2025 Texas Top 100 Congested Road Segments

Introduction/Summary

In response to urban roadway congestion, in 2009, the Texas Legislature mandated that the Texas Department of Transportation (TxDOT) annually produce a ranked list of the most congested road segments in the state. Since that time, the goal of the Texas Top 100 Congested Road Segments analysis has been to use traffic volume and speed data to arrive at a measure of traffic congestion and the frustration that travelers and shippers experience. The primary measure used in the Texas Top 100 Congested Road Segments ranking quantifies how much additional time it takes to travel a mile on a congested road than it does to travel that same mile of road during uncongested conditions. The analysis evaluates the number of extra hours of travel time (also called 'delay') travelers experience on more than 2,100 road segments covering over 10,000 miles. The 2025 Texas Top 100 Congested Road Segments reports on 2024 calendar year conditions. Overall, vehicle (e.g., autos, trucks, buses, etc.) congestion across all monitored road segments was four percent higher in 2024 compared to 2023, and vehicle miles traveled (VMT) was up by two percent. Truck delay across all monitored segments was up 16 percent during that time.

The 2025 Texas Top 100 Congested Road Segments Report is based on a list of 2,100 monitored road segments ranked by delay per mile (DPM), while the "Top 100" refers to the 100 highest ranked road segments on this list. As shown in Exhibit 1, heavily traveled and economically important corridors in the metropolitan areas are still among the most congested. In fact, 96 of the top 100 all-vehicle segments are in Austin, Dallas-Fort Worth, Houston, and San Antonio. Because of the significant delay values in the most congested segments and the time it takes to implement solutions to address a congested roadway, the overall list changes little from year to year. Overall, across the top 100 segments, vehicle congestion was up 24 percent in 2024, VMT was up about 10 percent and truck delay was up about 26 percent.

The 10 most congested road segments for the 2025 report are listed in Exhibit 2 and shown in Exhibit 3. The West Loop (Interstate [I] 610) in Houston is at the top of the list again this year. Seven of the top 10 roads from the 2024 Texas Top 100 Congested Road Segments Report and nine from the 2023 Texas Top 100 Congested Road Segments Report remain in the top 10 for the 2025 report. The new road segments in the top 10 this year include two segments in Harris County and one in Tarrant County. They are Gulf Freeway (Fwy) I-45 from I-10 to I-610, I-10/United States Highway (U.S.) 90 from I-45 to U.S. 59, and North Fwy I-35W from State Highway (SH) 183 to I-30. Three segments in Dallas (E R.L. Thornton and two segments of U.S. 75) dropped out of the top 10 just slightly, falling to #11, #13 and #16 this year.

Exhibit 1: 2025 Texas Top 100 All Vehicle Congested Road Segments by Metropolitan Region

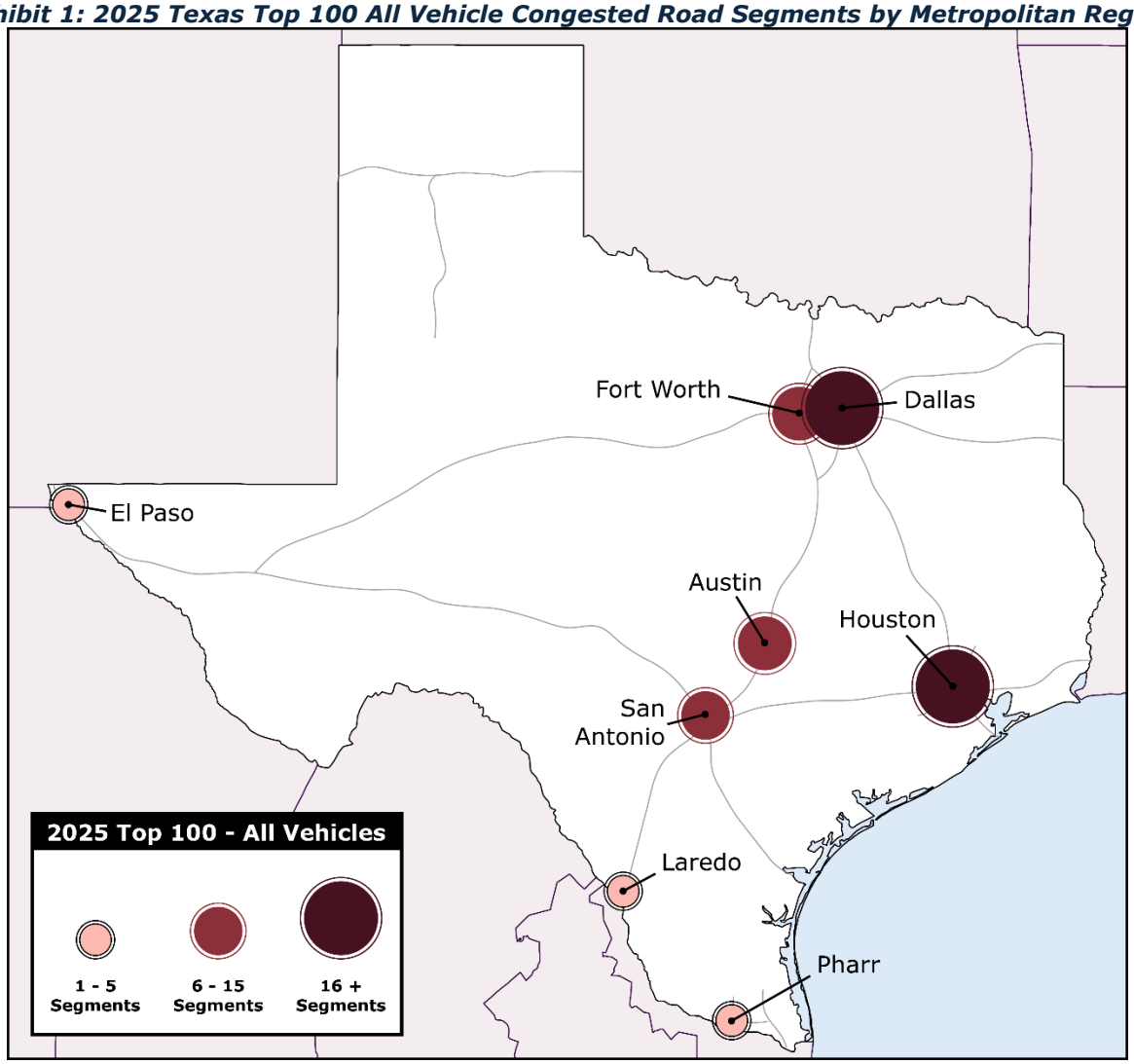
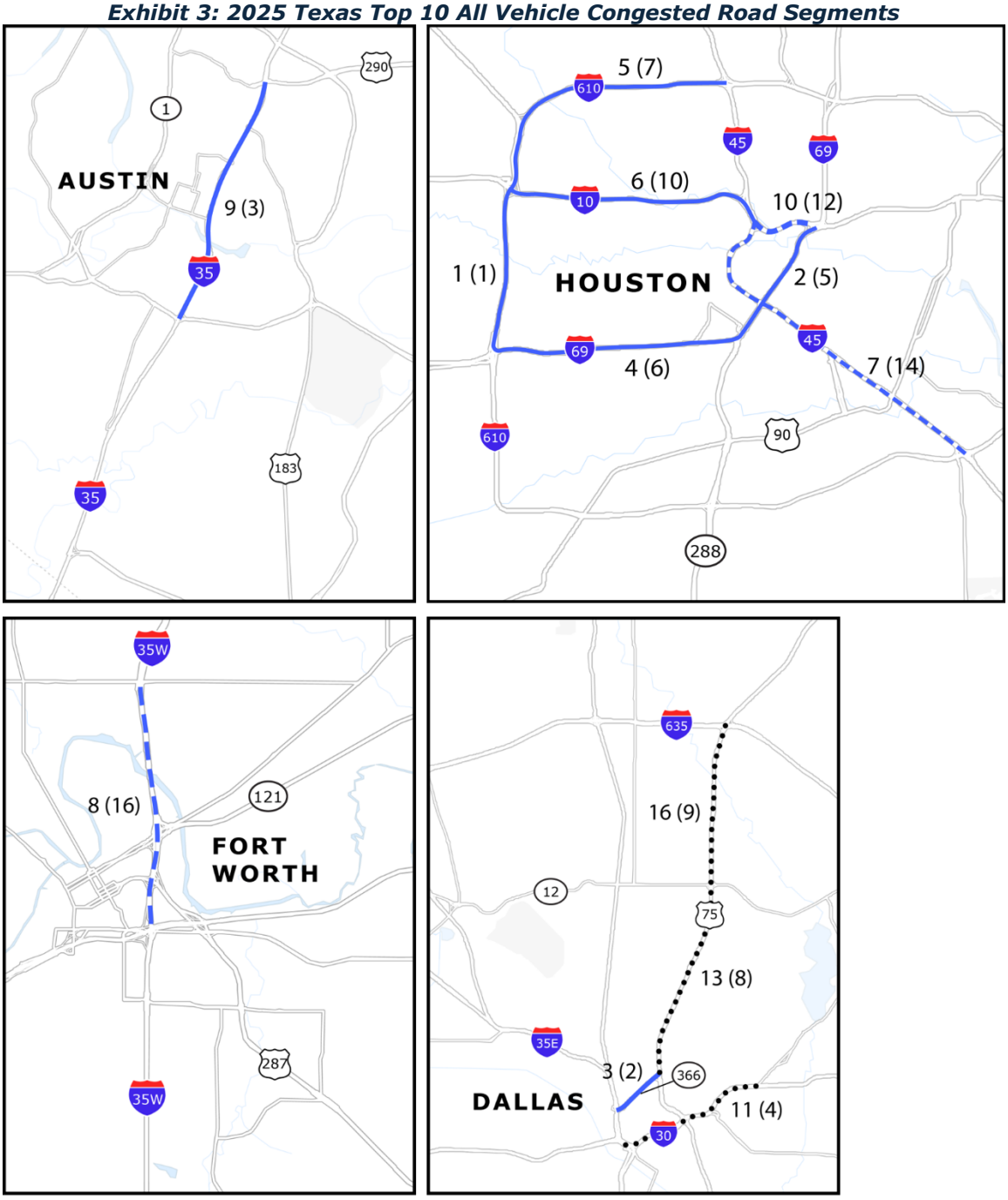


Exhibit 2: 2025 Texas Top 10 All Vehicle Congested Road Segments (Note: An asterisk means the segment was under construction during 2024)

2025 Rank	County	Road Segment	From	To	24/23/22 Rank
1*	Harris	W Loop Fwy/I-610	Katy Fwy/I-10/ U.S. 90	Southwest Fwy/ U.S. 59/I-69	1/1/1
2*	Harris	Eastex Fwy/I-69/ U.S. 59	SH 288	I-10	5/2/4
3	Dallas	Woodall Rodgers Fwy/State Highway Spur (SS) 366	U.S. 75	N Beckley Ave	2/3/2
4*	Harris	Southwest Fwy/ I-69/U.S. 59	W Loop Fwy/I-610	South Fwy/SH 288	6/5/5
5	Harris	N Loop W Fwy/ I-610	North Fwy/I-45	Katy Fwy/I-10/ U.S. 90	7/6/8
6	Harris	Katy Fwy/I-10/ U.S. 90	W Loop N Fwy/ I-610	North Fwy/I-45	10/7/13
7	Harris	Gulf Fwy/I-45	I-10/U.S. 90	S Loop E Fwy/I-610	14/8/10
8	Tarrant	North Fwy/I-35W/ U.S. 287	SH 183	I-30	16/9/6
9*	Travis	I-35	U.S. 290N/SS 69	Ben White Blvd/ SH 71	3/4/3
10	Harris	I-10/U.S. 90	North Fwy/I-45	Eastex Fwy/U.S. 59	12/11/16

Exhibit 3: 2025 Texas Top 10 All Vehicle Congested Road Segments

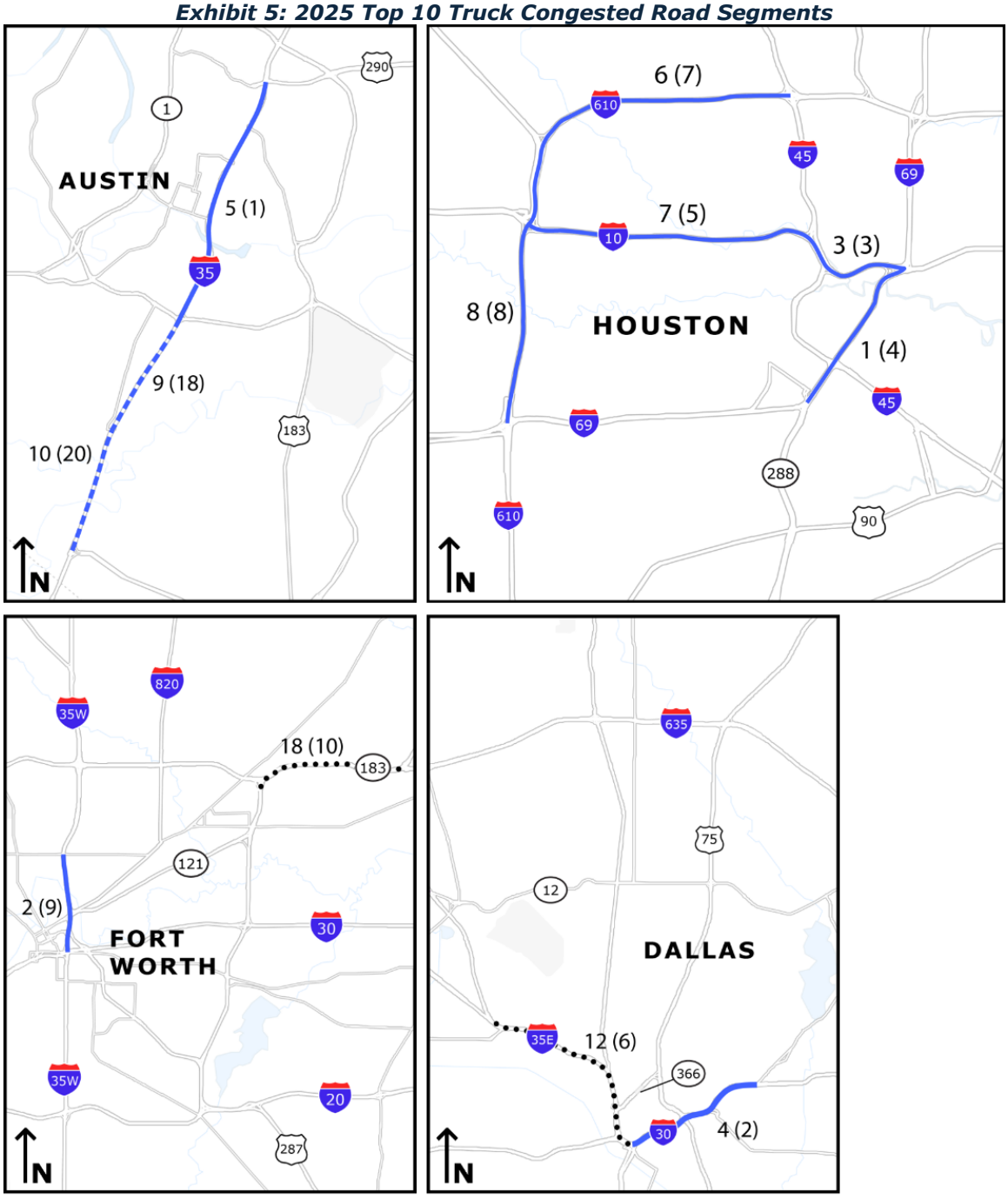


The top 10 congested road segments for trucks in the 2025 report are listed in Exhibit 4 and shown in Exhibit 5. A new segment is in the top spot this year for trucks. Eastex Fwy in Houston moved from #4 last year to #1 this year. Eight of the top 10 road segments remained in the top 10 from the previous report. The new road segments in the 2025 top 10 congested roads for trucks are both in Austin and are adjoining segments on I-35 between SH 71 and SH 45. One segment that saw a significant improvement in delay and dropped from #16 to #42 was I-35 between State Highway Loop (SL) 1604 and Natural Bridge Caverns Rd in Guadalupe County.

Exhibit 4: 2025 Top 10 Truck Congested Road Segments (Note: An asterisk in the rank means the segment was under construction during 2024. #4, E.R. L. Thornton Fwy/I-30/U.S. 67 was re-segmented in 2024; the prior rankings shown are for the segment that included this new segment for 2023 and 2022.)

2025 Rank	County	Road Segment	From	To	24/23/22 Rank
1*	Harris	Eastex Fwy/I-69/ U.S. 59	SH 288	I-10	4/1/2
2	Tarrant	North Fwy/ I-35W/U.S. 287	SH 183	I-30	9/6/3
3	Harris	I-10/U.S. 90	North Fwy/I-45	Eastex Fwy/U.S. 59	3/5/8
4	Dallas	E R.L. Thornton Fwy/I-30/U.S. 67	Jefferson Viaduct	East Grande Ave/ SH 78	2/8/9
5*	Travis	I-35	U.S. 290N/SS 69	Ben White Blvd/SH 71	1/3/1
6	Harris	N Loop W Fwy/ I-610	North Fwy/I-45	Katy Fwy/I-10/ U.S. 90	7/4/6
7*	Harris	Katy Fwy/I-10/ U.S. 90	W Loop N Fwy/I-610	North Fwy/I-45	5/7/4
8*	Harris	W Loop Fwy/ I-610	Katy Fwy/I-10/ U.S. 90	Southwest Fwy/ U.S. 59/I-69	8/9/7
9*	Travis	I-35	Ben White Blvd/SH 71	Slaughter Ln	18/19/19
10*	Travis	I-35	Slaughter Ln	SH 45	20/22/30

Exhibit 5: 2025 Top 10 Truck Congested Road Segments



Top 100 Congested Road Segments Network Re-Segmentation

Prior to the generation of the 2024 Texas Top 100 Congested Road Segments Report, TxDOT districts were provided an opportunity to request re-segmentation of existing segments monitored for congestion within their district. TxDOT districts may request re-segmentation of road segments monitored for congestion to make the congestion analysis more meaningful and actionable for planning, project development, and performance reporting. Often re-segmentation requests are due to aligning segments with project limits, matching operational characteristics, updating the road network to reflect system changes, improving congestion hotspot identification, adding consistency with regional and metropolitan planning organization analysis, and improving data quality and accuracy due to sensor or probe data coverage for a segment.

Segments that could have affected the 2024 Texas Top 100 Congested Road Segments Report were re-segmented last year, and the other seven requests were deferred for consideration in the 2025 Texas Top 100 Congested Road Segments. Three of these seven requests were re-segmented for the 2025 Texas Top 100 Congested Road Segments. Of the remaining segments, three requests would have created segments that are either too long or too short based on guidelines for segmentation, and one segment is still under construction and recommended to be deferred until construction is complete. Detailed information about re-segmentation is included in Appendix C.

Factors That Put Road Segments on the List

The following are factors that influence ranking among the monitored segments.

Economic Vitality

The most enduring trend since 2009 has been growth in population, jobs, travel demand, and traffic volume. Traffic congestion may be an inevitable result of growth, but the increase in delay and travel time may not be considered reasonable by the traveling public.

Land Use

Land use changes along or near a corridor can have a dramatic impact on that corridor. In urban areas that are developing densely, thousands of trips may be added to a corridor very quickly when people move into newly available housing units or take advantage of new offices, retail stores, or restaurants. That kind of change can send a roadway to a higher position on the list in a short period of time.

Construction

Of the top 100 congested segments, 43 experienced at least two months of construction in 2024 compared to 46 in 2023. Construction on a road, or on a nearby road, can impact congestion. Large construction projects often cause congestion on the road where the project is being built and nearby roadways. In smaller cities, even short-term and smaller projects like pavement overlays, re-striping, traffic signal work at a single intersection, or right-turn additions can affect annual congestion statistics.

Projects on nearby or connecting roads can also cause congestion on a road where there would otherwise be none. When the road under construction becomes congested, traffic shifts to connecting roads, and they become congested.

Congestion Outside the Peak Period

Congestion outside the normal peak traffic periods is another frequent condition that moves a road up on the congested list. These roads "where it is always rush hour" not only see regular congestion but also see more intense problems from traffic crashes and stalled vehicles. This is the case with I-35 through central Austin or I-610W in Houston.

Off-peak period delay can also be significant on arterials, or high-capacity urban thoroughfares, whose traffic lights are timed to serve all travel directions at smaller cross street intersections rather than prioritizing the major street peak direction, causing delay on the bigger arterial streets. During rush hour, however, the arterials are prioritized, and their delay time is lessened.

Weather

An exceptionally bad weather year can cause a road segment to appear in the congestion data. Heavy rains can slow traffic, regular flooding can block traffic, and high winds can deposit debris on the roads or down signs that obstruct traffic until removed or repaired. Extreme weather, especially high heat followed by excessive rains, can accelerate roadway damage, creating large cracks that worsen with the weight of traffic. That kind of damage can slow traffic, and the effort to repair the problem can also obstruct a road and cause congestion.

All Vehicle Trends

Congestion is widespread, but its relevance can be subjective. What is considered very congested in small cities might be considered acceptable in larger cities. To demonstrate these contextual differences, this study tracks roughly 2,100 road segments across Texas, in urban and suburban areas, including at least 18 segments (60 miles) in each of the 25 metro areas.[1] The resulting database is useful in tracking statewide congestion and can be used to help prioritize projects that address congestion problems in each metro area.

The 2025 Top 100 road segments list contains 20 segments that were not in the 2024 Top 100 list. Fewer arterial street segments were on the list this year, with 88 of the Top 100 list being freeway segments in 2025 compared to 78 in 2024. Freeways experienced slightly more delay during the peak periods in 2024 than in 2023, rising slightly from 63 percent of all freeway delay in 2023 to 64 percent in 2024. Peak period arterial street delay also rose slightly from 42 percent of all arterial street delay in 2023 to 43 percent in 2024. Weekend delay as a percentage of total delay increased one percent for arterial streets and decreased one percent for freeways in 2024.

Exhibit 6 displays a comparison of the number of road segments in the Top 100 in the 2019–2024 data years by TxDOT district. Of the top 100 congested segments, 96 are in the five largest districts (Austin, Dallas, Fort Worth, Houston, and San Antonio). The Dallas and Fort Worth districts have

[1] *See map on the Texas A&M Transportation Institute website (https://mobility.tamu.edu/texas-most-congested-roadways/) for the urban regions.*

added segments since 2019. The Houston district gained some Top 100 segments that were lost last year but still has fewer than 2019. The Austin District has fewer Top 100 segments in 2024 than it did in 2023 or 2022. The Corpus Christi, Bryan, Odessa, and Waco districts have had segments in the Top 100 during the last five years, but do not have any Top 100 segments in this year's report.

Exhibit 6: Top 100 Segments by District from 2019 to 2024

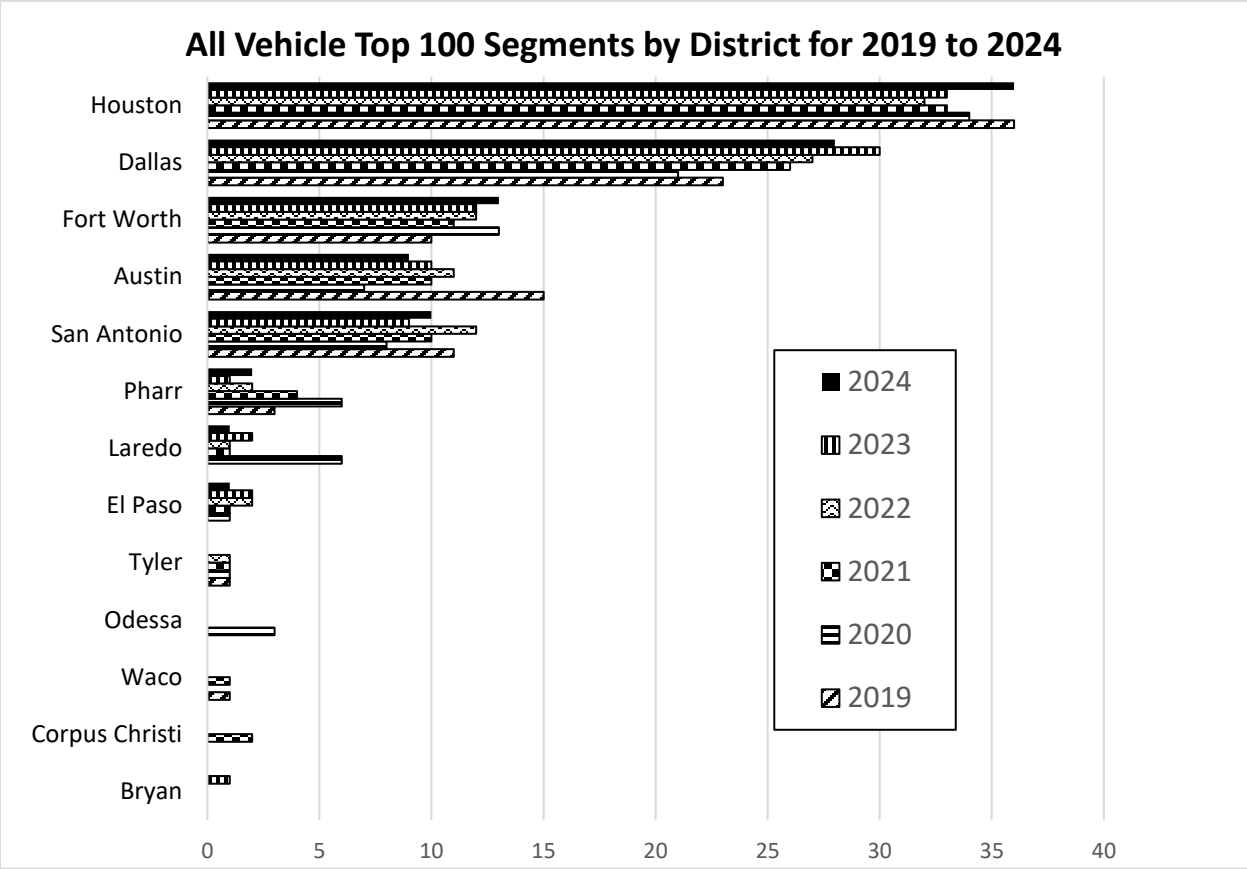


Exhibit 7 shows the Top 100 road segment DPM for the years 2019 through 2024. As the curves in the exhibit flatten on the right side of the graph and the rank increases, road segment rankings can easily shift due to small changes such as traffic volume changes, speed variations, or road construction on the segment or nearby roadways. Segments ranked between approximately #10 and #50 had significantly more delay in 2024 than in 2019 to 2023.

Exhibit 7: 2024 All Vehicle DPM for Top 100 Segments

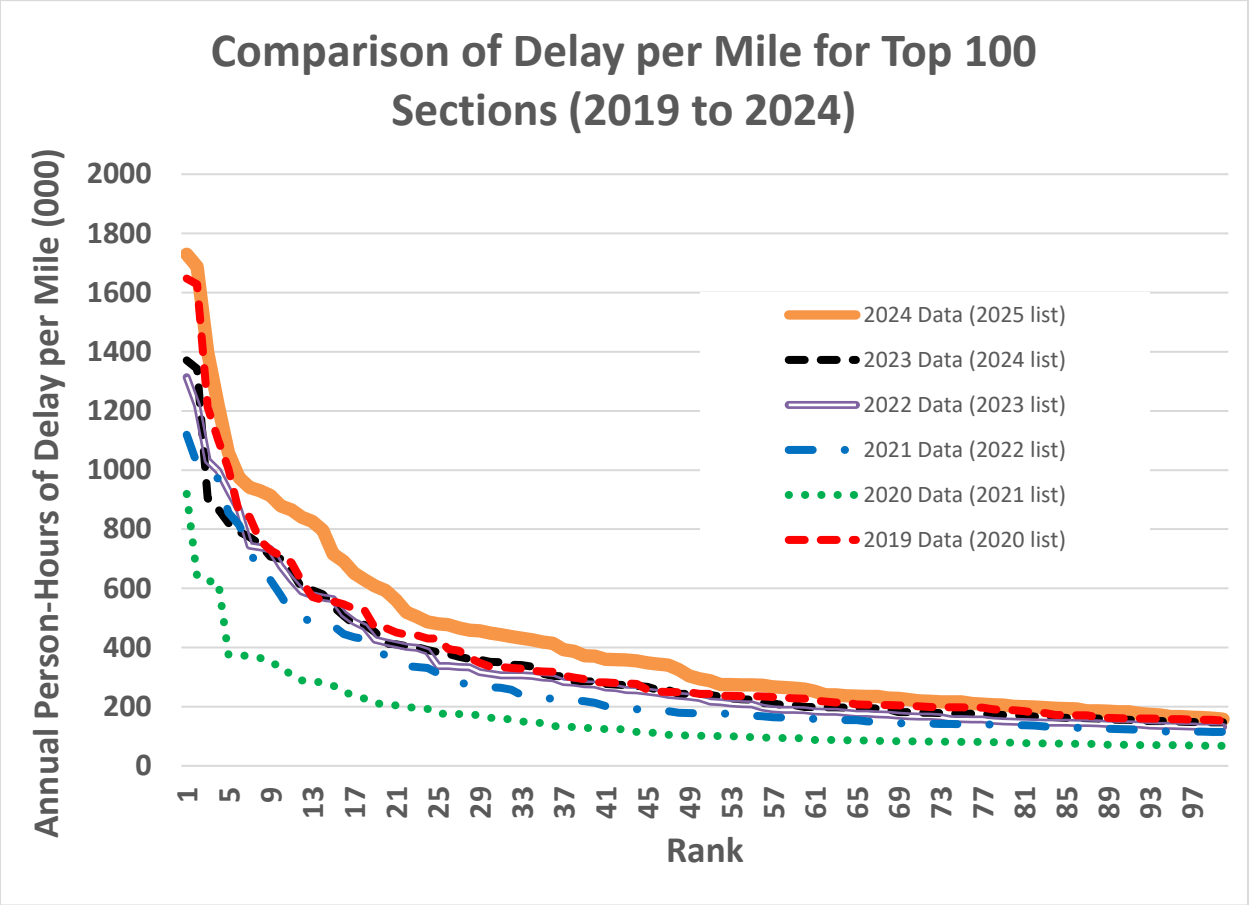


Exhibit 8 shows a comparison of annual person-hours of delay and average daily VMT on all monitored road segments and demonstrates the changes between congestion in calendar years 2017–2024. The 2024 data show that delay and VMT are still increasing but delay has not returned to peak 2017 levels.

Exhibit 8: 2024 All Vehicle Trends for All Monitored Segments

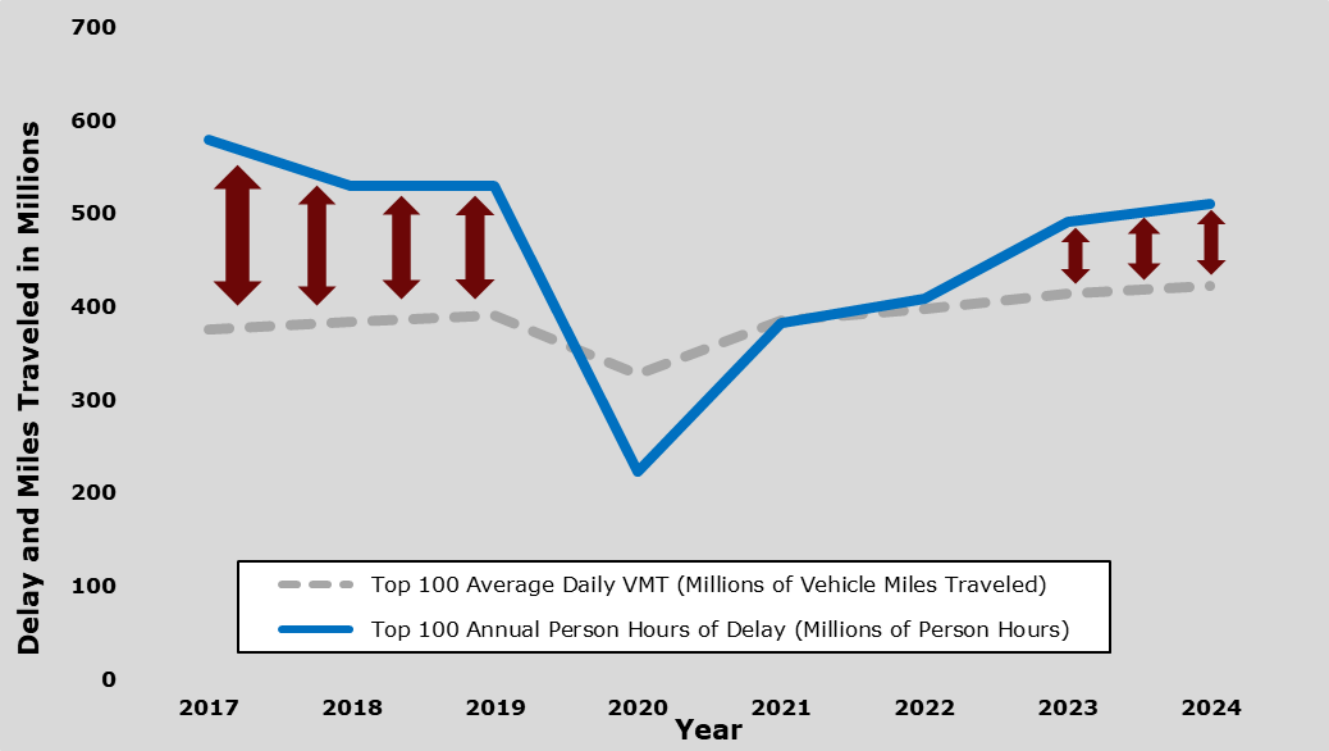


Exhibit 9 shows the annual person-hours of delay per thousand miles of travel between 2017 and 2024 for the ten Texas urban areas and 91 urban areas outside of Texas, as reported in the 2025 Urban Mobility Report. Although both VMT and delay are increasing in recent years, the change in growth between delay and travel is changing much more slowly in Texas, as opposed to faster expansion in the rest of the nation's urban areas. This means that Texas's roads absorbed the increased traffic better. For the 101 urban areas that are tracked in the annual Urban Mobility Report for the most recent data year of 2024, the ten urban areas in Texas had approximately 26 percent lower delay per vehicle-mile of travel, on average, than the rest of the nation's urban areas.

Exhibit 9: Comparison to Other U.S. Urban Areas.

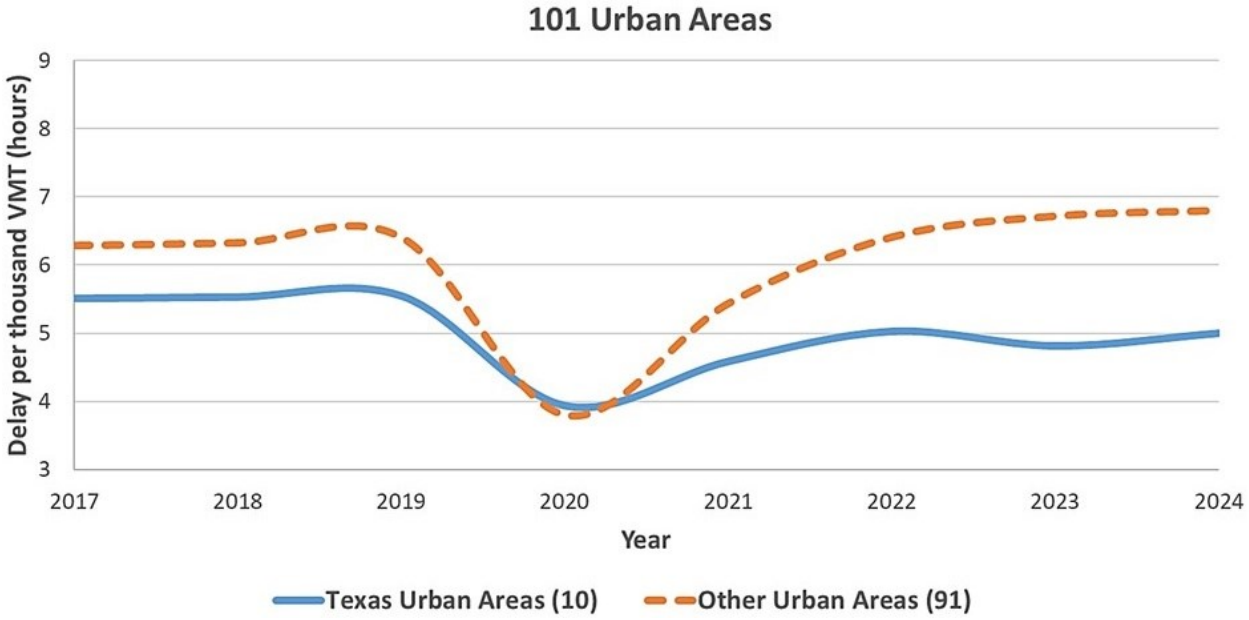


Exhibit 10 includes a comparison of the 2017 and 2024 VMT and delay, and how this equates congestion costs in total and to individual commuters. This analysis shows that across all monitored segments, on average commuters are spending less time in traffic than they did in 2017. In looking at all monitored roadway segments, VMT was up 12 percent from 2017, and delay was down three percent. There is a similar trend for most districts throughout the state. District VMT increases ranged from seven percent to 20 percent since 2017, while most districts saw a decrease in delay during that time. The Fort Worth District (up six percent since 2017) is the only district that had an increase in delay, but Fort Worth district had a 13 percent increase in VMT during that time.

Across the state, on average, a commuter making a 20-mile commute saw a decrease of $240 in fuel and vehicle operating costs compared with 2017. The cost per commuter ranged from a decrease of $67 per commuter per year in Fort Worth to a decrease of $351 per commuter per year in Austin.

Exhibit 10: Comparing 2017 and 2024 Conditions for All Vehicles

Area	VMT	Annual Hours of Delay	Total Annual Hours of Delay (M Hours)	Congestion Cost Savings ($M)	Annual Congestion Cost Savings per Commuter[1]
Austin District[2]	+20%	−11%	−7.3	+$193	+$351
Dallas District[2]	+15%	−3%	−3.6	+$96	+$161
Fort Worth District[2]	+13%	+6%	+3.1	−$83	+$67
Houston District[2]	+7%	−13%	−25.6	+$680	+$277

Area	VMT	Annual Hours of Delay	Total Annual Hours of Delay (M Hours)	Congestion Cost Savings ($M)	Annual Congestion Cost Savings per Commuter[1]
San Antonio District[2]	+10%	−21%	−10.2	+$270	+$276
Other Districts[2]	+13%	−29%	−24.5	+$648	+$273
All Monitored Segments[2]	**+12%**	**−12%**	**−68.1**	**+$1805**	**+$240**
Top 100	+17%	+7%	+14.8	−$393	+$170

[1] Assumes a 20-mile commute, five days a week.

[2] Includes all monitored road segments.

The 2024 data also show significant decreases in delay and increases in annual savings to commuters at the individual project level. Exhibit 11 shows nine key Texas Clear Lanes (TCL) projects and two other similar projects that benefitted 11 Top 100 segments, with changes in VMT, delay, and dollars saved per commuter. 2017 to 2024 was used as the assessment period for this to keep it consistent with other preceding comparisons and TCL projects' end dates to best understand project benefits. Delay was significantly decreased for all impacted Top 100 segments because of these projects; in cases where VMT decreased, delay decrease was much greater. On these segments commuters saved between $19 and $966 per year in fuel and vehicle operating costs.

Exhibit 11: Comparing 2017 and 2024 Conditions for Significant Projects on Top 100 Segments

TCL Project/ Top 100 Segment	District	TCL Project	Top 100 Rank, [highest prior rank]	Top 100 Segment Length (mi)	VMT	Annual Hours of Delay	Annual Congestion Cost Savings per Commuter[1]
U.S. 183 – I--35 to SH-71[2,3]	Austin	—	909, [68]	10.0	+9%	−86%	+$966
SL 1 (Mopac) – U.S. 183 to SL 360[2,3]	Austin	—	42, [18]	10.4	+13%	−26%	+$468
I-35 – I-35 at Parmer Lane /I-35 – Parmer Ln to US 290 N[2]	Austin	5	50, [36]	6.4	-6%	−10%	+$19
Irving Interchanges/ Mockingbird Ln – SH 183 to SH 75[4]	Dallas	3	167, [71]	5.9	-1%	−31%	+$357
Irving Interchanges/ SL 12W – I-35E to I-30[2,5]	Dallas	3	85, [41]	7.6	+ 0%	−46%	+$288
Southern Gateway/ I-35E – I-30 to U.S. 67[2]	Dallas	2	99, [17]	4.6	+2%	−55%	+$168
I-30 East/I-30 – Buckner Blvd to President George Bush Hwy[2]-	Dallas	5	172, [63]	8.5	+3%	−31%	+$126
I-820/E Loop 820 – SH-183 to I-30[2]	Fort Worth	4	213, [44]	4.6	+7%	−67%	+$315

TCL Project/ Top 100 Segment	District	TCL Project	Top 100 Rank, [highest prior rank]	Top 100 Segment Length (mi)	VMT	Annual Hours of Delay	Annual Congestion Cost Savings per Commuter[1]
I-45/I-45 – NASA 1 to FM 518[4]	Houston	1	51, [25]	8.1	+9%	−26%	+$199
U.S. 281 Phase 1/ U.S. 281 – SL 1604 to Stone Oak Pkwy[2]	San Antonio	3	954, [15]	3.0	+17%	−96%	+$630
I-10E and Loop 1604NE/ I-35 – I-410NE to I-410E[4]	San Antonio	2,4	166, [31]	3.2	−29%	−66%	+$104

— = Not applicable

[1] Assumes commute through corridor in both directions five days a week.

[2] Direct benefit from improvement on segment.

[3] Not a TCL project.

[4] Indirect benefit from improvement near segment.

[5] Re-segmented in 2024; compares 2017 and 2022 conditions for entire segment.

Truck Top 100 Road Segments

Exhibit 12 shows a comparison of truck travel DPM (the amount of yearly extra travel time for each roadway mile) for the truck top 100 ranked segments and shows the changes between DPM in calendar years 2019 to 2024. There are a few segments each year (usually the same ones) where congestion is much worse than on other roads; the roads on the left side of the graph are among the most congested in the country. The 2024 curve remains above the 2019 curve, indicating that the truck delay for 2024 surpassed the 2019 values. The 2024 curve is consistently above the other years' curves, indicating higher levels of truck delay from rankings #1 to #100. Road segments ranked from approximately #60 to #100 have relatively similar congestion levels, making it easier to shuffle ranks with a few more vehicles added or subtracted, or a nearby construction project starting or finishing. As in Exhibit 7, large shifts in ranks can happen more easily and more often in the flatter part of the curve with the larger rankings.

Exhibit 12: Changes in DPM from 2019 to 2024 in Truck Top 100 Segments

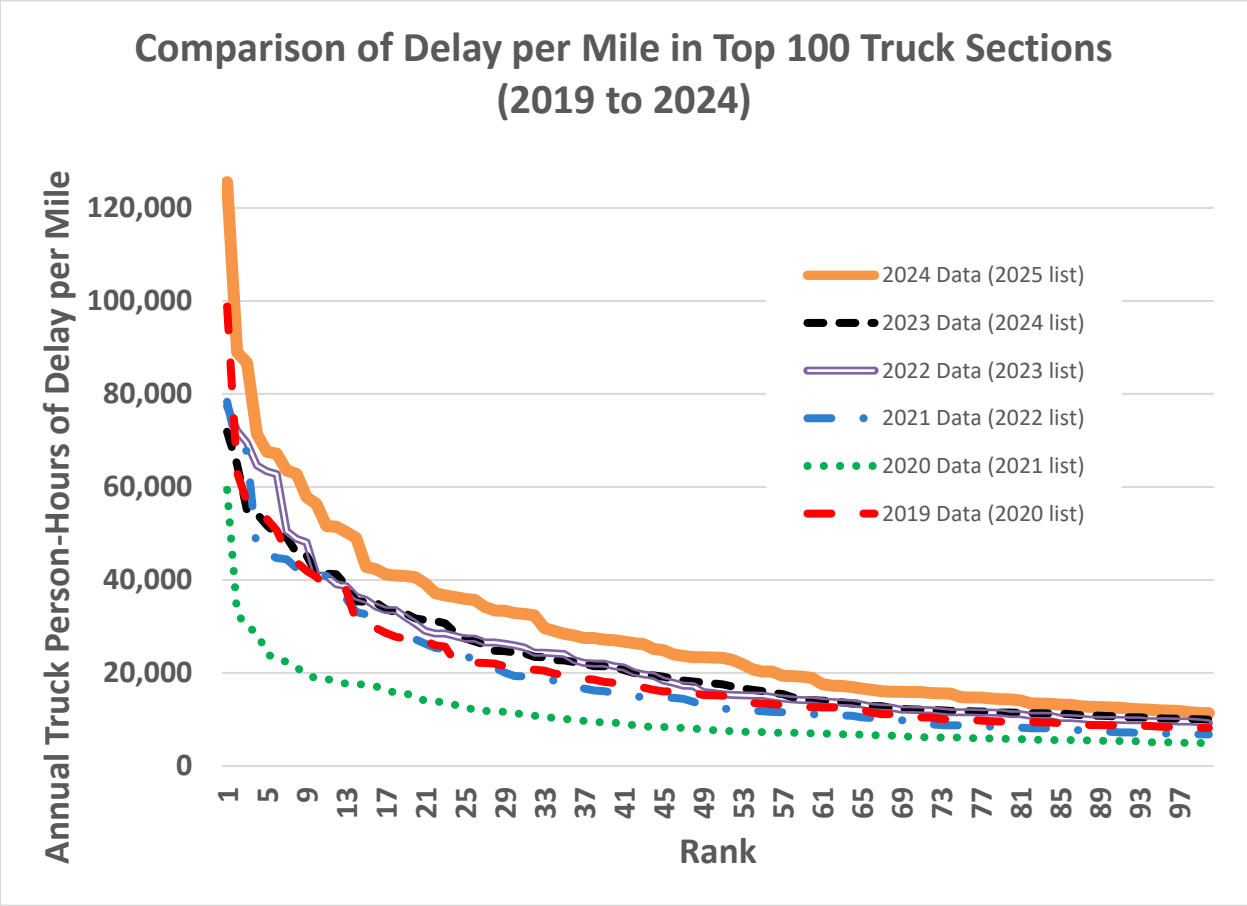
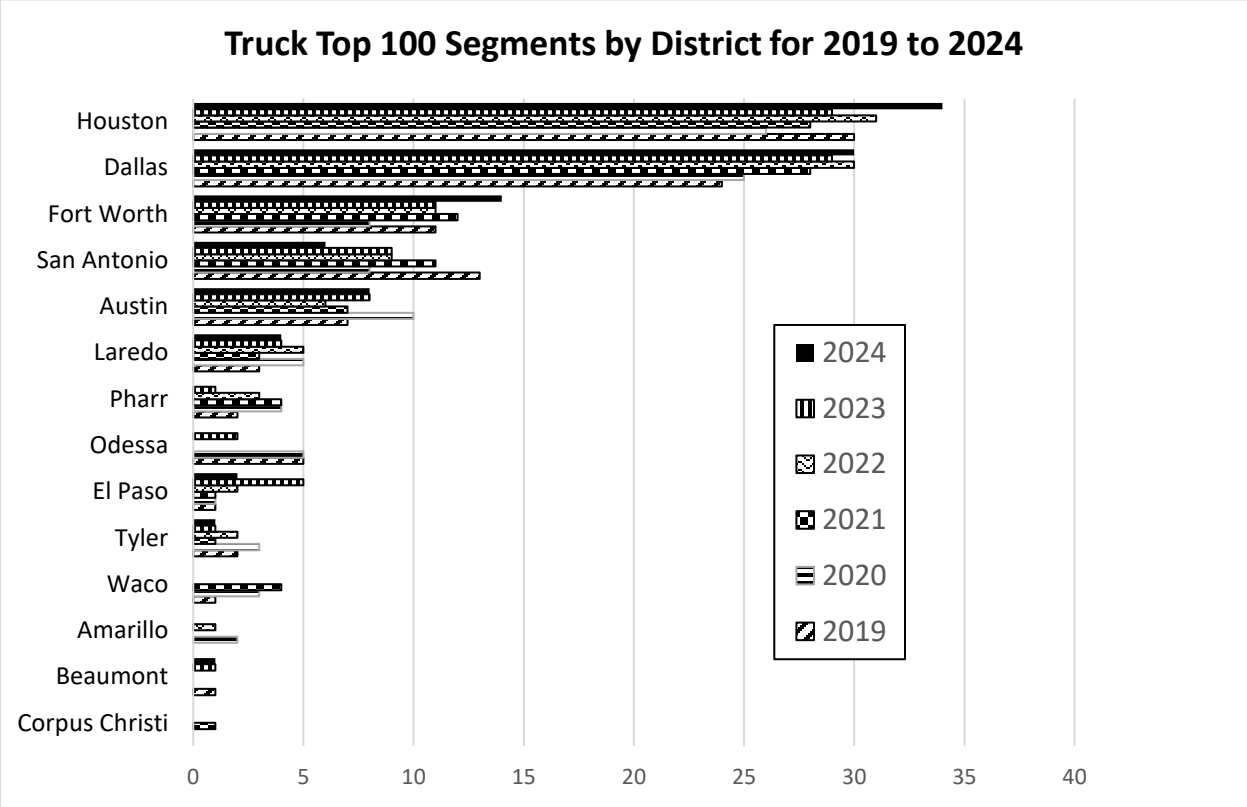


Exhibit 13 displays a comparison of the number of road segments per district in the truck top 100 between calendar years 2019 and 2024. Of the top 100 congested segments, 85 are in the five largest districts. The Dallas, Fort Worth and Houston districts have more truck top 100 segments in 2024 than in 2023. The Austin, Tyler, Beaumont, and Laredo districts remained the same. The San Antonio District has lost three truck top 100 segments since 2023 and seven since 2019. The Corpus Christi,

Amarillo, Odessa, Pharr, and Waco districts did not have a truck top 100 segment in 2024 but had at least one segment ranked in the Top 100 at one time in the previous five years.

Exhibit 13: Truck Top 100 Segments from 2019 to 2024 by District



Conclusion

The 2025 Texas Top 100 Most Congested Road Segments Report adds another important year of data that provide an overview of the congestion trends on Texas' most congested roads. The data collected in 2024 indicate that traffic and delay are increasing.

All-vehicle delay was up four percent across the 2,100 monitored segments of the state compared to last year and up 24 percent for the top 100 road segments. In a typical Top 100 list, about 15 to 20 road segments may jump up into the top 100 for at least a year; in the 2025 Texas Top 100 Congested Road Segments Report, this number was 20. Four of the top 100 segments were outside of the four large metro regions in 2024 — compared with six in 2023, six in 2022, 10 in 2021, 17 in 2020 and five in 2019. As noted, there are many potential reasons for these changes.

Levels of delay for trucks were higher in the truck top 100 road segments by 26 percent than in 2023. Overall truck delay in the complete list of road segments monitored throughout the state was up 16 percent in 2024 when compared with 2023 levels.

Annual delay is still well below peak levels from 2017 to 2019 even though VMT is higher than it was at that time. Therefore, more traffic is on the road with less delay than five to seven years ago due to

efforts such as TCL and measures that districts are taking to mitigate delay on their roadways. The detailed data in this report neither show what specifically is causing the congestion on a given segment nor identify specific solutions. The data can give analysts some insight into what strategies might be effective. It is clear with the growth that Texas has experienced and is projected to experience in the coming decades that many different solutions will be needed to address the future of transportation in Texas. Programs like TCL will continue to play a key role in addressing some of the major chokepoints in the transportation system in Texas.

Sources

1. U.S. Bureau of Labor Statistics. https://www.bls.gov/opub/mlr/2020/article/ability-to-work-from-home.htm

Appendix A: Additional Details for Select Road Segments

This appendix shows examples of changes in travel speed throughout the day for select segments of road that experienced high changes in DPM between the 2024 and 2025 Texas Top 100 Congested Road Segment (Top 100) reports.

These were selected by comparing changes from 2023–2025 rankings to see significant movement. Specifically, segments with percentage change and deltas between 2024 and 2025 were chosen, especially if it caused the segments to go from a low ranking monitored segment to now being on the Texas Top 100 Congested Road Segments list. This type of information can deepen understanding as to why there is mobility among segments on the list. The rankings represent data from the previous year. Therefore, 2025 rankings reflect 2024 data.

The following are five segments selected for further analysis.

Segment 1200159, North Sam Houston Pkwy E/SL 8 – Hardy Toll Rd to Old Humble Rd

Segment 1200159, North Sam Houston Pkwy E/SL 8 – Hardy Toll Rd to Old Humble Rd, in Harris County in the Houston District and is #31 on the 2025 Top 100. It was #186 for 2024's ranking and #96 for the 2023 ranking. It had an 83 percent change from the previous year's ranking.

Exhibit A-1 shows the speed profile for North Sam Houston Pkwy E/SL 8 – Hardy Toll Rd to Old Humble Rd. The 2024 eastbound (EB) speed is mostly slower than in 2023, except for PM peak hours where 2024 performed better than 2023. However, 2024 westbound (WB) speeds are much slower than in 2023. They follow the same pattern of worsening during the AM and PM peaks, but they are approximately 5–10 miles per hour (mph) lower for most hours except overnight.

As shown in Exhibit A-2, for the 2025 Top 100 ranking, this segment had 443,699 annual DPM, $74,758,201 in annual congestion cost and an Average Daily VMT of 846,866. In 2023, annual DPM was 105,244, the annual congestion cost was $16,692,098 and Average Daily VMT was 737,031. In 2022, annual DPM was 134,878 hours, annual congestion cost was $21,129,466 and Average Daily VMT was 701,932. Surprisingly, 2023 had a higher Average Daliy VMT but less delay than 2022 or 2024.

For 2024, there was construction such that center lanes were shut down across the segment funneling traffic into one lane on either side of the highway. This may be the reason for the increase in delay and its 2025 Top 100 ranking.

Exhibit A-1: North Sam Houston Pkwy E/SL 8 - Hardy Toll Rd to Old Humble Rd All Traffic Speeds.

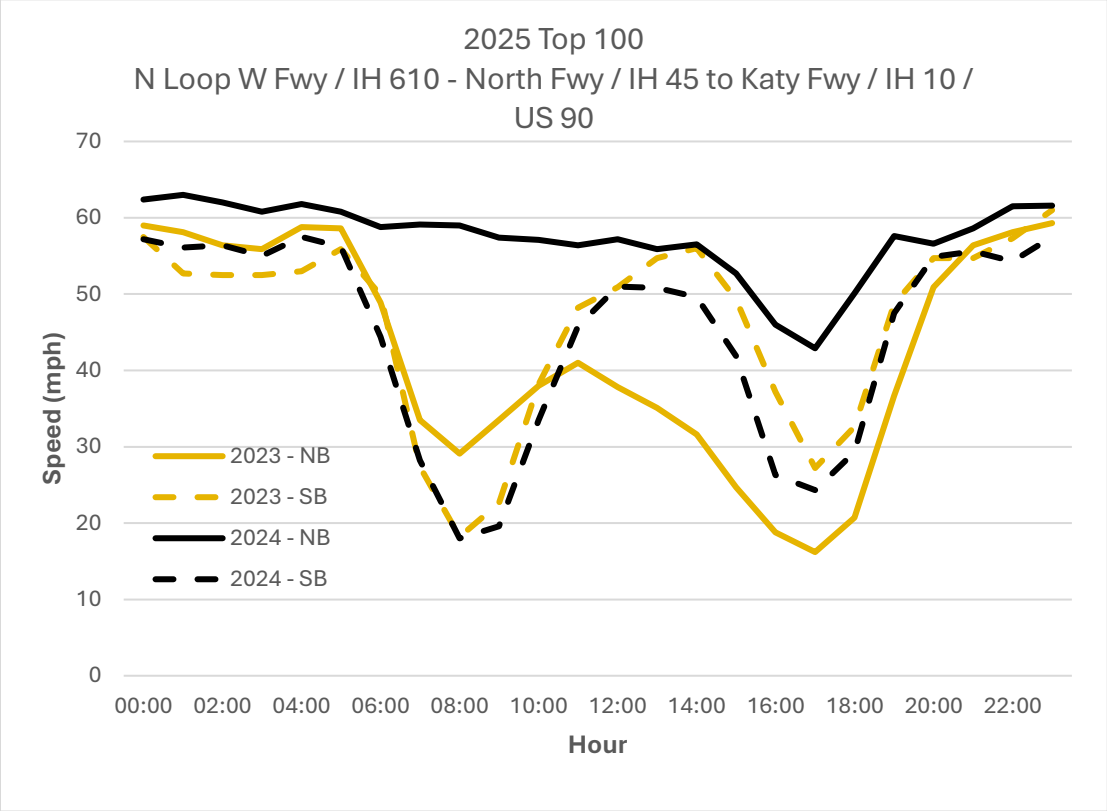


Exhibit A-2: Delay, Congestion Cost and VMT for North Sam Houston Pkwy E/SL 8 – Hardy Toll Rd to Old Humble Rd.

Data Year	Annual DPM (person-hours)	Annual Truck DPM (person-hours)	Annual Congestion Cost ($)	Annual Truck Congestion Cost ($)	Average Daily VMT
2024	443,699	35,701	$74,758,201	$15,467,287	846,866
2023	105,244	8,784	$16,692,098	$3,434,524	737,031
2022	134,878	11,425	$21,129,466	$4,101,536	701,932

Segment 8000020, Stemmons Fwy/I-35E/U.S. 77 – John W. Carpenter/SH 183 to Tom Landry Fwy/I-30

Segment 8000020, Stemmons Fwy/I-35E/U.S. 77 – John W. Carpenter/SH 183 to Tom Landry Fwy/I-30, is located in Dallas County in the Dallas District and increased in truck delay over the past three ranking years. The segment was #49, #98 and #175 in 2025, 2024 and 2023, respectively. It had a 100 percent change in ranking from the previous year.

Truck speeds for this segment are in Exhibit A-3. Generally, the speeds for both northbound (NB) and SB are the same. The 2024 NB speeds appear slightly better than the 2023 NB speeds, while the 2024 SB speeds appear slightly worse than 2023 SB speeds.

Exhibit A-4 compares the truck delay, congestion cost and Average Daily VMT for the last three years. In 2024, annual truck DPM was 51,596, annual truck congestion cost was $20,797,302 and total Average Daily VMT was 1,257,328. In 2023, annual truck DPM was 49,842, annual truck congestion cost was $18,620,692, and Average Daily VMT was 1,268,119. In 2022, annual truck DPM was 41,046, annual truck congestion cost was $14,144,293 and total Average Daily VMT was 1,205,165.

Average Daily VMT is increasing, as is delay for trucks and all traffic. This segment is under construction to increase the main lanes from six to eight lanes, and work is expected to be complete by winter 2025.

Exhibit A-3: Stemmons Fwy/I-35E/U.S. 77 – John W. Carpenter/SH 183 to Tom Landry Fwy/I-30 Truck Speeds.

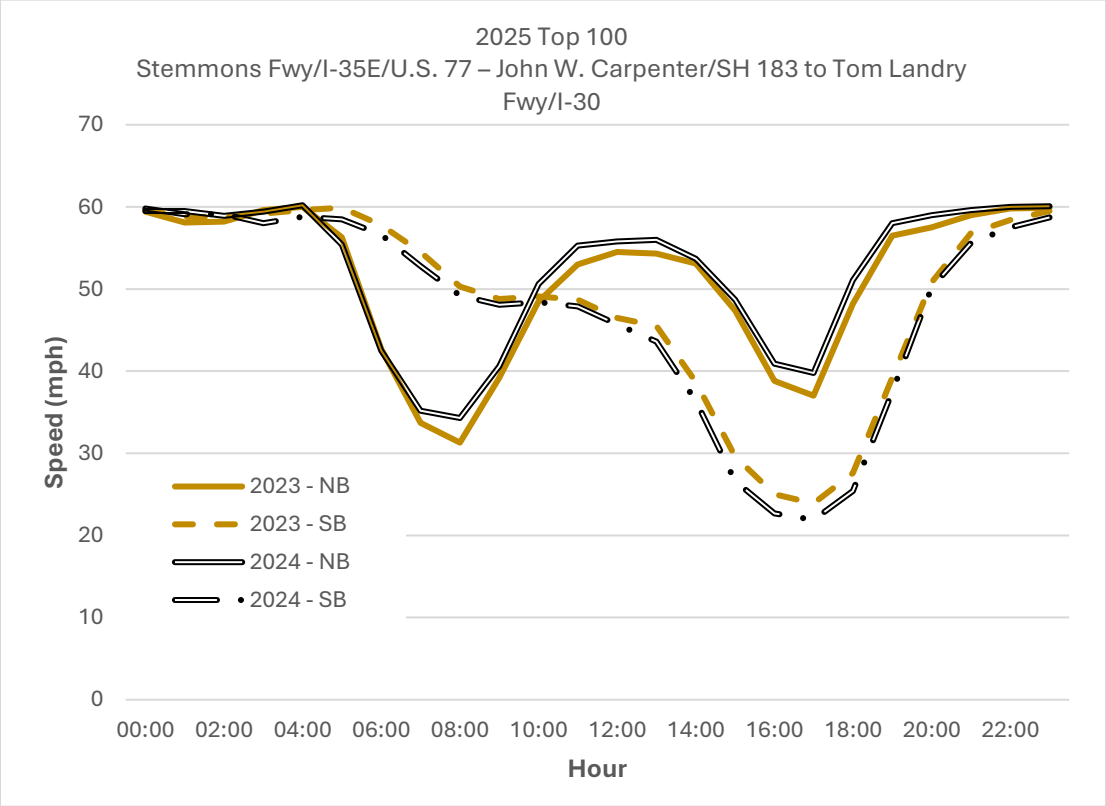


Exhibit A-4: Delay, Congestion Cost and VMT for Stemmons Fwy/I-35E/U.S. 77 - John W. Carpenter/SH 183 to Tom Landry Fwy/I-30.

Data Year	Annual DPM (person-hours)	Annual Truck DPM (person-hours)	Annual Congestion Cost ($)	Annual Truck Congestion Cost ($)	Average Daily VMT
2024	840,438	51,596	$126,784,687	$20,797,302	1,257,328
2023	699,603	49,842	$102,662,683	$18,620,692	1,268,119
2022	588,990	41,046	$84,798,397	$14,144,293	1,205,165

Segment 5000071, International Blvd/SH 4 – I-69E/U.S. 83/U.S. 77 to Boca Chica Blvd/SH 48

Segment 5000071, International Blvd/SH 4 – I-69E/U.S. 83/U.S. 77 to Boca Chica Blvd/SH 48, is located in Cameron County in the Pharr District and is a worsening arterial segment in terms of its ranking on the 2025 Top 100. In 2025, it is #79, but for the 2024 ranking it was #109, and for the 2023 ranking, it was #138. It changed in ranking by 28 percent from last year and is an example of an arterial impact.

The speed profile in Exhibit A-5 shows that 2024 speeds appear to be lower and worse than in 2023. EB traffic had higher speeds of approximately 5 mph throughout the day. WB traffic speeds were slower for 2024 but did not range as much as EB speeds.

For 2024 (Exhibit A-6), annual DPM was 205,957, annual congestion cost was $8,724,330 and Average Daily VMT was 47,147. Average Daily VMT was higher in 2023, but annual DPM and annual congestion cost were lower at 141,645 and $5,671,743, respectively.

Construction may be the cause of increased delay and the 2025 Top 100 ranking. This segment is a high-volume, urban arterial that was under construction for rehabilitation in 2024.

Exhibit A-5: International Blvd/SH 4 – I-69E/U.S. 83/U.S. 77 to Boca Chica Blvd/SH 48 All Traffic Speeds.

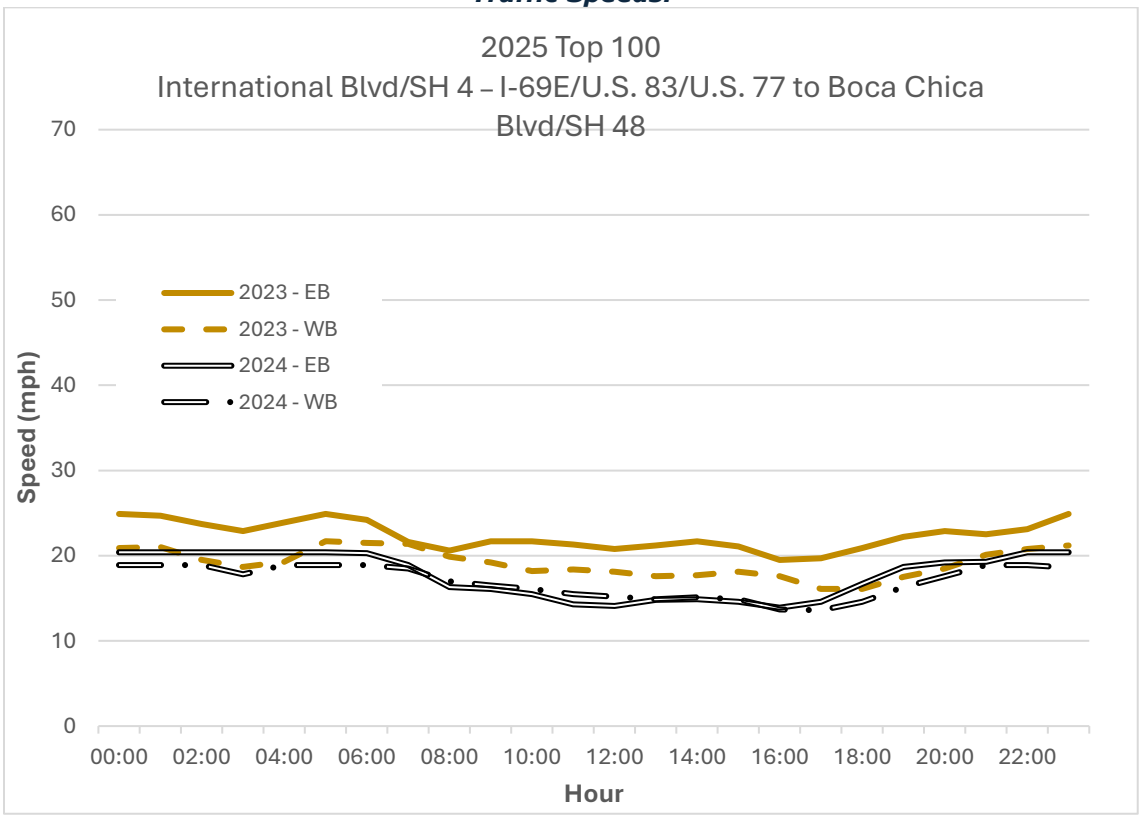


Exhibit A-6: Delay, Congestion Cost and VMT for International Blvd/SH 4 – I-69E/U.S. 83/ U.S. 77 to Boca Chica Blvd/SH 48.

Data Year	Annual DPM (person-hours)	Annual Truck DPM (person-hours)	Annual Congestion Cost ($)	Annual Truck Congestion Cost ($)	Average Daily VMT
2024	205,957	7,797	$8,724,330	$904,591	47,147
2023	141,645	3,924	$5,671,743	$423,566	48,133
2022	96,304	2,661	$3,882,798	$260,419	46,003

Segment 1200183, N Loop W Fwy/I-610 – North Fwy/I-45 to Katy Fwy/I-10/U.S. 90

Segment 1200183, N Loop W Fwy/I-610 – North Fwy/I-45 to Katy Fwy/I-10/U.S. 90, is in Harris County in the Houston District. **For trucks**, it is #28 on the 2025 Top 100, rising from #71 in the 2024 ranking and #85 in the 2023 ranking. It had a 154 percent change in ranking from last year.

As shown in Exhibit A-7, this segment increased in rank for the 2025 Top 100, but NB truck speeds performed significantly better in 2024 than in 2023. 2024 SB truck speeds appear to be close to 2023

in the AM peak, but there is a difference beginning around 1:00 p.m. until 6:00 p.m., where the truck speeds are lower during the PM peak. Further, while minimal, there is a widening of slower truck speeds in the PM peak from noon to 6:00 p.m.

For 2024, truck delay was 67,143 annual DPM, with an annual truck congestion cost of $31,006,056 and Average Daily VMT of 1,265,62 (Exhibit A-8). The 2023 truck annual DPM was lower at 49,101; annual congestion cost was $20,901,693, and 2023 Average Daily VMT was 1,341,959. In 2022, truck annual DPM was 64,582, with an annual congestion cost of $25,189,817 and Average Daily VMT of 1,304,842. All traffic data show a similar pattern, and for all traffic and trucks, VMT was lower in 2024 than in 2022, but delay grew.

Exhibit A-7: N Loop W Fwy/I-610 – North Fwy/I-45 to Katy Fwy/I-10/U.S. 90 Truck Speeds.

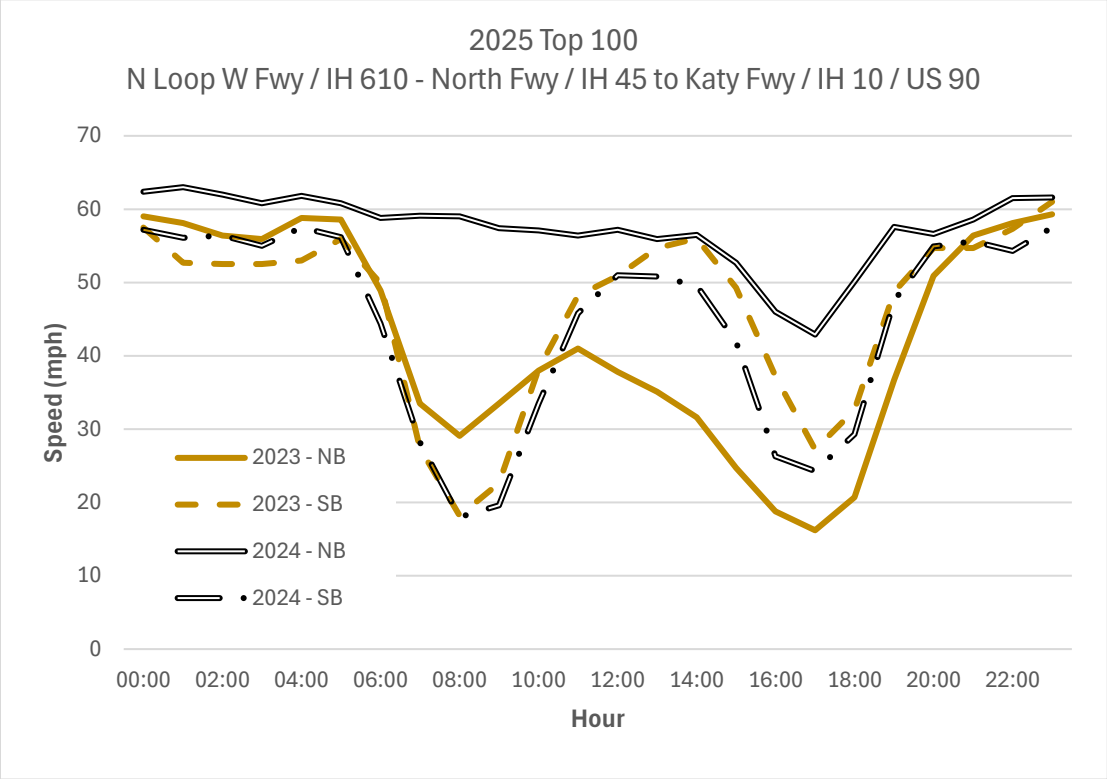


Exhibit A-8: Delay, Congestion Cost and VMT for N Loop W Fwy/I-610 – North Fwy/I-45 to Katy Fwy/I-10/U.S. 90.

Data Year	Annual DPM (person-hours)	Annual Truck DPM (person-hours)	Annual Congestion Cost ($)	Annual Truck Congestion Cost ($)	Average Daily VMT
2024	1,057,990	67,143	$183,324,325	$31,006,056	1,265,627
2023	791,554	49,101	$130,724,085	$20,901,693	1,341,959
2022	865,382	64,582	$143,712,670	$25,189,817	1,304,842

Segment 3000006, I-35 – SH 45/Louis Henna Blvd to Parmer Ln/Farm to Market Road 734

Segment 3000006, I-35 – SH 45/Louis Henna Blvd to Parmer Ln/Farm to Market Road (FM) 734, in Williamson County in the Austin District is #71 in the 2025 Top 100, #185 in the 2024 ranking, and #244 in the 2023 ranking. It is increasing in rank over the years and had a 62 percent change in ranking from 2024 to 2025.

Exhibit A-9 shows the all-traffic speed profile. The NB speeds worsened more in 2024 than in 2023, except at the tip of the peak period, where 2023 speeds were lower. The SB speeds were lower in 2024 than in 2023, and there is significant worsening during the AM and PM peak periods, especially the PM peak.

Delay rose over the past three years, as shown in Exhibit A-10. The 2024 annual DPM was 219,556, annual congestion cost was $33,199,146 and Average Daily VMT was 730,157. In 2023, the annual DPM was 105,525, annual congestion cost was $14,847,130 and Average Daily VMT was 727,610. Surprisingly, 2022 had higher Average Daily VMT at 826,581, but the annual DPM was lower at 64,817 as well as the annual congestion cost at $8,652,276.

Construction began on this segment in 2022 as part of the Capitol Express North project, which has likely contributed to changes in VMT and delay during the last few years.

Exhibit A-9: I-35 – SH 45/Louis Henna Blvd to Parmer Ln/FM 734 All Traffic Speeds.

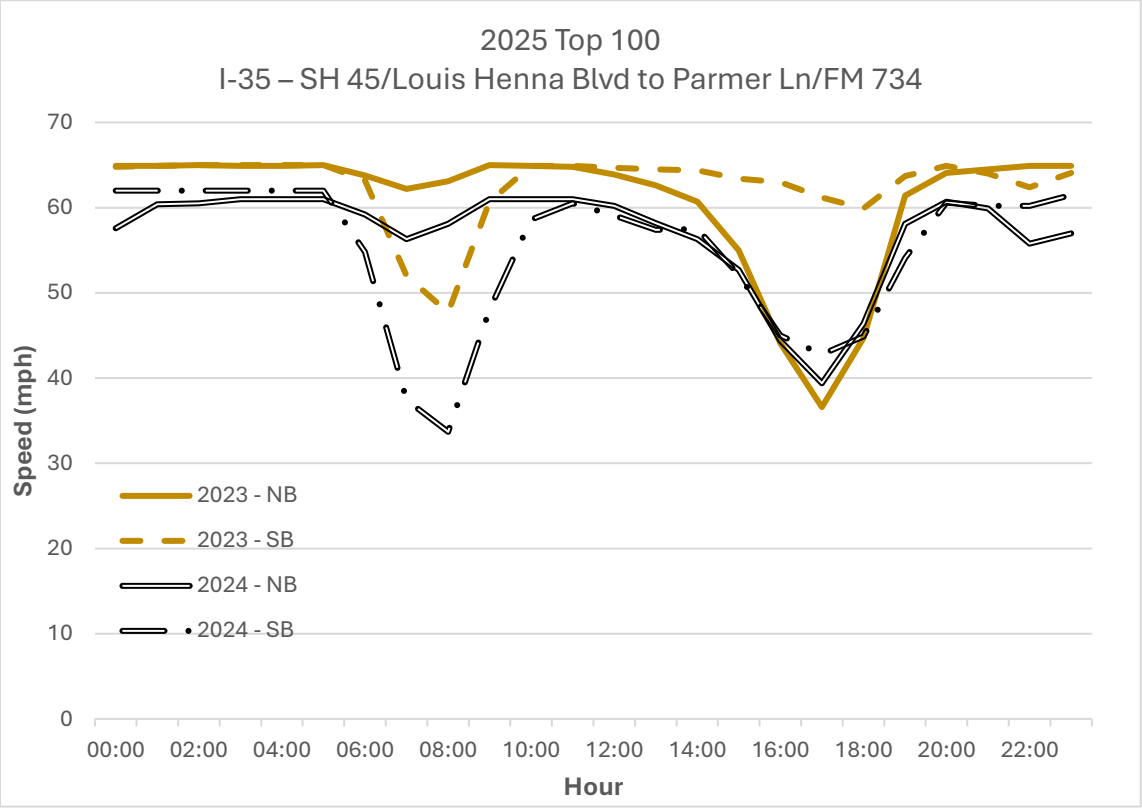


Exhibit A-10: Delay, Congestion Cost and VMT Data for I-35 – SH 45/Louis Henna Blvd to Parmer Ln/FM 734.

Data Year	Annual DPM (person-hours)	Annual Truck DPM (person-hours)	Annual Congestion Cost ($)	Annual Truck Congestion Cost ($)	*Average Daily VMT*
2024	219,556	23,374	$33,199,146	$8,771,351	*730,157*
2023	105,525	10,260	$14,847,130	$3,485,029	*727,610*
2022	64,817	5,292	$8,652,276	$1,586,580	*826,581*

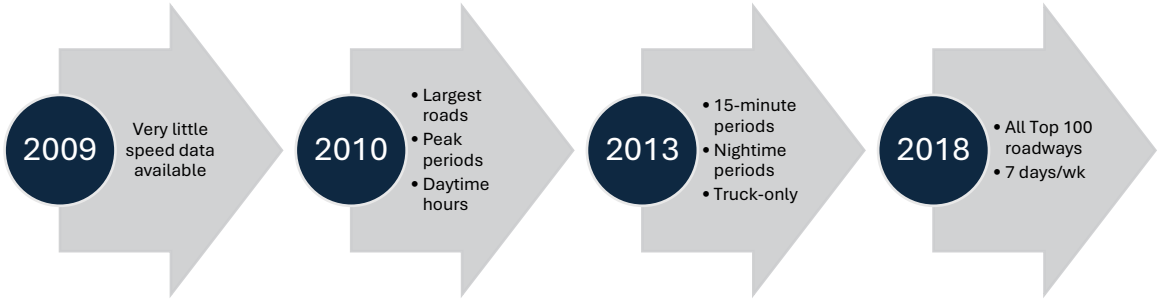
Appendix B: Methodology and Definitions

How Has Methodology Changed Over the Years?

Thirteen years of this project have seen changes to road use in Texas. There have also been changes to speed data availability since the report's first year, both for the time periods and the number of roadways for which they were captured. In 2009, the study's first year, there was little directly collected speed data, so speeds were estimated using traffic volume and number of roadway lanes. Since 2010, however, speed data have continued to improve in both temporal and spatial coverage. In that year, private sector companies were supplying hourly speed data for only the state's largest roadways, generally during higher traffic periods and during most daytime hours. However, by the report's fourth year, speeds were available for 15-minute periods, including many overnight periods. As of the 2017 reporting period, speed data were available for over 95 percent of the 15-minute periods for all seven days of the week on all the Top 100 roadway segments.

In addition, data collection companies who once collected only truck or fleet data now collect passenger vehicle data from anonymized sources like cell phones and in-dash devices. As of the 2019 report, connected vehicles became a large portion of the probe vehicles reporting roadway performance information to the private sector companies. The result is that the reporting has become more accurate both in terms of the timeframes and vehicle types measured. Exhibit B-1 shows these changes in speed data availability through time.

Exhibit B-1: Timeline Showing Changes to Speed Data Availability



Annual Hours of Delay

The annual measure of delay is the starting point for calculating all the congestion measures below. To arrive at this measure, researchers must first acquire four data elements:

- Actual travel speed.
- Free-flow travel speed.
- Vehicle volume (passenger vehicles and trucks).
- Vehicle occupancy (persons per vehicle).

Researchers use the traffic volume and traffic speed data for each segment of road to create the large dataset that contains each of the Top 100 reporting segments. For example, on a given point on a roadway, researchers gather the travel speed and traffic volume for each 15-minute time period of the average week. This means that data are gathered for 672 discreet periods of each week for each segment. Researchers can then compare these data with free-flow speeds to determine the difference

between a congested period and a free-flowing one. By factoring in vehicle occupancy, they are then able to calculate the delay time per person for each roadway. For details about the methodology used and any changes made since the prior year, see the 2025 Texas Top 100 Congested Roads Methodology.

Definitions of Measures

Exhibit B-2 through Exhibit B-4 show definitions of performance measures related to the following areas:

- Delay, volume, speed, and functional class.
- Trucks.
- Congestion cost and additional emissions.

Exhibit B-2: Delay, Volume, Speed and Functional Class Definitions.

Annual Delay	The sum of the extra travel time in the peak period, off-peak period, and weekend.
Annual Delay per Mile	Annual hours of delay divided by segment length so that comparable values are obtained.
Peak Period Delay	The hours of delay that occur during the 6:00–9:00 a.m. and 4:00–7:00 p.m. timeframe on weekdays.
Off-Peak Period Delay	The hours of delay that occur on weekdays outside of the peak period.
Weekend Delay	The hours of delay that occur on weekends.
Texas Congestion Index	Score indicating the relationship between the peak period, average travel time, and free-flow travel time. The score is arrived at by dividing the congested travel time by the free-flow travel time. For example, for a segment where a free-flow trip takes 30 minutes and a trip during peak periods takes 36 minutes, the Texas Congestion Index score would be 1.2.
Planning Time Index	A travel time reliability measure indicating the amount of time that should be planned to arrive on time for 19 trips out of 20. A value of 2.50 means that for a 30-minute trip in light traffic, 75 minutes should be planned.
Commuter Stress Index	Score indicating the relationship between the peak period, average travel time for the morning and evening peak travel direction, and the free-flow travel time for the peak direction of travel only.

Peak Period Average Speed	The average speed during the 6:00–9:00 a.m. and 4:00–7:00 p.m. timeframe.
Average Uncongested Speed	The average operating speeds during light traffic conditions, typically during overnight hours.
Functional Class	Coding system for road segments for purposes of analysis. 1 = interstates and freeways, and 3 = major and minor arterial streets.

Exhibit B-3: Truck Definitions.

Annual Truck Delay	The portion of annual delay from trucks.
Annual Truck Delay Per Mile	Annual hours of truck delay divided by the segment length.
Peak Period Truck Delay	The hours of truck delay that occur during the 6:00–9:00 a.m. and 4:00–7:00 p.m. timeframe on weekdays.
Off-Peak Period Truck Delay	The hours of truck delay that occur in non-peak periods on weekdays.
Weekend Truck Delay	The hours of truck delay that occur on weekends.
Annual Truck Congestion Cost	The portion of annual congestion cost from trucks.
Peak Period Average Truck Speed	The average truck speed during the 6:00–9:00 a.m. and 4:00–7:00 p.m. timeframe.
Average Uncongested Truck Speed	The average truck operating speeds during light traffic conditions, typically during overnight hours.

Exhibit B-4: Congestion Cost and Emissions Definitions.

Annual Congestion Cost	The cost of wasted time and fuel associated with congestion.
Excess Fuel Consumed	Additional gallons of fuel consumed due to congestion.
Excess Truck Fuel Consumed	The portion of excess fuel consumed by trucks due to congestion.
Additional Carbon Dioxide (CO_2) Produced	Pounds of additional CO_2 produced due to congestion.
Additional Truck CO_2 Produced	Pounds of additional CO_2 produced by trucks due to congestion.

Appendix C: Re-Segmentation

Exhibit C-1 includes a summary of requests for re-segmenting that were deferred to the 2025 Texas Top 100 Congested Road Segments analysis.

Exhibit C-1: Re-Segmenting Requests Considered for 2025 Texas Top 100 Congested Road Segments

District	Segment	2024 All Delay Rank	2025 All Delay Rank	Length (Miles)	Notes
Atlanta	Richmond Rd/FM 559 – N King Highway/FM 989 to I-30/U.S. 59	502	***616***	2.6	Requested to split 2.4-mile segment, which would create two very short segments, not included
Austin	FM 1460 – I-35 (near Leander Dr) to Vision Dr/FM 1825	893	***363, 704***	14.4	Split segment
Austin	Ranch to Market (RM) 1826 – U.S. 290 to RM 150	1569	***1233, 1611***	12.1	Split segment
Austin	I-35 – Ben White Blvd/SH 71 to Slaughter Ln	23	***20***	4.0	Requested to combine with segment to south, which would create long segment (8.1 miles), not included
Dallas	I-345/U.S. 75/I-45 – U.S. 75 to S.M. Wright Fwy/U.S. 175	19	***17***	2.4	Requested to split 2.4-mile segment, which would create two very short segments, not included
Pharr	I-2 – FM 1423 to U.S. 281	~~526~~	***103***	6.2	Under construction; recommend to defer until construction is complete
San Antonio	U.S. 90 – Research Pkwy/SH 211 to Connolly Loop W/I-410	256	***139, 142***	7.2	Split segment