TEXAS BOND REVIEW BOARD



2017 LOCAL GOVERNMENT ANNUAL REPORT FISCAL YEAR ENDED AUGUST 31, 2017

Texas Bond Review Board Local Government Annual Report 2017

Fiscal Year Ended August 31, 2017

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Cautionary Statements

Section 1202.008 of the Texas Government Code authorizes the Office of the Attorney General to collect local debt information and to send that information to the Bond Review Board (BRB) for inclusion in debt statistic reports. Chapter 1231 of the Texas Government Code requires the BRB to submit biennial reports with such data to the legislature. This report is intended to satisfy this Chapter 1231 duty.

The data in this report and on the BRB's website is compiled from information reported to the BRB from various sources and has not been independently verified. The reported debt and defeasance data may vary from actual debt outstanding, and the variance for a specific issuer or types of or all issuers could be substantial.

Local governments are not required to report data for debt that either is not considered a public security as defined by state statute, e.g., a loan not evidenced by a note or evidenced by a note payable to order, or does not require approval by the Office of the Attorney General of the State of Texas, such as certain short-term notes, certain bond anticipation notes and certain lease purchase agreements for personal property. Consequently, the BRB does not receive information on many privately-placed loans or intergovernmental loans such as State Infrastructure Bank loans for transportation or water development state participation loans that are not evidenced by a public security. In addition, debt issuances for some component corporations of governmental entities are not reported to the BRB. Outstanding debt excludes debt for which sufficient funds have been escrowed to retire the debt either from proceeds of refunding debt or from other sources, if reported to the BRB. Debt totals, percentages, trends and other data are based entirely on debt and defeasances reported to the BRB.

Future debt repayment and debt-service information for variable-rate, commercial paper, and other short-term and demand debt is estimated on the basis of interest rate and refinancing assumptions described in the report. Actual future data could be affected by changes in issuer financing decisions, prevailing interest rates, market conditions, and other factors that cannot be predicted. Consequently, actual future data could differ from the estimates, and the difference could be substantial. The BRB assumes no obligation to update any such estimate of future data.

Historical data and trends presented are not intended to predict future events or continuing trends, and no representation is made that past experience will continue in the future.

This report is intended to meet Chapter 1231 requirements and inform the state leadership and the Legislature. This report is not intended to inform investors in making a decision to buy, hold, or sell any securities, nor may it be relied upon as such. Data is provided as of the date indicated and may not reflect debt, debt-service, population or other data as of any subsequent date. This data may have changed from the date as of which it is provided. For more detailed or more current information, see the issuers' web sites or their filings at Electronic Municipal Market Access (EMMA®). The BRB does not control or make any representation regarding the accuracy, completeness or currency of any such site, and no referenced site is incorporated herein by reference or otherwise.

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Chapter 1 Texas Local Debt in Perspective

Overview

Local governments in Texas issue debt to finance construction and renovation of government facilities (i.e., schools, public safety buildings, city halls and county courthouses), public infrastructure (i.e., roads, water and sewer systems) and various other projects authorized by law. Key factors that affect a government's need and ability to borrow funds for infrastructure development include population changes, revenue sources, tax rates and levies, interest rates and construction costs. Local governments issue two main types of debt – tax (general obligation or GO) and revenue. General obligation debt is secured by the full faith and credit of the issuer's ad valorem taxing power while revenue debt is secured by a specified revenue source. Tax-supported debt includes debt secured by a combination of ad valorem taxes and other revenue sources, even though the debt may be paid in whole or in part from non-tax revenue. Tax-supported debt generally must be voter-approved (with the exception of Certificates of Obligation, tax notes, school district maintenance tax notes, certain time warrants, and certain other obligations).

State law sets limitations on certain local government debt issuers by setting maximum ad valorem tax rates per \$100 of assessed property valuation. These rates vary by government type, but all must generate sufficient funds based on annual ad valorem tax collections to provide for the payment of the debt service on outstanding and projected ad valorem tax (GO) debt. Additionally, all public securities issued by local debt issuers must be approved by the Office of the Attorney General – Public Finance Division (OAG) and registered with the Texas Comptroller of Public Accounts (CPA).

Texas Bond Review Board and Local Government Debt

The Texas Bond Review Board (BRB) has no direct oversight of local government debt issuance. Chapter 1231 of the Texas Government Code requires the BRB to prepare statistical reports on local government debt. This information on debt issued by political subdivisions is primarily prepared by the political subdivision, collected by the OAG as a part of the review and approval procedures as required under Chapter 1202 of the Government Code, and then forwarded to the BRB for its report on local debt statistics. Intergovernmental loans, privately-placed loans, and any other debts that are not in the form of a public security, as well as conduit debts incurred by nonprofit corporations created by the local governments are not reflected in this report.

All reporting on local debt is presented on the agency's website and the Texas Open Data Portal. Visitors to the BRB website can search databases and access the Data Portal to download spreadsheets that contain debt outstanding, debt issuances, debt ratios and population data as available by government type at each fiscal year end. In fiscal year 2017, approximately 5,200 different users of the BRB's website downloaded over 19,700 spreadsheets containing Texas local government debt data. The BRB posts this information to its website and the Data Portal annually within four months after the close of the state's fiscal year. Additionally, this data is supplied to the CPA's office as well as the Texas Tribune for publication on their debt pages.

The BRB separates the local government issuances into seven categories: Cities, Towns, Villages (Cities); Public School Districts (School Districts); Water Districts and Authorities (WD); Counties; Other Special Districts and Authorities (OSD); Community and Junior Colleges (CCD); and Health/Hospital Districts and Authorities (HHD).

The data in this report and on the website is compiled from information provided to the Bond Review Board from various sources and has not been independently verified.

Local Government Debt Outstanding

As of fiscal year end 2017 Texas local governments had \$218.03 billion in outstanding debt *(Table 1.1)*, an increase of \$28.45 billion (15.0 percent) over the past five fiscal years. Of that amount 65.3 percent (\$142.37 billion) is GO debt secured by local tax collections while the remaining 34.7 percent (\$75.67 billion) is secured by revenues generated by various projects such as water, sewer and electric utility fees. Over the past five fiscal years, tax-supported debt outstanding increased 18.9 percent (\$22.60 billion) and revenue debt outstanding increased 8.4 percent (\$5.85 billion).

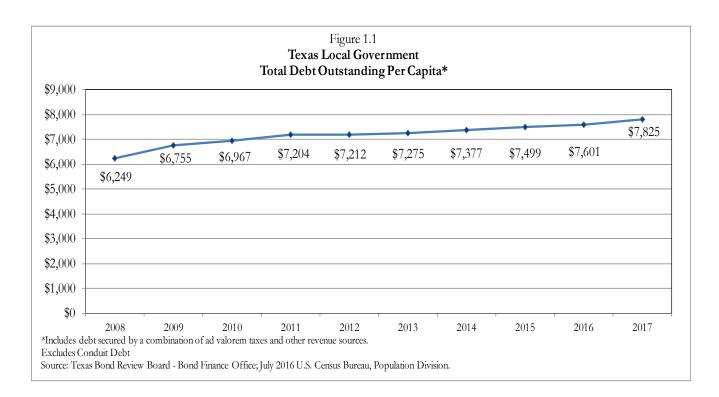
School Districts accounted for 36.6 percent (\$79.91 billion) of all local debt outstanding and Cities accounted for 32.9 percent (\$71.66 billion). WDs held the third highest percentage and accounted for 12.4 percent (\$27.05 billion) of all local debt outstanding. The remaining 18.1 percent (\$39.42 billion) was held by CCDs, Counties, HHDs and OSDs.

	Table 1 Texas Local Go Debt Outstanding As o	overn					
T	(amounts in n			D		- -	otal Debt
Type of Issuer	Matan an arranged too	Tax	x-Supported*	К	evenue**		
	Voter-approved tax Maintenance tax (ed. equipment)		78,716.8 891.6				78,716.8 891.6
Public School	Lease-purchase contracts		091.0		297.2		297.2
Districts	Revenue (athletic facilities)				1.5		1.5
	Subtotal	\$	79,608.4	\$	298.7	\$	79,907.1
	Tax	φ	31,265.9	φ	290.1	φ	31,265.9
	Revenue		51,205.9		40,195.9		40,195.9
Cities, Towns,	Sales Tax				190.8		190.8
Villages	Lease-purchase contracts				4.9		4.9
	Subtotal	\$	31,265.9	\$	40,391.6	\$	71,657.5
	Tax	Ψ	13,677.7	Ψ	+0,571.0	Ψ	13,677.7
Water Districts	Revenue		13,077.7		13,370.3		13,370.3
and Authorities	Sales Tax				0.2		0.2
•	Subtotal	\$	13,677.7	\$	13,370.6	\$	27,048.3
	Tax	Ŧ	172.0	т		т	172.0
Other Special	Revenue		1,		12,323.7		12,323.7
Districts and	Sales Tax				4,772.0		4,772.0
Authorities	Lease-purchase contracts				82.5		82.5
	Subtotal	\$	172.0	\$	17,178.2	\$	17,350.2
	Tax		11,699.4	·			11,699.4
	Revenue		,		2,080.0		2,080.0
Counties	Lease-purchase contracts				66.2		66.2
	Subtotal	\$	11,699.4	\$	2,146.2	\$	13,845.5
	Tax		3,645.4		•		3,645.4
Community and	Revenue		,		1,225.1		1,225.1
Junior Colleges	Subtotal	\$	3,645.4	\$	1,225.1	\$	4,870.5
	Tax		2,296.5				2,296.5
Health/Hospital	Revenue				1,000.5		1,000.5
Districts and	Sales Tax				58.0		58.0
Authorities	Subtotal	\$	2,296.5	\$	1,058.6	\$	3,355.1
	Total Local Debt Outstanding	\$	142,365.2	\$	75,668.9	\$	218,034.1
**Excludes condui	ed by a combination of ad valorem taxes t debt. 1 Review Board - Bond Finance Office	and o	other revenue so	ourc	es.		

The most recent U.S. Census Bureau data, for census years 2014-2015, showed that Texas continued to be ranked 2nd in population, 2nd among the ten most populous states in terms of Local Debt Per Capita, 4th in Total State and Local Debt Per Capita and 7th in State Debt Per Capita (*Table 1.1.A*).

					Table	I.1A						
		TOTAL S	TATE AND	LOCAL DE	BT OUTSTA	NDING: "	TEN MOST	POPULOU	S STATES			
Total State and Local Debt						State	Debt			Loca	l Debt	
	Population	Amount	Per Capita	Per Capita	Amount	% of	Per Capita	Per Capita	Amount	% of	Per Capita	Per Capita
State	(thousands)	(millions)	Amount	Rank	(millions)	Total	Amount	Rank	(millions)	Total	Amount	Rank
New York	19,745	\$346,128	\$17,530	1	\$137,369	39.7%	\$6,957	1	\$208,759	60.3%	\$10,573	1
Illinois	12,801	148,532	11,603	2	64,221	43.2%	5,017	2	84,311	56.8%	6,586	4
California	39,250	420,979	10,726	3	151,715	36.0%	3,865	3	269,264	64.0%	6,860	3
Texas	27,862	277,647	9,965	4	48,238	17.4%	1,731	7	229,409	82.6%	8,234	2
Pennsylvania	12,784	127,130	9,944	5	47,052	37.0%	3,681	4	80,078	63.0%	6,264	5
Michigan	9,928	76,462	7,702	6	33,245	43.5%	3,349	5	43,217	56.5%	4,353	8
Ohio	11,614	85,737	7,382	7	33,109	38.6%	2,851	6	52,628	61.4%	4,531	7
Florida	20,612	148,661	7,212	8	33,315	22.4%	1,616	9	115,346	77.6%	5,596	6
Georgia	10,310	56,155	5,447	9	13,248	23.6%	1,285	10	42,907	76.4%	4,162	9
North Carolina	10,147	50,140	4,941	10	17,464	34.8%	1,721	8	32,677	65.2%	3,220	10
MEAN		\$173,757	\$9,245		\$57,898	33.6%	\$3,207		\$115,860	66.4%	\$6,038	
Note: Detail may	not add to total	due to roundi	ng.									
Source: U.S. Cer	nsus Bureau, <i>Stat</i>	e and Local Go	vernment Finan	ces by Level of	Government and	l by State: 20	014-2015, the	most recent	data available.	July 2016	U.S. Census I	Bureau,
Population Division	on.											

Over the past 10 years, local government total debt (tax-supported plus revenue) increased \$68.65 billion (46.0 percent). Over this time the state's population increased by 16.6 percent (4.0 million), based on July 2016 U.S. Census Bureau population estimates. During that same period, local government total debt outstanding per capita increased by 25.2 percent, or \$1,576 per person, from \$6,249 per capita in fiscal year 2008 to \$7,825 per capita in fiscal year 2017. (*Figure 1.1*)



	Т	able 1.2			
	Texas Lo	cal Governme	nt		
	Debt Outstan	ding by Fisca	l Year		
	(amour	nts in millions)			
	8/31/2013	8/31/2014	8/31/2015	8/31/2016	8/31/2017
Public School Districts					
Tax-Supported*	\$64,842.2	\$67,707.4	\$71,990.2	\$74,606.1	\$79,608.4
Revenue**	318.6	275.6	337.8	311.2	298.7
Total	\$65,160.8	\$67,983.1	\$72,328.1	\$74,917.3	\$79,907.1
Cities					
Tax-Supported*	\$27,735.2	\$28,397.3	\$29,537.1	\$30,579.7	\$31,265.9
Revenue**	37,290.3	38,275.3	38,851.8	39,107.4	40,391.6
Total	\$65,025.5	\$66,672.6	\$68,389.0	\$69,687.0	\$71,657.5
Water Districts and Authorities					
Tax-Supported*	\$10,369.0	\$10,745.9	\$11,322.8	\$12,534.1	\$13,677.7
Revenue**	11,560.5	11,812.9	11,721.5	12,800.1	13,370.6
Total	\$21,929.5	\$22,558.9	\$23,044.3	\$25,334.2	\$27,048.3
Other Special Districts and Aut	horities				
Tax-Supported*	\$191.8	\$201.1	\$194.2	\$177.1	\$172.0
Revenue**	15,857.0	16,185.2	16,217.6	16,889.1	17,178.2
Total	\$16,048.8	\$16,386.3	\$16,411.8	\$17,066.2	\$17,350.2
Counties					
Tax-Supported*	\$11,098.0	\$11,112.1	\$11,259.7	\$11,221.3	\$11,699.4
Revenue**	2,546.8	2,474.9	2,471.6	2,303.2	2,146.2
Total	\$13,644.8	\$13,587.1	\$13,731.3	\$13,524.5	\$13,845.5
Community College Districts					
Tax-Supported*	\$3,314.4	\$3,351.1	\$3,612.4	\$3,676.8	\$3,645.4
Revenue**	1,054.8	1,116.6	1,153.8	1,108.2	1,225.1
Total	\$4,369.2	\$4,467.7	\$4,766.2	\$4,785.0	\$4,870.5
Health/Hospital Districts and A	Authorities				
Tax-Supported*	\$2,213.0	\$2,378.4	\$2,375.7	\$2,392.4	\$2,296.5
Revenue**	1,192.3	1,061.2	1,092.7	1,099.1	1,058.6
Total	\$3,405.4	\$3,439.6	\$3,468.3	\$3,491.5	\$3,355.1
Total Tax-Supported*	\$119,763.7	\$123,893.5	\$130,292.0	\$135,187.5	\$142,365.2
Total Revenue**	\$69,820.3	\$71,201.8	\$71,847.0	\$73,618.2	\$75,668.9
Total Debt Outstanding	\$189,583.9	\$195,095.3	\$202,139.0	\$208,805.7	\$218,034.1
*Includes debt secured by a combination	of ad valorem taxes	and other revenue	e sources.		
**Excludes conduit debt					

Table 1.2 lists the state's local debt outstanding by category from highest to lowest total amount outstanding.

**Excludes conduit debt.

Source: Texas Bond Review Board - Bond Finance Office

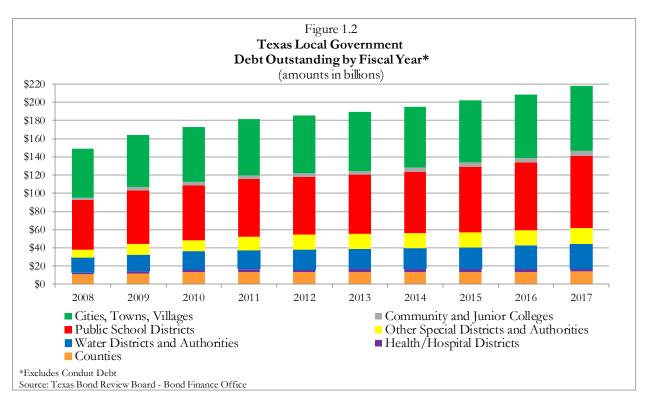
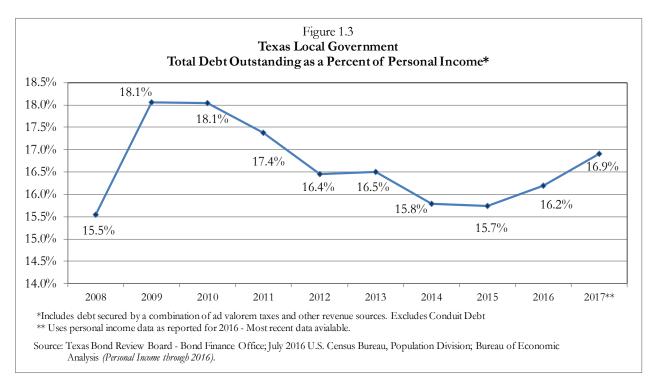


Figure 1.2 illustrates the local debt outstanding by category over the past 10 fiscal years.

Figure 1.3 illustrates the total local debt outstanding as a percent of personal income over the past 10 years.



Rate of Debt Retirement

Timely repayment of debt is an important factor used by rating agencies to assess a municipal issuer's financial performance. As a guideline, rating agencies look for a repayment schedule that retires 25 percent of principal one quarter through the life of the debt and 50 percent halfway through the life of the debt. Generally, local governments issue debt with varying maturities up to 40 years.

Table 1.3 illustrates the amount of debt retired in the next five, ten and twenty-year periods for both tax-supported and revenue debt outstanding as of fiscal year 2017. Rate of debt retirement for HHD tax-supported debt is low because over half of HHD debt was issued as Build America Bonds (BABs) most of which do not begin principal repayment for 10 years after issuance.

Table 1.3 Texas Local Government* Rate of Debt Retirement (\$ in millions)							
	Tax-Supported		Revenue				
Debt Repaid (Principal Only)	Debt	Percent	Debt	Percent			
Within Five Years							
Community and Junior Colleges	\$917.3	25.2%	\$344.6	28.1%			
Cities, Towns, Villages	11,060.3	35.7%	8,104.8	20.2%			
Counties	3,666.5	31.6%	473.2	22.0%			
Health/Hospital Districts	372.2	16.2%	154.5	14.6%			
Public School Districts	16,318.2	20.5%	140.7	47.1%			
Other Special Districts and Authorities	86.3	50.2%	2,262.0	13.5%			
Water Districts and Authorities	3,225.8	23.6%	2,907.7	22.0%			
Within Ten Years							
Community and Junior Colleges	\$1,790.6	49.1%	\$662.0	54.0%			
Cities, Towns, Villages	20,350.3	65.7%	16,742.8	41.8%			
Counties	6,964.4	60.0%	851.9	39.7%			
Health/Hospital Districts	804.5	35.0%	323.8	30.6%			
Public School Districts	34,584.6	43.5%	218.5	73.2%			
Other Special Districts and Authorities	129.3	75.2%	4,666.6	27.8%			
Water Districts and Authorities	6,601.1	48.3%	6,014.5	45.6%			
Within Twenty Years							
Community and Junior Colleges	\$3,168.8	86.9%	\$1,115.3	91.0%			
Cities, Towns, Villages	30,013.6	96.9%	32,250.7	80.5%			
Counties	10,867.9	93.6%	1,763.6	82.2%			
Health/Hospital Districts	1,821.9	79.3%	667.7	63.1%			
Public School Districts	67,274.8	84.7%	293.1	98.1%			
Other Special Districts and Authorities	170.4	99.1%	10,114.0	60.2%			
Water Districts and Authorities	12,195.4	89.2%	11,210.5	85.0%			
*Excludes commercial paper and conduit debt. Source: Texas Bond Review Board - Bond Finance	Office						

Debt Issuance and Use of Proceeds

Over the past five fiscal years, local government debt issuance increased by 7.6 percent (\$2.12 billion) from \$27.85 billion in fiscal year 2013 to \$29.97 billion in fiscal year 2017. During that period, new-money issuance increased by 52.7 percent from \$12.06 billion to \$18.42 billion (\$6.36 billion). Refundings decreased by 26.8 percent from \$15.79 billion to \$11.56 billion (\$4.24 billion). Overall debt issuance decreased from fiscal year 2016, however, new money issuance reached a record high during fiscal year 2017 (*Table 1.4*)

During fiscal year 2017, 34.2 percent of local debt issuance was used to finance educational facilities and equipment, 30.1 percent was used to refund debt, 14.9 percent was used to finance water-related infrastructure, 11.2 percent was used for general-purpose debt (such as building or improving city halls and court houses), and 5.6 percent was used to finance transportation projects. Water-related financings are likely understated because some issuers, especially cities, borrow for multiple purposes, over half of which involve financings for water and transportation purposes. The remaining 4.0 percent of local debt issuance was used for multiple purposes including recreation, public safety, health related facilities and combined utility systems.

		Table 1.4 cal Governn	nent		
	Debt Issuan	ice by Fiscal	Year*		
	(\$ i	n millions)			
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Issuers	1,042	937	1,103	1,151	1,071
Issuances	1,539	1,342	1,696	1,705	1,532
Cities					
New Money	\$4,804.4	\$4,411.6	\$4,548.5	\$4,810.1	\$4,902.2
Refunding	5,610.7	5,005.3	5,898.8	6,163.6	3,124.4
Total Par Issued	\$10,415.1	\$9,416.9	\$10,447.3	\$10,973.8	\$8,026.5
Public School Districts					
New Money	\$3,587.2	\$5,386.9	\$7,487.7	\$6,171.2	\$8,447.4
Refunding	5,544.3	3,704.2	10,679.1	8,402.1	5,209.0
Total Par Issued	\$9,131.4	\$9,091.1	\$18,166.7	\$14,573.3	\$13,656.4
Water Districts					
New Money	\$1,301.3	\$1,691.7	\$1,587.2	\$3,192.1	\$2,864.3
Refunding	2,019.5	1,237.1	2,524.1	2,350.7	1,416.3
Total Par Issued	\$3,320.8	\$2,928.9	\$4,111.3	\$5,542.8	\$4,280.6
Counties					
New Money	\$1,046.3	\$605.8	\$859.2	\$711.5	\$1,212.8
Refunding	1,163.0	351.6	1,250.5	2,252.6	595.9
Total Par Issued	\$2,209.3	\$957.4	\$2,109.7	\$2,964.1	\$1,808.6
Other Special Districts					
New Money	\$394.3	\$338.7	\$224.4	\$1,001.4	\$586.6
Refunding	1,146.3	79.9	2,068.1	2,997.3	306.9
Total Par Issued	\$1,540.5	\$418.7	\$2,292.5	\$3,998.7	\$893.5
Community College Districts	8				
New Money	\$623.7	\$303.8	\$503.4	\$340.7	\$317.9
Refunding	88.4	98.8	338.4	697.5	362.5
Total Par Issued	\$712.1	\$402.6	\$841.8	\$1,038.2	\$680.5
Health/Hospital Districts					
New Money	\$301.1	\$233.9	\$144.6	\$160.9	\$87.5
Refunding	222.3	94.1	32.7	135.3	542.7
Total Par Issued	\$523.4	\$328.1	\$177.3	\$296.1	\$630.2
Total New Money	\$12,058.2	\$12,972.5	\$15,354.9	\$16,387.8	\$18,418.6
Total Refunding	\$15,794.5	\$10,571.1	\$22,791.6	\$22,999.2	\$11,557.7
Total Par	\$27,852.7	\$23,543.6	\$38,146.5	\$39,387.0	\$29,976.4
*Excludes commercial paper and con	duit issuances				
Source: Texas Bond Review Board	- Bond Finance	Office			

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Chapter 2 Texas Local Government Tax-Supported Debt

Overview

Tax-supported debt includes debt secured by a combination of ad valorem taxes and other revenue sources, even though the debt may be paid in whole or in part from non-tax revenue. Tax-supported debt generally must be voter-approved (with the exception for Certificates of Obligation, tax notes, school district maintenance tax notes, certain time warrants, and certain other obligations).

State law sets limitations on certain local government debt issuers by setting maximum ad valorem tax rates per \$100 of assessed property valuation. These rates vary by government type, but all must generate sufficient funds based on annual ad valorem tax collections to provide for the payment of the debt service on outstanding and projected ad valorem tax (GO) debt. Additionally, all public securities issued by local debt issuers must be approved by the Office of the Attorney General – Public Finance Division and registered with the Texas Comptroller of Public Accounts.

Local Government Tax-Supported Debt Outstanding

As of fiscal year end 2017, Texas local governments had \$142.37 billion in outstanding taxsupported debt, an increase of \$7.18 billion (5.3 percent) over the 2016 total of \$135.19 billion, and an 18.9 percent (\$22.61 billion) increase over the past five fiscal years, from \$119.76 billion in 2013. (*Table 2.1*)

Texas Local Government Tax-Supported Debt Outstanding by Fiscal Year** (amounts in millions)										
8/31/2013 8/31/2014 8/31/2015 8/31/2016 8/31/2017										
Public School Districts	\$64,842.2	\$67,707.4	\$71,990.2	\$74,606.1	\$79,608.4					
Cities, Towns, Villages	27,735.2	28,397.3	29,537.1	30,579.7	31,265.9					
Water Districts and Authorities	10,369.0	10,745.9	11,322.8	12,534.1	13,677.7					
Other Special Districts and Authorities	191.8	201.1	194.2	177.1	172.0					
Counties	11,098.0	11,112.1	11,259.7	11,221.3	11,699.4					
Community and Junior Colleges	3,314.4	3,351.1	3,612.4	3,676.8	3,645.4					
Health/Hospital Districts and Authorities	2,213.0	2,378.4	2,375.7	2,392.4	2,296.5					
Total Tax-Supported Debt Outstanding*	\$119,763.7	\$123,893.5	\$130,292.0	\$135,187.5	\$142,365.2					

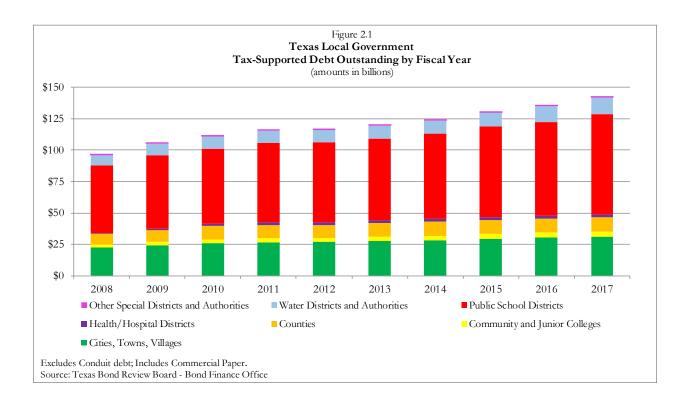
*Includes debt secured by a combination of ad valorem taxes and other revenue sources.

Source: Texas Bond Review Board - Bond Finance Office

As shown in *Table 2.1* and *Figure 2.1*, Public School Districts have consistently accounted for the highest amount of tax-supported debt outstanding, with Cities accounting for the second highest amount each year. Of the total City tax-supported debt outstanding, the Big 6 Cities (Houston, Dallas, San Antonio, Austin, El Paso, and Fort Worth) accounted for an average of 32.9 percent over the last five years and 33.9 percent over the last ten years.

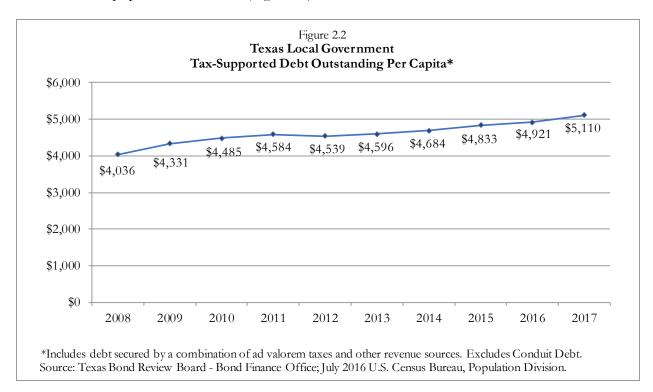
Over the past ten fiscal years, tax-supported debt outstanding has increased \$45.89 billion (47.6 percent) from \$96.48 billion in 2008. *Figure 2.1* illustrates local tax-supported debt outstanding by local government type over the past 10 fiscal years.

^{**}Includes Commercial Paper; Excludes conduit debt.



Tax-Supported Debt per Capita

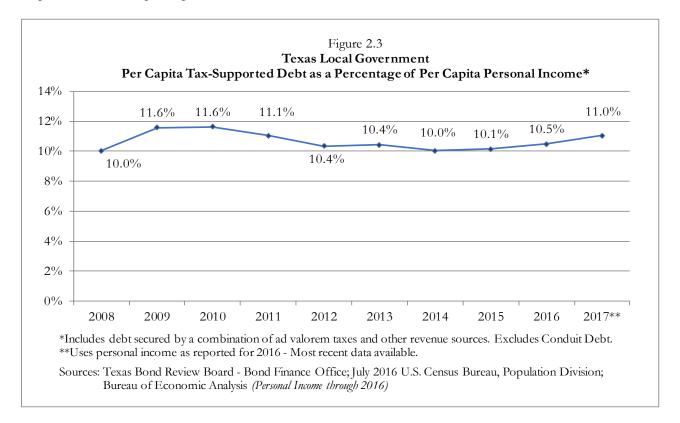
Local government tax-supported debt per capita increased over the past 10 years by 26.6 percent, or \$1,074 per person, from \$4,306 per capita in fiscal year 2008 to \$5,110 per capita in fiscal year 2017. Over this time the state's population increased by 16.6 percent (4.0 million), based on July 2016 U.S. Census Bureau population estimates. *(Figure 2.2)*



Tax-Supported Debt as a Percentage of Personal Income

As reported by the U.S. Bureau of Economic Analysis, Texas total personal income has grown 34.2 percent in the past 10 years, from \$872.96 billion in 2008 to \$1.29 trillion in 2016 (the most recent data available.) During the past 5 years, the growth was 12.2 percent, from \$1.15 trillion in 2013. Per capita personal income has shown a 15.1 percent 10-year growth from \$40,204 in 2008, and a 5.0 percent 5-year growth from \$44,089 in 2013 to \$46,274 in 2017.

Per capita tax-supported debt as a percentage of per capita personal income has risen 10.0 percent during the past 10 years from 10.0 percent in 2008, and has risen 5.9 percent during the past 5 years from 10.4 percent in 2013, to 11.0 percent in 2017 (*Figure 2.3*). Over the ten-year period, the growth of the state's per capita tax-supported debt outstanding has increased slightly more than the growth of personal income per capita.



Tax-Supported Debt Issuance

New tax-supported debt issued during fiscal year 2017 totaled \$22.39 billion (\$14.29 billion in New Money and \$8.10 billion in Refunding debt.) This was a decrease of 16.4 percent from the total of \$26.77 billion issued in fiscal year 2016, but an increase of 26.8 percent from the total of \$17.66 issued in fiscal year 2013.

During this five-year period, Public School Districts (ISDs) have consistently issued the most taxsupported debt, with over 50 percent of the total tax-supported debt issued each fiscal year. In fiscal year 2013, ISDs completed 429 issues for a total of \$9.13 billion (51.7 percent of the 2013 total), of which \$3.58 billion was new money debt and \$5.54 billion was refunding debt. In 2017, ISDs completed 418 issues for a total of \$13.61 billion (60.8 percent of the 2017 total), of which \$8.42 billion was new money debt and \$5.19 billion was refunding debt.

	Т	able 2.2			
	Texas Loc	cal Governmer	nt		
Tax	-Supported Debt	Issuance by I	Fiscal Year*		
	(\$ ii	n millions)			
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Issuers	957	872	1,030	1,067	99.
Issuances	1,337	1,172	1,497	1,481	1,33
Cities					
New Money	\$2,091.6	\$2,517.0	\$2,881.5	\$3,034.2	\$2,756.
Refunding	2,249.4	1,431.8	2,502.3	3,007.2	1,047.
Total Par Issued	\$4,341.0	\$3,948.8	\$5,383.9	\$6,041.5	\$3,803
Public School Districts					
New Money	\$3,581.0	\$5,358.3	\$7,406.0	\$6,171.2	\$8,420.
Refunding	5,544.3	3,704.2	10,679.1	8,402.1	5,187.
Total Par Issued	\$9,125.2	\$9,062.5	\$18,085.1	\$14,573.3	\$13,608.
Water Districts					
New Money	\$696.2	\$810.3	\$1,049.1	\$1,632.4	\$1,723.
Refunding	903.7	697.8	1,391.9	1,415.3	629.
Total Par Issued	\$1,599.9	\$1,508.1	\$2,440.9	\$3,047.7	\$2,352.4
Counties					
New Money	\$1,046.3	\$601.0	\$764.8	\$711.5	\$1,212.
Refunding	694.0	351.6	1,250.5	1,482.0	595.
Total Par Issued	\$1,740.3	\$952.6	\$2,015.2	\$2,193.5	\$1,808.
Other Special Districts					
New Money	\$10.8	\$24.4	\$9.0	\$1.1	\$14.
Refunding	3.1	11.9	2.0	16.0	11.
Total Par Issued	\$13.8	\$36.3	\$11.0	\$17.1	\$26.
Community College Districts					
New Money	\$486.2	\$181.5	\$437.7	\$281.1	\$162.2
Refunding	68.9	58.7	227.5	515.8	258.
Total Par Issued	\$555.0	\$240.2	\$665.2	\$796.9	\$421.
Health/Hospital Districts					
New Money	\$164.7	\$211.7	\$54.6	\$81.3	\$0.
Refunding	119.7	6.5	32.7	22.4	371.
Total Par Issued	\$284.4	\$218.2	\$87.3	\$103.7	\$371.
Total New Money	\$8,076.7	\$9,704.3	\$12,602.7	\$11,912.8	\$14,289.
Total Refunding	\$9,583.0	\$6,262.4	\$16,085.9	\$14,860.8	\$8,100.
Total Par	\$17,659.7	\$15,966.7	\$28,688.6	\$26,773.6	\$22,390.4

Tax-supported debt issued over the past five fiscal years is shown below, excluding commercial paper and conduit debt (Table 2.2).

Tax-supported new money debt issuance over the past five years has risen steadily, from \$8.08 billion in 2013 to \$14.29 billion in 2017 (an increase of 76.9 percent.)

Tax-supported refunding debt issuance over the past five years peaked in 2015 and 2016 at \$16.05 billion and \$14.86 billion, respectively, while showing an overall decline of 15.5 percent from \$9.58 billion in 2013 to \$8.10 billion in 2017.

The amounts of Gross Cash Savings and Net Present Value Savings earned from refunding issuance over the past five years have fluctuated from \$1.39 billion and \$1.06 billion, respectively, in 2013 to \$1.73 billion and \$1.13 billion, respectively, in 2017.

During that period, Texas local governments issued \$54.89 billion in tax-supported refunding debt to realize \$8.93 billion in Gross Cash Savings and \$6.73 billion in Net Present Value Savings.

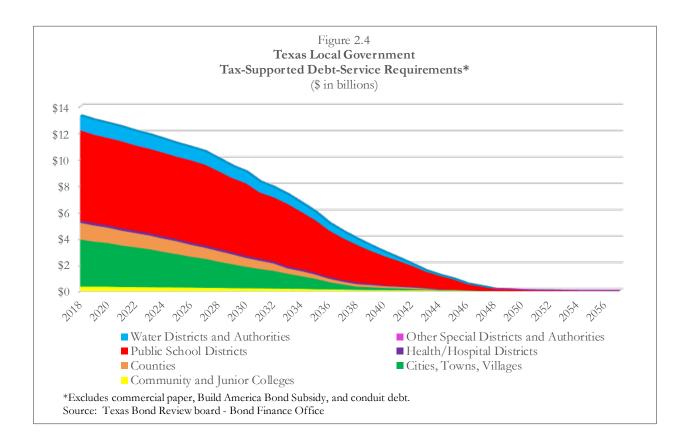
Rate of Debt Retirement

Timely repayment of debt is an important factor used by rating agencies to assess a municipal issuer's financial performance. As a guideline, rating agencies look for a repayment schedule that retires 25 percent of principal a quarter through the life of the debt and 50 percent halfway through the life of the debt. For debt outstanding as of fiscal year end 2017, Texas local governments will repay 25.1 percent (\$35.65 billion) of tax-supported debt within five years, 50.2 percent (\$71.22 billion) within ten years, and 88.5 percent (\$125.51 billion) within 20 years (*Table 2.3*). As of August 31, 2017, the final maturity for tax-supported debt was 40 years.

Table 2.3										
Texas Local Government*										
Rate of Tax-Supported Debt Retirement										
(\$ in millions)										
Percent Percent										
DEBT REPAID WITHIN: Five Years of Total Ten Years of Total Twenty Years										
Community and Junior Colleges	\$917.3	25.2%	\$1,790.6	49.1%	\$3,168.8	86.9%				
Cities, Towns, Villages	11,060.3	35.7%	20,350.3	65.7%	30,013.6	96.9%				
Counties	3,666.5	31.6%	6,964.4	60.0%	10,867.9	93.6%				
Health/Hospital Districts	372.2	16.2%	804.5	35.0%	1,821.9	79.3%				
Public School Districts	16,318.2	20.5%	34,584.6	43.5%	67,274.8	84.7%				
Other Special Districts and Authorities	86.3	50.2%	129.3	75.2%	170.4	99.1%				
Water Districts and Authorities	3,225.8	23.6%	6,601.1	48.3%	12,195.4	89.2%				
TOTALS	\$35,646.6	25.1%	\$71,224.9	50.2%	\$125,512.7	88.5%				
Excludes commercial paper and conduit debt.										
ource: Texas Bond Review Board - Bond Finance Office										

Tax-Supported Debt Service Outstanding

As of August 31, 2017, tax-supported debt-service requirements (principal and interest) projected over the life of the debt totaled \$213.92 billion. *Figure 2.4* illustrates annual tax-supported debt-service requirements for each of the local government types.



Chapter 3 Texas Local Government Revenue Debt

Overview

Revenue debt includes debt legally secured by a specified revenue source(s). Most revenue debt does not require voter approval and usually has a maturity based on the life of the project to be financed.

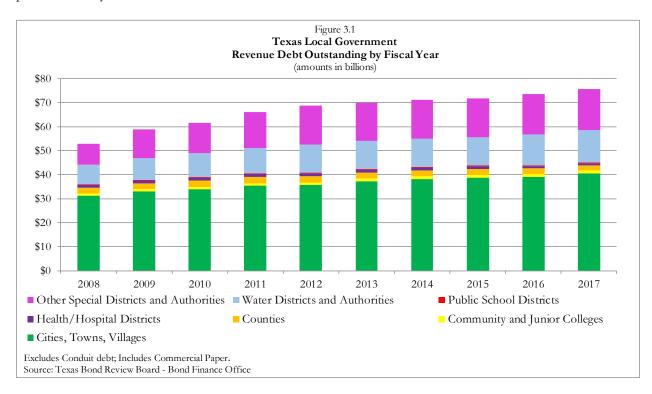
Excluding conduit debt, Texas local governments had \$75.67 billion in revenue debt outstanding as of fiscal year end 2017, an increase of \$2.05 billion (2.8 percent) over the 2016 total of \$73.62 billion, and an 8.4 percent (\$5.85 billion) increase over the past five fiscal years, from \$69.82 billion in 2013. *(Table 3.1)*

Cities accounted for 53.4 percent (\$40.39 billion) of the total revenue local debt outstanding, water districts (WDs) accounted for 17.7 percent (\$13.37 billion), other special districts (OSDs) accounted for 22.7 percent (\$17.18 billion) and the remaining 6.2 percent (\$4.73 billion) was attributable to school districts, community college districts (CCDs), counties and (Health and Hospital Districts) HHDs.

City revenue debt increased by 8.3 percent from \$37.29 billion to \$40.39 billion in the five-year period. Since fiscal year 2013, the state's population increased 6.9 percent (1.8 million), and urban areas have experienced particularly rapid growth creating the need for new infrastructure including roads, bridges and new and expanded water and sewer systems. The majority of city revenue debt has been used to finance utility-related projects including water, wastewater and in some localities, electric utility systems. Of the total city revenue debt outstanding, the Big 6 Cities (Houston, Dallas, San Antonio, Austin, El Paso, and Fort Worth) accounted for an average of 83.5 percent over the last five years and 83.1 percent over the last ten years.

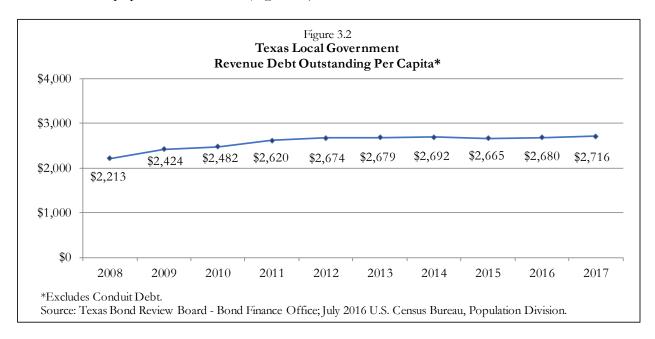
Table 3.1 Texas Local Government										
Revenue Debt Outstanding by Fiscal Year*										
(amounts in millions)										
8/31/2013 8/31/2014 8/31/2015 8/31/2016 8/31/2017										
Public School Districts	\$318.6	\$275.6	\$337.8	\$311.2	\$298.7					
Cities, Towns, Villages	37,290.3	38,275.3	38,851.8	39,107.4	40,391.6					
Water Districts and Authorities	11,560.5	11,812.9	11,721.5	12,800.1	13,370.6					
Other Special Districts and Authorities 15,857.0 16,185.2 16,217.6 16,889.1 17										
Counties	2,546.8	2,474.9	2,471.6	2,303.2	2,146.2					
Community College Districts	1,054.8	1,116.6	1,153.8	1,108.2	1,225.1					
Health/Hospital Districts and Authorities	1,192.3	1,061.2	1,092.7	1,099.1	1,058.6					
Total Revenue Debt Outstanding* \$69,820.3 \$71,201.8 \$71,847.0 \$73,618.2 \$75,668.9										
*Includes Commercial Paper; Excludes conduit debt.										
Source: Texas Bond Review Board - Bond Finance Office										

Over the past ten fiscal years, revenue debt outstanding has increased \$22.76 billion (43.0 percent) from \$52.91 billion in 2008. *Figure 3.1* illustrates local revenue debt outstanding by category over the past 10 fiscal years.



Revenue Debt per Capita

Local government revenue debt per capita increased over the past 10 years by 22.7 percent, or \$502 per person, from \$2,213 per capita in fiscal year 2008 to \$2,716 per capita in fiscal year 2017. Over this time the state's population increased by 16.6 percent (4.0 million), based on July 2016 U.S. Census Bureau population estimates. (*Figure 3.2*)



Revenue Debt Issuance

Excluding conduit debt, new revenue debt issued during fiscal year 2017 totaled \$7.59 billion (\$4.13 billion in new money and \$3.46 billion in refunding debt). This was a decrease of 39.9 percent from the total of \$12.61 billion issued in fiscal year 2016 and a decrease of 25.6 percent from the total of \$10.19 issued in fiscal year 2013.

During this five-year period, cities have consistently issued the most revenue debt. In fiscal year 2013, cities completed 86 issues for a total of \$6.07 billion (59.6 percent of the 2013 total), of which \$2.71 billion was new money debt and \$3.36 billion was refunding debt. In 2017, cities completed 86 issues for a total of \$4.22 billion (55.7 percent of the 2017 total), of which \$2.15 billion was new money debt and \$2.08 billion was refunding debt.

Revenue debt issued over the past five fiscal years is shown in *Table 3.2* below, excluding commercial paper and conduit debt.

	Ta	able 3.2			
	Texas Loc	al Governmen	t		
R	evenue Debt Iss	uance by Fisc	al Year*		
	(\$ in	n millions)			
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Issuers	129	101	119	135	113
Issuances	202	170	199	224	193
Cities					
New Money	\$2,712.8	\$1,894.6	\$1,669.8	\$1,775.9	\$2,146.1
Refunding	3,361.3	3,573.5	3,406.0	3,156.4	2,077.2
Total Par Issued	\$6,074.1	\$5,468.2	\$5,075.8	\$4,932.3	\$4,223.3
Public School Districts					
New Money	\$6.2	\$28.6	\$81.7	\$0.0	\$26.8
Refunding	0.0	0.0	0.0	0.0	21.0
Total Par Issued	\$6.2	\$28.6	\$81.7	\$0.0	\$48.3
Water Districts					
New Money	\$605.1	\$881.4	\$535.3	\$1,559.7	\$1,140.9
Refunding	1,115.8	539.4	1,122.7	935.4	787.3
Total Par Issued	\$1,720.9	\$1,420.8	\$1,658.0	\$2,495.1	\$1,928.2
Counties					
New Money	\$0.0	\$4.8	\$94.4	\$0.0	\$0.0
Refunding	468.9	0.0	0.0	770.6	0.0
Total Par Issued	\$468.9	\$4.8	\$94.4	\$770.6	\$0.0
Other Special Districts					
New Money	\$383.5	\$314.3	\$215.4	\$1,000.3	\$571.7
Refunding	1,143.2	68.1	2,066.1	2,981.3	295.8
Total Par Issued	\$1,526.7	\$382.4	\$2,281.5	\$3,981.6	\$867.5
Community College Districts					
New Money	\$137.6	\$122.2	\$65.7	\$59.6	\$155.7
Refunding	19.6	40.1	110.9	181.7	103.8
Total Par Issued	\$157.1	\$162.3	\$176.6	\$241.3	\$259.5
Health/Hospital Districts					
New Money	\$136.4	\$22.2	\$90.0	\$79.5	\$87.5
Refunding	102.6	87.6	0.0	112.9	171.5
Total Par Issued	\$239.0	\$109.9	\$90.0	\$192.4	\$259.2
Total New Money	\$3,981.5	\$3,268.2	\$2,752.2	\$4,475.0	\$4,128.8
Total Refunding	\$6,211.5	\$4,308.7	\$6,705.7	\$8,138.4	\$3,457.2
Total Par	\$10,193.0	\$7,576.9	\$9,457.9	\$12,613.4	\$7,585.9

Revenue new money debt issuance over the past five years has risen steadily, from \$3.98 billion in 2013 to \$4.13 billion in 2017 (an increase of 3.7 percent).

Revenue refunding debt issuance over the past five years peaked in 2015 and 2016 at \$6.71 billion and \$8.14 billion, respectively, while showing an overall decline of 44.3 percent from \$6.21 billion in 2013 to \$3.46 billion in 2017.

The amounts of Gross Cash Savings and Net Present Value Savings earned from refunding issuance over the past five years have fluctuated from \$658.3 million and \$437.9 million, respectively, in 2013 to \$524.9 million and \$360.4 million, respectively, in 2017.

During that period, Texas local governments issued \$28.82 billion in refunding debt to realize \$3.51 billion in Gross Cash Savings and \$2.66 billion in Net Present Value Savings.

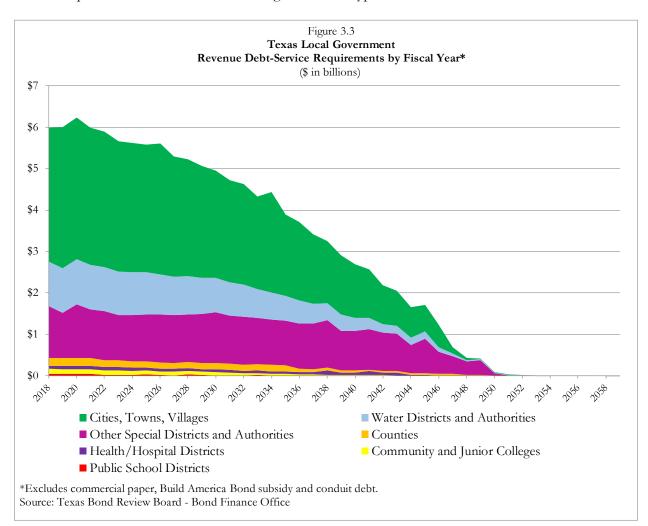
Rate of Revenue Debt Retirement

Timely repayment of debt is an important factor used by rating agencies to assess a municipal issuer's financial performance. As a guideline, rating agencies look for a repayment schedule that retires 25 percent of principal a quarter through the life of the debt and 50 percent halfway through the life of the debt. For debt outstanding as of fiscal year end 2017, Texas local governments will repay 19.2 percent (\$14.39 billion) of revenue debt within five years, 39.4 percent (\$29.48 billion) within ten years, and 76.8 percent (\$57.41 billion) within twenty years (*Table 3.3*). As of August 31, 2017, the final maturity for revenue debt was 42 years.

Table 3.3 Texas Local Government*										
Rate of Revenue Debt Retirement										
(\$ in millions)										
Percent Percent										
DEBT REPAID WITHIN:	Five Years	of Total	Ten Years	of Total	Twenty Years	of Total				
Community and Junior Colleges	\$344.6	28.1%	\$662.0	54.0%	\$1,115.3	91.0%				
Cities, Towns, Villages	8,104.8	20.2%	16,742.8	41.8%	32,250.7	80.5%				
Counties	473.2	22.0%	851.9	39.7%	1,763.6	82.2%				
Health/Hospital Districts	154.5	14.6%	323.8	30.6%	667.7	63.1%				
Public School Districts	140.7	47.1%	218.5	73.2%	293.1	98.1%				
Other Special Districts and Authorities	2,262.0	13.5%	4,666.6	27.8%	10,114.0	60.2%				
Water Districts and Authorities	2,907.7	22.0%	6,014.5	45.6%	11,210.5	85.0%				
TOTALS	\$14,387.5	19.2%	\$29,480.2	39.4%	\$57,414.9	76.8%				
*Excludes commercial paper and conduit debt. Source: Texas Bond Review Board - Bond Finance Office										

Revenue Debt Service Outstanding

As of August 31, 2017, scheduled revenue debt-service requirements (principal and interest) projected over the life of the debt totaled \$124.21 billion. *Figure 3.3* illustrates annual revenue debt-service requirements for each of the local government types.



Chapter 4 Capital Appreciation Bonds

Overview

Capital appreciation bonds (CABs) are sold at a discounted price called the par amount. They are often sold in combination with current interest bonds (CIBs). While the debt service for CIBs is paid throughout the life of the obligation, principal and interest on CABs is paid at maturity. Interest on CABs compounds semiannually and accumulates over the life of the bond, and the amount paid at the maturity is called the maturity value. Interest rates for CABs are generally higher than for CIBs, and CABs can be more expensive than CIBs because of the compounding interest; however, CABs can be an effective financing tool if they are used moderately and with reasonable terms.

Premium CABs (PCABs) provide a lower initial stated par amount and are sold with a premium. PCABs are issued to: (1) raise additional proceeds, (2) preserve debt limits, and (3) help local governments reach tax-rate targets. Local governments issue more PCABs than non-premium CABs.

Over the past decade total CAB maturity amounts outstanding have decreased by 31.8 percent from \$15.95 billion in fiscal year 2008 to \$10.88 billion in fiscal year 2017. Additionally, CAB maturity amounts outstanding have decreased 14.0 percent from \$12.65 billion outstanding in fiscal year 2016. The outstanding CAB maturities range from 2018 to 2053.

Heavy use of CABs can result in rating agency downgrades.

CABs are often used to refund existing CAB and CIB debt.

CABs Issued

The below table (*Table 4.1*) shows that the total CAB par issued for Texas local governments during fiscal year 2017 was 0.2 percent of the total CAB and CIB debt issued. School districts issuances accounted for 74.7 percent of the total CABs issued for local governments during fiscal year 2017. Of the total par issued by school districts, 0.3 percent was issued as CAB par. CABs have been used by school districts to enable them to remain under the 50-cent debt ceiling that limits the property taxes assessed for debt service costs to 50 cents per \$100 of assessed value. CAB issuances by school districts are general obligation (tax) debt repaid with ad valorem taxes.

For CAB debt issued in fiscal year 2017, Texas local governments will owe \$7.92 in interest and principal for every \$1 of principal borrowed.

The 84th Legislature passed House Bill 114, effective September 1, 2015, that prohibits Texas local governments from issuing CABs secured by property taxes with terms of more than 20 years, and (with some exceptions) from refunding CABs to extend their maturity dates. It also limits each government's CAB debt to no more than 25 percent of its total outstanding bond debt including principal and interest. The 85th Legislature passed Senate Bill 295, which extends the allowed maturity date for CABs issued for refunding purposes and financing transportation projects.

Table 4.1 Texas Local Government Capital Appreciation Bonds Issued in Fiscal Year 2017									
Entity Type	Total Par Issued (CIB and CAB)		CAB Par	CAB Par/ Total Par	% of Total CAB Par Issued	CAB Premiu	ım	CAB Maturity Amount	% of Total CAB Maturity Amount
Comm Colleges / Junior Colleges	\$ 680,465,000	\$	35,000	0.01%	0.07%	\$ 81,28	85	\$ 120,000	0.03%
Cities, Towns & Villages	8,026,548,938		1,238,787	0.02%	2.43%	1,583,94	48	3,085,000	0.76%
Counties	1,808,637,000		-	0.00%	0.00%	-		-	0.00%
Health & Hospitals	630,192,250		-	0.00%	0.00%	-		-	0.00%
Public School Districts	13,656,417,525		38,051,525	0.28%	74.67%	144,279,99	93	378,747,790	93.81%
Other Special Districts	893,517,100		-	0.00%	0.00%	-		-	0.00%
Water Districts	4,280,587,843		11,634,843	0.27%	22.83%	2,052,17	73	21,775,000	5.39%
Total	\$ 29,976,365,656	\$	50,960,155	0.17%	100.00%	\$ 147,997,3	98	\$403,727,790	100.0%
Excludes Commercial Paper & Conduit Debt									
source: Texas Bond Review Board - Bond Finance Office									

Table 4.2 shows CAB issued amounts for the last five fiscal years.

Table 4.2										
Texas Local Government										
Capital Appreciation Bonds Par Amount Issued by Fiscal Year										
(\$ in millions)										
2013* 2014 2015 2016 2017**										
Public School Districts	\$218.7	\$471.9	\$214.1	\$70.5	\$38.1					
Cities, Towns, Villages	-	-	0.3	0.7	1.2					
Water Districts and Authorities	69.6	1.0	1.4	2.5	11.6					
Community and Junior Colleges	2.2	1.0	-	-	0.0					
Health/Hospital Districts	0.0	1.3	-	-	-					
Other Special Districts and Authorities	0.0	-	-	-	-					
Counties	-	1.4	-	-	-					
Total CAB Par Amount Issued	\$290.5	\$476.7	\$215.9	\$73.8	\$51.0					
Total Par Amount Issued*** \$27,852.7 \$23,543.6 \$38,146.5 \$39,387.0 \$29,976.4										
CAB Par Amount % of Total	1.0%	2.0%	0.6%	0.2%	0.2%					
* HHDs issued \$30,000 and OSDs issued \$34,998 of CABs in 2013										
** CCDs issued \$35,000 of CABs in 2017										
*** Includes current interest bonds, excludes comme	*** Includes current interest bonds, excludes commercial paper authorizations and conduit issuances.									

Source: Bond Review Board - Bond Finance Office

Three ratios have been developed to compare CAB issuances. The first is the "Maturity Value/Par" ratio which is calculated by dividing the CAB maturity amount by the CAB par amount and represents the total amount to be repaid (principal plus interest) compared to the par amount borrowed. This ratio disregards premiums received on PCABs.

The second is the "Maturity Value/Proceeds" ratio which is calculated by dividing the CAB maturity amount by the total CAB proceeds including the additional proceeds received as premium on PCAB issuances. This ratio represents the total amount to be repaid at maturity (principal plus interest) compared to the total amount of proceeds received (par plus premium).

The third is the "Accreted Interest/Proceeds" ratio (AIPR) which is calculated by dividing the CAB maturity amount minus the original par amount by the total proceeds including the CAB premium.

This ratio represents the total amount of interest to be paid at maturity compared to the total amount of proceeds received including premium (par plus premium).

Table 4.3 lists the top 20 most expensive CABs issued and outstanding as of fiscal year end 2017 as defined by the "Maturity Value/Proceeds" ratio. CABs become increasingly more expensive as interest continues to compound with longer-term maturities. For comparison, the Maturity Value/Proceeds ratio for CIBs is generally less than 2.0 and the AIPR is generally less than 1.0. The decline in the Maturity Value/Proceeds ratio compared to the Maturity Value/Par ratio shows the effect of including the premiums on PCABs in the comparison.

	Table 4.3								
Texas Local Governent Top 20 Most Expensive CABs Outstanding As of August 31, 2017									
Issuer	Issue	Closing Date	CAB Maturity Date	Maturity Value/ Par	Maturity Value/ Proceeds	Accreted Interest / Proceeds Ratio			
Forney ISD	Unl Tax Ref Bonds Txbl Ser 2014A	2/18/2014	8/15/2053	12.69	10.87	10.01			
Forney ISD	Unl Tax Ref Bonds Ser 2014	2/18/2014	8/15/2053	10.17	8.34	7.52			
North Texas Tollway Authority	Spec Proj Sys First Tier CAB Rev Bds Ser 2011B	4/28/2011	9/1/2043	6.91	6.91	5.91			
Forney ISD	Unl Tax Ref Bonds Txbl Ser 2013B	8/27/2013	8/15/2043	7.94	6.89	6.03			
Lake Worth ISD	Unl Tax Ref Bonds Ser 2015A	3/19/2015	2/15/2019	133.29	6.77	6.72			
Hutto ISD	Unl Tax Ref Bonds Ser 2012A	5/3/2012	8/1/2045	249.18	6.71	6.68			
Austin	Combined Util Sys Rev Ref Bonds Ser 1990B	3/15/1990	11/15/2017	6.59	6.59	5.59			
Anna ISD	Unl Tax School Bldg Bonds Ser 2010A	9/21/2010	8/15/2046	3,819.06	6.25	6.25			
Anna ISD	Unl Tax School Bldg Bonds Ser 2011	6/23/2011	2/15/2051	6.17	5.87	4.92			
Anna ISD	Unl Tax School Bldg Bonds Ser 2010	4/8/2010	8/15/2043	12.00	5.82	5.33			
Forney ISD	Unl Tax Ref Bonds Ser 2013A	8/27/2013	8/15/2043	9.35	5.49	4.90			
Lake Worth ISD	Unl Tax Ref Bonds Ser 1995	9/21/1995	2/15/2024	8.25	5.31	4.66			
Robstown ISD	Unl Tax School Bldg & Ref Bonds Ser 1994	1/4/1995	2/15/2022	13.16	5.26	4.86			
Anna ISD	Unl Tax School Bldg Bonds Ser 2009	10/15/2009	8/15/2042	7.57	5.26	4.56			
Galena Park ISD	Unl Tax School Bldg & Ref Bonds Ser 1996	8/20/1996	8/15/2031	6.09	5.11	4.27			
Crowley ISD	Unl Tax Ref & School Bldg Bonds Ser 1993	5/19/1993	8/1/2023	9.87	5.04	4.53			
Central Texas Regional Mobility Auth	Sr Lien Rev Bonds Ser 2010	3/11/2010	1/1/2040	5.03	5.03	4.03			
Hillsboro ISD	Unl Tax School Bldg & Ref Bonds Ser 2001	2/15/2001	8/15/2031	75.90	4.94	4.88			
Frisco ISD	Unl Tax School Bldg & Ref Bonds Ser 2002	9/24/2002	8/15/2034	11.65	4.79	4.37			
Crowley ISD	Unl Tax School Bldg & Ref Bonds Ser 2002	2/19/2002	8/1/2031	47.10	4.78	4.67			
Excludes Commercial Paper & Conduit D	ebt								
Source: Texas Bond Review Board - Bond	Finance Office								

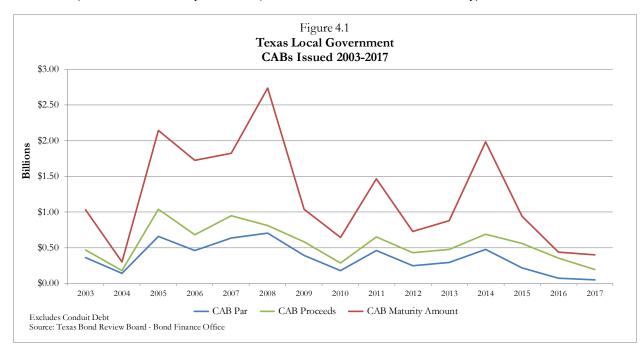


Figure 4.1 illustrates the total CAB par amount issued, the total proceeds received (including premiums on PCABs) and CAB maturity amount (total debt-service owed at maturity) since 2003.

CABs Outstanding

Table 4.4 below provides a comparison between the total CAB debt outstanding and total CIB and CAB debt outstanding for each local government entity. The CAB debt service (principal plus interest) is 3.2 percent of total debt-service owed by local governments. School districts owe the most CAB debt service at 55.6 percent of total CAB debt-service owed among all local governments. While CAB par was 1.2 percent of total CIB and CAB par outstanding at fiscal year end 2017, CAB interest accounted for 6.8 percent of total interest owed.

	Table 4.4										
	Texas Local Government										
		C	apital App	preciation Bonds	Outstanding	as of August	1 31, 2017				
									CAB		% of Total
									Maturity		CAB
	Total Par		CAB Par	Total Interest		CAB Interest	Total Debt	CAB Maturity	Amount/	% of Total	Maturity
	Outstanding	CAB Par	/ Total	Outstanding		/ Total	Service	Amount	Total Debt	CAB Par	Amount
Entity Type	(CIB+CAB)	Outstanding	Par	(CIB+CAB)	CAB Interest	Interest	(CIB+CAB)	Outstanding	Service	Outstanding	Outstanding
Comm Colleges / Junior Colleges	\$4,870,465,597	\$26,909,597	0.55%	\$2,391,584,328	\$27,880,403	1.17%	\$7,262,049,924	\$54,790,000	0.75%	1.01%	0.50%
Cities, Towns & Villages	71,028,163,478	268,369,474	0.38%	35,737,606,928	1,121,102,738	3.14%	106,765,770,406	1,389,472,212	1.30%	10.11%	12.77%
Counties	13,751,842,460	61,719,950	0.45%	6,285,477,218	141,925,050	2.26%	20,037,319,678	203,645,000	1.02%	2.33%	1.87%
Health & Hospitals	3,355,067,698	11,149,367	0.33%	2,431,545,589	26,756,617	1.10%	5,786,613,287	37,905,984	0.66%	0.42%	0.35%
Public School Districts	79,762,562,383	1,356,290,976	1.70%	46,843,798,969	4,691,191,868	10.01%	126,606,361,352	6,047,482,844	4.78%	51.11%	55.60%
Other Special Districts	16,974,656,620	829,975,862	4.89%	15,350,565,438	2,018,939,180	13.15%	32,325,222,059	2,848,915,042	8.81%	31.28%	26.19%
Water Districts	26,865,352,886	99,048,744	0.37%	12,482,396,074	195,392,975	1.57%	39,347,748,960	294,441,719	0.75%	3.73%	2.71%
Total	\$216,608,111,122	\$2,653,463,970	1.23%	\$121,522,974,544	\$8,223,188,831	6.77%	\$ 338,131,085,666	\$10,876,652,802	3.22%	100.00%	100.00%
Excludes Commercial Paper, Condui	xcludes Commercial Paper, Conduit Debt & Build America Bond subsidies.										
Source: Texas Bond Review Board -	Bond Finance Office										l

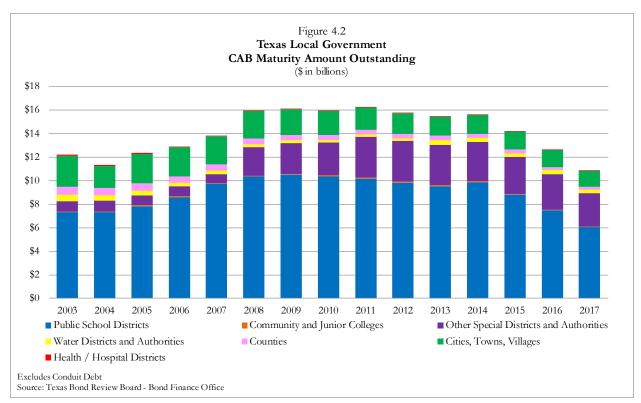


Figure 4.2 below shows the maturity amount (principal plus interest) for each local government entity with CABs outstanding since 2003.

Figure 4.3 shows CIB debt-service and CAB debt-service for all local governments since 2003. In fiscal year 2017 CAB maturity amounts accounted for 3.2 percent (\$10.88 billion) of the total debt service outstanding.

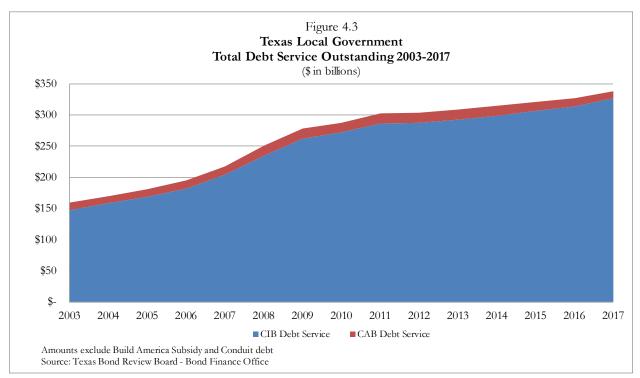


Figure 4.4 compares the ratio of total debt service to total par outstanding for CIB and CAB debt for all local governments. On average, issuers of CAB debt paid \$3.54 in principal and interest for every \$1 of principal borrowed since 2003 compared to \$1.61 for CIB debt.

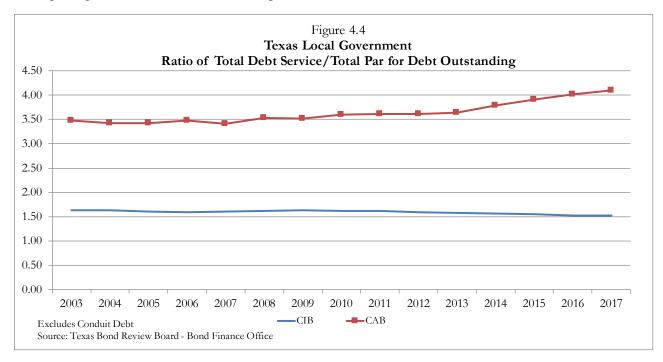
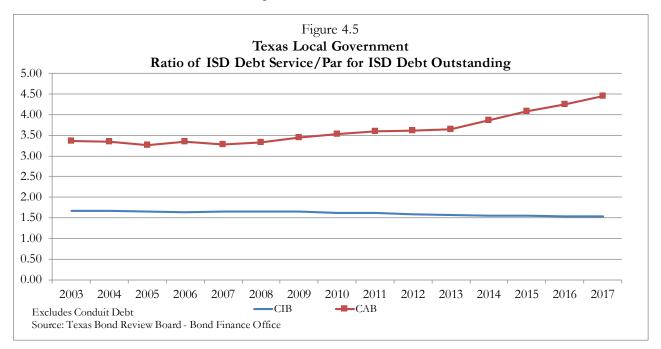


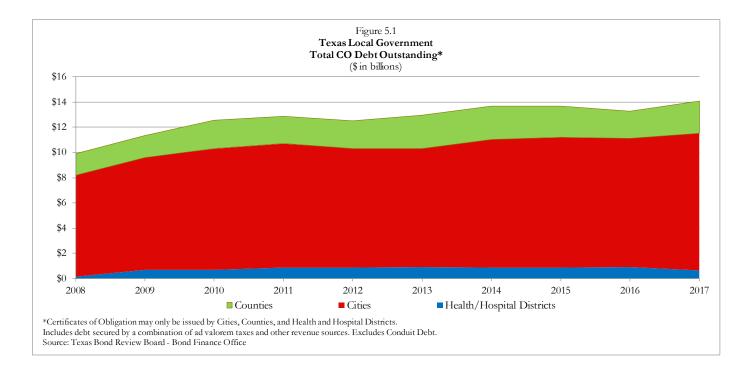
Figure 4.5 below compares the ratio of ISD debt service to ISD debt outstanding for CIB and CAB debt. On average, school districts paid \$3.63 in principal and interest for every \$1 of principal borrowed since 2003 for CAB debt compared to \$1.61 for CIB debt.



Certificates of Obligation (COs) are authorized by the Certificate of Obligation Act of 1971, Subchapter C of Chapter 271 of the Texas Local Government Code. COs are generally issued as taxsupported debt to pay for the construction of a public work; purchase of materials, supplies, equipment, machinery, buildings, land, and rights-of-way; and to pay for professional services such as engineers, architects, attorneys and financial advisors. Debt for COs is paid from ad-valorem taxes and/or a combination of revenues available from other sources. CO issuance does not require voter approval unless a valid petition requesting an election is presented.

With the passage of House Bill 1378 during the 84th Legislative Session, effective January 1, 2016, a CO may not be issued if the voters rejected a bond proposition for the same purpose within the preceding three years, except in the case of public calamity, public health, unforeseen damage to public property, or to comply with a state or federal regulation. Only counties, certain cities, and Health and Hospital Districts (HHDs) are authorized to issue COs.

Since fiscal 2008 CO debt outstanding has increased by 42.3 percent (\$4.19 billion) from \$9.91 billion outstanding in fiscal 2008 to \$14.10 billion outstanding at August 31, 2017. At August 31, 2017, cities accounted for 77.2 percent of the total CO debt outstanding (*Figure 5.1*).



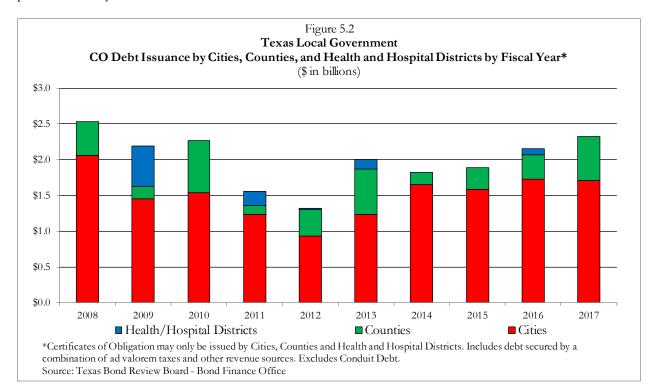


Figure 5.2 illustrates the relative amounts of CO debt issued by cities, counties and HHDs over the past ten fiscal years.

Table 5.1 Texas Local Government Top 20 Issuers with Certificates of Obligation Debt Outstanding (\$ in millions)					
Bexar County	\$1,044.				
Lubbock	661.				
El Paso	515.				
Denton	480.				
Bexar County Hospital District	448.				
San Antonio	406.4				
Frisco	263.				
Austin	256.				
Sugar Land	211				
Abilene	208.2				
Fort Worth	204.				
Irving	196.				
Waco	187.2				
Travis County	182.				
Dallas County	156.				
Grand Prairie	154.				
College Station	149.				
League City	140.				
Laredo	139.				
El Paso County Hospital District	131.				
Subtotal	\$6,138.				
Other CO Issuers	7,958.				
Total	\$14,097.				
Includes debt secured by a combination of ad valorem tax Excludes commercial paper and conduit debt. Source: Texas Bond Review Board - Bond Finance Offic					

The twenty highest issuers of CO debt accounted for 43.5 percent of all CO debt outstanding *(Table 5.1)*.

Cities, Town and Villages

Over the past ten fiscal years, tax-supported CO debt outstanding has increased by 35.5 percent (\$2.85 billion) from \$8.03 billion to \$10.88 billion. As of fiscal year 2017, all outstanding CO debt is tax-supported and represents 34.8 percent of the total cities tax-supported debt outstanding and 15.2 percent of the total cities debt outstanding including revenue debt. *Figure 5.3* illustrates the portion of total city tax-supported debt attributable to CO. As of fiscal year 2017, 656 cities had CO debt outstanding.

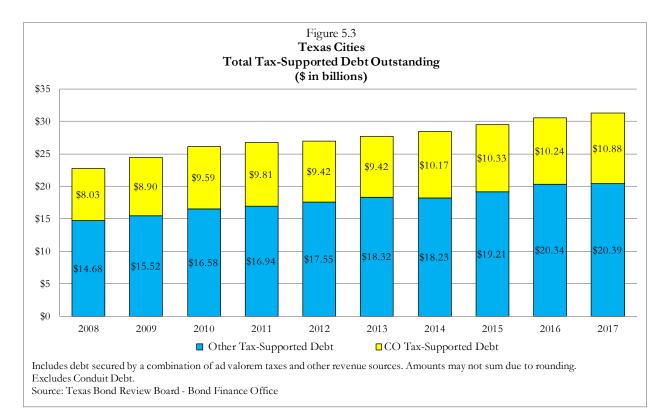


	Table 5	2						
	Texas Ci							
Top 30 Issuers	Top 30 Issuers with Certificates of Obligation Outstanding							
1		CO Debt	CO as % of City					
	CO Amount	per	Tax-Supported					
	(\$ in millions)	Capita*	Debt Outstanding					
Lubbock	\$661.3	\$2,619.0	63.1%					
El Paso	515.5	¥ 2 ,017.0	40.1%					
Denton	480.5	3,591	63.0%					
San Antonio	406.4	272	23.8%					
Frisco	263.9	1,613	34.6%					
Austin	256.9	271	17.5%					
Sugar Land	211.4	2,397	69.0%					
Abilene	208.2	1,703	66.3%					
Fort Worth	204.5	239	28.2%					
Irving	196.3	824	44.6%					
Waco	187.2	1,393	49.2%					
Grand Prairie	154.1	808	64.6%					
College Station	149.7	1,335	48.5%					
League City	140.1	1,373	60.2%					
Laredo	139.4	542	46.4%					
Midland	126.7	941	98.8%					
San Angelo	119.9	1,191	69.1%					
San Marcos	107.1	1,727	43.0%					
Amarillo	97.8	490	69.7%					
Flower Mound	95.4	1,298	61.2%					
Beaumont	93.0	786	45.1%					
Garland	91.9	391	19.8%					
Richardson	91.8	810	33.5%					
Conroe	84.2	1,023	69.0%					
Mansfield	79.0	1,204	61.8%					
Bryan	74.8	898	56.3%					
Temple	74.6	1,013	34.7%					
Wichita Falls	73.5	702	79.6%					
Leander	70.2	1,642	51.6%					
Mesquite	69.2	482	45.7%					
Subtotal	\$5,524.5							
Other Cities	5,354.7							
Total	\$10,879.3							
Includes debt secured by a c	combination of ad valore	m taxes and othe	er revenue sources.					
Excludes Conduit Debt. * Population data from the J	July 2016 US Census Por	ulation Division						
Source: Texas Bond Review								

The top 30 cities with CO debt outstanding accounted for 50.8 percent (\$5.52 billion) of the total city CO debt outstanding *(Table 5.2)*.

	Table 5.3								
Texas Cities									
]	Big 6 Cities with CO Debt Outstanding								
	Amount (\$ in millions)	Debt per Capita	CO as % of Issuer's Tax-Supported Debt Outstanding	Rank by CO Debt Outstanding					
El Paso	\$515.5	\$755	40.1%	2nd					
San Antonio	406.4	272	23.8%	4th					
Austin	256.9	271	17.5%	6th					
Fort Worth	204.5	239	28.2%	9th					
Houston	16.4	7	0.5%	138th					
Dallas	13.1	10	0.8%	160th					
Subtotal	\$1,412.8								
Other City CO Issuers_	9,466.5								
Total	\$10,879.3								
Includes debt secured by a combination of ad valorem taxes and other revenue sources. Excludes Conduit Debt.									
* Population data from the July 2016 US Census Population Division Source: Texas Bond Review Board - Bond Finance Office									

The CO debt for the Big Six accounted for 13.0 percent (\$1.41 billion) of the total cities' CO debt outstanding (*Table 5.3*).

Counties

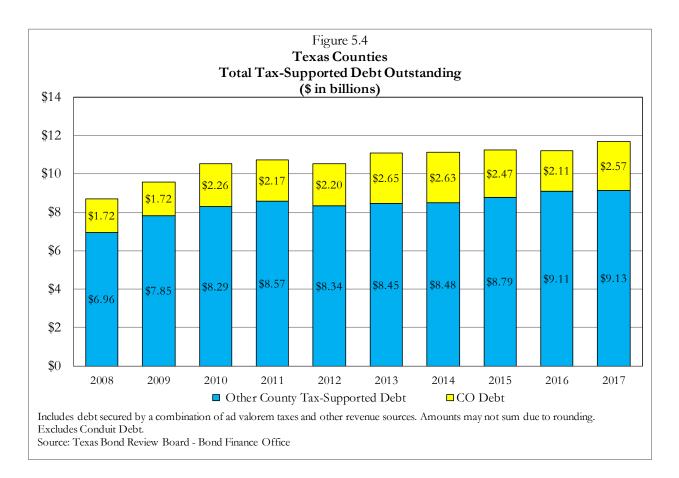
As of August 31, 2017, Texas counties had \$2.57 billion of Certificates of Obligation (CO) debt outstanding which was 21.9 percent of the county tax-supported debt outstanding. Of the 83 counties with CO debt outstanding, the top 20 had \$2.21 billion (86.3 percent) of the total county CO debt outstanding (*Table 5.4*).

	Table 5.4								
Texas Counties									
Тор 20 Се	Top 20 Certificates of Obligation Issuers								
	CO Amount	-	% of Issuer's Tax-						
	(\$ in millions)	Capita*	supported Debt						
Bexar County	\$1,044.1	\$541	62.4%						
Travis County	182.3	152	26.6%						
Dallas County	156.7	61	78.5%						
Hidalgo County	126.2	148	59.7%						
El Paso County	81.1	97	43.3%						
Cameron County	71.8	170	45.8%						
Fort Bend County	64.6	87	11.6%						
Tom Green County	59.5	503	100.0%						
Williamson County	58.0	110	6.6%						
Montgomery County	50.8	91	11.4%						
Bell County	49.3	145	38.6%						
La Salle County	44.2	5,805	73.7%						
Nueces County	35.4	98	31.8%						
Randall County	33.0	249	80.6%						
Webb County	32.0	118	44.8%						
Brazos County	27.2	123	31.8%						
Bastrop County	25.9	313	62.1%						
Brazoria County	25.1	71	33.4%						
Ector County	23.4	149	73.1%						
Potter County	21.5	178	76.2%						
Subtotal	\$2,212.0	\$187	38.7%						
Other CO Issuers	354.0	141	5.9%						
Total	\$2,566.0	\$179	21.9%						
* Population data from the July 2016 US Census Population Division. Total population									
based on issuers with debt outstanding. Excludes Conduit Debt.									

Includes debt secured by a combination of ad valorem taxes and other revenue sources.

Source: Texas Bond Review Board - Bond Finance Office

Over the past ten fiscal years ending August 31, 2017, county CO debt outstanding has increased by 48.8 percent from \$1.72 billion to \$2.57 billion. The increase was mainly due to multiple issuances by Bexar County totaling \$1.31 billion over the period for flood control purposes and improvements to the courthouse and jail. (*Figure 5.4*).

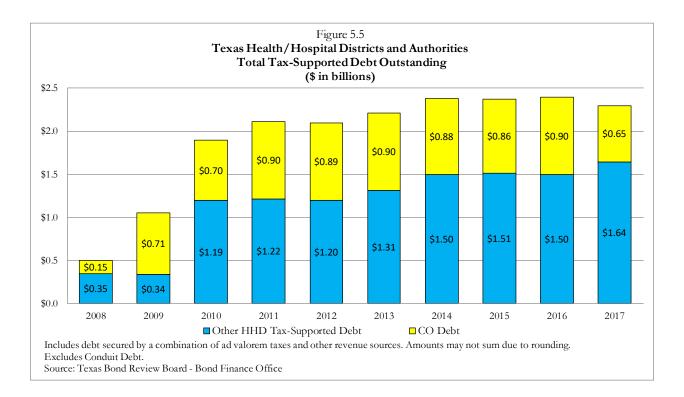


Health and Hospital Districts

As of August 31, 2017, four HHDs had issued CO debt totaling \$652.3 million (*Table 5.5*). These issuances accounted for 28.4 percent of total HHD tax-supported debt outstanding (*Figure 5.5*) and 19.4 percent of total HHD debt outstanding including revenue debt.

Table 5.5								
Texas Health/Hospital Districts and Authorities								
with CO Debt Outstandin	ıg							
		CO's as % of						
		Tax-Supported						
	Amount*	Debt						
Issuer	(\$ in millions)	Outstanding						
Bexar County Hospital District (University Health System)	\$448.7	69.7%						
El Paso County Hospital District	131.6	37.8%						
Harris County Hospital District	61.6	100.0%						
Travis County Healthcare District	10.4	100.0%						
Total	\$652.3							
*Includes debt secured by a combination of ad valorem taxes and other reve	nue sources. Exclu	des Conduit Debt.						
Source: Texas Bond Review Board - Bond Finance Office								

Figure 5.5 shows HHD CO debt outstanding relative to total tax-supported HHD debt outstanding.



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Bond Elections are required before the issuance of certain debt obligations that pledge unlimited or limited ad valorem taxes of a local government for repayment. Bond elections are generally held on a uniform election date. Section 41.001 of the Election Code states a uniform election date is one of the following: (1) the first Saturday in May in an odd-numbered year; (2) the first Saturday in May in an even-numbered year (excluding counties); (3) the first Tuesday after the first Monday in November.

Texas Local Governments are not required to provide the BRB with bond election information. Such information has been obtained from various sources, including newspaper articles, the Municipal Advisory Council's *Texas Bond Reporter*, and the U.S. Department of Justice.

Table A.1 shows the number of voter-approved bond elections for the past five fiscal years. *Table A.2* shows the voter-approved election amounts for the past five fiscal years for each of the local government categories. The detailed results of the fiscal year 2017 elections are shown in *Tables A.3* through A.6. A total of 127 local governments held 168 bond elections during fiscal year 2017.

On November 7, 2017, 98 local governments held 174 bond elections, 142 of which approved debt totaling \$13.26 billion.

	Table A.1										
	Texas Local Government										
	N	umber	of Bon	d Elect	ion Pro	positio	ns App	roved b	y Fisca	l Year	
											Total Percentage
	201	3	20	14	20	15	20	16	20	17	Approved
City	50	93%	54	78%	64	93%	54	93%	34	81%	88%
CCD	4	100%	3	100%	5	100%	1	50%	4	100%	94%
County	7	88%	9	75%	4	80%	12	92%	12	92%	86%
HHD	3	100%	3	60%	1	33%	0	N/A	1	100%	67%
OSD	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	N/A
ISD	97	78%	103	68%	116	82%	109	80%	65	69%	76%
WD	50	98%	35	100%	57	97%	55	98%	13	93%	98%
Total	211	86%	207	75%	247	87%	231	87%	129	77%	83%
Source: Bond	l Buyer, Mu	nicipal Adv	Source: Bond Buyer, Municipal Advisory Council's Texas Bond Reporter and U.S. Department of Justice, Civil Rights Division - Voting Section								on - Voting Section

		Table A.2							
Texas Local Government									
Estin	Estimated Bond Election Results by Fiscal Year								
	(\$ in millions)								
	2013	2014	2015	2016	2017				
Cities, Towns, Villages									
Election Amount	\$2,456.9	\$1,003.6	\$1,824.8	\$1,020.3	\$3,031.1				
Amount Approved	2,358.7	848.0	1,157.8	933.6	2,784.8				
Perœnt Approved	96.0%	84.5%	63.5%	91.5%	91.9%				
Community and Junior Colle	ge District								
Election Amount	\$997.7	\$273.8	\$1,047.9	\$513.5	\$1,199.0				
Amount Approved	997.7	273.8	1,047.9	425.0	1,199.0				
Percent Approved	100.0%	100.0%	100.0%	82.8%	100.0%				
Counties									
Election Amount	\$74.5	\$995.8	\$414.0	\$1,557.9	\$552.1				
Amount Approved	67.7	663.9	64.0	1,270.6	543.6				
Perœnt Approved	90.9%	66.7%	15.5%	81.6%	98.5%				
Health/Hospital Districts an	d Authorities								
Election Amount	\$56.4	\$139.5	\$66.0	\$0.0	\$13.8				
Amount Approved	56.4	62.5	10.0	0.0	13.8				
Perœnt Approved	100.0%	44.8%	15.1%	N/A	100.0%				
Other Special Districts and A	uthorities								
Election Amount	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0				
Amount Approved	0.0	0.0	0.0	0.0	0.0				
Perœnt Approved	N/A	N/A	N/A	N/A	N/A				
Public School Districts									
Election Amount	\$6,967.2	\$9,599.5	\$8,626.8	\$11,105.2	\$8,589.4				
Amount Approved	5,826.8	7,965.9	7,244.1	10,560.9	7,035.7				
Perœnt Approved	83.6%	83.0%	84.0%	95.1%	N/A				
Water Districts and Authoriti	es								
Election Amount	\$2,113.4	\$7,541.5	\$3,328.6	\$3,997.1	\$745.3				
Amount Approved	2,106.3	7,541.5	3,167.6	3,987.1	727.8				
Perœnt Approved	99.7%	100.0%	95.2%	99.7%	97.7%				
Total Election Amount	\$12,666.1	\$19,553.6	\$15,308.0	\$18,194.0	\$14,130.6				
Total Amount Approved	\$11,413.6	\$17,355.7	\$12,691.3	\$17,177.2	\$12,304.6				
Total Percent Approved	90.1%	88.8%	82.9%	94.4%	87.1%				
Source: Bond Buyer, Municipal Adv Division - Voting Section	visory Council's Tex	as Bond Reporter	and U.S. Departm	ent of Justice, Civ	il Rights				

Table A.3								
	Texas Local Government							
	Carried Propositions							
Bond Elections May 06, 2017								
		(\$ in millions)						
			Amount					
Issuer	County	Purpose	Carried					
Public School Districts								
Alamo Heights ISD	Bexar	School Building & Technology	\$135.0					
Argyle ISD	Denton	School Building	166.0					
Barbers Hill ISD	Chambers	School Building	120.0					
Belton ISD	Bell	School Building	149.7					
Borger ISD	Hutchinson	School Building / Auditorium	40.9					
Burleson ISD	Johnson	School Building / Auditorium	85.0					
Carroll ISD	Tarrant	School Building	208.0					
Chico ISD	Wise	School Building & Buses	1.8					
Clear Creek ISD	Galveston	School Building	487.0					
Cleveland ISD	Liberty	School Building	80.0					
Comal ISD	Comal	School Building	263.5					
Crandall ISD	Kaufman	School Building & Gymnasium	125.0					
Eastland ISD	Eastland	School Building & Security	8.5					
Eastland ISD	Eastland	Refinance	3.7					
Floydada ISD	Floyd	School Building, Atheltics & Renovations	44.7					
Franklin ISD	Robertson	School Building	9.0					
Goldthwaite ISD	Mills	School Building	15.5					
Grapeland ISD	Houston	School Building	7.8					
Hays CISD	Hays	School Building	189.9					
Hays CISD	Hays	School Building	0.1					
Holland ISD	Bell	School Building	4.5					
Jacksonville ISD	Cherokee	School Building / Stadium	21.0					
Jarrell ISD	Williamson	School Building / Auditorium	54.0					
Judson ISD	Bexar	School Building	60.0					
Kerens ISD	Navarro	School Building	17.0					
La Grange ISD	Fayette	School Building	37.9					
Lewisville ISD	Denton	School Building & Technology	737.6					
Mansfield ISD	Tarrant	School Building, Atheltics & Renovations	275.0					
Muenster ISD	Cooke	School Building & Buses	2.4					
Northwest ISD	Denton	School Building & Technology	399.0					
Olney ISD	Young	School Building	5.5					
Paint Creek ISD	Haskell	Athletic Facility Improvements	3.6					
Peaster ISD	Parker	Stadium	9.5					

Table A.3 (continued) Texas Local Government Carried Propositions Bond Elections May 06, 2017 (\$ in millions)						
_		_	Amount			
Issuer	County	Purpose	Carried			
Public School Districts Cont'd						
Port Aransas ISD	Nueœs	School Building	\$6.0			
Premont ISD	Jim Wells	School Building, Atheltics & Renovations	10.6			
Princeton ISD	Collin	School Building	93.6			
San Marcos CISD	Hays	School Building & Buses	107.3			
Shiner ISD	Lavaca	School Building	3.5			
Southside ISD	Bexar	School Building	59.8			
Sunnyvale ISD	Dallas	School Building	43.2			
Tyler ISD	Smith	School Building	198.0			
Valley Mills ISD	Bosque	School Building	8.4			
Van Alstyne ISD	Grayson	School Building	24.0			
White Oak ISD	Gregg	School Building	19.0			
Public School Districts Total			\$4,341.3			
Cities, Towns, Villages	_					
Arlington	Tarrant	Senior Citizen Center	\$37.7			
Dalworthington Gardens	Tarrant	Street	4.0			
Dalworthington Gardens	Tarrant	City Hall	2.0			
Galveston	Galveston	Street & Drainage	62.0			
Lakeway	Travis	Public Safety Facilities	23.1			
Llano	Llano	Street	4.8			
Llano	Llano	Aquatic Facilities	0.5			
Paris	Lamar	Street	11.0			
Plano	Collin	Streets & Sidewalks	90.3			
Plano	Collin	Public Safety Facilities	29.0			
Plano	Collin	Park	78.9			
Plano	Collin	Recreational Facilities	12.5			
Plano	Collin	Library	10.0			
San Antonio	Bexar	Street & Bridge	445.3			
San Antonio	Bexar	Flood Control	139.0			
San Antonio	Bexar	Parks & Recreation	187.3			
San Antonio	Bexar	Library	24.0			
San Antonio	Bexar	Public Safety	34.4			
San Antonio	Bexar	Development Costs	20.0			
San Marcos	Hays	Poliæ & Fire	17.2			
San Marcos	Hays	Library	14.5			
Cities, Towns, Villages Total			\$1,247.4			

Table A.3 (continued) Texas Local Government Carried Propositions Bond Elections May 06, 2017 (\$ in millions)						
Ŧ		D	Amount			
Issuer	County	Purpose	Carried			
Water Districts	Fort Bend	W7	¢=2 0			
Fort Bend County FWSD 1		Wastewater	\$52.0			
Galveston County WCID 12	Galveston	Water, Sewer & Drainage	12.7			
Harris County FWSD 61	Harris Travis	Water, Sewer, Drainage & Refunding	30.0			
Travis County MUD 23	Travis Travis	Water, Sewer & Drainage	128.5			
Travis County MUD 23		Road	21.2			
Travis County MUD 23	Travis	Parks & Recreation	9.4			
Travis County MUD 23	Travis	Refunding	192.8			
Travis County MUD 24	Travis	Water, Sewer & Drainage	95.8			
Travis County MUD 24	Travis	Road	22.3			
Travis County MUD 24	Travis	Parks & Recreation	10.5			
Travis County MUD 24	Travis	Refunding	143.6			
Water Districts Total			\$718.6			
Counties						
Coleman County	Coleman	Justice Center	\$9.1			
Lampasas County	Lampasas	Justice Center	18.8			
Wichita County	Wichita	Jail	70.0			
Counties Total			\$97.9			
Community College Districts						
Alamo CCD	Bexar	College Facilities	\$450.0			
Collin County CCD	Collin	College Facilities	600.0			
Community College Districts Total			\$1,050.0			
Health and Hospital Districts						
Hemphill County Hospital District	Hemphill	Nursing Home	\$13.8			
Health and Hospital Districts Total			\$13.8			
Total Carried			\$7,469.0			

Table A.4						
Texas Local Government						
Defeated Propositions						
Bond Elections May 06, 2017						
(\$ in millions)						
Amount						
Issuer	County	Purpose	Defeated			
Public School Districts						
Alvord ISD	Wise	School Building	\$13.6			
Broaddus ISD	San Augustine	School Building	7.5			
Cayuga ISD	Anderson	School Building & Buses	19.0			
Childress ISD	Childress	School Building	9.8			
Dublin ISD	Erath	School Building & Security	10.8			
Groesbeck ISD	Limestone	School Building & Buses	5.0			
Hereford ISD	Deaf Smith	School Building & Security	45.0			
Mineola ISD	Wood	School Building / Auditorium	41.0			
North Lamar ISD	Lamar	School Building	44.9			
Pilot Point ISD	Denton	School Building, Atheltics & Renovations	11.9			
Pilot Point ISD	Denton	Athletic Facilities Improvements	1.3			
Red Oak ISD	Ellis	School Building, Athletic Fadlity & Transportation	74.1			
Round Rock ISD	Williamson	School Building / Auditorium	381.7			
Round Rock ISD	Williamson	School Building, Atheltics & Renovations	133.6			
Round Rock ISD	Williamson	Athletic Facilities Improvements	56.8			
Roxton ISD	Lamar	School Building	5.2			
San Felipe-Del Rio CISD	Val Verde	School Building	60.0			
Sanger ISD	Denton	School Building, Atheltics & Renovations	26.8			
Sherman ISD	Grayson	School Building	308.0			
Sivells Bend ISD	Cooke	School Building	8.0			
Thomdale ISD	Milam	School Building	12.5			
Vidor ISD	Orange	School Building	73.5			
Wills Point ISD	Van Zandt	School Building	36.2			
	v all Zallet	Sulooi Bullulig				
Public School Districts Total Cities, Towns, Villages			\$1,386.1			
Lavon	Collin	Sports Complex	\$9.2			
Plano	Collin	City Building	3.5			
Westworth Village	Tarrant	Community Center	3.5			
Cities, Towns, Villages Total	Tarrant	community center	\$16.2			
Counties			ψ10 . 2			
Maverick County	Maverick	Infrastructure	\$8.5			
Counties Total	inter circle	mastudule	\$8.5			
Water Districts			ψ0.J			
Galveston County MUD 12	Galveston	Water, Sewer & Drainage	\$17.5			
Water Districts Total	Saveston	water, otwer & maillage	\$17.5			
			φ17.3			
Total Defeated			\$1,428.3			
2 Clair Decented			¥1,120.0			

	Table	A.5					
	Texas Local G						
Carried Propositions							
Bond Elections November 08, 2016							
(\$ in millions)							
Amount							
Issuer	County	Purpose	Approved				
Public School Districts							
Azle ISD	Tarrant	School Building	\$59.5				
Bay City ISD	Matagorda	School Building	124.0				
Brock ISD	Parker	School Building	18.0				
Corpus Christi ISD	Nueœs	School Building	194.0				
El Paso ISD	El Paso	School Building	668.7				
Fayetteville ISD	Fayette	School Building & Buses	1.8				
Fayetteville ISD	Fayette	Athletic Facility	1.3				
Fayetteville ISD	Fayette	Gymnasium	5.0				
Groom ISD	Carson	School Building	19.5				
Midlothian ISD	Ellis	School Building / Stadium	268.0				
Pearland ISD	Brazoria	School Building & Technology	220.0				
Rosebud-Lott ISD	Falls-Milam-Bell	School Building	12.0				
San Antonio ISD	Bexar	School Building	450.0				
Santa Fe ISD	Galveston	School Building	34.6				
Schertz-Cibolo-U City ISD	Guadalupe	School Building	137.0				
Smithville ISD	Bastrop	School Building	35.0				
Somerset ISD	Bexar	School Building	10.0				
Spring ISD	Harris	School Building & Security	330.0				
Trinity ISD	Trinity	School Building	11.3				
Whitehouse ISD	Smith	School Building	87.4				
Whitehouse ISD	Smith	Sports Complex	7.4				
Public School Districts Tota		opono complex	\$2,694.3				
Cities, Towns, Villages	1		φ2,07τ.J				
Amarillo	Potter-Randall	Street	\$89.5				
Amarillo	Potter-Randall	Public Safety	20.1				
Arlington	Tarrant	Baseball Park	500.0				
Austin	Travis-Williamson						
Bellaire	Harris	Street & Drainage	720.0 24.0				
Bellaire	Harris	Municipal Center					
Bellaire	Harris	Waterworks and Sewer System	5.6 24.4				
Corpus Christi	Nueœs	Street Projects					
Granite Shoals	Burnet	Street Projects	18.4				
Huntsville	Walker	Police & Fire	3.0 21.0				
Huntsville	Walker	Service Center	31.0				
			24.0 72.0				
Huntsville Port Armson	Walker	Waterworks & Sewer System	73.0				
Port Aransas	Nueœs	Street & Drainage	4.5				
Cities, Towns, Villages Tota	1		\$1,537.4				

Table A.5 (continued)							
Texas Local Government							
Carried Propositions							
Bond Elections November 08, 2016							
(\$ in millions)							
Amount							
Issuer	County	Purpose	Carried				
Counties							
Anderson County	Anderson	Road	\$20.0				
Bosque County	Bosque	Law Enforcement Center	9.8				
Fannin County	Fannin	Courthouse Improvements	12.5				
Hays County	Hays	Jail	106.4				
Hays County	Hays	Road	131.4				
Hunt County	Hunt	Transportation	24.5				
McCulloch County	McCulloch	Law Enforcement Center	9.9				
Parker County	Parker	Road	76.2				
Taylor County	Taylor	Expo Center	55.0				
Counties Total			\$445.7				
Water Districts							
Fayette County WCID-Monument Hill	Fayette	Waterworks and Sewer System	\$1.7				
Sabine Pass Port Authority	Jefferson	Port Improvements	7.5				
Water Districts Total			\$9.2				
Community College Districts							
Del Mar College	Nueœs	Campus Improments	\$139.0				
Ranger College District	Eastland	College Facility	10.0				
Community College Districts Total		-	\$149.0				
Total Carried		<u> </u>	\$4,835.6				

Texas Local Government Defeated Propositions Bond Elections November 08, 2016 (\$ in millions)					
Issuer	County	Purpose	Amount Defeated		
Public School Districts					
Bastrop ISD	Bastrop	School Building	\$75.0		
Burton ISD	Washington	School Building	18.0		
Dublin ISD	Erath	School Building	10.8		
Nocona ISD	Montague	School Building	16.8		
Skidmore-Tynan ISD	Bee	School Building	4.5		
Wills Point ISD	Van Zandt	School Building	42.5		
Public School Districts Total			\$167.6		
Cities, Towns, Villages					
Amarillo	Potter-Randall	Municipal Building	\$41.5		
Amarillo	Potter-Randall	Parks and Recreation	22.3		
Amarillo	Potter-Randall	Civic Center	83.4		
Amarillo	Potter-Randall	Fleet Center	16.3		
Amarillo	Potter-Randall	Athletic Facility	66.6		
County Total			\$230.1		
Total Defeated			\$397.7		

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Appendix B Texas Local Government Conduit Debt

Conduit, Component and Related Organization debt has been excluded from this report, except for data presented in this appendix and certain data presented in *Appendix F, Commercial Paper*. A Conduit Issuer is usually a government agency or creation of the agency (*e.g.*, a non-profit corporation sponsored by a local government), that issues municipal securities to finance revenue-generating projects in which the funds generated are used by a third party (known as the "conduit borrower" or "obligor") for debt-service payments.

Most conduit debt is issued for projects that will benefit the public, or specific segments of the public, within the geographical area of the sponsoring agency, although some conduit issuers are able to issue debt for projects to benefit the public in the state at large. The purposes and locations of projects that can be funded by conduit debt are governed by the section of Texas law used to form the individual conduit issuer, and include transportation, airports, ports, housing, utilities, culture, higher education, recreation, and health, as well as industrial and economic development.

Not all Texas local government conduit issuers are required to provide issuance information to the Bond Review Board (BRB) pursuant to Texas Government Code Chapter 1202.008. However, basic information on all conduit issuances that require approval by the Office of the Attorney General (OAG) is forwarded by the OAG to the BRB. In previous years, this data was retained but not included in the BRB Debt Database. Beginning in fiscal year 2017, the BRB has added current conduit issuances into the database. There is an ongoing BRB project to enter conduit issuance data from prior years into the database as well. At the end of this project, all conduit debt outstanding from 2003 onwards will be included, based on data provided to the BRB in those years.

Conduit Debt Issuance

Currently, only 2017 conduit debt issuance information is available. (*Table B.1*) Conduit debt outstanding and debt service outstanding information will be reported once the project has been completed.

In 2017, 72 local government conduits issued 141 new debt instruments, for a total of \$4.47 billion, of which \$2.44 billion was new money debt and \$2.03 billion was refunding debt. Of the total conduit debt issued, \$83.5 million was tax-supported debt, \$38.6 million was lease revenue debt, and \$4.35 billion was backed by revenue.

City conduit entities issued \$2.49 billion in debt in 2017, 55.7 percent of the total 2017 conduit debt issued. The entire amount was revenue debt, of which \$1.50 billion was new money debt and \$986.5 million was refunding debt. Such revenue debt is often issued to loan to third parties to finance the acquisition of land and to construct or expand, furnish and equip certain cultural, educational, housing, health-related or correctional facilities.

County conduit entities can issue revenue and lease-revenue debt, and some can issue tax-supported debt. Historically county conduit revenue debt has been issued for pollution control and residential rental projects. Many county conduit lease-revenue obligations are issued by non-profit corporations formed by counties to finance the acquisition of land and to construct or expand, furnish and equip county projects, including adult or juvenile correctional facilities that may house

county, state or federal prisoners. In 2017 counties issued \$1.76 billion in conduit debt, 39.4 percent of the total issued in 2017. \$38.6 million was lease revenue refunding debt, \$629.5 million was revenue new money debt, \$1.01 billion was revenue refunding debt and \$83.5 million was tax-supported new money debt (issued by Brazoria County Toll Road Authority in two combination tax and revenue bond anticipation note issuances).

Other Special Districts issued \$183.0 million in revenue new money conduit debt, 4.1 percent of the total 2017 conduit debt issued.

Many Water Districts and Authorities (WDs) create conduit issuers for pollution and solid waste disposal facilities. In 2017, WDs issued \$40.0 million in revenue new money conduit debt, 0.9 percent of the total conduit debt issuance.

CCDs can execute lease-purchase agreements that provide security for lease-revenue obligations issued by nonprofit corporations formed by CCDs. No conduit debt was issued in 2017 by Public School Districts, Community and Junior Colleges, or Health/Hospital Districts. (HHD conduit-revenue debt was last issued in 1985 and matured in 2011.)

Conduit entities also issue commercial paper. Commercial paper outstanding balances reported by Conduits over the past 10 years are presented at the end of *Appendix F, Commercial Paper*.

Table B.1 shows the New Money/Refunding and the Pledge Type breakdown by local government conduit type for 2017 conduit debt issuance.

Table B.1 Texas Local Government Conduit Debt Issuance - Fiscal Year 2017* (\$ in millions)						
Issuers						72
Issuances						141
	Ne	w Money	Re	efunding		Total
Cities, Towns, Villages						
Revenue	\$	1,503.4	\$	986.5	\$	2,489.9
Cities Total		1,503.4		986.5		2,489.9
Counties						
Tax-Supported		83.5		-		83.5
Lease Revenue		-		38.6		38.6
Revenue		629.5		1,008.6		1,638.0
Counties Total		713.0		1,047.2		1,760.2
Other Special Districts and Authorities						
Revenue		183.0		-		183.0
OSD Total		183.0		-		183.0
Water Districts and Authorities						
Revenue		40.0		-		40.0
WD Total		40.0		-		40.0
Community and Junior Colleges		-		-		-
Public School Districts		-		-		-
Health/Hospital Districts		-		-		-
Total Tax-Supported	\$	83.5	\$	-	\$	83.5
Total Lease Purchase		-		38.6		38.6
Total Revenue		2,355.8		1,995.1		4,350.9
Grand Totals	\$	2,439.4	\$	2,033.7	\$	4,473.0
*Excludes commercial paper Source: Texas Bond Review Board - Bond Finance Office						

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History

Local government education finance corporations (EFC) issue the majority of charter school debt in Texas. These conduit corporations are created by Texas municipalities to issue debt on behalf of charter school borrowers. Debt issued by EFCs is secured by the revenues of the borrower and is not an obligation of the municipality. (Because debt issued by local government EFCs is not reported to the BRB, staff relied on multiple sources to compile the data used in this Appendix.)

Public charter schools were authorized by the legislature in 1995 to offer publicly-funded alternate education options to parents within the public-school system. The Texas Education Code Chapter 12 provides for four types of charter schools: Home-Rule Charters, Campus or District Charters, Open-Enrollment Charters and University Charters. Most charters in Texas are open-enrollment.

Open-enrollment charter schools function like public school districts in that they provide tuition free instruction and must accept any student that applies, subject to enrollment constraints. Charter schools have no taxing authority and receive most of their funding from the state based on their enrollment. Charter schools are subject to fewer restrictions than public schools, but they must meet certain requirements for financial, governing, and operating standards adopted by the Texas Commissioner of Education (Commissioner). State law requires fiscal and academic accountability for charter schools, and the state monitors and accredits charter schools in the same manner as public-school districts.

Pursuant to Texas Education Code Section 53.351, the Texas Public Finance Authority (TPFA) established the Texas Public Finance Authority Charter School Finance Corporation (Corporation) to act as a conduit to facilitate the issuance of revenue bonds for the acquisition, construction, repair or renovation of educational facilities for authorized open-enrollment charter schools. All issuances of charter school debt issued by the Corporation must be approved by the BRB.

Permanent School Fund Bond Guarantee Program

The Texas Permanent School Fund (PSF) was created in 1854 by the 5th Legislature expressly for the benefit of public schools. In addition, the Constitution of 1876 stipulated that certain lands and proceeds from the sale of those lands would also be dedicated to the PSF. The Constitution requires that distributions from the returns on the PSF be made to the Available School Fund to be used for the benefit of public schools, and allows the PSF to be used to guarantee bonds issued by public schools.

The PSF Bond Guarantee Program (BGP) was created in 1983 as an alternative for school districts to avoid the cost of private bond insurance by obtaining a PSF guarantee for voter-approved public-school bond issuances.

The Texas Education Agency (TEA) reviews each BGP applicant for financial soundness, accreditation status and complaints from the public regarding misconduct and rules violations. Applicants for the BGP must have an investment-grade rating below triple-A from at least one of the top credit-rating agencies. Bonds guaranteed by the BGP are rated triple-A from all three credit-rating agencies.

Texas Education Code Section 12.135 passed by the 82nd Legislature permits charter schools to participate in the BGP, but they must apply and be approved by the Commissioner to participate in the program. In January 2014, the State Board of Education adopted rules for charter school participation in the BGP, and the program was opened to them in March 2014.

The BGP capacity for all schools is currently set at a multiple of 3.75 times the PSF book value minus a 5 percent reserve. Prior to fiscal year 2018, the capacity for charter schools was calculated using the available PSF capacity multiplied by the ratio of the number of charter school students to public school students determined annually by the Commissioner and currently set at 5.1 percent. Effective September 1, 2017, the capacity for charter schools will be calculated by the ratio of charter school students to public school students to public school students multiplied by the maximum allowable overall program guarantee.

Charter School Closures

Senate Bill 2 passed in the 83rd Legislature in 2013 requires the mandatory revocation of a charter by the Commissioner if a charter school fails to meet academic or financial accountability performance ratings for the preceding three school years. As a result of this legislation, 21 charter school revocations have occurred between 2014 and 2017.

As of September 30, 2017, a total of \$3.36 billion of debt had been issued for charter schools by EFCs of which \$2.56 billion is currently outstanding. *Table C.1* shows total EFC issuances since the inception of the BGP.

Table C.1						
Total Charter School Debt by Issuer As of September 30, 2017						
Clifton Higher Education Finance Corporation	\$	936,025,000	\$	836,605,000	89.4%	
Arlington Higher Education Finance Corporation		731,754,000		707,480,000	96.7%	
Houston Higher Education Finance Corporation, City of		384,166,600		308,211,600	80.2%	
TPFA Charter School Finance Corporation		353,320,000		151,952,004	43.0%	
La Vernia Higher Education Finance Corporation		202,390,000		36,910,000	18.2%	
New Hope Cultural Education Facilities Finance Corporation		141,570,000		141,435,000	99.9%	
Newark Higher Education Finance Corporation		99,970,000		98,090,000	98.1%	
Danbury Higher Education Authority, Inc.		88,752,000		46,332,000	52.2%	
North Texas Education Finance Corporation		80,780,000		76,955,000	95.3%	
San Juan Higher Education Finance Authority		43,955,000		11,980,000	27.3%	
Newark Cultural Education Facilities Finance Corporation		38,580,000		540,000	1.4%	
Anson Education Facilities Corporation		34,465,000		16,769,372	48.7%	
Pottsboro Higher Education Finance Corporation		33,560,000		33,560,000	100.0%	
Pharr Higher Education Finance Authority		29,625,000		-	0.0%	
Beasley Higher Education Finance Corporation		25,405,000		8,835,000	34.8%	
Travis County Cultural Education Facilities Finance Corporation		20,865,000		19,280,000	92.4%	
Tom Green County Cultural Education Facilities Finance Corporation		17,170,000		16,435,000	95.7%	
Cameron, City of Education Corporation		16,640,000		13,685,000	82.2%	
Heart of Texas Education Finance Corporation		14,835,000		8,695,000	58.6%	
Orchard Higher Education Finance Corporation		11,330,000		-	0.0%	
Tarrant County Cultural Education Facilities Finance Corporation		9,390,000		-	0.0%	
Waxahachie Education Finance Corporation		6,515,000		6,515,000	100.0%	
Northeast Higher Education Facilities Corporation		6,330,000		6,065,000	95.8%	
Clyde Education Facilities Corporation		6,240,000		5,725,000	91.7%	
Fate Higher Education Facilities Corporation		6,000,000		-	0.0%	
Dickinson Education Facilities Corporation		5,455,000		-	0.0%	
Austin Achieve Public Schools Inc		5,160,000		5,160,000	100.0%	
Hilshire Village Higher Education Finance Corporation		4,123,000		4,028,000	97.7%	
Ames Higher Education Facilities Corporation		2,600,000		2,510,042	96.5%	
Total	\$3	3,356,970,600	\$	2,563,753,017	76.4%	

Of the \$2.56 billion of charter school debt outstanding as of September 30, 2017, \$1.40 billion was guaranteed by the PSF. Table C.2 shows charter school debt guaranteed by the PSF.

Table C.2				
Charter School Debt Outstanding Guaranteed by	the PSF as of September	30, 2017		
		PSF Guaranteed Debt		
Charter School	Total Par Outstanding	8	% PSF Guaranteed	
IDEA Academy, Inc.	\$ 577,720,000	\$ 433,735,000	75.1%	
Harmony Public Schools	378,415,000	304,330,000	80.4%	
Uplift Education	346,425,000	99,785,000	28.8%	
Responsive Education Solutions	126,540,000	126,540,000	100.0%	
KIPP, Inc.	120,565,000	120,565,000	100.0%	
Jubilee Academic Center	112,920,000	-	0.0%	
International Leadership of Texas	111,040,000	-	0.0%	
LIFESCHOOL of Dallas	89,615,000	89,615,000	100.0%	
KIPP Austin Public Schools, Inc.	69,203,000	69,203,000	100.0%	
YES Prep Public Schools	49,251,600	-	0.0%	
Orenda Education	44,240,000	38,450,000	86.9%	
Wayside Schools	35,890,000	-	0.0%	
Meridian World School, LLC	29,340,000	-	0.0%	
LTTS Charter School, Inc. d/b/a Universal Academy	28,790,000	-	0.0%	
Golden Rule Schools, Inc.	28,415,000	28,415,000	100.0%	
Austin Achieve Public Schools	27,620,000	-	0.0%	
Trinity Basin Preparatory	26,745,000	26,745,000	100.0%	
Eagle Advantage Schools, Inc.	24,810,000	20,365,000	82.1%	
Arlington Classics Academy	23,675,000	-	0.0%	
Tejano Center for Community Concerns, Inc Raul Yzaguirre School for Success Project	23,155,000	-	0.0%	
Imagine International Academy of North Texas, LLC	22,330,000	-	0.0%	
Leadership Prep School	19,350,000	-	0.0%	
A.W. Brown Fellowship Charter School	19,200,000	19,200,000	100.0%	
TLC Academy	18,945,042	-	0.0%	
A+ Charter Schools, Inc.	18,435,000	_	0.0%	
Newman International Academy	18,120,000		0.0%	
Odyssey Academy	16,840,000	11,840,000	70.3%	
East Grand Preparatory Academy	14,865,000	11,040,000	0.0%	
		-	0.0%	
Faith Family Academy Charter School	13,685,000	-		
Compass Academy Charter School, Inc.	13,650,000	-	0.0%	
Ser-Ninos, Inc.	12,770,872	-	0.0%	
Aristoi Classical Academy	11,230,000	-	0.0%	
Educational Resource Center, Inc.	9,375,000	-	0.0%	
Focus Learning Academy, Inc.	8,835,000	-	0.0%	
Gateway Charter Academy	8,695,000	-	0.0%	
Riverwalk Education Foundation, Inc.	8,542,000	8,542,000	100.0%	
Shekinah Learning Institute Project	8,250,000	-	0.0%	
Winfree Academy Charter School	7,570,000	-	0.0%	
School of Excellence in Education Project	7,565,000	-	0.0%	
New Frontiers Charter School	6,130,000	-	0.0%	
Evolution Academy Charter School	5,845,000	-	0.0%	
Nova Academy	5,725,000	5,725,000	100.0%	
South Texas Educational Technologies, Inc.	4,217,004	-	0.0%	
El Paso Education Initiative, Inc.	3,980,000	-	0.0%	
The Emery Weiner School	3,673,500	-	0.0%	
Horizon Montessori School	1,555,000	-	0.0%	
Total	\$ 2,563,753,017	\$1,403,055,000	54.7%	
Source: Municipal Advisory Council of Texas; Texas Education Agency	-,,,,,,,,,,,,,	. ,,,,,,	2	

Appendix D Cost of Issuance

For fiscal year 2017 the total aggregated cost of issuance (COI) including underwriter's spread for both competitive and negotiated bond sales among Texas local government debt issuers was \$429.2 million and was comprised of total direct bond costs of \$260.2 million and total underwriter's spread of \$169.0 million (*Table D.1*).

The largest components of total direct bond costs are fees for financial advisor, bond counsel and rating agencies which totaled \$89.0 million, \$78.3 million and \$29.5 million, respectively. Other direct bond related costs were \$63.5 million and include fees for bond insurance, paying agent, trustee and escrow verification, miscellaneous bond program fees and various smaller fees.

Total underwriter's spread is comprised of the takedown fee, management fee, underwriter's counsel fee and spread expenses which totaled \$129.0 million, \$20.0 million, \$9.3 million and \$10.7 million, respectively.

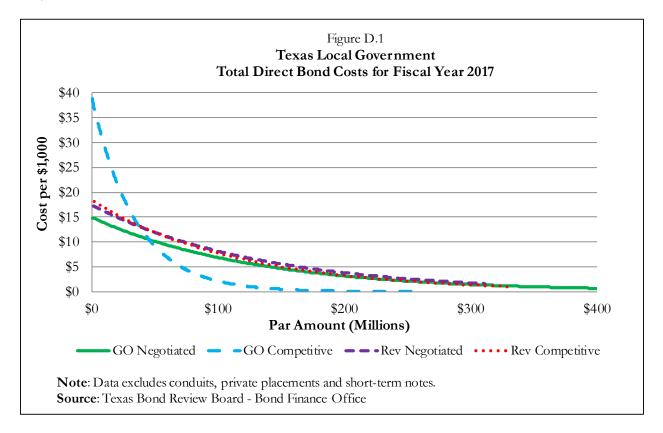
Table D.1					
Texas Local Government					
Total COI for Fiscal Year 2017					
Financial Advisor Fees	\$	88,973,910			
Bond Counsel Fees		78,278,525			
Ratings Fees		29,482,434			
Other Direct Bond Related Costs		63,504,326			
Total Direct Bond Related Costs	\$	260,239,195			
Takedown Fee	\$	128,960,646			
Management Fee		19,996,720			
Underwriter's Counsel Fee		9,271,103			
Spread Expenses Fee		10,731,402			
Total Underwriter's Spread*	\$	168,959,871			
Total COI including UW Spread	\$	429,199,066			
Note: Excludes conduits, private placements, and short term notes.					
Source: Texas Bond Review Board - Bond Finance Office.					

Trends in Issuance Costs for Texas Local Government Bonds in 2017

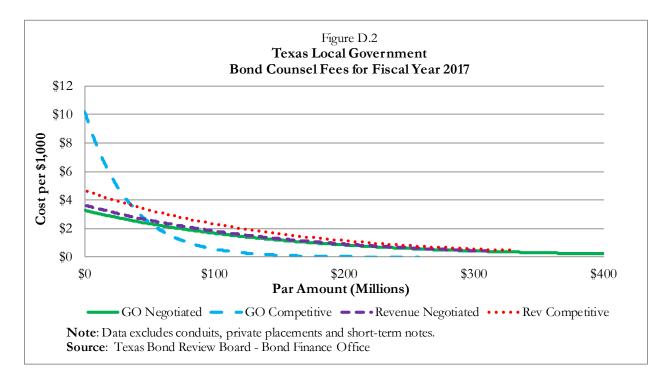
Total direct bond costs include all cost of issuance fees except underwriter's spread. To analyze these fees on a cost per \$1,000 basis for fiscal year 2017, each major cost of issuance component has been compared by bond type (general obligation vs. revenue) and by method of sale (negotiated vs. competitive) (*Figures D.1, D.2, D.3, D.4, and D.5*).

Excluding issuances of conduit debt, private placement debt and short-term notes, data was collected from 1,207 transactions for fiscal year 2017 of which 541 were competitive and 666 were negotiated.

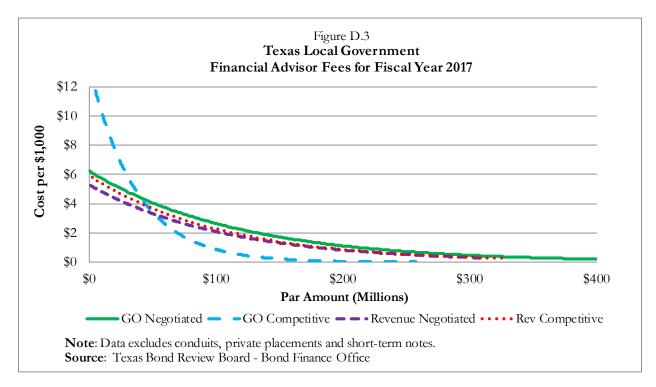
Of the competitive transactions, 589 were general obligation and 36 were revenue issuances. Of the negotiated transactions, 505 were general obligation and 77 were revenue transactions. The data indicates that cost per \$1,000 for all transactions declined as transaction size increased. In general, GO transactions had lower cost per \$1,000 than revenue transactions. GO competitive transactions had the highest cost per \$1,000 for transactions less than \$50.0 million - 574 of the 589 GO competitive transactions had the lowest cost per \$1,000 for transaction sizes larger than \$50.0 million. Revenue negotiated transactions had the lowest cost per \$1,000 for transaction sizes larger than \$50.0 million. Revenue negotiated transactions had the highest cost per \$1,000 for transaction sizes larger than \$50.0 million. Revenue negotiated transactions had the highest cost per \$1,000 for transaction sizes larger than \$100.0 million (*Figure D.1*).



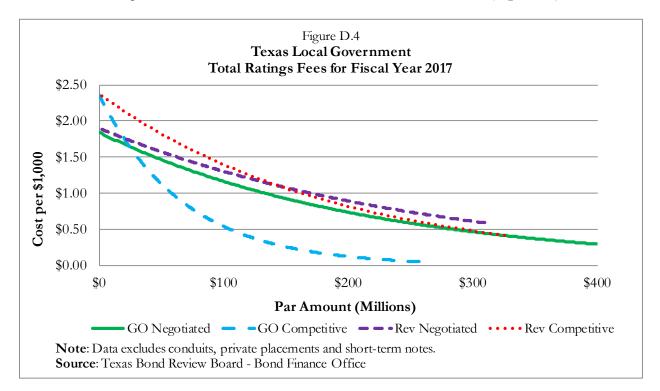
Data for bond counsel cost per \$1,000 for fiscal year 2017 indicates that GO competitive transactions had the highest cost per \$1,000 for smaller transaction sizes but had the lowest cost per \$1,000 for transaction sizes larger than \$50.0 million. Revenue competitive transactions generally had the highest cost per \$1,000 (*Figure D.2*).



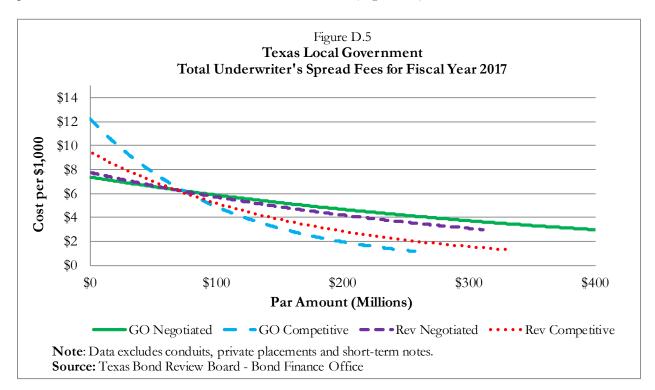
Data for financial advisor cost per \$1,000 indicates that GO competitive transactions had the highest cost per \$1,000 for smaller transaction sizes but had the lowest cost per \$1,000 for transaction sizes larger than \$50.0 million. GO negotiated transactions had the highest cost per \$1,000 for issuances over \$50.0 million *Figure D.3*.



Data for total ratings cost per \$1,000 indicates that revenue competitive transactions had the highest cost per \$1,000 for smaller transaction sizes and GO competitive transactions had the lowest cost per \$1,000 for larger transaction sizes. GO negotiated transactions had the lowest cost per \$1,000 for transaction sizes less than \$25.0 million. Revenue negotiated transactions had lower cost per \$1,000 than revenue competitive transactions for issuances less than \$100.0 million (*Figure D.4*).



Data for total underwriter's spread cost per \$1,000 indicates that competitive transactions had the highest cost per \$1,000 for smaller transaction sizes. GO negotiated transactions had the lowest cost per \$1,000 for transaction sizes less than \$75.0 million *(Figure D.5).*



2017 Local Texas Governments Cost of Issuance Statistical Information

Table D.2 provides COI statistical information for general obligation and revenue transactions completed during fiscal year 2017.

The weighted average for Total COI including underwriter's spread increased to \$16.07 per \$1,000 in 2017 from \$14.06 per \$1,000 in 2016 while the average transaction size and average fee decreased to \$22.1 million and \$355,585 in 2017 from \$26.8 million and \$377,259 in 2016, respectively.

Average Par \$ 29,488,693 \$ 28,150,112 \$ 29,068,220 \$ 30,422,434 \$ 29,488,693 \$ 29,488,693 Average Fee \$ 160,561 \$ 42,916 \$ 66,527 \$ 30,422,434 \$ \$ 29,488,693 \$ 29,488,693 \$ 252,777 \$ 30,265 1,922 4,64 Maximum (\$ per 1,000) 12.52 2.21 5.89 1.163 6.70 110.2 GO Competitive 5 10,310,008 \$ 10,343,827 \$ 10,310,008 \$ 11,611,605 \$ 10,308,954 \$ 10,314,007 Average Fee \$ 235,622 \$ 77,835 \$ 76,837 \$ 16,631 \$ 10,308,954 \$ 10,314,007 Maximum (\$ per 1,000) 20.77 0.31 0.31 0.31 10.32 1.1.24 3.31 Median (\$ per 1,000) 22.85 7.72 7.74 1.43 110.28 3.31 <						Table	D.	2						
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Note: Data excludes conduits, private placements and short-term notes.		Median (\$ per 1,000)		16.21		3.05		7.71		1.69		7.71		24.32
		Average (\$ per 1,000)		9.75		2.99		3.40		1.13		6.33		16.07
	Note: D	ata excludes conduits, pr	rivate	e placements	and	d short-term	no	tes.						
JULICE: TEXAS DONG REVIEW DOARD - DONG FINANCE OTHER		· 1		1										

Appendix E Build America Bonds

Build America Bonds (BAB) were created by the American Recovery and Reinvestment Act of 2010 and could be issued as Tax Credit BABs or Direct-Payment BABs. Tax Credit BABs provide a tax credit subsidy to investors equal to 35 percent of the interest payable by the issuer, and Direct-Payment BABs provide a direct federal subsidy payment to state and local governmental issuers equal to 35 percent of the interest payable. Authority to issue BABs expired in December 2010.

Under the Budget Control Act of 2011, across-the-board sequestration took effect on March 1, 2013, and direct-pay bonds such as BABs experienced a 7.6 percent reduction of the original 35 percent federal subsidy on BABs interest payments. The Internal Revenue Service reported that effective October 1, 2014, issuers of BABs and other direct-pay bonds would have their subsidy payments processed in FY 2015 reduced by 7.3 percent. In fiscal years 2016 and 2017 the subsidy payments were further reduced by an anticipated 6.8 percent and 6.9 percent, respectively. In fiscal year 2018 the subsidy payments are expected to be reduced by 6.6 percent.

During fiscal years 2010-2011, 63 local government issuers issued \$10.96 billion in Direct-Payment BABs. Of that amount \$10.23 billion was issued for new-money purposes and \$728.5 million was issued for refunding purposes. Local governments in Texas accounted for approximately 6.0 percent of the total national BAB issuance of \$181.26 billion. As of August 31, 2017, BAB debt outstanding was \$10.24 billion or 4.7 percent of total local debt outstanding (*Table E.1*).

Table E.1	
Texas Local Government	
Build America Bonds Debt Outs	tanding
(\$ in millions)	
Government Type	Amount
Public School Districts	\$3,212.1
Other Special Districts and Authorities	2,792.1
Cities, Towns, Villages	2,370.1
Health/Hospital Districts	1,232.5
Counties	404.4
Water Districts and Authorities	231.1
Community and Junior Colleges	-
Total	\$10,242.3
Includes debt secured by a combination of ad valorem taxe Excludes Conduit Debt.	es and other revenue sources.

Source: Texas Bond Review Board - Bond Finance Office

The top 5 local governments with outstanding BABs account for over 50 percent of the total BAB debt outstanding. *(Table E.2)*

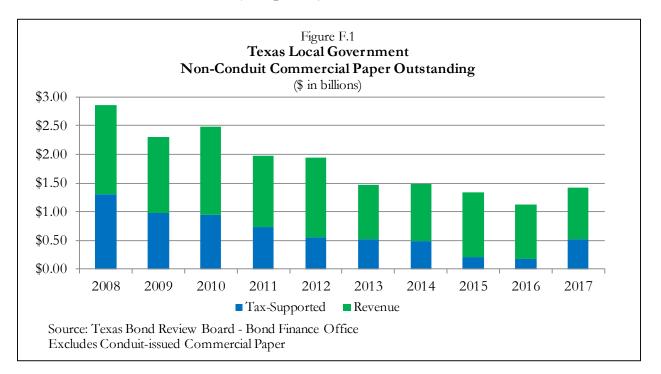
Table E.2 Texas Local Government Top 5 Issuers With BAB Debt Outstandir	ıø	
(\$ in millions)	8	
Issuer	Pr	incipal
Dallas Area Rapid Transit	\$	1,559
San Antonio		1,261
North Texas Tollway Authority		1,135
Dallas ISD		950
Dallas County Hospital District		666
Top 5 Total	\$	5,571
Total BAB Debt Outstanding	\$	10,242
Top 5 Issuers % of Total BAB Debt Outstanding		54.4%
Excludes Conduit Debt		
Source: Texas Bond Review Board - Bond Finance Office		

Appendix F Commercial Paper

Commercial Paper (CP) is an unsecured debt instrument that matures within 270 days and is backed by a liquidity provider (usually a bank) that stands by to provide liquidity in the event CP notes are not remarketed or redeemed at maturity. Debt that matures in less than 270 days does not require registration with the SEC, so is less costly to the issuer. Since CP is not backed by collateral, only issuers with solid ratings from the major credit rating agencies will be able to offer their CP at reasonable prices. CP generally carries lower interest repayment rates than bonds due to the shorter maturities of CP.

Local Governments and their Conduit corporations issue CP to provide interim financing for projects for which revenues are not yet available. Texas Local Governments are not required to provide the BRB with commercial paper issuance information, but are required to report new commercial paper programs to the Office of the Attorney General, which forwards such information to the BRB. Current CP balances are obtained by contacting Local Governments who have had CP programs in prior years or who have opened new CP programs in 2017. Because several Local Governments reported in the past that they terminated or inactivated their CP programs in favor of various revolving credit, direct purchase agreements or lines of credit directly with banking institutions, this year the BRB asked all CP contacts to report such non-public debt outstanding along with their CP outstanding balances.

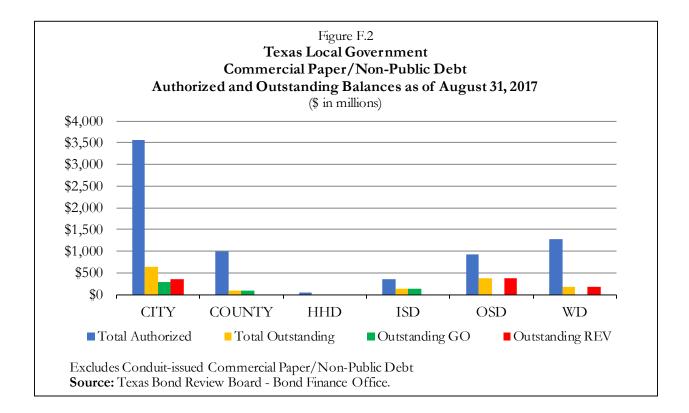
Non-Conduit-issued CP can be supported by pledges of tax or revenue. The 2017 reported non-Conduit CP total of \$1.43 billion showed a 10-year decrease of 50.1 percent from \$2.86 billion in 2008, and a 5-year decrease of 3.1 percent from \$1.47 billion in 2013, but increased by 27.3 percent from the 2016 total of \$1.12 billion *(see Figure F.1).*



Local Government CP outstanding is shown by pledge type for each of the last five fiscal years in *Table* F.1:

	Tabl Texas Local 1 Paper Outs	Governmen			
	(\$ in m	•••			
	<u>2013</u>	2014	<u>2015</u>	<u>2016</u>	<u>2017</u>
Cities					
Tax-Supported GO	\$211.9	\$63.6	\$156.9	\$144.9	\$285.2
Revenue	433.8	425.2	499.5	369.5	334.4
Sales Tax Revenue	0.0	0.0	0.0	0.0	9.7
Total Commercial Paper Balance	\$645.7	\$488.7	\$656.4	\$514.4	\$629.3
Public School Districts					
Tax-Supported GO	\$0.0	\$100.0	\$8.1	\$0.0	\$144.5
M&O (Tax-Supported)	10.0	0.0	20.0	0.0	0.0
Total Par Issued	\$10.0	\$100.0	\$28.1	\$0.0	\$144.5
Water Districts					
Tax-Supported GO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Revenue	179.2	114.9	218.7	192.3	182.9
Total Commercial Paper Balance	\$179.2	\$114.9	\$218.7	\$192.3	\$182.9
Counties					
Tax-Supported GO	\$289.7	\$324.4	\$24.2	\$36.7	\$93.7
Revenue	0.0	0.0	0.0	0.0	0.0
Total Commercial Paper Balance	\$289.7	\$324.4	\$24.2	\$36.7	\$93.7
Other Special Districts					
Tax-Supported GO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Revenue	59.7	121.7	86.0	89.1	89.1
Sales Tax Revenue	287.0	333.4	321.3	287.4	286.4
Total Commercial Paper Balance	\$346.7	\$455.1	\$407.3	\$376.5	\$375.5
Community College Districts					
Tax-Supported GO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Revenue	0.0	0.0	0.0	0.0	0.0
Total Commercial Paper Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Health/Hospital Districts					
Tax-Supported GO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Revenue	0.0	0.0	0.0	0.0	0.0
Total Commercial Paper Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total Tax-Supported GO	\$501.6	\$487.9	\$189.2	\$181.6	\$523.4
Total Tax-Supported M&O	10.0	" 0.0	20.0	" 0.0	0.0
Total Revenue	672.7	661.8	804.3	650.9	606.4
Total Sales Tax Revenue	287.0	333.4	321.3	287.4	296.1
Total Commercial Paper Balance	\$1,471.3	\$1,483.1	\$1,334.7	\$1,119.9	\$1,426.0
*Excludes conduit debt Source: Texas Bond Review Board - I					

As of 2017 fiscal year end, 6 Cities reported CP and/or non-public debt authorized and/or outstanding. Also reporting balances were 1 County, 3 Independent School Districts (ISDs), 1 Hospital District (HHDs), 4 Other Special Districts (OSDs) and 5 Water Districts (WDs). Additionally, 4 City Conduit issuers and 1 Water District Conduit issuer reported balances. No Community/Junior College Districts reported authorized or outstanding balances as of year-end. *Figure F.2* shows the difference between the total amount of authorized CP and the reported outstanding balances for each government type as of 2017 fiscal year end.

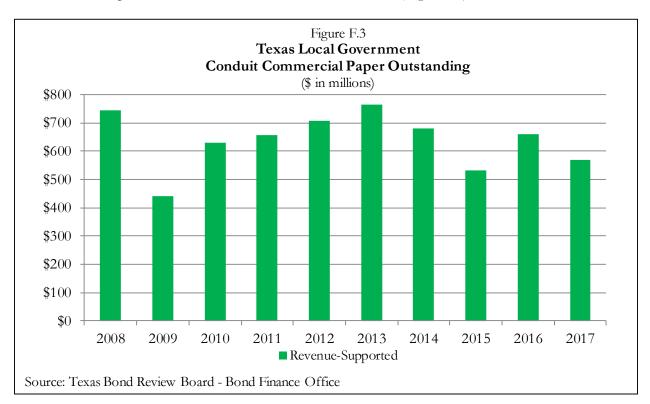


Of the "BIG 6" Texas Cities (Austin, Dallas, El Paso, Fort Worth, Houston and San Antonio), five had outstanding non-conduit CP balances as of 2017. *Table F.2* shows outstanding CP balances for the BIG 6 cities over the past five years.

			[G pei	6" Citie Outsta	ling*			
		2013		2014	2015		2016	2017
Austin	Tax-Supported Revenue	\$ - 121.4	\$	- 194.4	\$ - 200.6	\$	- 103.7	\$ - 141.4
Dallas	Tax-Supported	-		13.7	-		-	9.7
	Revenue	165.0		129.1	74.2		43.8	10.0
El Paso	Tax-Supported Revenue	-		-	-		-	30.7
Fort Worth	Tax-Supported Revenue	- 0.3		-	-		-	-
Houston	Tax-Supported Revenue	201.9 42.0		29.9 61.5	146.9 179.5		134.9 147.0	244.9 107.0
San Antonio	Tax-Supported Revenue	- 25.2		- 25.2	- 25.2		-	- 15.8
Total Tax	k-Supported	\$ 201.9	\$	43.6	\$ 146.9	\$	134.9	\$ 285.2
Total Rev		\$ 353.8	\$	410.2	\$ 479.5	\$	294.5	\$ 274.2
Total Ou	tstanding	\$ 555.7	\$	453.7	\$ 626.4	\$	429.4	\$ 559.4
	ct total authorizatio				it comm	erci	al paper.	

Source: Texas Bond Review Board - Bond Finance Office

As conduit issuers generally have no taxing authority, most conduit-issued CP is revenue-supported. The 2017 reported Conduit CP total of \$570.9 million showed a 10-year decrease of 23.3 percent from \$744.1 million in 2008, a 5-year decrease of 25.4 percent from \$765.0 million in 2013, and a decrease of 13.5 percent from the 2016 total of \$660.3 million (*Figure F.3*).



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Appendix G Overview of Texas Local Governments with Debt Outstanding

Debt Outstanding totals shown in this Appendix and in the annual report include commercial paper issued by local governments but do not include debt issued by conduit entities created by local governments. See *Appendix B, Conduit Debt* for conduit debt information.

Texas Community and Junior College Districts

Community and Junior College Districts (CCD) are two-year institutions that primarily serve local taxing jurisdictions and offer vocational, technical and academic courses for certifications or associates degrees. CCDs are governed under the Texas Education Code Chapter 130. As of August 31, 2017, total CCD debt outstanding was 2.2 percent (\$4.87 billion) of total local debt outstanding.

CCDs issue both tax-supported and revenue debt. Proceeds from CCD debt issuances are used to construct, equip, renovate, expand and improve facilities, acquire information technology equipment and refund outstanding debt. Debt service is paid from either an ad valorem tax or various revenue streams such as tuition, technology and miscellaneous fees or lease revenue. Additionally, CCDs create non-profit conduit entities to issue debt on behalf of, and for projects to benefit, the CCDs. Most of CCD new obligations are authorized under Chapters 45, and 130 of the Education Code.

Texas Cities, Towns and Villages

Texas cities, towns and villages (Cities) issue both tax-supported and revenue debt. Revenue debt also includes sales tax and lease-revenue obligations. As of August 31, 2017, total city debt outstanding was 32.9 percent (\$71.66 billion) of total local debt outstanding.

Tax-supported debt financing is used for authorized municipal purposes, such as the acquisition of vehicles, road maintenance equipment, road construction and maintenance materials; construction of road and bridge improvements; maintaining public safety for the police, fire and EMS; renovation, equipping and construction of city buildings and utility systems; acquisition of real property; and the acquisition of computer equipment and software. Most of Cities new ad valorem tax debt is authorized under Chapters 1331, and 1502 of the Government Code and Chapter 271 of the Local Government Code.

Revenue debt financing is used for such purposes as acquiring, constructing, enlarging, remodeling and renovating authorized municipal systems and infrastructure, such as wastewater and sewer systems, toll roads, and airports.

Cities also issue debt that is supported by a combination of tax and revenue for similar purposes listed above.

Sales tax revenue debt is issued by certain cities for such purposes as constructing and improving municipal parks and recreation facilities/entertainment centers as well as hike and bike trails.

Cities can form non-profit conduit entities to issue debt for the benefit of the city, as well as to finance the acquisition of land and construction of certain correctional facilities. Pursuant to Texas Government Code Chapter 1202.008 the BRB does not receive issuance information for all leaserevenue obligations or conduit issuances, and reported data only reflects the amount of debt issued for certain municipalities.

Texas Counties

Counties issue two types of debt: tax-supported and revenue which also includes lease-revenue. As of August 31, 2017, county debt was 6.4 percent (\$13.85 billion) of total local debt outstanding.

Tax-supported debt is used for authorized county purposes such as the acquisition of vehicles, road maintenance equipment, road construction and maintenance materials; construction of road and bridge improvements; renovation, equipping and construction of County buildings and jails; acquisition of real property; and the acquisition of computer equipment and software. Most of county new ad valorem tax debt is authorized under Chapters 1301 and 1473 of the Government Code and Chapter 271 of the Local Government Code.

Revenue debt is used for authorized county purposes such as acquiring, constructing, enlarging, remodeling and renovating waste water and sewer systems, toll roads, and hospitals.

Counties create non-profit conduit entities to issue debt for projects that benefit the county.

Texas Health/Hospital Districts and Authorities

Health/Hospital districts and authorities (HHDs) provide a legal framework to create hospital systems to provide hospital and medical care facilities, emergency services and mental health services to district residents. As of August 31, 2017, HHD debt outstanding was 1.5 percent (\$3.36 billion) of total local debt outstanding.

HHD tax-supported and revenue debt is used to construct, acquire and/or improve buildings for hospital, fire, emergency and mental health facilities. HHDs can create conduit entities to issue debt on their behalf; HHD conduit-revenue debt was last issued in 1985 and matured in 2011.

BRB collects debt information on four types of hospital, health or public safety districts: hospital districts (HD), hospital authorities (HA), emergency services districts (ESD) and mental health mental retardation centers (MHMR). They are described as follows:

District	Purpose	Voter Approved /Taxing Authority	Authorizing Texas Health and Safety Code Chapter
Hospital	Creates hospital systems to provide hospital and	Yes/Yes	Chapters 281, 282 or
Districts	medical care facilities. HDs must be voter		283
	approved and have taxing authority.		
Hospital	Creates hospital systems to provide hospital and	No/No	Chapter 262
Authorities	medical care facilities. HAs are created by a		-
	municipality's governing board, do not require		
	voter approval and do not have taxing authority.		
Emergency	Provides rural fire prevention and emergency	Yes/Yes	Chapter 775
Service	medical services. ESDs must be voter approved		
Districts	and have taxing authority.		

Mental	Provides child, adolescent and adult mental	No/No	Chapter 534
Health &	health services; substance abuse recovery		_
Mental	services; and skills training. MHMRs do not		
Retardation	require voter approval and do not have taxing		
	authority.		

Texas Public School District Debt

Much of school district debt is authorized under Chapter 45 of the Education Code. School districts issue four types of debt: voter-approved, maintenance and operations (M&O), lease-revenue, and revenue. Charter school debt issued by non-profit corporations is not included in school district debt. As of August 31, 2017, total school district debt outstanding was 36.6 percent (\$79.91 billion) of total local debt outstanding.

Over 98.5 percent of school district debt outstanding is voter-approved. The proceeds from voterapproved debt can be used for school capital projects such as buildings, renovations, technology, athletic facilities, school transportation and performing arts or to refund M&O debt. Voter-approved debt is subject to the 50-cent test that limits debt service (interest and sinking fund payments) to a maximum of \$0.50 per \$100 of valuation as described in the Texas Education Code Section 45.0031. This debt must be approved by the voters prior to a school district issuing new debt.

M&O debt proceeds can be used for administration and operational costs of schools (teachers, buses, classrooms, etc.) but cannot be used for the new construction of school facilities. Tax rates for M&O debt are generally limited to a maximum of \$1.50 per \$100 valuation under Chapter 45 of the Education Code. For M&O debt, only the maintenance tax is approved by the voters; Once the voters approve the maintenance tax and the maximum rate, the maintenance tax debt may be issued without an election.

Lease-revenue obligations are issued by a public facility corporation created by a school district and used for acquiring, constructing and equipping school facilities.

Proceeds from revenue debt issuances are mainly used to build and maintain sports facilities. Revenue and lease-revenue debt do not require voter approval.

Texas Other Special Districts and Authorities

Other Special Districts and Authorities (OSD) include tollway authorities, transit authorities, housing authorities, regional mobility authorities, power agencies, public utility agencies, road districts, events venue districts, education districts and various economic and community development districts. As of August 31, 2017, total other special district debt outstanding was 8.0 percent (\$17.35 billion) of total local debt outstanding.

OSDs issue both tax-supported and revenue debt including sales tax revenue and lease revenue debt. OSD tax-supported and revenue debt are both used primarily for road improvements, economic and community development, water and sewer improvements, and developing and maintaining mass transportation systems. OSDs create conduit entities to issue debt on their behalf and for their benefit. The table below shows the various types of OSDs in the state.

District	Purpose
Economic and Community	Community development, redevelopment and strategic
Development District	planning; public improvements necessary to serve the District.
Education Districts	Provide services to the school districts and are funded by
	education taxes at the county and the school district levels.
Events Venue Districts	Items related to creating and maintaining venues.
Housing Authorities	Programs to provide affordable housing.
Power Agencies	Improvements to the electric transmission service.
Public Utility Agencies	An agency created by two or more public entities to plan,
	finance, construct, own, operate, or maintain facilities.
Regional Mobility Authorities	Constructing and maintaining highways, tollways, ferries,
	airports, bikeways, and all-purpose transportation centers.
Road Districts	Constructing and maintaining roads.
Tollway Authorities	Develop, construct and maintain toll roads.
Transit Authorities	Public transportation.

Texas Water Districts and Authorities

Texas water districts and authorities (collectively, WDs) are local governmental entities that provide limited water-related services to customers and residents. WDs can be created by the Texas Commission on Environmental Quality, a county commissioner's court or the legislature. WDs issue both tax-supported and revenue debt. (See generally, Texas Water Code Chapters 49, 51, 54, 65, and subtitle G to the Special District Local Laws Code). As of August 31, 2017, total WD debt outstanding was 12.4 percent (\$27.05 billion) of total local debt outstanding.

Texas has many types of WDs. The four most common types that provide services to residential customers are: municipal utility districts (MUD), water control and improvement districts (WCID), special utility districts (SUD), river authorities (RA) and Utility & Reclamation District (U&RD). The function of each is described below.

District	Purpose	Debt Authorizing Water Code Chapter
Municipal Utility	Provides waterworks systems, sanitary	Chapters 49 and 54
Districts	sewer systems and drainage systems	
Water Control	Supplies and stores water for domestic,	Chapters 49 and 51
and	commercial and industrial use; operates	
Improvement	wastewater systems; and provides	
Districts	irrigation, drainage and water quality	
	controls	
Special Utility	Provides water, wastewater and fire-	Chapters 49 and 65
Districts	fighting services	
River Authorities	Operates major reservoirs and sells	Chapter 30
	untreated water on a wholesale basis.	
	Provides for flood control, soil	
	conservation and water quality protection	

Utility and	Provides conservation and development
Reclamation	of all the natural resources within the
Districts	district

Tax-supported and revenue debt issued by WDs is used to pay capital costs to engineer, construct, acquire and/or improve water plants, wastewater treatment facilities and sewer system drainage. Certain WDs can also issue tax debt for road and park construction and create conduit entities to issue conduit revenue debt for pollution control facilities for private entities.

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Appendix H Glossary

Ad Valorem Tax – A tax based on the assessed value of real estate or personal property. Property ad valorem taxes are a major source of revenue for local governments.

Advance Refunding – A refunding in which the refunded issue remains outstanding for a period of more than 90 days after the issuance of the refunding issue. This type of transaction was eliminated by the federal government's Tax Cuts and Jobs Act of 2017.

Allotment – Amount of securities distributed to each member of the underwriting syndicate to fill orders.

Assessed Valuation – A municipality's worth in dollars based on real estate and/or other property for the purpose of taxation, sometimes expressed as a percent of the full market value of the community.

Authorized but Unissued – Debt that has been authorized for a specific purpose by the voters but has not yet been issued.

Average Daily Attendance (ADA) – The number of students in ADA can be found by adding the number of students who are in attendance each day of the school year for the entire school year and then dividing that number by the number of instructional days in the school year.

Bond – Debt instrument in which an investor loans money to the issuer that specifies: when the loan is due ("term" or "maturity" such as 20 years), the interest rate the borrower will pay (such as 5 percent), when the payments will be made (such as monthly, semi–annually, annually) and the revenue source pledged to make the payments.

Bond Counsel – Attorney retained by the issuer to give a legal opinion that the issuer is authorized to issue the proposed securities, the legal requirements necessary for issuance have been met and the proposed securities will be exempt from federal income taxation and state and local taxation where applicable.

Bond Insurance – A legal commitment by an insurance company to make timely payments of principal and interest in the event that the issuer of the debt is unable to make the payments.

Build America Bonds (BABs) – were created by the American Recovery and Reinvestment Act of 2009 (ARRA) and could be issued as Tax Credit BABs or Direct–Payment BABs. Tax Credit BABs provide a tax credit to investors equal to 35 percent of the interest payable by the issuer. Direct–Payment BABs provide a direct federal subsidy payment to state and local governmental issuers equal to 35 percent of the interest payable. With the implementation of the Budget Control Act of 2011, the BAB subsidies have been reduced. Authority to issue BABs expired in December 2010. See Appendix E for a discussion on BABs.

Capital Appreciation Bond (CAB) – A municipal security on which the investment return on an initial principal amount is reinvested at a stated compounded rate until maturity. At maturity the

investor receives a single payment (the "maturity value") representing both the initial principal amount and the total investment return. CABs are distinct from traditional zero coupon bonds because the investment return is considered to be in the form of compounded interest rather than accreted original issue discount. For this reason, only the initial principal amount of a CAB is counted against a municipal issuer's statutory debt limit, rather than the total par value, as in the case of a traditional zero coupon bond. See Chapter 4 for a discussion on CABs.

CAB Maturity Amount – Total payment representing both principal and interest. For capital appreciation bonds compound accreted values are calculated as interest in the year of maturity.

CAB Par Amount – The face amount assigned to a capital appreciation bond at issuance and paid to the investor at maturity.

CAB Premium – The amount by which the price paid for a (CAB) security exceeds par value.

Certificate of Obligation (CO) – An obligation issued by a county or certain cities or hospital districts under subchapter C of Chapter 271 of the Local Government Code. Voter approval is not required unless at least five percent of the total voters in the taxing area sign a petition and submit it prior to approval of the authorizing document to sell such certificates. See Chapter 5 for a discussion on COs.

Certificate of Participation – Financing in which an individual buys a share of the lease revenues of an agreement made by a municipal or governmental entity, rather than the bond being secured by those revenues.

Charter School – Charter schools were created by the Texas Legislature in 1995 as part of the public school system. Under Texas Education Code Chapter 12, the purpose of charter schools is to improve student learning, to increase the choice of learning opportunities within the public school system, to create professional opportunities that will attract new teachers to the public school system, to establish a new form of accountability for public schools and to encourage different and innovative learning methods. See Appendix C for a discussion on charter schools.

Commercial Paper (CP) – Short-term, unsecured promissory notes that mature within 270 days and are backed by a liquidity provider (usually a bank) that stands by to provide liquidity in the event the notes are not remarketed or redeemed at maturity. See Appendix F for a discussion on CP.

Competitive Sale – A sale in which the issuer solicits bids from underwriting firms and sells the securities to the underwriter or syndicate offering the most favorable bid that meets the specifications of the notice of sale.

Component Unit (CU) – A legally separate entity for which the elected officials of the primary government (PG) are financially accountable. The nature and significance of the CUs relationship with the PG is such that exclusion from the PG's financial reports would be misleading or create incomplete financial statements.

Conduit Debt – Per the Governmental Accounting Standards Board (GASB), conduit debt obligations are issued by a state or local governmental entity for the express purpose of providing financing for a specific third party that is not a part of the issuer's financial reporting entity. GASB's most recent development of their definition of a conduit debt obligation states the key characteristic should be that there are at least three participants: the government issuer, the third-party borrower,

and the bondholder. Although conduit debt obligations bear the name of the governmental issuer, the issuer has no obligation for such debt beyond the resources provided by a lease or loan with the third party on whose behalf they are issued. See Appendix B for a discussion on Conduit Debt.

Conduit Issuer – An issuer authorized by law to issue securities to finance revenue–generating projects in which the funds generated are used by a third party (known as the "conduit borrower" or "obligor") for debt–service payments. The conduit issuer is generally not responsible for debt service.

Costs of Issuance – The expenses paid by or on behalf of the issuer in connection with the sale and issuance of bonds, including underwriting costs, legal fees, rating agency fees and other fees associated with the transaction. These costs and fees may vary depending on the type and structure of the financing, among other factors.

Coupon – The interest rate paid on a security.

Counterparty Risk – The risk to each party in a swap contract that the counterparty will not fulfill its contractual obligations.

Current Interest Bond (CIB) – A bond in which interest payments are made on a periodic basis throughout the life of the bond as opposed to a bond such as a capital appreciation bond that pays interest only at maturity. This term is most often used in the context of a combination issuance of bonds that includes both capital appreciation bonds and current interest bonds.

Current Refunding – A refunding transaction in which the municipal securities being refunded will mature or be redeemed within 90 days or less from the date of issuance of the refunding issue.

CUSIP – A unique nine-character identification for each class of security approved for trading in the U.S. CUSIPs are used to facilitate clearing and settlement for market trades.

Dealer Fee – Cost of underwriting, trading or selling securities.

Debt Outstanding – The amount of unpaid principal on a debt that will continue to generate interest until paid off.

Debt per Capita – A measurement of the value of a government's debt expressed in terms of the amount attributable to each citizen under the government's jurisdiction. The formula is the debt outstanding as of August 31 divided by the estimated residential population of the issuer.

Debt Service – The amount that is required to cover the repayment of principal and interest on a debt.

Defeasance – A provision that voids a bond or loan when the borrower sets aside cash or bonds sufficient to service the borrower's debt.

Derivative – A financial instrument whose value is based on one or more underlying assets. An example is a swap contract between two counterparties that specifies conditions (especially the dates, underlying variables and notional amounts) under which payments are to be made between the parties.

Disclosure – The act of releasing accurately and completely all material information to investors and the securities markets for outstanding or to be issued securities.

Disclosure Counsel – An attorney or law firm retained by the issuer to provide advice on issuer disclosure obligations and to prepare the official statement and/or continuing disclosure agreement.

Discount – The amount by which the price paid for a security is less than its par value.

Escrow – Fund established to hold monies or securities pledged to pay debt service.

Escrow Agent – Commercial bank or trust company retained to hold the investments purchased with the proceeds of an advance refunding and to use the invested funds to pay debt service on the refunded debt.

Financial Advisor – A securities firm that assists an issuer on matters pertaining to a proposed issue such as structuring, timing, marketing, fairness of pricing, terms and debt ratings.

Fiscal Year – Information is sorted on the fiscal year of the state, September 1 through August 31. Debt–service adjustments have been made for local governments with different fiscal years. Information is provided on cash, not accrual basis.

Fixed Rate – An interest rate that does not change during the entire term of the obligation.

General Obligation (GO) Debt – Debt backed by the credit and taxing power of the issuing jurisdiction.

Home Rule City – Cities are classified as either "general law" or "home rule". A city may elect home rule status (i.e., draft an independent city charter) once it exceeds 5,000 population and the voters agree to home rule. Otherwise, it is classified as general law and has very limited powers. One example of the difference in the two structures regards annexation. General law cities cannot annex adjacent unincorporated areas without the property owner's consent; home rule cities may annex without consent but must provide essential services within a specified period of time (generally within three years), or the property owner may file suit to be disannexed and reimbursed. Once a city adopts home rule it may continue to keep this status even if the population later falls below 5,000.

I&S Debt – Interest & Sinking fund debt is the debt service outstanding on bonds issued by public schools for school capital projects such as buildings, renovations, technology, athletic facilities, school transportation and performing arts or to refund M&O debt. I&S bonds are backed by revenue from the I&S tax rate.

I&S Tax Rate – A public school district's property tax rate consists of an M&O tax rate and an I&S (interest and sinking fund) tax rate. The I&S tax rate provides funds for debt service payments on debt that finances a district's facilities.

Indenture – Deed or contract which may be in the form of a resolution that sets forth the legal obligations between the issuer and the securities holders. The indenture also names the trustee that represents the interests of the securities holders.

Issuer – A legal entity that sells securities for the purpose of financing its operations. Issuers are legally responsible for the obligations of the issue and for reporting financial conditions, material developments and any other operational activities.

Lease Purchase – Financing the purchase of an asset over time through lease payments that include principal and interest. Lease purchases can be financed through a private vendor.

Lease-Revenue Bonds – Bonds issued by a non–profit corporation or government issuer which are secured by lease payments made by a local government for use of specified property.

Letter of Credit – A letter issued to serve as a guarantee for payments made to a specified entity under specified conditions. It is often used as a credit enhancement used by an issuer to secure a higher rating for its securities through a contractual agreement between a major financial institution and the issuer consisting of an unconditional pledge of the institution's credit to make debt-service payments in the event of a default.

Limited Tax General Obligation Bonds – A type of municipal bond that is guaranteed by the municipal government's pledge to use all legal resources, including the levying of property taxes up to a set statutory limit. If a municipality exhausts the property tax resources for bond repayment within that limit, other revenue sources must be used for bond repayment.

Liquidity – The relative ability of a security to be readily traded or converted into cash without substantial transaction costs or loss in value.

Liquidity Provider – A financial institution that facilitates the trading of a security by insuring that it will be purchased if tendered to the issuer or its agent because it cannot be immediately remarketed to new investors.

Local Government Names – The names of governments used in this report are taken from the *Texas Property Tax Appraisal District Directory* published by the Texas State Comptroller of Public Accounts.

M&O Debt – Maintenance & Operations debt is the debt service outstanding on bonds issued by public schools to be used for administration and operational costs of schools (teachers, buses, classrooms, etc.) but cannot be used for the new construction of school facilities. M&O bonds are backed by revenue from the M&O tax rate.

M&O Tax Rate – A public school district's property tax rate consists of an M&O tax rate and an I&S (interest and sinking fund) tax rate. The M&O tax rate provides funds for the General Operating Fund, which pays for salaries, supplies utilities, insurance, equipment, and other costs of day-to-day operations.

Maintenance Tax – Funds the maintenance and operation costs of a school district, but cannot be used for new construction of school facilities.

Management Fee – Component of the underwriting spread that compensates the underwriters for assistance in creating and implementing the financing.

Maturity Date – The date principal is due and payable to the security holder.

Mortgage Credit Certificate – A certificate issued by certain state or local governments that allows a taxpayer to claim a tax credit for some portion of the mortgage interest paid during a given tax year.

Municipal Bond – A debt security issued to finance projects for a state, municipality or county. Municipal securities are typically exempt from federal taxes and from most state and local taxes.

Negotiated Sale – A sale in which an issuer selects an underwriting firm or syndicate to assist with the issuance process. At the time of sale, the issuer negotiates a purchase price for its securities with that underwriting firm or syndicate.

Notice of Sale – Publication by an issuer describing the terms of sale of an anticipated new offering of municipal securities.

Official Statement – The document published by the issuer which provides complete and accurate material information to investors on a new issue of municipal securities including the purposes of the issue, repayment provisions and the financial, economic and social characteristics of the issuing government.

Par – The face value of a security that is due at maturity. A "par bond" is a bond selling at its face value.

Paying Agent – The entity responsible for processing debt-service payments from the issuer to the security holders.

Permanent School Fund – The Texas Permanent School Fund (PSF) was created in 1854 by the 5th Legislature expressly for the benefit of public schools. In addition, the Constitution of 1876 stipulated that certain lands and proceeds from the sale of those lands would also be dedicated to the PSF. The Constitution requires that distributions from the returns on the PSF be made to the Available School Fund to be used for the benefit of public schools, and allows the PSF to be used to guarantee bonds issued by public schools.

Permanent School Fund Bond Guarantee – The Permanent School Fund Bond Guarantee Program (BGP) was created in 1983 as an alternative for school districts to avoid the cost of private bond insurance by obtaining a PSF guarantee for voter-approved public school bond issuances. In order to qualify for the BGP guarantee, school districts must be accredited by the state, have investment grade bond ratings (but below AAA), and have their applications approved by the Commissioner of Education. Bonds guaranteed by the BGP are rated triple–A.

Premium – The amount by which the price paid for a security exceeds par value.

Premium Capital Appreciation Bond (PCAB) – a type of CAB that has a stated yield or accretion rate that is higher than its actual current yield to investors. This difference results in a lower initial stated par amount which preserves debt capacity. See Chapter 4 for a discussion on PCABs.

Principal – The face value of a bond, exclusive of interest.

Printer – A business that produces the official statement, notice of sale and any bonds required to be transferred between the issuer and purchasers of the bonds. The costs associated with a printer are typically rolled into the Costs of Issuance.

Private Placement – A securities sale in which an issuer sells its securities directly to investors through a placement agent without a public offering.

Proceeds – An issuer's net proceeds equal the issue price less the issuance fees. An investor's proceeds equal the maturity or sale value plus interest earned up to the maturity date or point of sale.

Put Bond – A bond that allows the holder to force the issuer to repurchase the security at specified dates before maturity. The repurchase price is set at the time of issue and is usually par value.

Qualified Energy Conservation Bonds (QECB) – a bond that enables qualified state, tribal, and local government issuers to borrow money at attractive rates to fund energy conservation projects. While not a grant, a QECB is among the lowest-cost public financing tools available because the U.S. Department of the Treasury subsidizes the issuer's borrowing costs.

Qualified School Construction Bonds (QSCB) – QSCBs must meet three requirements: 1) all of the bond proceeds must be used for the construction, rehabilitation, or repair of a public school facility or for the acquisition of land on which such a bond–financed facility is to be constructed; 2) the bond is issued by a state or local government within which such school is located; and 3) the issuer designates such bonds as a qualified school construction bond. For more information regarding QSCBs, contact the Texas Education Agency.

Qualified Zone Academy Bonds (QZAB) – QZABs are tax–credit bonds where the proceeds are used for renovating school buildings, purchasing equipment, developing curricula, and/or training school personnel. QZABs may not be issued for new construction. To qualify to issue QZABs, school districts must create a Zone Academy that is comprised of empowerment zones or enterprise communities comprised of public schools with 35 percent or more of their student body on the free and/or reduced lunch programs. For more information regarding QZABs, contact the Texas Education Agency.

Rating Agency – An entity that provides ratings of the credit quality of securities issuers, measuring the probability of the timely repayment of principal and interest on municipal securities.

Refunding Bond – Bonds issued to retire or defease all or a portion of outstanding bonds.

Registrar – An entity responsible for maintaining ownership records on behalf of the issuer.

Remarketing Fee – Compensation to an agent for remarketing a secondary offering of short-term securities, usually for a mandatory or optional redemption or put (return of the security to the issuer).

Revenue Debt – Debt that is legally secured by a specified revenue source(s). Most revenue debt does not require voter approval and usually has a maturity based on the life of the project to be financed.

Sales Tax – A tax imposed by the government at the point of sale on retail goods and services. It is collected by the retailer and passed on to the state. Certain statutes, such as the Development Corporation Act, authorize certain issuers to pledge certain sales taxes to the repayment of debt for certain projects.

Sales Tax Revenue – Debt that is legally secured by a specified sales tax issued by certain cities for such purposes as constructing and improving municipal parks and recreation facilities/entertainment centers as well as hike and bike trails.

Self-Supporting Debt – Debt that is designed to be repaid with revenues other than state general revenues. Self-supporting debt can be either general obligation debt or revenue debt.

Selling Group – Group of municipal securities brokers and dealers that assist in the distribution of a new issue of securities.

Serial Bond – A bond issue in which a portion of the outstanding bonds matures at regular intervals until all of the bonds have matured.

Spread Expenses – Component of the underwriting spread representing the costs of operating the syndicate such as financial advisors, legal counsel, travel, printing, day loans, wire fees and other associated fees.

Structuring Fee – Component of the underwriting spread that compensates the underwriters for assistance with developing a marketable securities offering within the issuer's legal and financial constraints.

Swap – A derivative in which counterparties exchange cash flows of one party's financial instrument for those of the other party's financial instrument.

Syndicate – Group of underwriters formed to purchase a new issue of securities from the issuer and offer it for resale to investors.

Takedown – The discount that the members of the syndicate receive when they purchase the securities from the issuer. Takedown is also known as the selling concession.

Tax or Revenue Anticipation Notes – Short-term loans that the issuer uses to address cash flow needs created when expenditures must be incurred before tax or other revenues are received.

Tax-Supported Debt – For local governments, tax–supported debt (sometimes called tax debt) is generally secured by a pledge of the issuer's ad valorem taxing power. Tax–supported debt can have either a limited or an unlimited authority pledge of tax revenues for repayment. For reporting purposes, when the public security contains both a tax and revenue pledge, the public security is categorized as tax–supported debt.

Term Bond – A bond issue in which all or a large part of the issue comes due in a single maturity. Term bond issuers make periodic payments into a sinking fund for mandatory redemption of term bonds before maturity or for payment at maturity.

Trustee – Bank or trust company designated by the issuer or borrower under the indenture or resolution as the custodian of funds. The trustee represents the interests of the security holders including making debt-service payments.

Underwriter – An investment banking firm that purchases securities directly from the issuer and resells them to investors.

Underwriting Spread – Amount representing the difference between the price at which securities are bought from the issuer by the underwriter and the price at which they are re-offered to the investor. The underwriting spread generally includes the takedown, management fee, expenses and underwriting fee.

Underwriting Risk Fee – A portion of the underwriting spread designed to compensate the underwriter for the risk associated with market shifts and interest rate fluctuations.

Underwriter's Counsel – Attorney who prepares or reviews the issuer's offering documents on behalf of the underwriter and prepares documentation for the underwriting agreement and the agreement among underwriters.

Underwriter's Risk – The risk of loss that could arise due to overestimated demand for an issuance or due to sudden changes in market conditions borne by the underwriters until resale.

Unlimited Tax General Obligation Bond – A municipal bond that is backed by the pledge of the issuer to raise taxes, without limit, to service the debt until it is repaid.

Variable Rate – An interest rate that fluctuates based on market conditions or a predetermined index or formula. (Fixed rates do not change during the life of the obligation.)

Years to Maturity – The period of time for which a financial instrument remains outstanding. Maturity refers to a finite time period at the end of which the financial instrument will cease to exist, and the principal is repaid with interest.

Yield – The investor's rate of return.

Zero Coupon Bond – A bond that is issued at a deep discount to its face value but pays no interest.

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