bond issuers are presented in table 6L. Also included are various bond issues defeased by placing funds in irrevocable trusts in the Texas Treasury Safekeeping Trust Company (Trust Company). Funds placed in the Trust Company to defease $343.5 million in bonds are included in the state's financial statements in an agency fund. The trust account assets and the liability for all other defeased bonds are not included in the state's financial statements. GASB Statement No. 86, *Certain Debt Extinguishment Issues*, establishes standards of accounting and financial reporting for in-substance defeasance transactions in which cash and other monetary assets acquired with only existing resources are placed in an irrevocable trust for the purpose of extinguishing debt. Cash defeasance undertaken for cost considerations are presented in table 6M.

Defeased Bonds Outstanding

Table 6L

(Amounts in Thousands)

GOVERNMENTAL ACTIVITIES	
General Obligation Bonds	
Texas Public Finance Authority	$ 343,485
Texas Water Development Board	10,425
Governmental Activities Total	353,910
BUSINESS-TYPE ACTIVITIES	
General Obligation Bonds	
Veterans Land Board	15,500
Revenue Bonds	
Midwestern State University	47,410
Texas A&M University System	996,230
Texas Department of Transportation	52,062
University of Houston System	322,705
University of North Texas System	3,535
University of Texas System	317,395
Revenue Bonds - Direct Placements	
Texas Department of Housing and Community Affairs	44,438
Business-Type Activities Total	1,799,275
Total	$ 2,153,185

Cash Defeasance

Table 6M

(Amounts in Thousands)

	Number of Cash Defeasance	Cash Defeasance	Placed with Escrow Agent	Cash Flows Required to Service Defeased Debt
GOVERNMENTAL ACTIVITIES				
General Obligation Bonds				
Texas Water Development Board	2	$ 10,425	$ 11,286	$ 11,678
BUSINESS-TYPE ACTIVITIES				
Revenue Bonds - Direct Placements				
Texas Department of Housing and Community Affairs	4	44,987	47,671	52,321
Total	6	$ 55,412	$ 58,957	$ 63,999

Conduit Debt

The Texas State Affordable Housing Corporation (TSAHC), a discrete component unit of the state, is authorized to issue statewide 501(c)(3) tax-exempt multifamily mortgage revenue bonds and revenue bonds - direct placements under Texas Government Code, Section 2306.555. The 501(c)(3) tax-exempt multifamily mortgage revenue bond program provides long-term variable-rate or fixed-rate financing to nonprofit borrowers/developers of new or existing multifamily rental properties in order to generate and/or preserve affordable rental housing. TSAHC may finance single developments or pools of properties located throughout the state of Texas. Borrowers must agree to set aside a prescribed percentage of a property's units for rent to persons and families of low income. TSAHC finances properties under the program primarily through the sale of tax-exempt multifamily housing revenue bonds.

The bonds are secured by the property financed and are payable solely from payments received on the underlying mortgage loans. TSAHC, the state and any political subdivision thereof are not obligated in any manner for repayment of the bonds. Accordingly, the bonds are not reported as liabilities in the accompanying statements.

As of Aug. 31, 2019, there were 14 series of multifamily housing revenue bonds and revenue bonds - direct placements outstanding with an aggregate $212 million principal amount payable.

The Texas Private Activity Bond Surface Transportation Corporation (TxPABST), a blended component unit of the state, issued five series of bonds in the aggregate amount of $2.3 billion that remains outstanding as of Aug. 31, 2019. The proceeds were loaned to LBJ Infrastructure Group LLC, NTE Mobility Partners LLC, NTE Mobility Partners Segments 3 LLC and Blueridge Transportation Group, LLC to finance the development and expansion of public transportation projects. Debt service is funded from loan and interest repayments from the borrowers. The bonds do not constitute a debt or pledge of the faith and credit of TxPABST, TxDOT or the state of Texas.

Remaining bond authority has expired.

Conduit bond debt for the TDHCA (multifamily housing bonds) predates the implementation of note disclosure requirements and is reported in the financial statements.

Pay-Variable, Receive-Variable Interest Rate Swaps: Estimated Debt Service Requirements of Variable-Rate Debt Outstanding and Net Swap Payments

Table 6O

(Amounts in Thousands)

Year	Variable-Rate Bonds Principal	Variable-Rate Bonds Interest	Interest Rate Swaps, Net	Total
2020	$ 1,365	$ 690	$ (258)	$ 1,797
2021	1,445	652	(244)	1,853
2022	1,535	611	(229)	1,917
2023	1,635	568	(213)	1,990
2024	1,735	522	(195)	2,062
2025-2029	10,435	1,812	(679)	11,568
2030-2034	7,810	362	(136)	8,036
Total	$ 25,960	$ 5,217	$ (1,954)	$ 29,223

Interest Rate Swaps

Effective interest rate swap agreements are considered hedging derivatives. The aggregate debt service requirements and associated net swap payments are detailed in this note. See Note 7 for additional information on derivatives.

Estimated Debt Service of Swap Payments

Using rates as of Aug. 31, 2019, the debt service requirements of the state's variable-rate, fixed-rate bonds and associated net swap payments were estimated and are presented in tables 6N and 6O.

The tables were prepared assuming current interest rates and swap index relationships remain the same for their terms. As rates and index relationships vary in the future, so will the resulting actual interest payments and net swap payments.

Pay-Fixed, Receive-Variable Interest Rate Swaps: Estimated Debt Service Requirements of Variable-Rate Debt Outstanding and Net Swap Payments

Table 6N

(Amounts in Thousands)

Year	Variable-Rate Bonds Principal	Variable-Rate Bonds Interest	Interest Rate Swaps, Net	Total
2020	$ 210,540	$ 62,159	$ 54,598	$ 327,297
2021	218,630	60,004	51,667	330,301
2022	237,460	56,219	48,601	342,280
2023	226,745	52,343	45,265	324,353
2024	219,550	48,629	41,957	310,136
2025-2029	1,006,205	190,813	159,877	1,356,895
2030-2034	823,640	118,866	87,915	1,030,421
2035-2039	671,325	65,000	29,810	766,135
2040-2044	169,840	33,910	(54)	203,696
2045-2049	283,555	5,735	(423)	288,867
2050-2054	735	5	1	741
Total	$ 4,068,225	$ 693,683	$ 519,214	$ 5,281,122

Note 7

Derivative Instruments

Derivatives are financial instruments whose values are derived, in whole or part, from the value of any one or more underlying assets or index of asset values. Derivatives include swap contracts, futures contracts, options, options on futures contracts, forward contracts, rights and warrants.

Hedging derivatives are entered into to reduce the overall cost of borrowing long-term capital and protect against the risk of rising interest rates. The hedging derivatives primarily consist of interest rate swap agreements entered into in connection with long-term bonds. The derivative contracts enable the state to issue bonds at a cost less than what the state would have paid to issue conventional fixed rate debt.

Investment derivatives are entered into with the intention of managing transaction risk, reducing interest cost, or reducing currency exchange risk in purchasing, selling or holding investments. Ineffective hedges are also reported as investment derivatives.

Summary of Derivative Activity

The fair value of effective hedging derivatives is recorded as derivative instrument assets (positive fair value) and derivative instrument liabilities (negative fair value). The cumulative change in fair value of effective hedging derivatives is reported as deferred outflows of resources and deferred inflows of resources. The type of derivative instruments held by entity is shown in table 7A. The state's cumulative derivative activity as of Aug. 31, 2019, is summarized in table 7B. The notional amounts are presented in U.S. dollar equivalents.

Derivative Instruments by Entity and Type
Table 7A

Entity/Type of Derivative Instruments
Veterans Land Board (VLB) Hedging and investment derivatives
Texas Department of Housing and Community Affairs (TDHCA) Hedging derivatives
University of Texas System (UT) Hedging and investment derivatives
Texas A&M University System (A&M) Investment derivatives
Permanent School Fund (PSF) * Investment derivatives
Teacher Retirement System of Texas (TRS) Investment derivatives
Comptroller - Fiscal (CPA) Investment derivatives
Comptroller Treasury - Fiscal (TREAS) Investment derivatives
Office of Consumer Credit Commission (OCCC) Investment derivatives
Texas Historical Commission (THC) Investment derivatives
Texas Department of Agriculture (TDA) Investment derivatives
Texas Tech University System (TTU) Investment derivatives
Texas Woman's University (TWU) ** Investment derivatives
Midwestern State University (MSU) ** Investment derivatives
Stephen F. Austin State University (SFA) ** Investment derivatives

* The permanent school fund is jointly managed by the Texas Education Agency and the Texas General Land Office, but issues a separately audited stand-alone annual financial report.

** Stephen F. Austin, Midwestern State University, and Texas Woman's University invest funds in Texas A&M University System's investment pool which includes investment derivatives in the form of forward currency exchange contracts.

Summary of Derivative Activity

Table 7B

(Amounts in Thousands)

	Change in Fair Value	Fair Value	Notional Amount
GOVERNMENTAL ACTIVITIES			
Investment Derivatives			
Futures	$ (16,208)	$	$ 261,759
Total Return Swaps	5,042	2,337	184,862
BUSINESS-TYPE ACTIVITIES			
Cash Flow Hedges			
Pay-Fixed Receive-Variable Interest Rate Swaps	$ (384,523)	$ (606,848) *	$ 4,317,045
Investment Derivatives			
Pay-Fixed Receive-Variable Interest Rate Swaps	$ (31,758)	$ 44,223	$ 4,092,013
Pay-Variable Receive-Fixed Interest Rate Swaps	(16,137)	(14,513)	928,498
Basis Swaps	30	(97)	25,960
Commodity Swaps	(208)	(208)	4,074
Credit Default Swaps	2,580	1,869	279,675
Currency Swaps	(432)	(432)	50,089
Equity Swaps	(10,317)	(8,397)	985,297
Fixed Income Swaps	(1,339)	(1,339)	15,000
Foreign Currency Forward	14,543	14,543	5,972,312
Futures	(9,028)		2,385,088
Options	(13,057)	5,205	633,544
Volatility Swaps	(778)	(898)	9,700
Total Return Swaps	(5,054)		(2,860)
FIDUCIARY ACTIVITIES			
Investment Derivatives			
Credit Default Swaps	$ (5,048)	$ 24,932	$ 727,097
Forwards Contracts	174,588	38,001	(2,922,795)
Futures	400,342		9,906,996
Options	(29,433)	(14,557)	(23,652)
Interest Rate Swaps	219	(1,773)	(25,508)
Rights	(32)	13	13
Total Return Swaps	(40,081)	(5,254)	669,269
Warrants	(846)	871	3,857
DISCRETE COMPONENT UNITS			
Investment Derivatives			
Futures	$ (1,066)	$	$ 28,026
Options	(1,118)	(104)	6,856
Total Return Swaps	(624)		(353)

* The $606,848 fair value for cash flow hedges is reported as a hedging derivative liability.

Fair Value Measurement

Derivative instruments are recorded at fair value. The fair values of the interest rate swaps were determined using a combination of methods.

The University of Texas System (UT) has calculated the fair value of the interest rate swaps using a forecast of expected discounted future net cash flows. UT continued to use the zero-coupon method in determining the fair values of their effective interest rate swaps, but also considered the nonperformance risk of the parties, as required by GASB Statement No. 72, *Fair Value Measurement and Application*. All UT's interest rate swaps are classified in Level 2 of the fair value hierarchy. Other swaps are fair valued by using independent broker quotes or using models with primarily externally verifiable model inputs and are also classified as Level 2.

The Veteran Land Board's (VLB) fair value measurements of its swap transactions were calculated by an independent third-party swap advisory consultant using the Income Approach, as described in GASB Statement No. 72. Using observable inputs from interest rate markets and credit default swap prices, the fair value measurements are determined based upon the present value of future implied cash flows. Since the inputs to these fair value measurements are observable from market data sources, they constitute Level 2 measurements, as described in GASB Statement No. 72.

Several of VLB's effective interest rate swaps contain a provision for the state to be "knocked out" of the swaps by the respective counterparties upon the breach of certain predetermined barriers. In each of these cases, VLB was paid an up-front option premium by the respective counterparties. With regard to the swap associated with Vet Land Tax Ref Bonds Series 2000 (now a part of state of Texas Veterans Bonds, Taxable Refunding Series 2014B-3 attributable to bond refunding), the knock-out is permanent once the option is taken at the discretion of the counterparty. In the remainder of the swaps with knock-out provisions, the knock-out is mandatory and is periodic in nature, with the knock-out period corresponding only to the period during which the respective barrier is breached. The knock-out provisions are an integral part of the associated swaps and the fair values of the swaps include the effects of the knock-outs.

Texas Department of Housing and Community Affairs (TDHCA) adopted the Income Approach from GASB Statement No. 72 in the fair value measurement of their derivative instruments. Using observable inputs of interest rate markets and municipal bond yields, the fair value measurement is based on the present value of future implied cash flows reflective of nonperformance risk. All TDHCA's derivative instruments are classified in Level 2 of the fair value hierarchy.

Hedging Derivatives

The state entered into interest rate swap agreements with various counterparties, all of which are highly rated financial institutions, to manage various risks associated with the state's debt programs. Each of the state's interest rate swaps is a contractual agreement entered into between the state and a counterparty under which each party agrees to exchange periodic fixed or variable payments, based upon a stated notional amount, over the stated life of the agreement. The net differential paid or received is recognized over the life of the agreement as an adjustment to interest expense. Interest rate swaps determined to be hedging derivatives are designated as cash flow hedges. In fiscal 2019 all cash flow hedges were pay-fixed interest rate swaps. The combination of these swaps and variable-rate bonds creates synthetic fixed-rate debt. The use of synthetic fixed-rate debt has historically lowered the state's borrowing costs, as compared to the borrowing costs associated with the issuance of traditional fixed-rate bonds.

Significant Terms and Credit Ratings

The significant terms and credit ratings of the state's hedging derivatives as of Aug. 31, 2019, are presented in table 7C. The variable rates are quoted in terms of a percentage of the London Interbank Offered Rate (LIBOR) or Securities Industry and Financial Markets Association (SIFMA) municipal swap or United States Federal Funds (USDFP) index rates as noted. Standard & Poor's and Moody's Investors Service credit ratings are disclosed for each swap.

Hedging Interest Rate Swaps: Significant Terms and Credit Ratings

Table 7C
(Amounts in Thousands)

Associated Bond Issue	Notional Amount	Effective Date	Maturity Date	Term
VETERANS LAND BOARD – PAY-FIXED, RECEIVE-VARIABLE INTEREST RATE SWAPS				
Vet Land Ref Bds Ser '99A	$	06/01/1999	12/01/2018	Pay 5.112%; receive 68% of 6M LIBOR
Vet Hsg Fund II Bds Ser 2001A-2	20,000	03/22/2001	12/01/2029	Pay 4.259%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2001C-2	23,465	12/18/2001	12/01/2033	Pay 4.365%; receive 68% of 1M LIBOR
Vet Land Bds Ser 2002	12,580	02/21/2002	12/01/2032	Pay 4.14%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2002A-2	23,045	07/10/2002	06/01/2033	Pay 3.8725%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2003A	19,650	03/04/2003	06/01/2034	Pay 3.304%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2003B	20,835	10/22/2003	06/01/2034	Pay 3.403%; receive 64.5% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2004B	23,195	09/15/2004	12/01/2034	Pay 3.68%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2005A	22,835	02/24/2005	06/01/2035	Pay 3.279%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2006A	25,545	06/01/2006	12/01/2036	Pay 3.517%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2006D	26,785	09/20/2006	12/01/2036	Pay 3.689%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2007A	27,135	02/22/2007	06/01/2037	Pay 3.645%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2007B	28,340	06/26/2007	06/01/2038	Pay 3.712%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2008A	28,580	03/26/2008	12/01/2038	Pay 3.189%; receive 68% of 1M LIBOR
Vet Hsg Fund II Bds Ser 2008B	29,675	09/11/2008	12/01/2038	Pay 3.225%; receive 68% of 1M LIBOR
Vet Bds Ser 2010C	52,010	08/20/2010	12/01/2040	Pay 2.3095%; receive 68% of 3M LIBOR
Vet Bds Ser 2011A	51,610	03/09/2011	06/01/2041	Pay 2.675%; receive 68% of 3M LIBOR
Vet Bds Ser 2011B	52,655	08/25/2011	12/01/2041	Pay 2.367%; receive 68% of 3M LIBOR
Vet Bds Ser 2011C	53,630	12/15/2011	06/01/2042	Pay 1.917%; receive 68% of 3M LIBOR
Vet Bds Ser 2012A	53,420	05/23/2012	12/01/2042	Pay 1.692%; receive 68% of 3M LIBOR
Vet Bds Ser 2012B	70,400	11/01/2012	12/01/2042	Pay 1.447%; receive 68% of 3M LIBOR
Vet Bds Ser 2013A	75,810	03/20/2013	06/01/2043	Pay 1.7%; receive 68% of 3M LIBOR
Vet Bds Ser 2013B	114,935	08/22/2013	12/01/2043	Pay 2.145%; receive 68% of 1M LIBOR
Vet Hsg Fund II Tax Ref Bds Ser 2013C	27,925	12/01/2006	12/01/2026	Pay 5.461%; receive 100% of 1M LIBOR
Vet Hsg Fund II Tax Ref Bds Ser 2013C	24,360	12/01/2007	06/01/2029	Pay 4.658%; receive 100% of 1M LIBOR
Vet Hsg Fund II Tax Ref Bds Ser 2013C	5,015	12/01/2009	12/01/2021	Pay 6.22%; receive 100% of 6M LIBOR
Vet Hsg Fund II Tax Ref Bds Ser 2013C	48,400	12/01/2009	06/01/2031	Pay 5.4525%; receive 100% of 6M LIBOR
Vet Bds Ser 2014A	119,005	03/03/2014	06/01/2044	Pay 2.179%; receive 68% of 1M LIBOR
Vet Hsg Fund I Tax Ref Bds Ser 2014B-1	11,400	12/01/2003	06/01/2021	Pay 5.19%; receive 100% of 6M LIBOR
Vet Hsg Fund I Tax Ref Bds Ser 2014B-1	11,170	06/01/2004	12/01/2024	Pay 5.45%; receive 100% of 6M LIBOR
Vet Hsg Fund II Tax Ref Bds Ser 2014B-1 & B-2	4,630	12/01/2004	06/01/2020	Pay 5.348%; receive 100% of 1M LIBOR
Vet Hsg Fund I Tax Ref Bds Ser 2014B-1	7,400	12/01/2005	12/01/2023	Pay 4.929%; receive 100% of 1M LIBOR
Vet Hsg Fund I/II Tax Ref Bds Ser 2014B-1 & C-2	14,720	12/01/2005	06/01/2026	Pay 5.145%; receive 100% of 1M LIBOR
Vet Land Tax Ref Bds Ser 2014B-3	10,340	12/01/2000	12/01/2020	Pay 6.106%; receive 100% of 6M LIBOR
Vet Land Tax Ref Bds Ser 2014B-3	13,220	12/01/2005	12/01/2026	Pay 6.517%; receive 100% of 6M LIBOR
Vet Hsg Fund I Tax Ref Bds Ser 2014C-1	9,120	12/01/2002	06/01/2023	Pay 4.91%; receive 100% of 6M LIBOR
Vet Hsg Fund I Tax Ref Bds Ser 2014C-1	18,000	08/01/2012	12/01/2033	Pay 3.76%; receive 68% of 1M LIBOR
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	27,010	06/01/2006	12/01/2026	Pay 5.83%; receive 100% of 1M LIBOR
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	12,935	06/01/2006	12/01/2027	Pay 5.79%; receive 100% of 6M LIBOR
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	51,215	06/01/2010	12/01/2031	Pay 5.401%; receive 100% of 1M LIBOR

* PUF stands for permanent university fund and RFS stands for revenue financing system.

Continued on the following page

Hedging Interest Rate Swaps:
Significant Terms and Credit Ratings (continued)

Table 7C

(Amounts in Thousands)

Associated Bond Issue	Knock-Out Barrier	Up Front Premium Received	Counterparty Credit Ratings
VETERANS LAND BOARD – PAY-FIXED, RECEIVE-VARIABLE INTEREST RATE SWAPS			
Vet Land Ref Bds Ser '99A	N/A	$	BBB+ / Baa1
Vet Hsg Fund II Bds Ser 2001A-2	N/A		BBB+ / A3
Vet Hsg Fund II Bds Ser 2001C-2	N/A		AA- / Aa2
Vet Land Bds Ser 2002	N/A		BBB+ / A3
Vet Hsg Fund II Bds Ser 2002A-2	N/A		A+ / Aa2
Vet Hsg Fund II Bds Ser 2003A	N/A		A+ / Aa2
Vet Hsg Fund II Bds Ser 2003B	N/A		AA- / Aa2
Vet Hsg Fund II Bds Ser 2004B	N/A		A+ / Aa2
Vet Hsg Fund II Bds Ser 2005A	N/A		AA- / Aa2
Vet Hsg Fund II Bds Ser 2006A	N/A		AA / Aa3
Vet Hsg Fund II Bds Ser 2006D	N/A		A+ / Aa3
Vet Hsg Fund II Bds Ser 2007A	N/A		AA- / Aa2
Vet Hsg Fund II Bds Ser 2007B	N/A		A+ / Aa2
Vet Hsg Fund II Bds Ser 2008A	N/A		AA / Aa3
Vet Hsg Fund II Bds Ser 2008B	N/A		AA- / Aa2
Vet Bds Ser 2010C	N/A		BBB+ / A3
Vet Bds Ser 2011A	N/A		BBB+ / A3
Vet Bds Ser 2011B	N/A		BBB+ / A3
Vet Bds Ser 2011C	N/A		AA- / Aa2
Vet Bds Ser 2012A	N/A		AA- / Aa2
Vet Bds Ser 2012B	N/A		AA- / Aa2
Vet Bds Ser 2013A	N/A		AA- / Aa2
Vet Bds Ser 2013B	N/A		AA- / Aa2
Vet Hsg Fund II Tax Ref Bds Ser 2013C	1M LIBOR >= 7.00%;	2,652	A+ / Aa2
	6M LIBOR > 4.00% and SIFMA/LIBOR Ratio > 74%	1,018	
Vet Hsg Fund II Tax Ref Bds Ser 2013C	1M LIBOR >= 7.00%;	935	A+ / Aa2
	SIFMA/5Y ISDA CMS > 71%	1,020	
Vet Hsg Fund II Tax Ref Bds Ser 2013C	6M LIBOR >= 7.00%	612	A+ / Aa2
Vet Hsg Fund II Tax Ref Bds Ser 2013C	6M LIBOR >= 7.00%	2,740	A+ / Aa2
Vet Bds Ser 2014A	N/A		A+ / Aa2
Vet Hsg Fund I Tax Ref Bds Ser 2014B-1	6M LIBOR > 7.00%	4,470	AA- / Aa2
Vet Hsg Fund I Tax Ref Bds Ser 2014B-1	6M LIBOR >= 7.00%	1,442	A+ / Aa2
Vet Hsg Fund II Tax Ref Bds Ser 2014B-1 & B-2	1M LIBOR >= 7.00%	2,594	A+ / Aa2
Vet Hsg Fund I Tax Ref Bds Ser 2014B-1	1M LIBOR >= 7.00%;	484	A+ / Aa2
	6M LIBOR > 4.00% and SIFMA/LIBOR Ratio > 74%	267	
Vet Hsg Fund I/II Tax Ref Bds Ser 2014B-1 & C-2	1M LIBOR >= 7.00%;	1,367	A+ / Aa2
	6M LIBOR > 4.00% and SIFMA/LIBOR Ratio > 74%	567	
Vet Land Tax Ref Bds Ser 2014B-3	1M LIBOR >= 7.00%	2,700	AA- / Aa2
Vet Land Tax Ref Bds Ser 2014B-3	6M LIBOR >= 7.00%	1,542	A+ / Aa2
Vet Hsg Fund I Tax Ref Bds Ser 2014C-1	6M LIBOR > 7.00%	2,165	AA- / Aa2
Vet Hsg Fund I Tax Ref Bds Ser 2014C-1	1M LIBOR >= 7.00%	579	AA / Aa3
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	1M LIBOR >= 7.00%	1,992	A+ / Aa2
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	6M LIBOR >= 7.00%	1,493	A+ / Aa2
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	1M LIBOR >= 7.00%;	2,355	A+ / Aa2
	6M LIBOR > 4.00% and SIFMA/LIBOR Ratio > 74%	1,427	

* PUF stands for permanent university fund and RFS stands for revenue financing system.

Continued on the following page

Hedging Interest Rate Swaps: Significant Terms and Credit Ratings (continued)

Table 7C

(Amounts in Thousands)

Associated Bond Issue	Notional Amount	Effective Date	Maturity Date	Term
VETERANS LAND BOARD – PAY-FIXED, RECEIVE-VARIABLE INTEREST RATE SWAPS (concluded)				
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	$ 23,325	12/01/2010	06/01/2032	Pay 2.79%; receive 100% of 1M LIBOR
Vet Land Tax Ref Bds Ser 2014C-3	17,705	06/01/2006	12/01/2027	Pay 6.54%; receive 100% of 6M LIBOR
Vet Land Tax Ref Bds Ser 2014C-3	12,005	12/01/2010	12/01/2030	Pay 5.209%; receive 100% of 1M LIBOR
Vet Land Tax Ref Bds Ser 2014C-4	13,830	12/01/2002	12/01/2021	Pay 4.935%; receive 100% of 6M LIBOR
Vet Land Tax Ref Bds Ser 2014C-4	10,195	12/01/2003	12/01/2023	Pay 5.123%; receive 100% of 1M LIBOR
Vet Land Tax Ref Bds Ser 2014C-4	12,410	12/01/2004	12/01/2024	Pay 5.455%; receive 100% of 6M LIBOR
Vet Land Tax Ref Bds Ser 2014C-4	14,010	06/01/2006	12/01/2026	Pay 4.61%; receive 100% of 6M LIBOR
Vet Land Tax Ref Bds Ser 2014C-4	23,435	12/01/2006	12/01/2027	Pay 6.513%; receive 100% of 1M LIBOR
Vet Bds Ser 2014D	81,005	09/10/2014	06/01/2045	Pay 1.9395%; receive 68% of 1M LIBOR
Vet Bds Ser 2015A	102,185	02/11/2015	06/01/2045	Pay 1.51%; receive 68% of 1M LIBOR
Vet Bds Ser 2015B	107,595	07/22/2015	06/01/2046	Pay 1.771%; receive 68% of 1M LIBOR
Vet Bds Ser 2016	206,560	12/01/2016	12/01/2046	Pay 1.564%; receive 68% of 1M LIBOR
Vet Bds Ser 2017	226,500	08/01/2017	12/01/2047	Pay 1.175%; receive 68% of 1M LIBOR + 0.085%
Vet Bds Ser 2018	247,535	04/01/2019	12/01/2049	Pay 2.0745%; receive 72% of 1M LIBOR
Vet Bds Ser 2019	249,275	12/01/2019	06/01/2050	Pay 1.851%; receive 65% of USD Fed Funds + 0.24%
TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS – PAY-FIXED, RECEIVE-VARIABLE INTEREST RATE SWAPS				
2004B Single Family	18,730	03/01/2014	09/01/2034	Pay 3.67%; receive 65.5% of LIBOR + .20%
2004D Single Family	13,290	01/01/2005	03/01/2035	Pay 3.08%; receive Lesser of (the greater of (a) 65% of LIBOR and (b) 56% of LIBOR + .45%) and LIBOR
2005A Single Family	19,095	08/01/2005	09/01/2036	Pay 4.01%; receive Lesser of (the greater of (a) 65% of LIBOR and (b) 56% of LIBOR + .45%) and LIBOR
2007A Single Family	20,155	06/05/2007	09/01/2038	Pay 4.01%; receive Lesser of (the greater of (a) 65% of LIBOR and (b) 56% of LIBOR + .45%) and LIBOR
UNIVERSITY OF TEXAS SYSTEM – PAY-FIXED, RECEIVE-VARIABLE INTEREST RATE SWAPS*				
RFS Bonds 2007B	163,170	12/20/2007	08/01/2034	Pay 3.805%; receive SIFMA
RFS Bonds 2007B	163,170	12/20/2007	08/01/2034	Pay 3.805%; receive SIFMA
PUF Bonds 2008A	179,180	11/03/2008	07/01/2038	Pay 3.696%; receive SIFMA
PUF Bonds 2008A	179,180	11/03/2008	07/01/2038	Pay 3.6575%; receive SIFMA
RFS Bonds 2008B	115,645	03/18/2008	08/01/2036	Pay 3.9%; receive SIFMA
RFS Bonds 2008B	115,645	03/18/2008	08/01/2036	Pay 3.9%; receive SIFMA
RFS Bonds 2008B	238,370	03/18/2008	08/01/2039	Pay 3.614%; receive SIFMA
RFS Bonds 2016G	250,000	12/01/2016	08/01/2045	Pay 2.000%; receive 100% of 1M LIBOR
RFS Bonds 2020A	250,000	11/01/2020	08/01/2049	Pay 1.576%; receive 100% of 1M LIBOR

* PUF stands for permanent university fund and RFS stands for revenue financing system.

Concluded on the following page

Hedging Interest Rate Swaps: Significant Terms and Credit Ratings (concluded)

Table 7C

(Amounts in Thousands)

Associated Bond Issue	Knock-Out Barrier	Up Front Premium Received	Counterparty Credit Ratings
VETERANS LAND BOARD – PAY-FIXED, RECEIVE-VARIABLE INTEREST RATE SWAPS (concluded)			
Vet Hsg Fund II Tax Ref Bds Ser 2014C-2	N/A		AA- / Aa2
Vet Land Tax Ref Bds Ser 2014C-3	6M LIBOR >= 7.00%	$ 1,931	A+ / Aa2
Vet Land Tax Ref Bds Ser 2014C-3	1M LIBOR >= 7.00%;	$ 466	A+ / Aa2
	6M LIBOR > 4.00% and SIFMA/LIBOR Ratio > 74%	$ 208	
Vet Land Tax Ref Bds Ser 2014C-4	6M LIBOR >= 7.00%	$ 2,785	BBB+ / A3
Vet Land Tax Ref Bds Ser 2014C-4	1M LIBOR >= 7.00%	$ 1,896	A+ / Aa2
Vet Land Tax Ref Bds Ser 2014C-4	6M LIBOR >= 7.00%	$ 2,075	BBB+ / A3
Vet Land Tax Ref Bds Ser 2014C-4	6M LIBOR >= 7.00%	$ 886	AA- / Aa2
Vet Land Tax Ref Bds Ser 2014C-4	1M LIBOR >= 7.00%	$ 2,725	A+ / Aa2
Vet Bds Ser 2014D	N/A		AA- / Aa2
Vet Bds Ser 2015A	N/A		BBB+ / A3
Vet Bds Ser 2015B	N/A		A+ / Aa2
Vet Bds Ser 2016	N/A		A+ / Aa2
Vet Bds Ser 2017	N/A		A+ / Aa3
Vet Bds Ser 2018	N/A		AA- / Aa2
Vet Bds Ser 2019	N/A		A+ / Aa3
TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS – PAY-FIXED, RECEIVE-VARIABLE INTEREST RATE SWAPS			
2004B Single Family	N/A		AA- (Stable) / Aa2 (Stable)
2004D Single Family	N/A		A+ (Stable) / A1 (Stable)
2005A Single Family	N/A		A+ (Stable) / Aa2 (Stable)
2007A Single Family	N/A		A+ (Stable) / Aa2 (Stable)
UNIVERSITY OF TEXAS SYSTEM – PAY-FIXED, RECEIVE-VARIABLE INTEREST RATE SWAPS*			
RFS Bonds 2007B	N/A		Aa2 / A+
RFS Bonds 2007B	N/A		Aa2 / A+
PUF Bonds 2008A	N/A		Aa2 / A+
PUF Bonds 2008A	N/A		Aa3 / A+
RFS Bonds 2008B	N/A		Aa2 / A+
RFS Bonds 2008B	N/A		A3 / BBB+
RFS Bonds 2008B	N/A		Aa2 / A+
RFS Bonds 2016G	N/A		Aa3 / A+
RFS Bonds 2020A	N/A		Aa3 / A+

* PUF stands for permanent university fund and RFS stands for revenue financing system.

Risks

Credit Risk: The state is exposed to credit risk if the counterparty to an interest rate swap fails to meet the terms and obligations of its contracts. The state mitigates the credit risk associated with its swaps by entering into transactions with a diversified group of highly-rated counterparties. The interest rate swap agreements also contain varying collateral agreements and insurance policies with the counterparties. Posted collateral may be held either by the state itself or by a quality third party custodian. Swap contracts with a negative fair value do not expose the state to credit risk. As of Aug. 31, 2019, the state was not exposed to credit risk because the swaps recorded in the positive position were offset by other swaps with negative fair values.

Interest Rate Risk: On the pay-fixed, receive-variable interest rate swaps, as LIBOR, SIFMA, or USDFF rates municipal swap index decrease, the state's net payment on the swap increases. For the related hedged variable-rate debt, as LIBOR, SIFMA, or USDFF rates municipal swap index decreases, the state's interest payments on the bonds decrease. The value of interest rate swap agreements with a longer weighted average maturity tend to be more sensitive to changing interest rates, and therefore, more volatile than those with shorter maturities.

Basis Risk: The state is exposed to basis risk to the extent that the interest payments on its variable-rate bonds do not match the variable-rate payments received on the associated swaps. The state mitigates this risk by matching the notional amount and amortization schedule of each swap to the principal amount and amortization schedule of each associated variable-rate bond issue and by selecting an index for the variable-rate leg of each swap that is reasonably expected to closely match the interest rate resets on the associated variable-rate bonds over the life of each bond issue. Additionally, tax-exempt interest rates can change without a corresponding change in taxable interest rates due to factors affecting the tax-exempt market that do not have a similar effect on the taxable market.

Termination Risk: Termination risk is the risk that the swap may be terminated prior to its scheduled maturity date as a result of certain specified events. The swap associated with the Vet Land Tax Ref Bonds Series 2000 (now a part of state of Texas Veterans Bonds, Taxable Refunding Series 2014B-3 attributable to bond refunding) provides the counterparty with the option to terminate the swap under certain conditions.

The state or the counterparties may terminate any of the swaps if the other party fails to perform under the terms of the respective swap agreements. If any of the swaps are terminated, the associated variable-rate bonds would no longer have a synthetic fixed-rate and the state would be subject to interest rate risk to the extent that the variable-rate bonds were not hedged with another swap or with variable-rate assets. At termination, if the fair value of the swap is negative, the state would owe the counterparty a termination payment equal to the swap's negative fair value; however, if the fair value of the swap is positive, the counterparty would owe the state a termination payment equal to the swap's positive fair value.

Several swap agreements include optional early termination provisions granting the state the right, but not an obligation, to terminate the interest rate swaps at par without a termination payment after an effective date or after the breach of certain counterparty credit ratings.

Rollover Risk: Rollover risk is the risk caused by a mismatch between the amortization of a derivative contract and the underlying hedged bonds. The maturity dates of the state's effective interest rate swaps were designed to extend to the maturity dates of the underlying bonds. However, in the case of the swap associated with the Vet Land Tax Ref Bonds Series 2000 (now a part of state of Texas Veterans Bonds, Taxable Refunding Series 2014B-3 attributable to bond refunding) the state will be subject to rollover risk if the counterparty exercises the option to terminate the swap contract.

Market-access Risk: Each swap associated with underlying variable-rate debt subject to tender at the option of the bondholder is subject to market-access risk. In the event the state is unable to remarket its variable-rate bonds, the state may choose to refund the variable-rate bonds with fixed-rate bonds and optionally terminate the related interest rate swap agreements. If an early termination event occurs, the state could be required to pay or to receive a substantial termination payment.

Swap Payments and Associated Debt

Aggregate debt service requirements of the state's variable-rate debt and net receipts/payments on associated hedging derivative instruments are disclosed in Note 6.

Contingent Features

Some of the state's derivative instruments include provisions that require the posting of collateral in the event that the contracting agency's credit rating falls below a specified level as issued by Standard & Poor's and Moody's Investor Service. If the contracting agency fails to post eligible collateral, the derivative instrument may be terminated by the counterparty. Note 15 discloses detail about derivatives with contingent features.

Investment Derivatives

Investment derivatives expose the state to certain investment related risks. Note 3 discloses detail about the state's investment derivatives.

Note 8

Leases

The state leases office buildings, computer and office equipment and other assets under a variety of agreements. Although lease terms vary, most leases are subject to biennial appropriation from the Legislature to continue the lease obligations.

Operating Leases

Operating lease payments are recorded as expenditures or expenses during the life of the lease. Rental expenditures or expenses related to operating leases for the year ended Aug. 31, 2019, are $468.9 million for the primary government, $2.6 million for discrete component units and $5.3 million for fiduciary funds. Table 8A presents minimum future rental obligations on noncancelable operating leases as of Aug. 31, 2019.

Noncancelable Operating Lease Obligations

Table 8A

August 31, 2019 (Amounts in Thousands)

	Minimum Future Lease Payments		
Year	Primary Government	Component Units	Fiduciary Funds
2020	$ 374,430	$ 2,242	$ 2,755
2021	319,094	1,944	1,984
2022	253,722	1,871	749
2023	190,213	533	382
2024	146,931	237	345
2025-2029	360,187	461	862
2030-2034	49,241		
2035-2039	40,505		
2040-2044	43,526		
2045-2049	38,631		
2050 and beyond	4,576		
Total	$ 1,821,056	$ 7,288	$ 7,077

Additionally, the permanent school fund (PSF), the University of Texas System (UT), the Texas A&M University System (A&M), the Texas Tech University System (TTU) and the University of North Texas System

(UNT) have leased buildings, equipment and land to outside parties under various operating leases. Table 8B presents estimated future lease rental income on noncancelable operating leases as of Aug. 31, 2019.

Noncancelable Operating Lease Rental Income

Table 8B

August 31, 2019 (Amounts in Thousands)

	Minimum Future Lease Rental Income		
Year	Primary Government	Component Units	Fiduciary Funds
2020	$ 50,180	$ 371	$ 41
2021	41,302	107	41
2022	37,659	14	46
2023	32,061		46
2024	28,235		46
2025 and beyond	784,257		265
Total	$ 973,694	$ 492	$ 485

The carrying value of PSF's leased assets is $225.9 million. The historical cost of PSF's leased buildings is $11 million and related accumulated depreciation is $1.8 million. The historical cost of PSF's leased land is $216.7 million. Depreciation is not recorded on most of PSF's assets because they are held for investment purposes in a permanent fund. Real estate investments are reappraised periodically and the carrying amounts are adjusted when permanent impairments occur. In fiscal 2019, PSF reported contingent rental revenues in the amount of $2.6 million.

As of Aug. 31, 2019, the carrying value of UT's leased assets is $195 million. The historical cost of UT's leased buildings is $253.9 million and related accumulated depreciation is $78.3 million. The historical cost of UT's leased land is $19.4 million. UT reported contingent rental revenues of $459 thousand.

As of Aug. 31, 2019, the carrying value of A&M's leased assets is $76 million. The historical cost of A&M's leased buildings is $143.2 million and related accumulated depreciation is $68 million. The historical cost of A&M's leased equipment is $15 thousand and related accumulated depreciation is $15 thousand. The historical cost of A&M's leased land is $876.4 thousand.

As of Aug. 31, 2019, the carrying value of Tech's leased assets is $37.6 million. The historical cost of Tech's leased buildings is $61.7 million and the related accumulated depreciation is $24.4 million. The historical cost of Tech's leased land is $294 thousand.

As of Aug. 31, 2019, the carrying value of UNT's leased assets is $32.5 million. The historical cost of UNT's leased buildings is $35.2 million and the related accumulated Depreciation is $6.7 million. The historical cost of UNT's leased infrastructure is $10.7 million and the related accumulated depreciation is $6.7 million.

Capital Leases

Leases that are purchases in substance are reported as capital lease obligations. The capital assets are recorded at the present value of the future minimum lease payments at the inception of the lease plus any cash paid or trade-in value received.

For governmental and business-type activities, the assets and liabilities are recorded in the government-wide financial statements.

GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, defines debt and establishes additional financial statement note disclosure requirements related to debt obligations of state agencies.

Texas State Technical College (TSTC) has entered into long-term leases for financing the purchase of certain capital assets. Such leases are classified as capital leases - direct borrowings for accounting purposes and are recorded at the present value of the future minimum lease payments at the inception of the lease. Financing leases are secured by the underlying assets being leased.

In fiscal 2018, Texas Tech University (TTU) entered into a direct borrowing agreement for a capital lease with TCF Equipment Finance (TCF) for turf maintenance equipment to be used at the Rawls Golf Course, which is collateralized by this equipment. In the event of default, TCF has the option to declare outstanding and future payments due immediately, assess related interest and payment collection costs and require the return of the equipment, and/or accelerate payments on or terminate any other agreements with TTU. TTU may only terminate early without liability for future payments upon the occurrence of a non-appropriation event and would surrender its right to the equipment and any related proceeds. This agreement was previously reported as a capital lease obligation in fiscal 2018.

A&M has various leases for the purchase of vehicles, software, and equipment where the A&M takes ownership at the end of the lease. These direct financing arrangements are reported as Notes from Direct Borrowings. The related assets are capitalized at the present value of future minimum payments.

The outstanding notes from direct borrowings related to equipment and software contain provisions where, in the event of default, all remaining payments may be declared immediately due or the lessor may repossess the assets.

The financing arrangements for capital improvements contain provisions that, in the event of default, the lessor has the right to take one or any combination of several options. These options include demand immediate payment for all remaining payments, retake possession of the equipment, require the A&M to sell the assets and remit proceeds to the lessor or terminate the escrow agreement and apply any proceeds to the rental payments.

Table 8C is a summary of the future minimum lease payments for capital leases.

Future Capital Lease Payments

Table 8C

August 31, 2019 (Amounts in Thousands)

	Primary Government						Discretely Presented Component Units		
	Governmental Activities			Business-Type Activities					
Year	Principal	Interest	Total Future Minimum Lease Payments	Principal	Interest	Total Future Minimum Lease Payments	Principal	Interest	Total Future Minimum Lease Payments
2020	$ 4,010	$ 7	$ 4,017	$ 7,720	$ 5,929	$ 13,649	$ 38	$ 2	$ 40
2021	3,981	7	3,987	7,776	6,283	14,059			
2022	3,949		3,949	7,794	6,045	13,839			
2023	4,503		4,503	9,268	5,726	14,994			
2024				9,697	5,335	15,032			
2025-2029				58,014	19,821	77,835			
2030-2034				62,272	5,730	68,002			
Total	$16,443	$ 14	$ 16,456	$ 162,541	$54,869	$ 217,410	$ 38	$ 2	$ 40

Future Capital Lease – Direct Borrowings/Placements Payments

Table 8C

August 31, 2019 (Amounts in Thousands)

	Primary Government		
	Business-Type Activities		
Year	Principal	Interest	Total Future Minimum Lease Payments
2020	$ 12,058	$ 3,648	$ 15,706
2021	10,579	3,246	13,825
2022	9,356	2,917	12,273
2023	7,708	2,605	10,313
2024	19,196	9,609	28,805
2025-2029	40,907	6,730	47,637
Total	$99,804	$28,755	$ 128,559

Table 8D presents an analysis of the property recorded under capital leases by asset category at Aug. 31, 2019.

Assets Under Capital Leases
Table 8D
August 31, 2019 (Amounts in Thousands)

	Primary Government				Discretely Presented Component Units	
	Governmental Activities		Business-Type Activities			
Type	Assets under Capital Lease	Accumulated Depreciation	Assets under Capital Lease	Accumulated Depreciation	Assets under Capital Lease	Accumulated Depreciation
Land	$	$	$ 11	$	$	$
Buildings			21,424	(6,270)		
Furniture and Equipment	35,373	(32,292)	11,363	(2,677)	241	(178)
Vehicles, Boats, Aircraft	83	(31)	2,311	(503)		
Computer Software	1,395	(209)	14,204	(6,901)		
Other Assets			148,943	(9,102)		
Total	$ 36,851	$(32,532)	$ 198,256	$(25,453)	$ 241	$ (178)

Note 9

Retirement Plans

Defined Benefit Pension Plans

The state of Texas has three retirement systems in its financial reporting entity - Employees Retirement System of Texas (ERS), Teacher Retirement System of Texas (TRS) and Texas Emergency Services Retirement System (TESRS). These three retirement systems administer the following six defined benefit pension plans:

- ERS - the Employees Retirement System of Texas Plan (ERS Plan), the Law Enforcement and Custodial Officer Supplemental Retirement Plan (LECOS Plan), the Judicial Retirement System of Texas Plan One (JRS1 Plan) and Judicial Retirement System of Texas Plan Two (JRS2 Plan);
- TRS - the Teacher Retirement System of Texas Plan (TRS Plan);and
- TESRS - the Texas Emergency Services Retirement System Plan (TESRS Plan).

ERS, LECOS, JRS2, TRS and TESRS Plans are administered through trust; JRS1 Plan is operated on a pay-as- you-go basis.

Pension Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended Aug. 31, 2019, the state recognized pension expense of $6.9 billion. Of this amount, $4.1 billion was incurred as an employer and $2.8 billion as a non-employer contributing entity. The reported deferred outflows of resources and deferred inflows of resources related to pensions are identified in Note 27.

Employees Retirement System of Texas (ERS)

The board of trustees of ERS is the administrator of the ERS, LECOS, JRS1 and JRS2 Plans that provide a standard monthly benefit in a life annuity at retirement and death and disability benefits for members. Each of these four plans is considered a single employer defined benefit plan under GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*. The benefit and contribution provisions of the ERS Plans are authorized by state law and may be amended by the Legislature.

Employees Retirement System of Texas Plan (ERS Plan)

In addition to the state of Texas, the ERS Plan includes employers that are component units of the state. ERS and the Texas Treasury Safekeeping Trust company, which are blended component units, and the State Bar of Texas, which is a discrete component unit, are also employers of the ERS Plan. Pension activity for the ERS Plan is reported in governmental activities in the state's basic financial statements. Additionally, due to immateriality, separate disclosure for the State Bar of Texas is not presented.

The ERS Plan covers members in employee and elected classes. Employee class includes employees and appointed officers of the agencies of the state of Texas except those who are included in the coverage of TRS, JRS1 and JRS2 Plans. Elected class includes elected state officials not included in the coverage of the JRS1 and JRS2 Plans, members of the Legislature and district and criminal district attorneys.

The monthly benefit may vary by membership class.

The monthly standard annuity of the employee class is determined by a statutory percentage of 2.3 percent of a member's average monthly compensation multiplied by number of years of service credit. The average monthly compensation of the employee class may vary depending on the hire date. For members hired on or before Aug. 31, 2009, the average monthly compensation is the average of the highest 36 months of compensation. For members hired on or after Sept. 1, 2009 and before Sept. 1, 2013, the average monthly compensation is the average of the highest 48 months of compensation. For members hired on or after Sept. 1, 2013, the average monthly compensation is the average of the highest 60 months of compensation.

The monthly standard annuity of the elected class equals the statutory percentage of 2.3 percent of the current state salary of a district judge multiplied by the number of years of service credit. Retirement benefits are automatically adjusted as state judicial salaries change.

ERS issues a stand-alone audited Comprehensive Annual Financial Report (CAFR). Information on vesting and tier requirements may be obtained from ERS' CAFR:

Employees Retirement System of Texas
200 E. 18th Street
Austin, Texas 78701

Law Enforcement and Custodial Officer Supplemental Retirement Plan (LECOS Plan)

The LECOS Plan provides a supplemental retirement benefit to some employees in the ERS employee class.

The LECOS Plan covers custodial officers who are certified in accordance with the statutory requirements as having a normal job assignment that requires frequent or infrequent regularly planned contact with inmates managed by hiring institutions. The plan also covers law enforcement officers who have been commissioned by the Commission on Law Enforcement Officer Standards and Education. The monthly benefit amount payable to LECOS Plan members is equal to the excess of total benefit over the regular benefit payable to the same members under the ERS Plan.

Total monthly standard annuity of the LECOS Plan members equals the statutory percentage of 2.3 percent from the ERS Plan plus an additional 0.5 percent from the LECOS Plan of the average monthly compensation multiplied by number of years of service credit. The average monthly compensation of the LECOS Plan members may vary depending on the hire date. For members hired on or before Aug. 31, 2009, the average monthly compensation is the average of the highest 36 months of compensation. For members hired on or after Sept. 1, 2009 and before Sept. 1, 2013, the average monthly compensation is the average of the highest 48 months of compensation. For members hired on or after Sept. 1, 2013, the average monthly compensation is the average of the highest 60 months of compensation. Information on vesting and tier requirements may be obtained from ERS' CAFR.

Judicial Retirement System of Texas Plan Two (JRS2 Plan)

The JRS2 Plan covers judges, justices and commissioners of the Supreme Court, the Court of Criminal Appeals, the Court of Appeals, District Courts and certain commissioners to a court who first became members after Aug. 31, 1985.

The monthly benefit for members of the JRS2 Plan is equal to 50 percent of the salary for the position from which the member retired and is increased by 10 percent of final compensation if in office within one year of benefit commencement. Information on vesting and tier requirements may be obtained from ERS' CAFR.

The membership data for the ERS, LECOS and JRS2 Plans as of the measurement date of Aug. 31, 2018 is presented in table 9A.

Employees Retirement System's Membership

Table 9A

	ERS Plan	LECOS Plan	JRS2 Plan
Retirees and Beneficiaries			
Currently Receiving Benefits	111,361	13,080	393
Terminated Employees Entitled to			
Benefits But Not Yet Receiving Them	119,736	19,842	153
Current Employees			
Vested and Non-Vested	141,535	37,167	561
Total Members	372,632	70,089	1,107

The contribution rates for the state and the members are based on a percentage of the monthly gross compensation for each member. The contribution requirements for the ERS, LECOS and JRS2 Plans for the measurement period of fiscal 2018 are presented in table 9B.

Required Contribution Rates

Table 9B

	Employer			Members		
Plan	Employee Class	Elected Class – Legislators	Elected Class – Other	Employee Class	Elected Class – Legislators	Elected Class – Other
ERS	10%	10%	10%	9.5%	9.5%	9.5%
LECOS*	1.6%**	N/A	N/A	0.5%	N/A	N/A
JRS2	15.663%	N/A	N/A	7.5%	N/A	N/A

* Amount contributed is supplemental to amount contributed for the employee class of the ERS Plan.

** The 1.6% consists of 0.5% of member payroll and a portion of court costs collected under Local Government Code, Section 133.102. The contribution from the court costs equals approximately 1.1% of payroll.

The state's contributions recognized by the ERS, LECOS and JRS2 Plans during the fiscal 2018 measurement period were $697.2 million, $26.1 million and $12.6 million respectively.

The total pension liability is determined by an annual actuarial valuation. The methods and assumptions applied, except discount rate, in the actuarial valuation were based on an experience study covering the five-year period from Sept. 1, 2011 through Aug. 31, 2016. Table 9C presents the actuarial methods and assumptions used to measure the total pension liability for the ERS, LECOS and JRS2 Plans as of the Aug. 31, 2018, measurement date.

Actuarial Methods and Assumptions

Table 9C

	ERS Plan	LECOS Plan	JRS2 Plan
Actuarial Valuation Date	August 31, 2018	August 31, 2018	August 31, 2018
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal
Amortization Method	Level Percent of Payroll, Open	Level Percent of Payroll, Open	Level Percent of Payroll, Open
Actuarial Assumptions:			
Discount Rate	5.69%	4.48%	7.5%
Investment Rate of Return	7.5%	7.5%	7.5%
Inflation	2.5%	2.5%	2.5%
Salary Increase	0% to 9.5%	4.5% to 9.5%	3%
Cost-of-living Adjustments	None - Employee 2.75% - Elected compounded annually on Sept. 1	None	None
Mortality	The mortality rates for service retirees and beneficiaries are based on the 2017 State Retirees of Texas Mortality Tables with generational mortality improvements projected from the year 2017, which is based on the most recent Ultimate MP scale as published by Retirement Plans Experience Committee of the Society of Actuaries. Rates for male law enforcement and custodial officers are set forward one year.		

Table 9D presents the single blended rate applied to measure the total pension liability, the long-term expected rate of return on pension plan investments and the 20-year municipal bond rate for the ERS, LECOS and JRS2 Plans.

Assumptions for Single Discount Rate

Table 9D

	ERS Plan	LECOS Plan	JRS2 Plan
Single discount rate	5.69%	4.48%	7.50%
Investment rate of return	7.50%	7.50%	7.50%
Municipal bond rate*	3.69%	3.69%	N/A **
Year fiduciary net position depleted	2049	2038	N/A **

* The source of the municipal bond rate is Fidelity Index's "20-Year Municipal GO AA Index" rate for Fixed Income Market Data/Yield Curve/Data municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds.

** The current contribution rates are expected to eliminate the unfunded actuarial accrued liability (UAAL) in 69 years based on current benefit provisions and actuarial assumptions. Therefore, the municipal bond rate and depletion year do not apply to JRS2.

The fiduciary net position for the ERS and LECOS Plans is projected to be depleted in fiscal 2049 and 2038 respectively. As a result, the long-term expected investment rate of return was applied to projected benefit payments through fiscal 2048 for the ERS Plan and fiscal 2037 for the LECOS Plan. The municipal bond rate was applied to all remaining projected benefit payments after fiscal 2048 for the ERS Plan and after fiscal 2037 for the LECOS Plan. The current contribution rates are expected to eliminate the unfunded actuarial accrued liability for the JRS2 Plan in 69 years. As a result, the municipal bond rate and depletion year do not apply to the JRS2 Plan.

The projections of cash flows used to determine this single discount rate assumed that plan member and employer contributions will be made at the current statutory levels and remain a level percentage of payroll. The projected cash flows from the employers are based on contributions for the most recent five-year period as of the measurement date, adjusted on consideration of subsequent events. There have been indicators of the Legislature's commitment to increase funding for the pension funds. The Legislature passed House Bill No. 9 in the 84th legislative session during fiscal 2015 to increase the member contribution rates for fiscal 2016 and 2017. The state contribution rates also increased as a result of this legislative session. The Legislature also maintained some changes made by Senate Bill No. 1459 in the 83rd legislative session. There were no changes made to the contribution levels in the 85th legislative session and therefore, the projected employer contributions remain at the fiscal 2017 funding level.

The long-term expected rate of return on plan investments was developed using a building-block method with assumptions including asset class of investment portfolio, target allocation, real rate of return on investments, and inflation factor. Under this method, best estimate ranges of expected future real rates of return (expected returns, net of 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 weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target allocation and best estimates of arithmetic real rates of return for each major asset class for the ERS, LECOS and JRS2 Plans' investment portfolio are presented in table 9E.

Target Allocations

Table 9E

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real of Return
Global Equity	50%	3.91%
Global Credit	11%	0.57%
Opportunistic Credit	3%	0.20%
Intermediate Treasuries	11%	0.29%
Real Estate	12%	0.90%
Infrastructure	7%	0.49%
Hedge Funds	5%	0.31%
Cash	1%	0.02%
Total	100%	

Sensitivity analysis was performed on the impact of changes in the discount rate on the state's net pension liability. The results of the analysis for the ERS, LECOS and JRS2 Plans are presented in table 9F.

Sensitivity of Net Pension Liability to Changes in Discount Rate*

Table 9F

(Amounts in Thousands)

	1% Decrease	Current Discount Rate	1% Increase
ERS Plan			
Discount Rate	4.69%	5.69%	6.69%
NPL	$ 26,609,725	$ 20,190,978	$ 14,878,321
LECOS Plan			
Discount Rate	3.48%	4.48%	5.48%
NPL	$ 1,534,182	$ 1,183,095	$ 902,385
JRS2 Plan			
Discount Rate	6.50%	7.50%	8.50%
NPL	$ 81,917	$ 34,392	$ (6,543)

* Positive amounts indicate the pension plan's fiducuary net position (FNP) is projected to be insufficient to make projected benefit payments, whereas negative amounts indicate the FNP is sufficient to make projected benefit payments.

The pension plan's fiduciary net position is determined using economic resources measurement focus and accrual basis of accounting, which is the same basis used by ERS. Benefits and refunds of contributions are recognized when due and payable in accordance with the terms of the plan. Investments of the pension trust fund are reported at fair value in accordance with GASB Statement No. 72, *Fair Value Measurement and Application*. More detailed information on the plan's investment valuation, investment policy, assets and fiduciary net position may be obtained from ERS' fiscal 2018 CAFR.

The state's total pension liability is based on an actuarial valuation performed as of Aug. 31, 2018. For fiscal 2019 reporting, the measurement date of the state's net pension liability is Aug. 31, 2018. The schedule of changes in the state's net pension liability for the fiscal year ended Aug. 31, 2019 is presented on table 9G.

There have been no changes to the benefit terms of the plan since the prior measurement date.

For the fiscal year ended Aug. 31, 2019, the state recognized pension expense of $2.9 billion, $134.4 million and $6.8 million respectively for the ERS, LECOS and JRS2 Plans. At Aug. 31, 2019, the state reported deferred outflows of resources and deferred inflows of resources from the sources for these plans in table 9H.

Schedule of Changes in Net Pension Liability

Table 9G

As of Measurement Date of August 31, 2018 (Amounts in Thousands)

	ERS Plan	LECOS Plan	JRS2 Plan
Total Pension Liability			
Service Cost	$ 1,445,557	$ 79,309	$ 16,056
Interest on the Total Pension Liability	2,559,723	91,171	34,440
Difference between Expected and Actual Experience of the Total Pension Liability	91,881	(21,651)	(1,463)
Assumption Changes*	(1,982,914)	(87,015)	
Benefit Payments and Refunds	(2,406,362)	(75,633)	(24,866)
Net Change in Total Pension Liability	(292,115)	(13,819)	24,167
Total Pension Liability – Beginning	48,236,427	2,163,742	463,604
Total Pension Liability – Ending	$ 47,944,312	$ 2,149,923	$ 487,771
Plan Fiduciary Net Position			
Contributions – Employer	$ 697,189	$ 26,110	$ 12,560
Contributions – Member	683,933	9,275	5,940
Pension Plan Net Investment Income	2,430,297	84,937	39,192
Benefit Payments and Refunds	(2,406,362)	(75,633)	(24,866)
Pension Plan Administrative Expense	(23,550)	(1,851)	(296)
Net Change in Plan Fiduciary Net Position	1,381,507	42,838	32,530
Plan Fiduciary Net Position – Beginning	26,371,827	923,989	420,851
Plan Fiduciary Net Position – Ending	$ 27,753,334	$ 966,827	$ 453,381
Net Pension Liability – Beginning	21,864,600	1,239,753	42,753
Net Pension Liability – Ending	$ 20,190,978	$ 1,183,096	$ 34,390

* The change in the total pension liability due to the change in the single discount rate is included as an assumption change.

Deferred Outflows of Resources and Deferred Inflows of Resources

Table 9H

(Amounts in Thousands)

	ERS Plan		LECOS Plan		JRS2 Plan	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ 118,869	$	$	$ 41,565	$ 2,114	$ 2,192
Changes of assumptions	1,222,802	1,409,817	182,485	153,508	4,629	23,542
Net difference between projected and actual investment return		314,623		11,015		5,722
Contributions subsequent to the measurement date	712,611		25,864		13,100	
Total	$ 2,054,282	$ 1,724,440	$ 208,349	$ 206,088	$ 19,843	$ 31,456

The $712.6 million, $25.9 million and $13.1 million reported as deferred outflows of resources resulting from contributions subsequent to the measurement date for the ERS, LECOS and JRS2 Plans respectively will be recognized as a reduction in the net pension liability for the year ending Aug. 31, 2020.

Table 9I presents amounts reported as deferred outflows and inflows of resources related to pensions that will be recognized in pension expense in the following years for the ERS, LECOS and JRS2 Plans.

Amortization Impact of Deferred Outflows and Inflows of Resources on Pension Expense*

Table 9I

(Amounts in Thousands)

Year Ended August 31:

	ERS Plan	LECOS Plan	JRS2 Plan
2020	$ 786,065	$50,282	$(9,033)
2021	(538,243)	8,774	(9,423)
2022	(532,244)	(58,538)	(4,681)
2023	(98,348)	(24,121)	(1,576)
2024			
Thereafter			

* Positive amounts indicate increase in pension expense; negative amounts indicate decrease in pension expense.

Judicial Retirement System of Texas Plan One (JRS1 Plan)

The JRS1 Plan is a single-employer defined benefit pension plan that is not administered through trust.

The JRS1 Plan covers the same kind of membership as the JRS2 Plan except JRS1 Plan members began membership prior to Sept. 1, 1985.

As a result of new judicial officers participating in the JRS2 Plan, the JRS1 Plan membership continues to decrease. Table 9J presents the membership for the JRS1 Plan as of Aug. 31, 2018.

Judicial Retirement System of Texas Plan One (JRS1 Plan)'s Membership

Table 9J

	JRS1 Plan
Retirees and Beneficiaries	
Currently Receiving Benefits	337
Current Employees	
Vested and Non-Vested	7
Total Members	344

Members are required to contribute a percentage of their monthly gross compensation to the general revenue fund, and the state is obligated to make appropriations from the general revenue fund in an amount sufficient to pay benefits on a pay-as-you-go basis. The contribution requirements are statutorily established like the other ERS Plans.

The total pension liability is determined by an annual actuarial valuation. The methods and assumptions applied in the actuarial valuations were based on an experience study covering the five-year period from Sept. 1, 2011 through Aug. 31, 2016. Table 9K presents the actuarial methods and assumptions used to measure the total pension liability for the JRS1 Plan as of the Aug. 31, 2018 measurement date.

Actuarial Methods and Assumptions

Table 9K

	JRS1 Plan
Actuarial Valuation Date	August 31, 2018
Actuarial Cost Method	Entry Age Normal
Actuarial Assumptions:	
Discount Rate*	3.69%
Inflation	2.5%
Salary Increase	3%
Mortality	
Active Members	RP-2014 Active Member Mortality table. Generational mortality improvements in accordance with the ultimate rates from scale most recently published by Retirement Plans Experience Committee of the Society of Actuaries ("Scale U-MP") and projected from the year 2014
Service Retirees, Beneficiaries and Inactive Members	2017 State Retirees of Texas mortality table. Generational mortality improvements in accordance with Scale U-MP and projected from the year 2017
Cost-of-living Adjustments	2.75% compounded annually on Sept. 1

* The source of the municipal bond rate is the rate for 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.

There have been no changes to assumptions, other inputs or the benefit terms of the plan since the prior measurement date.

Sensitivity analysis was performed on the impact of changes in the discount rate on the state's total pension liability. The results of the analysis for the JRS1 Plan are presented in table 9L.

Sensitivity of Total Pension Liability to Changes in Discount Rate

Table 9L

(Amounts in Thousands)

	1% Decrease	Current Discount Rate	1% Increase
JRS1 Plan			
Discount Rate	2.69%	3.69%	4.69%
TPL	$ 278,742	$ 255,356	$ 235,208

The state's total pension liability is based on an actuarial valuation performed as of Aug. 31, 2018. For fiscal 2019 reporting, the measurement date of the state's total pension liability is Aug. 31, 2018. The schedule of changes in the state's total pension liability for the fiscal year ended Aug. 31, 2019 is presented on table 9M.

Schedule of Changes in Total Pension Liability **

Table 9M

As of Measurement Date of August 31, 2018

(Amounts in Thousands)

	JRS1 Plan
Total Pension Liability	
Service Cost	$ 411
Interest on the Total Pension Liability	9,071
Difference between Expected and Actual Experience of the Total Pension Liability	(1,643)
Assumption Changes*	(5,968)
Benefit Payments and Refunds	(23,057)
Net Change in Total Pension Liability	(21,186)
Total Pension Liability – Beginning	276,542
Total Pension Liability – Ending	$ 255,356

* 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.

For the fiscal year ended Aug. 31, 2019, the state recognized pension expense of $1.9 million for the JRS1 Plan. Since the expected remaining service lives is one year, at Aug. 31, 2019, the state did not report deferred outflows of resources and deferred inflows of resources related to pensions for (1) Differences between expected and actual experience and (2) Changes of assumptions.

The $21.5 million reported as deferred outflows of resources resulting from transactions subsequent to the measurement date for the JRS1 Plan will be recognized as a reduction in the total pension liability for the year ending Aug. 31, 2020.

During the measurement period of fiscal 2019, ERS' calculated single discount rate decreased from 5.69 percent to 4.42 percent, from 4.48 percent to 3.29 percent and from 7.50 percent to 5.45 percent for ERS, LECOS and JRS2 Plans, respectively. This is estimated to increase the net pension liability for the plans accordingly for fiscal 2020: ERS by $9.8 billion, LECOS by $482.6 million and JRS2 by $157.7 million.

Teacher Retirement System of Texas (TRS)

Teacher Retirement System of Texas Plan (TRS Plan)

TRS is the administrator of the TRS Plan, a cost-sharing, multiple-employer defined benefit pension plan with a special funding situation.

The employers of the TRS Plan include the state of Texas, TRS, the state's public schools, education service centers, charter schools, community and junior colleges. All employees of public, state-supported education institutions in Texas who are employed for one-half or more of the standard workload and not exempted from membership under Texas Government Code, Title 8, Section 822.002 are covered by the system. Employees of TRS and state of Texas colleges, universities and medical schools are members of the TRS Plan.

The TRS Plan provides retirement, disability annuities and death and survivor benefits. The benefit and contribution provisions of the TRS Plan are authorized by state law and may be amended by the Legislature. The pension benefit formulas are based on members' average annual compensation and years of service credit. The standard annuity is 2.3 percent of the average of the five highest annual salaries multiplied by years of service credit. For grandfathered members who were hired on or before Aug. 31, 2005, and meet certain criteria, the standard annuity is based on the average of the three highest annual salaries. The plan does not provide automatic cost of living adjustments (COLAs).

TRS issued a stand-alone audited Comprehensive Annual Financial Report (CAFR). The TRS CAFR may be obtained from:

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

The state is both an employer and a non-employer contributing entity under the TRS Plan. The state makes contributions to the plan for its employees as well as the employees of the Texas public school districts. During the measurement period of 2018 for fiscal 2019 reporting, the amount of the state's contributions recognized by the plan was $553 million for the state as an employer and $1.7 billion for the state as a non-employer contributing entity. Similar to the ERS, LECOS and JRS2 Plans, the contribution rates are based on a percentage of the monthly gross compensation for each member. The contribution requirements for the state and the members in the measurement period of fiscal 2018 are presented in table 9N.

Required Contribution Rates
Table 9N

	TRS Plan
Contribution Rates	
Employer	6.8%
Non-Employer Contributing Entity (State)	6.8%
Employees	7.7%

A change was made in the measurement date of the total pension liability for the measurement year ending

Aug. 31, 2018. The actuarial valuation was performed as of Aug. 31, 2017. Updated procedures were used to roll forward the total pension liability to Aug. 31, 2018. This is the first year TRS used the roll forward procedures. Table 9O presents the actuarial methods and assumptions used to measure the total pension liability as of the Aug. 31, 2018 measurement date.

Actuarial Methods and Assumptions

Table 9O

	TRS Plan
Actuarial Valuation Date	August 31, 2017, rolled forward to 8/31/2018
Actuarial Cost Method	Individual Entry Age Normal
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Discount Rate	6.907%
Long-term Expected Return	7.25%
Municipal Bond Rate	3.69%*
Inflation	2.3%
Salary Increase	3.05% to 9.05% including inflation
Last year ending Aug. 31 in projection period (100 years)	2116
Mortality	
Active	90% of the RP 2014 Employee Mortality Tables for males and females
Post-Retirement	2018 TRS Healthy Pensioner Mortality Tables
Ad Hoc Post-Employment Benefit Changes	None

* The source of the municipal bond 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."

The actuarial assumptions used in the valuation were primarily based on the result of an actuarial experience study for the three-year period ending Aug. 31, 2017, and adopted in July 2018. The mortality rates were based on tables identified in table 9O.

The following assumptions and other inputs have been adopted since the prior valuations and significantly increased the net pension liability:

a. Total pension liability as of Aug. 31, 2018 was developed using a roll forward method of the Aug. 31, 2017 valuation,
b. Demographic and economic assumptions were updated based on the experience study performed for TRS for the period ending Aug. 31, 2017,
c. Discount rate changed from 8.000 percent as of Aug. 31, 2017, to 6.907 percent as of Aug.31, 2018,
d. Long-term assumed rate of return changed from 8.00 percent to 7.25 percent and
e. 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.

There have been no changes to the benefit provisions of the plan since the prior measurement date.

The discount rate used to measure the total pension liability for the plan was 6.907 percent as of the end of the measurement year; as of the beginning of the measurement year, the discount rate was 8.000 percent. 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 non-employer contributing entity make their contributions at the statutorily required rates. 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-Old-Age Survivors, and Disability Insurance surcharge. Under these assumptions, the pension plan's fiduciary net position is projected to be sufficient to make all future pension benefit payments through the year 2069. Therefore, 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 thereafter.

The long-term expected rate of return on plan investments was developed using a building-block method with assumptions including asset class of investment portfolio, target allocation, real rate of return on investments and inflation factor. Under this method, best estimate ranges of expected future real rates of return (net of 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 weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target allocation and best estimates of geometric real rates of return for each major asset class for the plan's investment portfolio, along with the expected contribution to long-term portfolio returns, are presented in table 9P.

Target Allocations

TRS Plan

Table 9P

	Target Allocation*	Long-Term Expected Geometric Real Rate of Return	Expected Contribution to Long-Term Portfolio Returns
Global Equity			
U.S.	18%	5.7%	1.0%
Non-U.S. Developed	13%	6.9%	0.9%
Emerging Markets	9%	9.0%	0.8%
Directional Hedge Funds	4%	3.5%	0.1%
Private Equity	13%	10.2%	1.3%
Stable Value			
U.S. Treasury	11%	1.1%	0.1%
Absolute Return	0%	0.0%	0.0%
Stable Value Hedge Funds	4%	3.1%	0.1%
Cash	1%	(0.3)%	0.0%
Real Return			
Global Inflation Linked Bonds	3%	0.7%	0.0%
Real Assets	14%	5.2%	0.7%
Energy and Natural Resources	5%	7.5%	0.4%
Commodities	0%	0.0%	0.0%
Risk Parity			
Risk Parity	5%	3.7%	0.2%
Inflation Expectation			2.3%
Volatility Drag **			(0.8)%
Total	100%	NA	7.3%

* Target allocations are based on TRS' fiscal year 2016 model.

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

Sensitivity analysis was performed on the impact of changes in the discount rate on the state's net pension liability. The results of the analysis are presented in the table 9Q.

Sensitivity of Net Pension Liability to Changes in Discount Rate

Table 9Q

(Amounts in Thousands)

TRS Plan		
State as Employer		
1% Decrease (5.907%)	Current Discount Rate (6.907%)	1% Increase (7.907%)
$ 13,637,235	$ 9,035,830	$ 5,310,721
State as Non-Employer Contributing Entity		
1% Decrease (5.907%)	Current Discount Rate (6.907%)	1% Increase (7.907%)
$ 42,337,052	$ 28,051,905	$ 16,487,232

The pension plan's fiduciary net position is determined using economic resources measurement focus and accrual basis of accounting, which is the same basis used by TRS. Benefits and refunds of contributions are recognized when due and payable in accordance with the terms of the plan. 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 as of 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. More detailed information on the plan's investment policy, assets and fiduciary net position, may be obtained from TRS' fiscal 2018 CAFR.

At Aug. 31, 2019, the state reported a liability of $9 billion for its proportionate share of the collective net pension liability as an employer and a liability of

$28.1 billion for its proportionate share of the collective net pension liability as a non-employer contributing entity. The collective net pension liability was measured as of Aug. 31, 2018, and the total pension liability used to calculate the collective net pension liability was determined by an actuarial valuation as of Aug. 31, 2017, rolled forward to Aug. 31, 2018. The state's proportion increased from 15.56 percent at Aug. 31, 2017, to 16.42 percent at Aug. 31, 2018, and decreased from 51.82 percent to 50.96 percent for its role as an employer and non- employer contributing entity respectively. The state's proportions of the collective net pension liability were based on its contributions to the pension plan relative to the contributions of all the employers and non-employer contributing entity to the plan for the period Sept. 1, 2017 through Aug. 31, 2018.

The state recognized pension expense for its employees' pension and grant expense for the pension of Texas public school district and junior college employees. For the year ending Aug. 31, 2019, the state recognized pension expense of $1 billion and grant expense of $2.8 billion. At Aug. 31, 2019, the state reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources in table 9R.

Deferred Outflows and Deferred Inflows of Resources

Table 9R

(Amounts in Thousands)

TRS Plan	State as Employer: Deferred Outflows of Resources	State as Employer: Deferred Inflows of Resources	State as Non-Employer Contributing Entity: Deferred Outflows of Resources	State as Non-Employer Contributing Entity: Deferred Inflows of Resources
Difference between expected and actual experience	$ 56,322	$ 221,704	$ 174,853	$ 688,283
Changes of assumptions	3,257,852	101,808	10,114,063	316,065
Net difference between projected and actual investment return		171,448		532,265
Change in proportion and contribution difference	834,130	666,418		1,583,249
Contributions subsequent to the measurement date	612,078		2,326,680	
Total	$ 4,760,382	$ 1,161,378	$ 12,615,596	$ 3,119,862

The $612.1 million and $2.3 billion reported as deferred outflows of resources resulting from contributions subsequent to the measurement date for the state as an employer and non-employer contributing entity, respectively, will be recognized as a reduction in the net pension liability for the year ending Aug. 31, 2020.

Amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense and grant expense as follows in table 9S.

Amortization Impact of Deferred Outflows and Inflows of Resources on Pension/Grant Expense

Table 9S
(Amounts in Thousands)
Year Ended August 31:

	TRS Plan	
	State as Employer Pension Expense*	State as Non-Employer Contributing Entity Grant Expense*
2020	$ 709,045	$1,796,632
2021	348,245	676,496
2022	279,453	454,094
2023	652,507	1,568,162
2024	611,020	1,594,542
Thereafter	386,657	1,079,128

* Positive amounts indicate increase in pension or grant expense.

During the measurement period of fiscal 2019, TRS' board increased the discount rate from 6.907 percent to 7.250 percent and the Legislature authorized with Senate Bill 3 a $2,700 increase in benefit payments for eligible active members in fiscal 2020. This is expected to decrease the plan's net pension liability by $3.1 billion for fiscal 2020 of which the state's proportionate share is estimated to decrease $502.3 million and $1.6 billion for its role as an employer and non-employer contributing entity respectively.

Texas Emergency Services Retirement System (TESRS)

Texas Emergency Services Retirement System Plan (TESRS Plan)

TESRS is an agency of the state of Texas and the administrator of the TESRS Plan, a cost-sharing multiple- employer defined benefit pension plan with a special funding situation.

The TESRS Plan provides pension benefits for emergency services personnel who serve without significant monetary remuneration through participating fire or emergency services departments within the state. The TESRS Plan provides pension benefits to members with vested service and their beneficiaries as well as death and disability benefits to active volunteer fire fighters and first responders. The benefit and contribution provisions of the TESRS Plan are set by the TESRS board authorized by state law and may be amended by the board. Members are 50 percent vested after the tenth year of service, with the vesting percent increasing 10 percent for each of the next five years of service. For a vested member, the monthly pension benefit equals the member's vested percent multiplied by six times the average monthly contribution of the governing body (of the participating department) over the member's years of qualified service. For years of service in excess of 15 years, the monthly benefit is increased at the rate of 6.2 percent compounded annually. There is no provision for automatic postretirement benefit changes.

Contribution provisions are composed of two parts: Part One contributions and Part Two contributions. Part One contributions are determined by the TESRS board of trustees and Part Two contributions are actuarially determined.

Part One contributions: The governing bodies of each participating department are required to make contributions for each month a member performs emergency services for the department. The contributions from the governing bodies are at a minimum rate of $36 per member and there is no limit to the maximum rate. Individuals who are members of the TESRS Plan are not required, nor allowed, to make contributions. The state is required to contribute an amount necessary to make the system "actuarially sound" each year, which may not exceed one-third of the total contributions made by participating governing bodies in a particular year.

Part Two contributions: In case the expected future annual contributions from the state are not enough with the Part One contributions to provide an adequate contribution arrangement as determined by the most recent actuarial valuation, an actuarially determined contribution not to exceed 15 percent of the Part One contributions is to be actuarially adjusted every two years based on the most recent actuarial valuation. Based on the actuarial valuation as of Aug. 31, 2018, the Part Two contributions are not required for an adequate contribution arrangement.

The state of Texas is not an employer of the members under the TESRS Plan. However, the state makes contributions directly to the TESRS Plan for members of the participating fire or emergency services departments in the state. During the measurement period of 2018 for fiscal 2019 reporting, the amount of the state's contributions recognized by the plan was $1.3 million.

The total pension liability is determined by an actuarial valuation as of Aug. 31, 2018. Table 9T presents the actuarial methods and assumptions used to measure the total pension liability as of the Aug. 31, 2018 measurement date. The actuarial assumptions used in the valuation were primarily based on the result of an actuarial experience study from 2008 as indicated by Rudd and Wisdom, Inc., TESRS' actuary. There has been no change of actuarial methods and benefit terms since the prior measurement date.

Actuarial Methods and Assumptions

Table 9T

	TESRS Plan
Actuarial Valuation Date	August 31, 2018
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level dollar
Actuarial Assumptions:	
Discount Rate	7.75%
Investment Rate of Return	7.75%
Inflation	3%
Salary Increase	N/A
Mortality	RP-2000 Combined Healthy Lives Mortality Tables for males and for females projected to 2024 by scale AA.
Ad Hoc Post-Retirement Benefit Changes	None

The discount rate of 7.75 percent was applied to measure the total pension liability. There has been no change in the discount rate since the prior measurement date. No projection of cash flows was used to determine the discount rate because the Aug. 31, 2018 actuarial valuation showed that expected contributions would pay the normal cost and amortize the unfunded actuarial accrued liability in 30 years using the conservative level dollar amortization method. Because of the 30-year amortization period with the conservative amortization method, TESRS Plan's fiduciary net position is expected to be available to make all projected future benefit payments of current active and inactive members. Therefore, the long-term expected rate of return on the TESRS Plan investments was applied to all periods of projected benefit payments without incorporating the municipal bond rate.

The long-term expected rate of return on the TESRS Plan investments was developed using a building-block method with assumptions including asset class of investment portfolio, target allocation, real rate of return on investments and inflation factor. Under this method, expected future real rates of return (net of investment expense and inflation) are developed for each major asset class. These rates are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. In addition, the final 7.75 percent assumption reflected a reduction of 0.26 percent for adverse deviation.

The target allocation and expected arithmetic real rates of return for each major asset class for the TESRS Plan's investment portfolio are presented in table 9U.

Target Allocation

TESRS Plan

Table 9U

Asset Class	Target Allocation	Long-Term Expected Arithmetic Net Real Rate of Return*
Equities		
Large Cap Domestic	32.00%	5.81%
Small Cap Domestic	15.00%	5.92%
Developed International	15.00%	6.21%
Emerging Markets	5.00%	7.18%
Master Limited Partnership	5.00%	7.61%
Real Estate	5.00%	4.46%
Domestic Fixed Income	23.00%	1.61%
Total	100.00%	

* The above components are weighted to arrive at an average of 5.01%, which is added to the expected inflation of 3.00%, followed by a reduction of 0.26% for adverse deviation to arrive at the final rate of 7.75%.

Sensitivity analysis was performed on the impact of changes in the discount rate on the state's net pension liability. The results of the analysis are presented in table 9V.

Sensitivity of Net Pension Liability to Changes in Discount Rate

Table 9V

(Amounts in Thousands)

TESRS Plan

1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
$ 11,941	$ 6,009	$ 2,008

The TESRS Plan's fiduciary net position is determined using economic resources measurement focus and accrual basis of accounting, which is the same basis used by TESRS. Contributions are recognized immediately upon billing, reflecting actual participation in the member fire department during the prior quarter. Benefits are recognized when due and payable in accordance with the terms of the plan. Investments of the TESRS Plan are reported at fair value. The fair value of investments is based on market prices provided by the fund custodian. For investments where no readily ascertainable market value exists, management, in consultation with their investment advisors, determines the fair values for the individual investments. More detailed information on the plan's investment policy, assets and fiduciary net position may be obtained from the fiscal 2018 audited Annual Financial Report for TESRS:

Texas Emergency Services Retirement System
P. O. Box 12577
Austin, Texas 78711

At Aug. 31, 2019, the state reported a liability of $6 million for its proportionate share of the collective net pension liability as a non-employer contributing entity. The collective net pension liability was measured as of Aug. 31, 2018, and the total pension liability used to calculate the collective net pension liability was determined by an actuarial valuation as of that date. The state's proportion as a non-employer contributing entity decreased from 32.75 percent at Aug. 31, 2017 to 27.75 percent at Aug. 31, 2018. The state's proportion of the collective net pension liability was based on a fiscal 2018 schedule of contributions consisting of Part One contributions by the contributing fire and/or emergency services department members and the appropriated "maximum state contributions" as defined in the Texas Emergency Services Retirement System Act.

The state recognized grant expense as a non-employer contributing entity for the pension of the volunteer emergency services personnel in the state. For the year ending Aug. 31, 2019, the state recognized grant expense of $1.2 million. At Aug. 31, 2019, the state reported deferred outflows of resources and deferred inflows of resources related to the emergency services personnel's pension from the following sources in table 9W.

Deferred Outflows of Resources and Deferred Inflows of Resources

Table 9W

(Amounts in Thousands)

	TESRS Plan State as Non-Employer Contributing Entity	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	$ 2	$ 17
Change of Assumptions	22	
Net Difference Between Projected and Actual Investment Return		332
Change in Proportion and Contribution Difference		1,267
Contributions Subsequent to the Measurement Date	1,329	
Total	$ 1,353	$ 1,616

The $1.3 million reported as deferred outflows of resources resulting from contributions subsequent to the measurement date for the state as a non-employer contributing entity will be recognized as a reduction in the net pension liability for the year ending Aug. 31, 2020.

Amounts reported as deferred outflows and inflows of resources related to the emergency services personnel's pension will be recognized in grant expense in table 9X.

Amortization Impact of Deferred Outflows and Deferred Inflows of Resources on Grant Expense*

Table 9X

(Amounts in Thousands)

Year ended August 31:

	TESRS Plan State as Non-Employer Contributing Entity Grant Expense
2020	$(317)
2021	(693)
2022	(402)
2023	(180)
2024	
Thereafter	

* Negative amounts indicate decrease in grant expense.

Defined Contribution Pension Plan

Optional Retirement Program

The state's contributions to the Optional Retirement Program (ORP) are authorized by Texas Government Code, Chapter 830. Full-time faculty and certain other employees in public higher education are eligible to elect ORP in lieu of the TRS Plan before the 91st day after becoming eligible. It is a one-time irrevocable choice between two distinct plans. ORP is administered by each employer. The Texas Higher Education Coordinating Board develops policies, practices and procedures to provide greater uniformity in the administration of ORP.

ORP is a defined contribution retirement plan in which each participant selects from a variety of investments offered by several insurance and investment companies through annuity contracts or mutual fund investments.

These types of investments are authorized by Internal Revenue Code, Section 403(b). With the purchase of these individual contracts, the state has effectively transferred the obligation for the payment of benefits to the companies. Participants vest in ORP after one year of participation.

The contributory percentages of participant salaries provided by each participant and the state were 6.65 percent and 6.6 percent, respectively, for fiscal 2019. Institutions and agencies authorized under state law to provide ORP to their employees may supplement the state contribution at a rate of up to 1.9 percent of payroll.

Individual accounts are maintained at the insurance and investment companies selected by each ORP participant. Separate financial statements for ORP are not prepared because the state retains no assets in a trust or equivalent arrangement, no liability for plan performance and has very limited administrative involvement.

The employers of ORP are institutions of higher education, one educational state agency and some two-year college institutions that are not part of the state reporting entity. State entity participation in ORP for fiscal 2019 resulted in participant contributions of $279 million and employer contributions of $334.3 million.

As of Aug. 31, 2019, ORP had 37,046 participants. The total participant contributions were $309.3 million and total employer contributions were $367.2 million. Additional information for ORP is included in the fiscal 2019 *ORP Participation Report Summary* published annually by the Texas Higher Education Coordinating Board (THECB). The report is available on THECB's website at www.thecb.state.tx.us. The report can also be obtained from:

Statewide Coordinator, Optional Retirement Program
Texas Higher Education Coordinating Board
P. O. Box 12788
Austin, Texas 78711

Note 10

Deferred Compensation

The state of Texas offers two deferred compensation plans to all state employees. One was established in accordance with Internal Revenue Code, Section 457. The second was established in accordance with Internal Revenue Code, Section 401(k). All costs of administering and funding these programs are the responsibility of plan participants. The assets of the two plans remain the property of the contributing employees and are not presented in the accompanying financial statements. The state makes no contributions to either plan, the assets do not belong to the state and the state has no liability related to the plans.

The University of Texas System (UT) offers two deferred compensation plans. The first one, for UT employees, was created in accordance with Internal Revenue Code, Section 457(b), where all UT employees are eligible to participate in UT's plan and do not participate in the plan offered by the state of Texas. All investments, amounts, property and rights held under the deferred compensation trust fund are held for the exclusive benefit of participants and beneficiaries at the fair market value of the plan account for each participant. UT has no liability under the plan. The second one, Physician Referral Service Supplemental Retirement Plan (SRP)/Retirement Benefit Plan (RBP), was created for physicians of the University of Texas M.D. Anderson Cancer Center (M.D. Anderson), a component unit of UT. It was established in accordance with Internal Revenue Code, Section 457(f). Only physicians hired before Jul. 1, 1986, participate in the SRP. The remainder of eligible employees participates in the RBP. Assets of the SRP/RBP remain subject to the claims of the general creditors of M.D. Anderson.

The Texas A&M University System (A&M) offers a deferred compensation plan created in accordance with Internal Revenue Code, Section 457(f). It allows A&M to defer income for eligible participants without regard to the amount deferred or an adverse impact on other retirement plans in which the participant is enrolled. All A&M employees are eligible to participate in this plan subject to the approval of the A&M board of regents, chancellor or any chancellor-designated member chief executive officer.

Note 11

Postemployment Benefits Other Than Pensions

The state of Texas has two retirement systems and two university systems in its financial reporting entity that administer the state's Other Postemployment Benefit (OPEB) plans in addition to providing pension benefits - Employees Retirement System of Texas (ERS), Teacher Retirement System of Texas (TRS), Texas A&M University System (A&M), and the University of Texas System (UT). These two retirement systems and two university systems administer the following four defined benefit OPEB plans:

- ERS – the State Retiree Health Plan (SRHP);
- TRS – the Texas Public School Retired Employees Group Insurance Program (TRS-Care);
- A&M – the Texas A&M University System Retiree Group Insurance Program (A&M Plan); and
- UT – the University of Texas System Employee Group Insurance Program (UT Plan).

SRHP and TRS-Care are administered through trust, while the A&M Plan and UT Plan are not; and all OPEB plans are operated on a pay-as-you-go basis. These benefits are authorized by statute and contributions are established by the General Appropriations Act.

OPEB Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended Aug. 31, 2019, the state recognized OPEB expense of $648.7 million. Of this amount, negative $481.3 million was incurred as an employer and $1.1 billion as a non-employer contributing entity. The reported deferred outflows of resources and deferred inflows of resources related to OPEB are identified in Note 27.

Employees Retirement System of Texas

The state of Texas contributes to SRHP, a cost-sharing, multiple-employer defined benefit OPEB plan with a special funding situation. ERS' Board of Trustees administers SRHP.

ERS issued a stand-alone audited Comprehensive Annual Financial Report (CAFR). The ERS CAFR may be obtained from:

Employees Retirement System of Texas
200 E. 18th Street
Austin, Texas 78701

Plan Description

SRHP provides postemployment health care, life and dental insurance coverage for participants on a pay-as- you-go basis as authorized by Texas Insurance Code, Chapter 1551. The benefit and contribution provisions of the SRHP are authorized by state law and may be amended by the Legislature. Retirees must meet certain age and service requirements and have at least 10 years of service at retirement to participate in the plan. Surviving spouses and dependents of retirees are also covered by the plan. The plan does not provide automatic cost of living adjustments.

Contributors to SRHP include active and retired members, employers, and the state of Texas as the only non-employer contributing entity. Employers include state of Texas agencies and universities, community and junior colleges, and other entities specified by the Legislature with the state being the principal participating employer.

Funding Policy

The state is both an employer and a non-employer contributing entity in SRHP. The state makes contributions to the plan for its employees as well as part of the premiums for the junior and community colleges. Retirees pay any premium over and above the employer contribution. The employer does not contribute toward dental or optional life insurance. Surviving spouses and their dependents do not receive any employer contributions. During the measurement period of 2018, for fiscal 2019 reporting, the amount of the state contributions recognized by the plan was $276.5 million for the state as employer and $19.9 million for the state as a non-employer contributing entity.

The contribution requirements for the employers of SRHP during the measurement period are presented in table 11A.

Required Contribution Rates – Retiree Health and Basic Life Premium

Table 11A

Employer Monthly Premium Rates	
Level of Coverage	SRHP
Retiree Only	$ 622
Retiree and Spouse	1,335
Retiree and Children	1,099
Retiree and Family	1,812

Actuarial Methods and Assumptions

Table 11B

	SRHP
Actuarial Valuation Date	August 31, 2018
Actuarial Cost Method	Entry Age
Amortization Method	Level Percent of Payroll, Open
Remaining Amortization Period	30 Years
Asset Valuation Method	Not applicable
Actuarial Assumptions:	
Inflation	2.50 %
Discount Rate	3.96% *
Salary Increase	2.50% to 9.50% , includes inflation
Annual Healthcare Trend Rate	7.30% for FY 2020, 7.40% for FY 2021, 7.00% for FY 2022, decreasing 0.50% per year to an ultimate rate of 4.50% for FY 2027 and later years
Ad Hoc Post-Employment Benefit Changes	None
Mortality	
State Agency Members	
Service Retirees, Survivors and other Inactive Members	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
Disabled Retirees	RP-2014 Disabled Retiree Mortality with Ultimate MP Projection Scale projected from the year 2014
Active Members	RP-2014 Active Member Mortality tables with Ultimate MP Projection Scale from the year 2014
Higher Education Members	
Service Retirees, Survivors and other Inactive Members	Tables based on TRS experience with Ultimate MP Projection Scale from the year 2018
Disabled Retirees	Tables based on TRS experience with Ultimate MP Projection Scale from the year 2018 using a 3-year set forward and minimum mortality rates of four per 100 male members and two per 100 female members
Active Members	Sex Distinct RP-2014 Employee Mortality multiplied by 90% with Ultimate MP Projection Scale from the year 2014

* The source of the municipal bond 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.

Measurement Date

ERS has elected to use a measurement date that is twelve months in advance of the fiscal year, with a measurement date of Aug. 31, 2018 for fiscal year ended Aug. 31, 2019.

Actuarial Methods and Assumptions

The total OPEB liability is determined by an annual actuarial valuation. Table 11B presents the actuarial methods and assumptions used to measure the total OPEB liability as of the specified date.

The many actuarial assumptions used in the valuation were primarily based on the result of actuarial experience studies performed by the ERS and TRS retirement plan actuaries for the period Sept. 1, 2011 to Aug. 31, 2016 for state agency members and for the period Sept. 1, 2010 to Aug. 31, 2017 for higher education members. The mortality rates were based on the tables identified in table 11B.

The following assumptions and other inputs have been adopted since the prior valuation to reflect plan experience and trends as expected by ERS and the actuaries attesting to the results of the valuation:

a. demographic assumptions (including rates of retirement, disability, termination, and mortality, and assumed salary increases) for higher education members have been updated to reflect assumptions recently adopted by the Trustees from TRS,
b. 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,
c. percentage of current retirees and their spouses not yet eligible to participate in the HealthSelectMedicare 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,
d. 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 and
e. the discount rate assumption was increased from 3.51 percent to 3.96 percent to utilize the updated yield or index rate for 20-year, tax-exempt general obligation municipal bonds rated AA/Aa (or equivalent) or higher in effect on the measurement date.

The only benefit revisions that have been adopted since the prior valuation is an increase in the out-of-pocket maximum for both HealthSelect and Consumer Directed HealthSelect for those HealthSelect retirees and dependents for whom Medicare is not primary. These minor benefit changes have been reflected in the following fiscal 2019 Assumed Per Capita Health Benefit Costs.

Other future actuarial methods may differ significantly from the current measurement period due to such factors as the following: plan experience, changes in economic or demographic assumptions, methodology used and changes in plan provisions or applicable laws.

The discount rate that was used to measure the total OPEB liability for the plan is the municipal bond rate of 3.96 percent as of the end of the measurement year; as of the beginning of the measurement year, the discount rate was 3.51 percent. Projected cash flows into the plan are equal to projected benefit payments out of the plan. As the plan operates on a pay-as-you-go basis and is not intended to accumulate assets, there is no long-term expected rate of return.

Sensitivity analysis was performed on the impact of changes in the discount rate on the state's net OPEB liability. The results of the analysis are presented in table 11C.

Sensitivity of Net OPEB Liability to Changes in Discount Rate

Table 11C

(Amounts in Thousands)

SRHP		
State as Employer		
1% Decrease (2.96)%	Current Discount Rate (3.96)%	1% Increase (4.96)%
$30,064,887	$25,323,500	$21,734,804
State as Non-Employer Contributing Entity		
1% Decrease (2.96)%	Current Discount Rate (3.96)%	1% Increase (4.96)%
$2,161,973	$1,821,019	$1,562,955

Sensitivity analysis was performed on the impact of changes in the healthcare cost trend rates on the state's net OPEB liability. The result of the analysis are presented in the table 11D.

Sensitivity of Net OPEB Liability to Changes in Healthcare Cost Trend Rates

Table 11D

(Amounts in Thousands)

SRHP		
State as Employer		
1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
$21,445,730	$25,323,500	$30,325,832
State as Non-Employer Contributing Entity		
1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
$1,542,168	$1,821,019	$2,180,738

Net OPEB Liability, Deferrals and OPEB expense

The OPEB plan's fiduciary net position is determined using economic resources measurement focus and accrual basis of accounting, which is the same basis used by ERS. Benefits and refunds of contributions are recognized when due and payable in accordance with the terms of the plan.

At Aug. 31, 2019, the state reported a liability of $25.3 billion for its proportionate share of the collective net OPEB liability as an employer, which was comprised of a current portion of $562.4 million and a non-current portion of $24.7 billion, and a liability of $1.8 billion for its proportionate share of the collective net OPEB liability as a non-employer contributing entity, which was comprised of a current portion of $40.4 million and a non-current portion of $1.8 billion. The collective net OPEB liability was measured as of Aug. 31, 2018, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of that date. The state's proportion decreased from 89.45 percent at Aug. 31, 2017, to 85.44 percent at Aug. 31, 2018, and increased from 3.81 percent to 6.14 percent for its role as employer and non-employer contributing entity respectively. The state's proportions of the collective net OPEB liability was based on its contributions to the OPEB plan relative to the contributions of all the employers and non-employer contributing entity to the plan for the period Sept. 1, 2017 through Aug. 31, 2018.

The state recognized OPEB expense for its employees' OPEB and grant expense for the OPEB of the junior and community college employees. For the year ending Aug. 31, 2019, the state recognized OPEB expense of negative $445.9 million and grant expense of $88.1 million. At Aug. 31, 2019, the state reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources in table 11E.

Deferred Outflows and Deferred Inflows of Resources

Table 11E

(Amounts in Thousands)

	State as Employer		State as Non-Employer Contributing Entity	
SRHP	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	$	$ 927,772	$	$ 66,716
Changes of Assumptions or Other Inputs		8,874,047		638,135
Net Difference Between Projected and Actual Investment Return	11,992		862	
Changes in Proportion and Difference Between Employer Contributions and Proportionate Share	2,482,469	3,840,963	454,859	
Contributions Subsequent to the Measurement Date	330,295		26,621	
Total	$ 2,824,756	$ 13,642,782	$ 482,342	$ 704,851

The $330.3 million and $26.6 million reported as deferred outflows of resources resulting from contributions subsequent to the measurement date for the state as employer and non-employer contributing entity respectively will be recognized as a reduction in the net OPEB liability for the year ending Aug. 31, 2020.

Amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense in the following years as reported in table 11F for SRHP.

Amortization Impact of Deferred Outflows and Inflows of Resources on OPEB/Grant Expense

Table 11F

(Amounts in Thousands)

Year Ended August 31:

	SRHP	
	State as Employer OPEB Expense*	State as Non-Employer Contributing Entity Grant Expense*
2020	$ (2,788,217)	$ (80,382)
2021	(2,788,217)	(80,382)
2022	(2,788,217)	(80,382)
2023	(1,978,491)	(22,154)
2024	(805,180)	14,171
Thereafter		

* Positive amounts indicate increase in OPEB/Grant expense; negative amounts indicate decrease in OPEB/Grant expense.

Teacher Retirement System of Texas

The state of Texas contributes to TRS-Care, a cost-sharing, multiple-employer defined benefit OPEB plan with a special funding situation. TRS' board of trustees (Board) administers TRS-Care.

TRS issued a stand-alone audited Comprehensive Annual Financial Report (CAFR). The TRS CAFR may be obtained from:

Teacher Retirement System
1000 Red River Street
Austin, Texas 78701-2698

Plan Description

TRS-Care provides basic and optional group insurance coverage for participants on a pay-as-you-go basis as authorized by Texas Insurance Code, Chapter 1575. Basic coverage includes participation in a major medical group health insurance plan with deductibles based upon enrollment in Part A or Part B of Medicare or non-Medicare participants may pay premiums to participate in one of the two standard insurance plans with more comprehensive benefits. The benefit provisions of TRS-Care are authorized by state law and may be amended by the Board. The Board may adopt rules, plans, procedures and orders reasonably necessary to administer the program, including minimum benefits and financing standards. Retirees must meet certain age and service requirements, have at least 10 years of service at retirement and be a member of the TRS Pension System in order to participate in the plan.

The plan does not provide automatic cost of living adjustments.

Contributors to TRS-Care 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 education service centers and open-enrollment charter schools whose employees are members of TRS.

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

a. Created a high deductible health plan that provides a zero cost for generic prescriptions for certain preventative drugs and provided a zero premium for disabled retirees who retired disabled on or before Jan. 1, 2017 and are not eligible to enroll in Medicare,
b. Created a single Medicare Advantage plan and Medicare prescription drug plan for all Medicare-eligible participants,

c. Allowed TRS to provide other, appropriate health benefit plans to address the needs of enrollees eligible for Medicare,
d. 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 and
e. 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.

Funding Policy

The state is a non-employer contributing entity in TRS-Care per Texas Insurance Code, Chapter 1575. There is no continuing obligation to provide benefits beyond each fiscal year. TRS-Care is currently funded on a pay-as-you-go basis and is subject to change based on available funding. Funding is provided by retiree premiums, state contributions, active members and school districts based upon public school district payroll. The Board does not have the authority to set or amend contribution rates. The Texas Insurance Code, Chapter 1575, Sections 202-204 establishes the contribution rates, while the General Appropriations Act from each Legislative session establishes the actual public school contribution rate. Employers are also required to pay a surcharge of $535 per month when employing a retiree of TRS. During the measurement period of 2018, for fiscal 2019 reporting, the amount of the state contributions recognized by the plan was $790.2 million. The contribution requirements for the employers of TRS-Care during the measurement period are presented in table 11G.

Required Contribution Rates – Retiree Healthcare

Table 11G

(Amounts in Thousands)

TRS Care Contribution Rates & Amounts

Contributor	Rate	Amount
Active Employee	0.65 %	$221,325
Non-Employer		
Contributing Entity (State)	1.25 %	395,589
Participating Employer	0.75 %	255,797
Federal/Private Funding*	1.25 %	30,037
Total		$902,748

* Contributions from Federal Funds and Private Grants are remitted by the employer and paid at the state rate.

To alleviate a funding shortfall for the 2018 through 2019 biennium, Senate Bill 1, 85th Legislative Session, provided a one time supplemental contribution in the amount of $182.6 million and also provided increases in contribution requirements for active employee payroll for the fiscal years ending Aug. 31, 2018 and Aug. 31, 2019. The state contribution rate increased 0.25 percent of active employees payroll to 1.25 percent and the employer contribution rate increased 0.20 percent of active employees payroll to 0.75 percent. House Bill 3976 made the 0.25 percent increase related to the state contribution rate permanent. Additionally, House Bill 30 provided another one time supplemental contribution in the amount of $212 million bringing the total of supplemental appropriations to $394.6 million for TRS-Care during the 2018 through 2019 biennium.

Measurement Date

TRS has elected to use a measurement date that is twelve months in advance of the fiscal year, with a measurement date of Aug. 31, 2018 for fiscal year ended Aug. 31, 2019.

Actuarial Methods and Assumptions

A change was made in the measurement date of the total OPEB liability (TOL) for the measurement year ending Aug. 31, 2018. The actuarial valuation was performed as of Aug. 31, 2017. Update procedures were used to roll forward the TOL to Aug. 31, 2018. This is the first year TRS used the roll forward procedures. Table 11H presents the actuarial methods and assumptions used to measure the total OPEB liability as of the specified measurement date.

The many actuarial assumptions used in the valuation were primarily based on the results of actuarial experience studies performed by the TRS retirement plan actuary for the three year period ending Aug. 31, 2017 and adopted in July 2018. The mortality rates were based on tables identified in table 11H.

The following assumptions and other inputs have been adopted since the prior valuations to reflect future plan experience as expected by the actuaries attesting to the results of the valuation:

a. Total OPEB Liability (TOL) as of Aug. 31, 2018 was developed using the roll forward method of the Aug. 31, 2017 valuation,
b. Adjustments were made for retirees that were known to have discontinued their health care coverage in fiscal year 2018 (this increased TOL),
c. Health care trend rate assumption was updated to reflect the anticipated return of the Health Insurer Fee (HIF) in 2020 (this increased TOL),
d. Demographic and economic assumptions were updated based on the experience study performed for TRS for the period ending Aug. 31, 2017 (this increased TOL) and

Actuarial Methods and Assumptions
Table 11H

	TRS-Care
Actuarial Valuation Date	August 31, 2017, rolled forward to August 31, 2018
Actuarial Cost Method	Individual Entry Age Normal
Actuarial Assumptions:	
Inflation	2.30 %
Discount Rate	3.69% *
Aging Factors	Based on plan specific experience
Expenses	Third party administrative expenses related to the delivery of health care benefits are included in the age-adjusted claims cost
Salary Increase	3.05% to 9.05% (includes inflation)
Healthcare Cost and Trend Rate	Initially 6.75% for non-Medicare retirees, 9.00% for Medicare retirees and 11.00% for prescription drugs for all retirees; decreasing to an ultimate rate of 4.50% over a period of 9 years. The first year medical trend for Medicare retirees (107.74%) reflects the anticipated return of the Health Insurer Fee (HIF) in 2020.
Election Rates	Normal Retirement Participation: 70% participation prior to age 65 and 75% participation after age 65
Ad Hoc Post-Employment Benefit Changes	None
Demographic	The rates of mortality, retirement, termination and disability incidence are identical to the assumptions used to value the pension liabilities of TRS. These assumptions were developed in the experience study performed by TRS for the period ending Aug. 31, 2017.
Mortality	
Post-Retirement	Tables 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 projection scale ("U-MP")
Active Members	Sex Distinct RP-2014 Employee Mortality multiplied by 90% with full generational projection using Scale BB

* The source of the municipal bond rate is the 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 Aug. 31, 2018.

e. Discount rate changed from 3.42 percent as of Aug. 31, 2017 to 3.69 percent, as of Aug. 31, 2018 (this lowered TOL approx. $2.3 billion).

The impact of the Cadillac Tax has been calculated as a portion of the trend assumption. Results indicated that the value of the excise tax would be reasonably represented by a 25 basis point addition to the long term trend rate assumption. Assumptions and methods used to determine the impact of the Cadillac Tax include the following:

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

Other future actuarial methods may differ significantly from the current measurement period due to such factors as the following: plan experience, changes in economic or demographic assumptions, methodology used and changes in plan provisions or applicable laws.

The discount rate that was used to measure the total OPEB liability for the plan is the municipal bond rate of 3.69 percent as of the end of the measurement year; as of the beginning of the measurement year, the discount rate was 3.42 percent. Projected cash flows into and out of the plan are equal to projected benefit payments out of the plan assumed that members, employers, and non-employer contributing entities make their contributions at the statutorily required rates. As the plan operates on a pay-as-you-go basis and is not intended to accumulate assets, there is no long-term expected rate of return.

Sensitivity analysis was performed on the impact of changes in the discount rate on the net OPEB liability. The result of the analysis is presented in table 11I for the state's proportionate share.

Sensitivity of Net OPEB Liability to Changes in Discount Rate

Table 11I
(Amounts in Thousands)

TRS-Care		
1% Decrease (2.69)%	Current Discount Rate (3.69)%	1% Increase (4.69)%
$ 34,130,756	$ 28,673,029	$ 24,355,615

Sensitivity analysis was performed on the impact of changes in the healthcare cost trend rates on the net OPEB liability. The result of the analysis is presented in table 11J for the state's proportionate share.

Sensitivity of Net OPEB Liability to Changes in Healthcare Cost Trend Rates

Table 11J
(Amounts in Thousands)

TRS-Care		
1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
$ 23,813,418	$ 28,673,029	$ 35,073,242

Net OPEB Liability, Deferrals and OPEB expense

The OPEB plan's fiduciary net position is determined using the economic measurement focus and accrual basis of accounting, which is the same basis used by TRS. Benefits and refunds of contributions are recognized when due and payable in accordance with the basis of the plan.

At Aug. 31, 2019, the state reported a liability of $28.7 billion for its proportionate share of the collective net OPEB liability as non-employer contributing entity, which was comprised of a current portion of $434 million and a non-current portion of $28.3 billion. The collective net OPEB liability was measured as of Aug. 31, 2018 and the total OPEB liability used to calculate the collective net OPEB liability was determined by an actuarial valuation as of that date. The state's proportion decreased from 58.44 percent at Aug. 31, 2017, to 57.43 percent at Aug. 31, 2018. The state's proportion of the collective net OPEB liability was based on its contributions to the OPEB plan relative to the contributions of all employers and non-employer contributing entity to the plan for the period Sept. 1, 2017 through Aug. 31, 2018.

For the year ending Aug. 31, 2019, the state recognized grant expense of $1.0 billion and reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources in table 11K for its portion as non-employer contributing entity to TRS-Care.

Deferred Outflows and Deferred Inflows of Resources

Table 11K

(Amounts in Thousands)

	TRS-Care	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	$ 1,521,571	$ 452,503
Changes of Assumptions or Other Inputs	478,475	8,614,600
Net Difference Between Projected and Actual Investment Return	5,015	
Changes in Proportion and Difference Between Employer Contributions and Proportionate Share	45	558,579
Contributions Subsequent to the Measurement Date	478,578	
Total	$ 2,483,684	$ 9,625,682

The $478.6 million reported as deferred outflows of resources for TRS-Care resulted from contributions subsequent to the measurement date, which will be recognized as a reduction in the net OPEB liability for the year ended Aug. 31, 2020.

Amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in grant expense in the following years as reported in table 11L for TRS-Care.

Amortization Impact of Deferred Outflows and Inflows of Resources on Grant Expense

Table 11L

(Amounts in Thousands)

Year Ended August 31:

	TRS-Care Grant Expense*
2020	$ (1,197,984)
2021	(1,197,983)
2022	(1,197,983)
2023	(1,198,932)
2024	(1,199,474)
Thereafter	(1,628,220)

* Negative amounts indicate decrease in Grant expense.

Texas A&M University and University of Texas Systems

The state of Texas contributes to two single-employer defined benefit retiree health care and life insurance benefit plans: the A&M Plan and the UT Plan. A&M is the administrator of the A&M Plan and UT is the administrator of the UT Plan.

A&M and UT each issue a publicly available financial report that includes financial statements and required supplementary information. Those reports may be obtained by writing to the systems at the following addresses:

Texas A&M University System
301 Tarrow Street
College Station, Texas 77840-7896

University of Texas System
Controller's Office
210 West 7th Street
Austin, Texas 78701

Plan Descriptions

Each plan provides certain health care and life insurance benefits on a pay-as-you-go basis as authorized by

Texas Insurance Code, Chapter 1601. The benefit and contribution provisions of each plan are authorized by state law and may be amended by the Legislature. Retirees must meet certain age and service requirements and have at least 10 years of service at retirement to participate in the plan. Substantially all of the employees of A&M and UT may become eligible for benefits as long as they reach normal retirement age while working for the state. Surviving spouses and dependents of retirees are also covered by the plans. The plans does not provide automatic cost of living adjustments and there are no assets accumulated in a trust that meets the criteria in GASB Statement No. 75, paragraph 4. As of the measurement date in table 11M, the following employees were covered by the benefit terms.

Employees Covered by Benefit Terms*

Table 11M

	A&M Plan	UT Plan
Measurement Date	9/1/18	12/31/18
Inactive Employees or Beneficiaries Currently Receiving Benefit Payments	10,299	27,597
Inactive Employees Entitled to But Not Yet Receiving Benefit Payments	7,630	12,311
Active Members	24,917	90,605
Total	42,846	130,513

* The counts are as of Sept. 1, 2017 and Dec. 31, 2017 for the A&M and UT Plans, respectively, because the actuarial valuation was based on a roll-forward.

Funding Policy

The state contributes to the cost of each participant's insurance coverage as required by Texas Insurance Code, Chapter 1551, Section 310 and 311. The funds are appropriated under the General Appropriations Act Higher Education Employees Group Insurance Contributions. During the measurement period of 2018, for fiscal 2019 reporting, the amount of state employer benefit payments recognized by the A&M Plan was $71.1 million and the UT Plan was $193.7 million.

The contribution rates are determined annually by each system based on the recommendations of their Office of Risk Management and Benefits Administration, Office of Employee Benefits and consulting actuary. Contributions rates are determined based on the benefit and administrative costs that are expected to be incurred, the funds appropriated for the plans, and the funding policy established by the Legislature which is revised as necessary to match expected costs with available revenue. The employer does not contribute toward dental, optional life insurance, optional dependent life insurance, vision, AD&D or long term care. The monthly contribution requirements are presented in table 11N.

Required Contribution Rates – Retiree Healthcare and Life Insurance Premium

Table 11N

Level of Coverage	A&M Plan	UT Plan
Retiree Only	$ 594	$ 598
Retiree and Spouse	1,156	912
Retiree and Children	984	799
Retiree and Family	1,385	1,114

Measurement Date

A&M has elected to use a measurement date that is twelve months in advance of the fiscal year, with a measurement date of Sept. 1, 2018 for fiscal year ended Aug. 31, 2019.

UT has elected to use a measurement date that is eight months in advance of the fiscal year, with a measurement date of Dec. 31, 2018 for fiscal year ended Aug. 31, 2019.

Actuarial Methods and Assumptions

The total OPEB liability for both plans is determined by a biennial actuarial valuation. Table 11O presents the actuarial methods and assumptions used to measure the total OPEB liability as of the specified measurement dates.

The many actuarial assumptions used in the valuations were primarily based on the result of actuarial experience studies performed by the TRS retirement plan actuary for the period Sept. 1, 2010 to Aug. 31, 2014 for higher education members. The mortality rates were based on the tables identified in table 11O.

Actuarial Methods and Assumptions

Table 11O

	A&M Plan	UT Plan
Actuarial Valuation Date	September 1, 2017, rolled forward to September 1, 2018	December 31, 2017, rolled forward to December 31, 2018
Actuarial Assumptions:		
Inflation	2.50%	2.50%
Salary Increase	3.50% to 9.50% (includes inflation)	3.50% to 9.50% (includes inflation)
Discount Rate	3.96% *	4.10% *
Healthcare Cost and Trend Rate	7.00% for FY 2019, 8.00% for FY 2020, decreasing 0.50% per year to an ultimate rate of 4.50% for FY 2027 and later years	7.00% for FY 2019, 8.00% for FY 2020, decreasing 0.50% per year to an ultimate rate of 4.50% for FY 2027 and later years
Mortality		
Service Retirees, Survivors and Other Inactive Members	Tables based on TRS experience with full generational projection using Scale BB from Base Year 2014	Tables based on TRS experience with full generational projection using Scale BB from Base Year 2014
Disabled Retirees	Tables based on TRS experience with full generational projection using Scale BB from Base Year 2014 using a 3-year set forward and minimum mortality rates of four per 100 male members and two per 100 female members	Tables based on TRS experience with full generational projection using Scale BB from Base Year 2014 using a 3-year set forward and minimum mortality rates of four per 100 male members and two per 100 female members
Active Members	Sex Distinct RP-2014 Employee Mortality multiplied by 90% with full generational projection using Scale BB	Sex Distinct RP-2014 Employee Mortality multiplied by 90% with full generational projection using Scale BB
Ad Hoc Post-Employment Benefit Changes	None	None

* The source of the municipal bond rate is the Bond Buyer Index of General Obligation Bonds with 20 years to maturity and mixed credit quality.

As of the measurement date, the discount rate has changed for the A&M and UT Plans. Additionally, between the measurement date and the employer's reporting date, A&M only, adopted a change in benefit terms. Adopted in Jan. 2018 to be effective Jan. 1, 2019, prescription drug coverage for all Medicare primary participants will be provided through a self funded Employer Group Waiver Plan with Commercial Wrap. No other changes in assumptions, inputs, and benefit and eligibility provisions have occurred for either plan.

The discount rate that was used to measure the total OPEB liability for each plan is the municipal bond rate of 3.96 percent for the A&M Plan and 4.10 percent for the UT Plan, as of the end of the measurement year; as of the beginning of the measurement year, the discount rate was 3.51 percent and 3.44 percent respectively.

Sensitivity analysis was performed on the impact of changes in the discount rate on the total OPEB liability.

The result of the analysis is presented in the table 11P.

Sensitivity of Total OPEB Liability to Changes in Discount Rate

Table 11P

(Amounts in Thousands)

A&M Plan		
1% Decrease (2.96)%	Current Discount Rate (3.96)%	1% Increase (4.96)%
$ 4,047,651	$ 3,377,413	$ 2,861,141

UT Plan		
1% Decrease (3.10)%	Current Discount Rate (4.10)%	1% Increase (5.10)%
$ 15,870,967	$ 13,079,604	$ 10,965,748

Sensitivity analysis was performed on the impact of changes in the healthcare cost trend rates on the total OPEB liability. The result of the analysis is presented in the table 11Q.

Sensitivity of Total OPEB Liability to Changes in Healthcare Cost Trend Rates

Table 11Q

(Amounts in Thousands)

A&M Plan		
1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
$ 2,793,753	$ 3,377,413	$ 4,150,223

UT Plan		
1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
$ 10,869,787	$ 13,079,604	$ 16,015,049

Total OPEB Liability, Deferrals, and OPEB Expense

At Aug. 31, 2019, the state reported a liability of $3.4 billion for the A&M Plan and $13.1 billion for the UT Plan. The A&M Plan's total OPEB liability is comprised of a current portion of $87.9 million and a non-current portion of $3.3 billion, and the UT Plan's total OPEB liability is comprised of a current portion of $291.2 million and a non-current portion of $12.8 billion. The collective total OPEB liability was measured as of the measurement date for each respective plan. The schedule of changes in the state's total OPEB liability for the measurement dates Sept. 1, 2018 and Dec. 31, 2018 are presented in table 11R for each plan.

Schedule of Changes in Total OPEB Liability

Table 11R

(Amounts in Thousands)

	A&M Plan	UT Plan
Measurement Date	9/1/18	12/31/18
Total OPEB Liability		
Service Cost	$ 173,615	$ 692,255
Interest on the Total OPEB Liability	163,593	498,239
Changes of Benefit Terms	(1,050,344)	
Difference Between Expected and Actual Experience		
Changes of Assumptions or Other Inputs	(361,071)	(1,805,442)
Benefit Payments (Employer)	(71,054)	(193,743)
Other Changes		
Net Change in Total OPEB Liability	(1,145,261)	(808,691)
Total OPEB Liability – Beginning	4,522,674	13,888,295
Total OPEB Liability – Ending	$ 3,377,413	$ 13,079,604

For the year ending Aug. 31, 2019, the state recognized OPEB expense of negative $822.1 million for the A&M Plan and $785.6 million for the UT Plan. At Aug. 31, 2019, the state reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources in table 11S for each plan.

Deferred Outflows and Deferred Inflows of Resources*

Table 11S

(Amounts in Thousands)

	A&M Plan		UT Plan	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	$	$ 65,515	$	$ 131,515
Changes of Assumptions or or Other Inputs	541,115	1,081,222		2,599,485
Transactions Subsequent to the Measurement Date	71,075		140,597	
Total	$ 612,190	$ 1,146,737	$ 140,597	$ 2,731,000

* Both plans are a single-employer defined benefit OPEB plan. Due to statute requiring appropriations for funding the plans, the state reports a proportionate share in governmental activities and business-type activities. The change in proportion and contributions are recorded and amortized to expense as in a cost-sharing plan. However, since the amounts net to zero for each plan between deferred outflows/inflows of resources and expense for this type of deferral, the amounts are not included in the above schedule.

The $71.1 million reported as deferred outflows of resources for the A&M Plan and $140.6 million for the UT Plan resulted from transactions subsequent to the measurement date, which will be recognized as a reduction in the total OPEB liability for the year ending Aug. 31, 2020.

Amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense in the following years as reported in table 11T for each plan.

Amortization Impact of Deferred Outflows and Deferred Inflows of Resources on OPEB Expense*

Table 11T

(Amounts in Thousands)

Year Ended August 31:

	A&M Plan	UT Plan
2020	$ (109,469)	$ (407,253)
2021	(109,469)	(407,253)
2022	(109,469)	(407,253)
2023	(119,107)	(407,253)
2024	(132,399)	(407,253)
Thereafter	(25,711)	(694,735)

* Negative amounts indicate decrease in OPEB expense.

Note 12

Interfund Activity and Transactions

Interfund activity refers to financial interactions between funds and/or blended component units and is restricted to internal events. Interfund transactions refer to financial interactions with legally separate entities, i.e., discrete component units and other governments, and are restricted to external events.

Reciprocal Interfund Activity

Interfund loans are reciprocal interfund activity with a requirement for repayment. These loans are reported as interfund receivables/payables and are classified as either current or noncurrent.

Interfund services are sales and purchases of goods and services for a price approximating their external exchange value. This activity is reported as revenues in seller funds and expenditures or expenses in purchaser funds. Unpaid amounts are reported as receivables and payables.

Nonreciprocal Interfund Activity

Interfund transfers are nonreciprocal interfund activity. This activity refers to flows of assets without equivalent flows of assets in return and without a requirement for repayment. In governmental funds, transfers are reported as other financing sources or uses. In proprietary funds, transfers are reported after nonoperating revenues and expenses. The majority of transfers are legally authorized by statute or bond covenant to move amounts from one fund to another. Amounts not transferred at fiscal year-end are accrued as due from/due to. Activity occurring within the same fund is eliminated. Additional eliminations are made and transfers in and out are netted and presented in the government-wide statement of activities as transfers-internal activities.

Certain reclassifications and eliminations are made between the fund financial statements and the government-wide financial statements. Resource flows between the primary government and its discretely presented component units are reported as revenues and expenses, as if they were external transactions, on the fund financial statements and the government-wide financial statements. Transfers between the governmental or business-type activities and fiduciary funds are reported as transfers on the fund financial statements and are reclassified to revenues and expenses, as if they were external transactions, on the government-wide financial statements.

Due from/due to amounts between the primary government and the discretely presented component units are reported separately from due from/due to amounts between funds in the fund financial statements and the government-wide financial statements. Due from/due to amounts between governmental or business-type activities and fiduciary funds are reported as due from/due to amounts between funds in the fund financial statements and are reclassified to receivables from fiduciary funds/payables to fiduciary funds, as if they were external transactions, on the government-wide financial statements.

Interfund reimbursements are repayments from funds responsible for payment of expenditures or expenses to the funds that actually made the payment. These reimbursements are reported in the appropriate expenditure/expense category in the fund responsible for the payment.

For the state of Texas, routine transfers are those transfers from unrestricted revenue collected in the general revenue fund to finance various programs accounted for in other funds in accordance with the General Appropriations Act, which is the primary budget document for the state of Texas. Other transfers are legally authorized by statute to move resources from one fund to another. The interfund receivables/payables include loans for energy efficiency programs of approximately $23.4 million. There is also a $1.3 billion receivable for Texas A&M University System from the University of Texas System from permanent university funds. The earnings will be used for bond payments.

Significant transfers include a $2.1 billion transfer from the property tax relief fund and a $1.6 billion transfer from the lottery fund to the foundation school fund for educational programs. There is a $1.2 billion transfer from the permanent school fund to the available school fund. The Graduate Medical Education permanent fund transferred $9.6 million to the Texas Higher Education Coordinating Board as directed by the legislature.

There is $1.7 billion due from amount for the state highway fund from the Comptroller's office related to a November 2014 amendment to Article III of the Constitution. Under the amendment, a portion of the funds collected and deposited in the general revenue fund are transferred equally to the economic stabilization fund and the state highway fund. The funds were transferred to the state highway fund in November 2019.

The detail of interfund activity and transactions by fund type and category as of Aug. 31, 2019, is presented in tables 12A-E.

Interfund Receivables/Payables

Table 12A

(Amounts in Thousands)

	Current		Non-Current		Total	
Fund Type	**Interfund Receivables**	**Interfund Payables**	**Interfund Receivables**	**Interfund Payables**	**Interfund Receivables**	**Interfund Payables**
Governmental Funds						
General Fund	$ 6,413	$ 220	$ 17,063	$ 1,170	$ 23,476	$ 1,390
Nonmajor Governmental Funds	29	179		1,645	29	1,824
	6,442	399	17,063	2,815	23,505	3,214
Proprietary Funds						
Colleges and Universities	69,302	75,629	1,224,283	1,240,176	1,293,585	1,315,805
Nonmajor Enterprise Funds	322	38	1,645		1,967	38
	69,624	75,667	1,225,928	1,240,176	1,295,552	1,315,843
Total	$ 76,066	$ 76,066	$1,242,991	$1,242,991	$1,319,057	$1,319,057

Due From/Due To

Table 12B

(Amounts in Thousands)

Fund Type	Due From Other Funds	Due From Primary Government	Due From Component Unit	Due To Other Funds	Due To Primary Government	Due To Component Unit
GOVERNMENTAL FUNDS						
General Fund	$ 227,200	$	$	$3,286,079	$	$
State Highway Fund	1,914,759			3,091		
Permanent School Fund	282			101		
Nonmajor Governmental Funds	157,731			54,395		
	2,299,972	0	0	3,343,666	0	0
PROPRIETARY FUNDS						
Colleges and Universities	1,247,148			30,531		
Unemployment Trust Fund	2,461					
Lottery Fund				170,465		
Nonmajor Enterprise Funds	50,688			8,527		
Internal Service Fund	3,657			32,031		
	1,303,954	0	0	241,554	0	0
FIDUCIARY FUNDS						
Agency Funds				734		
Pension and Other Employee Benefit Trust Funds	44,021			61,993		
Private-Purpose Trust Funds						
	44,021	0	0	62,727	0	0
DISCRETELY PRESENTED COMPONENT UNITS	0	0	0	0	0	0
Total	$3,647,947	$ 0	$ 0	$3,647,947	$ 0	$ 0

Transfers In/Out

Table 12C

(Amounts in Thousands)

Fund Type	Transfers In Other Funds	Transfers Out Other Funds
GOVERNMENTAL FUNDS		
General Fund	$ 4,161,902	$ 9,627,041
State Highway Fund	1,891,938	982,048
Permanent School Fund		1,535,835
Nonmajor Governmental Funds	3,832,180	2,915,496
	9,886,020	15,060,420
PROPRIETARY FUNDS		
Colleges and Universities	6,981,609	556,816
Unemployment Trust Fund		
Lottery Fund		1,636,590
Nonmajor Enterprise Funds	443,450	58,549
	7,425,059	2,251,955
FIDUCIARY FUNDS		
Pension and Other Employee Benefit Trust Funds	130,805	129,509
External Investment Trust Fund		
Private-Purpose Trust Funds		
	130,805	129,509
Total	$ 17,441,884	$ 17,441,884

Internal Balances per the Government-wide Financial Statements

Table 12D

(Amounts in Thousands)

	Governmental Activities	Business-Type Activities	Total
NONCURRENT ASSETS			
Internal Balances	$ 14,249	$ (14,249)	$ 0
CURRENT LIABILITIES			
Internal Balances	$ 1,084,732	$ (1,084,732)	$ 0

Transfers – Internal Activities per the Government-wide Financial Statements

Table 12E

(Amounts in Thousands)

Fund Category	Other Funds
Governmental Activities	$(5,367,035)
Business-Type Activities	$ 5,367,035

Note 13

Classification of Fund Balances/ Net Position

Table 13A presents a summary of the governmental fund balances by fund type and specific purpose as of Aug. 31, 2019.

The classifications of nonspendable, restricted, committed, assigned and unassigned are the fund balance classifications according to GASB Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions*. With the exception of nonspendable fund balances, fund balances are presented based on each fund's specific purpose. For the general fund, special revenue funds, capital projects funds and nonmajor permanent funds, the specific purpose of the fund is determined by the Texas Legislature. The revenues received to fund the programs within the fund and the applicable expenditures allowed from the fund are derived through statute. The fund may support multiple programs within multiple agencies. The remaining unspent fund balances are determined to be restricted, committed, assigned or unassigned at fiscal year-end. Unassigned fund balances are then reported by the governmental function assigned to the agency.

Of the $9 billion governmental funds total unassigned fund balance, $11.7 billion is for the economic stabilization fund (ESF). The ESF was authorized by the Texas Constitution, Article III, Section 49g. This authorized a transfer to the ESF within 90 days after the end of the fiscal year. In November of each year, a transfer is made from the general revenue fund equal to 75 percent of the excess of the prior fiscal year net collections for oil and natural gas production taxes over 1987 collections. The transfer amount of each production tax is calculated separately and must be in excess of the 1987 threshold. An amendment to the Texas Constitution, passed in November 2014, amended the transfer to include the state highway fund. As of fiscal 2015, the ESF receives at least one-half of the 75 percent transferred with the remainder transferred to the state highway fund.

The ESF shall also receive a transfer from the general revenue fund, by the 90th day of each biennium, for one-half of any unencumbered positive balance remaining in the general revenue fund on the last day of the preceding biennium. The Texas Legislature may appropriate within the constitutional guidelines by a three-fifths vote of the members present in each house, amounts in the ESF that do not exceed the amount of any unanticipated deficit in a current biennium or anticipated revenue decline during the next biennium. The Texas Legislature may also appropriate any amount from the ESF for any purpose only if approved by at least two-thirds of the members present in each house.

The corpus of the permanent school fund (PSF) is classified as nonspendable, and the balance of the PSF is classified as restricted based on provisions in the Texas Constitution which limits the use of the PSF to the support of public free schools. The Texas Constitution, Article 7 describes the fund as permanent, specifically describes how the PSF may be spent and explicitly restricts the Texas Legislature from appropriating any part of the PSF to any other purpose. The Texas Constitution allows the PSF to be spent on 1) transfers to the available school fund in accordance with constitutional requirements, 2) expenses of managing the PSF land and investments, and 3) guaranteed bond payments in the event of default. Accordingly, the portion of the fund balance that is spendable is classified as restricted based on constitutional provisions that limit the use of the PSF to these purposes. The remainder of the fund balance is classified as nonspendable, in alignment with the PSF's permanent nature as described in the constitution.

Restrictions of net position are listed on the face of the government-wide and proprietary statements of net position. Per GASB Statement No. 54, balances reported as restricted in the fund financial statements plus the nonspendable permanent fund corpus balances are reported as restricted in the statement of net position. All other fund financial balances are reported as unrestricted in the statement of net position.

Governmental Fund Balances – Nonspendable, Restricted, Committed, Assigned and Unassigned

Table 13A

(Amounts in Thousands)

	General Fund	State Highway Fund	Permanent School Fund	Other Funds	TOTAL
Nonspendable for:					
Inventory	$ 202,147	$ 138,936	$	$ 277	$ 341,360
Long-term Receivables	486,731				486,731
Permanent Principal	20,000		45,295,575	899,150	46,214,725
Prepaid Items	2,637				2,637
Total Nonspendable	711,515	138,936	45,295,575	899,427	47,045,453
Restricted for:					
Capital Purposes				238,734	238,734
Debt Service				454,599	454,599
Economic and Consumer Affairs	494,651			48,021	542,672
Education – Public Schools	356,686		1,204,805	1,009,624	2,571,116
Education – Loan Programs				1,316,876	1,316,876
Environment and Natural Resources	98,856			11,542	110,398
Environment and Natural Resources - Water Programs	422			3,087,198	3,087,621
General Government*	114,124			85,700	199,824
Parks and Recreation	111,845			6,921	118,766
Public Health and Welfare – Federal Programs	40,846				40,846
Public Health and Welfare – Public Programs	66,574			13,258	79,832
Public Safety and Criminal Justice	62,613			132,038	194,651
Public Safety and Criminal Justice – Corrections				117	117
Public Safety and Criminal Justice – Law Enforcement	14,176			5,682	19,856
Regulatory Agencies				7,884	7,884
Transportation – Construction		4,344,852			4,344,852
Transportation – Licensing and Regulation		134,419			134,419
Transportation – Maintenance		381,674			381,674
Transportation – Other	11,482	2,423,330		218,588	2,653,400
Total Restricted	1,372,275	7,284,275	1,204,805	6,636,782	16,498,137

Concluded on the following page

* General Government is tasked with the collection of revenues that benefit the state overall and has expenditures that are not restricted to carry out specific programs or purposes. Included in the classification are the fund balances of state agencies that are semi-independent and do not receive appropriations for operating purposes.

Governmental Fund Balances – Nonspendable, Restricted, Committed, Assigned and Unassigned (concluded)

Table 13A

(Amounts in Thousands)

	General Fund	State Highway Fund	Permanent School Fund	Other Funds	TOTAL
Committed to:					
Capital Purposes	$ 12,257	$	$	$	$ 12,257
Economic and Consumer Affairs	918,665				918,665
Education – Public Schools	216,433			10,009	226,442
Education – Loan Programs	313,888				313,888
Environment and Natural Resources - Other	2,520,234				2,520,234
Environment and Natural Resources Water Programs	57,290				57,290
General Government*	471,612			17,315	488,927
Parks and Recreation	162,042				162,042
Public Health and Welfare – Federal Programs	254				254
Public Health and Welfare – Public Programs	306,401				306,401
Public Safety and Criminal Justice	29,913			9,552	39,465
Public Safety and Criminal Justice – Corrections	37,869			55,699	93,568
Public Safety and Criminal Justice – Law Enforcement	107,505				107,505
Transportation – Construction		437,742			437,742
Transportation – Maintenance		38,454			38,454
Transportation – Other		244,150		202,997	447,147
Total Committed	5,154,363	720,346	0	295,572	6,170,281
Assigned to:					
Economic and Consumer Affairs	148				148
Education	352				352
Environment and Natural Resources - Other	3,648				3,648
General Government*	12,922			4,129	17,051
Public Health and Welfare	33,421				33,421
Transportation – Construction		680,148			680,148
Transportation – Maintenance		59,748			59,748
Transportation – Other	157	379,351			379,508
Total Assigned	50,648	1,119,247	0	4,129	1,174,024
Unassigned:					
Education	274,559				274,559
Environment and Natural Resources	155,543				155,543
General Government*	(5,057,489)				(5,057,489)
General Government - ESF	11,692,047				11,692,047
Public Health and Welfare	1,630,948				1,630,948
Public Safety and Corrections	266,595				266,595
Regulatory Agencies	10,418				10,418
Transportation	17,000				17,000
Total Unassigned	8,989,621	0	0	0	8,989,621
Total Fund Balances – Governmental Funds	$ 16,278,422	$ 9,262,804	$ 46,500,380	$ 7,835,910	$ 79,877,516

* General Government is tasked with the collection of revenues that benefit the state overall and has expenditures that are not restricted to carry out specific programs or purposes. Included in the classification are the fund balances of state agencies that are semi-independent and do not receive appropriations for operating purposes.

Note 14

Restatement of Beginning Balances

During fiscal 2019, certain accounting changes and adjustments were made that required the restatement of fund balances or net position. The beginning balances and all related restatements for the components of the state's financial reporting entity are presented in table 14A and discussed on the following pages.

Restatements to Net Position/Fund Balances

Table 14A

(Amounts in Thousands)

	September 1, 2018, As Previously Reported	GASB Statement No. 83	Change in Reporting Entity	Correction of Prior Year Errors	September 1, 2018, As Restated
GOVERNMENT-WIDE ACTIVITIES:					
PRIMARY GOVERNMENT:					
Governmental Activities	$ 33,004,172	$	$	$ 346,153	$ 33,350,325
Business-Type Activities	66,533,931	(33,076)		6,415	66,507,270
Total Primary Government	$ 99,538,103	$ (33,076)	$ 0	$ 352,568	$ 99,857,595
Discrete Component Units	$ 173,146	$ 0	$ 24,504	$ 459	$ 198,109
FUND FINANCIAL STATEMENTS:					
GOVERNMENTAL FUNDS					
Major Governmental Funds:					
General Fund	$ 13,187,561	$	$	$ (11,707)	$ 13,175,854
State Highway Fund	7,447,229			868	7,448,097
Permanent School Fund	44,067,480			361,403	44,428,883
Nonmajor Governmental Funds:					
Special Revenue Funds	4,381,939			15	4,381,954
Debt Service Funds	877,423			(338,338)	539,085
Capital Project Funds	669,106			338,338	1,007,444
Permanent Funds	1,530,925				1,530,925
Total Governmental Funds	$ 72,161,663	$ 0	$ 0	$ 350,579	$ 72,512,242
PROPRIETARY FUNDS					
Major Enterprise Funds:					
Colleges and Universities	$ 59,002,184	$ (33,076)	$	$ 6,061	$ 58,975,169
Unemployment Trust Fund	1,864,357				1,864,357
Lottery Fund	7,950				7,950
Nonmajor Enterprise Funds	5,659,440			354	5,659,794
Total Proprietary Funds	$ 66,533,931	$ (33,076)	$ 0	$ 6,415	$ 66,507,270
Internal Service Fund	$ 1,060,699	$	$	$ (12)	$ 1,060,687
FIDUCIARY FUNDS					
Pension and Other Employee Benefit Trust Funds	$185,152,455	$	$	$ 2,309	$185,154,764
External Investment Trust Funds	19,975,605				19,975,605
Private-Purpose Trust Funds	3,492,684				3,492,684
Total Fiduciary Funds	$208,620,744	$ 0	$ 0	$ 2,309	$208,623,053
Total Reporting Entity *	$308,331,993	$ (33,076)	$ 24,504	$ 355,336	$308,678,757

* Reporting entity includes primary government, discrete component units and fiduciary funds.

Restatements are grouped in table 14A by the following types of activity:

GASB Pronouncements and Related Items

The $33.1 million restatement decrease is to record the effect of the implementation of GASB Statement No. 83, *Certain Asset Retirement Obligations.* The objective of the statement relates to accounting and financial reporting for certain asset retirement obligations (AROs) as a legally enforceable liability associated with the retirement of a tangible capital asset. The GASB statement establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for the ARO. Additional details concerning the criteria can be found in Note 5 and Note 27.

Changes in the Reporting Entity

The $24.5 million restatement increase in Discrete Component Units is primarily due to reporting of the University of North Texas Health Science Center Foundation as a new discretely presented component unit of University of North Texas.

Correction of Prior Year Errors

Government-wide activities

Governmental activities include a restatement decrease of $4.4 million for adjustments to capital assets and accumulated depreciation or amortization. The remaining restatements primarily include increases of $350.6 million to correct accounting errors in the prior period related to the valuation of mineral rights and recognition of reimbursements reported as expenditures.

Business-type activities include a restatement increase of $5.5 million for adjustments to capital assets and accumulated depreciation or amortization. The remaining restatements primarily include increases of $901 thousand to correct accounting errors in the prior period related to unrecorded expenditures and adjustment to fund balance.

Discrete component units include restatement increase of $458.6 thousand to correct accounting errors in the prior period due to accounting for unrecorded revenue.

Fund Financial Statements-Governmental

The restatements for governmental funds of $11.7 million decrease in the general fund, primarily include correction of accounting errors in the prior period related to reimbursements reported as disaster expenses, unearned revenue, and overstatement of accruals of payables and payroll. The restatement of the State Highway Fund of $868.3 thousand increase related to correction of overstated accruals. The restatement for Permanent School Fund of $361.4 million increase primarily consists of adjustments to valuation of mineral rights from prior year of $437.8 million offset by a $76.4 million decrease adjustment to reflect the accumulated incentive allocation accrual due to private equity fund-of-funds managers applicable to prior periods.

The restatements for other nonmajor governmental funds include a $14.8 thousand increase in special revenue funds to correct unreported cash in fund from prior year. The $338.3 million decrease in debt service funds is due to a change related to fund type classification. The amount is offset by the $338.3 million dollar increase in the capital projects funds. The restatement of $11.8 thousand decrease in the internal service fund reflects adjustments to derivative futures from prior year.

Fund Financial Statements-Proprietary

The restatements for colleges and universities of $6.1 million increase primarily include correction of accounting errors in the prior period related to unreported donated software. The restatement for other nonmajor enterprise funds of $354.1 thousand increase primarily include a correction of accounting errors in the prior period related to unrecorded non-depreciable assets.

Fund Financial Statements-Fiduciary

The restatement for the pension and other employee benefit trust funds of $2.3 million increase is a correction of accounting errors in the prior period for derivative futures and adjustments to capitalized assets.

Restatements to Change in Net Position

Table 14B

(Amounts in Thousands)

	Sept. 1, 2018 Previously Reported	Change in Net Position Aug. 31, 2018 As Previously Reported	GASB Statement No. 83	Change in Reporting Entity	Correction of Prior Year Errors	Change in Net Position Aug. 31, 2018 as Restated	Net Position Sept. 1, 2018 as Restated
GOVERNMENT-WIDE ACTIVITIES:							
PRIMARY GOVERNMENT:							
Governmental Activities	$ 15,389,983	$ 17,614,189	$	$	$ 346,153	$ 17,960,342	$ 33,350,325
Business-Type Activities	58,299,200	8,234,731	(33,076)		6,415	8,208,070	66,507,270
Total Primary Government	$ 73,689,183	$ 25,848,920	$ (33,076)	$ 0	$ 352,568	$ 26,168,412	$ 99,857,595
Discrete Component Units	$ 668,030	$ (494,884)	$ 0	$ 24,504	$ 459	$ (469,921)	$ 198,109

Note 15

Commitments and Contingencies

Commitments

Outstanding Loan Commitments

The state makes loan commitments to political subdivisions for financing purposes. These loan commitments are provided from remaining current bond proceeds, future bond proceeds and federal drawdowns. The Texas Water Development Board had loan commitments of $3.3 billion as of Aug. 31, 2019. The Texas Department of Transportation (TxDOT) has equity loan commitments of $9.4 billion. The $9.4 billion is used by the Grand Parkway Transportation Corporation to pay for certain costs related to development, construction, operation, maintenance and financing of projects in Harris County and possible extensions or expansions of the Grand Parkway in the Houston area.

Investment Funds

As of Aug. 31, 2019, state agencies, public employee retirement systems and institutions of higher education have entered into capital commitments with investment managers for future funding of investment funds. Investment funds include hedge fund pools, private investment pools, public market funds and other alternative investments managed by external investment managers. As of Aug. 31, 2019, the remaining commitment was $60.2 billion.

Construction and Other Commitments

As of Aug. 31, 2019, TxDOT had contractual commitments of approximately $16.8 billion for construction and comprehensive developments. These are not recognized liabilities because the terms of the contracts or agreements were not met and benefits were not received as of the end of the fiscal year.

Additionally, TxDOT is party to several pass-through toll agreements with local entities. Under these agreements, the local entities will finance, design and construct certain roadway projects and may maintain them for a specified period of time. Upon completion of the projects, TxDOT will make payments (i.e., pass-through toll payments) to the entities based on traffic utilization of the roadways and other payment requirements governed by the agreements. Motorists traveling these roadways will not be required to pay a toll. Estimated payments under the agreements are included as notes payable as each project is completed. Liabilities for uncompleted agreements are not recognized. As of Aug. 31, 2019, the amount of unrealized payables for uncompleted pass-through toll agreements was $51.2 million. In addition, TxDOT has equity grant commitments of $173.4 million to various local toll project entities.

The University of North Texas System initiated approximately $414.2 million in capital commitments for construction and renovation of various facilities in numerous stages of development.

Texas Parks and Wildlife Department had contractual commitments of approximately $120 million for facilities and other improvements, building replacements, building maintenance and repairs, infrastructure and infrastructure maintenance and repairs.

Contingencies

Protested Tax Payments

As of Aug. 31, 2019, pending litigation filed by taxpayers seeking refunds of state taxes totaled $146 million. The protested taxes include sales, franchise, insurance and other taxes. Although the outcome of these cases cannot presently be determined, adverse rulings in some of them could result in significant additional refunds.

Unpaid Claims and Lawsuits

A variety of cases that may affect the state were filed as of Aug. 31, 2019. These claims totaled $358.4 million and include a number of lawsuits and claims significant to individual state agencies. Although the outcome of these cases cannot be determined, adverse rulings could result in additional liabilities. Additionally, TxDOT filed cases exercising eminent domain for $505.2 million.

Federal Assistance

The state receives federal financial assistance subject to review or audit by federal grantor agencies. Entitlement to this assistance is generally conditional upon compliance with the terms and conditions of grant agreements and applicable federal regulations, including the expenditure of assistance for allowable purposes. Any disallowance as a result of the audits may become a liability of the state but is considered immaterial to its overall financial condition.

The Texas Office of the Attorney General and the Texas Health and Human Services Commission's Office of Inspector General investigate allegations of overpayments to Medicaid providers. Until investigations are completed, the total amount of overpayments to providers is potentially subject to recovery (amounts associated with the "open case list") and may represent a corresponding potential liability for the federal share of these payments - about 55 to 60 percent of that total.

An actual liability is realized only after a completed investigation substantiates an overpayment and the provider is notified of the results and given an opportunity to submit rebuttal or claims for offsets. The percent of total dollars on the open case list that are ultimately confirmed as overpayments cannot be reliably predicted. The state estimates the amounts that may become payable to the federal government will be immaterial to its overall financial condition.

Guaranteed Debt

In 1983, Texas voters approved a constitutional amendment that establishes the guarantee of the permanent school fund (PSF) for a defined capacity of up to $123.2 billion in school district bonds as of Aug. 31, 2019. Approval by the state of Texas attorney general is required for each bond issuance and on approval by the Texas commissioner of education, bonds properly issued by a school district are fully guaranteed by the PSF. In 2011, legislation was enacted authorizing the use of PSF to guarantee revenue bonds issued for the benefit of certain open-enrollment charter schools designated as charter districts by the commissioner of education. In the event of a default by a school district or charter district, the PSF will transfer to the paying agent/registrar an amount necessary to pay the maturing or matured principal and/or interest to bondholders. As of Aug. 31, 2019, $82.5 billion debt in outstanding bond issues was guaranteed by the permanent school fund for 847 school districts and $1.9 billion for 15 charter districts within the state. Under statute, payments by the PSF on such guarantees are recoverable from the state of Texas. These dollar amounts represent the principal amount and do not reflect any subsequent accretions in value for compound interest bonds (zero coupon securities), nor do they include interest on current interest bonds or variable rate notes. These amounts also exclude bonds that were refunded and released from the bond guarantee program. From the inception of the program through Aug. 31, 2019, none of the school districts or charter districts with guaranteed debt have defaulted on the debt.

Arbitrage

Rebatable arbitrage is defined by Internal Revenue Code, Section 148, as earnings on investments purchased with the gross proceeds of a bond issue in excess of the amount that would have been earned if the investments were invested at a yield equal to the yield on the bond issue. The rebatable arbitrage must be paid to the federal government. State agencies and institutions of higher education responsible for investments from bond proceeds carefully monitor their investments to restrict earnings to a yield less than the bond issue and, therefore, limit any state arbitrage liability. The state estimates that rebatable arbitrage liability, if any, will be immaterial to its overall financial condition.

Derivatives with Contingent Features

All of the Department of Housing and Community Affairs' (TDHCA) hedging derivative instruments include provisions that require posting collateral in the event its credit rating falls below a specified level as issued by Moody's Investor Service and Standard & Poor's. If TDHCA fails to post eligible collateral, the derivative instrument may be terminated by the counterparty. As of Aug. 31, 2019, the aggregate fair value of all derivative instruments with collateral provisions was negative $5.6 million. If the posting requirements had been triggered, TDHCA would have been required to post eligible collateral equal to the aggregate fair value of the derivative instruments. TDHCA posted no collateral as of Aug. 31, 2019.

The Teacher Retirement System of Texas (TRS) derivative investments include provisions that require TRS to post collateral in the event that the fair value surpasses a specified contractual threshold. As of Aug. 31, 2019, the aggregate fair value of all derivative instruments with these provisions was $15.4 million, and $29.3 million was posted in collateral. TRS has not triggered any events that would require the posting of additional collateral to its counterparties.

Note 16

Subsequent Events

Primary Government

Bonds and Commercial Paper Issued/Refunded and Other Debt Financing

State agencies and institutions of higher education issued $2.2 billion in new bonds and commercial paper and $2.3 billion in refunding bonds since Aug. 31, 2019, as presented in table 16A. This routine activity finances state facilities, housing assistance programs, educational loans and refunds outstanding debt.

Bonds and Commercial Paper Issued/Refunded Subsequent to August 31, 2019

Table 16A

(Amounts in Thousands)

Description	Amount	Issuance Date	Purpose
GENERAL LAND OFFICE AND VETERANS' LAND BOARD			
State of Texas General Obligation Bonds, Series 2020	$ 250,000	01/09/20	To augment the Veterans' Housing Assistance Fund II.
DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS			
Multifamily Governmental Note, Series 2019, Ventura at Hickory Tree Apartments	28,100	12/11/19	To finance the acquisition, construction and equipping of multifamily rental housing developments.
TEXAS PUBLIC FINANCE AUTHORITY			
General Obligation Commercial Paper Notes, Series 2008	4,000	09/16/19	To fund various projects of Texas Parks and Wildlife Department.
General Obligation Commercial Paper Notes, Series 2008	1,500	10/25/19	To fund various projects of Texas Facilities Commission.
General Obligation Commercial Paper Notes, Taxable Series A, Cancer Prevention and Research Institute of Texas (CPRIT)	64,300	09/16/19	To fund CPRIT's grant awards.
Revenue Commercial Paper Notes, Series 2003	100	11/15/19	To fund equipment purchases on behalf of Texas School for the Deaf.
General Obligation Commercial Paper Notes, Series 2008	3,000	11/21/19	To fund various projects of Department of Public Safety.
Revenue Commercial Paper Notes, Series 2019A	24,490	01/07/20	To close Revenue Commercial Paper Series 2003 and reissue under Revenue Commercial Paper Series 2019A.
General Obligation Commercial Paper Notes, Taxable Series A, CPRIT	52,000	01/09/20	To fund CPRIT's grant awards.
TEXAS WATER DEVELOPMENT BOARD			
State Water Implementation Revenue Fund for Texas Revenue Bonds, Series 2019A and Taxable Series 2019B	858,810	10/10/19	To fund projects through the purchase of or entering into political subdivision obligations and to pay the costs of issuance of the bonds.
TEXAS DEPARTMENT OF TRANSPORTATION			
Texas Highway Improvement General Obligation Refunding Bonds, Series 2019	705,600	12/11/19	To refund outstanding bonds issued to finance highway improvement projects.
Texas Private Activity Bond Surface Transportation Corporation Senior Lien Revenue Refunding Bonds, Series 2019A and 2019B	1,202,900	12/17/19	To refund outstanding conduit debt issued to finance the North Tarrant Express Managed Lanes project.

Concluded on the following page

Bonds and Commercial Paper Issued/Refunded Subsequent to August 31, 2019 (concluded)

Table 16A

(Amounts in Thousands)

Description	Amount	Issuance Date	Purpose
TEXAS TECH UNIVERSITY SYSTEM			
Revenue Financing System (RFS) Commercial Paper Notes, Tax-Exempt and Taxable, Series A	$ 19,755	11/21/19	To reimburse for incurred expenditures and to acquire proceeds for the construction of the Angelo State University (ASU) Centennial Village Residence Hall Phase II, ASU Mayer Museum and Art Classroom Facility, the Texas Tech University (TTU) Talkington College of Visual & Performing Arts Building, TTU School of Veterinary Medicine Facilities, ASU Food Service Center Renovation and TTU Dairy Barn.
RFS Commercial Paper Notes, Tax-Exempt and Taxable, Series A	2,119	12/16/19	To refund Angelo State University's Texas State University System parity obligation of callable bonds on December 17, 2019.
RFS Commercial Paper Notes, Tax-Exempt and Taxable, Series A	590	12/16/19	To acquire new proceeds on the construction of HSC Midland PA Facility.
TEXAS STATE UNIVERSITY SYSTEM			
RFS Commercial Paper Notes, Tax-Exempt	19,781	09/10/19	To finance a variety of capital projects at Texas State University System (TSUS) components.
RFS Tax-Exempt Bonds, Series 2019A	39,958	10/24/19	To provide for capital projects.
RFS Tax-Exempt Bonds, Series 2019A	136,097	10/24/19	To refund of outstanding Commercial Paper Notes, refund of outstanding revenue bonds and pay the costs of issuing the bonds.
RFS Taxable Bonds, Series 2019B	149,480	10/24/19	To refund a portion of the System's outstanding debt and pay costs of issuing the bonds.
RFS Tax-Exempt Commercial Paper Notes	10,235	12/05/19	To finance capital projects.
RFS Tax-Exempt Commercial Paper Notes	14,290	01/15/20	To finance capital projects.
TEXAS A&M UNIVERSITY SYSTEM			
Permanent University Fund (PUF) Bonds, Taxable Series 2019	226,890	12/17/19	To provide construction funds for eligible projects.
PUF Bonds, Taxable Series 2019	125,000	12/17/19	To refund Taxable Commercial Paper Notes and pay the costs of issuing the bonds.
UNIVERSITY OF TEXAS SYSTEM			
RFS Tax-Exempt Commercial Paper Notes, Series A	300,000	09/04/19	To finance a variety of capital projects and equipment purchases at various University of Texas System (UT) institutions.
PUF Tax-Exempt Commercial Paper Notes, Series A	160,000	11/04/19	To finance a variety of capital projects and equipment purchases at various UT institutions.
RFS Tax-Exempt Commercial Paper Notes, Series A	149,478	12/03/19	To finance a variety of capital projects and equipment purchases at various UT institutions.
Total Bond and Commercial Paper Issued/Refunded	$ 4,548,473		

Other Subsequent Events

The Office of the Attorney General of Texas (OAG) began an independent assessment of the software development Child Support RISE beginning in June 2019. Findings were provided subsequent to August 31, 2019. The OAG consulted with involved principals including the U.S. Department of Health and Human Services, Office of Child Support Enforcement and the Executive Steering Committee. Based on the forgoing, the OAG determined that there is evidence that the software under development valued at $148.3 million is impaired under the guidance provided by Governmental Accounting Standards Board's statements. Additionally, certain application development stage activities are believed to be eligible for capitalization as a stand-alone software application. The extent of impairment and appropriate capitalization of the Child Support RISE development activities require further analysis and will be included in future reports.

On Oct. 28, 2019, the University of Texas System M.D. Anderson Cancer Center entered into an agreement, with Millennium Pharmaceuticals, Inc., a wholly owned subsidiary of Takeda Pharmaceutical Company Limited. M.D. Anderson received $300 million on Nov. 15, 2019. The funding will support further research, development and manufacturing of technology, which is consistent with M.D. Anderson's educational and research missions and goals.

Note 17

Risk Management

The state of Texas is exposed to various risks of loss related to property, general and employer liability, net income and personnel. The state of Texas and its employees are covered by numerous immunities and defenses that limit some of these risks of loss, particularly in liability actions brought against the state or its employees. Remaining exposures are managed by self-insurance arrangements, contractual risk transfers, the purchase of commercial insurance or a combination of these risk financing techniques.

Estimates of liabilities for incurred but not reported claims are actuarially determined based on estimates of the ultimate cost of settling claims, using past experience adjusted for current trends and any other factors that would modify past experience. Claims liabilities include specific, incremental claims adjustment expenditures/expenses. In addition, estimated recoveries on unsettled claims, such as salvage and subrogation, are evaluated in terms of their estimated realizable value and deducted from the liability for unpaid claims. Unallocated claim adjustment expenditures/expenses are not included in the liability for claims and judgments.

There were no significant reductions in insurance coverage in the past year. Also, in the past three years, settlements have not exceeded insurance coverage.

Property and Liability

The Texas Labor Code, Chapter 412, states that the State Office of Risk Management (SORM) shall operate as a full-service risk and insurance manager for state agencies and shall administer programs to reduce property and liability losses, including workers' compensation losses.

SORM administers the statewide workers' compensation program. The state does not carry commercial insurance for workers' compensation, but instead, uses the general revenue fund to account for its risk financing activities. Certain agencies are exempt from the SORM program or elect to purchase additional insurance coverage outside of the program. The University of Texas System (UT), Texas A&M University System (A&M) and Texas Department of Transportation administer separate self-insured workers' compensation programs.

Where applicable, certain agencies purchased fire and extended insurance coverage for buildings financed through the issuance of bonds. Other risks are addressed through a combination of interim financing and commercial coverage for fire and all other perils, as well as coverage for medical malpractice, torts, named windstorms, floods and other potential liabilities.

Health, Life and Dental

Insurance coverage is provided to active state employees and their dependents by one of three health plan administrators. All state employees not covered by insurance plans provided by UT and A&M are included in the Texas Employees Group Benefits Program (GBP) administered by the Employees Retirement System of Texas (ERS). Public school employees and their dependents are covered by the Texas School Employees Uniform Group Benefits Program (TRS-ActiveCare) administered by the Teacher Retirement System of Texas (TRS). Risk of loss is retained with self-insured plans or transferred to the insurance carrier with health maintenance organization (HMO) plans.

Texas Employees Group Benefits Program

Claims for health, life, accidental death and dismemberment (AD&D), disability and dental insurance coverages are established under the GBP. These coverages are provided through a combination of insurance contracts, a self-funded health plan, a self-funded dental indemnity plan, HMO contracts and dental HMO contracts.

University of Texas System and Texas A&M University System

UT and A&M provide health insurance, dental insurance, vision insurance, life insurance, AD&D, long-term disability, short-term disability, long-term care and flexible-spending account coverages to all benefits-eligible employees. These insurance benefits are provided through both self-funded and fully insured arrangements.

Teacher Retirement System

TRS-ActiveCare is a health benefits program that offers options ranging from catastrophic coverage with reduced premiums to a comprehensive plan at higher premiums. TRS-ActiveCare covers members currently employed by public educational employers that participate in the plan.

TRS-ActiveCare offers employees of participating entities the option of three preferred provider organization plans and also offers employees of certain areas the option of choosing coverage under an HMO plan. In fiscal 2019, 1,088 entities participated in the program.

The risk associated with TRS-ActiveCare is retained by the plan's participants, and no risk is transferred to the plan's administrators, employers or the state.

Changes in Claims Liability Balances

Table 17A presents the changes in claims liability reported in various balance sheet/statement of net position liability accounts during fiscal 2019 and fiscal 2018. Claims and judgment amounts presented in Note 5 are also included in table 17A.

Changes in Claims Liability Balances
Table 17A
(Amounts in Thousands)

	Beginning Balance	Increases	Decreases	Ending Balance
2019	$ 920,907 *	$ 3,907,707	$ 3,878,558	$ 950,056
2018	$ 922,695	$ 3,694,299	$ 3,695,087	$ 921,907

* Beginning balance includes a decrease of $1,000 due to a restatement.

Of the fiscal 2019 claims liability ending balance, $294.6 million relates to long-term claims liabilities, which are reported in Note 5. $769.3 million relates to the state's health, life and dental insurance programs, and the remainder to miscellaneous claims and judgments, all of which are reported as accounts payable.

Note 18

Contested Taxes

The state may make a determination on a taxpayer's tax obligation and liability. Taxpayers may petition for a redetermination hearing before an administrative law judge if they wish to challenge a tax liability assessed by the state. If the request for a redetermination hearing is received by a specified date, the taxpayer does not have to pay the tax until 20 days after a final decision is made by the Comptroller's office in redetermination hearing and served on the taxpayer. As of Aug. 31, 2019, there was an estimated $717.3 million of assessments filed that are currently in the redetermination hearings process. Collectability of these assessments is dependent upon the Comptroller's office decision in the redetermination hearing. These assessments are not recognized as tax revenue until after a Comptroller's office decision becomes final. Therefore, these amounts are not included in the receivables reported in the financial statements.

Note 19

Component Units and Related Organizations

Component units are legally separate organizations for which the elected officials of the primary government are financially accountable. Component units can also be other organizations for which the nature and significance of their relationship with a primary government is such that exclusion would cause the reporting entity's financial statements to be misleading. In addition, component units can be organizations that raise and hold economic resources for the direct benefit of a government unit. Because of the closeness of their relationships with the primary government, some component units are blended as though they are part of the primary government. Other component units are discretely presented. None of the discrete component units for the state of Texas meet the criteria for major component unit presentation and those presented are for informational purposes of interested parties. The component units are reported for the fiscal year ended Aug. 31, 2019 unless indicated otherwise.

Blended Component Units

The state is financially accountable for the following legally separate entities. These component units are reported as if they are part of the primary government because they provide substantially all of their services directly to the state, or the component units' debts are expected to be repaid entirely or almost entirely with the resources of the state. The component units' financial data is blended in the appropriate funds within the financial statements.

Employees Retirement System of Texas (ERS) is a legally separate entity established by the Legislature to administer benefits for officers and employees of the state. ERS is governed by a six-member board of trustees. The six-member board is composed of three elected members and three members who are appointed respectively by the governor, the speaker of the Texas House of Representatives, and the chief justice of the Supreme Court of Texas. The state of Texas has the ability to impose its will upon ERS through its legislative and budget approval powers. Separate financial statements may be obtained by contacting ERS at P.O. Box 13207, Austin, Texas 78711.

Texas Treasury Safekeeping Trust Company (Trust Company) is a legally separate entity established by the Legislature. The Texas Comptroller of Public Accounts is the single shareholder of the Trust Company and is charged with managing the Trust Company. The Trust Company is authorized to manage, disburse, transfer, safekeep and invest funds and securities provided by statute or belonging to state and local entities and gives the Comptroller's office direct access to services provided by the Federal Reserve System. Separate financial statements may be obtained by contacting the Trust Company at 208 E. 10th St., 4th Floor, Austin, Texas 78701.

Alamo Trust, Inc. (ATI), (formerly known as Alamo Complex Management), is a legally separate entity, whose amended bylaws ended the component unit relationship with Alamo Endowment (a discrete component unit of the Texas General Land Office (GLO)). ATI is reported for the fiscal year ended June 30, 2019. For fiscal year ended Aug. 31, 2019, the financial statements are not incorporated into the financial statements of the GLO.

Texas Private Activity Bond Surface Transportation Corporation (TxPABST) is a legally separate entity that acts on behalf of the Texas Department of Transportation (TxDOT) in the promotion and development of transportation facilities by issuing private activity bonds for projects developed under comprehensive development agreements (CDA) entered into by TxDOT. Bonds issued by TxPABST are not legal obligations of the state and are payable solely from payments received by or on behalf of a CDA developer. The Texas Transportation Commission appoints the voting majority of TxPABST's governing board, and has the ability to remove appointed board members at will. TxPABST does not have any financial activity, as its sole purpose is to issue debt on behalf of TxDOT. TxPABST does not issue separate financial statements. Information about TxPABST may be obtained by contacting TxPABST at 125 East 11th Street, Austin, Texas 78701.

Grand Parkway Transportation Corporation (GPTC) is a legally separate entity that acts on behalf of TxDOT in the promotion and development of the Grand Parkway project by issuing bonds and entering into CDAs with developers for the design and construction of several segments of the Grand Parkway project. The Texas Transportation Commission (TTC) appoints the members of GPTC's governing board, all of whom must be TxDOT employees. The TTC has the ability to remove appointed board members at will. The financial activity of GPTC is reported in the financial statements of TxDOT. Information about GPTC may be obtained by contacting GPTC at 125 East 11th Street, Austin, Texas 78701.

Windham School District (WSD) is a legally separate entity that provides education to offenders within the Texas Department of Criminal Justice. The Texas Board of Criminal Justice serves as the board of trustees for the WSD. The primary government is able to impose its will on the WSD through its ability to modify or approve the budget of the WSD. WSD's entire debt is covered by the state of Texas through appropriations, and the state is liable for any and all outstanding debt. WSD does not issue separate financial statements. Information about WSD may be obtained by contacting the Texas Department of Criminal Justice at P.O. Box 13034, Austin, Texas 78711.

Friends of the Texas Historical Commission (Friends) is a legally separate entity whose sole purpose is to support the activities of the Texas Historical Commission (THC). Friends is reported as a component unit due to it being closely related to the primary government. The THC has the power to appoint and remove the majority of the Friends board of trustees. The THC provides office space to Friends. In addition, the staff of Friends participates in programs sponsored by THC. Separate financial statements may be obtained by contacting Friends at P.O. Box 13497, Austin, Texas 78711.

Texas Tech Foundation Inc. (TTF) is a legally separate entity established to financially support and serve the fundraising needs of Texas Tech University System (TTUS). The governing board of TTF is appointed by the TTUS board of regents. The board of regents has the ability to impose its will on TTF through its ability to veto, override, or modify the decisions of TTF and its ability to modify or approve the budget of TTF. Separate financial statements may be obtained by contacting the TTUS Office of Institutional Advancement, located at 1508 Knoxville Avenue, Suite 315, Lubbock, Texas 79409.

Texas Tech Physician Associates (TTPA) is a legally separate entity established for the sole purpose of, and is operated exclusively for, the benefit of the Texas Tech University Health Science Center (TTUHSC) and TTUHSC at El Paso. The nine-member governing board of TTPA is appointed by TTUHSC. TTUHSC controls all financial and operational transactions of TTPA, and has the ability to remove board members at will. Separate financial statements may be obtained by contacting TTPA at Provider Payor Relations, 3601 4th Street, Lubbock, Texas 79430.

The Angelo State University Foundation (ASUF) is a legally separate nonprofit organization created exclusively to provide financial assistance to Angelo State University (ASU) primarily from gifts and earnings on endowed funds. There is no appointment of board members. The Texas Tech University System Chancellor, ASU President, ASU Faculty Senate President and ASU Chief Financial Officer are non-voting ex-officio members on the board of directors. ASUF is closely related to ASU. Failure to include the financial information of ASUF would result in misleading financial statements. Separate financial statements may be obtained by contacting ASUF at 2601 W. Ave N, San Angelo, Texas 76909.

Texas State University Research Foundation (TSURF) is a legally separate entity established to support the mission of Texas State University (TSU) and its objectives of promoting higher education, conducting research, providing public service and assisting in economic development in Texas. The key business officers of TSU compose the entirety of TSURF's officers and directors. TSU is able to impose its will on TSURF through its ability to modify or approve the budget of TSURF, its ability to modify or approve the rates or fees affecting revenues of TSURF and its ability to appoint, hire, reassign or dismiss those persons responsible for the day-to-day operations of TSURF. TSURF is reported for the fiscal year ended Feb. 28, 2019. Separate financial statements may be obtained by contacting TSU, Director of Accounting, General Accounting Office, 601 University Drive, JCK 589, San Marcos, Texas 78666-4684.

Harold M. Freeman Educational Foundation (Freeman Foundation) is a legally separate entity formed through a trust to make the use of the Freeman Ranch available exclusively to TSU. The Freeman Ranch is used and operated solely for farm, ranch and game management, education, and research purposes in connection with the educational activities of TSU. There is no formal governing board for the Freeman Foundation. TSU acts as an active co-trustee to operate the ranch. Frost Bank operates as an inactive trustee to ensure the provisions of the trust are followed. Based on the Freeman Foundation being closely related to TSU, the Freeman Foundation is included as a blended component unit. Separate financial statements are not issued by the Freeman Foundation. Information about the Freeman Foundation may be obtained by contacting TSU, Director of Accounting, General Accounting Office, 601 University Drive, JCK 589, San Marcos, Texas 78666-4684.

Texas A&M Research Foundation (TAMRF) is a legally separate entity established to facilitate research and development within the Texas A&M University System (A&M). TAMRF is included as a blended component unit in the combined financial statements of A&M. This determination is based on the close relationship and joint agreements in effect between TAMRF and A&M in regard to research grant/contract administration. Complete financial statements of TAMRF may be obtained from their administrative offices at 400 Harvey Mitchell Parkway South, Suite 300, College Station, Texas 77845.

U.T. Southwestern Health Systems Inc. (SHSI) is a legally separate entity established to support the University of Texas Southwestern Medical Center (UTSWMC). Its four-member governing board is appointed by the UTSWMC. UTSWMC has the ability to impose its will on SHSI through its ability to remove appointed board members at will, its ability to modify or approve the budget of SHSI and its ability to modify or approve rates or fees affecting revenues of SHSI. Separate financial statements may be obtained by contacting SHSI at 5323 Harry Hines Boulevard, Dallas, Texas 75390.

U.T. Southwestern Moncrief Cancer Center (SW Moncrief) is a legally separate entity established to support the UTSWMC. Its four-member governing board is appointed by the president of UTSWMC. UTSWMC has the ability to impose its will on SW Moncrief through its ability to remove appointed board members at will, its ability to modify or approve the budget of SW Moncrief and its ability to modify or approve rates or fees affecting revenues of SW Moncrief. Separate financial statements may be obtained by contacting SW Moncrief at 400 West Magnolia Avenue, Fort Worth, Texas 76104.

Moncrief Cancer Foundation (Moncrief) is a legally separate entity established to support the UTSWMC. Its six-member governing board is appointed by the president of UTSWMC. UTSWMC has the ability to impose its will on Moncrief through its ability to remove appointed board members at will, its ability to modify or approve the budget of Moncrief and its ability to modify or approve rates or fees affecting revenues of Moncrief. Separate financial statements may be obtained by contacting Moncrief at 5323 Harry Hines Boulevard, Dallas, Texas 75390.

UTMB Healthcare Systems Inc. (Healthcare Systems) is a legally separate entity established to support the University of Texas Medical Branch at Galveston (UTMB). Its eight-member governing board is appointed by the UTMB. UTMB has the ability to impose its will on Healthcare Systems through its ability to remove appointed board members, its ability to modify the budget of Healthcare Systems, its ability to appoint, hire, reassign or dismiss those responsible for Healthcare Systems' day-to-day operations and its ability to unilaterally abolish Healthcare Systems. Separate financial statements may be obtained by contacting Healthcare Systems at 301 University Boulevard, Galveston, Texas 77555.

University Medical Branch Student Book Store and Hospitality Shop Inc. (Book Store) is a legally separate entity established to operate the book store for UTMB. Its five-member governing board is appointed by UTMB. UTMB has the ability to impose its will through its ability to remove appointed board members at will and its ability to appoint, hire, reassign or dismiss those responsible for the Book Store's day-to-day operations. Separate financial statements may be obtained by contacting the Book Store at 301 University Boulevard, Galveston, Texas 77555.

Medical Branch Innovations, Inc. (MBII) is blended rather than discretely presented because it operates exclusively in support of the education, clinical, and research missions of UTMB. Its three-member board is appointed by UTMB. Separate financial statements may be obtained by contacting MBII at 301 University Boulevard, Galveston, Texas 77555.

University of Texas Physicians (UT Physicians) is a legally separate entity established to provide management services for the physician practice plan at the University of Texas Health Science Center at Houston (UTHSCH). Its five-member governing board is appointed by UTHSCH. UTHSCH has the ability to impose its will on UT Physicians through its ability to modify or approve the budget of UT Physicians, its ability to modify or approve rates or fees affecting revenues of UT Physicians and its ability to appoint, hire, reassign or dismiss those responsible for UT Physicians' day-to-day operations. Separate financial statements may be obtained by contacting UT Physicians at 7000 Fannin Street, Suite 860, Houston, Texas 77030.

University of Texas System Medical Foundation (Medical Foundation) is a legally separate entity established to support the medical residency programs at UTHSCH. Its three-member governing board is appointed by the UTHSCH. UTHSCH has the ability to impose its will on the Medical Foundation through its ability to modify or approve the budget of the Medical Foundation and its ability to appoint, hire, reassign or dismiss those responsible for the Medical

Foundation's day-to-day operations. Separate financial statements may be obtained by contacting the Medical Foundation at 6431 Fannin St., Suite JJL 310, Houston, Texas 77030.

University Physicians Group (UPG) is a legally separate entity established to provide health care education and research activity services to the University of Texas Health Science Center at San Antonio (UTHSCSA). Its five-member governing board consists of the dean of the School of Medicine and four members elected by the physician practice plan board (physicians) at UTHSCSA. UTHSCSA has the ability to remove board members at will, the ability to modify or approve the budget of UPG, the ability to veto, overrule or modify the decisions of UPG's board, the ability to appoint, hire, reassign or dismiss those responsible for UPG's day-to-day operations and the ability to unilaterally abolish UPG. Separate financial statements may be obtained by contacting UPG at 8431 Fredericksburg Road, San Antonio, Texas 78229.

UT Health San Antonio Regional Physicians Network (Corporation) is a legally separate entity established to provide, manage, coordinate and promote accountability for the quality, patient safety, cost and overall patient support for University of Texas Health Science Center at San Antonio. The corporation is governed by a seven-member board. The dean of the school of medicine serves as chair of the board of directors. Separate financial statements may be obtained by contacting the Corporation at 1999 Bryan St., Suite 900, Dallas, Texas 75201-3136.

M.D. Anderson Physicians Network (MDAPN) is a legally separate entity established to support the University of Texas M.D. Anderson Cancer Center (Cancer Center). MDAPN's nine-member board is appointed by the president of Cancer Center. The president may remove appointed board members at will. Separate financial statements may be obtained by contacting MDAPN at 7007 Bertner Avenue, Suite 10.3212, Houston, Texas 77030.

M.D. Anderson Services Corporation (MDASC) is a legally separate entity established to support the Cancer Center. The seven-member board is appointed by the president of the Cancer Center. The president may remove appointed board members at will. Separate financial statements may be obtained by contacting MDASC at 7007 Bertner Avenue, Suite 10.3212, Houston, Texas 77030.

East Texas Quality Care Network (ETQCN) is a legally separate entity established to provide agency nursing services to the University of Texas Health Science Center at Tyler (UTHSCT). Its four-member governing board is appointed by UTHSCT. UTHSCT has the ability to remove board members at will, the ability to modify or approve the budget of ETQCN, the ability to modify or approve rates or fees affecting revenues of ETQCN, the ability to veto, overrule or modify the decisions of ETQCN's board, the ability to appoint, hire, reassign or dismiss those responsible for ETQCN's day-to-day operations and the ability to unilaterally abolish ETQCN. Separate financial statements may be obtained by contacting ETQCN at 11937 US Highway 271, Tyler, Texas 75708-3154.

University of Texas/Texas A&M Investment Management Co. (UTIMCO) is a legally separate entity established to provide investment management services to University of Texas System (UT) and Texas A&M University System (A&M). UTIMCO's nine-member board consists of at least three members of the UT board of regents, four members appointed by the UT board of regents (one of whom may be the Chancellor of UT) and two members appointed by the A&M board of regents. At least three members appointed by the UT board of regents and at least one member appointed by the A&M board of regents must have substantial background and expertise in investments. The corporation is blended rather than discretely presented because it provides investment management services entirely or almost entirely to UT. Separate financial statements may be obtained by contacting UTIMCO at 210 West 7th Street, Suite 1700, Austin, Texas 78701.

University of Texas Fine Arts Foundation (Fine Arts) is a legally separate entity established to acquire the Suida-Manning Art Collection for the University of Texas at Austin (UT-Austin) Blanton Museum of Art. Fine Arts' three-member governing board is appointed by UT-Austin. UT-Austin has the ability to impose its will on Fine Arts through its ability to remove appointed board members at will, its ability to modify or approve Fine Arts' budget, its ability to veto, overrule or modify the decisions of Fine Arts and unilaterally abolish Fine Arts. Fine Arts' fiscal year end is Dec. 31, 2018. Separate financial statements may be obtained by contacting UT-Austin at Main Building, P.O. Box T, Austin, Texas 78713.

University of Texas Communication Foundation (UTCF) is a legally separate entity established to support the UT-Austin College of Communication. Its three-member governing board is appointed by UT-Austin. UT-Austin has the ability to impose its will on the UTCF through its ability to remove appointed board members at will, its ability to modify or approve the UTCF's budget, its ability to veto, overrule or modify the decisions of UTCF and unilaterally abolish UTCF. Separate financial statements may be obtained by contacting UT-Austin at P.O. Box 7322, Austin, Texas 78713.

Centro Global de Innovacion y Emprendimiento, A.C., Parque de Investigacion e Innovacion Technologica (CGIE) is a legally separate entity established to promote academic development in engineering, science, and business and cultural studies between UT-Austin and Mexico's academic institutions. CGIE is governed by a two-member board appointed by UT-Austin. UT-Austin is the sole corporate member. CGIE's fiscal year end is Dec. 31, 2018. Separate financial statements may be obtained by contacting CGIE, A.C., Carlos Ross, Director, ross@cgie.org.mx.

The University of Texas at Austin - Mexico Institute, A.C. (Mexico Institute), is established to advance collaborative cross-disciplinary academic and scientific research partnerships in science, technology, engineering and mathematics and scholarly and cultural studies between UT-Austin and Mexico's academic institutions, the public and private sector stakeholders. Mexico Institute is governed by a four-member board appointed by UT-Austin. Mexico Institute's fiscal year end is Dec. 31, 2018. Separate financial statements may be obtained by contacting UT-Austin, Jorge Rene Pinon, Director for Institutional Relations - Mexico, 2275 Speedway, Austin, Texas 78712.

The Crow Museum of Asian Art - Foundation (CMAA Foundation), is established to support the Crow Museum of Art. Its five-member governing board is appointed by University of Texas Dallas (UT-Dallas). The foundation is blended rather than discretely presented because it is organized as a not-for-profit corporation. UT-Dallas is the sole corporate member. CMAA Foundation's fiscal year end is Dec. 31, 2018. Separate financial statements may be obtained by contacting the Crow Museum of Asian Art, 2010 Flora Street, Dallas, Texas 75201.

The Crow Museum of Asian Art - Trust (CMAA-Trust), is governed by UT-Dallas as sole trustee. CMAA - Trust is blended rather than discretely presented because it is organized as a not-for-profit corporation. UT-Dallas is the sole corporate member. CMAA - Trust's fiscal year ended is Dec. 31, 2018. Separate financial statements may be obtained by contacting CMAA - Trust, 2010 Flora Street, Dallas, Texas 75201.

Discretely Presented Component Units

The state is financially accountable for the following legally separate entities (component units); however, the component units do not provide services entirely or almost entirely to the state nor are the component units' debts expected to be repaid entirely or almost entirely with the resources of the state. The component units' financial data is discretely presented in the component unit column of the state's government-wide financial statements. Based on an analysis performed at year end, none of the discretely presented component units met the materiality threshold for presentation; however, omission of the following discretely presented component units would result in misleading financial statements.

Teacher Retirement System of Texas (TRS) is a legally separate entity established by the Legislature to administer retirement and disability annuities to employees and beneficiaries of public school systems and institutions of higher education. TRS is governed by a nine-member board of trustees, three of whom are direct appointments of the governor. The remaining trustees are appointed by the governor from lists prepared by various constituent groups. TRS is subject to the budget approval powers of the Texas Legislature, and therefore is fiscally dependent on the state of Texas. The active employees insurance program and 403(b) administrative program are reported in the component unit column of the government-wide financial statements; whereas the employee benefit trust fund and retired employees insurance are reported in the pension and other employee benefit trust funds financial statements. TRS has a blended component unit, Teacher Retirement Investment Company of Texas Ltd. (TRICOT). It is a private company limited by shares in the United Kingdom that began operating in Nov. 2015. TRICOT was formed for the purpose of opening a London investment office to increase investment opportunities for the TRS portfolio. TRICOT serves the pension trust fund. Separate financial statements may be obtained by contacting TRS at 1000 Red River St., Austin, Texas 78701.

State Bar of Texas (State Bar) is a public corporation and an administrative agency of the judicial branch of government. The purpose of the State Bar is to ensure that public responsibilities of the legal profession are effectively discharged. The annual budget for the State Bar must be reviewed and approved by the Supreme Court, thus making the State Bar fiscally dependent on the state of Texas. The State Bar is reported for the fiscal year ended May 31, 2019. Separate financial statements may be obtained by contacting the State Bar at 1414 Colorado St., Austin, Texas 78701.

Texas State Affordable Housing Corporation (TSAHC) was incorporated under the Texas Nonprofit Corporation Act and is legally separate from the state. Its purpose is to serve the housing needs of low-income Texans, professional educators, firefighters and police officers who are first-time home buyers and are not afforded housing finance options through conventional lending channels. TSAHC provides single and multifamily loans to low and moderate income Texans. Prior to any bonds being issued by TSAHC, the issuance must be reviewed by the Bond Review Board, which is composed of the governor, lieutenant governor, speaker of the House of Representatives and the Comptroller. Separate financial statements may be obtained by contacting TSAHC at 2200 East Martin Luther King Jr. Blvd., Austin, Texas 78702.

OneStar National Service Commission and **OneStar Foundation** (OneStar) are legally separate nonprofit corporations that administer the AmeriCorps*Texas program. They serve as the state's liaison to and oversee Texas' participation in OneStar programs for the Corporation for National and Community Service (a federal agency), as well as prepare a comprehensive three-year national service plan for the state. The governor appoints all members of OneStar's boards. The governor can also remove any board member at will. OneStar performs all administrative duties of the OneStar National Service Commission, Inc., as well as provides technical assistance, education, information and other support to the volunteer community. OneStar is reported for the fiscal year ended Dec. 31, 2018. The financial statements of OneStar can be obtained by contacting OneStar at 9011 Mountain Ridge Drive, Suite 100, Austin, Texas 78759.

Texas Low-Level Radioactive Waste Disposal Compact Commission (Commission) is a legally separate organization established to promote the health, safety and welfare of the citizens and environment of the states participating in the Texas Low-Level Radioactive Waste Disposal Compact (Compact), known as party states. There are currently two party states, Texas and Vermont, with Texas serving as the host party state. The mission of the Commission is to:

- Limit the number of radioactive waste disposal facilities;
- Effectively, efficiently and economically manage low-level radioactive waste; and
- Encourage the reduction of the generation thereof.

Since Texas serves as the host party state for the Compact, it is entitled to six voting members, whereas the other party state is only entitled to one voting member. The governor appoints the six members of the Commission serving on behalf of Texas. As host state, Texas has the authority to establish the disposal fees assessed at the facility for disposal of low-level radioactive waste generated in the party states. The Texas Legislature, with the approval of the governor, also has the authority to revise the portion of the Compact pertaining to the volume of waste the host state will dispose of without the consent of the nonhost party states. The financial statements of the Commission may be obtained by contacting the Commission at 505 West 15th Street, Austin, Texas 78701.

Texas Prepaid Tuition Scholarship Foundation (TPTSF) is a legally separate entity that was created to provide prepaid tuition scholarships to students meeting economic or academic requirements. TPTSF is a direct-support organization of the Texas Guaranteed Tuition Plan and is authorized by the Texas Education Code. TPTSF is governed by a board composed of the Comptroller, a member appointed by the governor with the advice and consent of the Senate and three members appointed jointly by the Comptroller and the member who is appointed by the governor. The Comptroller serves as the Executive Director of the board and assigns and supervises employees responsible for the day-to-day operations of TPTSF. TPTSF does not issue separate financial statements. Information may be obtained by contacting the Texas Comptroller of Public Accounts, Educational Opportunities and Investments Division at 111 E. 17th Street, Austin, Texas 78774.

Texas Match the Promise Foundation (TMPF) is a legally separate entity established to implement the Texas Save and Match Program, which helps families save for college by offering competitive matching scholarships and tuition grants to Texas students who participate in the Texas Tuition Promise Fund. The Comptroller appoints TMPF's governing board, and can remove appointed board members at will. The Comptroller also assigns and supervises employees responsible for the day-to-day operations of TMPF. TMPF does not issue separate financial statements. Information may be obtained by contacting the Texas Comptroller of Public Accounts, Educational Opportunities and Investments Division at 111 E. 17th Street, Austin, Texas 78774.

Texas Windstorm Insurance Association (Association) is a legally separate organization established to provide an adequate market for windstorm and hail insurance in the seacoast territory of Texas and serves as an insurer of last resort. The commissioner of the Texas Department of Insurance (TDI) appoints the nine-member board of directors, and the board is responsible and accountable to the commissioner. The state of Texas has the ability to impose its will on the Association through TDI commissioner approval of rates and maximum liability limits for windstorm and hail insurance policies issued by the Association. The Association is reported for the fiscal year ended Dec. 31, 2018. Separate financial statements may be obtained by contacting the Association at 5700 South Mopac Expressway, Building A, Austin, Texas 78749.

Surplus Lines Stamping Office of Texas (Stamping Office) is a legally separate nonprofit unincorporated organization created by the Legislature to assist TDI in the regulation of surplus lines insurance. TDI's commissioner appoints the board. The Stamping Office performs its functions under a plan of operation approved by order of TDI. The Stamping Office assesses each surplus lines insurance agent a stamping fee for the administrative funding of the Stamping Office. The state of Texas has the ability to impose its will upon the Stamping Office through the approval of the assessment rate that funds its operations. The Stamping Office is reported for the fiscal year ended Dec. 31, 2018. Separate financial statements may be obtained by contacting the Stamping Office at 805 Las Cimas Parkway, Suite 150, Austin, Texas 78746-6526.

Texas Health Reinsurance System (THRS) is a legally separate entity that reinsures risks covered under the health benefit plans of small employers' insurance carriers. TDI's commissioner appoints, supervises and controls the nine-member board. The state of Texas has the ability to impose its will through TDI commissioner approval of base reinsurance premium rates and the assessment rates against reinsured health benefit plans. Issuers are subject to commissioner approval. Senate Bill 1171-ENR-85R of the 85th Legislature called for approval of a Plan of Suspension of THRS. Following notice and hearing, TDI approved a Plan of Operation for THRS authorizing its wind down, suspension of operations and closeout. Final reporting for THRS will be in fiscal year 2019.

Texas FAIR Plan Association (TFPA) is a legally separate entity established to administer the Fair Access to Insurance Requirements Plan, which delivers property insurance to Texas residents in underserved areas. The 11-member governing board is appointed by TDI's commissioner. The commissioner may remove appointed board members at will. TFPA is reported for the fiscal year ended Dec. 31, 2018. Separate financial statements may be obtained by contacting TFPA at 5700 South Mopac Expressway, Building A, Austin, Texas 78749-1461.

Texas Boll Weevil Eradication Foundation Inc. (TBWEF) is a legally separate entity that establishes and implements a boll weevil eradication program for Texas. It is governed by 21 board members. The Texas Department of Agriculture's (TDA) commissioner appoints five of the board members. Although TDA must approve the TBWEF's budget, assessment fees and debt, a financial benefit or financial burden does not exist between the TBWEF and the primary government. Therefore, the primary government is not financially accountable for the TBWEF. However, based on the TBWEF's financial relationship with the TDA, omitting the TBWEF would result in incomplete financial statements. The TBWEF is reported for the fiscal year ended Dec. 31, 2018. Separate financial statements may be obtained by contacting TDA at P.O. Box 12847, Austin, Texas 78711-2847.

Texas Agricultural Finance Authority (TAFA) is a legally separate entity that provides financial assistance for the expansion, development and diversification of agricultural businesses, and primarily benefits the citizens of Texas. TAFA is governed by a board of directors composed of the Commissioner of Agriculture, Deputy Commissioner of Agriculture Designee, the Director of the Institute for International Agribusiness studies at Prairie View A&M University, and nine members appointed by the Commissioner of Agriculture. The commissioner of TDA administers TAFA with the assistance of the board of directors. If there are insufficient funds to pay TAFA's bond obligations, the primary government is obligated to transfer money from the state treasury to TAFA in an amount sufficient to pay those obligations. Separate financial statements may be obtained by contacting TDA at P.O. Box 12847, Austin, Texas 78711-2847.

Texas Water Resources Finance Authority (Authority) is a legally separate entity created by the Legislature as a governmental entity and body politic and corporate for the purpose of increasing the availability of financing for water-related projects, and primarily benefits the citizens of Texas. A board of directors, composed of the three members of the Texas Water Development Board (TWDB), governs the Authority. The members of the TWDB are appointed by the governor. TWDB, through a sales and servicing agreement, wholly manages the Authority's operations. Financial statements may be obtained by contacting TWDB at P.O. Box 13231, Austin, Texas 78711-3231.

Texas Appraiser Licensing and Certification Board (TALCB) is a legally separate entity statutorily created as an independent subdivision of the Texas Real Estate Commission (TREC) to serve the real estate community in Texas. The governor appoints the members of the governing board. TREC provides administrative support to TALCB, but has no authority to approve or modify its budget or to set its fees. Although TREC is not financially accountable for TALCB, to exclude it would result in the presentation of incomplete financial statements. Financial statements can be obtained by contacting TREC at P.O. Box 12188, Austin, Texas 78711-2188.

Texas Disaster Relief Fund (TDRF), a legally separate nonprofit corporation, was established to help the Office of the Governor provide disaster relief. The services provided by TDRF assist the Office of the Governor in responding to the needs of the citizens before, during and after a disaster in Texas. The corporation's financial statements for the year ended Dec. 31, 2018, may be obtained by contacting the Office of the Governor at P.O. Box 12428, Austin, Texas 78711.

Texas Health Services Authority (THSA) is a legally separate entity created for the improvement of the Texas health care system. THSA promotes and coordinates the electronic exchange of health information throughout the state to ensure information is available to health care providers and to improve patient safety and quality of care. The board of directors consists of 11 members and is appointed by the governor, with the advice and consent of the Senate. The Governor may order the dissolution of the corporation at any time he declares that the purpose of the corporation has been fulfilled or that the corporation is inoperative or abandoned. THSA is reported for the fiscal year ended Sept. 30, 2018. THSA's financial statements may be obtained by contacting THSA at 901 South Mopac Expressway, Bldg. 1, Suite 300, Austin, Texas 78746.

Beacon State Fund (BSF) is a legally separate organization established to support the goals of the Governor's Commission on Women (GCW) in promoting issues affecting the women of Texas through distributing of information, holding media campaign events and supporting community outreach programs, which are consistent with the goals of the commission. The board is elected annually by the current board of directors at its annual meeting. The Office of the Governor provides reasonable use of its office facilities and personnel. BSF is reported for fiscal year ended Dec. 31, 2018. Financial statements may be obtained by contacting the Office of the Governor, P.O. Box 12428, Austin, Texas 78711.

State Agency Council (SAC) is a legally separate organization established to support the goals of the GCW by honoring women who have made significant contributions to Texas through their work in state government, providing opportunities for professional development to its state agency representatives and supporting community outreach programs consistent with the goals of GCW. The director of GCW appoints the board and has operational influence on the activities of the corporation. SAC is reported for the fiscal year ended Dec. 31, 2018. Financial statements for the SAC may be obtained by contacting the GCW at P.O. Box 12428, Austin, Texas 78711.

Texas Governor's Mansion Administration (TGMA) is a legally separate nonprofit organization established to support the financial administration of catering and facility and other expenses associated with the use of the official residence of the governor of the state for events and operations. TGMA is closely related to the state of Texas because the Office of the Governor provides administrative services, including accounting services, to TGMA. TGMA is reported for the fiscal year ended Dec. 31, 2018. Separate financial statements for TGMA may be obtained by contacting the Office of the Governor at P.O. Box 12428, Austin, Texas 78711.

Robert G. Carr and Nona K. Carr Scholarship Foundation (Carr Foundation) is a legally separate entity established for the sole purpose of providing scholarships to students of ASU, a campus within the Texas Tech University System (TTU). The TTU board of regents serves as the governing board for the Carr Foundation, and has the ability to appoint, hire, reassign or dismiss those persons responsible for the day-to-day operations of the Carr Foundation. Separate financial statements may be obtained by contacting the Carr Foundation at P.O. Box 11007C, ASU Station, San Angelo, Texas 76909.

University of North Texas Foundation (UNTF) is a legally separate entity established to raise funding for scholarships for students of the University of North Texas System (UNT), as well as provide funding for the benefit of the UNT. The majority of endowments supporting the UNT scholarships and other University programs are owned by the UNTF. Therefore, the UNTF is closely related to the UNT, and failure to include its financial activities would lead to incomplete financial statements. Separate financial statements may be obtained by contacting the UNTF at 1155 Union Circle #311250, Denton, Texas 76203-5017.

University of North Texas Health Science Center Foundation (UNTHSCF) is a legally separate entity established to raise funding for scholarships for students of the University of North Texas Health Science Center (UNTHSC), as well as provide funding for the benefit of UNTHSC. The majority of endowments supporting the UNTHSC scholarships and other university programs are owned by the UNTHSCF. Therefore, the UNTHSCF is closely related to UNTHSC, and failure to include its financial activities would lead to incomplete financial statements. Separate financial statements may be obtained by contacting the UNTHSCF at 3500 Camp Bowie Blvd., Fort Worth, Texas 76107-2699.

The Alamo Endowment (TAE) is a legally separate entity established to provide resources and support for the preservation and maintenance of the Alamo Complex. The Texas General Land Office (GLO) appoints the voting majority of TAE and can impose its will through its ability to remove board members at will. GLO can also impose its will through its ability to appoint, hire, reassign or dismiss those persons responsible for the day-to-day operations of TAE. TAE is reported for the fiscal year ended June 30, 2019. Separate financial statements may be obtained by contacting TAE at P.O. Box 2099, San Antonio, Texas 78297.

Related Organizations

Related organizations are legally separate, fiscally independent entities for which the state appoints a voting majority of the board, but the state is not financially accountable for the entity.

Texas Economic Development Corporation (TxEDC) operates as a nonprofit corporation to assist, promote, develop and advance economic development in the state of Texas. TxEDC is no longer reported as a component unit, but is included because a majority of the board is appointed by the Office of the Governor (Office), but the Office is not financially accountable for TxEDC.

Texas Mutual Insurance Company (Texas Mutual) operates as a domestic mutual insurance company providing workers' compensation insurance in the state of Texas and also serves as the insurer of last resort. The commissioner of insurance regulates this entity to the same extent as a private mutual insurance company. The governor, with the advice and consent of the Senate, appoints five of the nine members of Texas Mutual's board of directors.

Texas Title Insurance Guaranty Association (TTIGA) is a legally separate nonprofit organization created for the purpose of providing funds for the protection of holders of covered claims as defined in the Texas Insurance Code. This applies to all title insurance written by title insurance companies authorized to do business in Texas. The nine-member board of directors is appointed by TDI's commissioner.

Texas Life and Health Insurance Guaranty Association (TLHIGA) is a legally separate entity created to protect persons against failure in the performance of contractual obligations under life, accident and health insurance policies and annuity contracts due to the impairment or insolvency of the member insurer that issued the policies or contracts. TDI's commissioner appoints TLHIGA's nine-member board of directors.

Midwestern State University Charitable Trust (Trust) is a nonprofit organization with the sole purpose of educational and other activities of Midwestern State University (MSU). It is governed by a board of trustees of no less than three members. This board appoints individuals to fill vacancies on the board as they occur with the approval of the MSU board of regents. The Trust's board of trustees serves under the direction of the board of regents, which has the power by majority vote to appoint or remove any or all of the trustees.

Charter School Finance Corporation is a nonprofit organization with the sole purpose of issuing revenue bonds for authorized open-enrollment charter schools for the acquisition, construction, repair or renovation of education facilities at those schools. The Texas Public Finance Authority appoints the board of directors in consultation with the commissioner of the Texas Education Agency and subject to the governor's approval.

Texas State University System Foundation Inc. (TSUSF) is a nonprofit corporation organized for the purpose of providing financial support for the universities and colleges within the Texas State University System. The TSUSF provides funds for student scholarships and faculty awards and assists the chancellor in performing his/her duties. The Foundation's seven-member board of directors is appointed by the chairman of the TSUS board of regents.

Operation Game Thief Committee is a nonprofit corporation established to administer the Operation Game Thief Program (The Program). The Program facilitates the apprehension and prosecution of persons who violate Texas laws intended to protect the state's natural or cultural resources and the public safety of persons using those natural or cultural resources. The Program also pays rewards and death benefits authorized by Texas statute. The Texas Parks and Wildlife Department's executive director appoints the members of the committee.

Parks and Wildlife Foundation of Texas, Inc. (Foundation) is a legally separate nonprofit organization established to manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations. The Foundation provides private support to the Texas Parks and Wildlife Department (Department), but the Department is not financially accountable for the Foundation, nor is the Foundation fiscally dependent on the Department. The Foundation is governed by a group of trustees, the majority of whom are appointed by the chairman of the Department.

The Texas Higher Education Foundation (THEF), formerly known as the College for all Texans, is established to support the Texas Higher Education

Coordinating Board (THECB) program initiatives. THECB is unable to impose its will on THEF and there is no financial benefit or burden relationship between THECB and THEF.

River Authorities are political subdivisions created by Texas statute. The Texas Constitution, Article XVI, Section 59, authorizes the Legislature to create districts that conserve and develop natural resources of the state. The conservation and development of the state's natural resources includes the control, storing, preservation and distribution for irrigation, power and all other useful purposes of storm waters, flood waters and the waters of rivers and streams; the reclamation and irrigation of arid, semiarid and other lands needing irrigation; the reclamation of drainage of overflowed lands and other lands needing drainage; the conservation and development of forests, water and hydro-electric power; the navigation of inland and coastal waters; and the preservation and conservation of all such natural resources of the state. The state of Texas appoints the voting majority for the following 17 river/water authorities:

- Angelina and Neches River Authority
- Brazos River Authority
- Central Colorado River Authority
- Guadalupe-Blanco River Authority
- Lavaca-Navidad River Authority
- Lower Colorado River Authority
- Lower Neches Valley River Authority
- Nueces River Authority
- Red River Authority
- Sabine River Authority
- San Antonio River Authority
- San Jacinto River Authority
- Sulphur River Basin Authority
- Trinity River Authority
- Upper Colorado River Authority
- Upper Guadalupe River Authority
- Upper Neches River Municipal Water Authority

Note 20

Deficit Fund Balances/Net Position of Individual Nonmajor Funds

Proprietary Funds

The **Texas Prepaid Tuition Plans**, that consist of the Texas Guaranteed Tuition Plan (Plan) and the Texas Tuition Promise Fund (TTPF), reported a deficit of $270.6 million. The Plan deficit of $416.1 million is due to the difference between the present value of actual and projected contract benefit payments and actual and projected contributions from account holders and investment earnings on those contributions to the Plan. The Plan was closed to new enrollment in 2003 when tuition was deregulated. Over the life of the Plan, actual tuition and required fees for Texas public four-year colleges and universities grew at a higher percentage rate than the Plan's investment return. The TTPF had a surplus of $145.5 million. The TTPF surplus cannot be used to offset the Plan's deficit.

The **Grand Parkway Transportation Corporation** (GPTC), a blended component unit of the Texas Department of Transportation, reported a deficit of $202 million. The deficit is primarily due to the total expenses exceeding the total revenues by $58.5 million. The largest expense in fiscal 2019 included $64.1 million of amortization and $218.1 million of interest. Interest was capitalized as intangible assets prior to substantial completion of the five segments of the System in March 2016. Starting April 2016, interest was reported as expense. Amortization of intangible assets began in fiscal 2016.

The **Texas Windstorm Insurance Association**, a discretely presented component unit of the state, reported a deficit of $267.7 million. The deficit is due to significant claim activity from Hurricane Harvey that affected the Texas coast in 2017. The deficit amount was reduced from fiscal 2018 to fiscal 2019.

Note 21

Tobacco Settlement

The state of Texas settled a lawsuit against certain tobacco manufacturers in 1998. The settlement included monetary and injunctive relief. The settling tobacco manufacturers agreed to remit annual payments to the state. Estimates made at the time of the agreement projected that these payments could total $15.3 billion over the first 25 years of the agreement. The court-ordered annual payment amounts are subject to adjustments based on the tobacco companies' domestic cigarette sales, the agreed inflation adjustment and any other court-ordered factors. A revenue accrual of $275.5 million is based on the payments received in December 2019. Tobacco settlement revenues were $462.8 million in fiscal 2018 and $453 million in fiscal 2019. As of fiscal 2019, cumulative actual tobacco settlement revenues were $11 billion.

During fiscal 2019 the state of Texas has filed an additional lawsuit against certain tobacco manufacturers seeking the court enforcement of the settlement agreement. The pending litigation relates to the sale of four cigarette brands, whose sales have not been included in the annual payments since 2015. Although the outcome of this case cannot presently be determined, favorable ruling based on other states' outcomes could result in significant additional income, totaling $125 million.

Note 22

Donor-Restricted Endowments

The state of Texas has donor-restricted endowments with net appreciation of 3.6 billion on investments available for authorization for expenditure by the governing board. Details for the amounts of the net appreciation on investments and how they are reported are presented in table 22A.

Donor-Restricted Endowments

Table 22A

(Amounts in Thousands)

Donor-Restricted Endowments	Amount of Net Appreciation	Reported in Net Position
True Endowments	$3,509,179	Expendable
Term Endowments	55,282	Expendable
	$3,564,461	

True endowments require the principal to be maintained inviolate and in perpetuity. Term endowments allow the principal to be expended after the passage of a stated period of time and all conditions of the endowment are met. Expendable funds are those funds that may be expended for either a stated purpose or for a general purpose as per the endowment gift terms. Nonexpendable funds are those required to be retained in perpetuity.

The majority of the state's endowments are the results of donations made to institutions of higher education. The Uniform Prudent Management of Institutional Funds Act, Texas Property Code, Chapter 163, provides general guidelines on how endowments should be maintained. An institution may appropriate for expenditures or accumulate as much as the institution determines prudent for the uses, benefits, purposes and duration of the endowment. Each institution sets the amounts and/or percentage of net appreciation on endowment investments that are authorized for expenditure in its spending plan.

Net appreciation on related investment balances for the University of North Texas Foundation and University of North Texas Health Science Center Foundation, discrete component units of the University of North Texas System have a combined ending net appreciation balance of $27 million. These amounts are not included in table 22A.

Note 23

Taxes Receivable and Tax Refunds Payable

Taxes receivable and tax refunds payable, as reported on the balance sheet - governmental funds, are detailed by tax type in the tables 23A and 23B.

Taxes Receivable by Tax Type

Table 23A

August 31, 2019 (Amounts in Thousands)

Tax Type	Taxes Receivable
Sales and Use Tax	$1,859,736
Motor Vehicle and Manufactured Housing	128,683
Motor Fuels	6,978
Oil and Natural Gas Production	537,215
Franchise	187,182
Insurance Occupation	254,176
Cigarette and Tobacco	18,420
Other	221,032
Total Taxes Receivable*	$3,213,422
Liquidity Characteristics:	
Current Taxes Receivable	$3,213,265
Noncurrent Taxes Receivable	157
Total Taxes Receivable	$3,213,422
* Total Taxes Receivable General Fund	$ 3,213,422
Motor Fuel Taxes Receivable in Other Governmental Funds:	
Current Taxes Receivable:	
State Highway Fund	246,937
Nonmajor Governmental Funds	82,531
Noncurrent Taxes Receivable:	
State Highway Fund	1
Nonmajor Governmental Funds	
Total Taxes Receivable – Balance Sheet – Governmental Funds	$ 3,542,891

Tax Refunds Payable by Tax Type

Table 23B

August 31, 2019 (Amounts in Thousands)

Tax Type	Tax Refunds Payable
Oil and Natural Gas Production	$ 106,117
Franchise	414,230
Total Tax Refunds Payable	$ 520,347

Texas franchise tax receivables represent balances due as of Aug. 31, 2019, for business-type activity that occurred in calendar year 2018. The franchise tax payments were due May 15, 2019; however, taxpayers were allowed to extend the filing date to November 2019.

Franchise taxes are considered earned when the business-type activity occurs. Franchise tax applies to certain for-profit entities doing business or chartered in Texas and is based on the total revenue, that is, income reported to the federal Internal Revenue Service (IRS) with various deductions, limitations, and exceptions. There are no required quarterly estimated payments under this tax. Annual franchise tax reports and tax payments are due May 15 unless it falls on a weekend or holiday then the next business day. Generally the tax earned during the first eight months of calendar year 2019 is not due until May 2020. As a result, the taxes receivable and related revenue that are earned in this eight month period are not measurable and are not accrued at fiscal year-end.

Note 24

Termination Benefits

Health Care Related Termination Benefits

Health care continuation under the Consolidated Omnibus Budget Reconciliation Act (COBRA) is provided for both voluntary and involuntary terminations. COBRA members are allowed to remain in their eligible insurance program for 18 months or 29 months if disabled. Covered dependents are eligible to remain in the program for 36 months. COBRA plan administrators for the state include the Employees Retirement System of Texas, the University of Texas System and the Texas A&M University System.

For self-insured and fully-insured plans, the insurance carrier performs the billing and collections process for COBRA participants. If the plan is self-insured, the insurance carrier then forwards the premium to the plan administrators, net of a 2 percent administrative fee, which is intended to cover costs related to the billing and collection functions. The plan administrators are responsible for any claims or administrative costs associated with COBRA participants that exceed these payments. For fiscal 2019, the cost to the state was approximately $27.1 million for 4,114 COBRA participants.

For the fully-insured health maintenance organization health insurance plans, the insurance carrier retains all premiums and is liable for all claims and expenses. Premium and expense information is not available for these plans.

Non-Health Care Related Termination Benefits

Generally, state employees are not awarded severance pay. Institutions of higher education and agencies with specific statutory authority may offer voluntary or involuntary termination payments for separation. In addition to termination payments, agencies may also offer career counseling and outplacement services.

Note 25

Segment Information

Primary Government

A segment is a separately identifiable activity reported as or within enterprise funds for which revenue bonds or other revenue-backed debt instruments are outstanding and for which related expenses, gains, losses, assets and liabilities can be identified. To qualify as a segment, an activity must also be subject to an external requirement to separately account for this revenue stream. Segment disclosure is not required for an activity whose only outstanding debt is conduit debt or if an individual fund is both a segment and reported as a major fund. Therefore, the following programs have met the requirements for disclosure as a segment. These following programs were funded by the issuance of revenue bonds, which require revenues, expenses, gains, losses, assets and liabilities to be separately accounted for:

- The Single Family Bond Program was created to originate below-market rate loans for eligible low- and moderate-income residents who are purchasing a residence.
- The Residential Mortgage Revenue Bond Program (RMRB) was created to purchase single-family loans, while proceeds from the remaining RMRB bond issues are used to purchase pass-through certificates created through the origination of single-family loans.
- The Collateralized Home Mortgage Revenue Bond Program was created to purchase pass-through certificates created through the funding of loans made to finance the purchase by eligible borrowers of new and existing single-family residences in the state. The Collateralized Home Mortgage Revenue Bonds were fully redeemed during fiscal 2019 and have no assets at the end of the year.

Condensed Statement of Net Position

Table 25A

August 31, 2019 (Amounts in Thousands)

	Single Family Bond Program Funds	Residential Mortgage Revenue Bond Funds	Collateralized Home Mortgage Revenue Bond Funds
ASSETS			
Current Restricted Assets	$ 203,248	$ 30,788	$
Noncurrent Restricted Assets	574,026	345,115	
Total Assets	777,274	375,903	0
Deferred Outflows of Resources	5,599		
LIABILITIES			
Current Liabilities	10,020	7,298	
Noncurrent Liabilities	630,017	266,203	
Total Liabilities	640,037	273,501	0
NET POSITION			
Restricted	142,836	102,402	
Total Net Position	$ 142,836	$ 102,402	$ 0

Condensed Statement of Revenues, Expenses and Changes in Net Position

Table 25B

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

	Single Family Bond Program Funds	Residential Mortgage Revenue Bond Funds	Collateralized Home Mortgage Revenue Bond Funds
OPERATING REVENUES (EXPENSES)			
Interest and Investment Income	$ 23,987	$ 8,259	$ 78
Net Decrease in Fair Value	13,634	13,307	(77)
Other Operating Revenues	50,478	7,731	
Operating Expenses	(51,879)	(17,645)	(12)
Operating Income	36,220	11,652	(11)
NONOPERATING REVENUES (EXPENSES)			
Transfer In (Out)	256	(4,497)	(1,761)
Changes in Net Position	36,476	7,155	(1,772)
Net Position, September 1, 2018	106,360	95,247	1,772
Net Position, August 31, 2019	$ 142,836	$ 102,402	$ 0

Condensed Statement of Cash Flows

Table 25C

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

	Single Family Bond Program Funds	Residential Mortgage Revenue Bond Funds	Collateralized Home Mortgage Revenue Bond Funds
NET CASH PROVIDED (USED) BY:			
Operating Activities	$ (22,878)	$ (5,927)	$ (8)
Noncapital Financing Activities	265,038	129,546	(539)
Investing Activities	(245,758)	(122,464)	484
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(3,598)	1,155	(63)
Cash and Cash Equivalents, September 1, 2018	29,698	17,612	63
Cash and Cash Equivalents, August 31, 2019	$ 26,100	$ 18,767	$ 0

Note 26

Service Concession Arrangements

The state of Texas has ten arrangements that fit the criteria of a service concession arrangement (SCA). As the transferor in these arrangements, the state retains ownership rights and title to all assets associated with an SCA. All ten of these arrangements were entered into by the Texas Department of Transportation (TxDOT). The fees the operator collects are in the form of tolls. Project maintenance and operations will transfer back to TxDOT once the arrangements have ended.

A general description of each SCA, including status, term and duration, is presented in table 26A.

These arrangements were entered into to:

- improve mobility by expanding existing road capacity and introducing managed toll lanes, traditional toll lanes and other strategies aimed at reducing traffic congestion;
- enable the state to deliver these projects faster than would be possible using traditional funding sources; and
- shift the majority of the financial risk to the operator.

In the year an SCA project opens for traffic, TxDOT records the capital assets acquired under the SCA at their acquisition value with a corresponding entry to deferred inflows of resources. The deferred inflows of resources balance will then be reduced and revenue will be recognized in a systematic manner over the term of the arrangement, beginning when the infrastructure assets are placed into operation.

Up-front concession payments received are recorded as assets (cash and cash equivalents) with an offset to deferred inflows of resources. Revenue is recognized and the deferred inflows of resources are reduced in a systematic and rational manner over the term of the arrangement. SCA amounts reported as of Aug. 31, 2019, are presented in table 26B.

Service Concession Arrangements

Table 26A

August 31, 2019

Arrangement Name	Construction Status	Term of Concession	Concession Dates Begin	Concession Dates End
IH 10 "Katy Managed Lanes"	Complete	46 years	2010	2055*
SH 130 Segments 5 and 6	Complete	50 years	2012	2062
SH 121 Concession	Complete	50 years	2009	2059
North Tarrant Exp Seg 1 and 2-West	Complete	52 years	2009	2061
North Tarrant Exp Seg 3A and 3B	Complete	52 years	2009	2061
LBJ/IH-635 Managed Lanes	Complete	52 years	2009	2061
Grand Parkway Seg D, E, F1, F2, G	Complete	40 years	2013	2053*
Grand Parkway Seg H-I	Under Construction	36 years	2018	2053*
SH 288	Under Construction	52 years	2016	2068
North Tarrant Exp Seg 3C	Under Construction	42 years	2019	2061

* Estimated. Concession period extends until Harris County/Grand Parkway Transportation Corporation is fully reimbursed for cost of construction and debt service.

Service Concession Arrangements – Amounts Recognized in Financial Statements – Governmental Activities

Table 26B

August 31, 2019 (Amounts in Thousands)

Arrangement Name	Cash and Cash Equivalents*	Capital Assets	Deferred Inflows of Resources**
IH 10 "Katy Managed Lanes"	$	$ 250,000	$ 195,653
SH 130 Segments 5 and 6	26,786	1,442,386	1,315,945
SH 121 Concession	340,068	1,336,606	3,023,818
North Tarrant Exp Seg 1 and 2-West		2,397,407	1,535,199
North Tarrant Exp Seg 3A and 3B		1,723,983	1,161,159
LBJ/IH-635 Managed Lanes		2,677,107	1,893,801
Grand Parkway Seg D, E, F1, F2, G		2,463,378	2,181,668
SH 288	10,738	54,909	25,479
North Tarrant Exp Seg 3C		5,350	
	$377,592	$12,351,126	$11,332,722

* The balance of cash and cash equivalents is the amount of unspent up-front concession payments.

** The deferred inflows of resources balance that relates to up-front payments received is recorded in governmental fund financials as other financing sources in the year received.

In some cases, TxDOT is obligated to make contributions of public funds to the SCA project during the construction period for portions of the project's design, construction or right-of-way costs. Outlays of TxDOT funds related to SCA projects are recorded as additions to construction in progress as they are incurred.

The Grand Parkway Transportation Corporation (GPTC) is a blended component unit of TxDOT. In fiscal 2013, GPTC and TxDOT entered into an arrangement that fits the criteria of a SCA. Pursuant to this arrangement, GPTC is responsible for the design, construction, financing and operation of Segments D (Harris County) and E, F1, F2, G, H and I of the Grand Parkway (State Highway 99) for a period until the bonds or other debt secured is fully repaid. GPTC will be entitled to all toll revenues during the operations period. At the end of the arrangement, operation of the roadway will be transferred to TxDOT.

The objective of this arrangement is to deliver this project in partnership with TxDOT more quickly than would be possible under a traditional structure.

As of Aug. 31, 2019, the Texas Transportation Commission has outstanding toll equity grant commitments and toll equity loan commitments totaling $173.4 million and $9.4 billion, respectively. Payments of these amounts are made subject to executed financial assistance agreements between TxDOT and the applicable public or private entity. The toll equity loan commitment is related to a toll equity loan agreement (TELA) with the GPTC. This agreement makes a loan available to be drawn on in the event revenues and certain reserves are insufficient to pay certain debt service or operations and maintenance cost of the toll systems of aforementioned entities. The GPTC funds financed by TELA-supported debt are to be used to pay for certain costs relating to the development, construction, operation, maintenance and financing of Segments D (Harris County), E, F1, F2, G, H and I and the predevelopment of possible extensions or expansions of the Grand Parkway. The maximum amount of money that can be paid by TxDOT to GPTC under the TELA is equal to the aggregate amount of cost that are authorized under Article VIII, Section 7a of the Texas Constitution and Section 222.103 of the Texas Transportation Code, i.e. the "Eligible Costs". As of Aug. 31, 2019, no drawdowns of funding have been requested by GPTC under this arrangement.

GPTC has recognized an intangible asset in the amount of $2.6 billion for its costs of design, construction and right-of-way acquisition for the year ended Aug. 31, 2019. This amount is reported as business-type activities.

Note 27

Deferred Outflows of Resources and Deferred Inflows of Resources

In fiscal 2019, the state reported deferred outflows of resources and deferred inflows of resources in connection with its hedging derivative instruments, service concession arrangements, bond refunding, pensions, other postemployment benefits other than pensions, government acquisitions, irrevocable split-interest agreements, direct borrowings/placements obligations, asset retirement obligations, and various types of revenues earned but not available at the fiscal year end.

Table 27A presents the balances of deferred outflows of resources and deferred inflows of resources as of Aug. 31, 2019 for governmental activities, business-type activities and governmental funds.

Deferred Outflows of Resources and Deferred Inflows of Resources

Table 27A

August 31, 2019 (Amounts in Thousands)

	Deferred Outflows of Resources		Deferred Inflows of Resources
Government-wide Financial Statements			
Governmental Activities			
Bond/Debt refunding	$ 169,665		$ 3,161
SCAs (Note 26)			11,332,722
Pensions (Note 9)	15,974,954		5,493,389
OPEB (Note 11)	3,648,098		24,488,873
Asset Retirement Obligation	1,689		
Total	$19,794,406		$41,318,145
Business-Type Activities			
Bond/Debt refunding	$ 152,600		$ 6,809
Derivatives (Note 7)	606,848	*	
Pensions (Note 9)	3,706,367		751,450
OPEB (Note 11)	3,445,673		3,912,380
Split Interest Agreements			58,731
Direct Placements	483		1,109
Government Acquisitions	38,734		
Asset Retirement Obligation	6,733		
Total	$ 7,957,438		$ 4,730,479
Fund Financial Statements			
Governmental Funds			
Revenue Earned But Not Available	$		$ 715,904
Total	$ 0		$ 715,904

* The $606,848 fair value for cash flow hedges is reported as a hedging derivative liability.

Deferred outflows of resources in business-type activities of $606.8 million related to hedging derivatives in a liability position. The hedging derivative liability of $606.8 million is disclosed in Note 7.

Deferred outflows of resources in business-type activities of $38.7 million represent the unamortized balance of the excess consideration over the net position acquired in the acquisition of various university assets.

Deferred inflows of resources in governmental activities of $11.3 billion were related to service concession arrangements (SCA) entered into by the Texas Department of Transportation (TxDOT) with non-state entities. This amount reflects the unamortized balance of up-front concession payments received and capital improvements acquired from these entities. Details of the state's SCA are disclosed in Note 26.

Deferred outflows of resources of $169.7 million in governmental activities were related to losses TxDOT and Texas Public Finance Authority incurred in bond refunding transactions. TxDOT and several universities also had bond refunding transactions in fiscal 2019 in business-type activities for $152.6 million in deferred outflows of resources related to losses.

Deferred inflows of resources in governmental activities of $3.2 million was related to a gain TxDOT incurred on a bond refunding transaction. Several universities also reported $6.8 million deferred inflows of resources related to bond refunding gains in business-type activities.

Deferred inflows of resources of $715.9 million in governmental funds were related to various types of revenues earned but not available within 60 days of fiscal year end.

The state reported $16 billion of deferred outflows of resources and $5.5 billion of deferred inflows of resources related to pensions in governmental activities. The state also reported $3.7 billion of deferred outflows of resources and $751.5 million of deferred inflows of resources related to pensions in business-type activities. Details of the state's pensions are disclosed in Note 9.

The state reported $3.6 billion of deferred outflows of resources and $24.5 billion of deferred inflows of resources related to OPEB in governmental activities. The state also reported $3.4 billion of deferred outflows of resources and $3.9 billion of deferred inflows of resources related to OPEB in business-type activities. Details of the state's OPEB are disclosed in Note 11 in fiscal 2019

The state reported $483 thousand of deferred outflows of resources and $1.1 million of deferred inflows of resources related to direct placement obligations and

$58.7 million of deferred inflows of resources related to split-interest agreements in business-type activities.

The state implemented GASB Statement No. 83, *Certain Asset Retirement Obligations*, in fiscal 2019. As a result, in fiscal 2019, the state reported $1.7 million of deferred outflows of resources related to asset retirement obligations in governmental activities and $7 million of deferred outflows of resources and related to asset retirement obligations in business-type activities.

Note 28

Nonexchange Financial Guarantees

The state of Texas has two active programs that extend nonexchange financial guarantees to other entities.

Article VII, Section 5 of the Texas Constitution and the Texas Education Code, Title 2, Subtitle I, Chapter 45 provides for the guarantee of school district bonds by the permanent school fund (PSF). The PSF is also authorized for use to guarantee revenue bonds issued for certain open-enrollment charter schools designated by the commissioner of education. In the event of default by a school district or charter school district, funds may be withheld from state money payable to the district or school in an amount necessary for payment of principal and/or interest. Guarantees extend through maturity dates of the bonds. At this date, no school districts or charter school districts have defaulted on their guaranteed bond indebtedness. As of Aug. 31, 2019, the total principal debt guaranteed by the PSF on bond issues is approximately $84.4 billion.

The Texas Credit Enhancement Program (TCEP) was established to provide a guarantee fund for issuing tax exempt revenue bonds to provide financing for the acquisition, construction, repair or renovation of Texas charter school facilities within federal program guidelines. A consortium consisting of the Texas Public Finance Authority Charter School Finance Corporation (CSFC), the Texas Charter Schools Association and the Texas Education Agency was awarded a federal grant to create the guarantee fund. The CSFC is a nonprofit corporation, in which the directors are appointed by the Texas Public Finance Authority (TPFA) in consultation with the commissioner of education and subject to the approval of the governor pursuant to section 53.351 of the Texas Education Code. TPFA provides administrative and staff support for CSFC. Reimbursement periods commence on the date of a guarantee payment and end 12 months following such payment. Borrowers will reimburse CSFC within the guarantee period by making level monthly principal repayments for each guaranty period during the reimbursement period. Guarantees extend through maturity dates of the bonds. At this date, no charter schools have defaulted on their guaranteed bond indebtedness. As of Aug. 31, 2019, $9.1 million of available grant funds have been committed.

Note 29

Tax Abatements

The state of Texas provides tax abatements under the following programs: agricultural or timber programs, Research and Development Tax Credit Programs, Texas Enterprise Zone Programs, Texas Data Center Sales Tax Exemption Program, and Certified Rehabilitation of Certified Historic Structures Program. All abatement amounts are based on estimates.

Information related to these programs is presented in table 29A-D below:

Tax Abatement Programs

Table 29A

(In Thousands)

	Agricultural and Timber Programs			
	Agricultural Machinery and Equipment	Agricultural Products (not covered by blanket exemptions)	Timber Products	Farm/ Timber Use - Motor Vehicle
Purpose of Program	Provide exemptions or refunds of state sales and use tax paid for anyone producing agricultural or timber products for sale in the regular course of business.			
Tax being abated	Sales and Use Tax	Sales and Use Tax	Sales and Use Tax	Motor Vehicle Sales and Use Tax
Authority granting abatement	Texas Tax Code Section 151.316	Texas Tax Code Section 151.316	Texas Tax Code Section 151.3162	Texas Tax Code Section 152.091
Criteria to be eligible	Valid Texas Agricultural and Timber Exemption Registration Number and Texas Agricultural Sales and Use Tax Exemption certificate. Purchaser must be a commercial farmer or rancher engaged in producing agricultural products for sale or entities commonly hired to help with commercial production of agricultural products such as field hands, custom harvesters, crop dusters and veterinarians who make farm and ranch calls. Timber includes seedlings of trees grown for commercial timber and machinery and equipment used in the processing, packing, or marketing of timber products by an original producer if it is from a location operated by the original producer and at least 50 percent of the value of the timber products are from that location.			
How taxes are reduced/amount of abatement is determined	Purchase of qualified items are not subject to the state's sales and use tax of 6.25 percent			
Provision for recapture	N/A	N/A	N/A	N/A
Additional commitment by the state other than to reduce taxes	No other commitments are made		No other commitments are made	
Amount of Taxes Abated	$ 122,000	$ 576,900	$ 29,700	$ 43,171

Tax Abatement Programs

Table 29B

(In Thousands)

	Research and Development Tax Credit Program	
	Exemptions	**Credits**
Purpose of Program	Provide a sales and use tax exemption or a franchise tax credit; but not both to encourage economic development in Texas. Election is not permanent and can be changed.	
Tax being abated	Sales and Use Tax	Franchise Tax
Authority granting abatement	Texas Tax Code Section 151.3182. Expires Dec. 31, 2026	Texas Tax Code Section 171.654.
Criteria to be eligible	Must be for purchase, lease, rental, storage or use of depreciable tangible personal property directly used in qualified research expenditures.	
How taxes are reduced/amount of abatement is determined	Purchase of qualified items are not subject to the state's sales and use tax of 6.25 percent	Generally equal to 5 percent of the difference between the qualified research expenses in the reporting year and 50 percent of the average qualified research expense in the three preceding tax periods. Unused credits can be carried forward.
Provision for recapture	Whenever the Comptroller or the registrant cancels or otherwise terminates the registration number, the registrant will be required to pay the tax, penalty, and interest due from the date of purchase on all ineligible tax-free purchases.	N/A
Additional commitment by the state other than to reduce taxes	No other commitments are made	No other commitments are made
Amount of Taxes Abated	$ 158,000	$ 210,192

Tax Abatement Programs

Table 29C

(In Thousands)

	Texas Enterprise Zone Programs	
	Refunds	**Refunds**
Purpose of Program	Allows local communities to partner with the state to encourage job creation and capital investment in economically distressed areas. Local communities can nominate a new or expanding business as an "enterprise project".	
Tax being abated	Sales and Use Tax	Hotel Occupancy Tax
Authority granting abatement	Texas Tax Code Section 151.429	Texas Tax Code Section 151.429
Criteria to be eligible	Nominated projects that are approved are eligible to apply for state sales and use tax refunds on qualified expenditures. The nominating community files the application on behalf of the companies receiving the refunds.	A hotel proposed to be constructed by a municipality or a nonprofit municipally sponsored local government corporation created under the Texas Transportation Corporation Act, Chapter 431, Transportation Code, that is within 1,000 feet of a convention center owned by a municipality having a population of 1,500,000 or more, including shops, parking facilities, and any other facilities ancillary to the hotel. Texas Government Code Section 2303.003.
How taxes are reduced/amount of abatement is determined	Level and amount depend on the capital investment and jobs created at the qualified business site. Abatements last from one to five years, in addition to a 90-day window prior to the application date. Employment and capital investment commitments must be incurred and met within this time frame. Rebates range from: $25,000 for a project investing $40,000 in capital and creating 10 jobs to $3.75 million for a project investing $250 million in capital and creating 500 or more jobs.	Qualified hotel projects within approved enterprise zones can receive refunds of state sales and use taxes paid or collected and all hotel occupancy taxes collected by the hotel during the first ten years after the project is open for initial occupancy.
Provision for recapture	Rebate is conditioned on project maintaining at least the same level of employment of qualified employees as existed at the time it qualified for the refund for a period of three years from that date. If the Comptroller's Office certifies that the level of employment has not been maintained, the Comptroller's Office shall assess that portion of the refund made attributable to any such decrease in employment, including penalty and interest from the date of the refund.	N/A
Additional commitment by the state other than to reduce taxes	No other commitments are made	No other commitments are made
Amount of Taxes Abated	$ 45,086	$ 13,495

Tax Abatement Programs

Table 29D

(In Thousands)

	Other Programs	
	Texas Data Center Program Exemption	**Certified Rehabilitation of Certified Historic Structures Credit**
Purpose of Program	Sales and use tax exemption on certain goods and services necessary and essential to the operation of single-operator data centers.	Earn franchise tax credit for expenses incurred for the rehabilitation of a certified historic structure in which the entity has an ownership interest.
Tax being abated	Sales and Use Tax	Franchise Tax
Authority granting abatement	Texas Tax Code Sections 151.359 and 151.3595	Texas Tax Code Section 171.904-171.909
Criteria to be eligible	Data center must be single-occupant Obtain exemption through application Required to create at least 20 qualifying jobs Make capital investment of at least $200 million over a five year period beginning on the date the data center is certified by the Comptroller of Public Accounts as a qualifying data center.	Acquire certificate of eligibility from the Texas Historical Commission. Rehabilitation/certified costs exceed $5,000 in the year the structure is placed in service
How taxes are reduced/amount of abatement is determined	Qualified items are not subject to the state's sales and use tax of 6.25 percent at the time of purchase or as a refund.	Amount is limited to 25 percent of the total eligible cost and expenses incurred. May not exceed the amount of franchise tax due. May carry credit forward no more than five years. An entity that has established eligibility may assign or sell credits to another entity.
Provision for recapture	Each entity or person that has their registration number revoked is liable for the state sales and use tax, including penalty and interest from the date of purchase, on all tax-free purchases made under the qualified data center exemption.	N/A
Additional commitment by the state other than to reduce taxes	No other commitments are made	No other commitments are made
Amount of Taxes Abated	$ 70,926	$ 72,193