



Report on Texas Bridges

Fiscal Year 2020

TxDOT Bridge Division

Table of Contents

1. Executive Summary	3
2. At a Glance	4 - 6
3. Performance Trends	7 - 9
4. Funding	10 - 11
5. Appendix A: Example Bridge Condition Score Calculation.....	A-1 - A-2
6. Appendix B: Bridge Inventory & Condition by TxDOT District	B-1
7. Appendix C: Bridge Inventory & Condition by County	C-1 - C-5

Executive Summary

Texas has a statewide inventory of more than 55,000 bridges open to public traffic, significantly more than any other US state. This number has increased steadily and is expected to continue increasing as the state faces unprecedented mobility demands from rapid population growth. Even with a significant number of bridges being newly constructed or replaced each year, slightly more than half of the bridge inventory is 40 years old or older.

While the percent of bridges in poor condition has been reduced over the past 20 years (currently one of the lowest in the country), the increasing portion in fair condition requires a growing level of attention. Looking towards the future, TxDOT has begun to focus more resources on keeping good bridges in good condition and rehabilitating fair bridges when it is economical to do so.

Utilizing an assortment of funding sources and programs, TxDOT is continuously developing improvement projects for public bridges throughout the year. Most funds available for bridge projects are allocated towards Category 6 of TxDOT's Unified Transportation Program (UTP). Within Category 6 are several programs with the goal of improving the condition of Texas bridges. Most notable are 1) the Highway Bridge Program (HBP) which focuses on replacement projects; and 2) the Bridge Maintenance and Improvement Program (BMIP) which focuses on bridge preservation projects. Recently, TxDOT has developed the Bridge System Safety Program (BSSP), intended to upgrade safety features on bridges that are otherwise in good condition.

At a Glance

The Texas Department of Transportation (TxDOT) maintains public safety as its top priority. To that end, the Department engages in a number of activities related to sustaining the State’s inventory of public bridges. TxDOT maintains a reputation as a national leader in bridge safety through inspection, maintenance, and asset management.

TxDOT’s Strategic Goals

1. Promote Safety
2. Deliver the right projects
3. Focus on the customer
4. Foster stewardship
5. Optimize system performance
6. Preserve our assets
7. Value our employees

The State’s 55,000 bridges connect communities and commerce alike, allowing citizens to experience a quality of life unique to Texas. As we face unprecedented mobility demands from the state’s rapid growth, increased traffic on our bridges can impact their performance and the funding needed to maintain them in a state of good repair.

Compared to other states, Texas has the largest inventory of bridges by a significant margin. Despite the unique challenges posed by supporting such a large inventory, our percent of bridges in Poor Condition remain amongst the lowest in the country and well below the national average¹.

Bridges in “Poor” condition, are ones exhibiting signs of advanced structural deterioration, not necessarily unsafe. With safety being the primary focus of TxDOT’s bridge inspection program, any bridge that is open to vehicular traffic is safe.

Out of 55,000 Bridges in Texas

Only **787 (1.4%)** are in **Poor Condition**—much lower than the national average.

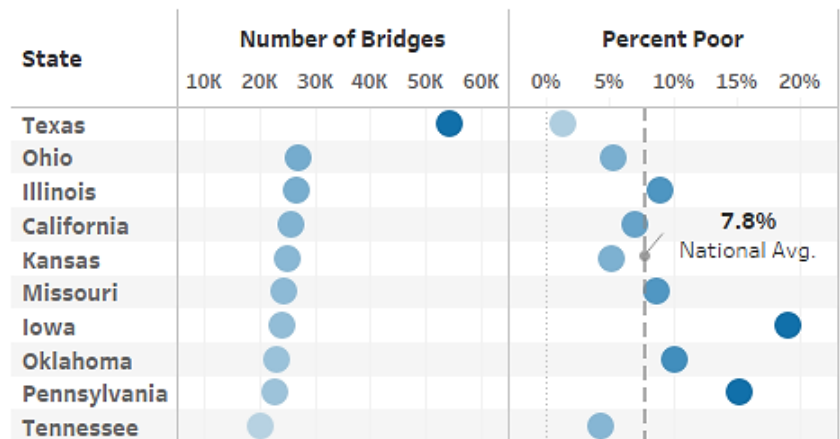
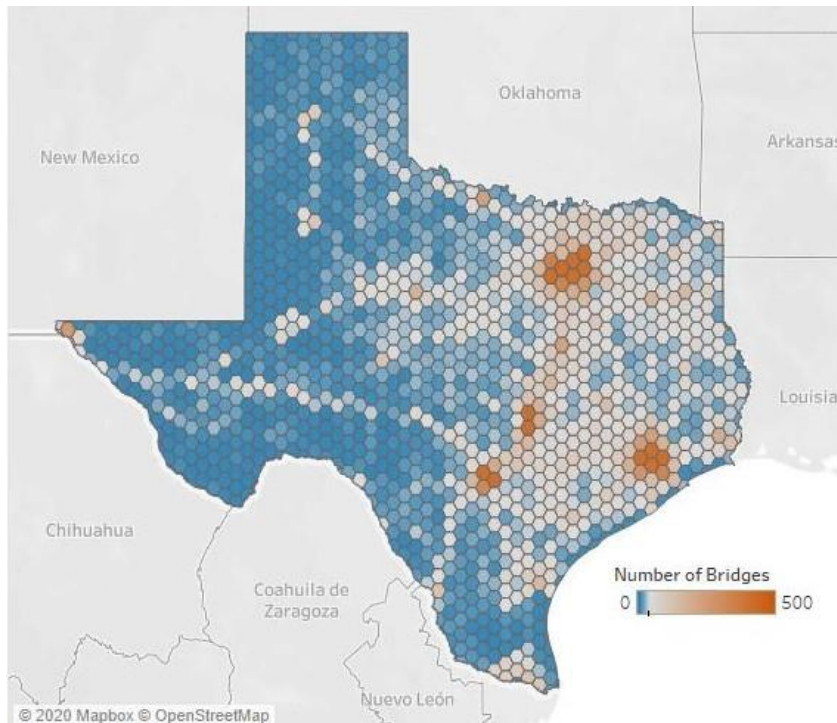


Figure 1: States with the ten largest bridge inventories (by number of bridges) and their corresponding percent of bridges in poor condition. This figure shows data from 2019, published by FHWA in 2020.

Data Source: Federal Highway Administration (InfoBridge)
 Accessed June 26, 2020.

¹ U.S. Department of Transportation, Federal Highway Administration. InfoBridge: Bridge Conditions by State, 2019. Accessed June 26, 2020. infobridge.fhwa.dot.gov/BridgeConditionbyState/.

Geographically, Texas' public bridges are concentrated in the State's major metro areas where major grade separation intersections are most common. Harris County and the Dallas-Fort Worth metroplex have the highest concentration of bridges in the State, followed by Bexar County and Travis County. However, many bridges exist outside of these urbanized regions. About 48% of public bridges are located in counties with populations of 100,000 people or fewer.



350 Bridges

On average are added to Texas' inventory **per year**. This includes bridges that are **On-System** (those owned or maintained by TxDOT) and ones that are **Off-System** (owned or maintained by another entity).

Figure 2: Texas' bridge inventory (On-System and Off-System) by location density. The areas in dark orange have the highest concentration of structures.

Data Source: TxDOT's bridge inspection data, 2020.

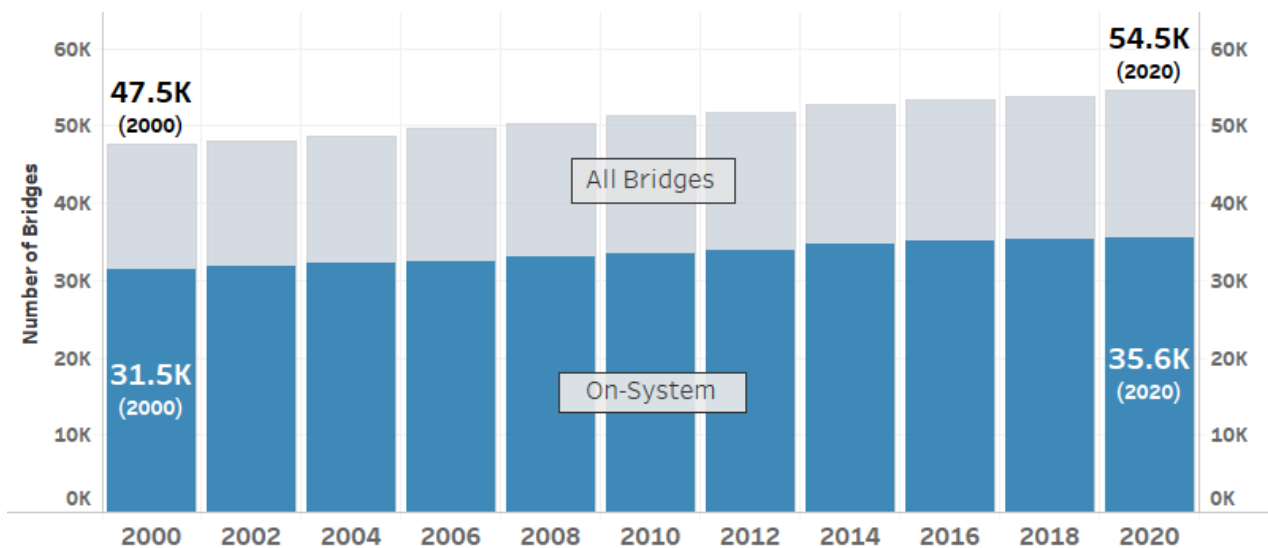


Figure 3: The number of public bridge-class structures in Texas overtime. The On-System inventory (in blue) encompasses roughly 65% of all bridges in the state.

Data Source: TxDOT's bridge inspection data, September 2000 – September 2020.

Over the past twenty years, Texas' bridge inventory has increased at a rate of roughly 350 bridges per year. This includes public bridges built by TxDOT and those built by other entities such as cities, counties, toll authorities, and developers. The constant year-on-year increase is largely driven by mobility improvement projects which add new roadways or widen existing ones.

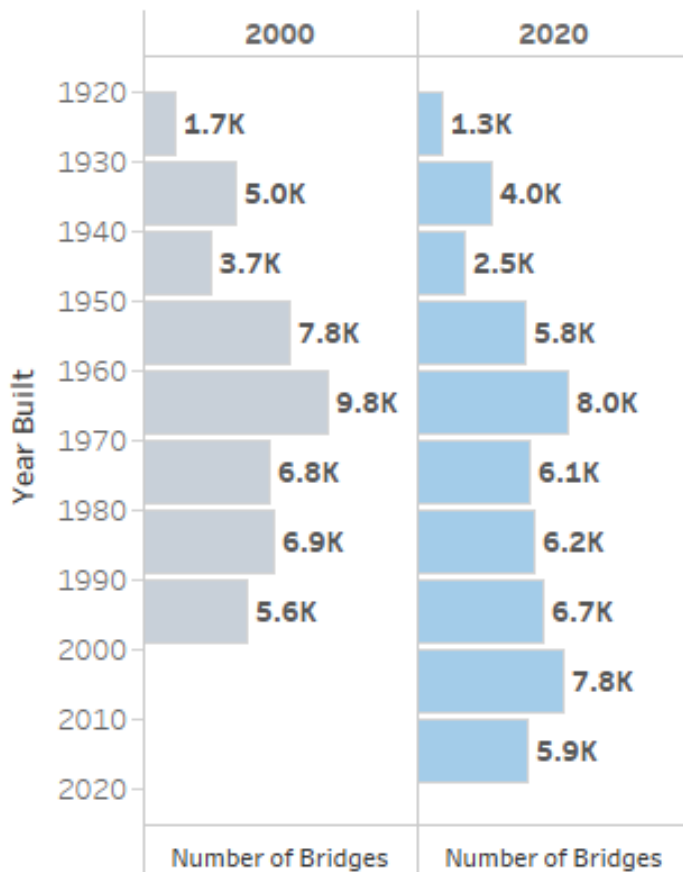


Figure 4: The distribution of bridges by decade of initial construction. The two histograms on the left and right show how this distribution has changed between the year 2000 and 2020.

Data Source: TxDOT's bridge inspection data, September 2000 – September 2020.

Although many new bridges are being built, an increasing number are approaching the end of their intended service life (typically 50-75 years). 51% of bridges in Texas were built prior to 1980, meaning they are either past the 50-year benchmark now or will be within the next ten years. In the year 2000, the percent of bridges that had been in place for 40 years or longer was notably lower, at 38%.

Older bridges often require attentive maintenance practices, more load restrictions on a per-bridge basis, and historical consideration for replacement and rehabilitation. Bridges built before 1950, for example, were typically designed for vehicles lighter than the current state legal load of 80,000 pounds. They require individualized structural analysis to determine their capacity to carry increasingly heavy hauling vehicles.

By preserving the State's public assets, TxDOT is ensuring a quality level of service to the traveling public for decades to come. Texans benefit from some of the best bridge conditions in the country today, but maintaining that position is not a guarantee without planning for the future.

Performance Trends

As shown in the previous section, Texas boasts one of the best track records in terms of percent poor compared to other states. Currently only 1.4% of our public highway bridges are in Poor Condition, a number that has steadily decreased over time from 4.5% in the year 2000. Currently, 48.2% are in Fair Condition while 50.4% are in Good Condition.

These condition groups are defined by the Federal Highway Administration (FHWA) based on each bridge's primary structural components: the deck, superstructure, and substructure (or culvert if the bridge is a culvert). Diagrams showing examples of these components can be found in [TxDOT's Visual Dictionary](#). These ratings use a scale from zero to nine with zero being the worst and nine being the best. Condition ratings are assigned by certified bridge inspectors on a routine basis (typically every two years) and in accordance with state and federal bridge inspection policy.

Bridges in "Good" condition are those with a minimum condition rating of seven or greater. These bridges show either: A) no signs of structural deterioration; or B) very minor signs of deterioration. In an ideal world with no limits on personnel or funding, all bridges could be maintained in perfect condition. In reality, that goal would be logistically and economically unsustainable.

Bridges in "Fair" condition are those with a minimum rating of five or six. These bridges are at an inflection point in their condition lifecycle—without intervention, many of these bridges will exhibit signs of accelerated deterioration over the next several years. The percent of bridge deck area in fair condition has been noticeably increasing (from 36.9% in 2000 to 48.2% in 2020). This trend is expected to continue as bridges in good condition naturally transition into fair condition with age. Bridges in fair condition transition into poor condition over time, unless maintenance, preservation, or repair actions are taken to prevent it.

50.4% of Texas' Bridge Deck Area

Is in **Good Condition**, but this number is **decreasing**

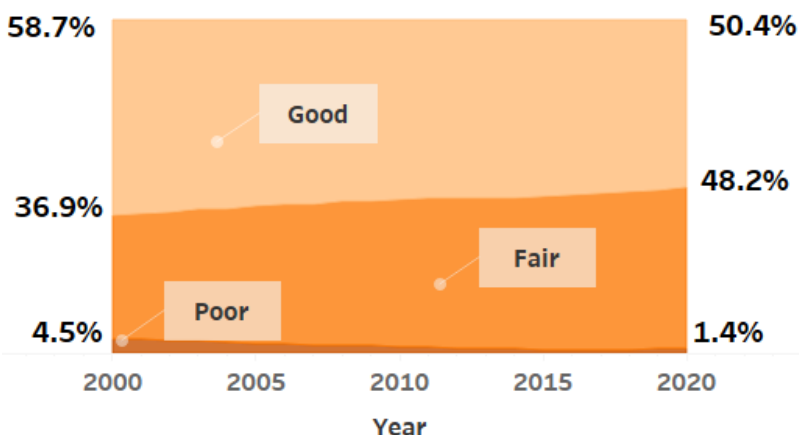


Figure 5: The distribution of statewide bridge deck area in good, fair, and poor condition over the past 20 years. Calculating percentage by deck area (as opposed to the number of bridges) means larger bridges are weighted more heavily than smaller ones.

Data Source: TxDOT's bridge inspection data, September 2000 – September 2020.

Bridges in “Poor” condition have a minimum condition rating of four or less. These bridges exhibit signs of advanced structural deterioration. If unaddressed, these bridges will eventually require costly actions such as rehabilitation, replacement, or closure. Over the past twenty years, the percent of bridge deck area in poor condition has decreased from 4.5% in 2000 to 1.4% In 2020.

While the number of bridges in poor condition has declined over the past 20 years, the increasing percent in fair condition requires a growing level of attention. Looking towards the future, TxDOT has begun to focus more resources on keeping good bridges in good condition and rehabilitating fair bridges when it is economical to do so.

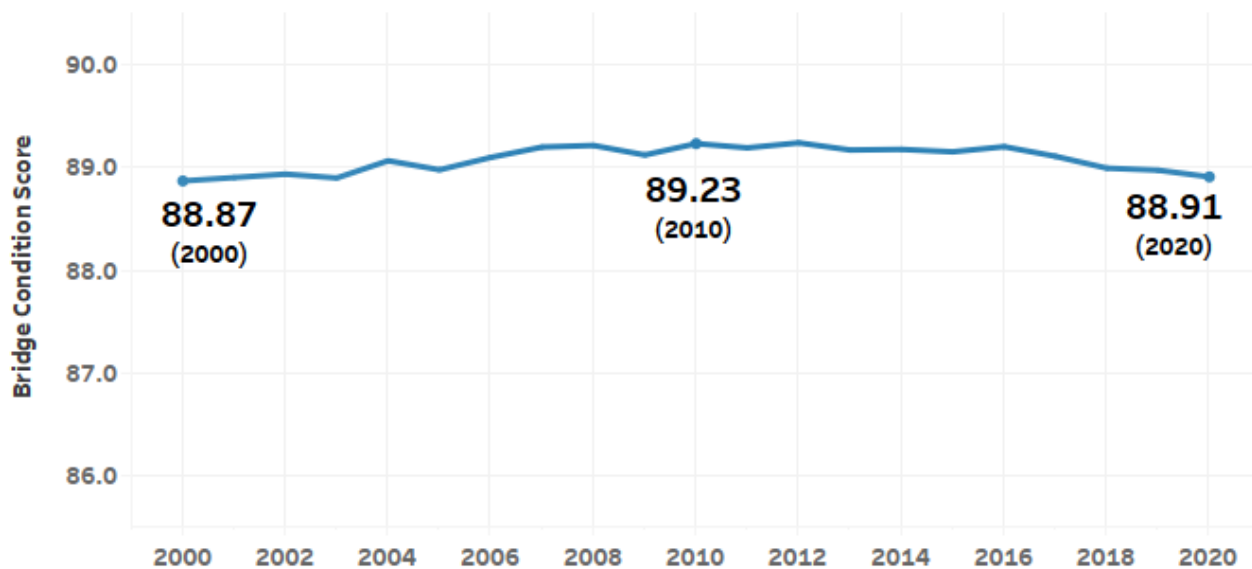


Figure 6: Texas’ statewide bridge condition score over the past 20 years.

Data Source: TxDOT’s bridge inspection data, September 2000 – September 2020.

The statewide bridge condition score (BCS) is another performance measure used by TxDOT to assess and communicate the overall health of Texas’ bridge inventory. Like percent good, fair, and poor, the BCS is calculated based on each bridge’s minimum component rating and weighted by deck area. Each individual bridge is assigned a letter and number grade that corresponds to its condition (e.g. 95 for an “A”, 85 for a “B”, etc.). A minimum condition rating of 7 or higher is assigned an “A”, 6 gets a “B”, 5 gets a “C”, and so on. The number grade for each bridge is multiplied by its area (length times width). The sum of this weighted score for all bridges is then divided by the total bridge square footage in the state, yielding a weighted average numeric score. See Appendix A for example calculations.

Looking at this measure over the past twenty years, the health of TxDOT’s bridge network increased between the years 2000 and 2008 before leveling out and then decreasing after 2016. This shift in trajectory can be attributed to the decrease of poor bridges being counterbalanced by the increase in fair ones.

Although Statewide BCS is the most commonly reported, TxDOT utilizes this measure to assess the health of other groups of bridges (per individual districts, on-system and off-system, interstate and non-interstate, etc.)

2,642 Bridges in Texas
Are currently **load restricted or closed to traffic**, significantly fewer than the **5,859** that were restricted or closed in **2000**

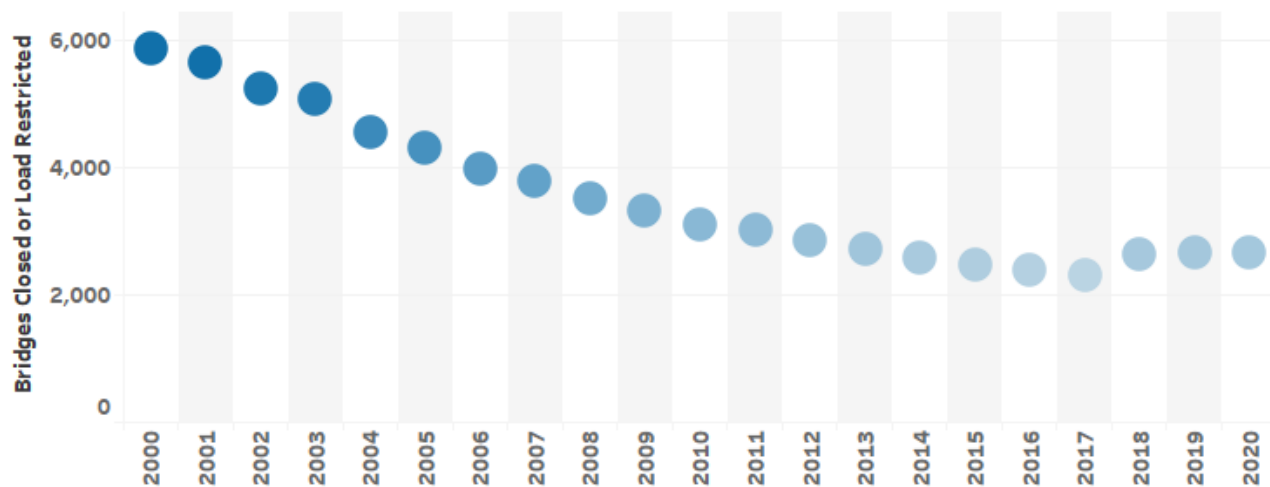


Figure 7: Load restricted bridges in Texas since the year 2000. The noticeable increase between the years of 2017 and 2018 is the result of state legislation enacted after the 85th legislative session which raised weight limits for certain hauling vehicles operating in the state.

Data Source: TxDOT's bridge inspection data, September 2000 – September 2020.

The number of bridges requiring load restrictions or closures has declined by nearly half over the past 20 years (from 5,859 in 2000 to 2,642 in 2020). A bridge may be load restricted or closed for a number of reasons, and the level of restriction can vary from bridge to bridge. Load restricted bridges are those which have a load capacity less than the maximum allowable hauling loads as permitted by state law. Determining whether a bridge requires a load restriction entails a specialized analysis in consideration of field conditions, structural properties, and the assortment of legal loads expected to utilize the structure.

In some cases, a load restricted bridge may not have deteriorated significantly enough to reduce its load capacity below its original as-built capacity, but it may not have been designed to carry current legal loads. The maximum weight limits of vehicles allowed to operate in Texas are defined in the United States Code and in the Texas Transportation Code. Bridges that do not have the capacity to carry unrestricted traffic have the allowable maximum loads communicated by signs at the bridge site

Funding

Funding for bridge projects originates from a variety of sources and programs. Most prominent is TxDOT's Unified Transportation Program (UTP), a 10-year plan approved by the Texas Transportation Commission to guide transportation project development and construction. The UTP contains 12 different categories of funding and is developed annually in accordance with the Texas Administrative Code (TAC §16.105). Category 6 of the UTP is dedicated to bridge replacement and rehabilitation, and managed by TxDOT's Bridge Division. Several other categories within the UTP may be utilized to wholly or partially fund bridge work; although projects funded through these other categories are typically aimed at performance areas such as mobility, congestion relief, or roadside safety. Within Category 6 are several programs with the goal of improving the condition and safety of Texas' bridge inventory.

The Highway Bridge Program (HBP) is aimed at replacing or rehabilitating bridges in fair or poor condition. The HBP is described with more detail in the Bridge Project Development Manual, Section 2.3, The HBP is developed through an annual project call in coordination with TxDOT's 25 districts. Funding allocation towards the HBP may vary from one year to the next based on the most recent approved UTP. The target for FY21 for the HBP is approximately of \$254 million. Most of these funds (typically 75%) are allocated towards On-System structures, while the remaining 25% is allocated to bridges owned by local agencies.

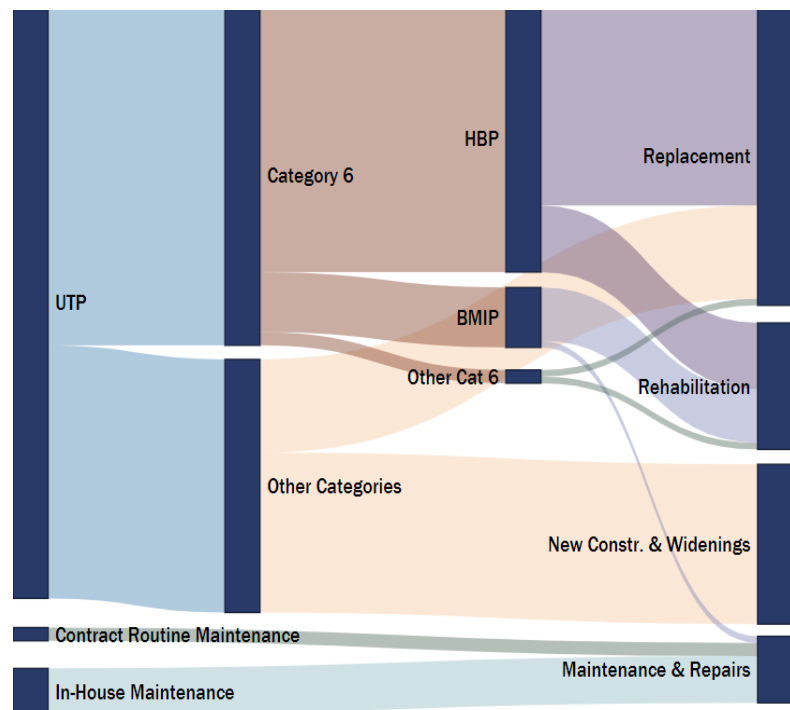


Figure 8: TxDOT's Notable funding sources and their association with bridge work. Note: this figure is qualitative and not to scale.

The Bridge Maintenance and Improvement Program (BMIP) is TxDOT's primary source of funding for heavy repair work. This BMIP is managed by TxDOT's Bridge Division and developed in coordination with TxDOT's districts. Additional information on the BMIP can be found in the Bridge Project Development Manual, Section 2.4. The BMIP has an annual target of \$55 million.

The new Bridge System Safety Program (BSSP) is aimed at improving safety on bridges that are otherwise in good structural condition—not in need of significant repair or rehabilitation. BSSP projects are focused on eliminating structural features that may pose higher safety risks to the traveling public. Those features include deficient rails, documented scour, narrow bridge decks, and at-grade highway-railroad crossings. The BSSP has an annual target of \$30 million beginning in Fiscal Year 2021. After Fiscal Year 2023, the annual target increases to \$70 million,

The Bridge Preventive Maintenance Program (BPM) is funded through the Contract Routine Maintenance Budget and managed by the Maintenance Division in coordination with TxDOT's districts and the Bridge Division. Alongside in-house maintenance operations, the BPM is TxDOT's primary funding program for light rehabilitation, maintenance, and repair work. Additional details on BPM scope and eligibility can be found in the Maintenance Management Manual, Section 4.9. The BPM has an annual allocation of \$15 million.

Appendix A: Example Bridge Condition Score Calculation

The following example shows how the Bridge Condition Score would be calculated for a group of five hypothetical bridges. This performance measure is typically used to measure the entire statewide inventory of bridges in Texas; however, it can be used for any collection of structures.

For this hypothetical example, the following data is obtained from TxDOT's bridge inspection system, AssetWise:

Structure ID	Deck Rating	Superstructure Rating	Substructure Rating	Culvert Rating	Structure Length (ft.)	Deck Width (ft.)	Approach Roadway Width (ft.)
1	7	7	7	N	300	30	28
2	7	5	6	N	60	26	24
3	7	8	4	N	120	46	44
4	N	N	N	6	20	(null)	24
5	N	N	N	3	30	80	68

The first step is to determine each bridge's minimum component rating and their corresponding numeric grade score.

Structure ID	Deck Rating	Superstructure Rating	Substructure Rating	Culvert Rating	Min Rating	Letter Grade	Numeric Score
1	7	7	7	N	7	A	95
2	7	8	6	N	6	B	85
3	7	8	4	N	4	D	65
4	N	N	N	5	5	C	75
5	N	N	N	2	2	F	50

Next comes calculating each bridge's deck area. This is done using the deck area calculation procedures defined in FHWA's guidance document for percent good, fair, and poor: [Computation Procedure for the Bridge Condition Measures](#) (FHWA-HIF-18-023). This involves the bridge's length, and its width (or the approach roadway width if deck width is not populated as is the case with some culverts).

Structure ID	Structure Length (ft.)	Deck Width (ft.)	Approach Roadway Width (ft.)	Deck Area Formula	Deck Area (ft. ²)
1	300	30	28	300 x 30	9,000
2	60	26	24	60 x 26	1,560
3	120	46	44	120 x 46	5,520
4	20	(null)	24	20 x 24	480
5	30	80	68	30 x 80	2,400

Lastly, the bridge condition score for this entire group of bridges is calculated as the weighted average numeric score (weighted by deck area). A weighted average by deck area is important as it assigns weight to each bridge proportional to how large the bridge is. If an unweighted average were used, a small bridge-class culvert would carry the same weight as the Corpus Christi Harbor Bridge.

Structure ID	Numeric Score	Deck Area (ft. ²)	Weighted Score Formula	Weighted Score	BCS Formula	BCS
1	95	9,000	95 x 9,000	855,000		
2	85	1,560	85 x 1,560	132,600		
3	65	5,520	65 x 5,520	358,800		
4	75	480	75 x 480	36,000		
5	50	2,400	50 x 2,400	120,000		
Total		18,960		1,502,400	1,502,400 / 18,960	79.24

Appendix B: Bridge Inventory & Condition by TxDOT District

Data Source: TxDOT's bridge inspection data, September 2020

District	On & Off-System			On-System			Off-System		
	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]
Abilene	1,749	7.9	86.39	1,361	7.0	86.18	388	0.8	88.18
Amarillo	787	6.7	85.30	693	6.1	85.67	94	0.5	81.12
Atlanta	1,315	10.4	89.25	1,100	9.8	89.34	215	0.6	87.71
Austin	3,795	45.0	91.28	2,086	36.5	91.23	1,709	8.5	91.49
Beaumont	1,575	16.0	85.99	1,100	14.9	85.76	475	1.1	89.14
Brownwood	1,302	4.6	86.90	895	3.9	86.85	407	0.7	87.20
Bryan	1,860	9.1	88.61	1,199	8.0	88.58	661	1.0	88.87
Childress	899	4.0	87.24	707	3.6	86.88	192	0.3	91.16
Corpus Christi	1,747	16.7	87.34	1,354	15.7	87.30	393	1.0	88.04
Dallas	6,341	108.9	89.16	3,781	90.6	89.23	2,560	18.3	88.83
El Paso	1,310	14.3	88.62	1,072	13.0	88.78	238	1.3	87.00
Fort Worth	4,047	42.9	90.31	2,312	34.8	90.58	1,735	8.2	89.16
Houston	6,345	119.7	88.84	3,104	98.6	88.76	3,241	21.0	89.24
Laredo	1,058	8.1	88.11	873	6.8	88.34	185	1.3	86.94
Lubbock	499	5.6	88.59	473	5.5	88.56	26	0.1	90.27
Lufkin	1,333	8.0	87.18	806	7.4	87.18	527	0.6	87.15
Odessa	1,125	6.7	87.54	1,068	6.5	87.55	57	0.2	87.14
Paris	2,218	10.7	88.41	1,370	9.6	88.28	848	1.2	89.49
Pharr	1,079	14.6	90.36	727	11.0	90.60	352	3.6	89.63
San Angelo	1,348	7.6	89.04	1,224	7.3	89.27	124	0.4	84.66
San Antonio	3,924	43.3	88.89	2,666	36.1	88.59	1,258	7.3	90.34
Tyler	1,832	12.0	88.09	1,198	9.9	87.26	634	2.1	92.07
Waco	2,709	17.4	88.88	1,707	15.2	89.07	1,002	2.2	87.59
Wichita Falls	1,535	9.0	88.35	1,056	8.3	88.33	479	0.7	88.63
Yoakum	2,796	14.7	87.49	1,670	12.8	87.37	1,126	1.9	88.31
Statewide	54,528	563.8	88.91	35,602	478.8	88.84	18,926	85.0	89.27

*Total number of bridge-class structures open to public traffic as defined in 23 CFR § 650.305.

†Sum total of bridge length multiplied by bridge width as defined in FHWA Computation Procedure for Bridge Condition Measures (FHWA-HIF-18-023), displayed in units of millions of square feet.

‡Based on the minimum condition rating of its primary components, each bridge is assigned a numeric score from 50 to 95. The Bridge Condition Score is the average of these numeric values, weighted by deck area.

Appendix C: Bridge Inventory & Condition by County

Data Source: TxDOT's bridge inspection data, September 2020

County	On & Off-System		
	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]
Anderson	171	945	89.85
Andrews	1	12	95.00
Angelina	169	1,191	90.01
Aransas	22	1,059	94.73
Archer	125	304	88.85
Armstrong	11	41	79.46
Atascosa	177	984	90.14
Austin	207	1,025	86.48
Bailey	4	6	83.41
Bandera	68	249	90.39
Bastrop	244	1,306	90.67
Baylor	59	337	89.90
Bee	131	656	89.44
Bell	628	6,208	90.82
Bexar	2,253	31,945	88.55
Blanco	62	309	90.85
Borden	52	191	86.86
Bosque	145	558	89.83
Bowie	311	3,473	89.83
Brazoria	609	5,967	88.95
Brazos	356	2,394	90.39
Brewster	98	410	87.86
Briscoe	18	29	89.23
Brooks	52	313	93.45
Brown	223	739	86.24
Burleson	124	501	88.86

County	On & Off-System		
	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]
Burnet	108	686	91.98
Caldwell	199	2,031	89.61
Calhoun	100	1,217	80.54
Callahan	154	556	85.25
Cameron	353	5,907	90.14
Camp	40	154	91.82
Carson	33	247	84.07
Cass	145	757	89.67
Castro	10	18	93.52
Chambers	133	2,444	87.64
Cherokee	192	714	86.10
Childress	90	392	85.36
Clay	133	751	87.74
Cochran	0	0	N/A
Coke	100	414	86.80
Coleman	149	560	86.13
Collin	974	14,194	91.34
Collingsworth	64	248	83.25
Colorado	250	1,327	87.75
Comal	211	1,748	92.25
Comanche	214	644	86.55
Concho	74	374	88.02
Cooke	279	1,187	86.78
Coryell	170	1,034	90.76
Cottle	80	261	92.39
Crane	18	50	83.63

*Total number of bridge-class structures open to public traffic as defined in 23 CFR § 650.305.

[†]Sum total of bridge length multiplied by bridge width as defined in FHWA Computation Procedure for Bridge Condition Measures (FHWA-HIF-18-023), displayed in units of thousands of square feet.

[‡]Based on the minimum condition rating of its primary components, each bridge is assigned a numeric score from 50 to 95. The Bridge Condition Score is the average of these numeric values, weighted by deck area.

County	On & Off-System		
	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]
Crockett	159	826	88.04
Crosby	16	49	77.26
Culberson	136	570	87.43
Dallam	22	128	89.82
Dallas	3,073	69,674	88.18
Dawson	3	12	77.36
Deaf Smith	26	109	89.76
Delta	100	488	89.07
Denton	806	13,056	91.35
De Witt	261	918	86.31
Dickens	73	251	90.55
Dimmit	74	345	89.44
Donley	68	214	85.48
Duval	121	336	86.99
Eastland	232	789	86.88
Ector	141	1,014	86.66
Edwards	26	137	92.39
Ellis	659	4,737	90.89
El Paso	737	11,849	88.88
Erath	196	652	89.33
Falls	305	1,241	88.31
Fannin	305	952	86.01
Fayette	372	1,502	88.06
Fisher	149	335	84.88
Floyd	11	53	86.13
Foard	60	158	90.44

County	On & Off-System		
	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]
Fort Bend	718	6,862	91.50
Franklin	74	400	84.52
Freestone	168	868	88.48
Frio	145	852	89.94
Gaines	0	0	N/A
Galveston	347	4,847	85.34
Garza	51	269	84.85
Gillespie	130	665	90.12
Glasscock	28	115	88.66
Goliad	126	584	86.99
Gonzales	281	1,413	86.94
Gray	81	666	84.80
Grayson	513	2,894	87.84
Gregg	214	1,841	87.50
Grimes	222	664	87.01
Guadalupe	292	2,580	89.42
Hale	49	451	88.24
Hall	120	720	84.43
Hamilton	119	509	85.86
Hansford	40	145	83.48
Hardeman	77	493	86.80
Hardin	167	1,336	86.97
Harris	3,896	92,084	88.71
Harrison	257	1,421	88.95
Hartley	16	104	87.01
Haskell	80	351	85.57

*Total number of bridge-class structures open to public traffic as defined in 23 CFR § 650.305.

†Sum total of bridge length multiplied by bridge width as defined in FHWA Computation Procedure for Bridge Condition Measures (FHWA-HIF-18-023), displayed in units of thousands of square feet.

‡Based on the minimum condition rating of its primary components, each bridge is assigned a numeric score from 50 to 95. The Bridge Condition Score is the average of these numeric values, weighted by deck area.

County	On & Off-System		
	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]
Hays	223	2,092	93.07
Hemphill	35	307	85.13
Henderson	207	2,395	89.05
Hidalgo	408	6,931	90.19
Hill	384	1,679	86.85
Hockley	3	9	88.60
Hood	83	466	90.09
Hopkins	252	838	88.19
Houston	188	560	83.13
Howard	129	1,048	84.81
Hudspeth	131	596	86.14
Hunt	451	3,057	90.85
Hutchinson	51	527	83.38
Irion	50	164	82.30
Jack	135	350	90.58
Jackson	171	1,188	87.48
Jasper	179	881	86.87
Jeff Davis	134	444	88.28
Jefferson	443	5,324	82.40
Jim Hogg	29	66	93.21
Jim Wells	177	827	91.14
Johnson	379	2,491	90.75
Jones	169	462	88.59
Karnes	142	584	84.64
Kaufman	431	3,298	88.30
Kendall	105	923	89.13

County	On & Off-System		
	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]
Kenedy	17	75	94.44
Kent	33	160	84.08
Kerr	172	1,202	89.49
Kimble	149	1,118	88.57
King	45	165	91.63
Kinney	38	180	85.42
Kleberg	58	443	87.16
Knox	51	262	89.16
Lamar	305	1,025	87.36
Lamb	11	58	85.57
Lampasas	91	446	88.72
La Salle	141	890	88.09
Lavaca	262	935	89.40
Lee	138	482	88.00
Leon	160	820	85.79
Liberty	193	2,039	87.62
Limestone	281	738	85.42
Lipscomb	38	198	83.46
Live Oak	219	1,544	89.23
Llano	83	364	84.95
Loving	4	17	77.95
Lubbock	236	4,000	89.69
Lynn	5	44	77.63
Madison	123	541	86.86
Marion	58	499	85.02
Martin	13	74	87.20

*Total number of bridge-class structures open to public traffic as defined in 23 CFR § 650.305.

[†]Sum total of bridge length multiplied by bridge width as defined in FHWA Computation Procedure for Bridge Condition Measures (FHWA-HIF-18-023), displayed in units of thousands of square feet.

[‡]Based on the minimum condition rating of its primary components, each bridge is assigned a numeric score from 50 to 95. The Bridge Condition Score is the average of these numeric values, weighted by deck area.

County	On & Off-System		
	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]
Mason	85	329	86.42
Matagorda	191	1,035	87.18
Maverick	122	925	87.28
McCulloch	118	379	88.44
McLennan	677	5,414	87.72
McMullen	58	388	87.37
Medina	206	1,062	89.54
Menard	63	242	89.27
Midland	119	1,139	87.20
Milam	188	964	90.33
Mills	69	232	84.41
Mitchell	140	705	85.22
Montague	227	857	88.70
Montgomery	586	8,480	90.21
Moore	26	199	85.62
Morris	70	589	84.80
Motley	50	331	90.65
Nacogdoches	240	1,289	86.39
Navarro	327	2,662	90.51
Newton	156	753	86.56
Nolan	166	713	86.55
Nueces	501	8,117	85.72
Ochiltree	32	81	89.04
Oldham	51	383	86.10
Orange	169	2,793	89.26
Palo Pinto	236	785	88.30

County	On & Off-System		
	No. of Bridges*	Deck Area [†]	Bridge Condition Score [‡]
Panola	141	1,330	89.45
Parker	325	1,610	89.57
Parmer	26	145	90.67
Pecos	469	2,285	89.67
Polk	219	1,481	85.68
Potter	178	2,296	85.08
Presidio	74	390	87.50
Rains	53	261	90.98
Randall	97	925	86.57
Reagan	28	62	87.90
Real	28	188	89.00
Red River	165	805	86.31
Reeves	213	1,277	87.33
Refugio	136	737	85.07
Roberts	21	205	84.33
Robertson	139	683	85.87
Rockwall	71	1,277	88.89
Runnels	159	608	89.73
Rusk	276	882	87.74
Sabine	90	843	84.35
San Augustine	97	622	84.20
San Jacinto	75	470	91.45
San Patricio	235	2,112	88.02
San Saba	89	315	87.51
Schleicher	33	108	85.71
Scurry	139	547	87.68

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[‡]Based on the minimum condition rating of its primary components, each bridge is assigned a numeric score from 50 to 95. The Bridge Condition Score is the average of these numeric values, weighted by deck area.

County	On & Off-System		
	No. of Bridges*	Deck Area†	Bridge Condition Score‡
Shackelford	78	233	86.96
Shelby	175	918	89.19
Sherman	29	91	86.97
Smith	410	2,976	88.48
Somervell	28	253	91.70
Starr	65	371	91.62
Stephens	117	469	87.26
Sterling	54	215	90.77
Stonewall	50	295	84.18
Sutton	92	755	87.61
Swisher	69	506	84.47
Tarrant	2,408	34,940	90.32
Taylor	410	2,287	87.66
Terrell	53	274	85.59
Terry	5	11	87.12
Throckmorton	53	118	86.75
Titus	154	1,281	89.45
Tom Green	305	2,323	90.76
Travis	1,459	22,742	90.50
Trinity	80	636	91.18
Tyler	135	451	86.08
Upshur	139	933	91.26
Upton	39	135	87.16
Uvalde	103	895	87.92
Val Verde	112	1,318	87.67
Van Zandt	245	849	87.40

County	On & Off-System		
	No. of Bridges*	Deck Area†	Bridge Condition Score‡
Victoria	339	2,638	90.92
Walker	150	846	87.68
Waller	189	1,427	88.17
Ward	54	422	81.81
Washington	230	780	90.00
Webb	378	3,685	88.90
Wharton	362	1,500	87.22
Wheeler	103	432	85.47
Wichita	395	3,800	89.29
Wilbarger	153	1,139	87.22
Willacy	119	561	91.32
Williamson	1,064	14,004	93.01
Wilson	134	521	90.71
Winkler	1	5	85.00
Wise	257	1,396	91.52
Wood	117	1,349	86.77
Yoakum	0	0	N/A
Young	111	470	86.83
Zapata	36	406	90.28
Zavala	72	410	85.39

*Total number of bridge-class structures open to public traffic as defined in 23 CFR § 650.305.

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‡Based on the minimum condition rating of its primary components, each bridge is assigned a numeric score from 50 to 95. The Bridge Condition Score is the average of these numeric values, weighted by deck area.