



Production of Statewide Non-Link On-Road Emissions Inventories for 2019, 2023, and 2026

FINAL REPORT

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FINAL REPORT

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Task 4.6 **Final Report – Production of Statewide Non-Link On-Road Emissions Inventories for 2019, 2023, and 2026**

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EXECUTIVE SUMMARY

This project describes the development of on-road mobile emissions inventories for all 254 Texas counties for the analysis years of 2019, 2023, and 2026. Under the sponsorship of the Texas Commission on Environmental Quality (TCEQ), the Texas A&M Transportation Institute (TTI) developed 16 emissions inventories for each year to represent four seasons and four day type scenarios. Table 1 presents the 16 activity scenarios for each year.¹

Table 1. Emissions Inventory Activity Scenarios.

Years	Seasons	Day Types ¹
2019	Spring (March, April, May)	Weekday
2023	Summer (June, July, August)	Friday
2026	Fall (September, October, November)	Saturday
	Winter (January, February, December)	Sunday

¹ The day type “Weekday” represents the average Monday through Thursday.

TTI developed the inventories to produce traffic activity and total emissions at a temporal scale of each hour of the day and a spatial scale of individual roadway and area type categories based on Highway Performance Monitoring System (HPMS) activity data acquired from the Texas Department of Transportation (TxDOT). Thirty-three pollutants were included in the analysis, including most of the pollutants with National Ambient Air Quality Standards (NAAQS) and/or their precursors. TTI estimated on-road mobile source vehicle activity and emissions for on-network (roadways) and off-network (e.g., parking areas, driveways) activity categories. The following pollutants were modeled: carbon monoxide (CO); oxides of nitrogen (NO_x); methane (CH₄); ammonia (NH₃); sulfur dioxide (SO₂); nitrogen oxide (NO); nitrogen dioxide (NO₂); nitrous acid (HONO); nitrate (NO₃); ammonium (NH₄); chloride (Cl); sodium (Na); potassium (K); magnesium (Mg); calcium (Ca); titanium (Ti); silicon (Si); aluminum (Al); iron (Fe); volatile organic compounds (VOC); atmospheric carbon dioxide (CO₂); primary exhaust particulate matter of 10 micron threshold level (PM₁₀) – total; primary PM₁₀ – brakewear particulate; primary PM₁₀ – tirewear particulate; primary exhaust particulate matter of 2.5 micron threshold level (PM_{2.5}) – total; organic carbon (OC); elemental carbon (EC);

¹ The TCEQ sponsored this work in support of TCEQ’s future State Implementation Plan submissions to the U.S. Environmental Protection Agency, involving ozone attainment demonstration modeling (i.e., to show compliance with national ambient air quality standards for ozone).

sulfate particulate (SO₄); primary PM_{2.5} – brakewear particulate; primary PM_{2.5} – tirewear particulate; aerosol H₂O (H₂O); and non-carbon organic matter (NCOM).

In addition to the on-road mobile source emissions estimates, TTI produced estimates of total energy consumption (TEC) and the area source category refueling loss emissions associated with each activity scenario described in Table 1.

TTI developed the emissions inventories using the latest version of the MOtor Vehicle Emissions Simulator (MOVES)—MOVES3—and associated Environmental Protection Agency (EPA) guidance documentation. The emissions inventories were developed using a rates-per-activity approach, which develops and applies MOVES emission rates externally with local activity data. The inventory methods included gasoline and diesel-powered vehicle combinations modeled for on-network and off-network activity and emissions. The on-network or roadway-based activity consists of vehicle miles traveled (VMT) and average operational speeds and off-network activity consists of off-network idling hours, source hours parked, vehicle starts, source hours extended idling, and diesel auxiliary power unit hours. The inventories were calculated using a mix of local data inputs (e.g., registration data, local travel demand models (TDMs), traffic count data) and some MOVES defaults.

TTI calculated the inventories using utilities developed and maintained by TTI and recently updated for use with MOVES3 (the TTI emission inventory utilities). The emissions inventory results were summarized into various formats specified and suitable for downstream air quality planning processes (a primary one being photochemical modeling of ozone) as described below.

- Virtual link-level (with geographical coordinates) and county-level hourly estimates of emissions.
- MOVES inventory mode county-level activity and emissions inventory inputs to MOVES for all activity scenarios.
- Summaries by county of activity by type and of emissions by pollutant and process.

Table 2, Table 3, and Table 4 present the statewide, aggregate, on-road inventory summaries for a subset of the inventoried pollutants, by season and day type, for 2019, 2023, and 2026, respectively. Table 5, Table 6, and Table 7 display, for 2019, 2023, and 2026, respectively, the statewide, aggregate, refueling process VOC emissions inventories, by season and day type, attributed to the refueling of on-road mobile sources. Table 8, Table 9, and Table 10 present the TEC estimates for 2019, 2023, and 2026, respectively.

Table 2. Texas 2019 On-Road Emissions (Tons/Day) by Season and Day-Type.**Spring**

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	803,238,319	42.0	175.98	2,891.44	574.23	47.75	17.95	22.16	4.12	427,913.93
Friday	894,279,159	41.5	184.10	3,185.71	628.33	53.76	19.90	24.62	4.59	473,433.33
Saturday	744,790,698	42.3	154.46	2,596.76	439.89	39.37	13.86	20.28	3.74	367,332.78
Sunday	642,060,017	42.4	145.46	2,324.63	362.11	32.65	11.30	17.43	3.22	310,719.85

Summer

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	799,592,132	42.0	166.75	3,825.91	534.90	47.40	17.75	22.09	4.39	447,884.38
Friday	892,479,981	41.5	175.90	4,269.29	588.18	53.55	19.76	24.60	4.90	498,102.86
Saturday	743,430,206	42.2	149.79	3,528.24	414.01	39.23	13.75	20.26	4.01	388,142.12
Sunday	638,306,507	42.4	140.23	3,155.94	342.32	32.36	11.15	17.34	3.45	327,902.39

Fall

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	806,168,515	42.0	178.04	3,212.21	580.62	47.82	17.92	22.19	4.44	431,308.20
Friday	901,851,617	41.5	186.66	3,568.00	639.76	54.18	20.00	24.77	4.96	479,921.49
Saturday	751,884,373	42.2	158.50	2,918.76	449.14	39.69	13.92	20.42	4.05	372,687.04
Sunday	648,039,696	42.4	149.51	2,625.57	370.59	32.89	11.33	17.55	3.50	315,496.29

Winter

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	806,369,494	42.0	170.28	2,962.51	614.99	48.38	18.40	22.34	4.38	427,123.89
Friday	901,182,885	41.5	178.67	3,250.47	675.98	54.68	20.45	24.91	4.88	473,950.70
Saturday	750,819,644	42.3	147.59	2,657.29	474.39	40.03	14.25	20.52	3.99	367,711.43
Sunday	648,218,158	42.4	138.60	2,361.28	389.98	33.31	11.69	17.66	3.44	310,868.39

¹ System speed in miles-per-hour (mph).

² Direct vehicle PM emissions (exhaust plus brake and tire wear), i.e., excludes re-suspended dust.

Table 3. Texas 2023 On-Road Emissions (Tons/Day) by Season and Day-Type.**Spring**

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	838,592,176	41.7	135.43	2,393.87	398.18	43.85	12.87	21.43	2.27	408,595.33
Friday	933,000,697	41.1	140.72	2,638.41	435.52	49.60	14.30	23.77	2.52	451,918.74
Saturday	777,179,828	42.0	119.04	2,142.41	295.18	36.71	10.19	19.52	2.01	349,600.90
Sunday	669,411,382	42.2	113.07	1,910.09	240.20	30.60	8.43	16.74	1.72	295,232.29

Summer

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	834,863,323	41.7	123.55	3,172.69	367.44	43.53	12.71	21.35	2.40	427,421.86
Friday	931,194,320	41.1	129.53	3,542.26	403.67	49.42	14.18	23.75	2.67	475,229.32
Saturday	775,880,434	42.0	110.80	2,919.05	274.67	36.60	10.11	19.51	2.14	369,257.53
Sunday	665,651,526	42.2	104.48	2,601.76	224.30	30.35	8.32	16.66	1.83	311,431.99

Fall

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	841,699,628	41.7	135.24	2,613.74	398.25	43.84	12.76	21.46	2.29	411,820.78
Friday	940,921,021	41.1	140.75	2,903.67	438.64	49.92	14.28	23.92	2.56	458,107.99
Saturday	784,616,206	42.0	120.65	2,365.58	297.51	36.95	10.17	19.66	2.04	354,686.55
Sunday	675,707,083	42.2	114.79	2,121.09	242.32	30.78	8.39	16.85	1.75	299,774.65

Winter

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	841,880,651	41.7	112.73	2,418.77	423.98	44.43	13.27	21.59	2.27	407,934.96
Friday	940,201,411	41.1	118.28	2,652.58	465.90	50.46	14.77	24.05	2.52	452,512.46
Saturday	783,497,328	42.0	97.04	2,159.12	316.27	37.33	10.53	19.75	2.01	350,044.29
Sunday	675,869,057	42.1	91.16	1,912.70	257.14	31.22	8.78	16.96	1.72	295,460.14

¹ System speed in miles-per-hour (mph).

² Direct vehicle PM emissions (exhaust plus brake and tire wear), i.e., excludes re-suspended dust.

Table 4. Texas 2026 On-Road Emissions (Tons/Day) by Season and Day-Type.**Spring**

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	870,221,627	41.5	115.49	2,117.76	328.19	43.61	11.29	21.48	2.19	395,270.50
Friday	968,032,318	40.8	119.52	2,335.54	359.23	49.52	12.57	23.82	2.44	437,332.29
Saturday	806,462,877	41.8	101.66	1,888.17	237.17	36.70	9.05	19.54	1.94	337,763.72
Sunday	694,460,302	42.0	97.03	1,678.56	191.14	30.65	7.55	16.74	1.66	285,106.18

Summer

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	866,389,177	41.5	103.72	2,798.82	300.56	43.29	11.14	21.41	2.32	413,346.61
Friday	966,194,456	40.8	108.26	3,127.11	330.29	49.34	12.45	23.81	2.58	459,770.22
Saturday	805,171,153	41.8	92.89	2,568.29	218.58	36.60	8.98	19.53	2.07	356,672.14
Sunday	690,618,943	42.0	88.00	2,283.60	176.56	30.40	7.45	16.67	1.76	300,658.07

Fall

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	873,455,699	41.5	114.49	2,301.36	326.90	43.59	11.16	21.51	2.21	398,365.88
Friday	976,243,414	40.8	118.64	2,558.39	360.32	49.84	12.52	23.97	2.47	443,310.57
Saturday	814,186,313	41.8	102.35	2,075.35	237.82	36.93	9.01	19.68	1.97	342,662.34
Sunday	701,009,299	42.0	97.85	1,855.51	191.67	30.82	7.50	16.86	1.69	289,480.02

Winter

Day-type	VMT	Speed ¹	VOC	CO	NO _x	PM ₁₀ ²	PM _{2.5} ²	NH ₃	SO ₂	CO ₂
Weekday	873,640,749	41.5	97.50	2,139.38	349.50	44.22	11.70	21.65	2.19	394,707.59
Friday	975,500,764	40.8	101.72	2,346.81	384.36	50.41	13.05	24.11	2.44	437,988.05
Saturday	813,030,070	41.8	83.60	1,901.51	254.22	37.34	9.40	19.78	1.94	338,259.84
Sunday	701,173,103	41.9	79.08	1,680.13	204.87	31.30	7.90	16.97	1.66	285,391.43

¹ System speed in miles-per-hour (mph).

² Direct vehicle PM emissions (exhaust plus brake and tire wear), i.e., excludes re-suspended dust.

**Table 5. Texas 2019 Refueling Loss Emissions (Tons/Day)
by Season and Day-Type.**

Spring

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	803,238,319	12.15	9.48	21.63
Friday	894,279,159	13.58	10.45	24.03
Saturday	744,790,698	10.64	7.91	18.56
Sunday	642,060,017	9.26	6.62	15.89

Summer

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	799,592,132	17.85	9.80	27.65
Friday	892,479,981	20.08	10.85	30.93
Saturday	743,430,206	15.81	8.25	24.06
Sunday	638,306,507	13.76	6.90	20.66

Fall

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	806,168,515	23.10	9.56	32.66
Friday	901,851,617	25.97	10.60	36.57
Saturday	751,884,373	20.39	8.03	28.42
Sunday	648,039,696	17.77	6.73	24.50

Winter

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	806,369,494	16.18	9.46	25.64
Friday	901,182,885	18.09	10.47	28.56
Saturday	750,819,644	14.22	7.92	22.14
Sunday	648,218,158	12.31	6.63	18.94

**Table 6. Texas 2023 Refueling Loss Emissions (Tons/Day)
by Season and Day-Type.**

Spring

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	838,592,176	8.62	9.02	17.64
Friday	933,000,697	9.58	9.94	19.51
Saturday	777,179,828	7.19	7.49	14.68
Sunday	669,411,382	6.13	6.26	12.39

Summer

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	834,863,323	12.57	9.31	21.89
Friday	931,194,320	14.05	10.31	24.36
Saturday	775,880,434	10.60	7.81	18.42
Sunday	665,651,526	9.04	6.52	15.56

Fall

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	841,699,628	15.98	9.09	25.07
Friday	940,921,021	17.84	10.08	27.92
Saturday	784,616,206	13.42	7.61	21.03
Sunday	675,707,083	11.46	6.36	17.82

Winter

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	841,880,651	11.23	9.00	20.23
Friday	940,201,411	12.47	9.95	22.42
Saturday	783,497,328	9.38	7.50	16.89
Sunday	675,869,057	7.96	6.27	14.22

**Table 7. Texas 2026 Refueling Loss Emissions (Tons/Day)
by Season and Day-Type.**

Spring

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	870,221,627	7.34	8.69	16.03
Friday	968,032,318	8.12	9.57	17.70
Saturday	806,462,877	5.95	7.20	13.15
Sunday	694,460,302	5.00	6.01	11.02

Summer

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	866,389,177	10.65	8.97	19.62
Friday	966,194,456	11.86	9.93	21.79
Saturday	805,171,153	8.73	7.51	16.24
Sunday	690,618,943	7.35	6.26	13.61

Fall

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	873,455,699	13.61	8.76	22.37
Friday	976,243,414	15.14	9.71	24.85
Saturday	814,186,313	11.11	7.31	18.42
Sunday	701,009,299	9.36	6.11	15.47

Winter

Day-type	VMT	VOC Vapor Displaced	VOC Spillage	VOC Total
Weekday	873,640,749	9.58	8.67	18.25
Friday	975,500,764	10.60	9.59	20.19
Saturday	813,030,070	7.78	7.21	14.99
Sunday	701,173,103	6.51	6.02	12.53

**Table 8. Texas 2019 Total Energy Consumption (Gigajoules/Day)
by Season and Day-Type.**

Spring

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	803,238,319	5,215,243	107,006	35,471	1,143	5,358,863
Friday	894,279,159	5,783,470	107,006	38,018	1,225	5,929,719
Saturday	744,790,698	4,497,405	83,416	25,054	807	4,606,683
Sunday	642,060,017	3,795,151	83,416	19,538	629	3,898,734

Summer

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	799,592,132	5,489,428	85,397	35,212	1,134	5,611,170
Friday	892,479,981	6,116,710	85,397	37,861	1,220	6,241,187
Saturday	743,430,206	4,777,559	66,210	24,884	802	4,869,455
Sunday	638,306,507	4,029,655	66,210	19,320	622	4,115,808

Fall

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	806,168,515	5,262,366	102,424	35,599	1,147	5,401,536
Friday	901,851,617	5,869,121	102,424	38,360	1,236	6,011,141
Saturday	751,884,373	4,568,343	79,545	25,276	814	4,673,978
Sunday	648,039,696	3,858,927	79,545	19,714	635	3,958,820

Winter

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	806,369,494	5,187,294	124,714	35,598	1,147	5,348,752
Friday	901,182,885	5,771,611	124,714	38,315	1,234	5,935,874
Saturday	750,819,644	4,487,998	97,238	25,220	812	4,611,268
Sunday	648,218,158	3,782,857	97,238	19,702	635	3,900,431

Table 9. Texas 2023 Total Energy Consumption (Gigajoules/Day) by Season and Day-Type.

Spring

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	838,592,176	4,974,761	107,372	31,785	2,420	5,116,338
Friday	933,000,697	5,515,605	107,372	34,031	2,591	5,659,599
Saturday	777,179,828	4,276,016	83,688	22,417	1,707	4,383,827
Sunday	669,411,382	3,601,547	83,688	17,457	1,329	3,704,020

Summer

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	834,863,323	5,234,513	85,718	31,554	2,403	5,354,187
Friday	931,194,320	5,831,712	85,718	33,889	2,581	5,953,900
Saturday	775,880,434	4,541,620	66,450	22,266	1,696	4,632,033
Sunday	665,651,526	3,823,639	66,450	17,266	1,315	3,908,671

Fall

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	841,699,628	5,019,785	102,770	31,899	2,429	5,156,884
Friday	940,921,021	5,597,543	102,770	34,335	2,615	5,737,262
Saturday	784,616,206	4,343,602	79,800	22,616	1,722	4,447,741
Sunday	675,707,083	3,662,396	79,800	17,617	1,342	3,761,155

Winter

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	841,880,651	4,948,422	125,119	31,898	2,429	5,107,868
Friday	940,201,411	5,504,705	125,119	34,294	2,611	5,666,730
Saturday	783,497,328	4,267,416	97,535	22,565	1,718	4,389,235
Sunday	675,869,057	3,590,243	97,535	17,605	1,341	3,706,723

Table 10. Texas 2026 Total Energy Consumption (Gigajoules/Day) by Season and Day-Type.**Spring**

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	870,221,627	4,807,455	109,737	28,106	4,166	4,949,464
Friday	968,032,318	5,332,613	109,737	30,085	4,459	5,476,893
Saturday	806,462,877	4,127,103	85,526	19,814	2,937	4,235,380
Sunday	694,460,302	3,473,742	85,526	15,421	2,286	3,576,975

Summer

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	866,389,177	5,058,173	87,625	27,904	4,136	5,177,838
Friday	966,194,456	5,638,153	87,625	29,961	4,441	5,760,181
Saturday	805,171,153	4,383,614	67,925	19,683	2,917	4,474,140
Sunday	690,618,943	3,688,005	67,925	15,255	2,261	3,773,446

Fall

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	873,455,699	4,850,955	105,032	28,207	4,181	4,988,375
Friday	976,243,414	5,412,024	105,032	30,353	4,499	5,551,908
Saturday	814,186,313	4,192,437	81,552	19,991	2,963	4,296,942
Sunday	701,009,299	3,532,568	81,552	15,564	2,307	3,631,990

Winter

Day-type	VMT	TEC - Exhaust Running	TEC - Exhaust Start	TEC - Extended Idling	TEC - APU	TEC - Total
Weekday	873,640,749	4,781,981	127,859	28,207	4,181	4,942,228
Friday	975,500,764	5,322,146	127,859	30,317	4,494	5,484,816
Saturday	813,030,070	4,118,890	99,666	19,946	2,956	4,241,458
Sunday	701,173,103	3,462,884	99,666	15,553	2,305	3,580,407

1.0 INTRODUCTION

The Texas Commission on Environmental Quality (TCEQ) works with local planning districts, the Texas Department of Transportation (TxDOT), and the Texas A&M Transportation Institute (TTI) to provide on-road, mobile source emissions inventories of air pollutants. TCEQ typically funds mobile source inventory work in support of the federal Clean Air Act Amendment (CAAA).

Accurate emissions inventories (EIs) are critical if state, local, and federal agencies are to attain, and maintain, the National Ambient Air Quality Standards (NAAQS) that the U.S. Environmental Protection Agency (EPA) has established for criteria pollutants such as ozone, particulate matter (PM), and carbon monoxide (CO), as well as to control hazardous air pollutant (HAP) emissions.

This report describes work conducted by TTI on behalf of TCEQ. The work involves the calculation of EIs for every Texas county for the years 2019, 2023, and 2026. For each year, 16 EIs were calculated representing different traffic activity and emissions scenarios. These 16 scenarios include four seasons (spring, summer, fall, and winter) and four different day types within each season (weekday, Friday, Saturday, and Sunday).

The EIs have been commissioned to be used for air quality planning by the TCEQ. Specifically, the outputs of the 48² EI scenarios were developed to support photochemical modeling and ultimately revisions to the State Implementation Plan (SIP).

The statewide EIs have been commissioned in parallel with similar but more detailed travel demand model (TDM) network link-based inventories for the San Antonio and Houston-Galveston-Brazoria (HGB) regions, both conducted by TTI. A Dallas-Fort Worth (DFW) region TDM link-based inventory is also being undertaken and is being conducted by the North Central Texas Council of Governments (NCTCOG). The methods used for these regional EIs are similar but described in separate reports.

1.1 OBJECTIVE

The purpose of this document is to describe the methods and data used to develop on-road mobile source EIs for all 254 Texas counties.

² The 48 EI scenarios come from modeling 16 scenarios for each of 3 analysis years.

The EIs were developed for analysis years 2019, 2023, and 2026. For each of these analysis years, a total of 16 inventory scenarios are described that represent different on-road mobile source traffic activity and emissions.

Texas has 254 counties. At the county level, with three years and 16 scenarios, this translates into 12,192 EIs. For each EI scenario, TTI estimated pollutant emissions based on on-network and off-network traffic activity. On-network activity includes vehicle miles traveled (VMT) on regional roadways. Off-network activity includes activity such as vehicle starts, off-network idling (ONI), source hours parked, and long-haul truck hotelling. Vehicle refueling loss emissions also fall under the off-network category. In addition to estimating pollutant emissions, TTI estimated the total energy consumption (TEC) associated with these activity estimates.

The methods used to calculate the EIs are an extension of historically consistent traffic activity and emission rate methods developed by TTI and are consistent with EPA guidance on the production of photochemical modeling emissions inventories. TTI's statewide on-road EI method relies on county VMT activity estimates from the Highway Performance Monitoring System (HPMS) that is managed by TxDOT. As such, the EI calculations described in this document are based on an hourly analysis that uses HPMS road type/area type data, other local data sources consistent with Texas (e.g., seasonal, day type, and hourly travel factors; vehicle population data; and environmental inputs), and MOtor Vehicle Emissions Simulator (MOVES) default inputs. This report details all the data sources used to define each EI developed for this project.

At the request of TCEQ, TTI developed the EIs using the latest version of the U.S. EPA's on-road mobile emissions inventory software – MOVES3. MOVES3 was released in November 2020 (and updated in March 2021) and replaced the MOVES2014b version of the software. As this project began before the March 2021 release, the November 2020 MOVES3 release was used for this work. The EI methods described in this document have been developed to incorporate the latest information on on-road mobile source emissions and methods outlined in the associated EPA guidance for conducting MOVES3-based EIs.

In addition to calculating EIs for the 48 aforementioned emissions scenarios (i.e., 16 per analysis year), this project involves the development of electronic deliverables that were post-processed from each EI into formats suitable for downstream air quality planning. These outputs include the following.

- Tabular summaries of activity and emissions by county.

- Detailed HPMS roadway and area type “virtual link”-level summaries of emissions by county and for each hour of the day.
- Input data for populating County Input Databases (CDBs) for all scenarios, suitable for MOVES3 inventory mode analyses, to include a populated set of summer weekday CDBs and the associated MOVES run specification (RunSpec) files.

1.2 SUMMARY OF MODELING METHODOLOGY

The TTI rates-activity estimation methods were performed in four basic steps, simplified below.

1. **Calculate Emission Rates:** MOVES3 was used to estimate emission rates (or factors) relevant to 44 county groups, each represented by a single county for use with the activity estimates of the individual counties in each group. The rates were calculated based on local inputs to MOVES such as temperature and humidity, fuel formulations, etc, by county group.
2. **Estimate Traffic Activity:** The HPMS data (historical and forecast) was processed to derive 24 hourly VMT and speed estimates for the set of HPMS virtual links. Processing included season and day adjustment factors. Local automatic traffic recorder (ATR) traffic count data was used for seasonal and daily adjustments and hourly allocations. After the on-network activity was estimated, off-network activity was calculated using outputs from the processed HPMS data, vehicle population (registration) data, and MOVES default inputs. The traffic activity was processed to replicate the operating conditions described by each EI scenario.
3. **Calculate Total Emissions:** The emission rates calculated in Step 1 were multiplied by the on- and off-network activity calculated in Step 2. This yielded emissions estimates in units of mass calculated at a spatial scale of each virtual link (on-network) or county (off-network) for each hour of the day.
4. **Postprocess EI Outputs:** Outputs (for each pollutant) were post-processed into a variety of formats and electronic deliverables for reporting purposes and for downstream air quality planning.

Subsequent sections of this report describe these simplified steps in more detail.

1.3 EMISSIONS INVENTORY SCOPE

TTI developed the scope of the inventories in consultation with the TCEQ Project Manager. The following is a simplified view of the scope (entities modeled and data inputs) agreed upon with the TCEQ sponsor.

Emissions Inventory Scenarios:

Emissions inventories were developed to model the following emissions scenarios.

- Analysis years 2019, 2023, and 2026.
- For each analysis year, the following seasonal scenarios were modeled.
 - Spring (March 1 through May 31)
 - Summer (June 1 through August 31)
 - Fall (September 1 through November 30)
 - Winter (December 1 through February 28)
- For each seasonal scenario, the following day types were modeled.
 - Weekday (average Monday through Thursday)
 - Friday
 - Saturday
 - Sunday

These emissions inventories were estimated by combining traffic activity estimated for the 48 scenarios (16 per analysis year) listed above, with 24 emission rate scenarios (8 per analysis year) representative of the two MOVES day types (weekday and weekend day) and the four seasonal periods. The 48 scenario EIs were calculated by multiplying the 48 scenario activity rates by the corresponding 24 scenario emission rates, where weekday rates were applied to Weekday and Friday activity, and weekend day rates were applied to Saturday and Sunday activity.

Source Use Types, Activity, and Pollutant Processes:

- *Source use types (SUT) and fuel types* (the various combinations of source use and fuel types are herein referred to as *vehicle types*) modeled: See Table 11.
- *Traffic activity modeled*: VMT, vehicle starts, hotelling hours (classified by auxiliary power unit [APU], engine on, engine off), source hours parked, off-network idling.
- *Vehicle-based emissions processes modeled*: running exhaust, crankcase running exhaust; start exhaust; crankcase start exhaust; extended idle exhaust; crankcase

extended idle exhaust; auxiliary power exhaust; evaporative permeation; evaporative fuel vapor venting; evaporative liquid leaks; brakewear; and tirewear.

- *Refueling emissions processes modeled:* displaced vapor loss; spillage loss.

Table 11. MOVES SUT/Fuel Types (Vehicle Types).

SUT ID	SUT Description	SUT Abbreviation ¹	Fuel Types
11	Motorcycle	MC	Gasoline
21	Passenger Car	PC	Gasoline, Diesel
31	Passenger Truck	PT	Gasoline, Diesel
32	Light Commercial Truck	LCT	Gasoline, Diesel
41	Other Buses	OBus	Gasoline, Diesel
42	Transit Bus	TBus	Gasoline, Diesel
43	School Bus	SBus	Gasoline, Diesel
51	Refuse Truck	RT	Gasoline, Diesel
52	Single Unit Short-Haul Truck	SUSHT	Gasoline, Diesel
53	Single Unit Long-Haul Truck	SULHT	Gasoline, Diesel
54	Motor Home	MH	Gasoline, Diesel
61	Combination Short-Haul Truck	CShT	Gasoline, Diesel
62	Combination Long-Haul Truck	CLHT	Diesel

¹ The SUT/fuel type (or vehicle type) labels TTI uses are the combined SUT abbreviation and fuel type names separated by an underscore (e.g., MC_Gas, RT_Diesel, and SBus_Gas are motorcycles, diesel-powered refuse trucks, and gasoline-powered school buses, respectively).

Pollutants (and Energy) Modeled:

- CO; oxides of nitrogen (NO_x); methane (CH₄); ammonia (NH₃); sulfur dioxide (SO₂); nitrogen oxide (NO); nitrogen dioxide (NO₂); nitrous acid (HONO), nitrate (NO₃); ammonium (NH₄); chloride (Cl); sodium (Na); potassium (K); magnesium (Mg); calcium (Ca); titanium (Ti); silicon (Si); aluminum (Al); iron (Fe); volatile organic compounds (VOC); atmospheric (CO₂); TEC (in kilojoules); primary exhaust particulate matter of 10 micron threshold level (PM₁₀) – total; primary PM₁₀ – brakewear particulate; primary PM₁₀ – tirewear particulate; primary exhaust particulate matter of 2.5 micron threshold level (PM_{2.5}) – total; organic carbon (OC); elemental carbon (EC); sulfate particulate (SO₄); primary PM_{2.5} – brakewear particulate; primary PM_{2.5} – tirewear particulate; aerosol H₂O (H₂O); and non-carbon organic matter (NCOM).

Emission Rate (MOVES) Input Data and Adjustments:

- *Emission rates:* EPA's latest mobile source emission rate model—MOVES3.0.0 (herein abbreviated as MOVES). The latest version of the model at the time the project began, the November 2020 release, was downloaded from the following

link: <https://www.epa.gov/moves/latest-versionmotor-vehicle-emission-simulator-moves>.

- *Local environmental inputs for MOVES emission rates:* These were provided by TCEQ, based on 2019 weather station data.
- *Local fuel formulation input data:* TTI uses a combination of local data and MOVES defaults where needed.
 - TTI used local fuel formulation input data consistent with TCEQ 2020 Summer Fuel Field Study conducted by Eastern Research Group (ERG) under contract to TCEQ, available at https://www.tceq.texas.gov/airquality/airmod/project/pj_report_mob.html.
 - For the 12 reformulated gasoline (RFG) counties (Collin, Dallas, Denton, and Tarrant counties in the DFW area, and Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties in the HGB area), TTI used summer and winter MOVES3 individual fuel parameter based on local RFG survey data provided by EPA.
 - For the three Beaumont/Port Arthur (BPA) counties (Hardin, Jefferson, and Orange Counties), TTI used MOVES3 individual fuel parameter inputs as defined in the Code of Federal Regulations, Title 40 – Protection of the Environment, Part 80 – Regulation of Fuels and Fuel Additives, Section 27 – Controls and Prohibitions on Gasoline Volatility.
 - For 95 Eastern Texas counties, TTI used MOVES3 individual fuel parameter inputs to model the low Reid vapor pressure (RVP) gasoline control strategy, consistent with Sections 114.301-114.309 of TCEQ rules.
 - For El Paso County, TTI used MOVES3 individual fuel parameter inputs to model the Low RVP gasoline control strategy, consistent with Sections 115.252-115.259 of TCEQ rules.
 - For the 143 remaining Texas counties (excludes the twelve RFG counties, the three BPA counties, the 95 eastern Texas counties, and El Paso County), TTI used MOVES3 individual fuel parameter inputs as defined in the Code of Federal Regulations, Title 40 – Protection of the Environment, Part 80 – Regulation of Fuels and Fuel Additives, Section 27 – Controls and Prohibitions on Gasoline Volatility.
- *Inspection and maintenance (I/M) program information:* TTI modeled the I/M program currently in place for Brazoria, Collin, Dallas, Denton, El Paso, Ellis, Fort Bend, Galveston, Harris, Johnson, Kaufman, Montgomery, Parker, Rockwall, Tarrant, Travis, and Williamson counties, consistent with Sections 114.50-114.87 of TCEQ rules.

- *Refueling loss controls:* Since Stage II refueling controls no longer apply, all 254 Texas counties were modeled without Stage II refueling controls for the 2019 base year and the 2023 and 2026 future years.
- *Federal motor vehicle control programs:* The effects of all the federal motor vehicle control programs that are included as default inputs in MOVES were modeled.
- *Texas Low Emission Diesel:* For all 110 eastern Texas counties that are subject to the Texas Low Emission Diesel (TxLED) program, TTI post-processed the diesel vehicle NO, NO₂, HONO, and NO_x emission factors consistent with Sections 114.312-114.319 of TCEQ rules. NO, NO₂, HONO, and NO_x adjustment factors were provided by the TCEQ using reductions of 4.8 percent for 2002-and-newer model year vehicles, and 6.2 percent for 2001-and-older model year vehicles.

Traffic Activity Input Data:

- *Traffic activity:* For 2019, TTI used VMT estimates based on HPMS data for the 2019 calendar year available from TxDOT. For 2023 and 2026, VMT projections were created that account for expected growth trends in both vehicle travel and human population for each county.
- *Traffic patterns:* TxDOT ATR data (multiple years through the latest available 2019) was used to derive seasonal, day type, and hour of day traffic patterns.
- *Base hotelling hours data:* TTI's 2017 hotelling study.³
- *Hotelling mode distributions:* MOVES default.
- *Vehicle starts:* Number of starts per vehicle from MOVES (based on a combination of MOVES default and local data) and local vehicle type population estimates.
- *Vehicle population data:* End of the year 2018 vehicle registrations and age class data classified by source use and fuel type provided by the Texas Department of Motor Vehicles (TxDMV).
- *Local fleet mix data:*
 - TxDOT traffic classification data.
 - TxDMV vehicle registrations data.

Emissions Inventory Outputs:

The following output files were produced by county in formats consistent with the most recent on-road emissions inventories submitted by TTI to the TCEQ for photochemical modeling.

³ Heavy-Duty Vehicle Idle Activity Study Final Report, prepared by TTI for TCEQ, July 2019.

- Fixed format on-road files by season, day type, and hour that summarize HPMS virtual link emissions coded with HPMS roadway type, MOVES road type, vehicle type, pollutant, and process, with off-network emissions at the county level.
- Fixed format refueling loss files by season, day type, and hour, that summarize county level VOC emissions estimates by vehicle type and refueling loss process.
- Tab-delimited files of emissions (by pollutant and process) and activity (by type), by roadway functional classification (including the off-network category), vehicle type, hour of day, and the 24-hour day.
- Tab-delimited files that summarize TEC (by consumption process) and activity (by type) by roadway functional classification (including the off-network category), vehicle type, hour of day, and 24-hour day.
- Tab-delimited files of refueling loss VOC emissions by refueling process, vehicle type, hour of day, and 24-hour day.
- Tab-delimited files of local input data for populating CDBs for all scenarios, suitable for MOVES3 inventory mode analyses, and a ready-to-run fully populated set of summer weekday scenario CDBs and the associated MOVES run specification files.
- Tab-delimited files of the number of registered vehicles used to estimate vehicle populations for each year.
- Tab-delimited files by season, day type that summarize VMT by hour, road type, and area type; and similar files of vehicle hours traveled (VHT) by hour, road type, area type, and average speed bin.

1.4 REPORT STRUCTURE

The remainder of this report provides a detailed description of the methods used to estimate EIs for the scenarios outlined in the summarized scope. The subsequent sections broadly follow the simplified analysis steps reported in Section 1.2.

- Section 2 details the data and calculations used to calculate regional on-network and off-network traffic activity.
- Section 3 details the calculation of emission rates via MOVES and subsequent rates modifications.
- Section 4 details the methods used to calculate regional emissions.
- Sections 5-6 detail the methods used to process the final EI outputs into formats and files suitable for downstream air quality planning.
- The references list followed by the appendices complete the report.

2.0 ESTIMATING TRAFFIC ACTIVITY

On-network and off-network activities are required to estimate mobile source emissions. TTI uses a method that calculates on-network emissions using VMT by hour and direction for each HPMS virtual link (HPMS roadway class and population class [or area type] combination). Off-network emissions are calculated using county-level, hourly estimates of activity, including ONI hours, source hours parked (SHP), starts, source hours extended idling (SHEI), and APU hours. Both on- and off-network activity (and emissions) are divided into the various vehicle type components. This section describes the methods used to develop on- and off-network activity.

2.1 VEHICLE MILES OF TRAVEL

The hourly, link-based emissions process requires VMT estimates by hour and direction by county for each virtual link in the county's HPMS data. VMT is adjusted to reflect estimated traffic activity patterns characteristic of each seasonal day type scenario (i.e., 2019, 2023, and 2026 summer Weekday, Friday, Saturday, Sunday, and 2019, 2023, and 2026 school Weekday, Friday, Saturday, Sunday). Operational (congested) link speed estimates corresponding to these traffic conditions are also required. All calculations were conducted using a suite of EI utilities developed by TTI (see Appendix A).

2.1.1 Data Sources

There were two major traffic data sources used for developing the VMT estimates and VMT adjustment and allocation factors. These are ATR counts and HPMS VMT estimates. Both are collected and developed by TxDOT regularly as part of the larger HPMS data collection program. In addition to these traffic data, U.S. Census and Texas State Data Center (TSDC) county population statistics and projections were also used in developing the VMT forecasts.

HPMS VMT estimates are developed based on traffic count data collected according to a statistical sampling procedure specified by the Federal Highway Administration (FHWA) designed to estimate VMT. TxDOT compiles and reports Texas HPMS data in its annual Roadway Inventory Functional Classification Record (RIFCREC) reports. The focus for this application is specifically the VMT, centerline miles, and lane miles estimates made as part of the HPMS program. The HPMS roadway data were categorized by seven roadway functional classifications and four area types (shown later in the estimation of speeds section).

TxDOT collects ATR vehicle counts at selected locations continuously throughout Texas. These counts are available by season, month, and day type, as well as on an annual average daily basis (i.e., AADT). Since they are continuous, they are well suited for making seasonal, day-of-week, and time-of-day comparisons (i.e., adjustment factors).

HPMS VMT estimates are available by county. ATR data are available for most but not all counties. Consequently, the ATR data were aggregated to the TxDOT district level to provide adequate data coverage.

2.1.2 County AADT VMT

County AADT VMT estimates were first acquired or estimated, then adjusted to seasonal day type county VMT control totals, which were then disaggregated to the county HPMS “virtual network” links.

For the 2019 analysis year, the historical HPMS AADT VMT was used for the county AADT VMT estimates. For the 2023 and 2026 future analysis years, TTI used an HPMS and population-based method to forecast aggregate county AADT VMT estimates. With this method, the AADT VMT forecast is produced as the combination of two intermediate forecasts—one based on human population projections, and the other based on the historical, actual HPMS AADT VMT.

The VMT per-capita-based forecasts were developed using VMT-to-population ratios applied to official TSDC population forecasts. The growth-based VMT forecasts were developed using traditional regression analyses on historical HPMS AADT VMT data (i.e., from 1990 through 2019). Population-based forecasts (i.e., VMT per capita) tend to underestimate future VMT, especially in small counties adjacent to large urban areas, whereas historical-based (i.e., growth trend) forecasts tend to overestimate future VMT, especially in areas where there has been recent atypical rapid growth. These two forecasts, however, form the range of credible results. The HPMS and population-based VMT forecasting method combined the population-based and historical VMT-based forecast streams with equal weight and then calibrated the combined forecast result to the latest HPMS historical VMT (2019) data using a step-function adjustment.

2.1.3 VMT Adjustments and County VMT Control Totals

Since the VMT data were in AADT form (i.e., Monday through Sunday, January through December), seasonal day type-specific activity factors were used to convert from AADT to traffic characteristics of each inventory scenario.

Multiple years of TxDOT district ATR vehicle count data (i.e., 2010 through 2019) were aggregated to develop a set of four day type-specific VMT adjustment factors, for each of the four seasonal periods, for each TxDOT district. The factors were calculated as the ratio of average seasonal period “day type” volumes to the AADT volumes. Appendix E lists the seasonal day type adjustment factors.

For each inventory scenario, the district level seasonal day type adjustment factors were multiplied by the county AADT VMT estimates to produce the day type specific county VMT control totals (i.e., the same seasonal day type factors were used for each county within a TxDOT district). The same district-level seasonal day type factors were used for all analysis years. Appendix D lists the VMT control totals.

2.1.4 Link VMT Estimates

The county VMT control totals were disaggregated to the links proportionally to the county HPMS AADT VMT on each link, using the proportions from the appropriate TxDOT RIFCREC Report. The latest available 2019 HPMS AADT VMT data were used for both the 2019 historical analysis year and the 2023 and 2026 future analysis years.

The control total VMT disaggregation was performed in two steps. First, the county VMT control total was divided by the county HPMS AADT VMT total to produce the county control total-to-base total VMT ratio for each county (i.e., inventory scenario VMT-to-HPMS AADT VMT). Each county VMT ratio was then multiplied by the corresponding county virtual link-level HPMS AADT VMT estimates (in essence, a scaling of link VMT from HPMS AADT to inventory scenario form).

2.1.5 Hourly Travel and Directional Split Factors

Hourly travel factors were used to allocate the 24-hour inventory scenario link VMT estimates to each hour. These hourly travel factors were developed for each analysis period and day type at the TxDOT district level using multi-year TxDOT ATR data and applied to each county within the TxDOT district. Using the district analysis period day type-specific ATR volumes, the hourly travel factors were calculated as the ratio of hourly volume to 24-hour volume. Appendix G shows the hourly travel factors.

Directional split factors were used to allocate the hourly VMT by direction to allow for differences in congestion levels based on the direction of traffic flow. A 60/40 directional split ratio was applied based on aggregate observed values. The hourly, directional VMT estimates for each link were then divided by the link’s centerline miles to produce the

link volume estimates required for input to the speed model (discussed in the next section).

Hourly and 24-hour county VMT summaries (by road type and vehicle type) for each inventory scenario were produced and were included with the detailed inventory data provided (see inventory data file descriptions in Appendix B).

2.1.6 Link Speeds

Since the on-network (i.e., distance-based) emission factors are based on speed, the congested (or operational) speed for each link is required. There are three critical parameters for estimating operational speeds: hourly lane capacity, free-flow speed, and hourly volume by direction. The hourly lane capacity is the maximum flow past a given point on a roadway, which varies by road type (or functional classification). The free-flow speed is the maximum speed that traffic will move along a given roadway if there are no impediments (e.g., congestion, bad weather). The hourly volume by direction is the hourly link VMT by direction (discussed in the previous section) divided by the link's centerline miles.

To estimate a link's directional, time-of-day congested speed, a speed model involving both the estimated free-flow speed and estimated directional delay as a function of volume and capacity for the link and time period (i.e., hour) was applied. The model was applied to each link for each hour and direction. Development of the hourly lane capacities and free-flow speeds input to the speed model is discussed first, followed by the estimation of congested speeds (including the model delay and congested speed equations).

2.1.6.1 Capacities and Free-Flow Speeds

The capacities and free-flow speeds used in the virtual link procedure are based on the Highway Capacity Manual (HCM). For HPMS functional classifications 1 and 2 (Interstate and Freeway), both capacities and free-flow speeds are consistent with HCM guidance (HCM Chapters 13 and 30). The capacity (2,400 passenger cars per hour per lane [pcphpl]) and free-flow speed (70 mph) for four-lane Freeways are used for all Interstates and rural Freeways. Similarly, a free-flow speed of 65 mph and capacity of 2,300 pcphpl is used for small urban and urban Freeways (HCM Exhibits 13-3 and 30-2).

The only adjustment applied to these two highest-level roadways is for the impact of heavy trucks on capacity (which is measured in passenger car equivalents). Table 12 shows the capacities for Interstates and Freeways based on the VMT mix for these roads

in the three area types (procedure discussed next), and HCM-designated passenger car equivalents (1.5 per HCM Exhibit 23-8).

Table 12. Adjusted Interstate and Freeway Flow Rate (pcphpl) by Area Type.

Area Type	Ideal Flow	HDV	Factor	Adjusted Flow
Rural	2,400	0.2832	0.8760	2,102
Small Urban	2,400	0.1140	0.9461	2,271
Urban	2,400	0.0616	0.9701	2,328
Rural	2,300	NA	NA	NA
Small Urban	2,300	0.1140	0.9461	2,176
Urban	2,300	0.0616	0.9701	2,231

HPMS functional classifications 3, 4, 5, 6, and 7 (Principal Arterial, Minor Arterial, Major Collector, Minor Collector, and Local) are interrupted flow facilities (i.e., they have traffic control devices). The capacities of these interrupted flow facilities are estimated as a function of adjusted flow and available green time (per HPMS Appendix N, Equation 20):

$$Cap = Sat \times (gr/c).$$

Where:

Cap = capacity of lane group, vehicles per hour (vph);

Sat = saturation flow rate of lane group, vehicles per hour of effective green time (vphg); and

gr/c = effective green ratio for the lane group.

The saturation flow rate (Sat) is the flow in vph that could be accommodated by the lane group assuming that the green phase is always available to the lane group (i.e., green ratio = 1.0). Calculation of the adjusted saturation flow rate begins with the ideal saturation flow rate (HCM Exhibit 10-12) of 1,900 pcphpl, which is adjusted to reflect deviation from ideal conditions. The saturation flow rate is adjusted using the following logic (from HCM equation 16-4, with parameter estimates consistent with HCM Exhibit 16-7 and Chapter 10):

$$S = fw \times fhv \times fg \times fp \times fbb \times fa \times flu \times frt \times flt \times flpb \times frpb$$

Where:

S = saturation flow rate adjustment factor;

fw = lane width factor (NA, 12-foot lane for all area types assumed);

fhv = heavy vehicle adjustment factor (based on area type VMT mix);

fg = approach grade factor (NA, level terrain assumed);

- fp* = parking lane adjustment (NA, unusual for rural or small urban areas, inappropriate for urban areas given HPMS aggregation);
- fb* = bus blocking factor (NA, negligible per area type VMT mix);
- fa* = area type adjustment (NA, since the default of 0.9 is for urban area central business districts [CBDs] and urban is more broadly defined in HPMS);
- flu* = lane utilization adjustment (NA, data unavailable in HPMS);
- frt* = right turn adjustment factor (exclusive lanes for urban areas, 90 percent shared lane for right turns for rural areas, midpoint for small urban areas);
- flt* = left turn adjustment factor (exclusive lanes for urban areas, 90 percent shared left-turn lanes for rural areas, midpoint for small urban areas).
- flpb* = left turn pedestrian-bike adjustment (NA, no significant pedestrian-bike activity on average); and
- frpb* = right turn pedestrian-bike adjustment (NA, no significant pedestrian-bike activity).

Table 13 shows the saturation flow rate adjustment factors used for the three different area types. Unitary factors (i.e., factors whose value is 1 for all area types, or which are otherwise not applicable) for parameters *fw*, *fg*, *fp*, *fb*, *fa*, *flu*, *flpb*, and *frpb* are not shown.

Table 13. Saturation Flow Rate Adjustment Factors by Area Type.

Area Type	<i>f_hv</i>	<i>F_rt</i>	<i>f_lt</i>	Factor
Rural	0.8918	0.9850	0.9950	0.8740
Small Urban	0.9380	0.9175	0.9725	0.8369
Urban	0.9661	0.8500	0.9500	0.7801

Table 14 shows the adjusted saturation flow rate (expressed in pcphpl) for all interrupted flow facilities (i.e., signalized streets, not Interstate or Freeway) for the three area types.

Table 14. Adjusted Saturation Flow Rate (pcphpl) by Area Type.

Area Type	Ideal Flow	Adjustment Factor	Adjusted Saturation Flow
Rural	1,900	0.8740	1,661
Small Urban	1,900	0.8369	1,590
Urban	1,900	0.7801	1,482

Table 15 shows the effective green ratios used for different functional classes and area types. Since the virtual link procedure is highly aggregated, individual green ratio calculations are not meaningful. Instead, assuming a hierarchical interface of classifications, ratios of adjacent roadway functional category group AADT were used to estimate effective green ratios. The ratio of AADT between the two highest categories of Arterials, scaled to a hypothetical 0.5 balance, is used for Arterials. The ratio of the highest category of Collector AADT to the lowest category of Arterial AADT is used for Collectors, again scaled to a hypothetical 0.5 balance. Locals are the default values recommended in the HPMS procedures (Appendix N). The overall approach is based on, and consistent with, HPMS guidance.

Note that Interstates and Freeways are uninterrupted flow facilities, i.e., they have no traffic control devices, and therefore do not require green ratios. For this calculation, area type definitions are made at the county level and are based on U.S. Census criteria.

Table 15. Estimated Effective Green Ratios (g/C) by Area Type.

Area Type	Arterials	Collectors	Locals
Rural	0.613	0.448	0.400
Small Urban	0.600	0.487	0.400
Urban	0.508	0.478	0.400

Table 16 incorporates Table 12, Table 13, Table 14, and Table 15 to produce hourly lane capacities by functional class and area type.

Table 16. Hourly Lane Capacities (vehicles per hour per lane [vphpl]) by Roadway Functional Classification.

Area Type	Interstate	Freeway	Arterials	Collectors	Local
Rural	2,102	2,102	1,018	744	664
Small Urban	2,271	2,176	954	774	636
Urban	2,328	2,231	753	708	593

The free-flow speed for rural and urban Interstates, Freeways, and Arterials are consistent with HCM guidance (HCM Chapter 10, especially Exhibit 10-5), with appropriate modifications for the aggregation inherent in the virtual link procedure. Minor Collectors and Locals are grouped. In recognition of the aggregation inherent in the process, a lower limit of 30 mph is set on free-flow speed. Free-flow speeds are

provided for each of the three area types and seven roadway functional classifications (i.e., 21 HPMS virtual links). Table 17 shows the free-flow speeds.

Table 17. Free-Flow Speeds (mph) by HPMS Roadway Functional Classification.

HPMS Area Type	Interstate	Freeway	Other Principal Arterial	Minor Arterial	Major Collector	Minor Collector and Local
Rural	70	70	60	50	40	30
Small Urban	70	60	50	40	35	30
Urban	70	60	40	35	30	30

2.1.6.2 Estimation of Congested Speeds

The estimation of congested speeds is a two-step process. The first step is the v/c ratio calculation. The second step is the application of the congested speed model to estimate the congested speed.

V/C ratios are generated for each combination of time period (hour), roadway functional classification, area type, and direction using the hourly lane capacities and VMT. The calculations for this procedure are:

- Volume: hourly VMT by direction (discussed in the previous section) is divided by centerline miles, yielding volume for each hour. This procedure is performed for each virtual link (i.e., roadway functional classification and area type combination);
- Capacity: lane miles are divided by centerline miles to produce lanes. Lanes are multiplied by the hourly lane capacities (i.e., adjusted saturation flows) generated by the process described previously, producing hourly capacities. This procedure is performed for each virtual link. (Capacity is the same for each hour and each direction.); and
- V/C ratios: the speed model uses the hourly volumes and capacities to produce hourly, directional v/c ratios for each roadway functional classification and area type combination. These v/c ratios are used to calculate hourly, directional congestion-related delay, and congested speeds (as described in the next section) by functional classification and area type combination.

The congested speed model calculates delay on the link and then applies this delay to the link free-flow speed to calculate the link operational congested speed estimate. The volume/delay equation is:

$$Delay = Min \left[A e^{B(V/c)}, M \right]$$

Where:

- Delay* = congestion delay (in minutes/mile);
- A & B* = volume/delay equation coefficients;
- M* = maximum minutes of delay per mile; and
- V/C* = time-of-day directional v/c ratio.

There are two sets of delay model parameters A, B, and M, as shown in Table 18—one set for high-capacity facilities and one set for low-capacity facilities. The HPMS high-capacity facilities are the Interstate and Freeway classifications.

Table 18. Volume/Delay Equation Parameters.

Facility Category	A	B	M
High-Capacity Facilities (> 3,400 vph one way, e.g., Interstates and Freeways)	0.015	3.5	1.0
Low-Capacity Facilities (≤ 3,400 vph, e.g., Arterials, Collectors and Locals)	0.050	3.0	2.0

Given the estimated directional delay (in minutes/mile) and the estimated free-flow speed, the directional congested speed is calculated as follows:

$$Congested\ Speed = \frac{60}{\frac{60}{Freeflow\ Speed} + Delay}$$

For each inventory scenario, this model was applied to each link, based on functional class and area type, for each hour and each direction. The hourly and 24-hour speed summaries (time period VMT/time period VHT) by county and road type were included with the detailed inventory data provided (see inventory data file descriptions in Appendix B).

2.2 OFF-NETWORK ACTIVITY

Off-network activity includes ONI hours, SHP, starts, and long-haul combination truck hotelling hours (split into various fractions of activity, such as SHEI and diesel APU hours). These quantities are estimated for each hour of the day at a spatial scale of a county and each vehicle type.

2.2.1 Vehicle Populations

Vehicle population data were used to estimate SHP and vehicle starts off-network activity. The vehicle population estimates were derived from the end of year 2018, county-specific vehicle registration data provided by the TxDMV, TxDOT district level VMT mix data, and HPMS-reported county-level VMT totals.

A single set of vehicle population data inputs were used for each EI analysis year (i.e., the model assumes that vehicle populations remain constant across seasons and day types).

The end of year 2018 TxDMV vehicle registration data was provided in the form of total vehicles registered by county, aggregated by the vehicle categories shown in the first column of Table 19. These TxDMV vehicle categories were disaggregated to MOVES SUT and fuel type aggregations shown in the corresponding row of the second column of Table 19. For clarity, it is useful to distinguish between the vehicle registration data (provided by TxDMV and aggregated according to the first column of Table 19) and vehicle population data comprising estimates of the number of vehicles in each vehicle type (MOVES SUT and fuel type) classification. As previously mentioned, in MOVES emissions analyses we use the term vehicle type as synonymous with MOVES SUT and fuel type combination.

The following steps were used to disaggregate the TxDMV vehicle registration data to vehicle population data by vehicle type.

1. VMT mix data was used to calculate the proportional representation of each MOVES vehicle type within each TxDMV aggregation class (first column of Table 19).
2. The proportional fractions calculated in Step 1 were multiplied by the total number of vehicles reported in each TxDMV vehicle registration category to obtain the estimated number of vehicles (populations) for each modeled MOVES vehicle type.
3. The long-haul truck vehicle type populations (see the last row of Table 35) were estimated as an extension of their estimated short-haul vehicle type population counterparts. This was accomplished by multiplying a long-haul-to-short-haul ratio derived from the weekday vehicle type VMT mix, by the associated short-haul truck vehicle type populations, from Step 2.

The VMT mix data used in these calculations was the TxDOT district-level, 24-hour weekday VMT mix described in more detail in the “Vehicle Type VMT Mix” section and included in Appendix C.

The methods above yielded 2018 vehicle population data for each of the vehicle types modeled in the EIs.

Analysis year vehicle type populations were then calculated by applying a vehicle types population growth factor (VPGF). The VPGF was calculated using county-level HPMS reported total VMT for the registration data year (2018) and each analysis year (2019, 2023, and 2026) and the following formula.

$$VPGF = \text{Analysis Year VMT} / \text{Registration Year VMT}$$

Table 19. TxDMV Registration Aggregations for Estimating Vehicle Populations.

Vehicle Registration ¹ Aggregation	MOVES SUT and Fuel Type (Vehicle Type) ²
Motorcycles	MC_Gas
Passenger Cars (PC)	PC_Gas; PC_Diesel
Trucks <= 8.5 K GVWR (pounds)	PT_Gas; PT_Diesel; LCT_Gas; LCT_Diesel
Trucks > 8.5 and <= 19.5 K GVWR	RT_Gas; RT_Diesel SUSHT_Gas; SUSHT_Diesel MH_Gas; MH_Diesel Obus_Gas; Obus_Diesel TBus_Gas; TBus_Diesel SBus_Gas; SBus_Diesel
Trucks > 19.5 K GVWR	CShT_Gas; CShT_Diesel
n/a ¹	SULhT_Gas; SULhT_Diesel CLhT_Gas; CLhT_Diesel

¹ The four long-haul SUT/fuel type populations are estimated using a long-haul-to-short-haul weekday SUT VMT mix ratio applied to the short-haul SUT population estimate.

2.2.2 ONI Hours

Off-network idling or ONI is the idling activity that occurs while a vehicle is idling in a parking lot, drive-through, or driveway while waiting to pick up passengers or loading/unloading cargo. ONI applies to all MOVES source types.

TTI estimates ONI activity (i.e., source hours idling [SHI] off-network) for each hour of the day using the following formula.

$$ONI\ hours = (SHO_{network} \times TIF - SHI_{network}) / (1 - TIF).$$

Where:

$SHO_{network}$ = the source hours operating on each link. This is calculated for each activity scenario by dividing the VMT associated with each link by the link's congested speed.

$SHI_{network}$ = the total source hours idling that occurs on the network (idling that occurs as a component of drive cycles) and is calculated by multiplying $SHO_{network}$ by a road idle fraction (RIF). RIF is the proportion of idling (in units of time) that occurs within a drive-cycle at a specified operational speed. Default values for RIF were used as defined in the MOVES data table "roadidlefraction".

TIF = the total idle fraction, or total idling time on and off-network divided by total SHO on and off-network: $TIF = (SHI_{network} + ONI) / (SHO_{network} + ONI)$. Default values for TIF were used as defined in the MOVES data table "totalidlefraction".

TTI estimated the ONI hours by day type and season using a combination of MOVES factors that vary by MOVES day type and/or month (roadidlefraction and totalidlefraction) in combination with local activity factors for each activity scenario.

2.2.3 SHP

County-level vehicle type SHP was calculated for each hour of the day and each vehicle type as the difference between the local vehicle population (total available vehicle hours) minus source operating hours (SHO).

Adjusted SHP was then calculated by subtracting ONI hours from the previously calculated SHP. Hourly summaries were provided electronically to TCEQ; see Appendix B for electronic data descriptions.

2.2.4 Vehicle Starts

Vehicle starts were estimated using county-level vehicle type populations, and data from MOVES representing the average number of vehicle starts per vehicle type per hour.

The starts per vehicle were calculated using MOVES with data on the age distribution and fuel fractions of the local fleet⁴. TTI used local age distributions and fuel fractions inputs to MOVES combined with MOVES default parameters (startsageadjustment,

⁴ Previously with MOVES2014, TTI used MOVES default start per vehicle (which varied only by MOVES day type) in combination with local vehicle populations to estimate vehicle starts activity. In MOVES3, vehicle starts per hour also vary by county (because age distributions also vary by county).

startsmothadjust [three-month seasonal averages], and startspervehicle) to produce hourly starts per vehicle output representative of each seasonal period. The MOVES output provided the scenario-specific starts per vehicle defined by the study scope.

For each hour of the day, the MOVES starts per vehicle data were multiplied by the local vehicle type population estimates to produce the total number of starts by vehicle type per hour. For each scenario within an analysis year, the appropriate (scenario relevant) starts per vehicle data were used with constant vehicle type populations (i.e., vehicle type populations were assumed to be constant within a year).

2.2.5 Hotelling: SHEI and APU Hours

Hotelling hours were calculated for heavy-duty, long-haul trucks only (i.e., SUT 62⁵) in several steps. First total hotelling hours were calculated using information from a TCEQ extended idling study⁶. Scaling factors were then used to convert these base hotelling hours to those relevant to each scenario (defined by analysis year, season, and day type), which were then allocated to each hour of the day. Estimations were then made of the proportions of hotelling hours that occur in each of the four hotelling categories: idling using the main engine (SHEI), diesel APU operation, electric APU operation, or the main engine off and no auxiliary power⁷.

2.2.5.1 Estimating 24-Hour Hotelling

County-level hotelling scaling factors were developed to transform base 2017 winter weekday total daily hotelling hours to daily hotelling hours for each EI scenario. Scaling factors were calculated using the ratio of heavy-duty long haul VMT for each EI scenario relative to heavy-duty long haul VMT for a 2017 winter weekday (scenario SUT 62 VMT divided by 2017 winter weekday SUT 62 VMT).

Total daily hotelling for each county and EI scenario was calculated by multiplying the appropriate scaling factor by the total daily hotelling hours contained in the 2017 winter weekday total daily hotelling hours study.

⁵ SUT 62 represents long-haul combination trucks, for which only diesel fuel types are modeled.

⁶ *Heavy-Duty Vehicle Idle Activity Study, Final Report*. Texas A&M Transportation Institute, Environment and Air Quality Division. July 2019.

<https://www.tceq.texas.gov/assets/public/implementation/air/am/contracts/reports/mob/582177430806-20190722-TTI-HeavyDutyIdleActivityStudyFinal.pdf>

⁷ Note that only SHEI and APU diesel hoteling generate emissions. The other fractions are calculated for completeness.

2.2.5.2 Hotelling by Hour Estimation

For each EI scenario, daily hotelling hours were allocated to each hour of the day as a function of the inverse of activity scenario hourly VHT fractions for SUT 62. The hourly VHT fractions were calculated using the hourly VHT from the SHP estimation process (VHT = SHO). The inverses of these hourly VHT fractions were calculated and then normalized across all hours to produce the county-level, hotelling hours hourly distribution.

If the hourly hotelling hours (as calculated above) were greater than SHP (for SUT 62), the final hotelling hours estimate was set to the SHP.

2.2.5.3 SHEI and APU Hours

The hourly, county-level, hotelling estimates were then factored to calculate SHEI and diesel APU hours activity components using extended idle and APU fractions. The SHEI and APU fractions were derived using MOVES default hotelling activity distributions based on SUT 62 model year data and model year travel fractions based on MOVES default mileage accumulation rates and local age distributions. The updated MOVES SHEI and APU hotelling distributions⁸ are shown in Table 20. Note that only SHEI and diesel APU are used to calculate emissions.

Table 20. Hotelling Activity Distributions by Model Year.

First Model Year	Last Model Year	200 Extend/Idling	201 Diesel Aux	203 Battery AC	204 APU Off
1960	2009	0.80	0	0	0.20
2010	2020	0.73	0.07	0	0.20
2021	2023	0.48	0.24	0.08	0.20
2024	2026	0.40	0.32	0.08	0.20
2027	2050	0.36	0.32	0.12	0.20

2.3 VEHICLE TYPE VMT MIX

VMT mix represents the fraction of on-road fleet VMT attributable to each SUT by fuel type. It is used to subdivide the total VMT estimates on each link into VMT by vehicle

⁸ Current MOVES3 defaults (previously adopted while in draft stage for use in the TCEQ 2017 truck extended idling study).

type. Hourly VMT estimates by vehicle type are combined with the appropriate emission factors in the link-emissions calculations.

VMT mixes were calculated and applied at the scale of:

- Each TxDOT District,
- Each analysis year (EI analysis years plus 2017 base for hotelling calculations).
- Each MOVES roadway type,
- Day Type (Weekday, Friday, Saturday, and Sunday), and
- Four time periods per day AM peak, midday, PM peak, and overnight.

VMT mixes were calculated using local vehicle classification count and ATR data, MOVES defaults, and local registration data. Figure 1 shows a simplified view of the method used to estimate VMT mix⁹, which includes the following steps (numbered in Figure 1).

1. MOVES – Data files of MOVES default values extracted from MOVES databases or pro forma runs.
2. TxDOT Classification Counts – Data files of standard TxDOT classification data assembled and used for determining the in-use road fleet mix.
3. TxDMV Registration Data – Data files of standard TxDMV vehicle registration summary data assembled and used for determining the in-use road fleet mix.
4. TxDOT ATR Data – Data files of TxDOT ATR data assembled and used to allocate VMT by season and day of the week.
5. Single Unit Local vs. Total SUT_HDVyy – Procedure based on registration data to generate factors to separate Single Unit versus Combined Unit trucks by region. (SUT_HDVyy has multiple outputs based on vehicle category and fuel.)
6. Combination Local vs. Total SUT_HDXyy – Procedure based on registration data to generate short-haul and long-haul combination truck proportions by region. This step is not used in the updated procedure for MOVES3.
7. Day of Week (DOW) Factors by Urban Area/TxDOT District – Seasonal day-of-week factors from TxDOT ATR data used to allocate VMT by season and day-of-week by urban area/TxDOT district.
8. Single Unit Short-Haul vs. Long-Haul SUT_SSHZ – Procedure to separate single unit short-haul versus single unit long-haul using factors generated at SUT_HDVyy and classification count data. Short-haul and long-haul are functionally defined as local and pass-through.

⁹ *Developing MOVES Source Use Types and VMT Mix for Conformity Analysis* (TxDOT Air Quality / Conformity IAC-A - TTI Task 409252-0643: Maintain, Update and Enhance Traffic Activity Estimation and Forecasting Methods), Texas Department of Transportation, Austin, TX, August 2016.

9. Combination Short-Haul vs. Long-Haul SUT_CSHZ – Procedure to separate combined short-haul versus combined long-haul using factors generated at SUT_HDXyy and classification count data. Short-haul and long-haul are functionally defined as local and pass-through. This step is not used in the updated procedure for MOVES3.
10. PV and LDT Fuel MF_Fuelyy – Procedure to generate passenger vehicle and light truck fuel allocation by year based on MOVES national default values and local registration data.
11. Single Unit and Combination Truck Fuel SUT_HDVyy – Procedure to generate single unit and combined truck fuel allocation factors from registration data. (SUT_HDVyy has multiple outputs based on vehicle category and fuel.)
12. SUT_yyddtt – Procedure to generate SUT proportions by year, day type, and time period, based on the previous steps.
13. MOVES SUTs – Output file of MOVES SUTs by region, analysis year, day type, and time period. For MOVES3, P_ICB41D is renamed P_OB41D (per the redefined MOVES3 category equivalent to the previous MOVES2014 category), and P_OB41G is added and set to zero (since we have no data to support the proportion of the “Other Buses” category that is gasoline fueled).¹⁰

¹⁰ Specifically, the intercity bus category (ICB41) is redefined and renamed “Other Buses” (OB41). Intercity bus was previously considered diesel only. While there is currently no data available to determine the proportion, or even existence of gas fueled “Other Buses” vehicles, the category is necessary to be consistent with MOVES3. Pending additional data, “Other Buses” (OB41) is treated as equivalent to “Intercity Bus” (ICB41) and a placeholder “null” gasoline fueled “Other Buses” (OB41G) is added. The rest of the procedure is identical to the current VMT mix procedure. Thus, these measures and procedures, as modified, provide a functional, hybrid region-specific, disaggregate link-level application of MOVES3 to the extent possible with the data currently available. This hybrid is consistent with previous applications in terms of activity inputs and fleet data.

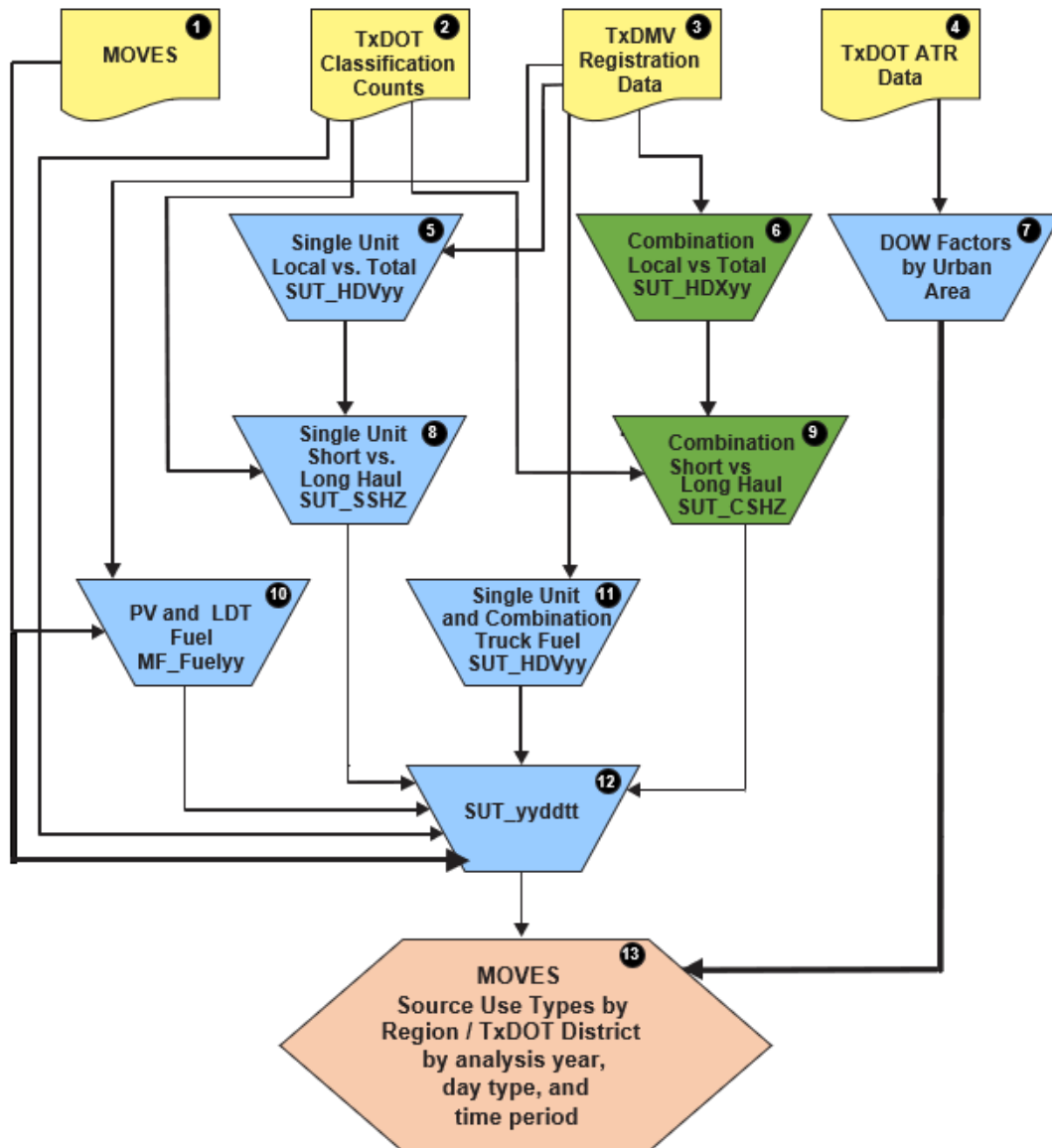


Figure 1. Simplified Overview of the VMT Mix Process.

Using the same data sets and a similar procedure, aggregate (i.e., all road-type categories), TxDOT district-level weekday vehicle type VMT mixes (used in the vehicle population estimation) were also produced. To ensure general applicability and

consistency across all study areas, all VMT mixes were developed in five-year increments beginning with the year 2005 and applied to the analysis years based on Table 21.

Table 21. VMT Mix Year/Analysis Year Correlations.

VMT Mix Year	Analysis Years
2005	2003 through 2007
2010	2008 through 2012
2015	2013 through 2017
2020	2018 through 2022
2025	2023 through 2027
2030	2028 through 2032
2035	2033 through 2037
2040	2038 through 2042
2045	2043 through 2047
2050	2048 through 2050

3.0 EMISSIONS AND TOTAL ENERGY RATES

This section describes the development of the emission rates (for each pollutant) as well as Total Energy Consumption (TEC) rates. The emission rates were calculated using EPA's MOVES3 emission factor model parameterized using local and default data. The resultant MOVES3 emission rates were then post-processed using TTI's EI Utilities, as described in Appendix A, to yield the emission rates used to calculate total emissions for each EI scenario. The emission rates were developed based on the *TTI Emissions Inventory Utilities User's Guide* methods and procedures but updated as needed to accommodate MOVES3 and EPA's *Technical Guidance*¹¹ applicable to MOVES3 inventory development.

For this statewide HPMS virtual link-based analysis, emission rates were developed by county group (i.e., 254 counties represented by 44 county groups), for three analysis years, two MOVES day types (weekday and weekend-day), and four seasons (spring, summer, winter, and fall), or 1,056 MOVES runs.

The following sections describe the emission rates development process.

3.1 PROCESS OVERVIEW

MOVES emission rates mode runs were developed to produce MOVES output databases containing emissions, TEC, and activity data (some of which are used during the activity estimation methods described previously). Data contained in each MOVES output database were then post-processed into the final on-road emission rates and TEC rates and area source refueling emission rates used in each EI scenario.

Emission rates by year, season, and day type were developed for the 44 county groups, which were defined by overlapping input data geographies involving TxDOT districts, MOVES fuel regions, time zones, and I/M program areas. Each county group is represented by one county in the group as shown in Appendix F. These county group emission rates were then used with the associated individual county traffic activity rates for the associated inventory scenarios to calculate the full EI.¹² MOVES weekday rates

¹¹ EPA. 2020. MOVES3 Technical Guidance: Using MOVES to Prepare Emission Inventories for State Implementation Plans and Transportation Conformity, EPA-420-B-20-052, Office of Transportation and Air Quality. November 2020.

¹² Separate emission rates are needed by MOVES day type, since some emission rate output varies by day type (e.g., start emission rates, due to different weekday versus weekend cold start distributions by hour of day).

were applied to Weekday and Friday activity rates and MOVES weekend day rates were applied to Saturday and Sunday activity rates.

Post-processing used an on-road rates look-up table utility to convert the rates output by MOVES into the units defined by the on- and off-network activity detailed in the previous section (emissions per mile for VMT, emissions per start for vehicle starts, emissions per SHP, etc.), and to incorporate TxLED effects on diesel vehicle NO_x emissions for county groups to which TxLED applies. Table 22 defines the rates produced for the external inventory calculations relative to traffic activity measures.

Table 22. Emission/Energy Rates, MOVES Emissions Processes, and Activity Factors.

MOVES Emissions Processes ¹	Activity ²	Emission Rates ³	Energy Rates
Running Exhaust ¹	VMT	mass/mile (mass/mi)	energy/mi
Crankcase Running Exhaust	VMT	mass/mi	
Brake Wear	VMT	mass/mi	
Tire Wear	VMT	mass/mi	
Start Exhaust ¹	starts	mass/start	energy/start
Crankcase Start Exhaust	starts	mass/start	
Extended Idle Exhaust ¹	SHEI	mass/hour	energy/hour
Crankcase Extended Idle Exhaust	SHEI	mass/hour	
Auxiliary Power Exhaust ¹	APU Hours	mass/hour	energy/hour
Running exhaust (1) – Road Type 1 off-network	Off-Network Idling (ONI)	mass/hour	energy/hour
Evaporative Permeation Evaporative Fuel Vapor Venting Evaporative Fuel Leaks	VMT, SHP	mass/mi, mass/hour ³	
Refueling Displacement Vapor Loss	VMT, starts	mass/mi, mass/start	
Refueling Spillage Loss	VMT, starts, SHEI, APU hours	mass/mi, mass/start, mass/hour, mass/hour	

¹ MOVES estimates refueling emissions in relation to the amount of energy (or fuel) expended per unit of activity, and associates fuel usage only with running exhaust, start exhaust, extended idle exhaust, and APU exhaust processes. The TEC estimates are based on these same processes.

² VMT, ONI hours, SHP, vehicle starts, and the SHEI and APU hours components of hotelling are the basic activity factors. SHEI and APU hours are for combination long-haul trucks only.

³ All mass per activity rates shown were available in MOVES rates mode table output, except for mass/SHP, and for refueling rates, which were produced using the TTI rates post-processing utility.

3.2 MOVES RUN SPECIFICATION INPUT FILES

The MOVES Run Specification (MRS) is a file (in extensible markup language [XML] format) that defines the place, time, road categories, vehicle and fuel types, pollutants and emissions processes, and the overall scale and level of output detail for the modeling scenario. TTI created an MRS for one county group and scenario using the

MOVES graphical user interface (GUI), then converted the MRS to a template from which all the required MRS files were built.

Table 23 describes the MRS selections TTI used, with further details on the selections provided after the table.

Table 23. MRS Selections by MOVES GUI Panel.

Navigation Panel	Detail Panel	Selection																																																																																				
Scale ¹	Model; Domain/Scale; Calculation Type	On-Road; County; Emission Rates																																																																																				
Time Spans ¹	Years – Months – Days – Hours	<YEAR> - <MONTH> - <DAY-TYPE> - All																																																																																				
Geographic Bounds ¹	States; Counties; Selections	Texas - <COUNTY>; ¹ <TX COUNTY SELECTION>																																																																																				
On-Road Vehicles ²	SUT/Fuel Combinations: 1 – Gasoline, 2 – Diesel, 3 – Compressed natural gas (CNG), 5 – E85 (85% ethanol-15% gasoline blend), 9 – Electric	<p><u>SUT:</u></p> <table> <thead> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> <th>5</th> <th>9</th> </tr> </thead> <tbody> <tr> <td>Motorcycle:</td> <td>1</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Passenger Car:</td> <td>1</td> <td>2</td> <td>-</td> <td>5</td> <td>9</td> </tr> <tr> <td>Passenger Truck:</td> <td>1</td> <td>2</td> <td>-</td> <td>5</td> <td>9</td> </tr> <tr> <td>Light Commercial Truck:</td> <td>1</td> <td>2</td> <td>-</td> <td>5</td> <td>9</td> </tr> <tr> <td>Other Buses:</td> <td>1</td> <td>2</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>Transit Bus:</td> <td>1</td> <td>2</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>School Bus:</td> <td>1</td> <td>2</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>Refuse Truck:</td> <td>1</td> <td>2</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>Single Unit Short-Haul Truck:</td> <td>1</td> <td>2</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>Single Unit Long-Haul Truck:</td> <td>1</td> <td>2</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>Motor Home:</td> <td>1</td> <td>2</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>Combination Short-Haul Truck:</td> <td>1</td> <td>2</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>Combination Long-Haul Truck:</td> <td>-</td> <td>2</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p><u>Fuel Types</u></p>		1	2	3	5	9	Motorcycle:	1	-	-	-	-	Passenger Car:	1	2	-	5	9	Passenger Truck:	1	2	-	5	9	Light Commercial Truck:	1	2	-	5	9	Other Buses:	1	2	3	-	-	Transit Bus:	1	2	3	-	-	School Bus:	1	2	3	-	-	Refuse Truck:	1	2	3	-	-	Single Unit Short-Haul Truck:	1	2	3	-	-	Single Unit Long-Haul Truck:	1	2	3	-	-	Motor Home:	1	2	3	-	-	Combination Short-Haul Truck:	1	2	3	-	-	Combination Long-Haul Truck:	-	2	-	-	-
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Combination Short-Haul Truck:	1	2	3	-	-																																																																																	
Combination Long-Haul Truck:	-	2	-	-	-																																																																																	
Road Type	Selected Road Types	Off-Network – Rural Restricted Access – Rural Unrestricted Access – Urban Restricted Access – Urban Unrestricted Access																																																																																				
Pollutants ³ and Processes	VOC; CO; NO _x ; NO; NO ₂ ; HONO; Atmospheric CO ₂ ; SO ₂ ; CH ₄ ; N ₂ O; NH ₃ ; PM _{2.5} ; OC, EC, SO ₄ , H ₂ O, NCOM, NO ₃ , NH ₄ , Total Exhaust, Brakewear, and Tirewear; PM ₁₀ : Total Exhaust, Brakewear, and Tirewear; TEC	Dependent on pollutant: Running Exhaust, Start Exhaust, Extended Idle Exhaust, Auxiliary Power Exhaust, Crankcase Running Exhaust, Crankcase Start Exhaust, Crankcase Extended Idle Exhaust, Evap Permeation, Fuel Vapor Venting, Fuel Leaks; Refueling Displacement Vapor Loss, Refueling Spillage Loss, Brakewear, Tirewear																																																																																				
General Output	Output Database; Units; Activity	<MOVES OUTPUT DATABASE NAME>; ¹ Grams, KiloJoules, Miles; Distance Travelled, Hotelling Hours, Population, Starts																																																																																				
Create Input Database	Domain Input Database	<COUNTY INPUT DATABASE (CDB) NAME> ¹																																																																																				
Output Emissions Detail	Output Aggregation; For All Vehicles/Equipment; On Road	Time: Hour, Geographic: Link; Fuel Type, Emissions Process; Road Type, Source Use Type																																																																																				
Advanced Features	Aggregation and Data Handling	Only the “clear BaseRateOutput after rate calculations” box is checked																																																																																				

¹ Limited to one county per County Scale run. County Federal Information Processing Standards (FIPS) code, year, and season/day type labels were included in the MRS file and output database names.

² Although MOVES requires all fuel types to be included in the MRSs, only gasoline and diesel were modeled.

³ Pre-requisite pollutants that were needed to model the reported pollutants are not shown.

3.2.1 Scale

Per the MOVES County Scale, only one county was selected per run (i.e., the representative county of each county group).

3.2.2 Time Spans

The Time Spans parameters were specified to provide hourly rates, for all hours of the day, for the selected year, month, and day type. One “Years” (2019, 2023, or 2026), one “Months” (April, July, October, or January, representing Spring, Summer, Fall, and Winter seasons), and one “Days” (Weekdays or Weekend) selection was made, per run.

3.2.3 Geographic Bounds

Per the MOVES County Scale, only one county was selected per run.

3.2.4 On-Road Vehicles and Road Type

The local VMT mixes developed for the study include the SUT/fuel type combinations modeled with MOVES, namely, gasoline and diesel vehicle types. The VMT mixes specify the vehicle fleet as the gasoline and diesel SUTs designated as “on-road vehicles” selections in Table 23. These SUT/fuel type combinations were selected in all the MOVES RunSpec files. All other SUT/fuel type combinations available in MOVES were also selected as required by MOVES, but only gasoline and diesel were modeled. Fuel types output was controlled through adjustments to the MOVES default fuel engine fractions via the MOVES Alternate Vehicle and Fuel Technology (AVFT) table and to the MOVES default flex fuel vehicle fuel type usage fractions in the MOVES fuelusagefraction table (discussed later). All five MOVES road type categories were selected.

3.2.5 Pollutants and Processes

In addition to the pollutants defined by the scope of the inventory, MOVES requires that additional pollutants be selected for “chained” pollutants (i.e., pollutants that are calculated as a function of another MOVES pollutant). The following additional pollutants were selected as required by the model due to chaining: non-methane hydrocarbons and total gaseous hydrocarbons (for VOC); TEC (for CO₂ and SO₂); and Composite – NonECPM (non-elemental carbon), H₂O (aerosol), and sulfate for Primary Exhaust PM_{2.5} - Total. All of the associated on-road processes available by the selected pollutants were included, including the two refueling emissions processes.

3.2.6 Output Features

The output units were grams, kilojoules, and miles. The activity categories were pre-set by MOVES rates mode (and not adjustable) for inclusion in the output database. The selected output detail level was by hour, link (in MOVES rates mode “link” is the combination of county, road type, and speed bin), pollutant, process, road type, SUT, and fuel type.

The MOVES model produces results at different aggregation levels that are specified in the MRS. The detailed, hourly, link-based inventory method required MOVES day type-specific rates (weekday and weekend day) at the following MOVES output detail level.

- Source use types.
- Fuel types.
- Road types (four actual MOVES road categories and off-network).
- Hours of the day.
- Speed bin (16 – in miles-based rate tables).
- Pollutants.
- On-road emissions processes.

For each emissions scenario, the vehicle fleet fuel types were modeled using only the predominant on-road fuels of gasoline and diesel (alternate fuels were considered de minimis). The five road type categories in MOVES are Off-Network¹³, Rural Restricted Access, Rural Unrestricted Access, Urban Restricted Access, and Urban Unrestricted Access. The rates for each of the actual four MOVES road types are indexed by the 16 MOVES speed bin average speeds: 2.5, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, and 75 mph.

3.3 MOVES COUNTY INPUT DATABASES

MOVES CDBs were created for each county and year with data to cover both MOVES day types. The CDBs were populated with local input data (such as local fleet age distributions, fuel formulations, meteorological conditions) as well as MOVES defaults.

TTI developed procedures to build and check CDBs for each emissions scenario. The basic procedure was to write a MySQL script to produce one county scenario CDB and

¹³ The Off-Network road type is not a ‘real’ road type and is instead used as a placeholder to define off-network emissions.

convert it to a template from which all of the CDB scripts were built. The scripts were then run in batch mode to produce all CDBs for the analysis.

Data for populating the CDBs were first prepared in the form of text files and/or MySQL databases (e.g., for local fuels, weather data), and some values were provided directly in the CDB builder MySQL script. Any default data used were selected from the MOVES default database, MOVESDB20201105. After running the scripts to produce the CDBs, the CDBs were checked to verify that all CDB tables were built and populated as intended.

Table 24 provides an outline and brief description of the CDBs, followed by a discussion of the development of the local data and the defaults contained therein. Unless otherwise stated, the CDB table data applies to all counties, the three years, the four seasons, and both MOVES day types. For tables with seasonal input data, the following monthIDs were used to represent the seasons: "4" (April) for spring; "7" (July) for summer; "10" (October) for fall; "1" (January) for winter.

Table 24. CDB Input Tables.

Table	Data Source	Notes
Auditlog	empty table used	Table must be present for MOVES to recognize CDB
Year	MOVES default	Designates analysis year as base year (i.e., activity inputs supplied, not forecast by MOVES)
State	MOVES default	Identifies the state and idle region
Hourvmtfraction	MOVES default	Hourly VMT fractions for each source type, road type, day type
Dayvmtfraction	MOVES default	Weekend day and weekday period VMT fractions by month for each source type and road type
Monthvmtfraction	MOVES default (3-month average)	Month VMT fractions by source type
Hpmsvtypeyear	MOVES default	Annual VMT by HPMS vehicle type
Roadtypedistribution	MOVES default	Source type VMT fractions by MOVES road type
Avgspeeddistribution	MOVES default	Driving time fractions by speed bin for each source type, road type, day type, hour
Sourcetypeyear	MOVES default	Source type populations
Startsperdaypervehicle	MOVES default	Average starts per day by source type and day type
Startshourfraction	MOVES default	Average hourly allocation of starts by source type and day type
Startsmonthadjust	MOVES default (3-month average)	Average monthly multiplicative adjustment to startspervehicleperday

Table	Data Source	Notes
Startsageadjustment	MOVES default	Starts by vehicle age within each source type, relative to the number of starts at age 0 (lower frequency of starts with age)
startsupmodedistribution	MOVES default	Distribution of engine start soak times by source type, age, day type, hour
Totalidlefraction	MOVES default (3-month average)	Ratio of total source hours idling (SHI) and total source hours operating (SHO) for each source type by month, day type, idle region, county type (Metropolitan Statistical Area [MSA] or non-MSA)
hotellingactivitydistribution	MOVES default	Allocation of hoteling to four operating modes by zone (e.g., county) and model year group
Hotellingagefraction	empty table used	Hourly hoteling distribution by age for each zone and day type – included to preempt commandline execution errors
Hotellinghourfraction	empty table used	Zone and day type hoteling hourly allocations – included to preempt commandline execution errors
Hotellinghoursperday	empty table used	Year, zone, day type hoteling hours – included to preempt commandline execution errors
Hotellingmonthadjust	empty table used	Hotelling monthly adjustment for each zone and month – included to preempt commandline execution errors
Zone	MOVES default (set factors = 1)	SHO geographic allocation factors, set to 1.0 for county scale runs
Zoneroadtype	MOVES default (set factors = 1)	Road type VMT allocation factors to county road type VMT, set to 1.0 for county scale runs
Fuelusagefraction	MOVES default (except usage for fueltype 5 = 0)	Flex fuel vehicle fuel type usage, set for Texas modeling assumptions, i.e., flex-fuel vehicles operate totally on gasoline
Fuelsupply	Local /defaults	Market shares of fuel formulations, by season, set to reflect Texas modeling assumptions of gasoline and diesel only, although all MOVES default fuels are included as required to run MOVES3 (i.e., CNG, E85, and electric are included but were not applied as specified in the AVFT and fuel usage configurations)
Fuelformulation	Local /defaults	Gasoline and diesel formulations, by season, by fuel region based on Texas regional survey data and defaults as needed, with MOVES default CNG, E85, and electric as required to run MOVES3
AVFT	Local /defaults	Set for Texas modeling assumptions, i.e., gasoline and diesel only, but also including default flex fuel vehicle fractions which were set to 100% gasoline use via the fuelusagefraction table
sourcetypeagedistribution	local/default (actual analysis year default)	Distribution by 31 age categories for each source type, based on latest available county vehicle registrations, and MOVES defaults where needed (i.e., for buses, refuse trucks, motor homes)

Table	Data Source	Notes
Imcoverage	local	Empty for non-I/M counties, or includes I/M program modeling parameters characterizing the local program applicable to the county, to include updated compliance factors based on TCEQ area-specific I/M program statistics
County	local	Identifies the county, barometric pressure, high or low altitude, and whether the county is an MSA or non-MSA county
Zonemonthhour	local	Provides zone hourly temperatures and relative humidity by month (or season represented by monthID) (populated with local, 2019 seasonal averages)
Countyyear	local	Stage II refueling control program adjustments, set to zero to reflect the program is no longer in effect

3.3.1 Year, State, and County Inputs

The year, state, and county tables were populated with data defining the analysis year, state, and county (representing a county group) of the run.

The yearID field of the “year” table was populated with the analysis year value, and the year was set as a base year (to specify that certain user-input fleet and activity data were to be used, rather than forecast by MOVES during the model runs). As part of designating the appropriate fuel supply for the modeling scenario, the fueleyearID in the year table was also set to the analysis year. With MOVES3, an idleregionID was added to modify the state table.

StateID “48” (Texas) was inserted in the state table. In addition to identifying the county of analysis, the county table contains barometric pressure, and altitude information (discussed further with other meteorological inputs). The county data were selected from a prepared local “meteorology” database containing tables of weather data records for the analysis. Additionally, information on whether the county is in an MSA is included in the county table.¹⁴

¹⁴ Note that most of the county groups contain a mixture of county types (i.e., MSA and non-MSA). The ONI activity estimates, which are a function of the MOVES default “totalidlefraction,” are affected by this county type distinction. Thus, for the external ONI activity calculation procedure, the totalidlefraction specific to each individual county’s countytypeID was used (instead of the county type of the county representing the group).

3.3.2 Activity and Vehicle Population Inputs

The TTI EI methodology uses an emission rate by activity method that calculates emissions by multiplying local activity estimates and MOVES-based emission rates external to MOVES. However, MOVES rates mode CDBs require activity inputs to calculate the emission rates per activity estimates used in the TTI EI method.

For this reason, default activity input parameters were used to populate the following MOVES tables: hourvmtfraction, dayvmtfraction, monthvmtfraction, hpmsvtypeyear, roadtypedistribution, avgspeeddistribution, sourcetypeyear, startsperrypervehicle, startshourfraction, startsmothadjust, startsageadjustment, startssopmodedistribution, totalidelfraction, and hotellingactivitydistribution. Data for all these tables were selected and inserted from the MOVES default database. In the case of the startsmothadjust and totalidelfraction, which vary by month, the MOVES default data were averaged for each of the four three-month seasonal periods (same for MOVES default monthvmtfraction, for consistency).

The zone and zoneroadtype tables contain zonal sub-allocation activity factors. For county scale analyses, county is equal to zone; therefore, these allocation factors were set to 1.0.

3.3.3 Age Distributions and Fuel Engine Fractions Inputs

Local age distributions, or age fractions for each SUT, and local fuel fractions by model year (or technology), were used, in conjunction with MOVES defaults as needed. These data were sourced from TxDMV 2018 year-end registration data for each TxDOT district (this data was used for each analysis year). The age distributions and fuel engine fractions inputs were calculated and written to text files in preparation for loading the data into their CDB tables: the sourcetypeagedistribution table for age distributions and the AVFT table for fuel engine fractions.

The local TxDMV registration data provides fuel type fractions (proportion of gasoline or diesel-powered vehicles) for heavy-duty vehicles but does not for light-duty vehicles. MOVES default fuel fractions were therefore applied to estimate light-duty fuel fractions. Only gasoline and diesel vehicles were explicitly included in the CDBs¹⁵.

¹⁵ This was decided after consultation with the TCEQ sponsor.

Table 25 summarizes the data sources and aggregation levels used to estimate the local source type aged distribution and AVFT inputs to MOVES (inputs summarized in Appendix H).

Table 25. Sources and Aggregations for Age Distributions and Fuel Fractions.

SUT Name	SUT ID	TxDMV Category ¹ Aggregations for Age Distributions and Fuel/Engine Fractions	Geographic Aggregation for Age Distributions	Geographic Aggregation for Fuel/Engine Fractions ²
Motorcycle	11	Motorcycles	District	NA – 100% gasoline, no Fuel/Engine Fractions
Passenger Car	21	Passenger Cars	District	MOVES default
Passenger Truck	31	Total Trucks <=8500	District	MOVES default
Light Commercial Truck	32	Total Trucks <=8500	District	MOVES default
Single-Unit Short- Haul Truck	52	>8500+ >10000+ >14000+ >16000	District	Texas Statewide
Single-Unit Long- Haul Truck	53	>8500+ >10000+ >14000+ >16000	Texas Statewide	Texas Statewide
Refuse Truck	51	MOVES default ³	MOVES default ³	MOVES default ³
Motor Home	54	MOVES default ³	MOVES default ³	MOVES default ³
Other Buses	41	MOVES default ³	MOVES default ³	MOVES default ³
Transit Bus ²	42	MOVES default ³	MOVES default ³	MOVES default ³
School Bus	43	MOVES default ³	MOVES default ³	MOVES default ³
Combination Short-Haul Truck	61	>19500+ >26000+ >33000+ >60000	District	Texas Statewide
Combination Long-Haul Truck	62	>19500+ >26000+ >33000+ >60000	Texas Statewide	NA – 100 % diesel, no Fuel/Engine Fractions

¹ TxDMV year-end 2018 (latest available, used for all years) county vehicle registrations data were used for developing local inputs (weights are GVWR in units of pounds). The MOVES model default age distributions were from the MOVESDB20201105 database.

² MOVES fuel engine fraction defaults (for gasoline, diesel, E85 capability) were used for light-duty SUTs (with E85 use set to zero in the fuel usage fraction table). MOVES default fuel engine fractions were taken from the MOVESDB20201105 sample vehicle population table.

³ MOVES default values consistent with the analysis year.

3.3.4 Meteorological Inputs

Texas statewide inventory analyses use local meteorological input data prepared by 25 TxDOT districts. The meteorological inputs were prepared for each of the four seasonal periods of the analysis, in the required MOVES table formats. The “county” table contains barometric pressure and “zonemonthhour” table houses temperature and relative humidity data.

TCEQ produced the hourly temperature, hourly relative humidity, and 24-hour barometric pressure averages for each district, by month, season, and year, using 2019 calendar year hourly data from numerous weather stations within each district. Since the El Paso District spans two time zones (Mountain and Central), TCEQ divided it into two separate data sets by time zone. TTI used the seasonal averages for temperature and relative humidity and used the calendar year averages for barometric pressure (barometric pressure does not vary much by season). The four, three-month group seasons are:

- Spring (March, April, May),
- Summer (June, July, August),
- Fall (September, October, November) and
- Winter (January, February, December).

The MOVES zonemonthhour table includes the monthID column. MOVES uses the standard month numbers as monthIDs (i.e., 1 through 12 is January through December). For this seasonal analysis, the seasons as represented by monthID in the zonemonthhour table as follows: Spring – 4, Summer – 7, Fall – 10, Winter – 1. Altitude, another MOVES county table input, was set to “low” for all counties.

TTI assigned the district level meteorological inputs to their corresponding individual counties, for all 254 counties, for use in building the county group CDBs for all analysis years.

See Appendix I for temperatures, relative humidity, and barometric pressure input value summaries.

3.3.5 Fuels Inputs

TTI used various data sources to produce the best available Texas summer fuel formulation inputs to MOVES.

3.3.5.1 Overview and Assumptions

There are four MOVES fuels input tables that must be consistent between the fuel types in the scope of the inventory analysis. These are:

- AVFT (source type population fuel type distributions by model year),
- fuelformulation (fuel properties for each fuel sub type supplied in the study area),
- fuelsupply (market shares of each fuel sub-type formulation), and
- fuelusagefraction (flex fuel vehicle fuel type usage).

The fuel types in the scope of the inventory analysis were gasoline and diesel, with alternative fuels assumed to have an insignificant impact. Thus the AVFT model year fuel fractions were normalized for only gasoline, diesel, and flex fuel vehicles (i.e., vehicles with the capability to be powered by gasoline or E85 [a blend of 85 percent ethanol and 15 percent gasoline, by volume]). Since the analysis scope was gasoline and diesel, flex fuel vehicle fuel usage was set to 100 percent gasoline (via the fuelusagefraction table). With solely gasoline and diesel set by the AVFT and fuelusagefraction tables, the fuelformulation and fuelsupply table's gasoline and diesel fuel properties and market shares were then specified.¹⁶

3.3.5.2 Texas Fuel Type Details

The Texas MOVES3 fuels inputs consisted of:

- gasohol (gasoline blended with roughly 10 percent ethanol - for conventional [CG] and reformulated [RFG] - fuelsubtypeid 12) and
- biodiesel (BD) (ultra low sulfur diesel [USLD] - in Texas blended with roughly 5 percent biodiesel - fuelsubtypeid 21).

The alternative fuels available in MOVES3 were treated as negligible and excluded from the analysis (via the use of the MOVES AVFT and fuelusagefraction table input data). Since MOVES3 requires all (5) available fuel types in the model to be included in the fuelformulation and fuelsupply inputs, the MOVES3 default fuelformulations for the following—each with 1.0 market shares in the fuel supply—were included in the CDBs.¹⁷

- CNG (fuelsubtypeid 30),
- E85 (ethanol - blended with roughly 15 percent gasoline - fuelsubtypeid 51), and
- electricity (fuelsubtypeid 90).

3.3.5.3 Data Sources

The local data include historical and current, latest available retail outlet seasonal fuel surveys of gasoline and diesel fuel, and annual, estimated state-level fuels sales statistics. The local data also include summaries from which to estimate biodiesel

¹⁶ New with MOVES3 is the requirement that fuel formulations and fuel supplies for all on-road vehicle fuel types available in MOVES, regardless of the local inventory scope, must be included in each run. Inclusion of all on-road fuels in the MOVES RunSpec files is needed to prevent MOVES "missing fuels inputs" run errors.

¹⁷ TTI inserted these alternative fuel formulations and supplies, and the updated AVFT fuel fractions [i.e., gasoline, diesel, and flex fuel types only], and set flex fuel vehicles to 100 percent gasoline use in the fuelusagefraction table, via CDB builder scripts.

volumes relative to petroleum diesel sales volumes and gasoline sales estimates by the three grades (regular, mid-grade, premium).

Survey data consisted of TCEQ statewide summer gasoline and diesel retail outlet sampling surveys and EPA summer and winter RFG retail outlet compliance surveys for Texas RFG areas. Additionally, MOVES defaults were used as needed, for example, for winter conventional gasoline formulations for which local data were unavailable. The applicable survey data includes the TCEQ 2020 (nearest data year to the 2019 base year) summer season statewide gasoline and diesel surveys and the EPA RFG compliance summer and winter survey data (available for 2011 through 2020) with separate data for Houston and Dallas areas. TTI used RFG compliance survey data for the RFG areas and the TCEQ E10 conventional gasoline data processed by MOVES fuel regions for non-RFG regions. TTI produced the statewide average of diesel sulfur content from the survey data, and used for all counties (there is minimal variation in sulfur content sampled across Texas). Diesel formulations were supplemented with biodiesel volume content estimates based on the DOE Energy Information Administration's (EIA) diesel sales statistics. Biodiesel percentages were based on EIA State Energy Data System (SEDS) state-level 2018 (latest available) transportation sector BD consumption estimates for Texas.

3.3.5.4 General Procedure

The best available local fuel survey data by season and year were used, supplemented as needed by defaults (e.g., MOVES3 winter season conventional gasoline formulations in the absence of local survey data) and other data (e.g., U.S. Department of Energy [DOE] annual fuel sales statistics). For future years where no survey data was yet available, the latest available local fuel properties were used, where particular regulated properties were replaced with expected future year values (e.g., regulatory standards or limits, typically reflected in the MOVES analysis year and season default values).

The fuel formulation development procedures were performed by six MOVES fuel regions for Texas. In general, the sample data were aggregated and averaged by fuel grade within each MOVES fuel region (e.g., consistent with Texas fuel regulation jurisdictions and distribution networks), then weighted into gasoline composite averages using relative sales volumes by grade (results of this procedure were available in the TCEQ 2020 survey summary). For the MOVES RFG region, TTI developed separate RFG formulation estimates for the DFW and HGB RFG counties.

The application of summer and winter fuel formulations by season was via monthID in the fuel supply table where: MOVES month IDs 4, 7, 10, and 1 (for April, July, October, and January) were used to represent spring, summer, fall, and winter.

The fuels inputs to MOVES were supplied in the CDB fuelsupply and fuelformulation tables. The local fuel supply for each county, year, and season (or monthID) consisted of one gasoline and one diesel formulation (excluding the other MOVES default alternative fuels required to run MOVES). Each gasoline and diesel formulation market share in the fuel supply was therefore 1.0.

3.3.5.5 Fuel Formulations

Table 27 through Table 30 provide the summer and winter fuel formulations used for 2019, 2023, and 2026. Table 31 provides the diesel formulations used. Although CetaneIndex and PAHContent (not listed in Table 31) are also diesel property fields of the fuelformulation table, they are not currently enabled for use in MOVES.

Table 26. Summer 2019 Gasoline Fuel Formulation Input Estimates by Region.

MOVES Fuel Formulation Field ^{1, 2}	Units	R1	R2	R3	R4	R4	R5	R6
fuelFormulationID	-	19701	19702	19703	19714	19724	19705	19706
fuelSubtypeID ²	-	12	12	12	12	12	12	12
RVP	psi	9.34	7.77	6.84	7.10	7.27	7.50	9.20
sulfurLevel	ppm	16.29	19.64	16.29	17.88	21.27	19.64	19.64
ETOHVolume	vol.%	8.96	9.56	9.50	9.71	9.76	9.60	9.54
MTBEVolume	vol.%	0	0	0	0	0	0	0
ETBEVolume	vol.%	0	0	0	0	0	0	0
TAMEVolume	vol.%	0	0	0	0	0	0	0
aromaticContent	vol.%	22.60	22.22	24.24	15.82	15.41	27.19	14.72
olefinContent	vol.%	9.77	8.69	5.94	10.01	11.07	5.47	11.55
benzeneContent	vol.%	0.68	0.58	0.48	0.43	0.49	0.65	0.66
e200	vap.%	53.34	49.64	44.61	47.10	49.65	46.49	59.79
e300	vap.%	85.68	84.60	84.63	85.67	85.13	84.18	90.43
BioDieselEster Volume	vol.%	\N	\N	\N	\N	\N	\N	\N
T50	deg. F	183.10	202.53	220.24	208.79	200.57	218.42	163.64
T90	deg. F	316.17	319.75	317.73	322.01	324.94	316.48	295.74

¹ The fuel region labels and associated MOVES fuel region IDs are defined as:

Label	fuelregionid	Counties	Description
R1	300000000	132	Federal 9.0 RVP limit (RVP waiver available for E10)
R2	178010000	95	State 7.8 RVP limit (no available RVP waiver) and TxLED
R3	370010000	1	El Paso 7.0 RVP (no RVP waiver)
R4	1370011000	12	RFG (ID 19714 is DFW; ID 19724 is HGB) and TxLED
R5	178000000	3	Federal 7.8 RVP limit (RVP waiver available for E10) and TxLED
R6	100000000	11	Same as R1, except a different distribution network (per EPA OTAQ).

² Fuel subtype IDs 12 is E10 gasoline (either CG or RFG with a nominal 10 percent by volume ethanol content).

Table 27. Summer 2023 and 2026 Gasoline Fuel Formulation Input Estimates by Region.

MOVES Fuel Formulation Field ^{1, 2}	Units	R1	R2	R3	R4	R4	R5	R6
fuelFormulationID	-	14701	14702	14703	14714	14724	14705	14706
fuelSubtypeID ²	-	12	12	12	12	12	12	12
RVP	psi	10.00	7.80	7.00	7.09	7.15	8.80	10.00
sulfurLevel	ppm	10.00	10.00	10.00	10.00	10.00	10.00	10.00
ETOHVolume	vol.%	8.96	9.56	9.50	9.56	9.56	9.60	9.54
MTBEVolume	vol.%	0	0	0	0	0	0	0
ETBEVolume	vol.%	0	0	0	0	0	0	0
TAMEVolume	vol.%	0	0	0	0	0	0	0
aromaticContent	vol.%	22.60	22.22	24.24	16.96	16.89	27.19	14.72
olefinContent	vol.%	9.77	8.69	5.94	10.13	10.29	5.47	11.55
benzeneContent	vol.%	0.70	0.99	0.70	0.37	0.42	0.99	0.99
e200	vap.%	53.34	49.64	44.61	47.00	48.26	46.49	59.79
e300	vap.%	85.68	84.60	84.63	84.95	84.89	84.18	90.43
BioDieselEster Volume	vol.%	\N	\N	\N	\N	\N	\N	\N
T50	deg. F	183.10	202.53	220.24	210.35	206.18	218.42	163.64
T90	deg. F	316.17	319.75	317.73	325.30	326.87	316.48	295.74

¹ The fuel region labels and associated MOVES fuel region IDs are defined as:

Label	fuelregionid	Counties	Description
R1	300000000	132	Federal 9.0 RVP limit (RVP waiver available for E10)
R2	178010000	95	State 7.8 RVP limit (no available RVP waiver) and TxLED
R3	370010000	1	El Paso 7.0 RVP (no RVP waiver)
R4	1370011000	12	RFG (ID 14714 is DFW; ID 14724 is HGB) and TxLED
R5	178000000	3	Federal 7.8 RVP limit (RVP waiver available for E10) and TxLED
R6	100000000	11	Same as R1, except a different distribution network (per EPA OTAQ).

² Fuel subtype IDs 12 is E10 gasoline (either CG or RFG with a nominal 10 percent by volume ethanol content).

Table 28. Winter 2019 Gasoline Fuel Formulation Input Estimates by Region.

MOVES Fuel Formulation Field	Units	R1, R3	R2, R5, R6	R4	R4
fuelFormulationID	-	19101	19102	19114	19124
fuelSubtypeID ²	-	12	12	12	12
RVP	psi	11.50	12.50	12.30	12.30
sulfurLevel	ppm	17.06	21.16	17.77	24.27
ETOHVolume	vol.%	10.00	10.00	10.07	9.92
MTBEVolume	vol.%	0	0	0	0
ETBEVolume	vol.%	0	0	0	0
TAMEVolume	vol.%	0	0	0	0
aromaticContent	vol.%	22.87	20.49	16.58	12.93
olefinContent	vol.%	11.48	10.21	9.83	11.23
benzeneContent	vol.%	0.67	0.91	0.48	0.45
e200	vap.%	49.89	52.87	58.72	58.81
e300	vap.%	85.20	85.68	86.79	86.88
BioDieselEsterVolume	vol.%	\N	\N	\N	\N
T50	deg. F	\N	\N	\N	\N
T90	deg. F	199.20	182.11	156.54	157.21

¹ The fuel region labels and associated MOVES fuel region IDs are defined as:

Label	fuelregionid	Counties	Description
R1	300000000	132	Federal 9.0 RVP limit (RVP waiver available for E10)
R2	178010000	95	State 7.8 RVP limit (no available RVP waiver) and TxLED
R3	370010000	1	El Paso 7.0 RVP (no RVP waiver)
R4	1370011000	12	RFG (ID 19114 is DFW; ID 19124 is HGB) and TxLED
R5	178000000	3	Federal 7.8 RVP limit (RVP waiver available for E10) and TxLED
R6	100000000	11	Same as R1, except a different distribution network (per EPA OTAQ).

² Fuel subtype IDs 12 is E10 gasoline (either CG or RFG with a nominal 10 percent by volume ethanol content).

Table 29. Winter 2023 and 2026 Gasoline Fuel Formulation Input Estimates by Region.

MOVES Fuel Formulation Field	Units	R1, R3	R2, R5, R6	R4	R4
fuelFormulationID	-	14101	14102	14114	14124
fuelSubtypeID ²	-	12	12	12	12
RVP	psi	11.50	12.50	12.30	12.30
sulfurLevel	ppm	10.00	10.00	10.00	10.00
ETOHVolume	vol.%	10.00	10.00	10.00	10.00
MTBEVolume	vol.%	0	0	0	0
ETBEVolume	vol.%	0	0	0	0
TAMEVolume	vol.%	0	0	0	0
aromaticContent	vol.%	22.90	20.54	16.39	14.06
olefinContent	vol.%	11.14	9.68	9.19	8.45
benzeneContent	vol.%	0.67	0.91	0.47	0.43
e200	vap.%	49.86	52.82	59.85	59.91
e300	vap.%	85.17	85.64	86.59	87.94
BioDieselEsterVolume	vol.%	\N	\N	\N	\N
T50	deg. F	199.39	182.40	155.21	153.91
T90	deg. F	320.54	318.57	318.00	312.02

¹ The fuel region labels and associated MOVES fuel region IDs are defined as:

Label	fuelregionid	Counties	Description
R1	300000000	132	Federal 9.0 RVP limit (RVP waiver available for E10)
R2	178010000	95	State 7.8 RVP limit (no available RVP waiver) and TxLED
R3	370010000	1	El Paso 7.0 RVP (no RVP waiver)
R4	1370011000	12	RFG (ID 14114 is DFW; ID 14124 is HGB) and TxLED
R5	178000000	3	Federal 7.8 RVP limit (RVP waiver available for E10) and TxLED
R6	100000000	11	Same as R1, except a different distribution network (per EPA OTAQ).

² Fuel subtype IDs 12 is E10 gasoline (either CG or RFG with a nominal 10 percent by volume ethanol content).

Table 30. 2019, 2023, and 2026 Statewide Diesel Fuel Formulation Input Estimates.

MOVES Fuel Formulation Field ¹	Units	2019	2023/2026
fuelFormulationID	-	30585	30600
fuelSubtypeID ²	-	21	21
RVP	psi	0	0
sulfurLevel	ppm	5.85	6.00
ETOHVolume	vol.%	0	0
MTBEVolume	vol.%	0	0
ETBEVolume	vol.%	0	0
TAMEVolume	vol.%	0	0
aromaticContent	vol.%	0	0
olefinContent	vol.%	0	0
benzeneContent	vol.%	0	0
e200	vap.%	0	0
e300	vap.%	0	0
BioDieselEster Volume	vol.%	4.86	4.86
T50	deg. F	0	0
T90	deg. F	0	0

¹ The fuel region labels, associated MOVES fuel region IDs, and TxLED requirements are:

Label	fuelregionid	Counties	Description
R1	300000000	132	No TxLED requirement
R2	178010000	95	TxLED required
R3	370010000	1	No TxLED requirement
R4	1370011000	12	TxLED required
R5	178000000	3	TxLED required
R6	100000000	11	No TxLED requirement

² Fuel subtype ID 21 is conventional diesel.

3.3.6 I/M Inputs

To model a local I/M program design, it must be defined using MOVES I/M coverage parameters by source type, entered in the MOVES imcoverage table. The appropriate internal MOVES I/M factors for modeling a local I/M program are designated in a model run by the local program input data in the imcoverage table.¹⁸

¹⁸ In general, MOVES produces a local I/M program effect as an adjustment to the model's internal reference I/M program effect (i.e., represented as the "standard I/M difference" in the pair of MOVES emission rates [I/M – No I/M], which are specific to vehicle regulatory class categories of which the source types are composed). MOVES contains a large set of "I/M factors" by source type (in the imfactor table) computed specifically for adjusting the MOVES standard I/M difference to reflect the effects of various local I/M program design alternatives.

MOVES adjusts emissions (Hydrocarbons [HC], CO, and NO_x) at the source-type level to incorporate the benefits of the local I/M program design defined using the MOVES imcoverage table parameters. TTI previously produced a comprehensive set of MOVES imcoverage records for Texas I/M counties to use in place of MOVES defaults. An I/M program is required in 17 Texas counties of the Austin, DFW, El Paso, and Houston areas (see Table 31 notes for a list of the counties).

TTI produced the local I/M coverage input parameters to represent Texas I/M program designs as specified in the Texas I/M SIP and Texas rules. The I/M program requires annual emissions testing of gasoline vehicles within a 2-through-24 year vehicle age coverage window (motorcycles, military tactical vehicles, diesel-powered vehicles, and antique vehicles are excluded). A gas cap integrity test is required on all these vehicles, and depending on the model year, gross vehicle weight (GVW) (threshold of 8,500 GVW separating light-duty and heavy-duty class), I/M area, and analysis year, current vehicle emissions testing may use On-Board Diagnostics (OBD) tests, the Acceleration Simulation Mode (ASM-2) test, or the Two-Speed Idle (TSI) test.

Table 31 and associated notes describe MOVES imcoverage records developed by TTI for the years available in MOVES applicable to each of the 17 Texas I/M counties. For additional I/M program details, see the current I/M SIP and/or pertinent Texas Administrative Code.¹⁹

Following is the general approach used to build the Texas imcoverage tables.

- Identified MOVES I/M test standards applicable to Texas I/M counties in consultation with TCEQ (see Table 31, column 4).
- Queried MOVES database to determine the extent to which MOVES provides I/M effects corresponding to Texas I/M programs (i.e., test frequency, fuel type, and test types). From the result, TTI listed the SUTs, test standards, pollutant, and emissions process combinations with I/M effects in MOVES (i.e., with non-zero MOVES I/M factors and corresponding base emission rates with non-zero standard I/M differences).
- Categorized counties and years in groups under pertinent MOVES test standards.
- Assigned MOVES I/M Program IDs such that: 1) all MOVES default I/M program IDs were excluded; and 2) for each year ID, each I/M program ID represented a unique combination of test standard, frequency, begin model year, and end model year.

¹⁹ Revision to the State Implementation Plan Mobile Source Strategies, Inspection and Maintenance State Implementation Plan Revision, TCEQ, adopted February 12, 2014.

Table 31. Texas MOVES I/M Coverage Inputs for Annual Inspections of Gasoline Vehicles.

2019 Analysis Year – *DFW Area Counties:* Dallas, Tarrant, Collin, Denton, Ellis, Johnson, Kaufman, Parker, and Rockwall; *HGB Area Counties:* Harris, Brazoria, Fort Bend, Galveston, and Montgomery

begModel YearID ¹	endModel YearID ¹	testStandardsID ²	Sourcetypeid ³
1995	1995	23 (Exh A2525/5015 Phase)	21 (PC), 31 (PT), and 32 (LCT)
1995	1995	41 (Evp Cap)	21 (PC), 31 (PT), and 32 (LCT)
1996	2017	51 (Exh OBD)	21 (PC), 31 (PT), and 32 (LCT)
1996	2017	45 (Evp Cap, OBD)	21 (PC), 31 (PT), and 32 (LCT)

2019 Analysis Year – *Austin Area Counties:* Travis and Williamson; *El Paso Area Counties:* El Paso

begModel YearID ¹	endModel YearID ¹	testStandardsID ²	Sourcetypeid ³
1995	1995	12 (Exh 2500 RPM/Idle)	21 (PC), 31 (PT), and 32 (LCT)
1995	1995	41 (Evp Cap)	21 (PC), 31 (PT), and 32 (LCT)
1996	2017	51 (Exh OBD)	21 (PC), 31 (PT), and 32 (LCT)
1996	2017	45 (Evp Cap, OBD)	21 (PC), 31 (PT), and 32 (LCT)

2023 and 2026 Analysis Years – All 17 I/M Counties

begModel YearID ¹	endModel YearID ¹	testStandardsID ²	Sourcetypeid ³
1999	2021	51 (Exh OBD)	21 (PC), 31 (PT), and 32 (LCT)
2002	2024		
1999	2021	45 (Evp Cap, OBD)	21 (PC), 31 (PT), and 32 (LCT)
2002	2024		

¹ begmodelyearID and endmodelyearID define the range of model years covered – where represented by “X” and “Y,” respectively, they are calculated as YearID – 24, and YearID – 2.

² The model processes/pollutants affected by the test standards are start and running exhaust HC, CO, NO_x, and tank vapor venting HC.

³ Source type compliance factor field input values were updated and provided by TCEQ for this analysis (March 2021), per Section 4.9.6, *MOVES Technical Guidance*, EPA, November 2020. The compliance factors were based on local I/M program statistics using the latest available data (2019) for 2019 and future analysis years. The I/M county MOVES compliance factors by I/M area for 2019 and later, in percent, are:

DFW: PC – 94.00; PT – 90.35; LCT – 70.74.

HGB: PC – 95.00; PT – 91.31; LCT – 71.49.

AUS: PC – 94.49; PT – 90.83; LCT – 71.12.

ELP: PC – 94.50; PT – 90.83; LCT – 71.12.

3.3.7 Control Programs Modeling

Table 32 shows the modeling approaches used for the emissions control strategies.

Table 32. Emissions Control Strategies and Modeling Approaches.

Control Strategy	Approach
Federal Motor Vehicle Control Program Standards	<i>MOVES defaults.</i>
Federal Heavy-Duty Diesel Engines Rebuild and 2004 Pull-Ahead Programs (to Mitigate NO _x Off-Cycle Effects)	<i>MOVES defaults.</i>
Conventional Gasoline (CG) Properties	<p><i>Local input to MOVES and MOVES defaults, consistent with regulatory standards –</i></p> <ul style="list-style-type: none"> - <u>2019 CG</u> – summer based on TCEQ's 2020 survey data except with MOVES3 default sulfur levels (expected 2019 Tier 3 transition levels); for winter, MOVES defaults in the absence of local data. - <u>2023/2026 CG</u> – summer based on TCEQ's (latest) 2020 survey data with MOVES defaults for RVP, sulfur, benzene (expected future values consistent with fuel rules); for winter, MOVES defaults in the absence of local data.
RFG Properties	<p><i>Local input to MOVES and MOVES defaults, consistent with regulatory standards –</i></p> <ul style="list-style-type: none"> - <u>2019 RFG</u> - based on EPA summer and winter 2019 RFG compliance survey data for Dallas and Houston areas; and MOVES default winter RVP. - <u>2023/2026 RFG</u> - based on latest EPA summer and winter RFG survey data (2020) for DFW and HGB areas, with MOVES default sulfur; and MOVES default winter RVP.
Diesel Sulfur	<p><i>Local input to MOVES and default –</i> For 2019, used statewide average based on TCEQ's latest (and closest year) diesel fuel survey (summer 2020). For 2023 and 2026, used the MOVES future years default (expected value).</p>
TxLED	<p><i>MOVES output post-processing –</i> TTI adjusted diesel NO_x rates for TxLED counties using evaluation-year-specific NO_x reduction factors produced by TCEQ (using reductions of 4.8% for 2002 and later, and 6.2% for 2001 and earlier model years).</p>
I/M Program	<p><i>Local input to MOVES –</i> For affected counties, TTI used available MOVES I/M coverage parameters for I/M vehicles, consistent with current program descriptions and latest I/M modeling protocols, to include latest I/M area-specific MOVES compliance factor inputs provided by TCEQ based on the latest (2019) I/M program statistics.</p>
Federal On-board Refueling Vapor Recovery Program	<i>MOVES defaults.</i>
Federal Stage II Gasoline Vapor Recovery Program	<i>Local inputs to MOVES –</i> Stage II reductions were set to 0% since the Stage II control program is no longer be in effect in the analysis years.

3.4 CHECKS AND RUNS

After completing the input data preparation, the CDBs were checked to verify that all tables were in the appropriate CDBs and the tables were populated with data as intended. The MOVES RunSpec files were executed in batches using the MOVES

commandline tool. After completion, TTI verified that the MOVES runs were error-free (i.e., checked all run log text files for errors and warnings and compared record counts in each rate table between output databases).

3.5 POST-PROCESSING RUNS

Each MOVES output database was post-processed for on-road mobile emission rates, area source refueling emission rates, and TEC rates to produce the on-road, refueling, and TEC rate tables input to the inventory calculations. The following post-processing procedures were performed on the MOVES output database for each county, year, season, and MOVES day type. See the utility descriptions in Appendix A for more information.

On-Road Mobile Emission Rates

1. This step calculated the mass/SHP off-network evaporative process rates using data from the CDB, the MOVES default database, and the MOVES rateperprofile and ratepervehicle emission rate output. The utility also copied the mass/mile, mass/start, and mass/hour rates along with the units into emission rate tables. The utility created the look-up tables ttirateperdistance (which also includes the rateperhour rates for off-network idling), ttirateperstart, ttirateperhour (for SHEI and APU hours), and ttiratepershp for each scenario.
2. This step applied TxLED adjustments (see factors provided by TCEQ in Table 33 to the diesel vehicle NO_x emission rates for all the counties subject to TxLED adjustments.²⁰ TCEQ produced these average diesel SUT NO_x adjustments using 4.8 percent and 6.2 percent reductions for 2002 and later, and 2001 and earlier model years, respectively.²¹ For on-road, these final rates inputs to the emissions calculator were merged into one on-road mobile rates input table "ttiemissionrate".

Refueling Emission Rates

1. The refueling emission rates were produced with no Stage II control effects (i.e., initial MOVES runs with countyyear table refuelingVaporProgramAdjust and refuelingSpillProgramAdjust field values set to zero for all counties). TTI produced

²⁰ Counties subject to TxLED fuel are the 110 east Texas counties coded as R2, R4, or R5 in the county coding summary. See counties list in Appendix F.

²¹ Reductions as detailed in the EPA Office of Transportation and Air Quality Memorandum, RE: Texas Low Emission Diesel [LED] Fuel Benefits, September 27, 2001.

these rates, in general, as described previously for the on-road rates, but for the two refueling emissions process categories, refueling displacement vapor loss, and refueling spillage loss. In MOVES off-network refueling emission rates output, however, emissions are not directly linked to the activity categories (i.e., starts, SHEI, APU hours). To produce off-network emission rates by activity, TTI performed calculations as described in Appendix A. The refueling rates post-processor created three rate tables (`ttirateperdistanceRF`, `ttirateperstartRF`, and `ttirateperhourRF` for SHEI and APU hours) Since there was no MOVES activity type specific to ONI, no ONI associated refueling rates were produced.

2. The VOC rates were extracted for subsequent input to the refueling emissions calculations. For refueling, these final rates inputs to the refueling emissions calculator were merged into one rates input table "`ttiRFemissionrate`".

TEC Rates

1. The TEC rates in terms of rate-per-activity (i.e., energy per mile, energy per start, and energy per SHEI and per APU hour, and energy per ONI hour) were then assembled in the TEC rate tables. The TEC rate tables produced are `ttirateperdistanceTEC` (includes ONI TEC), `ttirateperstartTEC`, and `ttirateperhourTEC` (for SHEI and APU hours only).
2. For subsequent input to the TEC calculations, these final TEC rates were merged into one TEC rates input table "`ttiTECemissionrate`".

Table 33. TxLED NO_x Reductions and Adjustments.

Diesel Fuel Source Use Type	2019 Reduction	2023 Reduction	2026 Reduction	2019 Adjustment	2023 Adjustment	2026 Adjustment
Passenger Car	4.94%	4.86%	4.83%	0.9506	0.9514	0.9517
Passenger Truck	5.30%	5.11%	5.02%	0.9470	0.9489	0.9498
Light Commercial Truck	5.34%	5.15%	5.06%	0.9466	0.9485	0.9494
Other Buses	5.39%	5.19%	5.06%	0.9461	0.9481	0.9494
Transit Bus	5.01%	4.92%	4.88%	0.9499	0.9508	0.9512
School Bus	5.24%	5.06%	4.97%	0.9476	0.9494	0.9503
Refuse Truck	5.26%	5.05%	4.92%	0.9474	0.9495	0.9508
Single Unit Short-Haul Truck	4.88%	4.82%	4.81%	0.9512	0.9518	0.9519
Single Unit Long-Haul Truck	4.88%	4.84%	4.82%	0.9512	0.9516	0.9518
Motor Home	5.47%	5.33%	5.17%	0.9453	0.9467	0.9483
Combination Short-Haul Truck	4.97%	4.87%	4.83%	0.9503	0.9513	0.9517
Combination Long-Haul Truck	5.12%	4.93%	4.86%	0.9488	0.9507	0.9514

Source: TCEQ, March 2021. The TCEQ procedure used MOVES3 and the latest available data (i.e., statewide age distributions and local AVFT inputs based on year-end 2018 TxDMV vehicle registrations data).

See Appendix A for more information on the TTI MOVES on-road and refueling emission rate and TEC rate calculation and adjustment utilities.

The resulting hourly on-road emission rates, refueling emission rates, and TEC rates were input to emissions/TEC utilities to calculate the separate on-road mobile source and area source refueling inventories and the TEC inventories for each county inventory scenario.

4.0 EMISSIONS AND TOTAL ENERGY CONSUMPTION CALCULATIONS

TTI calculated hourly on-road mobile emissions by county for each inventory scenario using the TTI EI utilities. The TDM link-based inventory methodology calculated on- and off-network emissions by multiplying traffic activity by emission rates. The VMT-based emissions calculations used the TDM link-based VMT and congested speeds to estimate link-level emissions. The off-network emissions calculations used off-network activity (ONI hours, SHP, starts, SHEI, and APU hours) to estimate emissions at the county level.

The TTI EI Utilities produced emissions outputs aggregated by county, hour, road functional class, road area type, vehicle type, pollutant, pollutant process, and link for on-network emissions; and county, hour, road functional class, vehicle type, pollutant, and pollutant process for off-network emissions. TEC outputs were produced at the scale of county, hour, road functional class, vehicle type, pollutant, and pollutant process (i.e., not at the link level) and refueling outputs were reported similarly, except independent of road functional class.

These outputs were then post-processed to produce electronic files in a format suitable for submission to the TCEQ sponsor.

4.1 EMISSIONS CALCULATIONS

The county-level hourly link-based emissions for each inventory scenario were calculated using TTI's EI utilities and the following inputs.

- *County of inventory* – from study area counties list, including county FIPS, link data county code, TxDOT district ID, county group FIPS, TxLED flag, county type flag (MSA or non-MSA).
- *Vehicle type VMT mix* – time period TxDOT district-level VMT mix by MOVES roadway type.
- *Time period designation* – the four VMT mix time periods to hour-of-day associations.
- *Roadway-based activity* – HPMS virtual link-specific, hourly, directional, operational VMT and speed estimates as developed by the EI utility to include: HPMS area-type code, HPMS functional class code, county number, HPMS area-type and functional-class combination code, HPMS centerline miles, congested speed, and VMT.

- *HPMS road type designations* – HPMS road type and area type codes to MOVES road type codes (and to VMT mix road type, and rates road type codes) (see Table 34).
- *Off-network activity* – county ONI hours, SHP, starts, SHEI, and APU hours by vehicle type and hour.
- *Pollutant/process/units list* – for emissions.
- *Roadway-based emission factors* – MOVES-based, county level by pollutant, process, hour, average speed, MOVES road type, SUT, and fuel type (different input data sets for refueling and on-road category emissions inventory calculators).
- *Off-network (parked vehicle) emission factors* – MOVES-based, county level by pollutant, process, hour, SUT, and fuel type (different input data sets for refueling and on-road category emissions inventory calculators).

County information IDs were identified (county FIPS, county group FIPS, TxDOT district, etc.) and inputs were selected for the inventory calculations based on these IDs.

4.1.1 VMT-Based On-network Emissions Calculations

The VMT-based emissions were calculated for each hour using the time-period TxDOT-level Vehicle type VMT mix, the virtual link VMT and speeds estimates, the MOVES-based “on-network” emission factors, and the virtual link road type/area type to MOVES road type designations. For each link, the link was assigned a MOVES road type based on the link’s road type and area type (see Table 34). The link VMT was distributed to each vehicle type using the VMT mix from the appropriate time period based on the link’s designated MOVES road type. The time period VMT mixes were applied by hour as follows: morning peak – 6 a.m. to 9 a.m.; mid-day – 9 a.m. to 4 p.m.; evening peak – 4 p.m. to 7 p.m.; and overnight – 7 p.m. to 6 a.m.

The emission factors for each vehicle type were selected based on the link’s designated MOVES road type and the link speed. For link speeds falling between MOVES speed bin average speeds, emission factors were interpolated from bounding speeds. For link speeds falling outside of the MOVES speed range (less than 2.5 mph and greater than 75 mph), the emission factors for the associated bounding speeds were used. The mass per mile rates were multiplied by the link vehicle type-specific VMT producing the link-level emissions estimates. This was performed for each hour of the day.

Table 34. Virtual Link Road Type/Area Type to MOVES Road Type Designations.

Virtual Link Road Type (Code – Name)	Virtual Link Area Type (Code – Name)	MOVES Road Type (Code - Name)
0 - RUR IH FWY	1 - Rural	2 - Rural Restricted Access
1 - RUR FWY	1 - Rural	2 - Rural Restricted Access
2 - RUR OTH PRIN ART	1 - Rural	3 - Rural Unrestricted Access
3 - RUR MINOR ART	1 - Rural	3 - Rural Unrestricted Access
4 - RUR MAJOR COLL	1 - Rural	3 - Rural Unrestricted Access
5 - RUR MINOR COLL	1 - Rural	3 - Rural Unrestricted Access
6 - RUR LOCAL	1 - Rural	3 - Rural Unrestricted Access
7 - SMALL URB IH FWY	2 - Small Urban	4 - Urban Restricted Access
14 - URB IH FWY	3 - Urban	4 - Urban Restricted Access
8 - SMALL URB FWY	2 - Small Urban	4 - Urban Restricted Access
15 - URB FWY	3 - Urban	4 - Urban Restricted Access
9 - SMALL URB OTH PR ART	2 - Small Urban	5 - Urban Unrestricted Access
16 - URB OTH PRIN ART	3 - Urban	5 - Urban Unrestricted Access
10 - SMALL URB MIN ART	2 - Small Urban	5 - Urban Unrestricted Access
17 - URB MIN ART	3 - Urban	5 - Urban Unrestricted Access
11 - SMALL URB MAJ COLL	2 - Small Urban	5 - Urban Unrestricted Access
12 - SMALL URB MIN COLL	2 - Small Urban	5 - Urban Unrestricted Access
18 - URB MAJ COLL	3 - Urban	5 - Urban Unrestricted Access
19 - URB MIN COLL	3 - Urban	5 - Urban Unrestricted Access
13 - SMALL URB LOCAL	2 - Small Urban	5 - Urban Unrestricted Access
20 - URB LOCAL	3 - Urban	5 - Urban Unrestricted Access

4.1.2 Off-Network Emission Calculations

The hourly off-network emissions were calculated at the county-level by multiplying the hourly MOVES-based vehicle type off-network emission factors by the appropriate county-level hourly vehicle type off-network activity, which was determined by the pollutant process and associated emission rate table. Additionally for selecting the ONI emission rate from the rate per distance table, the road type column was used (i.e., to look up rates with road-type ID 1 for off-network). The off-network emissions calculations used off-network activity (ONI hours, SHP, starts, SHEI, and APU hours) to estimate hourly emissions at the county level.

4.2 EMISSIONS OUTPUT

The following output files were developed from the raw EI output (including refueling loss emissions), by year, county, and activity scenario.

- A tab-delimited summary output file consisting of one header section followed by hourly and 24-hour totals data blocks of activity and emissions (pounds):
 - *On-road mobile source*: hourly and 24-hour total summaries are by road type and vehicle type of VMT, VHT, speed (VMT/VHT), pollutant totals, and pollutant process totals (with the “off-network” category listed as the last road type preceding the TOTALS row in each data block), and with starts, SHP, ONI, SHEI, and APU activity rows last in the activity data block for each time period; and
 - *Refueling*: hourly and 24-hour totals summaries are by vehicle type of VMT, VHT, speed (VMT/VHT), SHEI, APU, and starts, and of VOC pollutant refueling loss emissions totals and subtotal for vapor displacement and spillage;
- 24 hourly link emissions output files of the individual link-level emissions (grams):
 - *On-road mobile source*: each link-emissions record includes the link A node and B node codes (corresponding to the input link VMT and speeds), HPMS roadway class code, MOVES road type code, MOVES pollutant code, MOVES process code, and link emissions estimate for each vehicle type, and emissions units. For off-network emissions, these link emissions files also contain the county-level emissions in the same format except link nodes, are set to 99999, the link road type code set to 99, and MOVES road type code is set to the off-network category code (1) (additional detail on emissions output files and coding are found in Appendix B, the electronic data submittal description); and
 - *Refueling*: the link-emissions records were written as described in the previous bullet for off-network emissions.

The pollutants reported are listed in Table 35.

Table 35. Pollutants Reported.

Pollutant ID	Pollutant Name
2	Carbon Monoxide (CO)
3	Oxides of Nitrogen (NO _x)
5	Methane (CH ₄)
6	Nitrous Oxide (N ₂ O)
30	Ammonia (NH ₃)
31	Sulfur Dioxide (SO ₂)
32	Nitrogen Oxide (NO)
33	Nitrogen Dioxide (NO ₂)
34	Nitrous Acid (HONO)
35	Nitrate (NO ₃)
36	Ammonium (NH ₄)
51	Chloride (Cl)
52	Sodium (Na)
53	Potassium (K)
54	Magnesium (Mg)
55	Calcium (Ca)
56	Titanium (Ti)
57	Silicon (Si)
58	Aluminum (Al)
59	Iron (Fe)
87	Volatile Organic Compounds (VOC)
90	Atmospheric CO ₂
91	Total Energy Consumption (TEC)
100	Primary Exhaust PM ₁₀ – Total
106	Primary PM ₁₀ – Brakewear Particulate
107	Primary PM ₁₀ – Tirewear Particulate
110	Primary Exhaust PM _{2.5} – Total
111	Organic Carbon (OC)
112	Elemental Carbon (EC)
115	Sulfate Particulate
116	Primary PM _{2.5} – Brakewear Particulate
117	Primary PM _{2.5} – Tirewear Particulate
119	Aerosol H ₂ O (H ₂ O)
122	Non-carbon Organic Matter (NCOM)

See Appendix A for further details on the utilities and Appendix B for descriptions of the emissions inventory electronic data files provided.

4.3 TOTAL ENERGY CONSUMPTION

TTI used its inventory development utilities to calculate hourly total energy consumption by county for each activity scenario for on-road mobile sources. The TEC was calculated

using a similar procedure to that used to calculate the refueling emissions using MOVES-based “on-network” TEC rates (by process, hour, average speed, roadway type, SUT, and fuel type) and off-network TEC rates (by process, hour, SUT, and fuel type).

The hourly TEC data was output in the standard tab file format for each county activity scenario. The TEC standard tab file is described as a tab-delimited text summary output file that contains the hourly and 24-hour totals summaries of activity (VMT, VHT, speed, starts, ONI hours, SHEI, and APU hours) and TEC (in kilojoules) by vehicle type and road type. The “off-network” category is listed as the last road type preceding the TOTALS row in each data block), with starts, SHP, ONI hours, SHEI, and APU hours activity rows last in the activity data block for each time period.

Appendix B describes the emissions and energy inventory output files provided. See Appendix A for further details on the inventory production utilities.

5.0 ADDITIONAL MOVES INPUTS FOR INVENTORY MODE

The MOVES CDBs used to produce emission rates for the link-based inventory analyses were designed only for use in MOVES rates mode runs. TTI produced an extra set of MOVES inventory mode input data tables (32) as tab-delimited text files for each county, year, and activity scenario (total of 12,192 MOVES inventory mode input data sets). These input data files may be imported to MOVES CDBs for use in MOVES inventory mode runs designed to produce results close to results from the detailed, virtual link-based inventories. Using these input data files, TTI subsequently prepared the inventory mode CDBs for the summer weekday scenario along with a corresponding set of MRS files for use in producing inventories consistent with the summer weekday virtual link-based inventory results. One inventory mode CDB and MRS were built corresponding to each of the 2019, 2023, and 2026 summer weekday, virtual link-based, county inventories.

5.1 MOVES INVENTORY MODE INPUTS AND DATA SOURCES

The sources for the MOVES inventory mode input data sets for each county, year, and activity scenario consisted of inventory data from the link-based inventories (e.g., MOVES rates inputs, link-based activity outputs, off-network activity outputs, and particular MOVES defaults, or modified MOVES defaults consistent with the local inventories). TTI updated the utility for producing the MOVES3 inventory mode inputs (MOVESactivityinputbuild). The utility accesses the data sources, performs needed processing of data into MOVES input form, and organizes the resulting MOVES input files in folders by county, year, period, and day type. Table 36 lists the 32 input tables produced and the sources of the data.

Table 36. MOVES Input Tables Developed for Local Inventory Mode Runs.

MOVES Table	Data Source
totalidlefraction	Rates CDB (MOVES June - August average) processed to reflect summer and school periods activity)
avgspeeddistribution	Post-processed inventory activity output
hotellinghourfraction	Post-processed inventory activity output
hotellinghoursperday	Post-processed inventory activity output
hourvmtfraction	Post-processed inventory activity output
hpmsvtypeday	Post-processed inventory activity output
roadtypedistribution	Post-processed inventory activity output
sourcetypeofdayvmt	Post-processed inventory activity output
startshourfraction	Post-processed inventory activity output
startsperrypervehicle	Post-processed inventory activity output
sourcetypeyear	Post-processed inventory vehicle population output
auditlog	Rates CDB
avft	Rates CDB
state	Rates CDB
dayvmtfraction	Rates CDB (update, set dayvmtfraction = 1.0)
monthvmtfraction	Rates CDB (update, set dayvmtfraction = 1.0)
startsmothadjust	Rates CDB (update, set dayvmtfraction = 1.0)
county	Rates CDBs
countyyear	Rates CDBs
fuelformulation	Rates CDBs
fuelsupply	Rates CDBs
fuelusagefraction	Rates CDBs
hotellingactivitydistribution	Rates CDBs
imcoverage	Rates CDBs
sourcetypeagedistribution	Rates CDBs
year	Rates CDBs
zone	Rates CDBs
zonemonthhour	Rates CDBs
zoneroadtype	Rates CDBs
monthofanyyear	Updated MOVES default – set noOfDays = 7
dayofanyweek	Updated MOVES default – set noOfRealDays = 1
hotellingmonthadjust	Updated MOVES default – set monthadjust = 1/12

Testing produced MOVES on-road emissions inventory mode results comparable to the MOVES rates-mode-based, detailed link-based inventories, to within five percent, depending on the pollutant, but generally in the range of within two percent. Additional details on most of these MOVES inputs tables may be found in the MOVES3 inventory development guidance and MOVES technical information at EPA's MOVES model website.

Appendix B describes the files provided.

5.2 SUMMER WEEKDAY INVENTORY MODE CDBS AND MRSs

The set of summer weekday inventory mode CDBs provided was developed using the summer weekday MOVES input data tables developed with the local, detailed inventory data, as listed in Table 36. The set of corresponding summer weekday MRS files for the inventory mode runs were made like the rates mode run MRS files used in the link-based inventory analysis (Table 23), except with inventory mode specified instead of rates mode, the applicable inventory mode-specific CDBs specified in the MRS, and with output units of pounds specified.

The MOVES inventory mode summer weekday MRSs and CDBs were provided as a part of the electronic data submittal as described in Appendix B.

5.3 ADDITIONAL INVENTORY DATA SUMMARIES

As a part of the inventory development and MOVES inventory mode inputs development, additional intermediate vehicle activity and population data summary files (tab-delimited text) were produced and provided. These include the following VMT and VHT summaries for each county scenario (year, season, day type), and the following vehicle registration data and vehicle population estimates by county and year.

- **VMT** summary by hour, TDM road type, and TDM area type.
- **VHT** summary by hour, TDM road type, TDM area type, and MOVES average speed bin.
- **Vehicle registration data** by category of car, light truck/s, and heavier truck weight categories (and fuel type for heavy-duty trucks) used in the estimation of vehicle populations.
- **Vehicle populations estimates** with main fields of year, source type, and population.
- **Vehicle populations by fuel type estimates** with fields of year, source type, fuel type, population, source type description, fuel type description.

These files were also provided as a part of the data package as described in Appendix B.

6.0 QUALITY ASSURANCE

Analyses and results were subjected to appropriate internal review and QA/QC procedures, including independent verification and reasonableness checks. All work was completed consistent with applicable elements of American Society for Quality, American National Standard ASQ/ANSI: E4:2014: *Quality Management Systems for Environmental Information and Technology Programs – Requirements with Guidance for Use*, February 2014, and the TCEQ Quality Management Plan.

The Quality Assurance Project Plans (QAPP) category and project type most closely matching the intended use of this analysis are QAPP Category II (for important, highly visible Agency projects involving areas such as supporting the development of environmental regulations or standards) and Modeling for NAAQS Compliance. Internal review and quality control measures consistent with the QA category and project type-specific requirements provided in Guidance for Quality Assurance Project Plans for Modeling, EPA QA/G-5M,²² along with appropriate audits or assessments of data and reporting of findings, were employed. These include but are not limited to the elements outlined, per EPA Requirements for Quality Assurance Project Plans (EPA QA/R-5),²³ in the following description.

6.1 PROJECT MANAGEMENT

The definition and background of the problem addressed by this project, the project/task description and schedule, and project documents and records produced are as described previously in the Purpose, Background, and Production of Statewide On-Road Mobile Source Emissions Inventories, and Deliverables sections. No special training or certifications were required. The TTI project manager assured that the appropriate project personnel had and used the most current, approved version of the QAPP.

The objective was to produce the emissions inventory product of the quality suited to its purpose as specified (i.e., inventories needed for air quality modeling), in accordance with the appropriate guidance and methods documents as referenced, and in consultation with the TCEQ project manager.

Basic criteria were used to assure the acceptable quality of the product, including:

- The product met the purpose of the emissions analysis;
- The full extent of the modeling domain was included;

²² PDF available at: <https://www.epa.gov/sites/production/files/2015-06/documents/g5m-final.pdf>.

²³ PDF available at: https://www.epa.gov/sites/production/files/2016-06/documents/r5-final_0.pdf.

- Agreed methods, models, tools, and data were used;
- The output data sets were produced in required formats;
- Any deficiencies found (as discussed in Section 6.5) were corrected; and
- Aggregate results were comparable with available, similarly produced emissions estimates.

6.2 MEASUREMENT AND DATA ACQUISITION

Note that no sampling of data was involved in the EI development; thus, only existing data (non-direct measurements) were used for this project.

The data needed for project implementation was for the development of emission rate model inputs and adjustment factors and the development of the activity inputs for external emissions calculations. Existing data acquired from various organizations (e.g., TxDOT, MPOs, TCEQ, EPA) was reviewed by TTI for suitability, and in most cases was previously QA'd by the providing agency. These data sets may include HPMS data (from TxDOT's Roadway Inventory Functional Classification Record [RIFCREC] report); regional travel demand model data; speed model data; vehicle registration data; ATR data; vehicle classification count data; meteorological data; fuels data; MOVES emissions model data; extended idling activity data; and vehicle I/M program design data.

Any significant problems found during the review, verification, and/or validation (see QA criteria and methods discussed in Section 6.5) were corrected, and the QA procedure was repeated until satisfied. No significant problems were found.

6.3 DATA MANAGEMENT

The project team used the same electronic project folder structure on each individual workstation. As various scripts, inputs, and outputs were developed in the process, data were shared within the team for crosschecking. To perform the MOVES model runs, a computer cluster (multiple computers) configuration or individual workstation configuration was used. After input data were QA'd, data sets were backed up and stored in compressed files.

After the final product was completed, all the project data archives were compiled on a set of optical data discs (CD-ROM or DVD, depending on size) or on an external drive for very large project data sets. A complete archive of the project data is kept by TTI (the computer models and EI development utilities used in the process included). The electronic data submittal package (containing the project deliverables as listed in

Appendix B) was produced along with data description (and copied to a shared folder or CD-ROM, DVD, or external hard drive, depending on needed storage space) and delivered to TCEQ.

6.4 ASSESSMENT AND OVERSIGHT

The following assessments were performed.

- Verified that the overall scope was met (i.e., consistent with the intended purpose, for specified temporal resolution and geographic coverage, for specified sources, pollutants, and emissions processes).
- Checked that input data was prepared according to the plan; and
- Checked that correct output data was produced. Records were kept of the checks performed.

In the case of any inconsistency or deficiency found, the issue was directly communicated to responsible staff for correction (or outside agency staff involved, if any). After any correction, QA checks were repeated to assure the additional work resulted in the intended result and were noted in the QA record.

Any major problems were reported to the project manager and communicated to the project team as needed, as well as when various data elements passed QA checks and were ready next steps. The project manager ensured all of the QA checks performed were compiled and maintained in the project archives.

In addition, technical systems audits were performed. Audits of data quality at the requisite 25 percent level were performed for any data produced as part of this study. QA findings were reported in both the draft and the final reports.

6.5 DATA VALIDATION

Erroneous or improper inputs at any point during the EI development process may produce inaccurate emissions estimates. The TTI project team performed QA checks at each step of the analysis to ensure data quality.

The criteria for passing quality checks are summarized in the following. These QA guidelines were used to ensure the development of emissions inventories that were as accurate as possible and met the requirements of TCEQ's intended use.

As previously stated, TTI verified the overall scope of the emissions analysis to include the following.

- Purpose (i.e., needed for air quality modeling applications).
- Modeling domain (e.g., analysis years, geographic coverage, seasonal periods, days, sources, pollutants).
- Methods, models, and data (e.g., default versus local input data sources).
- Procedures, tools, and required emissions output data sets.

TTI performed checks on input data, model execution, and output, as follows.

- Input data preparation:
 - The basis of input data sets as planned (e.g., actual, historical, latest available, validated model); aggregation levels.
 - Depending on the procedure and input data set, verification of calculations.
 - Use of correct data dimensions, fields, coding, labeling, formats; distributions sum to 1.0 where appropriate.
 - Reasonability checks: (discussed in the next section).
 - External data sources quality assurance verification.
- Model or utility execution:
 - The correct number of utility or model run input files per application.
 - Utility control or model run specifications verification (e.g., per the applicable user guide, correct inputs, output options).
- Output:
 - Correct output files by type and quantity.
 - Expected output file sizes.
 - Warnings and errors (e.g., checks of any written to output run logs).
 - Required data, proper coding/labeling, formats.
 - Assessment of any unusual results.

TTI performed further checks for consistency, completeness, and reasonability of data output from model or utility applications.

- Any activity, emission rate, or emissions adjustments were performed as intended.
- Noted whether directional differences were as expected (e.g., between scenarios with temporal or geographic variation).
- Checked for consistency (e.g., input data control totals versus output summaries, utility raw results versus post-processed results).
- Compared results to results from previous similar analyses where available.

Any additional data products required for the emissions analysis were subjected to the appropriate QA checks previously listed. Any issues found needing resolution were corrected, and appropriate QA checks were performed until satisfied, ensuring the project results met the TCEQ requirements, i.e., as outlined in the GAD and QAPP.

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APPENDIX A: EMISSIONS ESTIMATION UTILITIES FOR MOVES-BASED EMISSIONS INVENTORIES (ELECTRONIC ONLY)

This appendix is available separately in an electronic format (e.g., .docx, .xlsx, .pdf, .txt, .zip, or other format) and can be provided upon request.

APPENDIX B: ELECTRONIC DATA SUBMITTAL DESCRIPTION (ELECTRONIC ONLY)

This appendix is available separately in an electronic format (e.g., .docx, .xlsx, .pdf, .txt, .zip, or other format) and can be provided upon request.

APPENDIX C: TXDOT DISTRICT VMT MIX BY DAY OF WEEK AND AGGREGATE WEEKDAY VMT (ELECTRONIC ONLY)

This appendix is available separately in an electronic format (e.g., .docx, .xlsx, .pdf, .txt, .zip, or other format) and can be provided upon request.

APPENDIX D: COUNTY VMT CONTROL TOTALS BY DAY OF WEEK

County VMT Control Totals by Day of Week – 2019 Spring and Summer.

County	TxDOT District	2019 Spring Weekday	2019 Spring Friday	2019 Spring Saturday	2019 Spring Sunday	2019 Summer Weekday	2019 Summer Friday	2019 Summer Saturday	2019 Summer Sunday
Anderson	Tyler	1,475,256	1,597,566	1,342,655	1,038,888	1,472,120	1,600,397	1,331,138	1,036,835
Andrews	Odessa	1,343,120	1,384,070	1,026,819	817,825	1,319,477	1,361,186	1,010,915	803,352
Angelina	Lufkin	2,499,216	2,931,106	2,400,013	2,138,732	2,515,332	2,939,026	2,397,064	2,136,781
Aransas	Corpus Christi	635,481	721,381	597,626	502,471	621,412	705,349	580,769	478,962
Archer	Wichita Falls	478,829	541,837	433,198	373,933	467,555	536,229	424,331	360,313
Armstrong	Amarillo	476,656	513,551	478,264	417,410	459,743	494,839	452,749	396,316
Atascosa	San Antonio	2,370,585	2,671,162	2,143,193	1,835,451	2,366,137	2,670,220	2,154,440	1,831,538
Austin	Yoakum	1,556,904	1,964,333	1,542,834	1,657,360	1,564,134	1,990,153	1,547,017	1,654,503
Bailey	Lubbock	255,934	278,254	229,985	189,385	257,515	281,963	232,243	188,509
Bandera	San Antonio	546,716	616,037	494,274	423,301	545,690	615,819	496,868	422,398
Bastrop	Austin	2,928,349	3,176,637	2,893,715	2,523,347	2,905,961	3,170,885	2,894,776	2,521,905
Baylor	Wichita Falls	283,029	320,272	256,057	221,026	276,365	316,957	250,816	212,976
Bee	Corpus Christi	736,175	835,685	692,321	582,088	719,876	817,114	672,794	554,854
Bell	Waco	9,389,626	12,188,614	10,325,353	10,655,494	9,012,410	11,791,435	9,960,875	10,201,383
Bexar	San Antonio	47,831,820	53,896,621	43,243,677	37,034,303	47,742,076	53,877,617	43,470,615	36,955,348
Blanco	Austin	768,896	834,089	759,802	662,555	763,018	832,579	760,081	662,176
Borden	Abilene	84,890	100,488	79,868	80,456	84,222	100,362	79,753	79,558
Bosque	Waco	589,578	765,328	648,333	669,063	565,893	740,389	625,447	640,549
Bowie	Atlanta	3,400,014	3,949,683	3,438,226	3,236,787	3,342,947	3,881,889	3,314,840	3,129,666
Brazoria	Houston	8,981,192	9,589,650	7,892,206	6,460,622	9,011,258	9,595,220	7,935,195	6,514,461
Brazos	Bryan	4,786,636	6,344,856	5,242,964	5,602,471	4,790,584	6,466,361	5,295,758	5,653,503
Brewster	El Paso	346,446	369,178	300,231	233,214	349,996	373,147	304,994	236,190
Briscoe	Childress	70,128	80,638	79,209	78,658	67,014	77,437	74,931	74,024
Brooks	Pharr	694,052	782,529	696,442	567,987	708,532	796,422	705,824	568,907
Brown	Brownwood	996,133	1,293,050	1,000,200	1,010,714	990,463	1,297,944	998,646	999,752
Burleson	Bryan	873,716	1,158,141	957,010	1,022,632	874,436	1,180,320	966,647	1,031,947
Burnet	Austin	1,900,861	2,062,031	1,878,380	1,637,965	1,886,329	2,058,297	1,879,068	1,637,029
Caldwell	Austin	1,528,504	1,658,102	1,510,427	1,317,106	1,516,818	1,655,100	1,510,980	1,316,354
Calhoun	Yoakum	631,402	796,634	625,696	672,142	634,334	807,106	627,392	670,983
Callahan	Abilene	1,103,627	1,306,414	1,038,337	1,045,985	1,094,940	1,304,778	1,036,841	1,034,302
Cameron	Pharr	8,764,491	9,881,780	8,794,679	7,172,545	8,947,353	10,057,221	8,913,152	7,184,161
Camp	Atlanta	292,283	339,535	295,568	278,251	287,377	333,707	284,961	269,042
Carson	Amarillo	902,060	971,883	905,103	789,940	870,053	936,471	856,817	750,018
Cass	Atlanta	935,080	1,086,251	945,589	890,189	919,385	1,067,606	911,655	860,728

County	TxDOT District	2019 Spring Weekday	2019 Spring Friday	2019 Spring Saturday	2019 Spring Sunday	2019 Summer Weekday	2019 Summer Friday	2019 Summer Saturday	2019 Summer Sunday
Castro	Lubbock	301,142	327,404	270,609	222,838	303,002	331,768	273,265	221,806
Chambers	Beaumont	3,132,371	3,573,348	2,906,187	2,554,952	3,138,880	3,572,555	2,919,356	2,543,283
Cherokee	Tyler	1,484,393	1,607,461	1,350,971	1,045,322	1,481,237	1,610,309	1,339,383	1,043,257
Childress	Childress	434,905	500,081	491,218	487,805	415,591	480,229	464,688	459,068
Clay	Wichita Falls	984,375	1,113,907	890,567	768,731	961,199	1,102,379	872,339	740,731
Cochran	Lubbock	125,639	136,596	112,901	92,970	126,416	138,417	114,009	92,540
Coke	San Angelo	198,981	234,243	189,286	198,417	195,058	230,147	183,772	192,406
Coleman	Brownwood	419,334	544,325	421,046	425,472	416,947	546,385	420,392	420,858
Collin	Dallas	21,436,790	23,594,379	20,184,424	17,085,128	21,346,031	23,625,623	20,233,336	17,084,119
Collingsworth	Childress	101,246	116,419	114,355	113,561	96,749	111,797	108,179	106,871
Colorado	Yoakum	1,929,906	2,434,946	1,912,465	2,054,429	1,938,867	2,466,952	1,917,650	2,050,887
Comal	San Antonio	5,961,971	6,717,915	5,390,084	4,616,120	5,950,785	6,715,546	5,418,371	4,606,279
Comanche	Brownwood	475,872	617,715	477,815	482,838	473,163	620,052	477,072	477,601
Concho	San Angelo	325,582	383,279	309,719	324,659	319,162	376,578	300,696	314,823
Cooke	Wichita Falls	2,183,422	2,470,734	1,975,347	1,705,107	2,132,015	2,445,163	1,934,916	1,642,999
Coryell	Waco	1,390,838	1,805,438	1,529,442	1,578,344	1,334,963	1,746,606	1,475,454	1,511,079
Cottle	Childress	71,889	82,662	81,197	80,633	68,696	79,381	76,812	75,883
Crane	Odessa	463,900	478,043	354,653	282,468	455,734	470,140	349,160	277,469
Crockett	San Angelo	849,691	1,000,265	808,291	847,282	832,936	982,777	784,743	821,611
Crosby	Lubbock	207,825	225,949	186,753	153,785	209,109	228,961	188,587	153,074
Culberson	El Paso	1,112,421	1,185,410	964,026	748,837	1,123,819	1,198,154	979,318	758,394
Dallam	Amarillo	528,545	569,457	530,328	462,850	509,791	548,707	502,036	439,459
Dallas	Dallas	69,110,129	76,065,987	65,072,624	55,080,795	68,817,531	76,166,715	65,230,310	55,077,542
Dawson	Lubbock	686,546	746,420	616,937	508,028	690,788	756,369	622,993	505,677
Deaf Smith	Amarillo	639,457	688,954	641,614	559,976	616,767	663,850	607,385	531,677
Delta	Paris	181,078	212,662	187,086	170,441	175,875	208,132	182,974	164,676
Denton	Dallas	17,974,333	19,783,429	16,924,248	14,325,549	17,898,233	19,809,627	16,965,260	14,324,703
De Witt	Yoakum	796,325	1,004,717	789,129	847,707	800,023	1,017,923	791,268	846,245
Dickens	Childress	104,704	120,396	118,262	117,440	100,054	115,616	111,875	110,521
Dimmit	Laredo	715,739	799,762	682,893	575,652	709,779	794,073	680,262	575,361
Donley	Childress	532,830	612,681	601,822	597,641	509,167	588,359	569,319	562,433
Duval	Laredo	455,634	509,123	434,725	366,456	451,841	505,501	433,050	366,271
Eastland	Brownwood	1,443,032	1,873,156	1,448,924	1,464,155	1,434,819	1,880,245	1,446,673	1,448,275
Ector	Odessa	5,298,388	5,459,931	4,050,632	3,226,186	5,205,122	5,369,658	3,987,894	3,169,093
Edwards	San Angelo	143,930	169,436	136,917	143,522	141,092	166,473	132,928	139,173
Ellis	Dallas	6,430,466	7,077,686	6,054,790	5,125,084	6,403,241	7,087,058	6,069,462	5,124,781

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El Paso	El Paso	20,151,848	21,474,069	17,463,632	13,565,413	20,358,320	21,704,920	17,740,644	13,738,545
Erath	Fort Worth	1,443,224	1,576,660	1,225,602	998,635	1,430,519	1,570,469	1,225,511	989,034
Falls	Waco	829,747	1,077,090	912,436	941,610	796,413	1,041,992	880,228	901,481
Fannin	Paris	852,139	1,000,769	880,411	802,082	827,653	979,450	861,057	774,951
Fayette	Yoakum	1,908,817	2,408,339	1,891,567	2,031,980	1,917,681	2,439,995	1,896,696	2,028,477
Fisher	Abilene	218,513	258,664	205,586	207,100	216,793	258,340	205,289	204,787
Floyd	Lubbock	186,597	202,871	167,678	138,078	187,750	205,574	169,324	137,439
Foard	Childress	64,414	74,067	72,755	72,249	61,553	71,127	68,825	67,993
Fort Bend	Houston	13,890,932	14,832,016	12,206,632	9,992,445	13,937,435	14,840,630	12,273,122	10,075,716
Franklin	Paris	644,372	756,764	665,751	606,521	625,857	740,643	651,116	586,005
Freestone	Bryan	1,496,219	1,983,292	1,638,860	1,751,235	1,497,453	2,021,272	1,655,362	1,767,187
Frio	San Antonio	1,549,437	1,745,897	1,400,812	1,199,669	1,546,530	1,745,282	1,408,163	1,197,111
Gaines	Lubbock	940,306	1,022,310	844,968	695,804	946,115	1,035,936	853,262	692,584
Galveston	Houston	7,256,325	7,747,927	6,376,483	5,219,839	7,280,617	7,752,427	6,411,216	5,263,338
Garza	Lubbock	531,147	577,468	477,294	393,036	534,428	585,165	481,979	391,217
Gillespie	Austin	1,010,390	1,096,058	998,440	870,649	1,002,665	1,094,074	998,806	870,152
Glasscock	San Angelo	443,045	521,558	421,459	441,790	434,309	512,439	409,180	428,404
Goliad	Corpus Christi	376,939	427,891	354,485	298,043	368,594	418,382	344,487	284,099
Gonzales	Yoakum	1,632,612	2,059,854	1,617,858	1,737,953	1,640,193	2,086,929	1,622,245	1,734,957
Gray	Amarillo	812,894	875,815	815,636	711,856	784,050	843,903	772,123	675,880
Grayson	Paris	4,272,759	5,018,014	4,414,518	4,021,768	4,149,982	4,911,118	4,317,478	3,885,730
Gregg	Tyler	4,125,469	4,467,502	3,754,658	2,905,190	4,116,698	4,475,418	3,722,452	2,899,450
Grimes	Bryan	1,125,345	1,491,685	1,232,629	1,317,149	1,126,273	1,520,251	1,245,040	1,329,147
Guadalupe	San Antonio	4,568,930	5,148,244	4,130,667	3,537,543	4,560,357	5,146,429	4,152,344	3,530,001
Hale	Lubbock	1,106,383	1,202,871	994,207	818,697	1,113,218	1,218,903	1,003,966	814,908
Hall	Childress	251,854	289,597	284,465	282,488	240,669	278,101	269,101	265,846
Hamilton	Waco	395,957	513,989	435,416	449,338	380,050	497,240	420,046	430,188
Hansford	Amarillo	208,962	225,136	209,667	182,989	201,547	216,933	198,481	173,741
Hardeman	Childress	415,008	477,202	468,744	465,487	396,577	458,258	443,428	438,065
Hardin	Beaumont	1,637,204	1,867,690	1,518,984	1,335,403	1,640,606	1,867,276	1,525,867	1,329,304
Harris	Houston	122,609,634	130,916,196	107,743,000	88,199,268	123,020,093	130,992,233	108,329,876	88,934,267
Harrison	Atlanta	2,846,916	3,307,168	2,878,912	2,710,242	2,799,132	3,250,402	2,775,598	2,620,547
Hartley	Amarillo	520,553	560,846	522,309	455,851	502,082	540,410	494,444	432,814
Haskell	Abilene	289,578	342,787	272,447	274,453	287,299	342,358	272,054	271,388
Hays	Austin	7,149,629	7,755,829	7,065,070	6,160,807	7,094,969	7,741,787	7,067,661	6,157,288
Hemphill	Amarillo	215,886	232,597	216,615	189,053	208,226	224,122	205,059	179,499

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Henderson	Tyler	2,205,875	2,388,759	2,007,603	1,553,396	2,201,185	2,392,991	1,990,383	1,550,327
Hidalgo	Pharr	16,902,892	19,057,655	16,961,110	13,832,720	17,255,553	19,396,006	17,189,594	13,855,121
Hill	Waco	2,616,412	3,396,348	2,877,152	2,969,145	2,511,301	3,285,675	2,775,591	2,842,608
Hockley	Lubbock	757,764	823,849	680,935	560,728	762,446	834,830	687,619	558,133
Hood	Fort Worth	1,355,455	1,480,775	1,151,067	937,903	1,343,522	1,474,961	1,150,982	928,886
Hopkins	Paris	1,961,055	2,303,103	2,026,118	1,845,859	1,904,705	2,254,041	1,981,580	1,783,422
Houston	Lufkin	700,712	821,802	672,898	599,642	705,231	824,023	672,072	599,095
Howard	Abilene	1,691,626	2,002,456	1,591,551	1,603,273	1,678,311	1,999,949	1,589,258	1,585,366
Hudspeth	El Paso	1,852,315	1,973,851	1,605,220	1,246,904	1,871,293	1,995,070	1,630,682	1,262,818
Hunt	Paris	3,307,655	3,884,576	3,417,394	3,113,356	3,212,610	3,801,825	3,342,272	3,008,045
Hutchinson	Amarillo	451,235	486,163	452,757	395,149	435,224	468,448	428,604	375,180
Irion	San Angelo	253,016	297,853	240,688	252,299	248,027	292,646	233,676	244,655
Jack	Fort Worth	358,187	391,303	304,176	247,846	355,033	389,767	304,153	245,463
Jackson	Yoakum	953,478	1,202,996	944,862	1,015,000	957,906	1,218,808	947,423	1,013,250
Jasper	Beaumont	1,208,917	1,379,109	1,121,623	986,066	1,211,429	1,378,803	1,126,705	981,562
Jeff Davis	El Paso	248,634	264,948	215,467	167,371	251,182	267,796	218,885	169,507
Jefferson	Beaumont	7,400,653	8,442,519	6,866,262	6,036,421	7,416,030	8,440,647	6,897,375	6,008,851
Jim Hogg	Pharr	169,658	191,286	170,243	138,842	173,198	194,682	172,536	139,067
Jim Wells	Corpus Christi	1,431,243	1,624,707	1,345,984	1,131,674	1,399,556	1,588,601	1,308,019	1,078,726
Johnson	Fort Worth	4,811,852	5,256,738	4,086,279	3,329,548	4,769,491	5,236,098	4,085,975	3,297,538
Jones	Abilene	564,686	668,445	531,280	535,193	560,242	667,608	530,514	529,215
Karnes	Corpus Christi	974,198	1,105,882	916,165	770,292	952,630	1,081,306	890,324	734,252
Kaufman	Dallas	4,750,961	5,229,140	4,473,404	3,786,518	4,730,847	5,236,065	4,484,244	3,786,294
Kendall	San Antonio	1,471,961	1,658,597	1,330,767	1,139,682	1,469,199	1,658,012	1,337,751	1,137,252
Kenedy	Pharr	470,708	530,713	472,329	385,210	480,529	540,136	478,692	385,834
Kent	Abilene	65,523	77,563	61,647	62,101	65,007	77,466	61,558	61,407
Kerr	San Antonio	1,602,054	1,805,185	1,448,381	1,240,407	1,599,048	1,804,549	1,455,982	1,237,763
Kimble	San Angelo	769,761	906,171	732,256	767,578	754,582	890,328	710,922	744,323
King	Childress	86,355	99,297	97,537	96,859	82,520	95,355	92,269	91,153
Kinney	Laredo	235,412	263,048	224,609	189,337	233,452	261,177	223,744	189,241
Kleberg	Corpus Christi	955,803	1,085,001	898,867	755,747	934,643	1,060,889	873,513	720,388
Knox	Childress	141,059	162,199	159,324	158,217	134,795	155,760	150,720	148,896
Lamar	Paris	1,404,308	1,649,248	1,450,899	1,321,816	1,363,955	1,614,114	1,419,005	1,277,105
Lamb	Lubbock	493,175	536,185	443,172	364,938	496,222	543,332	447,522	363,249
Lampasas	Brownwood	775,247	1,006,325	778,412	786,595	770,835	1,010,133	777,203	778,064
La Salle	Laredo	1,446,562	1,616,378	1,380,179	1,163,436	1,434,517	1,604,880	1,374,861	1,162,848

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Lavaca	Yoakum	735,058	927,416	728,415	782,486	738,471	939,606	730,390	781,137
Lee	Austin	825,761	895,776	815,995	711,555	819,448	894,154	816,294	711,149
Leon	Bryan	1,559,467	2,067,129	1,708,137	1,825,263	1,560,753	2,106,715	1,725,337	1,841,889
Liberty	Beaumont	2,567,507	2,928,961	2,382,111	2,094,214	2,572,842	2,928,312	2,392,905	2,084,649
Limestone	Waco	708,518	919,723	779,126	804,037	680,054	889,753	751,623	769,771
Lipscomb	Amarillo	171,365	184,629	171,943	150,065	165,284	177,902	162,770	142,481
Live Oak	Corpus Christi	1,732,707	1,966,921	1,629,491	1,370,040	1,694,346	1,923,210	1,583,529	1,305,939
Llano	Austin	647,085	701,950	639,432	557,591	642,138	700,679	639,667	557,272
Loving	Odessa	499,562	514,793	381,917	304,183	490,769	506,282	376,001	298,800
Lubbock	Lubbock	7,215,368	7,844,622	6,483,803	5,339,204	7,259,944	7,949,177	6,547,447	5,314,493
Lynn	Lubbock	498,068	541,504	447,569	368,558	501,145	548,722	451,962	366,853
McCulloch	Brownwood	349,489	453,661	350,916	354,605	347,500	455,378	350,371	350,759
McLennan	Waco	8,038,868	10,435,205	8,839,985	9,122,633	7,715,917	10,095,162	8,527,940	8,733,849
McMullen	San Antonio	340,416	383,579	307,762	263,571	339,777	383,443	309,377	263,009
Madison	Bryan	1,078,564	1,429,675	1,181,388	1,262,394	1,079,454	1,457,053	1,193,283	1,273,894
Marion	Atlanta	291,820	338,998	295,100	277,811	286,922	333,179	284,510	268,617
Martin	Odessa	1,307,080	1,346,932	999,266	795,880	1,284,072	1,324,662	983,789	781,796
Mason	Austin	232,395	252,099	229,646	200,254	230,618	251,643	229,730	200,139
Matagorda	Yoakum	1,042,253	1,315,003	1,032,834	1,109,503	1,047,093	1,332,287	1,035,635	1,107,590
Maverick	Laredo	1,239,187	1,384,659	1,182,320	996,649	1,228,868	1,374,809	1,177,765	996,145
Medina	San Antonio	1,639,328	1,847,185	1,482,080	1,269,267	1,636,252	1,846,534	1,489,857	1,266,561
Menard	San Angelo	176,961	208,320	168,339	176,459	173,471	204,678	163,434	171,113
Midland	Odessa	6,616,466	6,818,196	5,058,306	4,028,763	6,499,998	6,705,466	4,979,961	3,957,467
Milam	Bryan	799,620	1,059,924	875,851	935,907	800,279	1,080,222	884,670	944,432
Mills	Brownwood	257,162	333,814	258,212	260,926	255,698	335,077	257,810	258,096
Mitchell	Abilene	847,440	1,003,153	797,305	803,178	840,769	1,001,897	796,157	794,207
Montague	Wichita Falls	901,413	1,020,028	815,510	703,943	880,189	1,009,471	798,818	678,302
Montgomery	Houston	15,614,476	16,672,326	13,721,193	11,232,276	15,666,748	16,682,009	13,795,932	11,325,879
Moore	Amarillo	654,636	705,308	656,844	573,269	631,408	679,608	621,803	544,297
Morris	Atlanta	547,292	635,771	553,443	521,018	538,106	624,858	533,582	503,775
Motley	Childress	52,982	60,922	59,842	59,427	50,629	58,504	56,610	55,926
Nacogdoches	Lufkin	1,998,282	2,343,606	1,918,963	1,710,052	2,011,168	2,349,939	1,916,605	1,708,492
Navarro	Dallas	2,367,546	2,605,837	2,229,231	1,886,935	2,357,522	2,609,287	2,234,633	1,886,823
Newton	Beaumont	436,171	497,575	404,675	355,767	437,077	497,465	406,509	354,142
Nolan	Abilene	1,341,207	1,587,648	1,261,862	1,271,156	1,330,650	1,585,660	1,260,044	1,256,958
Nueces	Corpus Christi	9,585,484	10,881,173	9,014,480	7,579,177	9,373,267	10,639,359	8,760,218	7,224,567

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Ochiltree	Amarillo	410,383	442,149	411,768	359,375	395,822	426,038	389,801	341,213
Oldham	Amarillo	854,554	920,700	857,436	748,338	824,232	887,152	811,694	710,519
Orange	Beaumont	3,416,442	3,897,410	3,169,746	2,786,658	3,423,541	3,896,546	3,184,109	2,773,930
Palo Pinto	Fort Worth	1,282,211	1,400,759	1,088,868	887,222	1,270,923	1,395,259	1,088,787	878,693
Panola	Atlanta	1,027,144	1,193,199	1,038,688	977,833	1,009,904	1,172,718	1,001,413	945,472
Parker	Fort Worth	4,967,239	5,426,492	4,218,235	3,437,068	4,923,510	5,405,185	4,217,921	3,404,024
Parmer	Lubbock	435,402	473,374	391,257	322,188	438,092	479,683	395,097	320,696
Pecos	Odessa	1,567,797	1,615,597	1,198,585	954,630	1,540,199	1,588,885	1,180,021	937,737
Polk	Lufkin	1,873,867	2,197,690	1,799,486	1,603,582	1,885,950	2,203,629	1,797,275	1,602,120
Potter	Amarillo	3,387,123	3,649,302	3,398,549	2,966,126	3,266,941	3,516,331	3,217,243	2,816,225
Presidio	El Paso	253,216	269,830	219,437	170,455	255,810	272,731	222,918	172,630
Rains	Paris	358,312	420,809	370,200	337,264	348,016	411,845	362,063	325,856
Randall	Amarillo	2,554,873	2,752,631	2,563,491	2,237,318	2,464,220	2,652,333	2,426,734	2,124,249
Reagan	San Angelo	443,436	522,018	421,831	442,179	434,692	512,891	409,541	428,782
Real	San Angelo	126,667	149,113	120,495	126,307	124,169	146,506	116,985	122,481
Red River	Paris	412,199	484,095	425,875	387,986	400,354	473,782	416,513	374,862
Reeves	Odessa	2,286,031	2,355,730	1,747,677	1,391,963	2,245,791	2,316,781	1,720,608	1,367,330
Refugio	Corpus Christi	727,472	825,806	684,137	575,207	711,367	807,454	664,840	548,295
Roberts	Amarillo	124,827	134,489	125,248	109,312	120,398	129,589	118,567	103,788
Robertson	Bryan	953,049	1,263,300	1,043,907	1,115,487	953,835	1,287,492	1,054,418	1,125,647
Rockwall	Dallas	2,613,086	2,876,090	2,460,426	2,082,630	2,602,023	2,879,899	2,466,388	2,082,507
Runnels	San Angelo	441,285	519,486	419,785	440,034	432,584	510,404	407,555	426,703
Rusk	Tyler	1,554,678	1,683,573	1,414,938	1,094,817	1,551,373	1,686,556	1,402,801	1,092,654
Sabine	Lufkin	311,531	365,366	299,165	266,596	313,539	366,353	298,797	266,352
San Augustine	Lufkin	317,576	372,456	304,970	271,769	319,623	373,462	304,595	271,521
San Jacinto	Lufkin	907,419	1,064,230	871,400	776,534	913,270	1,067,106	870,330	775,826
San Patricio	Corpus Christi	2,638,503	2,995,155	2,481,329	2,086,247	2,580,088	2,928,593	2,411,340	1,988,637
San Saba	Brownwood	200,415	260,152	201,233	203,348	199,274	261,137	200,920	201,143
Schleicher	San Angelo	136,703	160,928	130,043	136,316	134,008	158,115	126,254	132,186
Scurry	Abilene	765,959	906,701	720,646	725,954	759,930	905,566	719,607	717,845
Shackelford	Abilene	172,483	204,176	162,279	163,474	171,126	203,921	162,045	161,649
Shelby	Lufkin	862,582	1,011,645	828,343	738,164	868,145	1,014,379	827,325	737,491
Sherman	Amarillo	334,632	360,534	335,761	293,039	322,759	347,397	317,849	278,230
Smith	Tyler	7,387,485	7,999,964	6,723,474	5,202,330	7,371,779	8,014,140	6,665,801	5,192,051
Somervell	Fort Worth	338,710	370,026	287,636	234,369	335,728	368,573	287,615	232,116
Starr	Pharr	1,319,869	1,488,125	1,324,415	1,080,134	1,347,407	1,514,545	1,342,257	1,081,883

County	TxDOT District	2019 Spring Weekday	2019 Spring Friday	2019 Spring Saturday	2019 Spring Sunday	2019 Summer Weekday	2019 Summer Friday	2019 Summer Saturday	2019 Summer Sunday
Stephens	Brownwood	238,690	309,836	239,664	242,184	237,331	311,009	239,292	239,557
Sterling	San Angelo	271,683	319,829	258,446	270,913	266,326	314,237	250,917	262,705
Stonewall	Abilene	92,649	109,672	87,168	87,810	91,919	109,535	87,042	86,829
Sutton	San Angelo	789,843	929,812	751,360	787,604	774,269	913,555	729,470	763,742
Swisher	Lubbock	526,922	572,875	473,498	389,910	530,177	580,511	478,145	388,105
Tarrant	Fort Worth	51,482,587	56,242,477	43,719,590	35,623,240	51,029,363	56,021,647	43,716,338	35,280,757
Taylor	Abilene	3,570,583	4,226,664	3,359,350	3,384,093	3,542,479	4,221,371	3,354,509	3,346,295
Terrell	Odessa	91,677	94,472	70,087	55,822	90,063	92,910	69,002	54,834
Terry	Lubbock	655,506	712,673	589,044	485,059	659,555	722,171	594,826	482,814
Throckmorton	Wichita Falls	103,720	117,369	93,836	80,999	101,278	116,154	91,916	78,048
Titus	Atlanta	1,447,044	1,680,983	1,463,308	1,377,575	1,422,757	1,652,130	1,410,794	1,331,984
Tom Green	San Angelo	2,613,568	3,076,722	2,486,228	2,606,159	2,562,033	3,022,929	2,413,794	2,527,199
Travis	Austin	31,937,160	34,645,035	31,559,438	27,520,125	31,692,993	34,582,309	31,571,009	27,504,402
Trinity	Lufkin	392,692	460,553	377,104	336,050	395,224	461,797	376,641	335,744
Tyler	Beaumont	608,633	694,316	564,684	496,438	609,897	694,162	567,243	494,170
Upshur	Atlanta	1,146,658	1,332,035	1,159,546	1,091,610	1,127,413	1,309,171	1,117,934	1,055,483
Upton	Odessa	469,438	483,751	358,887	285,841	461,175	475,753	353,328	280,782
Uvalde	San Antonio	878,657	990,066	794,374	680,310	877,008	989,716	798,543	678,859
Val Verde	Laredo	896,572	1,001,823	855,428	721,092	889,106	994,697	852,132	720,727
Van Zandt	Tyler	2,690,190	2,913,228	2,448,387	1,894,455	2,684,471	2,918,390	2,427,386	1,890,712
Victoria	Yoakum	2,854,118	3,601,018	2,828,325	3,038,275	2,867,371	3,648,350	2,835,994	3,033,036
Walker	Bryan	2,582,668	3,423,418	2,828,884	3,022,858	2,584,798	3,488,977	2,857,369	3,050,394
Waller	Houston	2,577,933	2,752,583	2,265,354	1,854,437	2,586,563	2,754,182	2,277,693	1,869,890
Ward	Odessa	1,629,381	1,679,059	1,245,666	992,129	1,600,699	1,651,298	1,226,373	974,572
Washington	Bryan	1,382,730	1,832,858	1,514,551	1,618,403	1,383,871	1,867,958	1,529,802	1,633,145
Webb	Laredo	5,735,543	6,408,858	5,472,340	4,612,966	5,687,785	6,363,269	5,451,255	4,610,632
Wharton	Yoakum	1,762,466	2,223,689	1,746,539	1,876,186	1,770,650	2,252,918	1,751,274	1,872,951
Wheeler	Childress	570,114	655,553	643,935	639,460	544,796	629,529	609,157	601,789
Wichita	Wichita Falls	3,040,861	3,441,001	2,751,073	2,374,709	2,969,266	3,405,388	2,694,765	2,288,211
Wilbarger	Wichita Falls	799,321	904,502	723,148	624,217	780,502	895,141	708,347	601,480
Willacy	Pharr	542,251	611,376	544,118	443,759	553,564	622,231	551,448	444,477
Williamson	Austin	14,090,712	15,285,430	13,924,061	12,141,911	13,982,986	15,257,755	13,929,166	12,134,975
Wilson	San Antonio	1,472,596	1,659,313	1,331,341	1,140,174	1,469,833	1,658,728	1,338,328	1,137,743
Winkler	Odessa	1,002,504	1,033,070	766,417	610,424	984,857	1,015,989	754,547	599,622
Wise	Fort Worth	2,871,205	3,136,666	2,438,259	1,986,723	2,845,928	3,124,350	2,438,078	1,967,622
Wood	Tyler	1,112,178	1,204,386	1,012,212	783,205	1,109,813	1,206,520	1,003,529	781,658

County	TxDOT District	2019 Spring Weekday	2019 Spring Friday	2019 Spring Saturday	2019 Spring Sunday	2019 Summer Weekday	2019 Summer Friday	2019 Summer Saturday	2019 Summer Sunday
Yoakum	Lubbock	389,844	423,843	350,318	288,476	392,253	429,492	353,757	287,141
Young	Wichita Falls	490,094	554,584	443,389	382,731	478,555	548,845	434,314	368,790
Zapata	Pharr	349,418	393,961	350,621	285,951	356,708	400,955	355,344	286,414
Zavala	Laredo	478,394	534,554	456,440	384,761	474,410	530,752	454,682	384,567

County VMT Control Totals by Day of Week – 2019 Fall and Winter.

County	TxDOT District	2019 Fall Weekday	2019 Fall Friday	2019 Fall Saturday	2019 Fall Sunday	2019 Winter Weekday	2019 Winter Friday	2019 Winter Saturday	2019 Winter Sunday
Anderson	Tyler	1,504,893	1,638,257	1,379,761	1,074,776	1,492,639	1,624,862	1,364,668	1,062,370
Andrews	Odessa	1,312,335	1,358,803	1,005,685	805,083	1,333,117	1,377,439	1,018,483	813,842
Angelina	Lufkin	2,483,271	2,922,718	2,377,293	2,110,271	2,510,911	2,952,684	2,407,218	2,148,848
Aransas	Corpus Christi	651,192	745,666	626,674	527,622	642,950	733,426	612,499	513,602
Archer	Wichita Falls	476,780	542,986	434,584	370,928	479,270	545,640	435,845	374,443
Armstrong	Amarillo	468,651	511,068	470,045	409,932	472,384	509,969	470,851	412,556
Atascosa	San Antonio	2,365,332	2,672,710	2,140,765	1,844,191	2,382,516	2,689,850	2,159,220	1,852,179
Austin	Yoakum	1,587,899	2,023,042	1,592,433	1,703,890	1,574,519	2,005,169	1,567,631	1,687,205
Bailey	Lubbock	256,698	281,926	231,871	191,650	258,308	282,699	232,937	191,936
Bandera	San Antonio	545,505	616,393	493,714	425,317	549,468	620,346	497,970	427,159
Bastrop	Austin	2,925,315	3,189,345	2,902,220	2,517,001	2,935,688	3,198,129	2,914,681	2,541,637
Baylor	Wichita Falls	281,818	320,951	256,876	219,250	283,289	322,520	257,621	221,328
Bee	Corpus Christi	754,374	863,818	725,972	611,225	744,827	849,639	709,550	594,984
Bell	Waco	9,384,519	12,360,901	10,371,936	10,667,178	9,361,982	12,298,675	10,347,064	10,712,084
Bexar	San Antonio	47,725,835	53,927,849	43,194,680	37,210,653	48,072,552	54,273,689	43,567,062	37,371,818
Blanco	Austin	768,099	837,426	762,035	660,888	770,823	839,732	765,307	667,357
Borden	Abilene	85,425	101,669	80,808	80,842	85,142	101,463	80,413	80,981
Bosque	Waco	589,258	776,146	651,258	669,796	587,843	772,239	649,696	672,616
Bowie	Atlanta	3,520,355	4,159,268	3,581,192	3,330,005	3,456,454	4,044,819	3,482,089	3,279,421
Brazoria	Houston	9,037,125	9,654,176	7,982,214	6,564,000	9,036,313	9,651,186	7,972,015	6,552,752
Brazos	Bryan	4,859,991	6,506,193	5,295,748	5,701,082	4,841,317	6,510,233	5,328,049	5,729,519
Brewster	El Paso	340,249	362,956	295,712	230,836	343,857	366,343	298,666	232,003
Briscoe	Childress	69,402	80,899	78,794	77,136	69,668	80,697	78,715	77,748
Brooks	Pharr	712,303	803,237	726,739	597,950	704,339	794,617	712,272	582,030
Brown	Brownwood	992,297	1,288,335	995,835	1,006,834	998,393	1,306,974	1,007,415	1,021,479
Burleson	Bryan	887,105	1,187,591	966,645	1,040,632	883,697	1,188,328	972,541	1,045,822
Burnet	Austin	1,898,892	2,070,280	1,883,900	1,633,845	1,905,625	2,075,982	1,891,989	1,649,837
Caldwell	Austin	1,526,921	1,664,736	1,514,866	1,313,794	1,532,335	1,669,321	1,521,370	1,326,653
Callhoun	Yoakum	643,971	820,444	645,810	691,012	638,545	813,195	635,752	684,245
Callahan	Abilene	1,110,583	1,321,763	1,050,558	1,051,000	1,106,900	1,319,087	1,045,418	1,052,801
Cameron	Pharr	8,994,973	10,143,286	9,177,265	7,550,925	8,894,396	10,034,435	8,994,584	7,349,875
Camp	Atlanta	302,628	357,552	307,858	286,265	297,135	347,714	299,338	281,916
Carson	Amarillo	886,911	967,185	889,550	775,787	893,975	965,105	891,074	780,752
Cass	Atlanta	968,176	1,143,892	984,908	915,826	950,602	1,112,416	957,652	901,914

County	TxDOT District	2019 Fall Weekday	2019 Fall Friday	2019 Fall Saturday	2019 Fall Sunday	2019 Winter Weekday	2019 Winter Friday	2019 Winter Saturday	2019 Winter Sunday
Castro	Lubbock	302,040	331,724	272,828	225,502	303,935	332,634	274,082	225,839
Chambers	Beaumont	3,101,812	3,544,642	2,914,583	2,546,926	3,125,920	3,569,400	2,918,973	2,559,985
Cherokee	Tyler	1,514,213	1,648,403	1,388,307	1,081,433	1,501,883	1,634,925	1,373,120	1,068,949
Childress	Childress	430,398	501,699	488,648	478,362	432,051	500,445	488,158	482,157
Clay	Wichita Falls	980,164	1,116,269	893,417	762,553	985,282	1,121,725	896,008	769,779
Cochran	Lubbock	126,014	138,399	113,827	94,082	126,805	138,778	114,350	94,222
Coke	San Angelo	198,308	236,078	189,485	196,594	198,173	234,839	188,048	197,356
Coleman	Brownwood	417,719	542,340	419,208	423,839	420,285	550,186	424,083	430,004
Collin	Dallas	21,703,688	24,024,841	20,507,711	17,318,885	21,557,278	23,849,259	20,392,123	17,276,230
Collingsworth	Childress	100,196	116,795	113,757	111,362	100,581	116,503	113,643	112,246
Colorado	Yoakum	1,968,326	2,507,720	1,973,946	2,112,106	1,951,741	2,485,565	1,943,203	2,091,424
Comal	San Antonio	5,948,760	6,721,807	5,383,977	4,638,101	5,991,977	6,764,914	5,430,393	4,658,190
Comanche	Brownwood	474,039	615,462	475,729	480,984	476,951	624,366	481,261	487,980
Concho	San Angelo	324,481	386,282	310,044	321,676	324,260	384,255	307,693	322,923
Cooke	Wichita Falls	2,174,080	2,475,974	1,981,669	1,691,402	2,185,433	2,488,076	1,987,417	1,707,431
Coryell	Waco	1,390,081	1,830,958	1,536,342	1,580,075	1,386,743	1,821,741	1,532,658	1,586,727
Cottle	Childress	71,144	82,930	80,772	79,072	71,417	82,722	80,691	79,699
Crane	Odessa	453,267	469,316	347,353	278,067	460,445	475,753	351,774	281,093
Crockett	San Angelo	846,817	1,008,103	809,140	839,495	846,240	1,002,811	803,003	842,752
Crosby	Lubbock	208,445	228,931	188,285	155,624	209,752	229,558	189,150	155,857
Culberson	El Paso	1,092,522	1,165,432	949,514	741,202	1,104,106	1,176,309	958,999	744,948
Dallam	Amarillo	519,668	566,703	521,215	454,558	523,808	565,485	522,108	457,467
Dallas	Dallas	69,970,582	77,453,756	66,114,870	55,834,404	69,498,572	76,887,696	65,742,226	55,696,887
Dawson	Lubbock	688,594	756,269	621,997	514,103	692,914	758,343	624,855	514,871
Deaf Smith	Amarillo	628,718	685,623	630,588	549,944	633,726	684,149	631,669	553,463
Delta	Paris	182,008	215,345	189,446	170,031	180,932	213,947	187,761	170,367
Denton	Dallas	18,198,121	20,144,364	17,195,318	14,521,549	18,075,360	19,997,141	17,098,400	14,485,784
De Witt	Yoakum	812,178	1,034,745	814,498	871,506	805,335	1,025,604	801,812	862,971
Dickens	Childress	103,619	120,785	117,643	115,167	104,017	120,483	117,525	116,080
Dimmit	Laredo	723,697	807,133	697,568	592,035	720,288	804,702	689,494	584,011
Donley	Childress	527,308	614,664	598,673	586,072	529,333	613,127	598,074	590,721
Duval	Laredo	460,701	513,815	444,067	376,885	458,530	512,268	438,927	371,778
Eastland	Brownwood	1,437,475	1,866,326	1,442,600	1,458,534	1,446,305	1,893,326	1,459,375	1,479,749
Ector	Odessa	5,176,947	5,360,254	3,967,265	3,175,920	5,258,929	5,433,770	4,017,751	3,210,475
Edwards	San Angelo	143,443	170,763	137,061	142,203	143,345	169,867	136,021	142,754
Ellis	Dallas	6,510,528	7,206,813	6,151,767	5,195,204	6,466,609	7,154,143	6,117,094	5,182,409

County	TxDOT District	2019 Fall Weekday	2019 Fall Friday	2019 Fall Saturday	2019 Fall Sunday	2019 Winter Weekday	2019 Winter Friday	2019 Winter Saturday	2019 Winter Sunday
El Paso	El Paso	19,791,379	21,112,151	17,200,744	13,427,095	20,001,217	21,309,191	17,372,567	13,494,954
Erath	Fort Worth	1,424,271	1,562,644	1,218,203	984,609	1,437,118	1,575,622	1,227,415	997,819
Falls	Waco	829,296	1,092,315	916,553	942,643	827,305	1,086,816	914,355	946,611
Fannin	Paris	856,515	1,013,392	891,518	800,150	851,450	1,006,814	883,588	801,733
Fayette	Yoakum	1,946,818	2,480,318	1,952,377	2,089,027	1,930,414	2,458,405	1,921,969	2,068,571
Fisher	Abilene	219,890	261,703	208,005	208,093	219,161	261,173	206,988	208,449
Floyd	Lubbock	187,154	205,547	169,053	139,729	188,328	206,111	169,830	139,938
Foard	Childress	63,747	74,307	72,374	70,851	63,991	74,121	72,301	71,413
Fort Bend	Houston	13,977,442	14,931,816	12,345,844	10,152,337	13,976,187	14,927,192	12,330,070	10,134,939
Franklin	Paris	647,682	766,310	674,150	605,059	643,851	761,335	668,154	606,257
Freestone	Bryan	1,519,149	2,033,723	1,655,359	1,782,059	1,513,312	2,034,986	1,665,456	1,790,948
Frio	San Antonio	1,546,004	1,746,909	1,399,225	1,205,381	1,557,236	1,758,112	1,411,287	1,210,602
Gaines	Lubbock	943,110	1,035,799	851,898	704,125	949,027	1,038,639	855,812	705,177
Galveston	Houston	7,301,516	7,800,061	6,449,204	5,303,363	7,300,860	7,797,645	6,440,964	5,294,275
Garza	Lubbock	532,731	585,088	481,208	397,736	536,073	586,692	483,419	398,330
Gillespie	Austin	1,009,343	1,100,443	1,001,374	868,459	1,012,922	1,103,474	1,005,674	876,960
Glasscock	San Angelo	441,547	525,645	421,901	437,729	441,246	522,886	418,702	439,427
Goliad	Corpus Christi	386,258	442,296	371,715	312,962	381,370	435,036	363,307	304,646
Gonzales	Yoakum	1,665,114	2,121,417	1,669,869	1,786,746	1,651,084	2,102,675	1,643,861	1,769,249
Gray	Amarillo	799,242	871,581	801,620	699,103	805,608	869,707	802,994	703,577
Grayson	Paris	4,294,702	5,081,310	4,470,211	4,012,078	4,269,304	5,048,324	4,430,453	4,020,018
Gregg	Tyler	4,208,345	4,581,292	3,858,422	3,005,550	4,174,078	4,543,832	3,816,215	2,970,855
Grimes	Bryan	1,142,591	1,529,616	1,245,038	1,340,333	1,138,201	1,530,565	1,252,632	1,347,018
Guadalupe	San Antonio	4,558,806	5,151,227	4,125,987	3,554,388	4,591,925	5,184,262	4,161,557	3,569,783
Hale	Lubbock	1,109,683	1,218,742	1,002,360	828,487	1,116,645	1,222,084	1,006,966	829,725
Hall	Childress	249,244	290,534	282,976	277,020	250,201	289,808	282,693	279,217
Hamilton	Waco	395,741	521,254	437,380	449,830	394,791	518,630	436,331	451,724
Hansford	Amarillo	205,452	224,048	206,064	179,711	207,089	223,566	206,417	180,861
Hardeman	Childress	410,707	478,746	466,292	456,477	412,284	477,549	465,825	460,097
Hardin	Beaumont	1,621,231	1,852,686	1,523,372	1,331,208	1,633,832	1,865,627	1,525,667	1,338,034
Harris	Houston	123,373,222	131,797,096	108,971,762	89,610,564	123,362,138	131,756,276	108,832,532	89,457,002
Harrison	Atlanta	2,947,681	3,482,659	2,998,621	2,788,296	2,894,175	3,386,828	2,915,640	2,745,941
Hartley	Amarillo	511,810	558,134	513,333	447,684	515,887	556,934	514,213	450,549
Haskell	Abilene	291,403	346,814	275,653	275,769	290,437	346,112	274,305	276,242
Hays	Austin	7,142,222	7,786,858	7,085,835	6,145,314	7,167,548	7,808,302	7,116,258	6,205,463
Hemphill	Amarillo	212,261	231,472	212,892	185,666	213,952	230,975	213,257	186,854

County	TxDOT District	2019 Fall Weekday	2019 Fall Friday	2019 Fall Saturday	2019 Fall Sunday	2019 Winter Weekday	2019 Winter Friday	2019 Winter Saturday	2019 Winter Sunday
Henderson	Tyler	2,250,188	2,449,602	2,063,086	1,607,058	2,231,866	2,429,572	2,040,518	1,588,506
Hidalgo	Pharr	17,347,390	19,561,987	17,698,952	14,562,450	17,153,422	19,352,062	17,346,641	14,174,713
Hill	Waco	2,614,989	3,444,356	2,890,132	2,972,401	2,608,709	3,427,017	2,883,202	2,984,914
Hockley	Lubbock	760,024	834,719	686,519	567,433	764,793	837,009	689,673	568,281
Hood	Fort Worth	1,337,654	1,467,611	1,144,118	924,730	1,349,719	1,479,800	1,152,769	937,136
Hopkins	Paris	1,971,126	2,332,153	2,051,679	1,841,411	1,959,469	2,317,014	2,033,432	1,845,055
Houston	Lufkin	696,242	819,451	666,528	591,663	703,991	827,852	674,919	602,478
Howard	Abilene	1,702,289	2,025,983	1,610,283	1,610,960	1,696,644	2,021,881	1,602,405	1,613,721
Hudspeth	El Paso	1,819,181	1,940,584	1,581,056	1,234,190	1,838,469	1,958,695	1,596,849	1,240,427
Hunt	Paris	3,324,641	3,933,575	3,460,507	3,105,854	3,304,980	3,908,040	3,429,729	3,112,001
Hutchinson	Amarillo	443,657	483,812	444,977	388,070	447,191	482,772	445,740	390,554
Irion	San Angelo	252,160	300,187	240,941	249,980	251,989	298,611	239,114	250,950
Jack	Fort Worth	353,483	387,825	302,340	244,365	356,671	391,046	304,626	247,644
Jackson	Yoakum	972,460	1,238,950	975,237	1,043,496	964,266	1,228,004	960,048	1,033,277
Jasper	Beaumont	1,197,123	1,368,030	1,124,863	982,968	1,206,427	1,377,585	1,126,557	988,009
Jeff Davis	El Paso	244,187	260,483	212,224	165,664	246,776	262,914	214,344	166,501
Jefferson	Beaumont	7,328,452	8,374,698	6,886,097	6,017,459	7,385,411	8,433,192	6,896,470	6,048,313
Jim Hogg	Pharr	174,120	196,348	177,649	146,167	172,173	194,241	174,112	142,275
Jim Wells	Corpus Christi	1,466,626	1,679,403	1,411,407	1,188,320	1,448,064	1,651,835	1,379,480	1,156,744
Johnson	Fort Worth	4,748,660	5,210,007	4,061,610	3,282,784	4,791,491	5,253,277	4,092,321	3,326,826
Jones	Abilene	568,245	676,299	537,533	537,759	566,361	674,929	534,903	538,680
Karnes	Corpus Christi	998,282	1,143,112	960,696	808,849	985,647	1,124,347	938,965	787,356
Kaufman	Dallas	4,810,113	5,324,542	4,545,053	3,838,324	4,777,665	5,285,628	4,519,435	3,828,871
Kendall	San Antonio	1,468,699	1,659,558	1,329,259	1,145,109	1,479,369	1,670,201	1,340,719	1,150,068
Kenedy	Pharr	483,086	544,758	492,876	405,532	477,685	538,912	483,065	394,734
Kent	Abilene	65,936	78,474	62,372	62,399	65,717	78,315	62,067	62,506
Kerr	San Antonio	1,598,504	1,806,231	1,446,740	1,246,314	1,610,117	1,817,814	1,459,212	1,251,712
Kimble	San Angelo	767,157	913,271	733,024	760,524	766,635	908,477	727,465	763,474
King	Childress	85,460	99,618	97,026	94,984	85,788	99,369	96,929	95,737
Kinney	Laredo	238,030	265,473	229,436	194,725	236,909	264,673	226,780	192,086
Kleberg	Corpus Christi	979,433	1,121,528	942,557	793,576	967,037	1,103,118	921,236	772,489
Knox	Childress	139,598	162,724	158,491	155,155	140,134	162,317	158,332	156,385
Lamar	Paris	1,411,520	1,670,051	1,469,203	1,318,631	1,403,172	1,659,209	1,456,136	1,321,241
Lamb	Lubbock	494,646	543,260	446,807	369,302	497,750	544,750	448,860	369,854
Lampasas	Brownwood	772,262	1,002,656	775,015	783,575	777,006	1,017,161	784,027	794,973
La Salle	Laredo	1,462,647	1,631,276	1,409,837	1,196,547	1,455,756	1,626,363	1,393,518	1,180,330

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Lavaca	Yoakum	749,691	955,134	751,832	804,454	743,374	946,696	740,122	796,576
Lee	Austin	824,906	899,359	818,393	709,766	827,831	901,836	821,907	716,713
Leon	Bryan	1,583,366	2,119,692	1,725,334	1,857,390	1,577,282	2,121,008	1,735,857	1,866,655
Liberty	Beaumont	2,542,458	2,905,432	2,388,992	2,087,635	2,562,219	2,925,725	2,392,591	2,098,340
Limestone	Waco	708,133	932,723	782,641	804,919	706,432	928,028	780,764	808,307
Lipscomb	Amarillo	168,487	183,736	168,988	147,376	169,829	183,341	169,278	148,320
Live Oak	Corpus Christi	1,775,543	2,033,137	1,708,693	1,438,617	1,753,072	1,999,763	1,670,042	1,400,391
Llano	Austin	646,415	704,759	641,312	556,189	648,707	706,699	644,065	561,633
Loving	Odessa	488,112	505,395	374,056	299,444	495,842	512,327	378,816	302,702
Lubbock	Lubbock	7,236,887	7,948,128	6,536,975	5,403,050	7,282,294	7,969,924	6,567,012	5,411,124
Lynn	Lubbock	499,553	548,649	451,239	372,966	502,688	550,154	453,313	373,523
McCulloch	Brownwood	348,144	452,007	349,385	353,244	350,282	458,547	353,448	358,382
McLennan	Waco	8,034,496	10,582,707	8,879,867	9,132,637	8,015,201	10,529,433	8,858,573	9,171,083
McMullen	San Antonio	339,662	383,801	307,414	264,826	342,129	386,262	310,064	265,973
Madison	Bryan	1,095,093	1,466,029	1,193,281	1,284,614	1,090,885	1,466,939	1,200,560	1,291,022
Marion	Atlanta	302,149	356,987	307,371	285,812	296,665	347,164	298,865	281,470
Martin	Odessa	1,277,122	1,322,342	978,700	783,480	1,297,346	1,340,478	991,155	792,005
Mason	Austin	232,154	253,108	230,321	199,750	232,977	253,805	231,310	201,705
Matagorda	Yoakum	1,063,002	1,354,304	1,066,038	1,140,652	1,054,046	1,342,340	1,049,435	1,129,482
Maverick	Laredo	1,252,966	1,397,421	1,207,727	1,025,013	1,247,063	1,393,212	1,193,747	1,011,121
Medina	San Antonio	1,635,695	1,848,255	1,480,400	1,275,311	1,647,578	1,860,108	1,493,163	1,280,835
Menard	San Angelo	176,362	209,952	168,515	174,837	176,242	208,850	167,237	175,515
Midland	Odessa	6,464,814	6,693,722	4,954,200	3,965,992	6,567,191	6,785,528	5,017,245	4,009,143
Milam	Bryan	811,874	1,086,876	884,668	952,380	808,754	1,087,551	890,064	957,131
Mills	Brownwood	256,171	332,597	257,085	259,924	257,745	337,408	260,074	263,705
Mitchell	Abilene	852,781	1,014,939	806,689	807,029	849,953	1,012,884	802,743	808,412
Montague	Wichita Falls	897,556	1,022,191	818,120	698,285	902,243	1,027,187	820,493	704,903
Montgomery	Houston	15,711,719	16,784,509	13,877,677	11,412,007	15,710,308	16,779,311	13,859,946	11,392,450
Moore	Amarillo	643,642	701,898	645,557	562,998	648,769	700,389	646,663	566,601
Morris	Atlanta	566,663	669,507	576,456	536,023	556,377	651,085	560,503	527,880
Motley	Childress	52,433	61,119	59,529	58,276	52,634	60,966	59,470	58,738
Nacogdoches	Lufkin	1,985,533	2,336,899	1,900,797	1,687,296	2,007,633	2,360,858	1,924,724	1,718,140
Navarro	Dallas	2,397,023	2,653,378	2,264,936	1,912,752	2,380,853	2,633,986	2,252,170	1,908,041
Newton	Beaumont	431,915	493,578	405,844	354,650	435,272	497,025	406,456	356,468
Nolan	Abilene	1,349,661	1,606,302	1,276,713	1,277,250	1,345,185	1,603,049	1,270,467	1,279,439
Nueces	Corpus Christi	9,822,453	11,247,488	9,452,636	7,958,554	9,698,141	11,062,861	9,238,814	7,747,079

County	TxDOT District	2019 Fall Weekday	2019 Fall Friday	2019 Fall Saturday	2019 Fall Sunday	2019 Winter Weekday	2019 Winter Friday	2019 Winter Saturday	2019 Winter Sunday
Ochiltree	Amarillo	403,491	440,011	404,692	352,937	406,705	439,065	405,385	355,196
Oldham	Amarillo	840,202	916,249	842,702	734,931	846,895	914,279	844,146	739,634
Orange	Beaumont	3,383,112	3,866,101	3,178,903	2,777,904	3,409,406	3,893,105	3,183,691	2,792,147
Palo Pinto	Fort Worth	1,265,372	1,388,307	1,082,294	874,761	1,276,785	1,399,837	1,090,478	886,497
Panola	Atlanta	1,063,499	1,256,514	1,081,878	1,005,994	1,044,194	1,221,939	1,051,939	990,713
Parker	Fort Worth	4,902,007	5,378,252	4,192,770	3,388,794	4,946,221	5,422,919	4,224,472	3,434,258
Parmer	Lubbock	436,701	479,620	394,466	326,040	439,441	480,935	396,278	326,527
Pecos	Odessa	1,531,862	1,586,103	1,173,916	939,757	1,556,121	1,607,856	1,188,855	949,982
Polk	Lufkin	1,861,911	2,191,401	1,782,451	1,582,243	1,882,635	2,213,869	1,804,889	1,611,167
Potter	Amarillo	3,330,240	3,631,659	3,340,149	2,912,985	3,356,767	3,623,851	3,345,873	2,931,627
Presidio	El Paso	248,686	265,282	216,134	168,717	251,323	267,758	218,293	169,569
Rains	Paris	360,153	426,117	374,871	336,452	358,023	423,351	371,537	337,118
Randall	Amarillo	2,511,966	2,739,323	2,519,440	2,197,235	2,531,975	2,733,434	2,523,758	2,211,296
Reagan	San Angelo	441,936	526,108	422,274	438,116	441,636	523,347	419,071	439,815
Real	San Angelo	126,238	150,282	120,621	125,147	126,152	149,493	119,707	125,632
Red River	Paris	414,316	490,201	431,247	387,051	411,866	487,019	427,412	387,817
Reeves	Odessa	2,233,634	2,312,724	1,711,708	1,370,276	2,269,006	2,344,443	1,733,490	1,385,185
Refugio	Corpus Christi	745,457	853,607	717,390	604,000	736,022	839,595	701,162	587,950
Roberts	Amarillo	122,731	133,839	123,096	107,354	123,708	133,551	123,307	108,041
Robertson	Bryan	967,654	1,295,423	1,054,416	1,135,121	963,936	1,296,228	1,060,848	1,140,783
Rockwall	Dallas	2,645,620	2,928,562	2,499,834	2,111,125	2,627,773	2,907,159	2,485,744	2,105,925
Runnels	San Angelo	439,793	523,557	420,225	435,990	439,494	520,808	417,038	437,682
Rusk	Tyler	1,585,910	1,726,454	1,454,042	1,132,638	1,572,996	1,712,338	1,438,136	1,119,563
Sabine	Lufkin	309,543	364,321	296,333	263,048	312,988	368,056	300,063	267,857
San Augustine	Lufkin	315,549	371,390	302,083	268,152	319,062	375,198	305,885	273,054
San Jacinto	Lufkin	901,630	1,061,185	863,151	766,200	911,665	1,072,065	874,016	780,207
San Patricio	Corpus Christi	2,703,732	3,095,987	2,601,936	2,190,674	2,669,513	3,045,167	2,543,079	2,132,463
San Saba	Brownwood	199,643	259,203	200,355	202,567	200,869	262,953	202,684	205,514
Schleicher	San Angelo	136,241	162,189	130,179	135,063	136,148	161,338	129,192	135,587
Scurry	Abilene	770,787	917,354	729,127	729,434	768,231	915,497	725,560	730,684
Shackelford	Abilene	173,570	206,575	164,189	164,258	172,995	206,157	163,386	164,540
Shelby	Lufkin	857,079	1,008,750	820,501	728,341	866,619	1,019,093	830,830	741,656
Sherman	Amarillo	329,012	358,791	329,991	287,789	331,633	358,020	330,557	289,631
Smith	Tyler	7,535,892	8,203,728	6,909,285	5,382,044	7,474,530	8,136,649	6,833,704	5,319,915
Somervell	Fort Worth	334,262	366,736	285,900	231,078	337,277	369,782	288,061	234,178
Starr	Pharr	1,354,578	1,527,506	1,382,030	1,137,115	1,339,432	1,511,114	1,354,520	1,106,838

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Stephens	Brownwood	237,771	308,706	238,618	241,254	239,231	313,172	241,393	244,763
Sterling	San Angelo	270,765	322,335	258,718	268,424	270,580	320,643	256,755	269,465
Stonewall	Abilene	93,233	110,961	88,193	88,231	92,923	110,736	87,762	88,382
Sutton	San Angelo	787,172	937,098	752,148	780,366	786,636	932,179	746,444	783,393
Swisher	Lubbock	528,494	580,434	477,381	394,573	531,810	582,026	479,574	395,162
Tarrant	Fort Worth	50,806,489	55,742,496	43,455,655	35,122,908	51,264,742	56,205,450	43,784,234	35,594,116
Taylor	Abilene	3,593,089	4,276,324	3,398,888	3,400,317	3,581,173	4,267,664	3,382,259	3,406,144
Terrell	Odessa	89,576	92,748	68,645	54,952	90,994	94,020	69,518	55,550
Terry	Lubbock	657,461	722,076	593,875	490,859	661,586	724,056	596,604	491,593
Throckmorton	Wichita Falls	103,277	117,618	94,136	80,348	103,816	118,193	94,410	81,109
Titus	Atlanta	1,498,262	1,770,183	1,524,154	1,417,249	1,471,065	1,721,473	1,481,975	1,395,720
Tom Green	San Angelo	2,604,728	3,100,829	2,488,837	2,582,208	2,602,956	3,084,553	2,469,962	2,592,225
Travis	Austin	31,904,070	34,783,640	31,652,192	27,450,916	32,017,201	34,879,431	31,788,092	27,719,600
Trinity	Lufkin	390,186	459,235	373,534	331,578	394,529	463,943	378,236	337,640
Tyler	Beaumont	602,695	688,739	566,316	494,878	607,379	693,549	567,169	497,416
Upshur	Atlanta	1,187,244	1,402,718	1,207,761	1,123,048	1,165,693	1,364,120	1,174,338	1,105,989
Upton	Odessa	458,679	474,920	351,500	281,387	465,942	481,433	355,974	284,449
Uvalde	San Antonio	876,710	990,639	793,474	683,549	883,079	996,992	800,314	686,510
Val Verde	Laredo	906,541	1,011,057	873,810	741,614	902,270	1,008,012	863,696	731,563
Van Zandt	Tyler	2,744,234	2,987,429	2,516,051	1,959,899	2,721,888	2,963,002	2,488,528	1,937,274
Victoria	Yoakum	2,910,937	3,708,642	2,919,250	3,123,573	2,886,410	3,675,877	2,873,783	3,092,986
Walker	Bryan	2,622,247	3,510,469	2,857,364	3,076,065	2,612,172	3,512,649	2,874,792	3,091,408
Waller	Houston	2,593,988	2,771,104	2,291,189	1,884,110	2,593,755	2,770,246	2,288,262	1,880,881
Ward	Odessa	1,592,035	1,648,406	1,220,029	976,671	1,617,246	1,671,014	1,235,554	987,298
Washington	Bryan	1,403,921	1,879,464	1,529,799	1,646,889	1,398,526	1,880,631	1,539,130	1,655,104
Webb	Laredo	5,799,319	6,467,926	5,589,933	4,744,248	5,771,997	6,448,447	5,525,229	4,679,949
Wharton	Yoakum	1,797,553	2,290,149	1,802,686	1,928,859	1,782,407	2,269,917	1,774,610	1,909,971
Wheeler	Childress	564,206	657,675	640,565	627,082	566,373	656,031	639,924	632,056
Wichita	Wichita Falls	3,027,850	3,448,298	2,759,878	2,355,623	3,043,661	3,465,153	2,767,884	2,377,946
Wilbarger	Wichita Falls	795,901	906,420	725,462	619,200	800,057	910,851	727,567	625,067
Willacy	Pharr	556,510	627,556	567,789	467,169	550,288	620,821	556,486	454,730
Williamson	Austin	14,076,113	15,346,583	13,964,984	12,111,377	14,126,027	15,388,846	14,024,943	12,229,920
Wilson	San Antonio	1,469,333	1,660,275	1,329,833	1,145,603	1,480,008	1,670,922	1,341,297	1,150,565
Winkler	Odessa	979,526	1,014,210	750,643	600,913	995,038	1,028,120	760,196	607,452
Wise	Fort Worth	2,833,498	3,108,782	2,423,539	1,958,819	2,859,055	3,134,601	2,441,864	1,985,098
Wood	Tyler	1,134,520	1,235,062	1,040,185	810,261	1,125,282	1,224,964	1,028,807	800,908

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Yoakum	Lubbock	391,007	429,435	353,191	291,925	393,460	430,613	354,814	292,362
Young	Wichita Falls	487,997	555,760	444,808	379,654	490,545	558,477	446,098	383,252
Zapata	Pharr	358,606	404,387	365,874	301,036	354,597	400,047	358,591	293,021
Zavala	Laredo	483,713	539,481	466,249	395,711	481,434	537,856	460,852	390,348

County VMT Control Totals by Day of Week – 2023 Spring and Summer.

County	TxDOT District	2023 Spring Weekday	2023 Spring Friday	2023 Spring Saturday	2023 Spring Sunday	2023 Summer Weekday	2023 Summer Friday	2023 Summer Saturday	2023 Summer Sunday
Anderson	Tyler	1,386,820	1,501,798	1,262,168	976,610	1,383,871	1,504,459	1,251,341	974,681
Andrews	Odessa	1,418,359	1,461,603	1,084,339	863,638	1,393,392	1,437,437	1,067,544	848,354
Angelina	Lufkin	2,326,840	2,728,942	2,234,479	1,991,219	2,341,844	2,736,316	2,231,733	1,989,403
Aransas	Corpus Christi	636,525	722,565	598,607	503,296	622,433	706,508	581,723	479,748
Archer	Wichita Falls	493,382	558,305	446,364	385,298	481,766	552,527	437,228	371,264
Armstrong	Amarillo	397,154	427,895	398,494	347,790	383,062	412,304	377,235	330,214
Atascosa	San Antonio	2,558,180	2,882,543	2,312,794	1,980,699	2,553,381	2,881,527	2,324,931	1,976,476
Austin	Yoakum	1,623,024	2,047,756	1,608,356	1,727,746	1,630,560	2,074,672	1,612,717	1,724,767
Bailey	Lubbock	250,203	272,024	224,835	185,145	251,749	275,649	227,042	184,288
Bandera	San Antonio	575,644	648,633	520,427	445,699	574,564	648,404	523,158	444,749
Bastrop	Austin	3,155,520	3,423,070	3,118,200	2,719,100	3,131,396	3,416,872	3,119,343	2,717,546
Baylor	Wichita Falls	260,018	294,233	235,239	203,057	253,896	291,188	230,424	195,660
Bee	Corpus Christi	704,861	800,138	662,872	557,328	689,255	782,356	644,175	531,253
Bell	Waco	9,795,724	12,715,768	10,771,921	11,116,340	9,402,193	12,301,411	10,391,680	10,642,590
Bexar	San Antonio	49,550,259	55,832,948	44,797,279	38,364,823	49,457,291	55,813,262	45,032,370	38,283,032
Blanco	Austin	775,679	841,447	766,505	668,400	769,749	839,924	766,787	668,018
Borden	Abilene	99,285	117,529	93,412	94,100	98,504	117,382	93,277	93,049
Bosque	Waco	559,129	725,801	614,849	634,508	536,666	702,150	593,145	607,467
Bowie	Atlanta	3,487,877	4,051,751	3,527,077	3,320,432	3,429,335	3,982,205	3,400,503	3,210,543
Brazoria	Houston	9,582,575	10,231,776	8,420,671	6,893,228	9,614,655	10,237,719	8,466,539	6,950,672
Brazos	Bryan	5,142,524	6,816,597	5,632,780	6,019,016	5,146,765	6,947,137	5,689,499	6,073,843
Brewster	El Paso	348,605	371,478	302,102	234,667	352,177	375,471	306,894	237,662
Briscoe	Childress	57,469	66,081	64,910	64,459	54,917	63,458	61,404	60,662
Brooks	Pharr	734,728	828,390	737,258	601,275	750,057	843,097	747,190	602,248
Brown	Brownwood	966,041	1,253,988	969,985	980,182	960,542	1,258,734	968,478	969,551
Burleson	Bryan	929,484	1,232,064	1,018,095	1,087,905	930,251	1,255,658	1,028,347	1,097,815
Burnet	Austin	2,037,862	2,210,647	2,013,760	1,756,017	2,022,282	2,206,645	2,014,498	1,755,014
Caldwell	Austin	1,621,277	1,758,741	1,602,102	1,397,048	1,608,882	1,755,557	1,602,690	1,396,250
Calhoun	Yoakum	639,290	806,587	633,513	680,539	642,259	817,189	635,230	679,366
Callahan	Abilene	1,110,719	1,314,810	1,045,010	1,052,707	1,101,977	1,313,163	1,043,504	1,040,949
Cameron	Pharr	9,074,314	10,231,099	9,105,569	7,426,093	9,263,640	10,412,742	9,228,230	7,438,119
Camp	Atlanta	318,994	370,565	322,579	303,680	313,640	364,204	311,003	293,630
Carson	Amarillo	811,270	874,066	814,007	710,435	782,485	842,218	770,581	674,531
Cass	Atlanta	974,788	1,132,379	985,743	927,991	958,427	1,112,942	950,368	897,279

County	TxDOT District	2023 Spring Weekday	2023 Spring Friday	2023 Spring Saturday	2023 Spring Sunday	2023 Summer Weekday	2023 Summer Friday	2023 Summer Saturday	2023 Summer Sunday
Castro	Lubbock	299,718	325,857	269,330	221,785	301,570	330,200	271,974	220,758
Chambers	Beaumont	3,114,026	3,552,420	2,889,167	2,539,989	3,120,497	3,551,632	2,902,258	2,528,388
Cherokee	Tyler	1,494,272	1,618,159	1,359,962	1,052,279	1,491,095	1,621,026	1,348,297	1,050,200
Childress	Childress	428,093	492,248	483,524	480,164	409,082	472,707	457,410	451,877
Clay	Wichita Falls	947,458	1,072,132	857,167	739,901	925,151	1,061,036	839,623	712,951
Cochran	Lubbock	118,190	128,497	106,207	87,458	118,920	130,210	107,249	87,053
Coke	San Angelo	210,882	248,253	200,607	210,284	206,724	243,912	194,763	203,913
Coleman	Brownwood	407,552	529,030	409,216	413,518	405,232	531,033	408,580	409,033
Collin	Dallas	24,364,595	26,816,865	22,941,183	19,418,590	24,261,440	26,852,376	22,996,775	19,417,443
Collingsworth	Childress	86,761	99,763	97,995	97,314	82,908	95,802	92,702	91,581
Colorado	Yoakum	2,022,450	2,551,708	2,004,172	2,152,944	2,031,841	2,585,248	2,009,606	2,149,232
Comal	San Antonio	5,607,530	6,318,533	5,069,643	4,341,691	5,597,009	6,316,305	5,096,247	4,332,435
Comanche	Brownwood	474,036	615,331	475,971	480,974	471,337	617,660	475,232	475,758
Concho	San Angelo	298,585	351,497	284,037	297,738	292,697	345,352	275,762	288,718
Cooke	Wichita Falls	2,270,746	2,569,548	2,054,348	1,773,300	2,217,282	2,542,954	2,012,301	1,708,709
Coryell	Waco	1,418,433	1,841,260	1,559,788	1,609,660	1,361,450	1,781,260	1,504,729	1,541,061
Cottle	Childress	75,095	86,348	84,818	84,229	71,760	82,921	80,237	79,267
Crane	Odessa	496,924	512,075	379,900	302,577	488,177	503,609	374,016	297,222
Crockett	San Angelo	868,480	1,022,384	826,165	866,018	851,355	1,004,509	802,096	839,780
Crosby	Lubbock	208,989	227,215	187,799	154,647	210,280	230,243	189,643	153,931
Culberson	El Paso	1,081,439	1,152,395	937,177	727,981	1,092,519	1,164,784	952,043	737,272
Dallam	Amarillo	557,807	600,984	559,689	488,475	538,015	579,086	529,831	463,789
Dallas	Dallas	74,035,692	81,487,302	69,710,429	59,006,470	73,722,240	81,595,209	69,879,353	59,002,985
Dawson	Lubbock	649,114	705,724	583,301	480,329	653,124	715,130	589,026	478,106
Deaf Smith	Amarillo	529,454	570,437	531,240	463,647	510,668	549,651	502,900	440,215
Delta	Paris	169,835	199,458	175,470	159,859	164,955	195,209	171,613	154,451
Denton	Dallas	18,993,593	20,905,277	17,883,962	15,137,900	18,913,178	20,932,960	17,927,299	15,137,006
De Witt	Yoakum	721,354	910,126	714,835	767,898	724,703	922,089	716,773	766,574
Dickens	Childress	103,283	118,761	116,656	115,845	98,696	114,046	110,356	109,021
Dimmit	Laredo	796,020	889,467	759,490	640,220	789,391	883,140	756,564	639,896
Donley	Childress	520,443	598,438	587,832	583,747	497,330	574,681	556,084	549,358
Duval	Laredo	445,248	497,517	424,816	358,103	441,541	493,978	423,179	357,922
Eastland	Brownwood	1,417,107	1,839,503	1,422,893	1,437,851	1,409,042	1,846,466	1,420,683	1,422,256
Ector	Odessa	5,554,585	5,723,940	4,246,496	3,382,184	5,456,810	5,629,301	4,180,724	3,322,331
Edwards	San Angelo	101,299	119,251	96,364	101,012	99,302	117,166	93,556	97,952
Ellis	Dallas	7,144,474	7,863,557	6,727,084	5,694,148	7,114,226	7,873,970	6,743,385	5,693,812

County	TxDOT District	2023 Spring Weekday	2023 Spring Friday	2023 Spring Saturday	2023 Spring Sunday	2023 Summer Weekday	2023 Summer Friday	2023 Summer Saturday	2023 Summer Sunday
El Paso	El Paso	20,755,815	22,117,664	17,987,031	13,971,979	20,968,475	22,355,434	18,272,345	14,150,300
Erath	Fort Worth	1,386,448	1,514,634	1,177,387	959,349	1,374,243	1,508,687	1,177,300	950,126
Falls	Waco	820,908	1,065,616	902,716	931,580	787,929	1,030,892	870,851	891,878
Fannin	Paris	862,455	1,012,884	891,069	811,793	837,672	991,307	871,481	784,333
Fayette	Yoakum	1,943,006	2,451,475	1,925,447	2,068,375	1,952,028	2,483,698	1,930,667	2,064,809
Fisher	Abilene	224,667	265,949	211,376	212,933	222,899	265,616	211,072	210,555
Floyd	Lubbock	191,133	207,801	171,754	141,434	192,314	210,571	173,440	140,779
Foard	Childress	47,292	54,380	53,416	53,045	45,192	52,221	50,531	49,920
Fort Bend	Houston	15,127,241	16,152,082	13,293,037	10,881,784	15,177,883	16,161,463	13,365,444	10,972,467
Franklin	Paris	605,743	711,397	625,840	570,160	588,337	696,242	612,082	550,874
Freestone	Bryan	1,505,538	1,995,644	1,649,067	1,762,142	1,506,780	2,033,861	1,665,672	1,778,194
Frio	San Antonio	1,630,104	1,836,792	1,473,741	1,262,126	1,627,046	1,836,145	1,481,475	1,259,435
Gaines	Lubbock	1,039,182	1,129,809	933,819	768,970	1,045,602	1,144,867	942,985	765,411
Galveston	Houston	7,536,403	8,046,980	6,622,601	5,421,313	7,561,633	8,051,653	6,658,674	5,466,491
Garza	Lubbock	570,720	620,493	512,855	422,319	574,246	628,763	517,889	420,365
Gillespie	Austin	1,030,358	1,117,720	1,018,172	887,856	1,022,481	1,115,696	1,018,546	887,349
Glasscock	San Angelo	524,311	617,225	498,765	522,825	513,973	606,434	484,234	506,985
Goliad	Corpus Christi	375,565	426,331	353,193	296,957	367,251	416,857	343,231	283,063
Gonzales	Yoakum	1,642,409	2,072,215	1,627,567	1,748,383	1,650,036	2,099,452	1,631,980	1,745,368
Gray	Amarillo	817,180	880,433	819,936	715,610	788,184	848,353	776,194	679,444
Grayson	Paris	4,032,659	4,736,035	4,166,452	3,795,772	3,916,781	4,635,146	4,074,864	3,667,378
Gregg	Tyler	4,078,086	4,416,190	3,711,534	2,871,823	4,069,416	4,424,016	3,679,697	2,866,149
Grimes	Bryan	1,184,296	1,569,826	1,297,199	1,386,147	1,185,273	1,599,888	1,310,261	1,398,774
Guadalupe	San Antonio	4,836,779	5,450,055	4,372,824	3,744,928	4,827,704	5,448,133	4,395,772	3,736,945
Hale	Lubbock	1,091,797	1,187,013	981,100	807,904	1,098,542	1,202,834	990,730	804,165
Hall	Childress	247,887	285,036	279,984	278,039	236,879	273,721	264,863	261,659
Hamilton	Waco	381,230	494,873	419,222	432,626	365,915	478,747	404,424	414,189
Hansford	Amarillo	196,630	211,850	197,293	172,190	189,653	204,130	186,768	163,488
Hardeman	Childress	405,148	465,865	457,608	454,429	387,156	447,371	432,894	427,658
Hardin	Beaumont	1,726,816	1,969,918	1,602,125	1,408,496	1,730,404	1,969,481	1,609,385	1,402,063
Harris	Houston	128,847,703	137,576,882	113,224,692	92,686,624	129,279,046	137,656,787	113,841,428	93,459,018
Harrison	Atlanta	2,955,486	3,433,289	2,988,702	2,813,600	2,905,880	3,374,359	2,881,448	2,720,484
Hartley	Amarillo	593,555	639,499	595,557	519,780	572,494	616,197	563,785	493,511
Haskell	Abilene	297,246	351,863	279,661	281,721	294,906	351,423	279,258	278,574
Hays	Austin	7,380,620	8,006,406	7,293,330	6,359,851	7,324,194	7,991,910	7,296,004	6,356,218
Hemphill	Amarillo	248,390	267,617	249,228	217,517	239,577	257,866	235,932	206,524

County	TxDOT District	2023 Spring Weekday	2023 Spring Friday	2023 Spring Saturday	2023 Spring Sunday	2023 Summer Weekday	2023 Summer Friday	2023 Summer Saturday	2023 Summer Sunday
Henderson	Tyler	2,234,850	2,420,136	2,033,974	1,573,800	2,230,098	2,424,424	2,016,527	1,570,691
Hidalgo	Pharr	17,919,977	20,204,398	17,981,700	14,665,067	18,293,859	20,563,108	18,223,932	14,688,816
Hill	Waco	2,698,204	3,502,522	2,967,095	3,061,964	2,589,808	3,388,389	2,862,359	2,931,471
Hockley	Lubbock	786,305	854,879	706,582	581,847	791,163	866,273	713,517	579,154
Hood	Fort Worth	1,421,974	1,553,444	1,207,556	983,931	1,409,456	1,547,345	1,207,466	974,472
Hopkins	Paris	1,905,984	2,238,426	1,969,220	1,794,023	1,851,216	2,190,742	1,925,932	1,733,339
Houston	Lufkin	748,704	878,088	718,985	640,712	753,532	880,460	718,102	640,127
Howard	Abilene	1,672,472	1,979,782	1,573,530	1,585,120	1,659,308	1,977,303	1,571,263	1,567,415
Hudspeth	El Paso	1,880,096	2,003,454	1,629,295	1,265,605	1,899,359	2,024,992	1,655,139	1,281,757
Hunt	Paris	3,137,342	3,684,557	3,241,431	2,953,048	3,047,191	3,606,067	3,170,177	2,853,159
Hutchinson	Amarillo	442,020	476,234	443,511	387,080	426,336	458,882	419,851	367,518
Irion	San Angelo	305,433	359,560	290,552	304,568	299,411	353,273	282,087	295,340
Jack	Fort Worth	351,515	384,014	298,510	243,230	348,420	382,507	298,488	240,891
Jackson	Yoakum	961,576	1,213,213	952,886	1,023,620	966,041	1,229,160	955,470	1,021,855
Jasper	Beaumont	1,320,123	1,505,970	1,224,798	1,076,772	1,322,866	1,505,636	1,230,348	1,071,854
Jeff Davis	El Paso	236,200	251,698	204,691	159,000	238,620	254,403	207,938	161,029
Jefferson	Beaumont	7,575,152	8,641,585	7,028,161	6,178,753	7,590,892	8,639,669	7,060,008	6,150,533
Jim Hogg	Pharr	171,783	193,682	172,375	140,581	175,367	197,120	174,697	140,809
Jim Wells	Corpus Christi	1,451,084	1,647,230	1,364,643	1,147,362	1,418,958	1,610,623	1,326,152	1,093,680
Johnson	Fort Worth	4,752,209	5,191,581	4,035,629	3,288,279	4,710,374	5,171,197	4,035,329	3,256,665
Jones	Abilene	544,460	644,503	512,250	516,023	540,175	643,696	511,512	510,260
Karnes	Corpus Christi	947,003	1,075,011	890,590	748,789	926,037	1,051,121	865,470	713,755
Kaufman	Dallas	5,049,979	5,558,254	4,754,953	4,024,835	5,028,599	5,565,614	4,766,475	4,024,597
Kendall	San Antonio	1,522,905	1,716,001	1,376,825	1,179,126	1,520,048	1,715,396	1,384,050	1,176,612
Kenedy	Pharr	531,610	599,379	533,441	435,051	542,702	610,021	540,627	435,755
Kent	Abilene	65,318	77,320	61,454	61,907	64,804	77,223	61,366	61,215
Kerr	San Antonio	1,572,935	1,772,374	1,422,055	1,217,862	1,569,983	1,771,749	1,429,518	1,215,265
Kimble	San Angelo	778,416	916,360	740,490	776,209	763,067	900,339	718,916	752,692
King	Childress	91,947	105,726	103,852	103,131	87,863	101,529	98,243	97,055
Kinney	Laredo	245,440	274,253	234,177	197,402	243,396	272,302	233,274	197,302
Kleberg	Corpus Christi	984,181	1,117,215	925,554	778,185	962,392	1,092,387	899,447	741,776
Knox	Childress	140,031	161,016	158,163	157,064	133,812	154,624	149,621	147,811
Lamar	Paris	1,358,558	1,595,518	1,403,631	1,278,753	1,319,520	1,561,529	1,372,776	1,235,499
Lamb	Lubbock	496,732	540,053	446,369	367,570	499,801	547,251	450,750	365,869
Lampasas	Brownwood	766,905	995,495	770,036	778,130	762,540	999,263	768,840	769,691
La Salle	Laredo	1,495,883	1,671,490	1,427,237	1,203,105	1,483,427	1,659,600	1,421,738	1,202,496

County	TxDOT District	2023 Spring Weekday	2023 Spring Friday	2023 Spring Saturday	2023 Spring Sunday	2023 Summer Weekday	2023 Summer Friday	2023 Summer Saturday	2023 Summer Sunday
Lavaca	Yoakum	646,227	815,339	640,387	687,923	649,228	826,056	642,123	686,737
Lee	Austin	873,182	947,218	862,855	752,418	866,507	945,503	863,172	751,988
Leon	Bryan	1,603,627	2,125,665	1,756,507	1,876,949	1,604,950	2,166,371	1,774,194	1,894,047
Liberty	Beaumont	2,534,942	2,891,812	2,351,898	2,067,653	2,540,210	2,891,171	2,362,555	2,058,209
Limestone	Waco	683,578	887,348	751,700	775,735	656,116	858,433	725,166	742,675
Lipscomb	Amarillo	173,557	186,991	174,142	151,985	167,398	180,177	164,852	144,304
Live Oak	Corpus Christi	1,826,568	2,073,469	1,717,760	1,444,255	1,786,129	2,027,390	1,669,309	1,376,682
Llano	Austin	650,080	705,199	642,391	560,171	645,110	703,922	642,627	559,851
Loving	Odessa	553,909	570,798	423,465	337,275	544,159	561,360	416,906	331,306
Lubbock	Lubbock	7,274,526	7,908,940	6,536,964	5,382,980	7,319,468	8,014,353	6,601,130	5,358,066
Lynn	Lubbock	520,089	565,447	467,358	384,854	523,303	572,983	471,945	383,073
McCulloch	Brownwood	343,708	446,157	345,111	348,739	341,752	447,846	344,575	344,957
McLennan	Waco	8,167,488	10,602,165	8,981,423	9,268,593	7,839,370	10,256,682	8,664,384	8,873,588
McMullen	San Antonio	373,340	420,678	337,529	289,063	372,640	420,529	339,300	288,446
Madison	Bryan	1,120,672	1,485,491	1,227,510	1,311,680	1,121,597	1,513,938	1,239,870	1,323,628
Marion	Atlanta	301,536	350,284	304,925	287,060	296,475	344,272	293,982	277,560
Martin	Odessa	1,306,720	1,346,561	998,991	795,661	1,283,718	1,324,297	983,518	781,581
Mason	Austin	231,225	250,830	228,490	199,246	229,457	250,376	228,574	199,132
Matagorda	Yoakum	1,033,572	1,304,050	1,024,232	1,100,261	1,038,372	1,321,190	1,027,009	1,098,364
Maverick	Laredo	1,286,219	1,437,213	1,227,195	1,034,477	1,275,509	1,426,989	1,222,466	1,033,953
Medina	San Antonio	1,778,263	2,003,736	1,607,688	1,376,839	1,774,926	2,003,030	1,616,125	1,373,904
Menard	San Angelo	164,590	193,757	156,571	164,124	161,345	190,370	152,009	159,151
Midland	Odessa	7,214,522	7,434,487	5,515,522	4,392,919	7,087,527	7,311,567	5,430,096	4,315,179
Milam	Bryan	825,846	1,094,688	904,577	966,603	826,527	1,115,651	913,685	975,408
Mills	Brownwood	252,778	328,124	253,810	256,478	251,339	329,365	253,416	253,697
Mitchell	Abilene	843,932	999,001	794,006	799,854	837,289	997,750	792,862	790,920
Montague	Wichita Falls	911,646	1,031,608	824,768	711,935	890,182	1,020,931	807,887	686,003
Montgomery	Houston	17,280,020	18,450,708	15,184,787	12,430,386	17,337,868	18,461,424	15,267,499	12,533,974
Moore	Amarillo	686,186	739,299	688,500	600,897	661,838	712,361	651,770	570,529
Morris	Atlanta	532,224	618,267	538,206	506,674	523,291	607,655	518,892	489,905
Motley	Childress	54,590	62,771	61,659	61,230	52,166	60,279	58,329	57,623
Nacogdoches	Lufkin	1,895,583	2,223,159	1,820,340	1,622,166	1,907,806	2,229,166	1,818,103	1,620,686
Navarro	Dallas	2,485,674	2,735,855	2,340,458	1,981,083	2,475,150	2,739,477	2,346,129	1,980,966
Newton	Beaumont	413,954	472,230	384,063	337,646	414,814	472,126	385,803	336,104
Nolan	Abilene	1,359,374	1,609,153	1,278,954	1,288,374	1,348,674	1,607,138	1,277,111	1,273,984
Nueces	Corpus Christi	9,770,753	11,091,485	9,188,713	7,725,668	9,554,435	10,844,997	8,929,536	7,364,204

County	TxDOT District	2023 Spring Weekday	2023 Spring Friday	2023 Spring Saturday	2023 Spring Sunday	2023 Summer Weekday	2023 Summer Friday	2023 Summer Saturday	2023 Summer Sunday
Ochiltree	Amarillo	416,516	448,756	417,921	364,746	401,737	432,405	395,626	346,312
Oldham	Amarillo	898,794	968,365	901,826	787,080	866,903	933,080	853,715	747,302
Orange	Beaumont	3,503,600	3,996,838	3,250,610	2,857,749	3,510,880	3,995,952	3,265,339	2,844,696
Palo Pinto	Fort Worth	1,289,561	1,408,790	1,095,110	892,309	1,278,209	1,403,258	1,095,029	883,730
Panola	Atlanta	1,036,936	1,204,574	1,048,590	987,155	1,019,531	1,183,898	1,010,959	954,485
Parker	Fort Worth	4,970,455	5,430,005	4,220,966	3,439,293	4,926,698	5,408,685	4,220,652	3,406,228
Parmer	Lubbock	465,563	506,165	418,360	344,506	468,440	512,912	422,467	342,912
Pecos	Odessa	1,749,428	1,802,767	1,337,443	1,065,226	1,718,634	1,772,960	1,316,728	1,046,375
Polk	Lufkin	1,938,602	2,273,612	1,861,651	1,658,980	1,951,102	2,279,756	1,859,364	1,657,467
Potter	Amarillo	3,468,169	3,736,620	3,479,867	3,037,097	3,345,110	3,600,468	3,294,223	2,883,610
Presidio	El Paso	260,975	278,098	226,162	175,678	263,649	281,088	229,749	177,920
Rains	Paris	351,650	412,984	363,316	330,993	341,545	404,187	355,330	319,797
Randall	Amarillo	2,622,343	2,825,324	2,631,189	2,296,402	2,529,296	2,722,377	2,490,820	2,180,348
Reagan	San Angelo	595,349	700,852	566,342	593,661	583,610	688,598	549,842	575,675
Real	San Angelo	128,144	150,852	121,900	127,780	125,617	148,215	118,349	123,909
Red River	Paris	417,362	490,158	431,209	392,845	405,369	479,716	421,730	379,557
Reeves	Odessa	2,598,037	2,677,249	1,986,206	1,581,943	2,552,305	2,632,984	1,955,443	1,553,948
Refugio	Corpus Christi	718,589	815,723	675,783	568,184	702,680	797,595	656,722	541,600
Roberts	Amarillo	98,288	105,896	98,620	86,072	94,801	102,038	93,359	81,722
Robertson	Bryan	1,024,823	1,358,439	1,122,523	1,199,494	1,025,668	1,384,453	1,133,826	1,210,420
Rockwall	Dallas	2,692,828	2,963,858	2,535,509	2,146,185	2,681,427	2,967,783	2,541,653	2,146,058
Runnels	San Angelo	419,763	494,150	399,311	418,573	411,486	485,510	387,677	405,891
Rusk	Tyler	1,533,521	1,660,662	1,395,683	1,079,918	1,530,261	1,663,604	1,383,711	1,077,785
Sabine	Lufkin	303,178	355,570	291,143	259,448	305,133	356,531	290,786	259,211
San Augustine	Lufkin	314,962	369,390	302,460	269,532	316,993	370,388	302,088	269,286
San Jacinto	Lufkin	919,111	1,077,942	882,628	786,539	925,037	1,080,855	881,543	785,822
San Patricio	Corpus Christi	2,766,193	3,140,105	2,601,412	2,187,210	2,704,952	3,070,322	2,528,037	2,084,876
San Saba	Brownwood	174,389	226,369	175,101	176,942	173,397	227,226	174,829	175,023
Schleicher	San Angelo	150,259	176,887	142,938	149,833	147,296	173,794	138,774	145,294
Scurry	Abilene	799,210	946,062	751,929	757,468	792,919	944,877	750,846	749,007
Shackelford	Abilene	155,595	184,185	146,390	147,469	154,371	183,955	146,179	145,822
Shelby	Lufkin	837,988	982,800	804,725	717,117	843,391	985,456	803,736	716,463
Sherman	Amarillo	337,051	363,140	338,188	295,158	325,092	349,909	320,146	280,241
Smith	Tyler	7,616,183	8,247,623	6,931,615	5,363,381	7,599,990	8,262,237	6,872,157	5,352,784
Somervell	Fort Worth	310,063	338,730	263,309	214,547	307,333	337,400	263,289	212,485
Starr	Pharr	1,362,947	1,536,694	1,367,641	1,115,387	1,391,383	1,563,976	1,386,065	1,117,193

County	TxDOT District	2023 Spring Weekday	2023 Spring Friday	2023 Spring Saturday	2023 Spring Sunday	2023 Summer Weekday	2023 Summer Friday	2023 Summer Saturday	2023 Summer Sunday
Stephens	Brownwood	228,819	297,023	229,754	232,169	227,517	298,148	229,397	229,651
Sterling	San Angelo	306,508	360,825	291,574	305,639	300,464	354,516	283,079	296,379
Stonewall	Abilene	96,840	114,634	91,111	91,782	96,077	114,490	90,979	90,757
Sutton	San Angelo	764,366	899,820	727,124	762,199	749,294	884,088	705,940	739,106
Swisher	Lubbock	514,899	559,803	462,693	381,013	518,080	567,265	467,235	379,250
Tarrant	Fort Worth	53,954,603	58,943,047	45,818,854	37,333,745	53,479,617	58,711,614	45,815,446	36,974,817
Taylor	Abilene	3,558,077	4,211,859	3,347,583	3,372,240	3,530,071	4,206,585	3,342,760	3,334,574
Terrell	Odessa	100,739	103,811	77,015	61,340	98,966	102,094	75,823	60,255
Terry	Lubbock	666,314	724,424	598,757	493,057	670,431	734,079	604,634	490,775
Throckmorton	Wichita Falls	74,520	84,326	67,419	58,195	72,766	83,453	66,039	56,076
Titus	Atlanta	1,436,115	1,668,288	1,452,256	1,367,171	1,412,011	1,639,652	1,400,140	1,321,925
Tom Green	San Angelo	2,675,940	3,150,147	2,545,562	2,668,354	2,623,175	3,095,070	2,471,399	2,587,510
Travis	Austin	34,035,784	36,921,597	33,633,242	29,328,501	33,775,572	36,854,748	33,645,573	29,311,745
Trinity	Lufkin	424,075	497,359	407,242	362,907	426,810	498,703	406,741	362,576
Tyler	Beaumont	666,006	759,767	617,915	543,235	667,390	759,599	620,715	540,754
Upshur	Atlanta	1,188,104	1,380,181	1,201,457	1,131,066	1,168,162	1,356,491	1,158,341	1,093,633
Upton	Odessa	530,679	546,859	405,705	323,130	521,337	537,817	399,422	317,412
Uvalde	San Antonio	881,576	993,355	797,013	682,570	879,922	993,005	801,196	681,115
Val Verde	Laredo	850,830	950,712	811,786	684,303	843,746	943,949	808,658	683,957
Van Zandt	Tyler	2,809,614	3,042,552	2,557,076	1,978,554	2,803,640	3,047,943	2,535,142	1,974,645
Victoria	Yoakum	2,829,978	3,570,560	2,804,403	3,012,577	2,843,119	3,617,492	2,812,007	3,007,383
Walker	Bryan	2,612,926	3,463,525	2,862,026	3,058,273	2,615,081	3,529,853	2,890,844	3,086,130
Waller	Houston	2,724,481	2,909,059	2,394,133	1,959,856	2,733,602	2,910,749	2,407,174	1,976,188
Ward	Odessa	1,655,139	1,705,602	1,265,358	1,007,813	1,626,004	1,677,402	1,245,760	989,978
Washington	Bryan	1,363,579	1,807,472	1,493,574	1,595,987	1,364,703	1,842,085	1,508,613	1,610,525
Webb	Laredo	6,521,942	7,287,575	6,222,650	5,245,449	6,467,636	7,235,735	6,198,675	5,242,794
Wharton	Yoakum	1,746,346	2,203,350	1,730,564	1,859,025	1,754,455	2,232,311	1,735,256	1,855,820
Wheeler	Childress	604,010	694,528	682,219	677,479	577,186	666,957	645,374	637,567
Wichita	Wichita Falls	2,927,819	3,313,084	2,648,804	2,286,431	2,858,886	3,278,795	2,594,589	2,203,148
Wilbarger	Wichita Falls	773,234	874,982	699,547	603,844	755,029	865,926	685,228	581,849
Willacy	Pharr	563,882	635,765	565,824	461,461	575,647	647,052	573,446	462,208
Williamson	Austin	14,708,194	15,955,267	14,534,240	12,673,993	14,595,746	15,926,379	14,539,568	12,666,752
Wilson	San Antonio	1,550,007	1,746,539	1,401,326	1,200,109	1,547,098	1,745,923	1,408,680	1,197,551
Winkler	Odessa	1,117,058	1,151,116	853,994	680,176	1,097,395	1,132,084	840,767	668,139
Wise	Fort Worth	2,885,804	3,152,615	2,450,657	1,996,825	2,860,399	3,140,237	2,450,475	1,977,627
Wood	Tyler	1,116,933	1,209,535	1,016,539	786,554	1,114,558	1,211,678	1,007,820	784,999

County	TxDOT District	2023 Spring Weekday	2023 Spring Friday	2023 Spring Saturday	2023 Spring Sunday	2023 Summer Weekday	2023 Summer Friday	2023 Summer Saturday	2023 Summer Sunday
Yoakum	Lubbock	447,652	486,692	402,264	331,252	450,417	493,178	406,213	329,719
Young	Wichita Falls	494,136	559,158	447,046	385,887	482,502	553,371	437,896	371,831
Zapata	Pharr	352,698	397,659	353,912	288,635	360,056	404,719	358,680	289,103
Zavala	Laredo	467,379	522,246	445,931	375,902	463,487	518,531	444,213	375,712

County VMT Control Totals by Day of Week – 2023 Fall and Winter.

County	TxDOT District	2023 Fall Weekday	2023 Fall Friday	2023 Fall Saturday	2023 Fall Sunday	2023 Winter Weekday	2023 Winter Friday	2023 Winter Saturday	2023 Winter Sunday
Anderson	Tyler	1,414,679	1,540,049	1,297,049	1,010,347	1,403,160	1,527,457	1,282,861	998,684
Andrews	Odessa	1,385,849	1,434,920	1,062,022	850,182	1,407,796	1,454,600	1,075,537	859,432
Angelina	Lufkin	2,311,994	2,721,132	2,213,326	1,964,721	2,337,728	2,749,031	2,241,187	2,000,637
Aransas	Corpus Christi	652,261	746,890	627,703	528,488	644,006	734,630	613,504	514,445
Archer	Wichita Falls	491,271	559,489	447,792	382,202	493,836	562,224	449,091	385,824
Armstrong	Amarillo	390,484	425,827	391,646	341,559	393,595	424,911	392,317	343,745
Atascosa	San Antonio	2,552,512	2,884,213	2,310,173	1,990,130	2,571,055	2,902,710	2,330,089	1,998,750
Austin	Yoakum	1,655,335	2,108,958	1,660,061	1,776,252	1,641,387	2,090,326	1,634,206	1,758,858
Bailey	Lubbock	250,950	275,613	226,679	187,359	252,524	276,369	227,721	187,639
Bandera	San Antonio	574,369	649,009	519,838	447,821	578,542	653,171	524,319	449,761
Bastrop	Austin	3,152,251	3,436,764	3,127,364	2,712,261	3,163,429	3,446,229	3,140,792	2,738,808
Baylor	Wichita Falls	258,905	294,857	235,992	201,425	260,257	296,298	236,676	203,333
Bee	Corpus Christi	722,286	827,075	695,092	585,226	713,145	813,498	679,369	569,675
Bell	Waco	9,790,396	12,895,506	10,820,519	11,128,530	9,766,884	12,830,589	10,794,571	11,175,378
Bexar	San Antonio	49,440,466	55,865,298	44,746,522	38,547,509	49,799,640	56,223,563	45,132,283	38,714,464
Blanco	Austin	774,876	844,814	768,758	666,719	777,623	847,140	772,059	673,245
Borden	Abilene	99,911	118,910	94,511	94,551	99,580	118,669	94,049	94,713
Bosque	Waco	558,825	736,061	617,623	635,204	557,483	732,355	616,142	637,878
Bowie	Atlanta	3,611,329	4,266,753	3,673,737	3,416,059	3,545,776	4,149,346	3,572,074	3,364,168
Brazoria	Houston	9,642,254	10,300,623	8,516,705	7,003,528	9,641,387	10,297,432	8,505,824	6,991,526
Brazos	Bryan	5,221,333	6,989,930	5,689,489	6,124,959	5,201,271	6,994,270	5,724,191	6,155,511
Brewster	El Paso	342,369	365,217	297,554	232,274	345,999	368,626	300,526	233,448
Briscoe	Childress	56,873	66,295	64,570	63,211	57,092	66,129	64,506	63,713
Brooks	Pharr	754,049	850,312	769,330	632,994	745,618	841,187	754,016	616,140
Brown	Brownwood	962,321	1,249,416	965,751	976,418	968,232	1,267,491	976,982	990,621
Burleson	Bryan	943,728	1,263,393	1,028,345	1,107,054	940,102	1,264,177	1,034,617	1,112,576
Burnet	Austin	2,035,750	2,219,491	2,019,678	1,751,601	2,042,969	2,225,604	2,028,350	1,768,746
Caldwell	Austin	1,619,597	1,765,777	1,606,811	1,393,535	1,625,340	1,770,640	1,613,710	1,407,174
Callhoun	Yoakum	652,017	830,694	653,879	699,645	646,523	823,355	643,695	692,794
Callahan	Abilene	1,117,720	1,330,258	1,057,309	1,057,754	1,114,014	1,327,564	1,052,136	1,059,566
Cameron	Pharr	9,312,943	10,501,849	9,501,679	7,817,849	9,208,812	10,389,151	9,312,541	7,609,692
Camp	Atlanta	330,285	390,228	335,993	312,426	324,289	379,491	326,695	307,680
Carson	Amarillo	797,646	869,841	800,019	697,707	804,000	867,970	801,390	702,172
Cass	Atlanta	1,009,290	1,192,467	1,026,732	954,716	990,969	1,159,654	998,319	940,214

County	TxDOT District	2023 Fall Weekday	2023 Fall Friday	2023 Fall Saturday	2023 Fall Sunday	2023 Winter Weekday	2023 Winter Friday	2023 Winter Saturday	2023 Winter Sunday
Castro	Lubbock	300,612	330,156	271,539	224,437	302,498	331,062	272,786	224,772
Chambers	Beaumont	3,083,646	3,523,882	2,897,513	2,532,010	3,107,613	3,548,495	2,901,878	2,544,992
Cherokee	Tyler	1,524,290	1,659,374	1,397,546	1,088,630	1,511,879	1,645,806	1,382,258	1,076,063
Childress	Childress	423,657	493,841	480,994	470,870	425,284	492,607	480,512	474,604
Clay	Wichita Falls	943,404	1,074,406	859,911	733,955	948,331	1,079,657	862,405	740,910
Cochran	Lubbock	118,543	130,193	107,078	88,504	119,286	130,550	107,570	88,636
Coke	San Angelo	210,169	250,198	200,818	208,352	210,026	248,885	199,295	209,160
Coleman	Brownwood	405,982	527,102	407,430	411,930	408,476	534,727	412,168	417,922
Collin	Dallas	24,667,946	27,306,119	23,308,624	19,684,273	24,501,539	27,106,556	23,177,250	19,635,792
Collingsworth	Childress	85,861	100,086	97,482	95,430	86,191	99,835	97,384	96,187
Colorado	Yoakum	2,062,712	2,627,972	2,068,602	2,213,388	2,045,332	2,604,754	2,036,384	2,191,713
Comal	San Antonio	5,595,105	6,322,194	5,063,898	4,362,365	5,635,752	6,362,738	5,107,554	4,381,259
Comanche	Brownwood	472,210	613,087	473,894	479,128	475,111	621,957	479,404	486,097
Concho	San Angelo	297,575	354,252	284,335	295,002	297,372	352,392	282,179	296,146
Cooke	Wichita Falls	2,261,030	2,574,997	2,060,923	1,759,048	2,272,837	2,587,583	2,066,902	1,775,718
Coryell	Waco	1,417,662	1,867,286	1,566,825	1,611,426	1,414,257	1,857,886	1,563,068	1,618,209
Cottle	Childress	74,316	86,628	84,374	82,598	74,602	86,411	84,290	83,253
Crane	Odessa	485,535	502,727	372,081	297,863	493,224	509,622	376,816	301,104
Crockett	San Angelo	865,542	1,030,395	827,032	858,059	864,953	1,024,986	820,760	861,387
Crosby	Lubbock	209,612	230,213	189,340	156,496	210,927	230,844	190,210	156,730
Culberson	El Paso	1,062,094	1,132,973	923,069	720,558	1,073,355	1,143,547	932,290	724,200
Dallam	Amarillo	548,439	598,079	550,071	479,724	552,808	596,793	551,014	482,794
Dallas	Dallas	74,957,470	82,973,980	70,826,957	59,813,790	74,451,819	82,367,575	70,427,754	59,666,472
Dawson	Lubbock	651,050	715,035	588,084	486,073	655,135	716,996	590,786	486,799
Deaf Smith	Amarillo	520,563	567,679	522,112	455,340	524,709	566,458	523,006	458,254
Delta	Paris	170,707	201,974	177,683	159,473	169,698	200,662	176,103	159,789
Denton	Dallas	19,230,072	21,286,679	18,170,403	15,345,015	19,100,349	21,131,108	18,067,989	15,307,221
De Witt	Yoakum	735,714	937,327	737,815	789,456	729,515	929,046	726,324	781,725
Dickens	Childress	102,212	119,145	116,046	113,603	102,605	118,847	115,929	114,504
Dimmit	Laredo	804,871	897,665	775,811	658,441	801,079	894,962	766,831	649,517
Donley	Childress	515,050	600,374	584,756	572,447	517,028	598,874	584,170	576,988
Duval	Laredo	450,199	502,103	433,944	368,294	448,078	500,590	428,921	363,303
Eastland	Brownwood	1,411,650	1,832,797	1,416,683	1,432,331	1,420,322	1,859,312	1,433,157	1,453,164
Ector	Odessa	5,427,272	5,619,443	4,159,097	3,329,488	5,513,219	5,696,514	4,212,024	3,365,714
Edwards	San Angelo	100,957	120,185	96,465	100,084	100,888	119,554	95,733	100,472
Ellis	Dallas	7,233,426	8,007,022	6,834,830	5,772,055	7,184,630	7,948,504	6,796,306	5,757,838

County	TxDOT District	2023 Fall Weekday	2023 Fall Friday	2023 Fall Saturday	2023 Fall Sunday	2023 Winter Weekday	2023 Winter Friday	2023 Winter Saturday	2023 Winter Sunday
El Paso	El Paso	20,384,542	21,744,899	17,716,264	13,829,516	20,600,669	21,947,844	17,893,237	13,899,409
Erath	Fort Worth	1,368,241	1,501,169	1,170,279	945,875	1,380,582	1,513,637	1,179,128	958,565
Falls	Waco	820,462	1,080,679	906,789	932,601	818,492	1,075,238	904,615	936,527
Fannin	Paris	866,884	1,025,661	902,310	809,836	861,757	1,019,003	894,285	811,439
Fayette	Yoakum	1,981,687	2,524,743	1,987,346	2,126,444	1,964,990	2,502,437	1,956,393	2,105,621
Fisher	Abilene	226,083	269,074	213,864	213,954	225,334	268,529	212,818	214,320
Floyd	Lubbock	191,703	210,543	173,162	143,125	192,906	211,121	173,958	143,339
Foard	Childress	46,802	54,556	53,136	52,018	46,982	54,419	53,083	52,430
Fort Bend	Houston	15,221,451	16,260,765	13,444,638	11,055,906	15,220,083	16,255,729	13,427,460	11,036,960
Franklin	Paris	608,854	720,370	633,735	568,786	605,253	715,694	628,099	569,912
Freestone	Bryan	1,528,611	2,046,390	1,665,669	1,793,159	1,522,737	2,047,660	1,675,829	1,802,103
Frio	San Antonio	1,626,492	1,837,857	1,472,071	1,268,136	1,638,309	1,849,643	1,484,762	1,273,628
Gaines	Lubbock	1,042,281	1,144,716	941,477	778,165	1,048,821	1,147,855	945,803	779,328
Galveston	Houston	7,583,338	8,101,126	6,698,129	5,508,061	7,582,657	8,098,617	6,689,571	5,498,622
Garza	Lubbock	572,422	628,680	517,061	427,370	576,014	630,404	519,436	428,008
Gillespie	Austin	1,029,291	1,122,192	1,021,165	885,623	1,032,941	1,125,282	1,025,549	894,291
Glasscock	San Angelo	522,538	622,061	499,289	518,020	522,182	618,796	495,502	520,029
Goliad	Corpus Christi	384,850	440,684	370,360	311,821	379,979	433,450	361,983	303,536
Gonzales	Yoakum	1,675,106	2,134,147	1,679,889	1,797,468	1,660,992	2,115,293	1,653,726	1,779,866
Gray	Amarillo	803,456	876,177	805,847	702,789	809,856	874,293	807,228	707,286
Grayson	Paris	4,053,368	4,795,774	4,219,015	3,786,626	4,029,397	4,764,642	4,181,491	3,794,120
Gregg	Tyler	4,160,010	4,528,673	3,814,107	2,971,030	4,126,137	4,491,644	3,772,384	2,936,733
Grimes	Bryan	1,202,445	1,609,744	1,310,259	1,410,545	1,197,825	1,610,743	1,318,251	1,417,581
Guadalupe	San Antonio	4,826,062	5,453,213	4,367,869	3,762,761	4,861,122	5,488,184	4,405,525	3,779,058
Hale	Lubbock	1,095,053	1,202,675	989,146	817,565	1,101,924	1,205,973	993,691	818,787
Hall	Childress	245,318	285,959	278,519	272,657	246,260	285,244	278,240	274,820
Hamilton	Waco	381,023	501,868	421,113	433,100	380,108	499,341	420,103	434,924
Hansford	Amarillo	193,327	210,825	193,903	169,105	194,867	210,372	194,235	170,187
Hardeman	Childress	400,950	467,373	455,214	445,632	402,490	466,204	454,758	449,167
Hardin	Beaumont	1,709,969	1,954,093	1,606,753	1,404,071	1,723,260	1,967,742	1,609,174	1,411,271
Harris	Houston	129,650,141	138,502,600	114,515,971	94,169,723	129,638,493	138,459,703	114,369,657	94,008,349
Harrison	Atlanta	3,060,094	3,615,473	3,112,976	2,894,630	3,004,547	3,515,987	3,026,830	2,850,660
Hartley	Amarillo	583,587	636,407	585,323	510,468	588,235	635,039	586,326	513,734
Haskell	Abilene	299,119	355,997	282,952	283,071	298,127	355,277	281,568	283,556
Hays	Austin	7,372,973	8,038,437	7,314,765	6,343,858	7,399,118	8,060,574	7,346,171	6,405,950
Hemphill	Amarillo	244,219	266,323	244,946	213,620	246,164	265,750	245,365	214,987

County	TxDOT District	2023 Fall Weekday	2023 Fall Friday	2023 Fall Saturday	2023 Fall Sunday	2023 Winter Weekday	2023 Winter Friday	2023 Winter Saturday	2023 Winter Sunday
Henderson	Tyler	2,279,745	2,481,778	2,090,185	1,628,167	2,261,182	2,461,485	2,067,321	1,609,372
Hidalgo	Pharr	18,391,223	20,739,076	18,763,939	15,438,706	18,185,583	20,516,520	18,390,428	15,027,638
Hill	Waco	2,696,737	3,552,031	2,980,481	3,065,322	2,690,261	3,534,149	2,973,334	3,078,226
Hockley	Lubbock	788,650	866,158	712,376	588,805	793,598	868,534	715,649	589,685
Hood	Fort Worth	1,403,300	1,539,635	1,200,266	970,112	1,415,957	1,552,422	1,209,342	983,127
Hopkins	Paris	1,915,772	2,266,661	1,994,063	1,789,700	1,904,443	2,251,947	1,976,328	1,793,242
Houston	Lufkin	743,927	875,575	712,179	632,186	752,207	884,552	721,144	643,742
Howard	Abilene	1,683,014	2,003,043	1,592,050	1,592,719	1,677,433	1,998,987	1,584,261	1,595,449
Hudspeth	El Paso	1,846,465	1,969,688	1,604,768	1,252,700	1,866,042	1,988,072	1,620,799	1,259,031
Hunt	Paris	3,153,453	3,731,033	3,282,324	2,945,932	3,134,804	3,706,813	3,253,131	2,951,762
Hutchinson	Amarillo	434,597	473,932	435,890	380,145	438,058	472,913	436,637	382,578
Irion	San Angelo	304,400	362,377	290,857	301,769	304,193	360,475	288,651	302,939
Jack	Fort Worth	346,898	380,601	296,708	239,813	350,027	383,762	298,952	243,031
Jackson	Yoakum	980,719	1,249,472	983,520	1,052,358	972,456	1,238,434	968,201	1,042,053
Jasper	Beaumont	1,307,243	1,493,872	1,228,337	1,073,390	1,317,404	1,504,306	1,230,187	1,078,893
Jeff Davis	El Paso	231,975	247,456	201,610	157,379	234,434	249,765	203,624	158,174
Jefferson	Beaumont	7,501,249	8,572,164	7,048,464	6,159,344	7,559,551	8,632,038	7,059,081	6,190,926
Jim Hogg	Pharr	176,301	198,807	179,873	147,997	174,329	196,674	176,293	144,057
Jim Wells	Corpus Christi	1,486,957	1,702,684	1,430,973	1,204,793	1,468,138	1,674,734	1,398,604	1,172,780
Johnson	Fort Worth	4,689,801	5,145,429	4,011,266	3,242,095	4,732,101	5,188,163	4,041,597	3,285,590
Jones	Abilene	547,892	652,075	518,279	518,497	546,075	650,755	515,744	519,386
Karnes	Corpus Christi	970,414	1,111,201	933,878	786,269	958,133	1,092,961	912,753	765,377
Kaufman	Dallas	5,112,854	5,659,660	4,831,111	4,079,902	5,078,363	5,618,297	4,803,882	4,069,854
Kendall	San Antonio	1,519,531	1,716,995	1,375,265	1,184,741	1,530,570	1,728,006	1,387,121	1,189,872
Kenedy	Pharr	545,590	615,241	556,647	458,001	539,490	608,639	545,567	445,807
Kent	Abilene	65,730	78,229	62,177	62,204	65,512	78,070	61,873	62,310
Kerr	San Antonio	1,569,449	1,773,401	1,420,444	1,223,661	1,580,851	1,784,774	1,432,689	1,228,961
Kimble	San Angelo	775,783	923,540	741,267	769,076	775,255	918,692	735,645	772,059
King	Childress	90,994	106,068	103,309	101,134	91,343	105,803	103,205	101,936
Kinney	Laredo	248,169	276,781	239,209	203,020	247,000	275,947	236,440	200,268
Kleberg	Corpus Christi	1,008,512	1,154,826	970,541	817,137	995,748	1,135,869	948,587	795,424
Knox	Childress	138,580	161,537	157,335	154,023	139,112	161,134	157,177	155,245
Lamar	Paris	1,365,535	1,615,643	1,421,339	1,275,672	1,357,459	1,605,155	1,408,698	1,278,197
Lamb	Lubbock	498,214	547,178	450,029	371,966	501,340	548,679	452,097	372,522
Lampasas	Brownwood	763,951	991,866	766,675	775,143	768,644	1,006,215	775,590	786,418
La Salle	Laredo	1,512,517	1,686,895	1,457,907	1,237,344	1,505,391	1,681,815	1,441,031	1,220,574

County	TxDOT District	2023 Fall Weekday	2023 Fall Friday	2023 Fall Saturday	2023 Fall Sunday	2023 Winter Weekday	2023 Winter Friday	2023 Winter Saturday	2023 Winter Sunday
Lavaca	Yoakum	659,092	839,707	660,974	707,237	653,538	832,289	650,679	700,311
Lee	Austin	872,278	951,007	865,391	750,526	875,371	953,626	869,107	757,872
Leon	Bryan	1,628,203	2,179,716	1,774,191	1,909,986	1,621,947	2,181,069	1,785,012	1,919,513
Liberty	Beaumont	2,510,211	2,868,582	2,358,692	2,061,157	2,529,722	2,888,618	2,362,245	2,071,726
Limestone	Waco	683,206	899,891	755,091	776,585	681,565	895,361	753,281	779,855
Lipscomb	Amarillo	170,642	186,087	171,150	149,262	172,001	185,687	171,443	150,217
Live Oak	Corpus Christi	1,871,724	2,143,272	1,801,253	1,516,547	1,848,035	2,108,090	1,760,508	1,476,250
Llano	Austin	649,406	708,020	644,279	558,763	651,709	709,970	647,046	564,232
Loving	Odessa	541,214	560,377	414,750	332,020	549,784	568,063	420,028	335,633
Lubbock	Lubbock	7,296,222	8,013,294	6,590,572	5,447,349	7,342,001	8,035,269	6,620,855	5,455,490
Lynn	Lubbock	521,641	572,907	471,190	389,456	524,914	574,479	473,355	390,038
McCulloch	Brownwood	342,385	444,530	343,605	347,400	344,488	450,961	347,601	352,453
McLennan	Waco	8,163,046	10,752,027	9,021,943	9,278,756	8,143,442	10,697,901	9,000,308	9,317,817
McMullen	San Antonio	372,513	420,921	337,146	290,439	375,219	423,621	340,053	291,697
Madison	Bryan	1,137,846	1,523,264	1,239,868	1,334,767	1,133,475	1,524,210	1,247,431	1,341,425
Marion	Atlanta	312,209	368,872	317,604	295,327	306,541	358,722	308,815	290,841
Martin	Odessa	1,276,770	1,321,978	978,431	783,264	1,296,989	1,340,109	990,882	791,787
Mason	Austin	230,985	251,834	229,162	198,745	231,805	252,527	230,146	200,690
Matagorda	Yoakum	1,054,148	1,343,024	1,057,158	1,131,151	1,045,266	1,331,159	1,040,693	1,120,074
Maverick	Laredo	1,300,521	1,450,459	1,253,565	1,063,917	1,294,394	1,446,091	1,239,055	1,049,498
Medina	San Antonio	1,774,323	2,004,897	1,605,866	1,383,395	1,787,213	2,017,755	1,619,710	1,389,387
Menard	San Angelo	164,033	195,275	156,735	162,615	163,922	194,250	155,546	163,246
Midland	Odessa	7,049,163	7,298,762	5,402,005	4,324,474	7,160,793	7,398,865	5,470,749	4,371,526
Milam	Bryan	838,502	1,122,523	913,684	983,616	835,280	1,123,220	919,256	988,523
Mills	Brownwood	251,805	326,927	252,702	255,494	253,352	331,657	255,641	259,210
Mitchell	Abilene	849,252	1,010,739	803,351	803,689	846,435	1,008,692	799,420	805,066
Montague	Wichita Falls	907,746	1,033,795	827,408	706,213	912,486	1,038,848	829,808	712,905
Montgomery	Houston	17,387,637	18,574,857	15,357,963	12,629,288	17,386,075	18,569,104	15,338,341	12,607,645
Moore	Amarillo	674,662	735,725	676,669	590,132	680,036	734,143	677,829	593,908
Morris	Atlanta	551,062	651,075	560,585	521,266	541,060	633,160	545,072	513,347
Motley	Childress	54,025	62,974	61,336	60,045	54,232	62,817	61,275	60,521
Nacogdoches	Lufkin	1,883,488	2,216,796	1,803,107	1,600,579	1,904,452	2,239,525	1,825,805	1,629,838
Navarro	Dallas	2,516,622	2,785,768	2,377,944	2,008,188	2,499,645	2,765,409	2,364,541	2,003,242
Newton	Beaumont	409,915	468,437	385,172	336,585	413,101	471,709	385,752	338,311
Nolan	Abilene	1,367,942	1,628,060	1,294,007	1,294,551	1,363,406	1,624,763	1,287,676	1,296,770
Nueces	Corpus Christi	10,012,303	11,464,880	9,635,337	8,112,378	9,885,587	11,276,685	9,417,383	7,896,815

County	TxDOT District	2023 Fall Weekday	2023 Fall Friday	2023 Fall Saturday	2023 Fall Sunday	2023 Winter Weekday	2023 Winter Friday	2023 Winter Saturday	2023 Winter Sunday
Ochiltree	Amarillo	409,521	446,587	410,740	358,211	412,783	445,627	411,444	360,504
Oldham	Amarillo	883,700	963,683	886,329	772,978	890,739	961,611	887,848	777,925
Orange	Beaumont	3,469,419	3,964,730	3,260,000	2,848,771	3,496,384	3,992,422	3,264,911	2,863,378
Palo Pinto	Fort Worth	1,272,626	1,396,266	1,088,499	879,776	1,284,105	1,407,862	1,096,729	891,579
Panola	Atlanta	1,073,637	1,268,493	1,092,191	1,015,584	1,054,149	1,233,588	1,061,967	1,000,157
Parker	Fort Worth	4,905,180	5,381,734	4,195,484	3,390,988	4,949,423	5,426,430	4,227,207	3,436,481
Parmer	Lubbock	466,952	512,844	421,791	348,626	469,882	514,250	423,729	349,147
Pecos	Odessa	1,709,331	1,769,855	1,309,916	1,048,629	1,736,400	1,794,129	1,326,586	1,060,039
Polk	Lufkin	1,926,233	2,267,105	1,844,028	1,636,903	1,947,673	2,290,349	1,867,241	1,666,827
Potter	Amarillo	3,409,924	3,718,556	3,420,070	2,982,685	3,437,086	3,710,560	3,425,931	3,001,774
Presidio	El Paso	256,307	273,411	222,757	173,887	259,024	275,963	224,982	174,765
Rains	Paris	353,455	418,194	367,900	330,195	351,365	415,479	364,628	330,849
Randall	Amarillo	2,578,303	2,811,665	2,585,975	2,255,261	2,598,841	2,805,620	2,590,406	2,269,693
Reagan	San Angelo	593,336	706,343	566,936	588,206	592,932	702,636	562,637	590,487
Real	San Angelo	127,710	152,034	122,028	126,606	127,623	151,236	121,103	127,097
Red River	Paris	419,505	496,341	436,649	391,898	417,024	493,119	432,765	392,674
Reeves	Odessa	2,538,489	2,628,373	1,945,328	1,557,296	2,578,689	2,664,421	1,970,083	1,574,240
Refugio	Corpus Christi	736,354	843,184	708,630	596,624	727,035	829,343	692,601	580,771
Roberts	Amarillo	96,638	105,384	96,925	84,530	97,408	105,158	97,091	85,071
Robertson	Bryan	1,040,528	1,392,981	1,133,824	1,220,606	1,036,530	1,393,846	1,140,740	1,226,695
Rockwall	Dallas	2,726,355	3,017,931	2,576,119	2,175,548	2,707,963	2,995,875	2,561,600	2,170,190
Runnels	San Angelo	418,343	498,021	399,730	414,726	418,058	495,407	396,698	416,335
Rusk	Tyler	1,564,328	1,702,960	1,434,254	1,117,224	1,551,590	1,689,035	1,418,565	1,104,327
Sabine	Lufkin	301,243	354,552	288,387	255,995	304,596	358,187	292,017	260,675
San Augustine	Lufkin	312,952	368,333	299,596	265,945	316,436	372,110	303,368	270,807
San Jacinto	Lufkin	913,246	1,074,857	874,272	776,072	923,411	1,085,878	885,278	790,259
San Patricio	Corpus Christi	2,834,578	3,245,817	2,727,856	2,296,692	2,798,704	3,192,537	2,666,151	2,235,664
San Saba	Brownwood	173,718	225,544	174,337	176,262	174,785	228,807	176,364	178,826
Schleicher	San Angelo	149,751	178,273	143,088	148,456	149,649	177,337	142,003	149,032
Scurry	Abilene	804,247	957,177	760,779	761,099	801,580	955,239	757,057	762,403
Shackelford	Abilene	156,576	186,349	148,113	148,176	156,057	185,972	147,389	148,430
Shelby	Lufkin	832,641	979,988	797,107	707,574	841,909	990,035	807,141	720,509
Sherman	Amarillo	331,391	361,385	332,377	289,870	334,030	360,608	332,946	291,725
Smith	Tyler	7,769,184	8,457,694	7,123,178	5,548,658	7,705,922	8,388,539	7,045,258	5,484,606
Somervell	Fort Worth	305,991	335,719	261,719	211,534	308,751	338,507	263,698	214,372
Starr	Pharr	1,398,789	1,577,360	1,427,136	1,174,228	1,383,148	1,560,433	1,398,728	1,142,963

County	TxDOT District	2023 Fall Weekday	2023 Fall Friday	2023 Fall Saturday	2023 Fall Sunday	2023 Winter Weekday	2023 Winter Friday	2023 Winter Saturday	2023 Winter Sunday
Stephens	Brownwood	227,938	295,941	228,751	231,277	229,338	300,222	231,411	234,641
Sterling	San Angelo	305,471	363,652	291,880	302,830	305,263	361,743	289,666	304,005
Stonewall	Abilene	97,450	115,980	92,183	92,222	97,127	115,746	91,732	92,380
Sutton	San Angelo	761,781	906,871	727,887	755,194	761,262	902,110	722,367	758,124
Swisher	Lubbock	516,435	567,190	466,488	385,569	519,675	568,745	468,631	386,146
Tarrant	Fort Worth	53,246,042	58,419,058	45,542,245	36,809,389	53,726,299	58,904,242	45,886,602	37,303,223
Taylor	Abilene	3,580,504	4,261,345	3,386,983	3,388,407	3,568,630	4,252,716	3,370,413	3,394,214
Terrell	Odessa	98,430	101,915	75,430	60,384	99,989	103,313	76,390	61,041
Terry	Lubbock	668,302	733,982	603,667	498,953	672,495	735,995	606,441	499,699
Throckmorton	Wichita Falls	74,201	84,505	67,634	57,728	74,589	84,918	67,831	58,275
Titus	Atlanta	1,486,946	1,756,813	1,512,642	1,406,545	1,459,955	1,708,472	1,470,783	1,385,179
Tom Green	San Angelo	2,666,890	3,174,830	2,548,233	2,643,832	2,665,075	3,158,165	2,528,907	2,654,087
Travis	Austin	34,000,520	37,069,309	33,732,091	29,254,744	34,121,084	37,171,394	33,876,920	29,541,084
Trinity	Lufkin	421,369	495,936	403,387	358,078	426,059	501,021	408,464	364,623
Tyler	Beaumont	659,509	753,664	619,700	541,529	664,635	758,928	620,634	544,305
Upshur	Atlanta	1,230,156	1,453,419	1,251,415	1,163,640	1,207,827	1,413,425	1,216,784	1,145,964
Upton	Odessa	518,515	536,875	397,355	318,095	526,727	544,238	402,412	321,556
Uvalde	San Antonio	879,623	993,931	796,110	685,820	886,013	1,000,305	802,974	688,791
Val Verde	Laredo	860,291	959,474	829,230	703,778	856,238	956,585	819,631	694,240
Van Zandt	Tyler	2,866,056	3,120,048	2,627,744	2,046,903	2,842,719	3,094,536	2,598,999	2,023,274
Victoria	Yoakum	2,886,317	3,677,275	2,894,559	3,097,154	2,861,997	3,644,787	2,849,477	3,066,825
Walker	Bryan	2,652,968	3,551,596	2,890,839	3,112,103	2,642,775	3,553,801	2,908,472	3,127,626
Waller	Houston	2,741,448	2,928,633	2,421,437	1,991,216	2,741,202	2,927,726	2,418,343	1,987,804
Ward	Odessa	1,617,202	1,674,465	1,239,315	992,111	1,642,812	1,697,430	1,255,086	1,002,905
Washington	Bryan	1,384,475	1,853,432	1,508,611	1,624,079	1,379,156	1,854,583	1,517,812	1,632,180
Webb	Laredo	6,594,462	7,354,741	6,356,367	5,394,731	6,563,394	7,332,592	6,282,791	5,321,616
Wharton	Yoakum	1,781,111	2,269,202	1,786,197	1,911,217	1,766,104	2,249,154	1,758,378	1,892,501
Wheeler	Childress	597,751	696,776	678,650	664,365	600,046	695,034	677,970	669,634
Wichita	Wichita Falls	2,915,292	3,320,110	2,657,282	2,268,054	2,930,515	3,336,338	2,664,990	2,289,548
Wilbarger	Wichita Falls	769,926	876,838	701,785	598,991	773,946	881,124	703,821	604,667
Willacy	Pharr	578,710	652,589	590,438	485,804	572,240	645,586	578,685	472,870
Williamson	Austin	14,692,955	16,019,099	14,576,956	12,642,120	14,745,056	16,063,214	14,639,543	12,765,858
Wilson	San Antonio	1,546,572	1,747,550	1,399,738	1,205,824	1,557,808	1,758,758	1,411,806	1,211,047
Winkler	Odessa	1,091,455	1,130,102	836,418	669,579	1,108,739	1,145,601	847,062	676,864
Wise	Fort Worth	2,847,906	3,124,589	2,435,863	1,968,779	2,873,593	3,150,539	2,454,281	1,995,192
Wood	Tyler	1,139,371	1,240,343	1,044,632	813,725	1,130,093	1,230,201	1,033,205	804,332

County	TxDOT District	2023 Fall Weekday	2023 Fall Friday	2023 Fall Saturday	2023 Fall Sunday	2023 Winter Weekday	2023 Winter Friday	2023 Winter Saturday	2023 Winter Sunday
Yoakum	Lubbock	448,987	493,113	405,563	335,213	451,804	494,466	407,427	335,714
Young	Wichita Falls	492,022	560,344	448,477	382,786	494,591	563,083	449,778	386,413
Zapata	Pharr	361,973	408,183	369,308	303,862	357,925	403,802	361,957	295,771
Zavala	Laredo	472,576	527,059	455,513	386,600	470,349	525,472	450,241	381,360

County VMT Control Totals by Day of Week – 2026 Spring and Summer.

County	TxDOT District	2026 Spring Weekday	2026 Spring Friday	2026 Spring Saturday	2026 Spring Sunday	2026 Summer Weekday	2026 Summer Friday	2026 Summer Saturday	2026 Summer Sunday
Anderson	Tyler	1,405,047	1,521,536	1,278,756	989,446	1,402,059	1,524,232	1,267,788	987,491
Andrews	Odessa	1,480,515	1,525,654	1,131,857	901,485	1,454,453	1,500,429	1,114,327	885,531
Angelina	Lufkin	2,361,229	2,769,273	2,267,502	2,020,647	2,376,455	2,776,756	2,264,717	2,018,804
Aransas	Corpus Christi	651,912	740,032	613,078	515,462	637,479	723,586	595,785	491,345
Archer	Wichita Falls	499,825	565,596	452,193	390,330	488,057	559,742	442,938	376,112
Armstrong	Amarillo	401,550	432,632	402,904	351,640	387,302	416,868	381,410	333,869
Atascosa	San Antonio	2,688,136	3,028,976	2,430,283	2,081,318	2,683,092	3,027,908	2,443,037	2,076,881
Austin	Yoakum	1,694,861	2,138,392	1,679,544	1,804,219	1,702,731	2,166,500	1,684,098	1,801,108
Bailey	Lubbock	258,163	280,678	231,988	191,035	259,758	284,419	234,265	190,151
Bandera	San Antonio	592,369	667,478	535,548	458,648	591,258	667,243	538,358	457,671
Bastrop	Austin	3,334,451	3,617,171	3,295,014	2,873,283	3,308,958	3,610,622	3,296,222	2,871,641
Baylor	Wichita Falls	260,492	294,770	235,668	203,427	254,359	291,719	230,844	196,017
Bee	Corpus Christi	718,713	815,863	675,899	568,281	702,801	797,732	656,835	541,693
Bell	Waco	10,251,192	13,307,008	11,272,779	11,633,212	9,839,363	12,873,384	10,874,857	11,137,434
Bexar	San Antonio	51,417,566	57,937,019	46,485,469	39,810,606	51,321,095	57,916,590	46,729,420	39,725,732
Blanco	Austin	805,601	873,906	796,073	694,183	799,442	872,324	796,365	693,787
Borden	Abilene	101,369	119,995	95,372	96,074	100,571	119,844	95,234	95,001
Bosque	Waco	568,094	737,440	624,708	644,682	545,272	713,410	602,656	617,208
Bowie	Atlanta	3,533,798	4,105,096	3,573,514	3,364,149	3,474,486	4,034,634	3,445,273	3,252,812
Brazoria	Houston	10,003,919	10,681,665	8,790,926	7,196,321	10,037,409	10,687,869	8,838,810	7,256,291
Brazos	Bryan	5,371,313	7,119,865	5,883,380	6,286,800	5,375,743	7,256,212	5,942,622	6,344,066
Brewster	El Paso	353,364	376,549	306,226	237,870	356,984	380,597	311,083	240,906
Briscoe	Childress	57,001	65,543	64,381	63,934	54,469	62,941	60,904	60,167
Brooks	Pharr	762,993	860,258	765,621	624,406	778,912	875,532	775,935	625,417
Brown	Brownwood	975,535	1,266,312	979,518	989,814	969,982	1,271,104	977,996	979,079
Burleson	Bryan	953,590	1,264,018	1,044,500	1,116,120	954,377	1,288,224	1,055,017	1,126,287
Burnet	Austin	2,121,129	2,300,974	2,096,042	1,827,768	2,104,912	2,296,808	2,096,810	1,826,724
Caldwell	Austin	1,700,887	1,845,101	1,680,770	1,465,647	1,687,883	1,841,760	1,681,387	1,464,810
Calhoun	Yoakum	653,432	824,430	647,527	695,594	656,467	835,267	649,283	694,395
Callahan	Abilene	1,135,564	1,344,219	1,068,384	1,076,254	1,126,626	1,342,536	1,066,845	1,064,233
Cameron	Pharr	9,489,885	10,699,647	9,522,572	7,766,182	9,687,882	10,889,609	9,650,851	7,778,758
Camp	Atlanta	326,521	379,308	330,191	310,845	321,040	372,798	318,341	300,558
Carson	Amarillo	822,370	886,025	825,144	720,155	793,191	853,741	781,125	683,760
Cass	Atlanta	977,180	1,135,157	988,162	930,268	960,778	1,115,673	952,701	899,480

County	TxDOT District	2026 Spring Weekday	2026 Spring Friday	2026 Spring Saturday	2026 Spring Sunday	2026 Summer Weekday	2026 Summer Friday	2026 Summer Saturday	2026 Summer Sunday
Castro	Lubbock	305,539	332,185	274,560	226,092	307,427	336,613	277,256	225,045
Chambers	Beaumont	3,275,323	3,736,424	3,038,817	2,671,552	3,282,129	3,735,596	3,052,586	2,659,350
Cherokee	Tyler	1,529,217	1,656,001	1,391,766	1,076,887	1,525,966	1,658,935	1,379,827	1,074,760
Childress	Childress	439,247	505,073	496,122	492,674	419,740	485,023	469,327	463,650
Clay	Wichita Falls	960,477	1,086,864	868,946	750,068	937,863	1,075,615	851,160	722,747
Cochran	Lubbock	119,857	130,310	107,705	88,691	120,597	132,046	108,762	88,281
Coke	San Angelo	211,478	248,954	201,174	210,878	207,308	244,601	195,313	204,489
Coleman	Brownwood	411,414	534,043	413,093	417,436	409,072	536,064	412,452	412,908
Collin	Dallas	26,089,130	28,714,972	24,564,969	20,793,045	25,978,674	28,752,997	24,624,495	20,791,817
Collingsworth	Childress	88,284	101,515	99,715	99,023	84,363	97,485	94,330	93,189
Colorado	Yoakum	2,083,230	2,628,395	2,064,404	2,217,647	2,092,904	2,662,943	2,070,001	2,213,823
Comal	San Antonio	5,922,637	6,673,593	5,354,523	4,585,665	5,911,524	6,671,240	5,382,623	4,575,889
Comanche	Brownwood	478,215	620,756	480,167	485,215	475,493	623,106	479,422	479,953
Concho	San Angelo	302,378	355,962	287,645	301,520	296,415	349,739	279,265	292,385
Cooke	Wichita Falls	2,346,197	2,654,928	2,122,610	1,832,223	2,290,958	2,627,450	2,079,165	1,765,485
Coryell	Waco	1,460,185	1,895,456	1,605,700	1,657,040	1,401,524	1,833,691	1,549,020	1,586,421
Cottle	Childress	74,368	85,513	83,997	83,413	71,065	82,118	79,461	78,499
Crane	Odessa	516,123	531,859	394,577	314,267	507,037	523,065	388,466	308,705
Crockett	San Angelo	897,285	1,056,293	853,567	894,741	879,592	1,037,825	828,699	867,633
Crosby	Lubbock	212,544	231,080	190,994	157,278	213,857	234,160	192,869	156,550
Culberson	El Paso	1,118,978	1,192,397	969,709	753,251	1,130,443	1,205,216	985,090	762,865
Dallam	Amarillo	573,396	617,779	575,330	502,127	553,051	595,269	544,637	476,750
Dallas	Dallas	75,940,153	83,583,445	71,503,628	60,524,326	75,618,638	83,694,128	71,676,898	60,520,751
Dawson	Lubbock	660,609	718,221	593,630	488,835	664,690	727,793	599,457	486,573
Deaf Smith	Amarillo	544,015	586,124	545,850	476,397	524,712	564,767	516,730	452,321
Delta	Paris	170,288	199,989	175,938	160,285	165,395	195,729	172,070	154,863
Denton	Dallas	20,215,051	22,249,674	19,034,061	16,111,402	20,129,465	22,279,137	19,080,185	16,110,451
De Witt	Yoakum	749,352	945,451	742,580	797,703	752,832	957,879	744,593	796,327
Dickens	Childress	103,128	118,583	116,481	115,672	98,548	113,875	110,190	108,857
Dimmit	Laredo	841,357	940,127	802,747	676,684	834,351	933,439	799,654	676,342
Donley	Childress	527,238	606,251	595,507	591,369	503,824	582,185	563,345	556,530
Duval	Laredo	453,643	506,898	432,825	364,855	449,866	503,292	431,158	364,670
Eastland	Brownwood	1,442,888	1,872,969	1,448,779	1,464,009	1,434,676	1,880,058	1,446,529	1,448,131
Ector	Odessa	5,755,421	5,930,898	4,400,035	3,504,473	5,654,110	5,832,838	4,331,886	3,442,455
Edwards	San Angelo	102,067	120,154	97,094	101,777	100,054	118,053	94,265	98,694
Ellis	Dallas	7,533,170	8,291,376	7,093,073	6,003,939	7,501,277	8,302,355	7,110,261	6,003,585

County	TxDOT District	2026 Spring Weekday	2026 Spring Friday	2026 Spring Saturday	2026 Spring Sunday	2026 Summer Weekday	2026 Summer Friday	2026 Summer Saturday	2026 Summer Sunday
El Paso	El Paso	21,522,681	22,934,847	18,651,599	14,488,203	21,743,199	23,181,401	18,947,454	14,673,112
Erath	Fort Worth	1,427,844	1,559,857	1,212,541	987,993	1,415,274	1,553,732	1,212,451	978,494
Falls	Waco	834,632	1,083,430	917,807	947,153	801,101	1,048,125	885,409	906,788
Fannin	Paris	881,746	1,035,540	911,000	829,951	856,409	1,013,481	890,975	801,877
Fayette	Yoakum	2,010,102	2,536,130	1,991,937	2,139,800	2,019,436	2,569,465	1,997,337	2,136,111
Fisher	Abilene	224,668	265,950	211,377	212,934	222,900	265,617	211,072	210,555
Floyd	Lubbock	193,398	210,265	173,790	143,110	194,593	213,067	175,496	142,448
Foard	Childress	46,781	53,791	52,838	52,471	44,703	51,656	49,984	49,380
Fort Bend	Houston	16,077,709	17,166,942	14,128,258	11,565,503	16,131,532	17,176,912	14,205,215	11,661,883
Franklin	Paris	620,505	728,734	641,092	584,055	602,675	713,210	626,999	564,299
Freestone	Bryan	1,551,048	2,055,968	1,698,915	1,815,408	1,552,327	2,095,341	1,716,022	1,831,945
Frio	San Antonio	1,706,799	1,923,212	1,543,079	1,321,508	1,703,597	1,922,534	1,551,177	1,318,690
Gaines	Lubbock	1,089,170	1,184,157	978,739	805,960	1,095,899	1,199,940	988,347	802,230
Galveston	Houston	7,709,950	8,232,284	6,775,105	5,546,154	7,735,760	8,237,065	6,812,009	5,592,372
Garza	Lubbock	583,705	634,610	524,523	431,928	587,311	643,068	529,672	429,929
Gillespie	Austin	1,066,272	1,156,679	1,053,661	918,802	1,058,120	1,154,585	1,054,048	918,278
Glasscock	San Angelo	546,695	643,576	520,059	545,145	535,915	632,324	504,907	528,629
Goliad	Corpus Christi	386,431	438,666	363,412	305,548	377,876	428,917	353,161	291,253
Gonzales	Yoakum	1,714,138	2,162,713	1,698,647	1,824,739	1,722,097	2,191,141	1,703,252	1,821,593
Gray	Amarillo	828,923	893,086	831,720	725,894	799,511	860,544	787,349	689,209
Grayson	Paris	4,126,060	4,845,727	4,262,952	3,883,686	4,007,498	4,742,501	4,169,243	3,752,318
Gregg	Tyler	4,165,030	4,510,343	3,790,663	2,933,049	4,156,175	4,518,335	3,758,148	2,927,254
Grimes	Bryan	1,230,882	1,631,578	1,348,227	1,440,674	1,231,898	1,662,823	1,361,803	1,453,797
Guadalupe	San Antonio	5,094,948	5,740,958	4,606,228	3,944,819	5,085,389	5,738,934	4,630,401	3,936,408
Hale	Lubbock	1,112,042	1,209,023	999,292	822,885	1,118,912	1,225,137	1,009,101	819,076
Hall	Childress	251,519	289,212	284,086	282,112	240,349	277,731	268,744	265,493
Hamilton	Waco	387,644	503,198	426,275	439,905	372,071	486,801	411,228	421,157
Hansford	Amarillo	199,967	215,445	200,642	175,112	192,872	207,595	189,938	166,263
Hardeman	Childress	412,264	474,047	465,645	462,410	393,956	455,229	440,497	435,169
Hardin	Beaumont	1,770,420	2,019,661	1,642,581	1,444,062	1,774,099	2,019,213	1,650,024	1,437,467
Harris	Houston	133,457,762	142,499,263	117,275,773	96,002,871	133,904,537	142,582,027	117,914,575	96,802,900
Harrison	Atlanta	3,021,448	3,509,916	3,055,406	2,876,396	2,970,735	3,449,670	2,945,758	2,781,201
Hartley	Amarillo	607,518	654,542	609,567	532,007	585,962	630,693	577,048	505,121
Haskell	Abilene	298,008	352,766	280,378	282,443	295,662	352,324	279,974	279,288
Hays	Austin	7,901,239	8,571,166	7,807,791	6,808,467	7,840,832	8,555,648	7,810,654	6,804,577
Hemphill	Amarillo	260,127	280,262	261,004	227,795	250,897	270,050	247,080	216,283

County	TxDOT District	2026 Spring Weekday	2026 Spring Friday	2026 Spring Saturday	2026 Spring Sunday	2026 Summer Weekday	2026 Summer Friday	2026 Summer Saturday	2026 Summer Sunday
Henderson	Tyler	2,285,563	2,475,054	2,080,129	1,609,513	2,280,704	2,479,439	2,062,286	1,606,333
Hidalgo	Pharr	18,970,577	21,388,927	19,035,917	15,524,840	19,366,378	21,768,667	19,292,351	15,549,980
Hill	Waco	2,775,346	3,602,660	3,051,925	3,149,506	2,663,850	3,485,263	2,944,194	3,015,282
Hockley	Lubbock	802,372	872,347	721,020	593,737	807,329	883,974	728,097	590,989
Hood	Fort Worth	1,472,351	1,608,479	1,250,337	1,018,789	1,459,389	1,602,164	1,250,244	1,008,995
Hopkins	Paris	1,954,049	2,294,875	2,018,880	1,839,264	1,897,900	2,245,988	1,974,500	1,777,050
Houston	Lufkin	758,537	889,619	728,427	649,126	763,428	892,023	727,532	648,534
Howard	Abilene	1,705,776	2,019,205	1,604,863	1,616,684	1,692,349	2,016,677	1,602,551	1,598,627
Hudspeth	El Paso	1,946,448	2,074,160	1,686,796	1,310,270	1,966,391	2,096,458	1,713,552	1,326,993
Hunt	Paris	3,242,718	3,808,313	3,350,303	3,052,234	3,149,539	3,727,186	3,276,656	2,948,990
Hutchinson	Amarillo	439,053	473,038	440,534	384,482	423,475	455,802	417,033	365,051
Irion	San Angelo	320,086	376,809	304,490	319,178	313,774	370,220	295,619	309,508
Jack	Fort Worth	358,586	391,740	304,515	248,123	355,429	390,202	304,493	245,737
Jackson	Yoakum	986,736	1,244,956	977,818	1,050,403	991,317	1,261,320	980,469	1,048,592
Jasper	Beaumont	1,333,085	1,520,757	1,236,825	1,087,345	1,335,855	1,520,420	1,242,429	1,082,379
Jeff Davis	El Paso	239,130	254,820	207,231	160,973	241,580	257,560	210,518	163,027
Jefferson	Beaumont	7,684,869	8,766,748	7,129,956	6,268,245	7,700,837	8,764,804	7,162,264	6,239,616
Jim Hogg	Pharr	178,100	200,804	178,713	145,750	181,816	204,369	181,121	145,986
Jim Wells	Corpus Christi	1,495,338	1,697,466	1,406,261	1,182,354	1,462,232	1,659,743	1,366,596	1,127,034
Johnson	Fort Worth	4,967,356	5,426,620	4,218,335	3,437,149	4,923,626	5,405,313	4,218,021	3,404,104
Jones	Abilene	547,373	647,950	514,991	518,784	543,064	647,139	514,249	512,989
Karnes	Corpus Christi	990,569	1,124,467	931,561	783,236	968,639	1,099,477	905,286	746,591
Kaufman	Dallas	5,324,656	5,860,577	5,013,583	4,243,753	5,302,113	5,868,338	5,025,732	4,243,502
Kendall	San Antonio	1,595,679	1,798,002	1,442,618	1,235,472	1,592,685	1,797,368	1,450,189	1,232,838
Kenedy	Pharr	544,688	614,124	546,564	445,753	556,052	625,027	553,927	446,475
Kent	Abilene	65,473	77,504	61,600	62,054	64,958	77,407	61,511	61,360
Kerr	San Antonio	1,603,691	1,807,030	1,449,861	1,241,675	1,600,682	1,806,392	1,457,470	1,239,028
Kimble	San Angelo	793,975	934,676	755,290	791,724	778,319	918,334	733,285	767,737
King	Childress	93,929	108,005	106,091	105,354	89,758	103,718	100,361	99,148
Kinney	Laredo	249,434	278,716	237,987	200,614	247,357	276,733	237,070	200,512
Kleberg	Corpus Christi	1,001,318	1,136,668	941,670	791,735	979,149	1,111,408	915,109	754,692
Knox	Childress	140,397	161,437	158,576	157,474	134,162	155,028	150,011	148,197
Lamar	Paris	1,370,061	1,609,028	1,415,516	1,289,581	1,330,693	1,574,751	1,384,400	1,245,960
Lamb	Lubbock	505,991	550,118	454,689	374,421	509,117	557,451	459,152	372,689
Lampasas	Brownwood	798,805	1,036,904	802,067	810,498	794,259	1,040,829	800,821	801,708
La Salle	Laredo	1,576,083	1,761,104	1,503,757	1,267,607	1,562,959	1,748,577	1,497,963	1,266,966

County	TxDOT District	2026 Spring Weekday	2026 Spring Friday	2026 Spring Saturday	2026 Spring Sunday	2026 Summer Weekday	2026 Summer Friday	2026 Summer Saturday	2026 Summer Sunday
Lavaca	Yoakum	663,347	836,939	657,352	706,148	666,427	847,940	659,134	704,930
Lee	Austin	901,326	977,748	890,666	776,669	894,435	975,977	890,993	776,226
Leon	Bryan	1,659,818	2,200,148	1,818,055	1,942,718	1,661,187	2,242,281	1,836,362	1,960,414
Liberty	Beaumont	2,625,261	2,994,847	2,435,695	2,141,323	2,630,716	2,994,183	2,446,732	2,131,542
Limestone	Waco	698,788	907,093	768,427	792,996	670,716	877,534	741,302	759,201
Lipscomb	Amarillo	179,385	193,270	179,990	157,088	173,020	186,228	170,388	149,149
Live Oak	Corpus Christi	1,875,210	2,128,686	1,763,505	1,482,716	1,833,694	2,081,380	1,713,763	1,413,344
Llano	Austin	659,521	715,440	651,720	568,306	654,478	714,144	651,959	567,982
Loving	Odessa	562,039	579,176	429,681	342,226	552,146	569,600	423,026	336,169
Lubbock	Lubbock	7,415,881	8,062,622	6,663,987	5,487,579	7,461,696	8,170,083	6,729,399	5,462,181
Lynn	Lubbock	535,281	581,963	481,009	396,095	538,588	589,719	485,730	394,262
McCulloch	Brownwood	349,664	453,888	351,092	354,783	347,674	455,606	350,546	350,935
McLennan	Waco	8,386,405	10,886,340	9,222,156	9,517,023	8,049,492	10,531,596	8,896,620	9,111,431
McMullen	San Antonio	394,829	444,892	356,956	305,701	394,089	444,735	358,830	305,049
Madison	Bryan	1,158,421	1,535,528	1,268,858	1,355,863	1,159,377	1,564,934	1,281,634	1,368,213
Marion	Atlanta	301,451	350,186	304,839	286,979	296,392	344,175	293,900	277,482
Martin	Odessa	1,362,665	1,404,211	1,041,761	829,726	1,338,678	1,380,994	1,025,626	815,042
Mason	Austin	235,156	255,094	232,374	202,633	233,358	254,632	232,460	202,517
Matagorda	Yoakum	1,048,664	1,323,090	1,039,187	1,116,327	1,053,533	1,340,481	1,042,004	1,114,402
Maverick	Laredo	1,349,741	1,508,192	1,287,802	1,085,566	1,338,502	1,497,464	1,282,840	1,085,017
Medina	San Antonio	1,853,703	2,088,742	1,675,892	1,435,250	1,850,225	2,088,006	1,684,687	1,432,190
Menard	San Angelo	165,690	195,052	157,617	165,220	162,423	191,642	153,025	160,215
Midland	Odessa	7,494,155	7,722,645	5,729,302	4,563,187	7,362,237	7,594,961	5,640,564	4,482,434
Milam	Bryan	840,022	1,113,479	920,105	983,196	840,715	1,134,803	929,370	992,152
Mills	Brownwood	258,768	335,899	259,824	262,556	257,295	337,170	259,421	259,708
Mitchell	Abilene	862,503	1,020,984	811,478	817,454	855,714	1,019,706	810,308	808,324
Montague	Wichita Falls	931,402	1,053,964	842,642	727,363	909,473	1,043,055	825,395	700,869
Montgomery	Houston	18,405,807	19,652,764	16,174,070	13,240,221	18,467,424	19,664,178	16,262,170	13,350,557
Moore	Amarillo	704,847	759,405	707,224	617,239	679,837	731,734	669,495	586,045
Morris	Atlanta	537,937	624,904	543,983	512,112	528,908	614,177	524,461	495,164
Motley	Childress	53,742	61,796	60,701	60,279	51,355	59,343	57,422	56,728
Nacogdoches	Lufkin	1,944,298	2,280,293	1,867,121	1,663,855	1,956,836	2,286,454	1,864,828	1,662,337
Navarro	Dallas	2,564,935	2,823,093	2,415,088	2,044,254	2,554,075	2,826,831	2,420,940	2,044,133
Newton	Beaumont	413,445	471,650	383,590	337,231	414,304	471,545	385,329	335,690
Nolan	Abilene	1,389,979	1,645,382	1,307,749	1,317,381	1,379,038	1,643,322	1,305,864	1,302,667
Nueces	Corpus Christi	9,973,761	11,321,935	9,379,628	7,886,185	9,752,949	11,070,326	9,115,066	7,517,211

County	TxDOT District	2026 Spring Weekday	2026 Spring Friday	2026 Spring Saturday	2026 Spring Sunday	2026 Summer Weekday	2026 Summer Friday	2026 Summer Saturday	2026 Summer Sunday
Ochiltree	Amarillo	435,962	469,707	437,432	381,774	420,493	452,592	414,096	362,480
Oldham	Amarillo	921,701	993,045	924,810	807,140	888,997	956,861	875,474	766,349
Orange	Beaumont	3,573,790	4,076,909	3,315,731	2,915,000	3,581,215	4,076,005	3,330,756	2,901,686
Palo Pinto	Fort Worth	1,316,835	1,438,585	1,118,271	911,181	1,305,242	1,432,936	1,118,188	902,420
Panola	Atlanta	1,058,070	1,229,125	1,069,962	1,007,275	1,040,311	1,208,028	1,031,565	973,939
Parker	Fort Worth	5,219,607	5,702,193	4,432,549	3,611,693	5,173,656	5,679,804	4,432,219	3,576,970
Parmer	Lubbock	481,229	523,197	432,437	356,098	484,202	530,170	436,682	354,450
Pecos	Odessa	1,800,264	1,855,152	1,376,307	1,096,180	1,768,575	1,824,480	1,354,990	1,076,781
Polk	Lufkin	1,984,521	2,327,466	1,905,748	1,698,276	1,997,318	2,333,755	1,903,406	1,696,726
Potter	Amarillo	3,506,484	3,777,901	3,518,311	3,070,650	3,382,065	3,640,245	3,330,617	2,915,467
Presidio	El Paso	265,158	282,555	229,786	178,494	267,874	285,593	233,431	180,772
Rains	Paris	360,661	423,567	372,626	339,475	350,297	414,544	364,435	327,992
Randall	Amarillo	2,689,935	2,898,148	2,699,008	2,355,593	2,594,490	2,792,547	2,555,022	2,236,547
Reagan	San Angelo	624,824	735,549	594,381	623,052	612,503	722,689	577,064	604,176
Real	San Angelo	130,863	154,054	124,487	130,492	128,283	151,360	120,860	126,539
Red River	Paris	417,068	489,814	430,906	392,569	405,084	479,379	421,433	379,290
Reeves	Odessa	2,675,049	2,756,609	2,045,082	1,628,836	2,627,961	2,711,031	2,013,407	1,600,011
Refugio	Corpus Christi	733,571	832,729	689,872	580,030	717,330	814,223	670,414	552,891
Roberts	Amarillo	101,878	109,764	102,221	89,215	98,263	105,764	96,768	84,706
Robertson	Bryan	1,062,826	1,408,814	1,164,150	1,243,975	1,063,703	1,435,793	1,175,872	1,255,306
Rockwall	Dallas	2,866,045	3,154,509	2,698,607	2,284,239	2,853,911	3,158,687	2,705,146	2,284,104
Runnels	San Angelo	423,197	498,193	402,578	421,998	414,852	489,482	390,849	409,212
Rusk	Tyler	1,572,413	1,702,778	1,431,079	1,107,307	1,569,070	1,705,795	1,418,804	1,105,119
Sabine	Lufkin	305,123	357,851	293,011	261,112	307,090	358,818	292,651	260,874
San Augustine	Lufkin	317,049	371,838	304,464	271,318	319,093	372,843	304,090	271,070
San Jacinto	Lufkin	945,955	1,109,425	908,406	809,511	952,054	1,112,423	907,290	808,773
San Patricio	Corpus Christi	2,844,947	3,229,505	2,675,475	2,249,481	2,781,962	3,157,735	2,600,011	2,144,233
San Saba	Brownwood	176,098	228,587	176,817	178,676	175,096	229,452	176,542	176,738
Schleicher	San Angelo	152,698	179,758	145,259	152,266	149,688	176,616	141,027	147,652
Scurry	Abilene	816,835	966,925	768,511	774,172	810,405	965,714	767,404	765,525
Shackelford	Abilene	155,854	184,492	146,634	147,714	154,627	184,261	146,423	146,064
Shelby	Lufkin	859,105	1,007,567	825,004	735,189	864,645	1,010,290	823,991	734,518
Sherman	Amarillo	343,635	370,234	344,794	300,923	331,442	356,744	326,400	285,715
Smith	Tyler	7,833,608	8,483,074	7,129,497	5,516,493	7,816,953	8,498,105	7,068,342	5,505,594
Somervell	Fort Worth	322,753	352,593	274,085	223,328	319,911	351,209	274,065	221,181
Starr	Pharr	1,424,393	1,605,973	1,429,299	1,165,672	1,454,111	1,634,485	1,448,553	1,167,560

County	TxDOT District	2026 Spring Weekday	2026 Spring Friday	2026 Spring Saturday	2026 Spring Sunday	2026 Summer Weekday	2026 Summer Friday	2026 Summer Saturday	2026 Summer Sunday
Stephens	Brownwood	229,986	298,538	230,925	233,353	228,677	299,668	230,567	230,822
Sterling	San Angelo	315,055	370,886	299,705	314,162	308,843	364,402	290,973	304,644
Stonewall	Abilene	96,000	113,640	90,321	90,986	95,244	113,497	90,191	89,970
Sutton	San Angelo	786,366	925,719	748,052	784,137	770,860	909,534	726,258	760,379
Swisher	Lubbock	524,951	570,733	471,727	388,452	528,194	578,339	476,357	386,654
Tarrant	Fort Worth	55,917,738	61,087,687	47,485,970	38,692,131	55,425,470	60,847,833	47,482,439	38,320,144
Taylor	Abilene	3,591,731	4,251,697	3,379,246	3,404,136	3,563,460	4,246,373	3,374,378	3,366,114
Terrell	Odessa	100,871	103,947	77,116	61,420	99,095	102,228	75,922	60,333
Terry	Lubbock	681,356	740,778	612,274	504,188	685,566	750,651	618,284	501,854
Throckmorton	Wichita Falls	73,397	83,055	66,402	57,318	71,669	82,195	65,043	55,230
Titus	Atlanta	1,484,529	1,724,528	1,501,214	1,413,261	1,459,612	1,694,928	1,447,340	1,366,489
Tom Green	San Angelo	2,732,374	3,216,581	2,599,246	2,724,628	2,678,496	3,160,343	2,523,519	2,642,079
Travis	Austin	35,431,803	38,435,981	35,012,750	30,531,445	35,160,918	38,366,391	35,025,587	30,514,002
Trinity	Lufkin	429,525	503,752	412,476	367,571	432,295	505,113	411,969	367,236
Tyler	Beaumont	672,107	766,727	623,575	548,211	673,504	766,557	626,401	545,708
Upshur	Atlanta	1,217,606	1,414,453	1,231,291	1,159,152	1,197,170	1,390,174	1,187,104	1,120,790
Upton	Odessa	551,387	568,198	421,537	335,739	541,681	558,804	415,008	329,798
Uvalde	San Antonio	905,341	1,020,133	818,498	700,970	903,642	1,019,773	822,794	699,475
Val Verde	Laredo	868,960	970,970	829,084	698,885	861,725	964,064	825,889	698,531
Van Zandt	Tyler	2,884,205	3,123,328	2,624,963	2,031,082	2,878,073	3,128,862	2,602,447	2,027,069
Victoria	Yoakum	2,897,555	3,655,821	2,871,369	3,084,514	2,911,009	3,703,874	2,879,154	3,079,196
Walker	Bryan	2,686,766	3,561,404	2,942,906	3,144,699	2,688,982	3,629,605	2,972,539	3,173,344
Waller	Houston	2,873,288	3,067,948	2,524,897	2,066,901	2,882,907	3,069,730	2,538,650	2,084,125
Ward	Odessa	1,704,304	1,756,267	1,302,945	1,037,750	1,674,304	1,727,229	1,282,765	1,019,385
Washington	Bryan	1,401,777	1,858,105	1,535,414	1,640,696	1,402,933	1,893,688	1,550,875	1,655,641
Webb	Laredo	6,883,616	7,691,706	6,567,727	5,536,335	6,826,298	7,636,993	6,542,422	5,533,533
Wharton	Yoakum	1,792,053	2,261,018	1,775,857	1,907,681	1,800,374	2,290,737	1,780,672	1,904,392
Wheeler	Childress	621,204	714,300	701,640	696,764	593,617	685,944	663,746	655,717
Wichita	Wichita Falls	2,926,413	3,311,494	2,647,533	2,285,333	2,857,513	3,277,221	2,593,344	2,202,091
Wilbarger	Wichita Falls	781,679	884,539	707,187	610,439	763,275	875,384	692,712	588,204
Willacy	Pharr	585,410	660,038	587,427	479,079	597,624	671,756	595,340	479,855
Williamson	Austin	15,702,298	17,033,659	15,516,587	13,530,608	15,582,250	17,002,818	15,522,276	13,522,878
Wilson	San Antonio	1,630,604	1,837,355	1,474,192	1,262,512	1,627,544	1,836,707	1,481,929	1,259,821
Winkler	Odessa	1,156,478	1,191,738	884,130	704,179	1,136,121	1,172,034	870,437	691,717
Wise	Fort Worth	3,019,319	3,298,474	2,564,039	2,089,210	2,992,738	3,285,523	2,563,849	2,069,124
Wood	Tyler	1,143,677	1,238,497	1,040,880	805,387	1,141,246	1,240,691	1,031,951	803,796

County	TxDOT District	2026 Spring Weekday	2026 Spring Friday	2026 Spring Saturday	2026 Spring Sunday	2026 Summer Weekday	2026 Summer Friday	2026 Summer Saturday	2026 Summer Sunday
Yoakum	Lubbock	466,416	507,093	419,127	345,137	469,298	513,851	423,241	343,540
Young	Wichita Falls	500,351	566,191	452,669	390,741	488,571	560,331	443,404	376,508
Zapata	Pharr	366,376	413,081	367,638	299,829	374,020	420,415	372,590	300,314
Zavala	Laredo	487,861	545,133	465,474	392,376	483,799	541,255	463,680	392,177

County VMT Control Totals by Day of Week – 2026 Fall and Winter.

County	TxDOT District	2026 Fall Weekday	2026 Fall Friday	2026 Fall Saturday	2026 Fall Sunday	2026 Winter Weekday	2026 Winter Friday	2026 Winter Saturday	2026 Winter Sunday
Anderson	Tyler	1,433,273	1,560,290	1,314,096	1,023,626	1,421,602	1,547,532	1,299,721	1,011,810
Andrews	Odessa	1,446,581	1,497,802	1,108,562	887,439	1,469,489	1,518,344	1,122,669	897,094
Angelina	Lufkin	2,346,163	2,761,348	2,246,037	1,993,758	2,372,277	2,789,659	2,274,310	2,030,205
Aransas	Corpus Christi	668,028	764,945	642,877	541,264	659,574	752,389	628,335	526,881
Archer	Wichita Falls	497,687	566,796	453,640	387,193	500,286	569,566	454,956	390,862
Armstrong	Amarillo	394,806	430,540	395,981	345,340	397,951	429,614	396,660	347,550
Atascosa	San Antonio	2,682,179	3,030,731	2,427,530	2,091,229	2,701,665	3,050,167	2,448,457	2,100,286
Austin	Yoakum	1,728,602	2,202,303	1,733,538	1,854,872	1,714,037	2,182,846	1,706,539	1,836,708
Bailey	Lubbock	258,933	284,381	233,891	193,319	260,558	285,161	234,965	193,608
Bandera	San Antonio	591,057	667,865	534,941	460,832	595,351	672,148	539,553	462,828
Bastrop	Austin	3,330,996	3,631,642	3,304,698	2,866,057	3,342,807	3,641,643	3,318,887	2,894,109
Baylor	Wichita Falls	259,378	295,395	236,422	201,792	260,732	296,839	237,108	203,704
Bee	Corpus Christi	736,481	843,329	708,752	596,727	727,160	829,486	692,720	580,871
Bell	Waco	10,245,616	13,495,103	11,323,636	11,645,969	10,221,011	13,427,168	11,296,482	11,694,995
Bexar	San Antonio	51,303,636	57,970,588	46,432,800	40,000,176	51,676,345	58,342,354	46,833,098	40,173,423
Blanco	Austin	804,766	877,402	798,413	692,437	807,620	879,819	801,841	699,215
Borden	Abilene	102,007	121,404	96,494	96,535	101,669	121,159	96,022	96,700
Bosque	Waco	567,785	747,864	627,527	645,389	566,422	744,099	626,022	648,106
Bowie	Atlanta	3,658,875	4,322,928	3,722,105	3,461,035	3,592,460	4,203,976	3,619,103	3,408,461
Brazoria	Houston	10,066,221	10,753,539	8,891,183	7,311,471	10,065,317	10,750,208	8,879,823	7,298,942
Brazos	Bryan	5,453,628	7,300,910	5,942,612	6,397,456	5,432,673	7,305,443	5,978,858	6,429,367
Brewster	El Paso	347,043	370,203	301,616	235,445	350,722	373,658	304,629	236,635
Briscoe	Childress	56,410	65,755	64,044	62,696	56,626	65,591	63,980	63,194
Brooks	Pharr	783,057	883,024	798,927	657,346	774,302	873,548	783,024	639,843
Brown	Brownwood	971,778	1,261,695	975,243	986,014	977,747	1,279,948	986,583	1,000,356
Burleson	Bryan	968,204	1,296,159	1,055,015	1,135,766	964,484	1,296,964	1,061,450	1,141,431
Burnet	Austin	2,118,931	2,310,180	2,102,202	1,823,172	2,126,445	2,316,542	2,111,228	1,841,016
Caldwell	Austin	1,699,125	1,852,483	1,685,710	1,461,962	1,705,150	1,857,584	1,692,948	1,476,271
Calhoun	Yoakum	666,441	849,070	668,344	715,123	660,825	841,569	657,935	708,120
Callahan	Abilene	1,142,721	1,360,013	1,080,959	1,081,414	1,138,932	1,357,259	1,075,670	1,083,267
Cameron	Pharr	9,739,443	10,982,796	9,936,822	8,175,878	9,630,542	10,864,937	9,739,022	7,958,189
Camp	Atlanta	338,078	399,436	343,920	319,797	331,941	388,445	334,403	314,940
Carson	Amarillo	808,559	881,742	810,965	707,253	815,000	879,846	812,355	711,779
Cass	Atlanta	1,011,766	1,195,393	1,029,251	957,059	993,401	1,162,500	1,000,769	942,521

County	TxDOT District	2026 Fall Weekday	2026 Fall Friday	2026 Fall Saturday	2026 Fall Sunday	2026 Winter Weekday	2026 Winter Friday	2026 Winter Saturday	2026 Winter Sunday
Castro	Lubbock	306,450	336,568	276,812	228,795	308,373	337,491	278,084	229,137
Chambers	Beaumont	3,243,369	3,706,408	3,047,595	2,663,160	3,268,577	3,732,296	3,052,186	2,676,815
Cherokee	Tyler	1,559,937	1,698,180	1,430,229	1,114,089	1,547,235	1,684,295	1,414,584	1,101,228
Childress	Childress	434,695	506,708	493,526	483,138	436,364	505,441	493,031	486,970
Clay	Wichita Falls	956,367	1,089,169	871,727	744,040	961,361	1,094,492	874,255	751,091
Cochran	Lubbock	120,214	132,029	108,588	89,752	120,969	132,391	109,087	89,886
Coke	San Angelo	210,763	250,905	201,385	208,940	210,619	249,588	199,858	209,751
Coleman	Brownwood	409,829	532,096	411,290	415,833	412,347	539,794	416,073	421,882
Collin	Dallas	26,413,952	29,238,856	24,958,417	21,077,533	26,235,768	29,025,168	24,817,744	21,025,620
Collingsworth	Childress	87,369	101,843	99,194	97,106	87,705	101,589	99,094	97,876
Colorado	Yoakum	2,124,703	2,706,950	2,130,770	2,279,907	2,106,800	2,683,035	2,097,584	2,257,581
Comal	San Antonio	5,909,513	6,677,460	5,348,456	4,607,501	5,952,445	6,720,282	5,394,565	4,627,457
Comanche	Brownwood	476,373	618,493	478,072	483,352	479,300	627,441	483,631	490,383
Concho	San Angelo	301,355	358,751	287,947	298,749	301,150	356,868	285,763	299,908
Cooke	Wichita Falls	2,336,158	2,660,558	2,129,403	1,817,497	2,348,358	2,673,563	2,135,580	1,834,721
Coryell	Waco	1,459,390	1,922,249	1,612,944	1,658,857	1,455,886	1,912,572	1,609,076	1,665,841
Cottle	Childress	73,597	85,789	83,558	81,799	73,880	85,575	83,474	82,448
Crane	Odessa	504,293	522,149	386,456	309,370	512,279	529,310	391,374	312,736
Crockett	San Angelo	894,250	1,064,570	854,462	886,518	893,641	1,058,982	847,982	889,957
Crosby	Lubbock	213,178	234,129	192,561	159,158	214,516	234,771	193,445	159,396
Culberson	El Paso	1,098,962	1,172,301	955,111	745,571	1,110,614	1,183,242	964,652	749,339
Dallam	Amarillo	563,766	614,793	565,444	493,131	568,257	613,471	566,413	496,286
Dallas	Dallas	76,885,643	85,108,365	72,648,878	61,352,413	76,366,985	84,486,362	72,239,406	61,201,306
Dawson	Lubbock	662,579	727,697	598,498	494,680	666,736	729,693	601,248	495,420
Deaf Smith	Amarillo	534,879	583,290	536,470	467,862	539,139	582,036	537,390	470,856
Delta	Paris	171,162	202,512	178,157	159,899	170,150	201,197	176,573	160,215
Denton	Dallas	20,466,738	22,655,603	19,338,923	16,331,837	20,328,673	22,490,028	19,229,923	16,291,612
De Witt	Yoakum	764,270	973,708	766,452	820,098	757,830	965,106	754,515	812,067
Dickens	Childress	102,059	118,966	115,872	113,433	102,451	118,669	115,755	114,332
Dimmit	Laredo	850,713	948,792	819,997	695,942	846,705	945,934	810,506	686,510
Donley	Childress	521,774	608,213	592,391	579,922	523,778	606,693	591,797	584,521
Duval	Laredo	458,687	511,570	442,126	375,238	456,526	510,029	437,009	370,153
Eastland	Brownwood	1,437,332	1,866,140	1,442,456	1,458,388	1,446,161	1,893,138	1,459,230	1,479,601
Ector	Odessa	5,623,504	5,822,623	4,309,476	3,449,871	5,712,558	5,902,481	4,364,317	3,487,407
Edwards	San Angelo	101,721	121,095	97,195	100,842	101,652	120,460	96,458	101,233
Ellis	Dallas	7,626,962	8,442,646	7,206,680	6,086,084	7,575,512	8,380,944	7,166,061	6,071,095

County	TxDOT District	2026 Fall Weekday	2026 Fall Friday	2026 Fall Saturday	2026 Fall Sunday	2026 Winter Weekday	2026 Winter Friday	2026 Winter Saturday	2026 Winter Sunday
El Paso	El Paso	21,137,691	22,548,309	18,370,828	14,340,476	21,361,803	22,758,753	18,554,339	14,412,951
Erath	Fort Worth	1,409,092	1,545,990	1,205,221	974,116	1,421,802	1,558,830	1,214,334	987,185
Falls	Waco	834,178	1,098,744	921,948	948,192	832,174	1,093,213	919,737	952,183
Fannin	Paris	886,274	1,048,602	922,493	827,951	881,033	1,041,795	914,289	829,589
Fayette	Yoakum	2,050,119	2,611,928	2,055,973	2,199,874	2,032,845	2,588,852	2,023,952	2,178,332
Fisher	Abilene	226,084	269,074	213,864	213,954	225,334	268,530	212,818	214,321
Floyd	Lubbock	193,975	213,039	175,215	144,821	195,192	213,623	176,020	145,038
Foard	Childress	46,296	53,965	52,561	51,455	46,474	53,830	52,509	51,863
Fort Bend	Houston	16,177,837	17,282,453	14,289,385	11,750,565	16,176,384	17,277,101	14,271,128	11,730,429
Franklin	Paris	623,692	737,926	649,180	582,648	620,003	733,136	643,406	583,801
Freestone	Bryan	1,574,817	2,108,248	1,716,019	1,847,362	1,568,766	2,109,557	1,726,485	1,856,577
Frio	San Antonio	1,703,017	1,924,326	1,541,331	1,327,801	1,715,389	1,936,667	1,554,619	1,333,551
Gaines	Lubbock	1,092,419	1,199,781	986,766	815,598	1,099,273	1,203,072	991,300	816,817
Galveston	Houston	7,757,966	8,287,676	6,852,372	5,634,899	7,757,269	8,285,110	6,843,617	5,625,243
Garza	Lubbock	585,446	642,983	528,825	437,093	589,119	644,747	531,255	437,746
Gillespie	Austin	1,065,167	1,161,306	1,056,758	916,492	1,068,944	1,164,504	1,061,295	925,462
Glasscock	San Angelo	544,846	648,619	520,605	540,136	544,475	645,214	516,656	542,231
Goliad	Corpus Christi	395,984	453,433	381,075	320,843	390,973	445,990	372,455	312,317
Gonzales	Yoakum	1,748,262	2,227,351	1,753,254	1,875,968	1,733,532	2,207,673	1,725,948	1,857,598
Gray	Amarillo	815,003	888,768	817,427	712,889	821,494	886,857	818,828	717,451
Grayson	Paris	4,147,249	4,906,850	4,316,732	3,874,328	4,122,723	4,874,997	4,278,339	3,881,996
Gregg	Tyler	4,248,701	4,625,224	3,895,423	3,034,371	4,214,105	4,587,405	3,852,810	2,999,344
Grimes	Bryan	1,249,746	1,673,066	1,361,801	1,466,032	1,244,944	1,674,105	1,370,107	1,473,345
Guadalupe	San Antonio	5,083,659	5,744,285	4,601,009	3,963,603	5,120,590	5,781,123	4,640,675	3,980,770
Hale	Lubbock	1,115,358	1,224,976	1,007,487	832,725	1,122,356	1,228,335	1,012,116	833,969
Hall	Childress	248,912	290,148	282,600	276,652	249,868	289,423	282,317	278,846
Hamilton	Waco	387,433	510,311	428,198	440,387	386,503	507,742	427,171	442,241
Hansford	Amarillo	196,609	214,404	197,194	171,975	198,175	213,943	197,532	173,076
Hardeman	Childress	407,992	475,581	463,209	453,459	409,559	474,392	462,745	457,056
Hardin	Beaumont	1,753,148	2,003,436	1,647,326	1,439,526	1,766,774	2,017,430	1,649,807	1,446,907
Harris	Houston	134,288,910	143,458,102	118,613,252	97,539,034	134,276,845	143,413,670	118,461,704	97,371,885
Harrison	Atlanta	3,128,391	3,696,165	3,182,453	2,959,234	3,071,605	3,594,459	3,094,385	2,914,283
Hartley	Amarillo	597,315	651,378	599,092	522,476	602,073	649,977	600,119	525,819
Haskell	Abilene	299,886	356,910	283,678	283,797	298,892	356,188	282,290	284,283
Hays	Austin	7,893,053	8,605,457	7,830,738	6,791,345	7,921,041	8,629,156	7,864,360	6,857,817
Hemphill	Amarillo	255,758	278,907	256,519	223,714	257,796	278,307	256,959	225,145

County	TxDOT District	2026 Fall Weekday	2026 Fall Friday	2026 Fall Saturday	2026 Fall Sunday	2026 Winter Weekday	2026 Winter Friday	2026 Winter Saturday	2026 Winter Sunday
Henderson	Tyler	2,331,478	2,538,095	2,137,616	1,665,113	2,312,493	2,517,342	2,114,232	1,645,892
Hidalgo	Pharr	19,469,450	21,954,952	19,864,017	16,343,835	19,251,754	21,719,347	19,468,608	15,908,667
Hill	Waco	2,773,837	3,653,583	3,065,693	3,152,960	2,767,175	3,635,191	3,058,342	3,166,233
Hockley	Lubbock	804,765	883,857	726,933	600,837	809,815	886,281	730,273	601,734
Hood	Fort Worth	1,453,015	1,594,180	1,242,789	1,004,480	1,466,121	1,607,420	1,252,186	1,017,957
Hopkins	Paris	1,964,084	2,323,822	2,044,349	1,834,833	1,952,469	2,308,736	2,026,167	1,838,464
Houston	Lufkin	753,697	887,074	721,532	640,488	762,086	896,169	730,614	652,196
Howard	Abilene	1,716,528	2,042,929	1,623,752	1,624,435	1,710,835	2,038,793	1,615,808	1,627,218
Hudspeth	El Paso	1,911,630	2,039,203	1,661,403	1,296,910	1,931,898	2,058,234	1,678,000	1,303,465
Hunt	Paris	3,259,371	3,856,350	3,392,569	3,044,879	3,240,095	3,831,316	3,362,396	3,050,905
Hutchinson	Amarillo	431,680	470,751	432,964	377,594	435,118	469,739	433,706	380,010
Irion	San Angelo	319,003	379,761	304,810	316,245	318,786	377,768	302,498	317,472
Jack	Fort Worth	353,877	388,257	302,677	244,638	357,069	391,482	304,966	247,920
Jackson	Yoakum	1,006,379	1,282,165	1,009,253	1,079,893	997,900	1,270,837	993,534	1,069,318
Jasper	Beaumont	1,320,080	1,508,541	1,240,398	1,083,929	1,330,340	1,519,077	1,242,266	1,089,487
Jeff Davis	El Paso	234,853	250,526	204,111	159,331	237,343	252,864	206,150	160,137
Jefferson	Beaumont	7,609,896	8,696,322	7,150,553	6,248,555	7,669,042	8,757,063	7,161,324	6,280,594
Jim Hogg	Pharr	182,783	206,118	186,487	153,439	180,739	203,906	182,775	149,354
Jim Wells	Corpus Christi	1,532,305	1,754,611	1,474,614	1,241,537	1,512,913	1,725,809	1,441,257	1,208,546
Johnson	Fort Worth	4,902,122	5,378,378	4,192,869	3,388,874	4,946,337	5,423,047	4,224,572	3,434,339
Jones	Abilene	550,823	655,563	521,052	521,271	548,996	654,236	518,503	522,164
Karnes	Corpus Christi	1,015,058	1,162,322	976,841	822,441	1,002,211	1,143,242	954,744	800,588
Kaufman	Dallas	5,390,951	5,967,499	5,093,884	4,301,815	5,354,584	5,923,886	5,065,173	4,291,220
Kendall	San Antonio	1,592,144	1,799,044	1,440,983	1,241,355	1,603,710	1,810,581	1,453,406	1,246,731
Kenedy	Pharr	559,011	630,376	570,340	469,268	552,761	623,611	558,987	456,773
Kent	Abilene	65,886	78,414	62,325	62,351	65,667	78,255	62,020	62,458
Kerr	San Antonio	1,600,137	1,808,077	1,448,218	1,247,587	1,611,762	1,819,672	1,460,703	1,252,991
Kimble	San Angelo	791,289	941,999	756,083	784,448	790,751	937,055	750,348	787,491
King	Childress	92,956	108,355	105,536	103,315	93,313	108,084	105,430	104,134
Kinney	Laredo	252,208	281,285	243,101	206,323	251,019	280,438	240,288	203,527
Kleberg	Corpus Christi	1,026,072	1,174,934	987,440	831,366	1,013,086	1,155,647	965,104	809,275
Knox	Childress	138,942	161,959	157,746	154,425	139,475	161,554	157,588	155,650
Lamar	Paris	1,377,097	1,629,323	1,433,374	1,286,474	1,368,953	1,618,747	1,420,626	1,289,020
Lamb	Lubbock	507,500	557,377	458,417	378,899	510,684	558,905	460,524	379,465
Lampasas	Brownwood	795,729	1,033,124	798,566	807,386	800,617	1,048,070	807,852	819,130
La Salle	Laredo	1,593,608	1,777,336	1,536,070	1,303,683	1,586,100	1,771,983	1,518,290	1,286,014

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Lavaca	Yoakum	676,553	861,953	678,485	725,973	670,852	854,338	667,917	718,864
Lee	Austin	900,392	981,659	893,284	774,716	903,585	984,363	897,119	782,299
Leon	Bryan	1,685,255	2,256,094	1,836,359	1,976,912	1,678,780	2,257,494	1,847,559	1,986,773
Liberty	Beaumont	2,599,649	2,970,788	2,442,731	2,134,596	2,619,855	2,991,538	2,446,411	2,145,541
Limestone	Waco	698,408	919,915	771,893	793,866	696,731	915,284	770,042	797,208
Lipscomb	Amarillo	176,372	192,335	176,897	154,274	177,777	191,922	177,200	155,261
Live Oak	Corpus Christi	1,921,569	2,200,348	1,849,221	1,556,934	1,897,249	2,164,230	1,807,391	1,515,563
Llano	Austin	658,837	718,302	653,636	566,877	661,174	720,280	656,442	572,426
Loving	Odessa	549,157	568,602	420,837	336,893	557,854	576,400	426,193	340,559
Lubbock	Lubbock	7,437,999	8,169,004	6,718,636	5,553,199	7,484,667	8,191,406	6,749,508	5,561,498
Lynn	Lubbock	536,877	589,642	484,954	400,832	540,246	591,259	487,182	401,431
McCulloch	Brownwood	348,318	452,234	349,560	353,420	350,457	458,776	353,624	358,561
McLennan	Waco	8,381,843	11,040,219	9,263,762	9,527,459	8,361,715	10,984,641	9,241,547	9,567,567
McMullen	San Antonio	393,955	445,149	356,552	307,157	396,817	448,004	359,626	308,487
Madison	Bryan	1,176,174	1,574,574	1,281,632	1,379,728	1,171,655	1,575,551	1,289,449	1,386,610
Marion	Atlanta	312,121	368,768	317,515	295,244	306,455	358,621	308,728	290,759
Martin	Odessa	1,331,432	1,378,576	1,020,320	816,798	1,352,516	1,397,483	1,033,304	825,685
Mason	Austin	234,912	256,115	233,057	202,123	235,745	256,820	234,058	204,101
Matagorda	Yoakum	1,069,540	1,362,634	1,072,594	1,147,667	1,060,528	1,350,595	1,055,889	1,136,428
Maverick	Laredo	1,364,750	1,522,092	1,315,475	1,116,461	1,358,320	1,517,508	1,300,248	1,101,329
Medina	San Antonio	1,849,596	2,089,953	1,673,993	1,442,084	1,863,033	2,103,355	1,688,424	1,448,330
Menard	San Angelo	165,130	196,581	157,783	163,702	165,017	195,549	156,586	164,337
Midland	Odessa	7,322,386	7,581,660	5,611,385	4,492,090	7,438,343	7,685,643	5,682,794	4,540,965
Milam	Bryan	852,896	1,141,793	929,368	1,000,501	849,619	1,142,502	935,037	1,005,492
Mills	Brownwood	257,771	334,674	258,690	261,548	259,355	339,516	261,699	265,352
Mitchell	Abilene	867,939	1,032,980	821,028	821,374	865,061	1,030,888	817,011	822,781
Montague	Wichita Falls	927,417	1,056,199	845,339	721,517	932,260	1,061,361	847,791	728,355
Montgomery	Houston	18,520,434	19,785,002	16,358,528	13,452,081	18,518,770	19,778,874	16,337,628	13,429,029
Moore	Amarillo	693,010	755,734	695,072	606,181	698,530	754,109	696,263	610,060
Morris	Atlanta	556,977	658,063	566,602	526,861	546,867	639,956	550,923	518,857
Motley	Childress	53,185	61,996	60,383	59,112	53,389	61,841	60,322	59,581
Nacogdoches	Lufkin	1,931,893	2,273,767	1,849,446	1,641,713	1,953,396	2,297,079	1,872,727	1,671,724
Navarro	Dallas	2,596,869	2,874,598	2,453,770	2,072,223	2,579,351	2,853,589	2,439,939	2,067,119
Newton	Beaumont	409,411	467,861	384,699	336,171	412,593	471,129	385,278	337,895
Nolan	Abilene	1,398,740	1,664,714	1,323,140	1,323,697	1,394,102	1,661,343	1,316,667	1,325,965
Nueces	Corpus Christi	10,220,330	11,703,088	9,835,533	8,280,930	10,090,982	11,510,983	9,613,049	8,060,889

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Ochiltree	Amarillo	428,640	467,436	429,915	374,935	432,054	466,431	430,652	377,334
Oldham	Amarillo	906,222	988,244	908,919	792,679	913,441	986,119	910,476	797,752
Orange	Beaumont	3,538,924	4,044,158	3,325,310	2,905,842	3,566,429	4,072,405	3,330,319	2,920,742
Palo Pinto	Fort Worth	1,299,542	1,425,796	1,111,520	898,383	1,311,263	1,437,638	1,119,925	910,436
Panola	Atlanta	1,095,520	1,294,347	1,114,452	1,036,284	1,075,635	1,258,731	1,083,612	1,020,543
Parker	Fort Worth	5,151,060	5,651,502	4,405,789	3,560,967	5,197,521	5,698,439	4,439,103	3,608,741
Parmer	Lubbock	482,664	530,100	435,983	360,356	485,692	531,554	437,987	360,895
Pecos	Odessa	1,759,001	1,821,285	1,347,981	1,079,101	1,786,857	1,846,264	1,365,134	1,090,842
Polk	Lufkin	1,971,859	2,320,806	1,887,707	1,675,676	1,993,807	2,344,600	1,911,469	1,706,308
Potter	Amarillo	3,447,596	3,759,637	3,457,854	3,015,637	3,475,058	3,751,553	3,463,779	3,034,936
Presidio	El Paso	260,415	277,793	226,327	176,674	263,176	280,386	228,588	177,566
Rains	Paris	362,513	428,910	377,327	338,657	360,369	426,126	373,971	339,327
Randall	Amarillo	2,644,760	2,884,136	2,652,629	2,313,391	2,665,827	2,877,935	2,657,175	2,328,196
Reagan	San Angelo	622,710	741,313	595,004	617,327	622,287	737,422	590,492	619,721
Real	San Angelo	130,421	155,261	124,618	129,293	130,332	154,446	123,673	129,795
Red River	Paris	419,210	495,992	436,342	391,623	416,731	492,772	432,461	392,398
Reeves	Odessa	2,613,736	2,706,284	2,002,992	1,603,457	2,655,127	2,743,401	2,028,481	1,620,904
Refugio	Corpus Christi	751,706	860,763	723,404	609,063	742,193	846,634	707,041	592,879
Roberts	Amarillo	100,167	109,233	100,465	87,617	100,965	108,998	100,637	88,177
Robertson	Bryan	1,079,114	1,444,637	1,175,870	1,265,870	1,074,968	1,445,534	1,183,042	1,272,184
Rockwall	Dallas	2,901,729	3,212,061	2,741,830	2,315,492	2,882,154	3,188,586	2,726,376	2,309,789
Runnels	San Angelo	421,766	502,096	403,000	418,119	421,479	499,461	399,944	419,741
Rusk	Tyler	1,604,001	1,746,149	1,470,629	1,145,558	1,590,940	1,731,871	1,454,542	1,132,334
Sabine	Lufkin	303,176	356,827	290,238	257,638	306,551	360,486	293,891	262,347
San Augustine	Lufkin	315,026	370,774	301,581	267,707	318,532	374,575	305,378	272,601
San Jacinto	Lufkin	939,919	1,106,250	899,807	798,739	950,381	1,117,592	911,133	813,340
San Patricio	Corpus Christi	2,915,280	3,338,226	2,805,519	2,362,079	2,878,384	3,283,429	2,742,057	2,299,314
San Saba	Brownwood	175,420	227,754	176,045	177,990	176,497	231,049	178,092	180,579
Schleicher	San Angelo	152,182	181,167	145,411	150,866	152,078	180,216	144,308	151,451
Scurry	Abilene	821,983	978,285	777,556	777,883	819,257	976,304	773,752	779,216
Shackelford	Abilene	156,836	186,659	148,360	148,422	156,316	186,281	147,634	148,676
Shelby	Lufkin	853,624	1,004,684	817,194	725,406	863,125	1,014,985	827,481	738,666
Sherman	Amarillo	337,864	368,444	338,869	295,532	340,555	367,652	339,450	297,423
Smith	Tyler	7,990,977	8,699,142	7,326,529	5,707,060	7,925,909	8,628,013	7,246,384	5,641,179
Somervell	Fort Worth	318,514	349,459	272,430	220,191	321,387	352,361	274,490	223,145
Starr	Pharr	1,461,850	1,648,472	1,491,476	1,227,166	1,445,505	1,630,782	1,461,787	1,194,491

County	TxDOT District	2026 Fall Weekday	2026 Fall Friday	2026 Fall Saturday	2026 Fall Sunday	2026 Winter Weekday	2026 Winter Friday	2026 Winter Saturday	2026 Winter Sunday
Stephens	Brownwood	229,101	297,450	229,918	232,457	230,508	301,753	232,591	235,838
Sterling	San Angelo	313,989	373,792	300,019	311,275	313,776	371,830	297,744	312,482
Stonewall	Abilene	96,605	114,975	91,384	91,422	96,285	114,742	90,937	91,579
Sutton	San Angelo	783,706	932,972	748,837	776,930	783,173	928,075	743,158	779,944
Swisher	Lubbock	526,517	578,263	475,595	393,097	529,821	579,849	477,780	393,684
Tarrant	Fort Worth	55,183,396	60,544,633	47,199,297	38,148,697	55,681,127	61,047,470	47,556,183	38,660,499
Taylor	Abilene	3,614,370	4,301,651	3,419,018	3,420,457	3,602,384	4,292,941	3,402,292	3,426,318
Terrell	Odessa	98,559	102,049	75,529	60,463	100,120	103,449	76,490	61,121
Terry	Lubbock	683,389	750,552	617,295	510,217	687,676	752,610	620,131	510,979
Throckmorton	Wichita Falls	73,083	83,231	66,615	56,857	73,464	83,638	66,808	57,396
Titus	Atlanta	1,537,073	1,816,038	1,563,636	1,453,962	1,509,173	1,766,067	1,520,365	1,431,876
Tom Green	San Angelo	2,723,132	3,241,784	2,601,973	2,699,588	2,721,279	3,224,768	2,582,239	2,710,060
Travis	Austin	35,395,092	38,589,752	35,115,653	30,454,663	35,520,602	38,696,025	35,266,423	30,752,747
Trinity	Lufkin	426,785	502,310	408,571	362,680	431,535	507,460	413,714	369,310
Tyler	Beaumont	665,550	760,567	625,377	546,489	670,723	765,880	626,319	549,291
Upshur	Atlanta	1,260,703	1,489,509	1,282,489	1,192,535	1,237,819	1,448,523	1,246,999	1,174,420
Upton	Odessa	538,749	557,825	412,861	330,508	547,280	565,476	418,115	334,104
Uvalde	San Antonio	903,335	1,020,724	817,571	704,308	909,897	1,027,270	824,619	707,358
Val Verde	Laredo	878,623	979,920	846,900	718,775	874,483	976,968	837,097	709,033
Van Zandt	Tyler	2,942,146	3,202,881	2,697,507	2,101,245	2,918,189	3,176,692	2,667,999	2,076,989
Victoria	Yoakum	2,955,238	3,765,084	2,963,677	3,171,111	2,930,338	3,731,820	2,917,519	3,140,058
Walker	Bryan	2,727,941	3,651,963	2,972,534	3,200,050	2,717,459	3,654,231	2,990,664	3,216,012
Waller	Houston	2,891,183	3,088,591	2,553,692	2,099,974	2,890,923	3,087,635	2,550,430	2,096,375
Ward	Odessa	1,665,241	1,724,204	1,276,129	1,021,581	1,691,611	1,747,852	1,292,368	1,032,696
Washington	Bryan	1,423,259	1,905,353	1,550,872	1,669,575	1,417,791	1,906,536	1,560,331	1,677,903
Webb	Laredo	6,960,158	7,762,598	6,708,859	5,693,895	6,927,366	7,739,220	6,631,203	5,616,725
Wharton	Yoakum	1,827,728	2,328,594	1,832,947	1,961,239	1,812,328	2,308,021	1,804,400	1,942,033
Wheeler	Childress	614,767	716,611	697,969	683,277	617,128	714,820	697,270	688,697
Wichita	Wichita Falls	2,913,892	3,318,516	2,656,006	2,266,965	2,929,108	3,334,737	2,663,711	2,288,448
Wilbarger	Wichita Falls	778,335	886,414	709,450	605,533	782,399	890,747	711,508	611,271
Willacy	Pharr	600,805	677,505	612,981	504,352	594,087	670,234	600,779	490,923
Williamson	Austin	15,686,029	17,101,805	15,562,190	13,496,581	15,741,651	17,148,902	15,629,007	13,628,683
Wilson	San Antonio	1,626,991	1,838,419	1,472,522	1,268,524	1,638,810	1,850,209	1,485,216	1,274,018
Winkler	Odessa	1,129,971	1,169,981	865,934	693,207	1,147,865	1,186,028	876,953	700,750
Wise	Fort Worth	2,979,668	3,269,151	2,548,560	2,059,867	3,006,543	3,296,302	2,567,831	2,087,502
Wood	Tyler	1,166,653	1,270,042	1,069,646	833,209	1,157,153	1,259,658	1,057,945	823,591

County	TxDOT District	2026 Fall Weekday	2026 Fall Friday	2026 Fall Saturday	2026 Fall Sunday	2026 Winter Weekday	2026 Winter Friday	2026 Winter Saturday	2026 Winter Sunday
Yoakum	Lubbock	467,807	513,784	422,564	349,264	470,743	515,193	424,505	349,786
Young	Wichita Falls	498,210	567,392	454,118	387,600	500,812	570,165	455,435	391,273
Zapata	Pharr	376,011	424,013	383,631	315,646	371,806	419,462	375,994	307,242
Zavala	Laredo	493,286	550,157	475,476	403,543	490,962	548,501	469,972	398,073

APPENDIX E: SEASONAL DAY-TYPE ADJUSTMENT FACTORS BY DAY OF WEEK

Seasonal Day-of-Week Adjustment Factors by TxDOT District – Spring.

TxDOT District	Weekday	Friday	Saturday	Sunday
Abilene	0.98467	1.16560	0.92642	0.93324
Amarillo	1.01614	1.09479	1.01957	0.88984
Atlanta	0.96616	1.12236	0.97702	0.91978
Austin	1.00473	1.08992	0.99285	0.86577
Beaumont	1.01728	1.16049	0.94382	0.82976
Brownwood	0.95120	1.23473	0.95509	0.96513
Bryan	0.90768	1.20316	0.99421	1.06238
Childress	0.95160	1.09421	1.07482	1.06735
Corpus Christi	1.00354	1.13919	0.94376	0.79349
Dallas	1.01511	1.11728	0.95581	0.80904
El Paso	1.06679	1.13679	0.92449	0.71812
Fort Worth	1.05728	1.15503	0.89785	0.73158
Houston	1.04170	1.11228	0.91539	0.74935
Laredo	1.00987	1.12842	0.96352	0.81221
Lubbock	1.02879	1.11851	0.92448	0.76128
Lufkin	0.99642	1.16861	0.95687	0.85270
Odessa	1.10065	1.13421	0.84145	0.67019
Paris	0.97810	1.14869	1.01055	0.92064
Pharr	0.98990	1.11609	0.99331	0.81010
San Angelo	0.98578	1.16047	0.93775	0.98298
San Antonio	1.02208	1.15167	0.92404	0.79135
Tyler	1.02997	1.11536	0.93739	0.72531
Waco	0.92801	1.20464	1.02049	1.05312
Wichita Falls	1.02363	1.15833	0.92608	0.79939
Yoakum	0.94290	1.18965	0.93438	1.00374

Seasonal Day-of-Week Adjustment Factors by TxDOT District – Summer.

TxDOT District	Weekday	Friday	Saturday	Sunday
Abilene	0.97692	1.16414	0.92508	0.92282
Amarillo	0.98008	1.05490	0.96518	0.84487
Atlanta	0.94995	1.10309	0.94196	0.88934
Austin	0.99705	1.08794	0.99321	0.86528
Beaumont	1.01939	1.16024	0.94810	0.82597
Brownwood	0.94579	1.23940	0.95360	0.95466
Bryan	0.90843	1.22620	1.00422	1.07206
Childress	0.90934	1.05078	1.01677	1.00447
Corpus Christi	0.98132	1.11387	0.91714	0.75637
Dallas	1.01081	1.11876	0.95812	0.80900
El Paso	1.07772	1.14901	0.93915	0.72729
Fort Worth	1.04797	1.15050	0.89779	0.72455
Houston	1.04519	1.11292	0.92038	0.75559
Laredo	1.00146	1.12039	0.95981	0.81180
Lubbock	1.03515	1.13342	0.93356	0.75776
Lufkin	1.00285	1.17177	0.95569	0.85192
Odessa	1.08128	1.11546	0.82842	0.65833
Paris	0.94999	1.12422	0.98833	0.88950
Pharr	1.01055	1.13591	1.00669	0.81141
San Angelo	0.96634	1.14018	0.91043	0.95320
San Antonio	1.02016	1.15127	0.92889	0.78967
Tyler	1.02778	1.11734	0.92935	0.72388
Waco	0.89073	1.16539	0.98447	1.00824
Wichita Falls	0.99953	1.14634	0.90713	0.77027
Yoakum	0.94728	1.20529	0.93691	1.00201

Seasonal Day-of-Week Adjustment Factors by TxDOT District – Fall.

TxDOT District	Weekday	Friday	Saturday	Sunday
Abilene	0.99088	1.17930	0.93732	0.93772
Amarillo	0.99907	1.08950	1.00205	0.87390
Atlanta	1.00036	1.18191	1.01765	0.94627
Austin	1.00369	1.09428	0.99576	0.86359
Beaumont	1.00736	1.15117	0.94655	0.82715
Brownwood	0.94754	1.23023	0.95092	0.96142
Bryan	0.92159	1.23375	1.00422	1.08108
Childress	0.94174	1.09775	1.06920	1.04669
Corpus Christi	1.02835	1.17754	0.98963	0.83321
Dallas	1.02775	1.13767	0.97112	0.82011
El Paso	1.04771	1.11763	0.91057	0.71080
Fort Worth	1.04339	1.14476	0.89243	0.72131
Houston	1.04819	1.11976	0.92583	0.76134
Laredo	1.02110	1.13882	0.98423	0.83533
Lubbock	1.03186	1.13327	0.93206	0.77038
Lufkin	0.99006	1.16527	0.94781	0.84135
Odessa	1.07542	1.11350	0.82413	0.65974
Paris	0.98312	1.16318	1.02329	0.91842
Pharr	1.01593	1.14563	1.03652	0.85283
San Angelo	0.98244	1.16956	0.93873	0.97395
San Antonio	1.01981	1.15234	0.92299	0.79512
Tyler	1.05066	1.14377	0.96330	0.75037
Waco	0.92751	1.22167	1.02510	1.05428
Wichita Falls	1.01926	1.16079	0.92905	0.79297
Yoakum	0.96167	1.22520	0.96442	1.03192

Seasonal Day-of-Week Adjustment Factors by TxDOT District – Winter.

TxDOT District	Weekday	Friday	Saturday	Sunday
Abilene	0.98759	1.17691	0.93274	0.93932
Amarillo	1.00703	1.08716	1.00376	0.87949
Atlanta	0.98220	1.14939	0.98948	0.93189
Austin	1.00725	1.09729	1.00004	0.87205
Beaumont	1.01519	1.15921	0.94798	0.83139
Brownwood	0.95336	1.24802	0.96198	0.97541
Bryan	0.91805	1.23452	1.01034	1.08647
Childress	0.94536	1.09501	1.06813	1.05499
Corpus Christi	1.01533	1.15821	0.96724	0.81107
Dallas	1.02082	1.12935	0.96564	0.81809
El Paso	1.05882	1.12806	0.91966	0.71439
Fort Worth	1.05281	1.15427	0.89918	0.73098
Houston	1.04810	1.11941	0.92465	0.76003
Laredo	1.01628	1.13539	0.97284	0.82401
Lubbock	1.03833	1.13638	0.93635	0.77154
Lufkin	1.00108	1.17722	0.95974	0.85673
Odessa	1.09245	1.12877	0.83462	0.66692
Paris	0.97730	1.15563	1.01419	0.92024
Pharr	1.00457	1.13333	1.01589	0.83013
San Angelo	0.98177	1.16342	0.93161	0.97773
San Antonio	1.02722	1.15973	0.93095	0.79857
Tyler	1.04211	1.13442	0.95276	0.74171
Waco	0.92528	1.21552	1.02264	1.05871
Wichita Falls	1.02458	1.16646	0.93174	0.80048
Yoakum	0.95357	1.21438	0.94940	1.02181

APPENDIX F: TEXAS COUNTY GROUPS FOR THE EMISSION FACTOR ANALYSIS

44 County Groups Emission Factor Analysis for Statewide HPMS-Based Inventories.

GroupID ¹	GroupName ¹	DistrictName	Codescombination ¹	CountyName	CountyID
48033	Borden	Abilene	D01R1	Borden	48033
48033	Borden	Abilene	D01R1	Callahan	48059
48033	Borden	Abilene	D01R1	Fisher	48151
48033	Borden	Abilene	D01R1	Haskell	48207
48033	Borden	Abilene	D01R1	Howard	48227
48033	Borden	Abilene	D01R1	Jones	48253
48033	Borden	Abilene	D01R1	Kent	48263
48033	Borden	Abilene	D01R1	Mitchell	48335
48033	Borden	Abilene	D01R1	Nolan	48353
48033	Borden	Abilene	D01R1	Scurry	48415
48033	Borden	Abilene	D01R1	Shackelford	48417
48033	Borden	Abilene	D01R1	Stonewall	48433
48033	Borden	Abilene	D01R1	Taylor	48441
48011	Armstrong	Amarillo	D02R1	Armstrong	48011
48011	Armstrong	Amarillo	D02R1	Carson	48065
48011	Armstrong	Amarillo	D02R1	Dallam	48111
48011	Armstrong	Amarillo	D02R1	Deaf Smith	48117
48011	Armstrong	Amarillo	D02R1	Gray	48179
48011	Armstrong	Amarillo	D02R1	Hansford	48195
48011	Armstrong	Amarillo	D02R1	Hartley	48205
48011	Armstrong	Amarillo	D02R1	Hemphill	48211
48011	Armstrong	Amarillo	D02R1	Hutchinson	48233
48011	Armstrong	Amarillo	D02R1	Lipscomb	48295
48011	Armstrong	Amarillo	D02R1	Moore	48341
48011	Armstrong	Amarillo	D02R1	Ochiltree	48357
48011	Armstrong	Amarillo	D02R1	Oldham	48359
48011	Armstrong	Amarillo	D02R1	Potter	48375
48011	Armstrong	Amarillo	D02R1	Randall	48381
48011	Armstrong	Amarillo	D02R1	Roberts	48393
48011	Armstrong	Amarillo	D02R1	Sherman	48421
48037	Bowie	Atlanta	D03R2	Bowie	48037
48037	Bowie	Atlanta	D03R2	Camp	48063
48037	Bowie	Atlanta	D03R2	Cass	48067
48037	Bowie	Atlanta	D03R2	Harrison	48203
48037	Bowie	Atlanta	D03R2	Marion	48315
48037	Bowie	Atlanta	D03R2	Morris	48343
48037	Bowie	Atlanta	D03R2	Panola	48365
48037	Bowie	Atlanta	D03R2	Titus	48449
48037	Bowie	Atlanta	D03R2	Upshur	48459
48021	Bastrop	Austin	D04R2	Bastrop	48021
48031	Blanco	Austin	D04R1	Blanco	48031
48031	Blanco	Austin	D04R1	Burnet	48053
48021	Bastrop	Austin	D04R2	Caldwell	48055
48031	Blanco	Austin	D04R1	Gillespie	48171

GroupID ¹	GroupName ¹	DistrictName	Codescombination ¹	CountyName	CountyID
48021	Bastrop	Austin	D04R2	Hays	48209
48021	Bastrop	Austin	D04R2	Lee	48287
48031	Blanco	Austin	D04R1	Llano	48299
48031	Blanco	Austin	D04R1	Mason	48319
48453	Travis	Austin	D04R2ITW	Travis	48453
48453	Travis	Austin	D04R2ITW	Williamson	48491
48071	Chambers	Beaumont	D05R4	Chambers	48071
48199	Hardin	Beaumont	D05R5	Hardin	48199
48241	Jasper	Beaumont	D05R2	Jasper	48241
48199	Hardin	Beaumont	D05R5	Jefferson	48245
48071	Chambers	Beaumont	D05R4	Liberty	48291
48241	Jasper	Beaumont	D05R2	Newton	48351
48199	Hardin	Beaumont	D05R5	Orange	48361
48241	Jasper	Beaumont	D05R2	Tyler	48457
48049	Brown	Brownwood	D06R1	Brown	48049
48049	Brown	Brownwood	D06R1	Coleman	48083
48049	Brown	Brownwood	D06R1	Comanche	48093
48049	Brown	Brownwood	D06R1	Eastland	48133
48049	Brown	Brownwood	D06R1	Lampasas	48281
48049	Brown	Brownwood	D06R1	Mc Culloch	48307
48049	Brown	Brownwood	D06R1	Mills	48333
48049	Brown	Brownwood	D06R1	San Saba	48411
48049	Brown	Brownwood	D06R1	Stephens	48429
48041	Brazos	Bryan	D07R2	Brazos	48041
48041	Brazos	Bryan	D07R2	Burleson	48051
48041	Brazos	Bryan	D07R2	Freestone	48161
48041	Brazos	Bryan	D07R2	Grimes	48185
48041	Brazos	Bryan	D07R2	Leon	48289
48041	Brazos	Bryan	D07R2	Madison	48313
48041	Brazos	Bryan	D07R2	Milam	48331
48041	Brazos	Bryan	D07R2	Robertson	48395
48041	Brazos	Bryan	D07R2	Walker	48471
48041	Brazos	Bryan	D07R2	Washington	48477
48045	Briscoe	Childress	D08R1	Briscoe	48045
48045	Briscoe	Childress	D08R1	Childress	48075
48045	Briscoe	Childress	D08R1	Collingsworth	48087
48045	Briscoe	Childress	D08R1	Cottle	48101
48045	Briscoe	Childress	D08R1	Dickens	48125
48045	Briscoe	Childress	D08R1	Donley	48129
48045	Briscoe	Childress	D08R1	Foard	48155
48045	Briscoe	Childress	D08R1	Hall	48191
48045	Briscoe	Childress	D08R1	Hardeman	48197
48045	Briscoe	Childress	D08R1	King	48269
48045	Briscoe	Childress	D08R1	Knox	48275
48045	Briscoe	Childress	D08R1	Motley	48345
48045	Briscoe	Childress	D08R1	Wheeler	48483

GroupID ¹	GroupName ¹	DistrictName	Codescombination ¹	CountyName	CountyID
48007	Aransas	Corpus Christi	D09R2	Aransas	48007
48007	Aransas	Corpus Christi	D09R2	Bee	48025
48007	Aransas	Corpus Christi	D09R2	Goliad	48175
48249	Jim Wells	Corpus Christi	D09R6	Jim Wells	48249
48007	Aransas	Corpus Christi	D09R2	Karnes	48255
48249	Jim Wells	Corpus Christi	D09R6	Kleberg	48273
48007	Aransas	Corpus Christi	D09R2	Live Oak	48297
48007	Aransas	Corpus Christi	D09R2	Nueces	48355
48007	Aransas	Corpus Christi	D09R2	Refugio	48391
48007	Aransas	Corpus Christi	D09R2	San Patricio	48409
48085	Collin	Dallas	D10R4ID4	Collin	48085
48085	Collin	Dallas	D10R4ID4	Dallas	48113
48085	Collin	Dallas	D10R4ID4	Denton	48121
48139	Ellis	Dallas	D10R2IXD	Ellis	48139
48139	Ellis	Dallas	D10R2IXD	Kaufman	48257
48349	Navarro	Dallas	D10R2	Navarro	48349
48139	Ellis	Dallas	D10R2IXD	Rockwall	48397
48043	Brewster	El Paso	D11R1	Brewster	48043
48043	Brewster	El Paso	D11R1	Culberson	48109
48141	El Paso	El Paso	D11R3IEL	El Paso	48141
48229	Hudspeth	El Paso	D11R1	Hudspeth	48229
48043	Brewster	El Paso	D11R1	Jeff Davis	48243
48043	Brewster	El Paso	D11R1	Presidio	48377
48143	Erath	Fort Worth	D12R1	Erath	48143
48221	Hood	Fort Worth	D12R2	Hood	48221
48143	Erath	Fort Worth	D12R1	Jack	48237
48251	Johnson	Fort Worth	D12R2IXD	Johnson	48251
48143	Erath	Fort Worth	D12R1	Palo Pinto	48363
48251	Johnson	Fort Worth	D12R2IXD	Parker	48367
48221	Hood	Fort Worth	D12R2	Somervell	48425
48439	Tarrant	Fort Worth	D12R4ID4	Tarrant	48439
48221	Hood	Fort Worth	D12R2	Wise	48497
48039	Brazoria	Houston	D13R4IH5	Brazoria	48039
48039	Brazoria	Houston	D13R4IH5	Fort Bend	48157
48039	Brazoria	Houston	D13R4IH5	Galveston	48167
48039	Brazoria	Houston	D13R4IH5	Harris	48201
48039	Brazoria	Houston	D13R4IH5	Montgomery	48339
48473	Waller	Houston	D13R4	Waller	48473
48127	Dimmit	Laredo	D14R1	Dimmit	48127
48131	Duval	Laredo	D14R6	Duval	48131
48127	Dimmit	Laredo	D14R1	Kinney	48271
48127	Dimmit	Laredo	D14R1	La Salle	48283
48127	Dimmit	Laredo	D14R1	Maverick	48323
48127	Dimmit	Laredo	D14R1	Val Verde	48465
48127	Dimmit	Laredo	D14R1	Webb	48479
48127	Dimmit	Laredo	D14R1	Zavala	48507

GroupID ¹	GroupName ¹	DistrictName	Codescombination ¹	CountyName	CountyID
48017	Bailey	Lubbock	D15R1	Bailey	48017
48017	Bailey	Lubbock	D15R1	Castro	48069
48017	Bailey	Lubbock	D15R1	Cochran	48079
48017	Bailey	Lubbock	D15R1	Crosby	48107
48017	Bailey	Lubbock	D15R1	Dawson	48115
48017	Bailey	Lubbock	D15R1	Floyd	48153
48017	Bailey	Lubbock	D15R1	Gaines	48165
48017	Bailey	Lubbock	D15R1	Garza	48169
48017	Bailey	Lubbock	D15R1	Hale	48189
48017	Bailey	Lubbock	D15R1	Hockley	48219
48017	Bailey	Lubbock	D15R1	Lamb	48279
48017	Bailey	Lubbock	D15R1	Lubbock	48303
48017	Bailey	Lubbock	D15R1	Lynn	48305
48017	Bailey	Lubbock	D15R1	Parmer	48369
48017	Bailey	Lubbock	D15R1	Swisher	48437
48017	Bailey	Lubbock	D15R1	Terry	48445
48017	Bailey	Lubbock	D15R1	Yoakum	48501
48005	Angelina	Lufkin	D16R2	Angelina	48005
48005	Angelina	Lufkin	D16R2	Houston	48225
48005	Angelina	Lufkin	D16R2	Nacogdoches	48347
48005	Angelina	Lufkin	D16R2	Polk	48373
48005	Angelina	Lufkin	D16R2	Sabine	48403
48005	Angelina	Lufkin	D16R2	San Augustine	48405
48005	Angelina	Lufkin	D16R2	San Jacinto	48407
48005	Angelina	Lufkin	D16R2	Shelby	48419
48005	Angelina	Lufkin	D16R2	Trinity	48455
48003	Andrews	Odessa	D17R1	Andrews	48003
48003	Andrews	Odessa	D17R1	Crane	48103
48003	Andrews	Odessa	D17R1	Ector	48135
48003	Andrews	Odessa	D17R1	Loving	48301
48003	Andrews	Odessa	D17R1	Martin	48317
48003	Andrews	Odessa	D17R1	Midland	48329
48003	Andrews	Odessa	D17R1	Pecos	48371
48003	Andrews	Odessa	D17R1	Reeves	48389
48003	Andrews	Odessa	D17R1	Terrell	48443
48003	Andrews	Odessa	D17R1	Upton	48461
48003	Andrews	Odessa	D17R1	Ward	48475
48003	Andrews	Odessa	D17R1	Winkler	48495
48119	Delta	Paris	D18R2	Delta	48119
48119	Delta	Paris	D18R2	Fannin	48147
48119	Delta	Paris	D18R2	Franklin	48159
48119	Delta	Paris	D18R2	Grayson	48181
48119	Delta	Paris	D18R2	Hopkins	48223
48119	Delta	Paris	D18R2	Hunt	48231
48119	Delta	Paris	D18R2	Lamar	48277
48119	Delta	Paris	D18R2	Rains	48379

GroupID ¹	GroupName ¹	DistrictName	Codescombination ¹	CountyName	CountyID
48119	Delta	Paris	D18R2	Red River	48387
48047	Brooks	Pharr	D19R6	Brooks	48047
48047	Brooks	Pharr	D19R6	Cameron	48061
48047	Brooks	Pharr	D19R6	Hidalgo	48215
48047	Brooks	Pharr	D19R6	Jim Hogg	48247
48047	Brooks	Pharr	D19R6	Kenedy	48261
48047	Brooks	Pharr	D19R6	Starr	48427
48047	Brooks	Pharr	D19R6	Willacy	48489
48505	Zapata	Pharr	D19R1	Zapata	48505
48081	Coke	San Angelo	D20R1	Coke	48081
48081	Coke	San Angelo	D20R1	Concho	48095
48081	Coke	San Angelo	D20R1	Crockett	48105
48081	Coke	San Angelo	D20R1	Edwards	48137
48081	Coke	San Angelo	D20R1	Glasscock	48173
48081	Coke	San Angelo	D20R1	Irion	48235
48081	Coke	San Angelo	D20R1	Kimble	48267
48081	Coke	San Angelo	D20R1	Menard	48327
48081	Coke	San Angelo	D20R1	Reagan	48383
48081	Coke	San Angelo	D20R1	Real	48385
48081	Coke	San Angelo	D20R1	Runnels	48399
48081	Coke	San Angelo	D20R1	Schleicher	48413
48081	Coke	San Angelo	D20R1	Sterling	48431
48081	Coke	San Angelo	D20R1	Sutton	48435
48081	Coke	San Angelo	D20R1	Tom Green	48451
48013	Atascosa	San Antonio	D21R2	Atascosa	48013
48019	Bandera	San Antonio	D21R1	Bandera	48019
48013	Atascosa	San Antonio	D21R2	Bexar	48029
48013	Atascosa	San Antonio	D21R2	Comal	48091
48019	Bandera	San Antonio	D21R1	Frio	48163
48013	Atascosa	San Antonio	D21R2	Guadalupe	48187
48019	Bandera	San Antonio	D21R1	Kendall	48259
48019	Bandera	San Antonio	D21R1	Kerr	48265
48311	McMullen	San Antonio	D21R6	Mc Mullen	48311
48019	Bandera	San Antonio	D21R1	Medina	48325
48019	Bandera	San Antonio	D21R1	Uvalde	48463
48013	Atascosa	San Antonio	D21R2	Wilson	48493
48001	Anderson	Tyler	D22R2	Anderson	48001
48001	Anderson	Tyler	D22R2	Cherokee	48073
48001	Anderson	Tyler	D22R2	Gregg	48183
48001	Anderson	Tyler	D22R2	Henderson	48213
48001	Anderson	Tyler	D22R2	Rusk	48401
48001	Anderson	Tyler	D22R2	Smith	48423
48001	Anderson	Tyler	D22R2	Van Zandt	48467
48001	Anderson	Tyler	D22R2	Wood	48499
48027	Bell	Waco	D23R2	Bell	48027
48027	Bell	Waco	D23R2	Bosque	48035

GroupID ¹	GroupName ¹	DistrictName	Codescombination ¹	CountyName	CountyID
48027	Bell	Waco	D23R2	Coryell	48099
48027	Bell	Waco	D23R2	Falls	48145
48193	Hamilton	Waco	D23R1	Hamilton	48193
48027	Bell	Waco	D23R2	Hill	48217
48027	Bell	Waco	D23R2	Limestone	48293
48027	Bell	Waco	D23R2	Mc Lennan	48309
48009	Archer	Wichita Falls	D24R1	Archer	48009
48009	Archer	Wichita Falls	D24R1	Baylor	48023
48009	Archer	Wichita Falls	D24R1	Clay	48077
48097	Cooke	Wichita Falls	D24R2	Cooke	48097
48009	Archer	Wichita Falls	D24R1	Montague	48337
48009	Archer	Wichita Falls	D24R1	Throckmorton	48447
48009	Archer	Wichita Falls	D24R1	Wichita	48485
48009	Archer	Wichita Falls	D24R1	Wilbarger	48487
48009	Archer	Wichita Falls	D24R1	Young	48503
48015	Austin	Yoakum	D25R2	Austin	48015
48015	Austin	Yoakum	D25R2	Calhoun	48057
48015	Austin	Yoakum	D25R2	Colorado	48089
48015	Austin	Yoakum	D25R2	De Witt	48123
48015	Austin	Yoakum	D25R2	Fayette	48149
48015	Austin	Yoakum	D25R2	Gonzales	48177
48015	Austin	Yoakum	D25R2	Jackson	48239
48015	Austin	Yoakum	D25R2	Lavaca	48285
48015	Austin	Yoakum	D25R2	Matagorda	48321
48015	Austin	Yoakum	D25R2	Victoria	48469
48015	Austin	Yoakum	D25R2	Wharton	48481

¹ The 44 county groups are defined by intersecting boundaries used in the local MOVES inputs (i.e., district, fuel region, time zone, I/M area). The FIPS county code of each group's first county, alphabetically, is the MOVES countyID input, representing all counties in the group. The data intersections defining each group are reflected in the "Codescombination," composed of up to three identifiers (for district, fuel region, and I/M). For example, Brazoria (GroupID = 48039) represents five Houston District I/M counties, coded as D13R4IH5 (see notes 2 – 4).

² TxDOT groups all Texas counties into 25 districts. The local inputs for vehicle age distributions were TxDOT district level. Meteorological inputs were also district level, however, the El Paso District counties were subdivided into two groups to account for the different time zones (Mountain and Central Standard). District data aggregations are represented by D01 to D25.

³ The fuel region code of each county identifies its fuel policy jurisdiction. As used in the codescombination IDs, these codes are:
R1 = federal 9.0 psi RVP limit, includes ethanol waiver;
R2 = state 7.8 psi RVP limit, excludes ethanol waiver (also includes TxLED fuel);
R3 = state 7.0 psi RVP limit (El Paso County), excludes ethanol waiver;
R4 = federal RFG, ethanol waiver not applicable (also includes TxLED fuel);
R5 = federal 7.8 RVP limit, includes ethanol waiver (also includes TxLED fuel); and.
R6 = 11 south Texas "R1" counties that appear to be supplied from a different distribution network.

These are analogous to the six MOVES fuel regions pertaining to Texas, to which the local fuel property inputs correspond.

⁴ County groups with local I/M inputs are those with codes combination values of eight characters (as opposed to only five), the last three of which represent the area I/M program. The I/M codes and counties to which they apply are:

ID4 = Collin, Dallas, Denton, and Tarrant;
IEL = El Paso County;
IH5 = Brazoria, Fort Bend, Harris, Galveston, and Montgomery;
ITW = Travis and Williamson; and
IXD = Ellis, Johnson, Kaufman, Parker, and Rockwall.

APPENDIX G: TXDOT DISTRICT HOURLY TRAVEL FACTORS BY DAY OF WEEK

Weekday Hourly Travel Factors by District – Spring.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.013259	0.014975	0.014246	0.011831	0.009109	0.005190	0.010681	0.017748	0.006832
2	0.010813	0.011877	0.012413	0.008321	0.006738	0.003807	0.008581	0.015223	0.004261
3	0.009807	0.009501	0.011916	0.007655	0.006195	0.003882	0.008044	0.013704	0.003789
4	0.009858	0.009680	0.012174	0.006900	0.007913	0.004694	0.009112	0.012966	0.004104
5	0.011880	0.015958	0.015092	0.010200	0.015722	0.009973	0.013439	0.013836	0.009028
6	0.018586	0.026112	0.024610	0.026816	0.034165	0.020178	0.021382	0.017945	0.025880
7	0.032162	0.043795	0.036448	0.054266	0.048274	0.038477	0.036613	0.028065	0.049417
8	0.054643	0.051435	0.050255	0.062402	0.061502	0.060994	0.055694	0.036893	0.069472
9	0.052499	0.048121	0.048756	0.058748	0.054248	0.056238	0.051612	0.044522	0.061511
10	0.053398	0.051317	0.050832	0.055612	0.050891	0.058123	0.052344	0.052589	0.052393
11	0.055944	0.053577	0.054155	0.053399	0.054127	0.062520	0.056369	0.059095	0.051639
12	0.058572	0.055690	0.058469	0.055613	0.058918	0.065654	0.061491	0.062516	0.055835
13	0.061418	0.057738	0.061903	0.057350	0.061826	0.067872	0.064792	0.063656	0.058644
14	0.063127	0.060319	0.062739	0.058017	0.062794	0.069047	0.066422	0.065239	0.058850
15	0.064689	0.065831	0.064598	0.059883	0.064052	0.071144	0.067375	0.066514	0.060064
16	0.067893	0.070267	0.068192	0.062438	0.070069	0.074479	0.069473	0.068452	0.066327
17	0.070849	0.075978	0.070515	0.062458	0.073365	0.079005	0.073016	0.068528	0.076573
18	0.074895	0.073599	0.071949	0.062482	0.070943	0.079466	0.075037	0.065564	0.093191
19	0.059157	0.056253	0.056198	0.058912	0.055888	0.056715	0.055777	0.055766	0.064141
20	0.045093	0.042472	0.044458	0.049342	0.041806	0.038005	0.043072	0.046433	0.042345
21	0.038308	0.035138	0.037183	0.039324	0.033452	0.029260	0.035004	0.040002	0.031818
22	0.031461	0.029115	0.030830	0.033906	0.026147	0.021669	0.028421	0.033830	0.024928
23	0.023991	0.022571	0.023816	0.026052	0.018787	0.014814	0.021280	0.028368	0.017527
24	0.017700	0.018679	0.018254	0.018074	0.013068	0.008792	0.014968	0.022546	0.011428

Weekday Hourly Travel Factors by District – Spring (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.010511	0.010115	0.008612	0.008424	0.013013	0.007357	0.007750	0.008707	0.013737
2	0.007063	0.006745	0.005499	0.005615	0.009423	0.005096	0.005737	0.006424	0.011014
3	0.006534	0.005331	0.004983	0.005244	0.007816	0.004305	0.005572	0.005749	0.009455
4	0.007077	0.005160	0.005117	0.006037	0.008197	0.004573	0.007204	0.006506	0.009986
5	0.012308	0.007213	0.009250	0.013484	0.012500	0.006989	0.011630	0.010718	0.013810
6	0.031478	0.016644	0.024750	0.039671	0.026807	0.015354	0.022462	0.025907	0.022618
7	0.056261	0.035953	0.053109	0.064628	0.039778	0.035520	0.040353	0.053235	0.033568
8	0.065719	0.063893	0.072375	0.068392	0.051284	0.074869	0.068191	0.072995	0.049344
9	0.059191	0.069225	0.063180	0.058501	0.049790	0.063354	0.055877	0.061849	0.050511
10	0.051903	0.059173	0.052065	0.052242	0.049669	0.055409	0.053279	0.052847	0.053375
11	0.049419	0.054083	0.049864	0.050471	0.052467	0.053880	0.055850	0.051434	0.058190
12	0.051340	0.055991	0.052856	0.052022	0.056019	0.054382	0.059497	0.053643	0.061575
13	0.054014	0.058759	0.055028	0.053778	0.058799	0.059303	0.063154	0.055140	0.062971
14	0.055353	0.060180	0.056283	0.054641	0.060175	0.058435	0.064669	0.056522	0.063854
15	0.058924	0.062256	0.059915	0.057693	0.061473	0.062691	0.067940	0.057454	0.065714
16	0.064176	0.067632	0.068914	0.063893	0.065036	0.068498	0.073627	0.061750	0.068873
17	0.069359	0.072604	0.078948	0.069357	0.069497	0.076683	0.075844	0.070588	0.071429
18	0.070602	0.073995	0.083224	0.072148	0.077340	0.087646	0.080320	0.086163	0.071358
19	0.061403	0.062789	0.062818	0.059941	0.065054	0.065660	0.055577	0.066011	0.056864
20	0.047037	0.047301	0.042295	0.045650	0.049688	0.044925	0.039571	0.045533	0.044560
21	0.036838	0.036435	0.031686	0.034001	0.039675	0.035448	0.031532	0.033686	0.036765
22	0.031669	0.029716	0.026078	0.028707	0.032580	0.028030	0.024416	0.026190	0.029483
23	0.024833	0.022831	0.019744	0.021490	0.025215	0.019469	0.017951	0.018470	0.023101
24	0.016987	0.015975	0.013408	0.013969	0.018709	0.012123	0.011997	0.012477	0.017846

Weekday Hourly Travel Factors by District – Spring (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.008149	0.012983	0.009441	0.005916	0.014617	0.009463	0.011148
2	0.004706	0.010211	0.006530	0.004143	0.011948	0.006888	0.008665
3	0.003891	0.008659	0.005756	0.003629	0.010648	0.005897	0.007861
4	0.003606	0.008591	0.006101	0.005002	0.011061	0.005901	0.008883
5	0.005470	0.011472	0.009766	0.009982	0.014015	0.008668	0.013365
6	0.012963	0.020603	0.023174	0.024603	0.022784	0.018644	0.022646
7	0.032023	0.035138	0.053208	0.049575	0.038938	0.041940	0.038945
8	0.066184	0.050001	0.070357	0.081347	0.055125	0.068222	0.056415
9	0.060611	0.049385	0.061743	0.058824	0.050989	0.051781	0.052598
10	0.054895	0.051076	0.050574	0.051677	0.050897	0.048156	0.052774
11	0.055980	0.055621	0.048907	0.051407	0.055037	0.051178	0.058141
12	0.059735	0.059755	0.051613	0.052813	0.059252	0.057738	0.062027
13	0.063038	0.062198	0.054122	0.056088	0.061408	0.062363	0.063924
14	0.063970	0.063808	0.055920	0.057294	0.062666	0.060779	0.065163
15	0.065279	0.065091	0.059691	0.061201	0.064928	0.064374	0.066476
16	0.069616	0.068099	0.068752	0.069018	0.067135	0.072554	0.068112
17	0.075362	0.072002	0.077986	0.079971	0.069251	0.079346	0.071732
18	0.083566	0.073779	0.080321	0.090898	0.069049	0.079624	0.073766
19	0.064414	0.059989	0.062620	0.061886	0.054106	0.058350	0.054905
20	0.046582	0.048208	0.043497	0.041332	0.043139	0.045036	0.042491
21	0.036110	0.039874	0.034045	0.032793	0.037427	0.036779	0.036061
22	0.029334	0.031677	0.028630	0.024603	0.031464	0.029090	0.028166
23	0.020803	0.023845	0.022051	0.016065	0.024958	0.021826	0.020653
24	0.013712	0.017937	0.015195	0.009934	0.019159	0.015404	0.015084

Friday Hourly Travel Factors by District – Spring.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.011954	0.015741	0.013961	0.013181	0.009115	0.004789	0.008910	0.016404	0.007769
2	0.009731	0.012350	0.012178	0.009532	0.006820	0.003371	0.007123	0.014052	0.004668
3	0.008735	0.009853	0.011680	0.009274	0.006362	0.003297	0.006666	0.012727	0.004389
4	0.008679	0.009994	0.011774	0.007707	0.007396	0.003708	0.007199	0.012179	0.004089
5	0.010122	0.015192	0.013755	0.010061	0.013166	0.007214	0.009949	0.012763	0.008042
6	0.015340	0.022835	0.020379	0.023695	0.026435	0.014202	0.015112	0.016333	0.020656
7	0.026086	0.036103	0.031169	0.048249	0.039060	0.027366	0.025922	0.024793	0.039172
8	0.044303	0.045132	0.043898	0.056550	0.052902	0.044779	0.040410	0.032946	0.057312
9	0.044029	0.044635	0.044751	0.053581	0.048492	0.043672	0.039670	0.040750	0.053136
10	0.047225	0.049458	0.048287	0.052137	0.048257	0.048249	0.043393	0.049551	0.047604
11	0.052708	0.052461	0.053135	0.052263	0.053709	0.055498	0.050466	0.057351	0.049627
12	0.057713	0.055412	0.058280	0.055434	0.059362	0.061456	0.058236	0.061569	0.055283
13	0.062190	0.057912	0.061630	0.057308	0.063047	0.066376	0.064465	0.062876	0.059051
14	0.065652	0.061619	0.063290	0.058132	0.064418	0.070529	0.069548	0.065186	0.060589
15	0.068410	0.067412	0.065308	0.059219	0.066024	0.075337	0.072830	0.067392	0.063401
16	0.071812	0.072113	0.068945	0.059906	0.070318	0.079036	0.075428	0.069343	0.071493
17	0.074167	0.073217	0.070378	0.059205	0.069999	0.084405	0.077737	0.069154	0.078171
18	0.075616	0.070087	0.069787	0.059183	0.067646	0.083696	0.078977	0.067061	0.083066
19	0.065406	0.059665	0.059811	0.057900	0.060311	0.069427	0.067243	0.059633	0.065826
20	0.052034	0.046601	0.049611	0.052477	0.049513	0.050502	0.055781	0.050942	0.049320
21	0.042955	0.037968	0.041906	0.044104	0.039619	0.037947	0.045407	0.043847	0.038410
22	0.035694	0.033196	0.035832	0.039886	0.033353	0.029246	0.035742	0.037461	0.032893
23	0.028717	0.028208	0.028597	0.034543	0.026159	0.022113	0.026397	0.031327	0.026961
24	0.020722	0.022836	0.021659	0.026471	0.018517	0.013782	0.017388	0.024359	0.019075

Friday Hourly Travel Factors by District – Spring (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.011260	0.011185	0.009150	0.009470	0.013001	0.007998	0.007856	0.008991	0.013048
2	0.007750	0.007770	0.005978	0.006437	0.009806	0.005612	0.005634	0.006809	0.010415
3	0.007275	0.006760	0.005546	0.006218	0.008523	0.004884	0.005416	0.006255	0.008834
4	0.007209	0.006041	0.005144	0.006324	0.008838	0.004671	0.006511	0.006586	0.009132
5	0.011391	0.007351	0.008412	0.012283	0.012509	0.006631	0.009786	0.010463	0.012123
6	0.027539	0.015265	0.020982	0.033722	0.024795	0.013638	0.018101	0.023849	0.018857
7	0.049286	0.032120	0.044667	0.057014	0.036220	0.030280	0.032688	0.047995	0.027913
8	0.058515	0.057630	0.062171	0.062586	0.046795	0.061988	0.054781	0.065762	0.041145
9	0.053559	0.062973	0.055895	0.054486	0.046478	0.054037	0.047708	0.057003	0.043611
10	0.048532	0.055404	0.048653	0.049920	0.047400	0.049619	0.047660	0.050220	0.047736
11	0.048525	0.052537	0.049325	0.050362	0.050890	0.050836	0.052990	0.050563	0.054146
12	0.051699	0.055671	0.053838	0.053129	0.054858	0.053809	0.058934	0.054395	0.058870
13	0.054982	0.059127	0.056888	0.055359	0.058192	0.057682	0.064085	0.056836	0.061557
14	0.056907	0.060398	0.059344	0.056325	0.060053	0.059562	0.066848	0.057812	0.063967
15	0.060099	0.062335	0.063772	0.059357	0.061563	0.063003	0.070039	0.059556	0.067125
16	0.064115	0.066808	0.071753	0.063715	0.065334	0.070113	0.074058	0.064023	0.070635
17	0.066754	0.069384	0.076789	0.065984	0.069502	0.076229	0.075947	0.070695	0.073558
18	0.066544	0.068801	0.076706	0.066794	0.074718	0.083794	0.078323	0.079448	0.073820
19	0.060967	0.061324	0.063125	0.058817	0.065656	0.070760	0.063053	0.065477	0.064350
20	0.051790	0.049772	0.047643	0.049407	0.053297	0.051729	0.048086	0.048662	0.052919
21	0.041914	0.040172	0.035813	0.038376	0.043249	0.039616	0.038140	0.036322	0.043572
22	0.036707	0.035579	0.031204	0.033381	0.035840	0.034423	0.031299	0.030246	0.034768
23	0.032188	0.031154	0.027284	0.028925	0.029338	0.029360	0.024887	0.024445	0.027339
24	0.024495	0.024438	0.019919	0.021608	0.023145	0.019727	0.017170	0.017589	0.020558

Friday Hourly Travel Factors by District – Spring (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.008683	0.012590	0.009663	0.006408	0.012875	0.009877	0.009563
2	0.005125	0.010009	0.006782	0.004766	0.010495	0.007404	0.007666
3	0.004596	0.008397	0.006126	0.004060	0.009517	0.006378	0.007086
4	0.003716	0.008077	0.006142	0.004937	0.009861	0.005957	0.007676
5	0.005189	0.010109	0.009060	0.008854	0.011596	0.008156	0.010702
6	0.011479	0.017266	0.019710	0.021256	0.017418	0.016371	0.016935
7	0.027399	0.029016	0.044435	0.042314	0.028873	0.035614	0.029339
8	0.057237	0.042213	0.060727	0.070142	0.041356	0.058189	0.043398
9	0.053756	0.043258	0.053299	0.052426	0.040600	0.046707	0.042947
10	0.050947	0.047169	0.046686	0.048320	0.043500	0.045149	0.045679
11	0.053564	0.053907	0.047656	0.050239	0.050031	0.049862	0.053227
12	0.058148	0.059816	0.051993	0.053008	0.057089	0.057479	0.059635
13	0.061873	0.062914	0.055626	0.056441	0.061413	0.062107	0.063706
14	0.063460	0.065770	0.057890	0.058544	0.065174	0.061834	0.067215
15	0.065739	0.068125	0.062267	0.062612	0.068878	0.065792	0.070373
16	0.070660	0.070937	0.070077	0.070235	0.071001	0.072840	0.072230
17	0.074414	0.073331	0.074913	0.078804	0.072132	0.076357	0.074737
18	0.078503	0.072298	0.075011	0.083090	0.071687	0.075205	0.076113
19	0.066718	0.063246	0.065104	0.065532	0.065168	0.062459	0.065684
20	0.051987	0.052952	0.050659	0.047708	0.055392	0.049862	0.055379
21	0.041051	0.043951	0.039649	0.036566	0.046716	0.041166	0.044750
22	0.035198	0.035716	0.034765	0.030806	0.038500	0.035837	0.033682
23	0.029205	0.028294	0.029997	0.025208	0.029457	0.028421	0.024943
24	0.021355	0.020640	0.021763	0.017726	0.021271	0.020977	0.017333

Saturday Hourly Travel Factors by District – Spring.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.018254	0.019989	0.019084	0.020688	0.016166	0.010375	0.013910	0.019464	0.015319
2	0.013310	0.015012	0.015414	0.014809	0.011458	0.006130	0.009531	0.015868	0.009482
3	0.010780	0.011834	0.013772	0.014243	0.009659	0.004526	0.007716	0.013812	0.008061
4	0.009882	0.010606	0.012879	0.009810	0.008785	0.004130	0.006960	0.012960	0.005848
5	0.010506	0.014011	0.013384	0.008786	0.012352	0.006947	0.008424	0.013396	0.007896
6	0.014309	0.016716	0.017368	0.013827	0.019206	0.011907	0.012753	0.016180	0.016226
7	0.021872	0.022883	0.023951	0.024089	0.024581	0.020111	0.022508	0.022810	0.025080
8	0.033093	0.031401	0.032909	0.033169	0.032769	0.032515	0.035253	0.030979	0.029733
9	0.045310	0.041239	0.043331	0.043107	0.042233	0.046461	0.048094	0.042972	0.039239
10	0.056628	0.050819	0.053429	0.052109	0.051501	0.061809	0.060367	0.054856	0.048240
11	0.065611	0.058555	0.061787	0.058298	0.060314	0.073925	0.070371	0.063253	0.056998
12	0.070053	0.063753	0.066257	0.062352	0.065917	0.079841	0.074596	0.066838	0.064363
13	0.070760	0.065636	0.067817	0.064345	0.068666	0.080639	0.074511	0.066485	0.068093
14	0.070117	0.066945	0.068144	0.064512	0.068912	0.077672	0.073406	0.066008	0.068593
15	0.068814	0.067972	0.067785	0.064087	0.068262	0.075776	0.071936	0.066747	0.069695
16	0.068016	0.068859	0.066887	0.063799	0.069120	0.073631	0.070391	0.066922	0.071674
17	0.066801	0.068348	0.065479	0.062563	0.068353	0.070258	0.067256	0.065639	0.071358
18	0.062896	0.064825	0.061968	0.061277	0.065645	0.064834	0.062119	0.062107	0.070500
19	0.056636	0.058166	0.056040	0.058400	0.059877	0.055448	0.053856	0.055924	0.065131
20	0.047150	0.049436	0.048336	0.051745	0.049611	0.043953	0.045030	0.048271	0.053352
21	0.039564	0.042230	0.040289	0.044470	0.041223	0.035239	0.037504	0.041137	0.043436
22	0.033326	0.037129	0.034296	0.041692	0.035810	0.028476	0.031407	0.034761	0.037576
23	0.026460	0.030326	0.027989	0.037495	0.028317	0.021462	0.024649	0.029045	0.030685
24	0.019850	0.023311	0.021406	0.030330	0.021263	0.013935	0.017451	0.023565	0.023420

Saturday Hourly Travel Factors by District – Spring (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.019627	0.021251	0.017362	0.017710	0.019499	0.015087	0.014057	0.016838	0.017205
2	0.013388	0.015362	0.011098	0.012127	0.014509	0.009950	0.009537	0.012565	0.012483
3	0.012210	0.014420	0.009569	0.011512	0.012073	0.007704	0.007457	0.011365	0.009706
4	0.009150	0.011199	0.006905	0.008425	0.011284	0.006045	0.007067	0.009543	0.008632
5	0.009661	0.008798	0.007812	0.010625	0.013965	0.006345	0.008710	0.011874	0.010230
6	0.016495	0.011900	0.013865	0.020202	0.022555	0.010071	0.014417	0.019393	0.014628
7	0.026654	0.019988	0.024552	0.029742	0.029586	0.018111	0.022648	0.032206	0.020592
8	0.034620	0.031117	0.032862	0.035660	0.035628	0.028570	0.034087	0.037755	0.030779
9	0.042417	0.041633	0.042530	0.043638	0.044719	0.039899	0.045207	0.042054	0.042846
10	0.049502	0.048741	0.051095	0.050033	0.053113	0.050412	0.056111	0.047338	0.054810
11	0.055525	0.053724	0.058972	0.055332	0.059211	0.059351	0.065534	0.053058	0.065290
12	0.060532	0.059291	0.064830	0.059686	0.063570	0.066061	0.071240	0.058560	0.070579
13	0.064416	0.064298	0.068120	0.063065	0.066241	0.069757	0.073001	0.063910	0.070667
14	0.065469	0.066551	0.068930	0.063571	0.066630	0.070654	0.072001	0.064195	0.069536
15	0.065767	0.066728	0.069202	0.064346	0.066130	0.069951	0.070670	0.064890	0.068604
16	0.065641	0.066247	0.069644	0.064949	0.065677	0.071030	0.070152	0.066420	0.068283
17	0.064679	0.064997	0.068593	0.064368	0.063492	0.071937	0.068295	0.066514	0.067431
18	0.063365	0.063323	0.066575	0.063910	0.060777	0.070417	0.065125	0.065949	0.064795
19	0.059700	0.060769	0.060848	0.060201	0.056416	0.064840	0.057667	0.064218	0.057932
20	0.051623	0.053910	0.049932	0.052329	0.048890	0.054095	0.047692	0.053806	0.049305
21	0.043661	0.045475	0.040678	0.043581	0.040861	0.044957	0.039691	0.043929	0.041747
22	0.040085	0.041876	0.037253	0.040443	0.034549	0.039913	0.033477	0.038433	0.034955
23	0.036455	0.037913	0.033521	0.036270	0.028354	0.032442	0.026962	0.031461	0.027942
24	0.029358	0.030489	0.025252	0.028274	0.022272	0.022401	0.019196	0.023727	0.021026

Saturday Hourly Travel Factors by District – Spring (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.016062	0.018385	0.018076	0.013946	0.017928	0.017823	0.015617
2	0.009841	0.013518	0.012117	0.009179	0.013312	0.012956	0.011176
3	0.008959	0.010868	0.010704	0.007308	0.010764	0.010684	0.009254
4	0.005755	0.009717	0.008198	0.005983	0.009739	0.008155	0.008765
5	0.005609	0.011010	0.008914	0.007331	0.010445	0.008654	0.010913
6	0.009495	0.016089	0.014251	0.013537	0.014361	0.013000	0.016208
7	0.018222	0.023831	0.023689	0.022584	0.022837	0.022634	0.025445
8	0.030189	0.033931	0.032882	0.033310	0.034496	0.031532	0.036054
9	0.041710	0.045555	0.042559	0.043044	0.046827	0.040667	0.048456
10	0.050015	0.057162	0.050819	0.052335	0.058134	0.051407	0.060314
11	0.057914	0.066741	0.057622	0.059891	0.068098	0.060650	0.069934
12	0.065185	0.071698	0.063655	0.064770	0.072420	0.067388	0.073106
13	0.069996	0.072061	0.067117	0.067690	0.071586	0.069778	0.072372
14	0.070881	0.071094	0.067619	0.068772	0.070325	0.069076	0.070611
15	0.070965	0.070254	0.067668	0.069041	0.069142	0.068584	0.068413
16	0.071729	0.068681	0.067632	0.069987	0.067613	0.067200	0.066730
17	0.069386	0.066201	0.066147	0.070737	0.065320	0.066051	0.064666
18	0.066769	0.061801	0.064204	0.069852	0.061070	0.063889	0.060251
19	0.062489	0.054771	0.060385	0.063618	0.052856	0.061557	0.053995
20	0.053677	0.045866	0.051429	0.052549	0.044469	0.051764	0.045251
21	0.045538	0.037724	0.043060	0.043820	0.038275	0.043103	0.037984
22	0.040517	0.030834	0.039479	0.038005	0.032964	0.038675	0.031491
23	0.033359	0.024339	0.035105	0.030647	0.026765	0.031416	0.024890
24	0.025741	0.017870	0.026670	0.022061	0.020253	0.023359	0.018104

Sunday Hourly Travel Factors by District – Spring.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.014481	0.020470	0.017310	0.024779	0.017642	0.009083	0.011216	0.019481	0.020029
2	0.010914	0.016198	0.013768	0.017583	0.012818	0.006348	0.007591	0.016112	0.012496
3	0.008571	0.014047	0.011617	0.017148	0.010587	0.004259	0.005638	0.013694	0.010993
4	0.007371	0.011425	0.010331	0.011006	0.008530	0.003333	0.004468	0.012594	0.006790
5	0.007539	0.013111	0.010317	0.007941	0.010298	0.004636	0.004613	0.012843	0.006973
6	0.009136	0.013916	0.012346	0.009757	0.013524	0.007224	0.006335	0.014570	0.011815
7	0.013078	0.018907	0.016480	0.014772	0.016617	0.011019	0.010565	0.019000	0.017932
8	0.018953	0.025590	0.023167	0.021058	0.022164	0.016241	0.016993	0.026038	0.020809
9	0.029227	0.035830	0.033412	0.030041	0.030057	0.026926	0.026389	0.037020	0.029357
10	0.040115	0.046874	0.046944	0.044446	0.045261	0.045965	0.039350	0.049623	0.042589
11	0.051758	0.055314	0.058392	0.057422	0.056717	0.062428	0.054214	0.060263	0.056419
12	0.060494	0.061144	0.067098	0.065360	0.063593	0.076328	0.067340	0.066032	0.068675
13	0.072171	0.068896	0.075815	0.070951	0.075634	0.091199	0.077233	0.070934	0.077366
14	0.077382	0.072799	0.078238	0.072510	0.078991	0.092913	0.083442	0.072040	0.079015
15	0.080271	0.074148	0.077991	0.071500	0.077458	0.092530	0.086407	0.073623	0.078875
16	0.082005	0.074082	0.076607	0.070725	0.077597	0.089838	0.087266	0.074762	0.078949
17	0.081600	0.072965	0.074190	0.068975	0.076474	0.084841	0.085872	0.072956	0.077170
18	0.077160	0.068935	0.069688	0.067098	0.072723	0.076805	0.080127	0.067354	0.073745
19	0.068670	0.062107	0.060424	0.063229	0.064304	0.063090	0.069959	0.057999	0.065543
20	0.058321	0.052110	0.051350	0.055567	0.052631	0.048623	0.057921	0.048826	0.053116
21	0.047591	0.042390	0.040321	0.046225	0.042132	0.035658	0.045214	0.039628	0.041460
22	0.037206	0.034150	0.031798	0.039211	0.033083	0.024880	0.033580	0.031146	0.032267
23	0.027099	0.025489	0.024425	0.030964	0.024352	0.016455	0.023308	0.024567	0.022730
24	0.018888	0.019102	0.017973	0.021734	0.016812	0.009378	0.014961	0.018893	0.014887

Sunday Hourly Travel Factors by District – Spring (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.025133	0.029000	0.021524	0.024266	0.020295	0.018317	0.015230	0.022008	0.016776
2	0.018265	0.021917	0.014521	0.017214	0.014823	0.012566	0.011718	0.016585	0.012274
3	0.016632	0.020396	0.012521	0.016046	0.011762	0.009692	0.008049	0.014865	0.009251
4	0.011357	0.015240	0.008259	0.010403	0.009798	0.006840	0.006324	0.011005	0.007689
5	0.009144	0.010285	0.007113	0.009749	0.010830	0.006057	0.006465	0.012173	0.007976
6	0.011808	0.011417	0.010496	0.014017	0.015319	0.007942	0.009309	0.015397	0.010288
7	0.016680	0.016877	0.016791	0.018964	0.020322	0.011997	0.013917	0.022063	0.013636
8	0.022338	0.023940	0.021505	0.023245	0.023837	0.017525	0.019999	0.025082	0.019621
9	0.030010	0.031737	0.030054	0.031147	0.031296	0.027683	0.030598	0.029958	0.029613
10	0.041968	0.041640	0.043276	0.043541	0.041285	0.041970	0.046614	0.038921	0.043294
11	0.053904	0.051232	0.056177	0.055282	0.050971	0.050863	0.057900	0.048446	0.056703
12	0.059546	0.058508	0.063945	0.060384	0.056498	0.058971	0.064224	0.054602	0.065659
13	0.068186	0.065321	0.075417	0.067446	0.066292	0.072776	0.079718	0.065293	0.075840
14	0.074248	0.069829	0.077614	0.071464	0.069973	0.077796	0.081985	0.068703	0.078458
15	0.073668	0.071705	0.076427	0.071049	0.071289	0.077425	0.082453	0.069907	0.078626
16	0.072371	0.071382	0.076437	0.071589	0.072014	0.077845	0.081584	0.071398	0.078108
17	0.070900	0.068874	0.076009	0.071332	0.072097	0.079600	0.079391	0.072380	0.077263
18	0.069042	0.065451	0.072676	0.069502	0.070357	0.078055	0.076425	0.070533	0.073337
19	0.063981	0.062112	0.064360	0.064544	0.066319	0.072103	0.065777	0.069486	0.065238
20	0.054758	0.054814	0.052907	0.055635	0.059306	0.060776	0.054044	0.059359	0.055323
21	0.045307	0.046230	0.042141	0.045417	0.050017	0.048665	0.041660	0.048564	0.045087
22	0.038728	0.039062	0.034972	0.038423	0.041196	0.039123	0.031077	0.040447	0.035103
23	0.030741	0.031082	0.026671	0.029604	0.031520	0.027886	0.021725	0.030806	0.026148
24	0.021284	0.021947	0.018186	0.019737	0.022583	0.017526	0.013815	0.022020	0.018689

Sunday Hourly Travel Factors by District – Spring (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.022288	0.012617	0.021661	0.019489	0.013953	0.019401	0.012123
2	0.014347	0.009565	0.014655	0.013940	0.010036	0.014764	0.008845
3	0.013131	0.007857	0.012952	0.010489	0.007681	0.012361	0.006705
4	0.007620	0.006934	0.008674	0.007245	0.006384	0.008631	0.005398
5	0.006004	0.007763	0.007887	0.006943	0.006086	0.007582	0.006167
6	0.008370	0.010513	0.010787	0.010231	0.007794	0.009620	0.008436
7	0.013588	0.014786	0.015951	0.015550	0.011804	0.016870	0.012572
8	0.020972	0.020595	0.021536	0.023010	0.018012	0.022086	0.018118
9	0.030231	0.030076	0.030058	0.036940	0.027347	0.030182	0.027474
10	0.043536	0.043386	0.043284	0.052419	0.040109	0.045468	0.040280
11	0.055102	0.055703	0.055028	0.058019	0.054433	0.054937	0.054486
12	0.065449	0.066316	0.064513	0.059923	0.066569	0.063740	0.065869
13	0.073434	0.075448	0.072657	0.075116	0.074628	0.077493	0.075588
14	0.077340	0.080137	0.076118	0.078426	0.078737	0.077868	0.080924
15	0.077642	0.081893	0.076082	0.077207	0.080821	0.077161	0.083328
16	0.077269	0.082459	0.075000	0.074405	0.081359	0.075967	0.083453
17	0.074675	0.080565	0.073243	0.074435	0.080066	0.073287	0.082048
18	0.070716	0.074854	0.070690	0.074852	0.075842	0.070678	0.077867
19	0.064791	0.065579	0.065017	0.065413	0.068040	0.066328	0.069737
20	0.055318	0.054994	0.054597	0.055139	0.059062	0.055405	0.058408
21	0.045070	0.043889	0.044752	0.042626	0.048076	0.042574	0.046633
22	0.037267	0.033287	0.036844	0.032122	0.037315	0.034093	0.034843
23	0.027581	0.023979	0.028628	0.022341	0.026974	0.026093	0.024402
24	0.018261	0.016802	0.019385	0.013723	0.018873	0.017411	0.016295

Weekday Hourly Travel Factors by District – Summer.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.012941	0.014834	0.013836	0.011727	0.008957	0.004931	0.010587	0.017623	0.006581
2	0.010603	0.011594	0.012098	0.008302	0.006634	0.003676	0.008494	0.015108	0.004172
3	0.009669	0.009336	0.011644	0.007656	0.006126	0.003754	0.007992	0.013731	0.003742
4	0.009767	0.009612	0.011969	0.006903	0.007816	0.004578	0.009102	0.013055	0.004155
5	0.011858	0.016052	0.014972	0.010133	0.015558	0.009866	0.013500	0.013968	0.009154
6	0.018473	0.026310	0.024516	0.026590	0.034044	0.019947	0.021383	0.018013	0.025989
7	0.032085	0.044494	0.036744	0.054420	0.048376	0.038245	0.036718	0.028522	0.050147
8	0.055644	0.052933	0.051794	0.062583	0.062356	0.062665	0.056798	0.037717	0.071942
9	0.052718	0.048594	0.049224	0.058605	0.054907	0.056600	0.051792	0.044946	0.062928
10	0.053226	0.051410	0.050793	0.055427	0.050750	0.058228	0.052129	0.052454	0.052869
11	0.055669	0.053471	0.053933	0.053383	0.053969	0.062577	0.056118	0.058822	0.051638
12	0.058102	0.055255	0.058317	0.055473	0.058541	0.065559	0.060964	0.062107	0.055175
13	0.060919	0.057318	0.061740	0.057200	0.061503	0.067573	0.064121	0.063392	0.057993
14	0.062764	0.059792	0.062606	0.058045	0.062523	0.068824	0.065789	0.065102	0.058263
15	0.064736	0.065578	0.064686	0.060187	0.063802	0.071124	0.067107	0.066430	0.059799
16	0.068459	0.070195	0.068809	0.062903	0.070219	0.074875	0.069570	0.068652	0.066326
17	0.071618	0.076392	0.071136	0.062874	0.073567	0.079803	0.073714	0.068651	0.077200
18	0.075497	0.073904	0.072242	0.062806	0.071208	0.080001	0.075638	0.065501	0.093754
19	0.059347	0.056020	0.056033	0.059036	0.056052	0.056503	0.055945	0.055835	0.064060
20	0.045234	0.042193	0.044381	0.049250	0.042046	0.037622	0.043172	0.046335	0.041986
21	0.038412	0.035041	0.036968	0.039262	0.033423	0.029069	0.034948	0.039840	0.030970
22	0.031343	0.028967	0.030433	0.033650	0.026068	0.021353	0.028430	0.033687	0.023752
23	0.023597	0.022263	0.023296	0.025722	0.018639	0.014238	0.021189	0.028168	0.016498
24	0.017318	0.018442	0.017830	0.017863	0.012918	0.008392	0.014800	0.022340	0.010909

Weekday Hourly Travel Factors by District – Summer (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.010167	0.009553	0.008321	0.008301	0.012687	0.006983	0.007500	0.008355	0.013274
2	0.006838	0.006432	0.005323	0.005489	0.009235	0.004860	0.005584	0.006171	0.010718
3	0.006381	0.005146	0.004852	0.005138	0.007699	0.004205	0.005448	0.005565	0.009256
4	0.006944	0.005002	0.004998	0.005956	0.008021	0.004510	0.007078	0.006362	0.009905
5	0.012045	0.007086	0.008994	0.013315	0.012238	0.006887	0.011519	0.010536	0.013707
6	0.030847	0.016512	0.024172	0.039526	0.025928	0.015058	0.022006	0.025627	0.022674
7	0.056213	0.037051	0.053072	0.064887	0.039168	0.035100	0.040430	0.053196	0.033776
8	0.066414	0.066450	0.073473	0.068560	0.052742	0.077567	0.070870	0.074035	0.050678
9	0.059678	0.069909	0.064144	0.058609	0.050145	0.064463	0.056371	0.062630	0.051216
10	0.051955	0.058824	0.052151	0.052291	0.049812	0.055566	0.052789	0.053240	0.053565
11	0.049337	0.054038	0.049601	0.050483	0.052634	0.053794	0.055483	0.051694	0.058188
12	0.051209	0.055986	0.052566	0.052038	0.056062	0.053607	0.059016	0.053751	0.061470
13	0.053900	0.058595	0.054724	0.053724	0.058828	0.058837	0.062521	0.055115	0.062842
14	0.055310	0.060052	0.056148	0.054650	0.060361	0.057789	0.064220	0.056560	0.063675
15	0.059148	0.062210	0.060070	0.057819	0.061883	0.062982	0.067866	0.057624	0.065622
16	0.064674	0.068444	0.069489	0.064213	0.065640	0.069519	0.074761	0.061921	0.069186
17	0.070147	0.073364	0.079743	0.069660	0.070302	0.077336	0.076713	0.070914	0.072060
18	0.071027	0.074032	0.083769	0.072163	0.077730	0.087976	0.080435	0.086141	0.071915
19	0.061550	0.061899	0.063037	0.059879	0.065069	0.065265	0.055236	0.065884	0.056950
20	0.047066	0.046714	0.042164	0.045607	0.049643	0.044525	0.039506	0.045282	0.044208
21	0.036827	0.036113	0.031608	0.034022	0.039390	0.035332	0.031311	0.033637	0.036175
22	0.031329	0.029273	0.025639	0.028493	0.031838	0.027506	0.024109	0.025834	0.028992
23	0.024469	0.022096	0.019047	0.021335	0.024682	0.018760	0.017560	0.017949	0.022615
24	0.016527	0.015220	0.012895	0.013840	0.018262	0.011576	0.011669	0.011977	0.017333

Weekday Hourly Travel Factors by District – Summer (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.007636	0.012641	0.009212	0.005705	0.014277	0.009036	0.011088
2	0.004440	0.009996	0.006364	0.003976	0.011707	0.006597	0.008660
3	0.003836	0.008485	0.005645	0.003570	0.010528	0.005685	0.007918
4	0.003575	0.008498	0.006027	0.004863	0.011036	0.005697	0.008963
5	0.005467	0.011315	0.009704	0.009709	0.014063	0.008416	0.013539
6	0.012968	0.020364	0.023118	0.023943	0.022785	0.018089	0.022697
7	0.032493	0.035047	0.053734	0.049757	0.039142	0.041800	0.039086
8	0.069030	0.051207	0.071219	0.084331	0.056069	0.071637	0.057282
9	0.061699	0.049626	0.062493	0.059143	0.051103	0.052110	0.052757
10	0.055182	0.051189	0.050565	0.051576	0.050930	0.047774	0.052718
11	0.055882	0.055604	0.048624	0.050983	0.055038	0.050608	0.057980
12	0.059412	0.059654	0.051212	0.052399	0.059012	0.056957	0.061735
13	0.062583	0.061986	0.053665	0.055596	0.061036	0.061603	0.063588
14	0.063502	0.063662	0.055609	0.057011	0.062340	0.060125	0.064817
15	0.065037	0.065074	0.059746	0.061315	0.064680	0.064460	0.066408
16	0.069770	0.068410	0.069232	0.069547	0.067174	0.074302	0.068248
17	0.076335	0.072804	0.078615	0.081142	0.069990	0.080258	0.072209
18	0.084045	0.074453	0.080546	0.091353	0.069848	0.080175	0.073793
19	0.064067	0.059801	0.062712	0.061635	0.054271	0.058432	0.054749
20	0.046288	0.048155	0.043365	0.041095	0.043042	0.045116	0.042390
21	0.035490	0.039835	0.033895	0.032488	0.037088	0.036616	0.035885
22	0.028267	0.031259	0.028114	0.023936	0.031321	0.028426	0.027963
23	0.020017	0.023389	0.021640	0.015431	0.024672	0.021194	0.020513
24	0.012980	0.017547	0.014943	0.009495	0.018846	0.014888	0.015014

Friday Hourly Travel Factors by District by District – Summer.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.011682	0.015734	0.013703	0.013223	0.008999	0.004596	0.008879	0.016396	0.007530
2	0.009517	0.012213	0.011974	0.009663	0.006670	0.003267	0.007094	0.014125	0.004636
3	0.008587	0.009787	0.011475	0.009418	0.006259	0.003197	0.006620	0.012938	0.004324
4	0.008601	0.010026	0.011603	0.007822	0.007272	0.003655	0.007130	0.012366	0.004151
5	0.010037	0.015337	0.013622	0.010064	0.012903	0.007024	0.009869	0.012984	0.008357
6	0.015174	0.022999	0.020158	0.023577	0.026083	0.013866	0.014888	0.016394	0.020495
7	0.025821	0.036304	0.031353	0.048499	0.038941	0.026862	0.025659	0.025050	0.039569
8	0.044866	0.046255	0.045167	0.056711	0.053605	0.045490	0.040579	0.033357	0.059365
9	0.043999	0.045132	0.045028	0.053317	0.049108	0.043520	0.039289	0.040698	0.054171
10	0.046890	0.049514	0.048100	0.051896	0.048266	0.047936	0.042708	0.049028	0.047921
11	0.052284	0.052303	0.052689	0.052172	0.053597	0.055246	0.050020	0.056674	0.049391
12	0.057268	0.054939	0.057902	0.055386	0.059169	0.061052	0.057982	0.061093	0.054670
13	0.061766	0.057386	0.061252	0.057262	0.062774	0.065941	0.064121	0.062580	0.058547
14	0.065290	0.061278	0.063124	0.058158	0.064237	0.070135	0.069230	0.064748	0.060062
15	0.068452	0.066787	0.065324	0.059378	0.065916	0.074727	0.072739	0.067210	0.063068
16	0.072480	0.071645	0.069146	0.060135	0.070339	0.079221	0.075530	0.069361	0.071597
17	0.075159	0.073504	0.070777	0.059314	0.070211	0.085239	0.078363	0.069145	0.078973
18	0.076306	0.070407	0.070214	0.059203	0.067867	0.084546	0.079463	0.066974	0.083357
19	0.065664	0.059643	0.060032	0.057935	0.060373	0.069943	0.067671	0.059958	0.066029
20	0.052214	0.046509	0.049656	0.052291	0.049645	0.050693	0.056073	0.051317	0.049184
21	0.043089	0.038001	0.042027	0.044010	0.039745	0.038349	0.045743	0.043993	0.037637
22	0.035877	0.033300	0.035805	0.039670	0.033412	0.029608	0.036238	0.037704	0.032168
23	0.028574	0.028219	0.028491	0.034490	0.026083	0.022233	0.026704	0.031446	0.026331
24	0.020401	0.022778	0.021378	0.026405	0.018527	0.013653	0.017407	0.024460	0.018466

Friday Hourly Travel Factors by District – Summer (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.010903	0.010664	0.008848	0.009408	0.012775	0.007615	0.007705	0.008515	0.012560
2	0.007510	0.007453	0.005794	0.006333	0.009718	0.005493	0.005519	0.006448	0.010001
3	0.007075	0.006549	0.005388	0.006101	0.008315	0.004799	0.005295	0.006079	0.008570
4	0.007041	0.005817	0.004998	0.006229	0.008497	0.004567	0.006382	0.006455	0.008963
5	0.011103	0.007226	0.008150	0.012074	0.012012	0.006421	0.009659	0.010279	0.011994
6	0.026942	0.015149	0.020378	0.033516	0.023742	0.013360	0.017730	0.023481	0.018763
7	0.049404	0.033030	0.044533	0.057218	0.035517	0.029829	0.032792	0.047795	0.027964
8	0.059262	0.059967	0.063115	0.062748	0.048001	0.063647	0.056711	0.066700	0.041938
9	0.053959	0.063503	0.056593	0.054633	0.046596	0.054464	0.047925	0.057768	0.044038
10	0.048525	0.055145	0.048631	0.049981	0.047258	0.049434	0.047272	0.050561	0.047671
11	0.048380	0.052526	0.049040	0.050395	0.050904	0.050373	0.052647	0.050886	0.053840
12	0.051566	0.055826	0.053501	0.053170	0.054786	0.053518	0.058660	0.054578	0.058353
13	0.054820	0.059089	0.056576	0.055357	0.058263	0.057747	0.063643	0.056974	0.061152
14	0.056775	0.060295	0.059022	0.056361	0.060117	0.059272	0.066464	0.057885	0.063699
15	0.060135	0.062348	0.063809	0.059451	0.061901	0.062636	0.069989	0.059803	0.066883
16	0.064478	0.067428	0.072065	0.063887	0.065947	0.070575	0.074583	0.064161	0.070767
17	0.067208	0.069971	0.077468	0.066086	0.070379	0.076954	0.076573	0.071052	0.074508
18	0.066866	0.068687	0.077334	0.066695	0.075432	0.084406	0.078571	0.079523	0.074840
19	0.061314	0.060743	0.063513	0.058732	0.065964	0.070882	0.063034	0.065450	0.064873
20	0.051931	0.049137	0.047735	0.049373	0.053347	0.051578	0.047818	0.048619	0.053216
21	0.041946	0.039869	0.035897	0.038445	0.043176	0.039540	0.038032	0.036025	0.043532
22	0.036610	0.035403	0.031180	0.033372	0.035345	0.034441	0.031328	0.029845	0.034658
23	0.032107	0.030591	0.026811	0.028912	0.029129	0.029060	0.024747	0.024060	0.027010
24	0.024141	0.023585	0.019621	0.021523	0.022879	0.019388	0.016919	0.017056	0.020205

Friday Hourly Travel Factors by District – Summer (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.008305	0.012398	0.009485	0.006131	0.012653	0.009473	0.009526
2	0.005002	0.009826	0.006635	0.004640	0.010260	0.007194	0.007617
3	0.004618	0.008230	0.006014	0.004018	0.009375	0.006227	0.007100
4	0.003760	0.008036	0.006037	0.004750	0.009801	0.005793	0.007715
5	0.005231	0.009993	0.008997	0.008529	0.011521	0.007926	0.010698
6	0.011492	0.017022	0.019622	0.020543	0.017255	0.015818	0.016848
7	0.027940	0.028699	0.044716	0.042386	0.028589	0.035371	0.029116
8	0.059788	0.042897	0.061212	0.072863	0.041441	0.060949	0.043552
9	0.054702	0.043300	0.053608	0.053219	0.040314	0.046953	0.042541
10	0.051195	0.047098	0.046601	0.048381	0.043265	0.044652	0.045320
11	0.053484	0.053849	0.047435	0.049992	0.049687	0.049214	0.052946
12	0.058084	0.059767	0.051699	0.052786	0.056711	0.056899	0.059205
13	0.061781	0.062894	0.055464	0.056108	0.061254	0.061581	0.063474
14	0.063208	0.065886	0.057680	0.058376	0.065161	0.061263	0.067115
15	0.065477	0.068293	0.062334	0.062789	0.069021	0.065663	0.070570
16	0.070506	0.071273	0.070420	0.070555	0.071391	0.074249	0.072572
17	0.075033	0.074021	0.075265	0.080175	0.072893	0.077045	0.075271
18	0.078467	0.072808	0.075174	0.083546	0.072332	0.075643	0.076535
19	0.066383	0.063357	0.065353	0.065311	0.065280	0.062632	0.066004
20	0.051512	0.052873	0.050798	0.047067	0.055477	0.049963	0.055571
21	0.040369	0.043959	0.039490	0.035915	0.046799	0.041080	0.044985
22	0.034369	0.035470	0.034463	0.030214	0.038826	0.035794	0.033799
23	0.028395	0.027874	0.029852	0.024604	0.029598	0.028106	0.024784
24	0.020900	0.020176	0.021644	0.017103	0.021093	0.020512	0.017136

Saturday Hourly Travel Factors by District – Summer.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.017959	0.020166	0.019026	0.020584	0.016003	0.010180	0.013919	0.019764	0.015289
2	0.013021	0.015058	0.015302	0.014687	0.011251	0.006001	0.009490	0.015971	0.009501
3	0.010576	0.011797	0.013684	0.014120	0.009490	0.004459	0.007622	0.014005	0.008136
4	0.009744	0.010599	0.012794	0.009848	0.008611	0.004154	0.006817	0.013226	0.005798
5	0.010468	0.014106	0.013298	0.008755	0.012059	0.006874	0.008310	0.013796	0.007770
6	0.014121	0.016767	0.017116	0.013529	0.018805	0.011862	0.012639	0.016489	0.016007
7	0.021466	0.022769	0.023458	0.023686	0.023992	0.019857	0.022261	0.023113	0.025258
8	0.032714	0.031313	0.032665	0.033031	0.032430	0.031903	0.035061	0.031308	0.030231
9	0.045444	0.041420	0.043401	0.042988	0.041972	0.046010	0.047661	0.043284	0.039614
10	0.056913	0.051066	0.053647	0.051846	0.051540	0.061663	0.059902	0.055098	0.048631
11	0.065897	0.058787	0.061976	0.058173	0.060531	0.073890	0.070424	0.063130	0.057132
12	0.070166	0.064122	0.066491	0.062488	0.066232	0.079513	0.074531	0.066473	0.064132
13	0.070705	0.065556	0.068224	0.064632	0.069061	0.080320	0.074274	0.066384	0.068701
14	0.069924	0.066526	0.068292	0.064898	0.069223	0.077696	0.072942	0.065844	0.069495
15	0.068596	0.067289	0.067838	0.064524	0.068227	0.075732	0.071617	0.066353	0.069970
16	0.068098	0.068187	0.067014	0.064358	0.069151	0.074044	0.070264	0.066335	0.072110
17	0.067064	0.068232	0.065515	0.063247	0.068503	0.071142	0.067655	0.064952	0.072300
18	0.063443	0.064869	0.062215	0.061842	0.066023	0.065786	0.062876	0.061540	0.070935
19	0.057174	0.058482	0.056184	0.058628	0.060352	0.055954	0.054398	0.055829	0.065297
20	0.047611	0.049809	0.048383	0.051604	0.049956	0.044585	0.045583	0.048332	0.053137
21	0.039868	0.042599	0.040352	0.044321	0.041492	0.035629	0.037968	0.041276	0.041960
22	0.033366	0.037454	0.034144	0.041098	0.035649	0.028452	0.031667	0.034900	0.035867
23	0.026218	0.030063	0.027715	0.037113	0.028245	0.021005	0.024714	0.028996	0.029739
24	0.019444	0.022963	0.021265	0.029999	0.021203	0.013290	0.017406	0.023605	0.022989

Saturday Hourly Travel Factors by District – Summer (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.019237	0.020314	0.017119	0.017551	0.019219	0.014721	0.013853	0.016342	0.016956
2	0.013035	0.014731	0.010805	0.011864	0.014276	0.009641	0.009410	0.012118	0.012189
3	0.011902	0.014154	0.009365	0.011225	0.011817	0.007528	0.007382	0.011056	0.009546
4	0.008918	0.010611	0.006691	0.008217	0.010866	0.005904	0.006998	0.009347	0.008529
5	0.009323	0.008497	0.007538	0.010282	0.013284	0.006203	0.008558	0.011619	0.010110
6	0.015795	0.011566	0.013224	0.019683	0.021499	0.009912	0.014105	0.019026	0.014471
7	0.026018	0.019885	0.023813	0.029443	0.028241	0.017712	0.022112	0.031805	0.020233
8	0.034395	0.031426	0.032639	0.035728	0.034458	0.028089	0.033588	0.037706	0.030589
9	0.042704	0.042393	0.042586	0.044022	0.044095	0.039621	0.045185	0.042358	0.042763
10	0.049835	0.049449	0.051200	0.050449	0.052990	0.050287	0.056139	0.047788	0.055064
11	0.055928	0.054205	0.059164	0.055645	0.059623	0.059661	0.065668	0.053556	0.065881
12	0.060848	0.059834	0.065070	0.060065	0.064214	0.066692	0.071553	0.059210	0.070814
13	0.064734	0.065093	0.068439	0.063473	0.067095	0.070484	0.073424	0.064404	0.070729
14	0.065745	0.067235	0.069236	0.063846	0.067716	0.071110	0.072110	0.064632	0.069582
15	0.066136	0.067351	0.069499	0.064552	0.067172	0.070011	0.070783	0.065266	0.068476
16	0.066101	0.066870	0.070215	0.065185	0.066672	0.071114	0.070443	0.066939	0.068359
17	0.065287	0.065469	0.069390	0.064546	0.064571	0.072401	0.068603	0.067001	0.067938
18	0.064069	0.063506	0.067132	0.064134	0.061652	0.071018	0.065510	0.066182	0.065219
19	0.060166	0.060533	0.061286	0.060347	0.056933	0.065149	0.058035	0.064511	0.058512
20	0.051924	0.053363	0.050121	0.052537	0.049096	0.054455	0.047794	0.053922	0.049351
21	0.043728	0.044960	0.040604	0.043699	0.040806	0.045145	0.039635	0.043721	0.041755
22	0.039681	0.041485	0.036902	0.040017	0.033873	0.039613	0.033355	0.037986	0.034913
23	0.035872	0.037377	0.033000	0.035726	0.027874	0.031780	0.026666	0.030781	0.027489
24	0.028618	0.029693	0.024963	0.027764	0.021959	0.021751	0.019091	0.022723	0.020532

Saturday Hourly Travel Factors by District – Summer (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.015642	0.018173	0.017798	0.013674	0.017807	0.017585	0.015470
2	0.009682	0.013306	0.011832	0.008810	0.012990	0.012800	0.011022
3	0.009048	0.010661	0.010466	0.007155	0.010594	0.010562	0.009187
4	0.005902	0.009586	0.007991	0.005819	0.009659	0.007976	0.008664
5	0.005703	0.010906	0.008734	0.006950	0.010372	0.008441	0.010894
6	0.009376	0.015961	0.014016	0.012928	0.014261	0.012356	0.016058
7	0.018195	0.023567	0.023314	0.022121	0.022556	0.021781	0.025176
8	0.030771	0.033476	0.032708	0.033210	0.034120	0.031083	0.035908
9	0.042179	0.045544	0.042491	0.043485	0.046386	0.040553	0.048452
10	0.050127	0.057757	0.050692	0.053002	0.058077	0.051533	0.060357
11	0.057895	0.067174	0.057580	0.060486	0.067941	0.060621	0.070209
12	0.065543	0.072076	0.063697	0.065914	0.072420	0.067553	0.073663
13	0.070968	0.072317	0.067387	0.068516	0.071673	0.070393	0.072613
14	0.071914	0.071198	0.068022	0.069497	0.070085	0.069584	0.070581
15	0.071739	0.070176	0.068158	0.069938	0.068942	0.068917	0.068588
16	0.072445	0.068670	0.068148	0.071370	0.067741	0.067792	0.066913
17	0.069836	0.066579	0.066817	0.071410	0.065970	0.066738	0.064927
18	0.066683	0.062077	0.064866	0.070510	0.061442	0.064327	0.060566
19	0.062235	0.054893	0.060879	0.063437	0.053458	0.061998	0.054149
20	0.053583	0.046017	0.051717	0.052092	0.045152	0.052035	0.045475
21	0.045009	0.037867	0.042831	0.043236	0.038615	0.043131	0.037993
22	0.039063	0.030565	0.038804	0.036466	0.033085	0.038378	0.031089
23	0.031786	0.023947	0.034612	0.029136	0.026610	0.030915	0.024345
24	0.024676	0.017508	0.026439	0.020836	0.020045	0.022947	0.017701

Sunday Hourly Travel Factors by District – Summer.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.014220	0.020201	0.017181	0.024628	0.017503	0.008730	0.011185	0.019486	0.020237
2	0.010745	0.015955	0.013602	0.017472	0.012490	0.006173	0.007450	0.016087	0.012441
3	0.008451	0.013952	0.011396	0.017016	0.010325	0.004159	0.005531	0.013760	0.011032
4	0.007301	0.011426	0.010222	0.011167	0.008365	0.003238	0.004419	0.012751	0.006884
5	0.007478	0.013361	0.010206	0.007980	0.010108	0.004567	0.004555	0.013007	0.007184
6	0.009130	0.013993	0.012278	0.009733	0.013330	0.007243	0.006256	0.014910	0.011825
7	0.012912	0.018677	0.016183	0.014701	0.016306	0.010785	0.010347	0.019238	0.018138
8	0.018559	0.024969	0.022732	0.020782	0.021840	0.015969	0.016460	0.025980	0.020909
9	0.028830	0.035160	0.033090	0.029603	0.029887	0.026753	0.025600	0.036873	0.029497
10	0.040017	0.046267	0.046627	0.043973	0.045264	0.045955	0.038595	0.049219	0.042581
11	0.051565	0.054753	0.058178	0.057082	0.056850	0.062680	0.053621	0.059708	0.055767
12	0.060230	0.060872	0.066958	0.065181	0.063679	0.076305	0.066638	0.065523	0.067279
13	0.072188	0.068873	0.075863	0.071172	0.075716	0.090850	0.076352	0.070703	0.077031
14	0.077092	0.072618	0.078337	0.072813	0.078987	0.092433	0.082409	0.071951	0.079189
15	0.079893	0.073720	0.078289	0.071930	0.077414	0.091798	0.085594	0.073520	0.079181
16	0.082273	0.074053	0.077014	0.071298	0.077682	0.089766	0.087186	0.074656	0.079482
17	0.082389	0.073488	0.075063	0.069670	0.076992	0.085824	0.086730	0.073278	0.078433
18	0.078025	0.069861	0.070270	0.067588	0.073552	0.078187	0.081889	0.067528	0.075248
19	0.069657	0.063246	0.061042	0.063394	0.064965	0.064158	0.071581	0.058447	0.066730
20	0.058887	0.052880	0.051762	0.055694	0.052999	0.049273	0.059117	0.048995	0.053664
21	0.047717	0.043039	0.040457	0.046385	0.042227	0.035752	0.046191	0.039665	0.040319
22	0.037082	0.034326	0.031486	0.038865	0.032891	0.024430	0.033984	0.031345	0.030658
23	0.026814	0.025282	0.024081	0.030564	0.024091	0.015967	0.023437	0.024531	0.021757
24	0.018545	0.019028	0.017685	0.021309	0.016537	0.009005	0.014874	0.018840	0.014530

Sunday Hourly Travel Factors by District – Summer (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.024634	0.028043	0.021331	0.024017	0.019974	0.017893	0.015128	0.021179	0.016448
2	0.017739	0.021188	0.014248	0.016835	0.014653	0.011962	0.011709	0.015699	0.012051
3	0.016105	0.020060	0.012323	0.015660	0.011614	0.009378	0.007958	0.014250	0.009084
4	0.011049	0.014619	0.008116	0.010189	0.009546	0.006748	0.006269	0.010739	0.007604
5	0.008876	0.009920	0.006935	0.009515	0.010532	0.006010	0.006382	0.011910	0.007824
6	0.011494	0.011182	0.010187	0.013768	0.014628	0.007773	0.009153	0.015092	0.010226
7	0.016256	0.016722	0.016395	0.018720	0.019373	0.011760	0.013578	0.021765	0.013391
8	0.021926	0.023771	0.021001	0.023071	0.022890	0.016995	0.019653	0.024844	0.019290
9	0.029764	0.031747	0.029785	0.031099	0.030541	0.027046	0.030406	0.029905	0.029217
10	0.041953	0.041865	0.043304	0.043552	0.040975	0.041679	0.046709	0.039091	0.043078
11	0.054152	0.051738	0.056666	0.055419	0.050979	0.050764	0.058125	0.049021	0.056938
12	0.059889	0.059226	0.064485	0.060566	0.056821	0.058928	0.064257	0.055142	0.065699
13	0.068608	0.066454	0.076312	0.067708	0.067005	0.073248	0.079822	0.066026	0.076181
14	0.074676	0.071246	0.078067	0.071788	0.070963	0.078346	0.082073	0.069449	0.078284
15	0.074242	0.072892	0.076824	0.071362	0.072443	0.077518	0.082474	0.070684	0.078477
16	0.073167	0.072070	0.077046	0.072052	0.073202	0.078112	0.081743	0.072100	0.078544
17	0.071822	0.069438	0.076879	0.071723	0.073006	0.080360	0.079894	0.072981	0.078135
18	0.069845	0.065732	0.073410	0.069983	0.071091	0.079014	0.076942	0.071301	0.074615
19	0.064459	0.062268	0.064900	0.065061	0.066725	0.073095	0.066473	0.069974	0.066269
20	0.055274	0.054828	0.053136	0.056018	0.059559	0.061620	0.054409	0.059651	0.055777
21	0.045638	0.046294	0.041883	0.045798	0.050336	0.049211	0.041674	0.048609	0.044970
22	0.038264	0.038067	0.033830	0.038048	0.040542	0.038859	0.030510	0.039748	0.034591
23	0.029738	0.029747	0.025498	0.028916	0.030683	0.026891	0.021247	0.029832	0.025335
24	0.020431	0.020885	0.017440	0.019133	0.021921	0.016792	0.013413	0.021007	0.017972

Sunday Hourly Travel Factors by District – Summer (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.021904	0.012369	0.021628	0.018558	0.013822	0.019255	0.011901
2	0.014383	0.009384	0.014456	0.013311	0.009866	0.014614	0.008699
3	0.013329	0.007695	0.012718	0.010026	0.007605	0.012210	0.006554
4	0.008020	0.006837	0.008541	0.007025	0.006390	0.008505	0.005254
5	0.006098	0.007720	0.007781	0.006741	0.006116	0.007464	0.006039
6	0.008288	0.010413	0.010665	0.009939	0.007727	0.009372	0.008250
7	0.013444	0.014547	0.015726	0.015039	0.011649	0.016271	0.012321
8	0.020871	0.020124	0.021224	0.022742	0.017627	0.021299	0.017866
9	0.029985	0.029969	0.029766	0.036914	0.026841	0.029468	0.027209
10	0.043331	0.043613	0.043018	0.052757	0.039893	0.045149	0.040063
11	0.054824	0.056080	0.054831	0.058528	0.054207	0.054820	0.054126
12	0.065664	0.066388	0.064105	0.060923	0.065744	0.063741	0.065173
13	0.074340	0.075760	0.072554	0.076098	0.073849	0.078200	0.074464
14	0.078558	0.080357	0.076274	0.078902	0.077925	0.078419	0.079655
15	0.078622	0.082165	0.076319	0.077460	0.080149	0.077878	0.082567
16	0.078128	0.082829	0.075289	0.075177	0.081747	0.076869	0.083696
17	0.075310	0.081014	0.073767	0.075399	0.080757	0.074293	0.083188
18	0.071132	0.075268	0.071710	0.075385	0.076828	0.071612	0.079611
19	0.065219	0.065945	0.065848	0.065909	0.069013	0.066772	0.071318
20	0.055750	0.055030	0.055257	0.055354	0.059641	0.055687	0.059440
21	0.044663	0.043667	0.045266	0.042424	0.048520	0.042395	0.047279
22	0.035346	0.032903	0.036548	0.030994	0.038075	0.033415	0.035002
23	0.025648	0.023565	0.027799	0.021275	0.027262	0.025414	0.024217
24	0.017143	0.016357	0.018910	0.013120	0.018748	0.016877	0.016110

Weekday Hourly Travel Factors by District – Fall.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.013276	0.014960	0.014141	0.012008	0.009332	0.005244	0.010880	0.017665	0.006998
2	0.010801	0.011699	0.012269	0.008452	0.006889	0.003804	0.008652	0.015092	0.004364
3	0.009751	0.009270	0.011694	0.007726	0.006272	0.003859	0.008077	0.013562	0.003849
4	0.009790	0.009507	0.011958	0.006899	0.007841	0.004592	0.009088	0.012827	0.004150
5	0.011829	0.015811	0.014865	0.010065	0.015430	0.009923	0.013389	0.013675	0.009055
6	0.018482	0.025957	0.024402	0.026278	0.033647	0.020063	0.021195	0.017652	0.025380
7	0.031892	0.043997	0.036471	0.053849	0.048054	0.038500	0.036346	0.028021	0.048390
8	0.054732	0.051756	0.050428	0.062600	0.061249	0.061139	0.055894	0.036909	0.068614
9	0.052489	0.048188	0.048887	0.058753	0.054061	0.056278	0.051572	0.044448	0.060850
10	0.053334	0.051334	0.050715	0.055593	0.050683	0.058063	0.052218	0.052388	0.052033
11	0.055836	0.053618	0.054040	0.053266	0.053880	0.062481	0.056168	0.059091	0.051566
12	0.058429	0.055616	0.058439	0.055452	0.058713	0.065577	0.061420	0.062407	0.055871
13	0.061322	0.057720	0.061843	0.057280	0.061680	0.067850	0.064769	0.063653	0.058695
14	0.063104	0.060407	0.062706	0.058098	0.062722	0.069177	0.066438	0.065271	0.059088
15	0.064733	0.065952	0.064473	0.059879	0.063920	0.071157	0.067337	0.066645	0.060244
16	0.067866	0.070355	0.068143	0.062519	0.069987	0.074387	0.069309	0.068402	0.066559
17	0.070840	0.075911	0.070596	0.062419	0.073224	0.078746	0.072739	0.068408	0.076892
18	0.075044	0.073476	0.072140	0.062367	0.071046	0.079435	0.075127	0.065605	0.093189
19	0.059254	0.056068	0.056369	0.058760	0.055695	0.056655	0.055690	0.056081	0.063902
20	0.045265	0.042397	0.044806	0.049020	0.042025	0.037802	0.043155	0.046788	0.042437
21	0.038447	0.035179	0.037607	0.039510	0.034093	0.029334	0.035024	0.040328	0.032434
22	0.031694	0.029298	0.031007	0.034374	0.026876	0.022079	0.028723	0.034081	0.025593
23	0.024065	0.022736	0.023797	0.026473	0.019262	0.015033	0.021622	0.028438	0.018062
24	0.017722	0.018785	0.018206	0.018361	0.013419	0.008818	0.015167	0.022563	0.011785

Weekday Hourly Travel Factors by District – Fall (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.010574	0.010049	0.008593	0.008586	0.013354	0.007510	0.007855	0.008839	0.013843
2	0.007070	0.006743	0.005494	0.005656	0.009605	0.005171	0.005726	0.006487	0.010989
3	0.006512	0.005369	0.004991	0.005231	0.007894	0.004363	0.005535	0.005764	0.009416
4	0.007004	0.005174	0.005107	0.005987	0.008098	0.004612	0.007132	0.006504	0.009946
5	0.012120	0.007331	0.009172	0.013255	0.012277	0.006967	0.011485	0.010706	0.013783
6	0.030914	0.017161	0.024561	0.039039	0.025499	0.015185	0.022052	0.025733	0.022503
7	0.055976	0.037445	0.053011	0.064428	0.038600	0.035201	0.039937	0.053020	0.033454
8	0.066017	0.065777	0.072287	0.068496	0.051001	0.074863	0.068005	0.073267	0.049563
9	0.059430	0.068475	0.063065	0.058461	0.049788	0.062864	0.055839	0.061814	0.050588
10	0.051886	0.057973	0.052017	0.052189	0.049744	0.055530	0.053233	0.052748	0.053378
11	0.049313	0.053809	0.049767	0.050433	0.052478	0.053758	0.055688	0.051328	0.057947
12	0.051246	0.055905	0.052737	0.052017	0.056043	0.054365	0.059382	0.053561	0.061330
13	0.053990	0.058666	0.054982	0.053793	0.058868	0.059078	0.063282	0.054987	0.062795
14	0.055372	0.059994	0.056289	0.054676	0.060316	0.058617	0.064743	0.056523	0.063853
15	0.058843	0.062140	0.059911	0.057703	0.061634	0.062467	0.067828	0.057442	0.065734
16	0.064157	0.067963	0.069035	0.063928	0.064995	0.068404	0.073516	0.061698	0.068777
17	0.069314	0.072705	0.079145	0.069256	0.069252	0.076379	0.075667	0.070582	0.071213
18	0.070451	0.073890	0.083246	0.072037	0.076296	0.087686	0.080106	0.085936	0.071225
19	0.061248	0.061665	0.062699	0.059627	0.064822	0.065527	0.055448	0.065491	0.056740
20	0.046881	0.046359	0.042090	0.045298	0.050187	0.044935	0.039792	0.045341	0.044696
21	0.037147	0.036360	0.031830	0.034315	0.040662	0.035573	0.032156	0.033801	0.036998
22	0.032182	0.030013	0.026414	0.029211	0.033501	0.028698	0.025147	0.026711	0.029806
23	0.025222	0.023069	0.020076	0.022072	0.025903	0.019947	0.018316	0.018947	0.023401
24	0.017133	0.015965	0.013481	0.014306	0.019181	0.012301	0.012129	0.012768	0.018022

Weekday Hourly Travel Factors by District – Fall (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.008379	0.012899	0.009524	0.006059	0.014627	0.009548	0.011439
2	0.004819	0.010107	0.006527	0.004149	0.011885	0.006904	0.008862
3	0.004010	0.008554	0.005710	0.003702	0.010588	0.005887	0.007995
4	0.003589	0.008499	0.006016	0.005041	0.010969	0.005820	0.008962
5	0.005371	0.011318	0.009615	0.009939	0.013887	0.008536	0.013390
6	0.012540	0.020254	0.022795	0.024292	0.022448	0.018190	0.022457
7	0.031079	0.034897	0.052713	0.049271	0.038435	0.041381	0.038533
8	0.065241	0.050197	0.070651	0.081310	0.054797	0.068104	0.055956
9	0.060035	0.049342	0.061619	0.058848	0.050677	0.051705	0.052142
10	0.054680	0.050974	0.050476	0.051538	0.050753	0.047909	0.052467
11	0.055933	0.055426	0.048805	0.051070	0.054940	0.050906	0.057754
12	0.059764	0.059645	0.051536	0.052542	0.059349	0.057512	0.061888
13	0.063098	0.062183	0.054015	0.055884	0.061606	0.062208	0.063937
14	0.064158	0.063964	0.055870	0.057382	0.062999	0.060733	0.065177
15	0.065513	0.065118	0.059667	0.061093	0.065185	0.064258	0.066483
16	0.069778	0.068074	0.068806	0.068868	0.067269	0.072672	0.067936
17	0.075442	0.071946	0.078035	0.079780	0.069387	0.079542	0.071446
18	0.083074	0.073969	0.080378	0.090748	0.069277	0.079703	0.073437
19	0.064264	0.059963	0.062411	0.061842	0.054366	0.058404	0.054958
20	0.046739	0.048412	0.043410	0.041504	0.043518	0.045232	0.042850
21	0.036899	0.040211	0.034305	0.033369	0.037399	0.037458	0.036521
22	0.030169	0.031964	0.029182	0.025364	0.031400	0.029741	0.028671
23	0.021353	0.024069	0.022483	0.016418	0.025011	0.022103	0.021202
24	0.014072	0.018016	0.015451	0.009988	0.019229	0.015544	0.015538

Friday Hourly Travel Factors by District – Fall.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.012093	0.015847	0.013998	0.013468	0.009307	0.004836	0.009077	0.016377	0.007910
2	0.009785	0.012310	0.012156	0.009773	0.006921	0.003402	0.007266	0.014023	0.004809
3	0.008773	0.009802	0.011609	0.009526	0.006356	0.003355	0.006772	0.012746	0.004415
4	0.008687	0.009791	0.011659	0.007840	0.007328	0.003730	0.007249	0.012201	0.004120
5	0.010123	0.015097	0.013562	0.009986	0.012844	0.007112	0.009953	0.012718	0.008172
6	0.015324	0.022630	0.020112	0.023291	0.025798	0.014177	0.015052	0.016189	0.019993
7	0.025993	0.035873	0.031161	0.048035	0.038754	0.027568	0.025944	0.024823	0.037962
8	0.044580	0.045239	0.043972	0.056878	0.052562	0.045027	0.040833	0.032879	0.056175
9	0.044467	0.044856	0.044916	0.053749	0.048443	0.044055	0.040078	0.040682	0.052281
10	0.047677	0.049506	0.048333	0.052258	0.048335	0.048616	0.043741	0.049412	0.047180
11	0.053103	0.052497	0.053164	0.052369	0.053842	0.055669	0.050776	0.057149	0.049422
12	0.058029	0.055393	0.058228	0.055436	0.059517	0.061292	0.058605	0.061525	0.055296
13	0.062248	0.057904	0.061363	0.057271	0.063062	0.066136	0.064736	0.062652	0.059214
14	0.065805	0.061873	0.063047	0.057959	0.064499	0.070267	0.069671	0.064859	0.060795
15	0.068477	0.067377	0.064948	0.059017	0.066122	0.074899	0.072867	0.067352	0.063697
16	0.071759	0.072220	0.068594	0.059710	0.070186	0.079369	0.075150	0.069158	0.071902
17	0.073906	0.073133	0.070159	0.059002	0.069736	0.084426	0.077271	0.068908	0.078445
18	0.075107	0.069621	0.069632	0.058904	0.067191	0.083409	0.078219	0.066846	0.082681
19	0.064716	0.059345	0.059654	0.057498	0.059637	0.068803	0.066588	0.059689	0.065725
20	0.052342	0.047086	0.050161	0.052157	0.049759	0.050877	0.055517	0.051913	0.049935
21	0.043654	0.038562	0.042843	0.044355	0.040645	0.039382	0.045283	0.044861	0.039647
22	0.036123	0.033561	0.036577	0.040434	0.034284	0.030311	0.036103	0.037966	0.034134
23	0.027593	0.027943	0.028662	0.034637	0.026117	0.020971	0.026212	0.031028	0.027169
24	0.019637	0.022535	0.021489	0.026445	0.018757	0.012309	0.017039	0.024046	0.018920

Friday Hourly Travel Factors by District – Fall (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.011291	0.010953	0.009155	0.009619	0.013333	0.007925	0.007842	0.009118	0.013138
2	0.007743	0.007652	0.005981	0.006460	0.010032	0.005767	0.005612	0.006849	0.010380
3	0.007271	0.006788	0.005569	0.006219	0.008626	0.004903	0.005389	0.006280	0.008831
4	0.007151	0.005993	0.005115	0.006258	0.008750	0.004626	0.006463	0.006608	0.009132
5	0.011253	0.007445	0.008322	0.012026	0.012284	0.006510	0.009659	0.010464	0.012076
6	0.027197	0.015656	0.020820	0.033106	0.023689	0.013416	0.017770	0.023658	0.018756
7	0.049328	0.033288	0.044730	0.056800	0.035190	0.029895	0.032445	0.047726	0.027884
8	0.058974	0.059015	0.062227	0.062669	0.046623	0.061950	0.054501	0.065829	0.041331
9	0.053847	0.062010	0.055935	0.054489	0.046624	0.054141	0.047961	0.056836	0.043858
10	0.048686	0.054534	0.048786	0.050020	0.047442	0.049980	0.048049	0.050194	0.048137
11	0.048577	0.052397	0.049367	0.050550	0.051025	0.050887	0.053397	0.050555	0.054209
12	0.051789	0.055749	0.053788	0.053334	0.054969	0.054130	0.059124	0.054371	0.058818
13	0.055034	0.059282	0.056879	0.055486	0.058346	0.058437	0.064108	0.056851	0.061507
14	0.056865	0.060346	0.059325	0.056425	0.060030	0.060060	0.066778	0.057848	0.063948
15	0.059906	0.062244	0.063774	0.059432	0.061622	0.063065	0.069991	0.059535	0.067182
16	0.063931	0.066924	0.071741	0.063703	0.065091	0.070236	0.074075	0.064093	0.070371
17	0.066366	0.069314	0.076752	0.065761	0.068980	0.076079	0.075714	0.070694	0.073168
18	0.066144	0.068554	0.076547	0.066455	0.073735	0.083374	0.077841	0.079020	0.073315
19	0.060566	0.060617	0.062886	0.058274	0.065205	0.069792	0.062411	0.064805	0.063791
20	0.051753	0.049136	0.047520	0.049017	0.053854	0.051778	0.048230	0.048652	0.053069
21	0.042350	0.040388	0.036228	0.038762	0.044503	0.040673	0.038981	0.036911	0.044381
22	0.037338	0.036145	0.031681	0.033903	0.037055	0.035231	0.032318	0.030896	0.035487
23	0.032262	0.031282	0.027156	0.029282	0.030035	0.028298	0.024566	0.024532	0.027121
24	0.024379	0.024289	0.019714	0.021949	0.022956	0.018845	0.016777	0.017675	0.020110

Friday Hourly Travel Factors by District – Fall (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.008896	0.012802	0.009841	0.006496	0.012873	0.009900	0.009877
2	0.005253	0.010090	0.006833	0.004718	0.010436	0.007457	0.007829
3	0.004776	0.008402	0.006157	0.004065	0.009352	0.006408	0.007232
4	0.003792	0.008104	0.006132	0.004820	0.009592	0.005895	0.007791
5	0.005086	0.010027	0.008980	0.008695	0.011283	0.008021	0.010640
6	0.011081	0.017008	0.019441	0.020832	0.016933	0.015933	0.016740
7	0.026550	0.028763	0.043992	0.041898	0.028381	0.035085	0.028892
8	0.056019	0.042163	0.060487	0.069987	0.041110	0.057735	0.042770
9	0.053177	0.043448	0.053068	0.052818	0.040658	0.046447	0.042536
10	0.050829	0.047338	0.046841	0.048569	0.043866	0.044991	0.045536
11	0.053698	0.054002	0.047847	0.050326	0.050492	0.049688	0.053182
12	0.058466	0.059918	0.052153	0.053047	0.057355	0.057357	0.059515
13	0.062133	0.063032	0.055836	0.056516	0.061575	0.062121	0.063654
14	0.063721	0.065833	0.058001	0.058595	0.065426	0.061765	0.067093
15	0.065955	0.068018	0.062413	0.062740	0.068808	0.065386	0.070443
16	0.070685	0.070879	0.070096	0.070303	0.070858	0.072673	0.072204
17	0.074303	0.073062	0.074800	0.078453	0.072012	0.076347	0.074626
18	0.077740	0.071943	0.074766	0.082701	0.071443	0.075158	0.075687
19	0.066127	0.063009	0.064642	0.064680	0.064908	0.062470	0.065640
20	0.052199	0.053340	0.050491	0.047769	0.055937	0.050608	0.056156
21	0.042353	0.044722	0.040034	0.037986	0.047148	0.042342	0.045484
22	0.036461	0.036193	0.035367	0.032214	0.038971	0.036880	0.034514
23	0.029107	0.027777	0.029985	0.024810	0.029506	0.028451	0.024841
24	0.021594	0.020127	0.021800	0.016963	0.021080	0.020881	0.017117

Saturday Hourly Travel Factors by District – Fall.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.017669	0.019935	0.019194	0.020800	0.016371	0.009522	0.013929	0.019322	0.015235
2	0.013099	0.015090	0.015503	0.014955	0.011642	0.005949	0.009621	0.015887	0.009518
3	0.010749	0.011825	0.013805	0.014392	0.009827	0.004530	0.007780	0.013830	0.008041
4	0.009865	0.010564	0.012992	0.009922	0.008776	0.004246	0.006944	0.013048	0.005750
5	0.010531	0.013629	0.013382	0.008772	0.012012	0.006881	0.008337	0.013450	0.007606
6	0.014068	0.016457	0.017136	0.013560	0.018522	0.011712	0.012673	0.016035	0.015555
7	0.021558	0.022787	0.023814	0.023826	0.024238	0.020420	0.022902	0.022952	0.023934
8	0.033209	0.031441	0.032969	0.033273	0.032515	0.033192	0.035837	0.031420	0.028716
9	0.045628	0.041562	0.043380	0.043113	0.042135	0.046728	0.048160	0.043003	0.038305
10	0.056926	0.051115	0.053424	0.052126	0.051432	0.061744	0.060069	0.055245	0.047673
11	0.065637	0.058773	0.061592	0.058075	0.060250	0.073425	0.070229	0.063422	0.056612
12	0.069769	0.063950	0.066019	0.062328	0.065615	0.078933	0.074700	0.066700	0.064197
13	0.070402	0.065616	0.067445	0.064227	0.068601	0.079424	0.074490	0.066476	0.068592
14	0.069938	0.067164	0.067747	0.064356	0.068653	0.076657	0.073519	0.065823	0.069174
15	0.068636	0.068190	0.067416	0.063947	0.067860	0.075182	0.071632	0.066415	0.070043
16	0.067924	0.068760	0.066800	0.063700	0.068808	0.073324	0.069882	0.066429	0.071902
17	0.066761	0.068342	0.065338	0.062604	0.068017	0.070544	0.067094	0.065350	0.071878
18	0.063204	0.064605	0.061878	0.061295	0.065269	0.065528	0.062642	0.062040	0.070709
19	0.056875	0.058409	0.056181	0.058388	0.059699	0.055904	0.054292	0.055966	0.065539
20	0.047415	0.049543	0.048696	0.051705	0.050057	0.044532	0.045282	0.048469	0.053866
21	0.039829	0.042076	0.040811	0.044767	0.042357	0.035782	0.037549	0.041366	0.044133
22	0.033613	0.037077	0.034784	0.042152	0.036613	0.029433	0.031235	0.034882	0.038331
23	0.026690	0.030172	0.028245	0.037590	0.029001	0.022235	0.024191	0.029028	0.031277
24	0.020006	0.022917	0.021448	0.030126	0.021731	0.014175	0.017009	0.023443	0.023415

Saturday Hourly Travel Factors by District – Fall (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.019669	0.020919	0.017236	0.018068	0.019534	0.014588	0.013889	0.017024	0.016963
2	0.013416	0.015230	0.011048	0.012211	0.014477	0.009891	0.009472	0.012728	0.012479
3	0.012214	0.014660	0.009557	0.011489	0.012041	0.007737	0.007416	0.011420	0.009708
4	0.009112	0.010886	0.006803	0.008337	0.011143	0.006010	0.006995	0.009520	0.008617
5	0.009540	0.008749	0.007657	0.010349	0.013602	0.006276	0.008480	0.011833	0.010123
6	0.016166	0.012019	0.013528	0.019588	0.021630	0.009941	0.013636	0.019277	0.014434
7	0.026505	0.020466	0.024441	0.029381	0.028766	0.017907	0.022314	0.032053	0.020498
8	0.034633	0.031699	0.033045	0.035451	0.035413	0.028663	0.034044	0.037887	0.030922
9	0.042347	0.042150	0.042528	0.043348	0.044645	0.039816	0.045527	0.041980	0.042896
10	0.049466	0.049025	0.051224	0.049895	0.052883	0.049927	0.056218	0.047273	0.055060
11	0.055475	0.053876	0.058964	0.055230	0.059092	0.058916	0.065453	0.052819	0.065669
12	0.060531	0.059505	0.064783	0.059754	0.063415	0.066086	0.071133	0.058454	0.070440
13	0.064520	0.064566	0.068175	0.063214	0.065977	0.069863	0.073018	0.063915	0.070431
14	0.065640	0.066739	0.068947	0.063655	0.066475	0.070669	0.071798	0.064075	0.069237
15	0.065828	0.066735	0.069101	0.064376	0.066068	0.069999	0.070404	0.064739	0.068075
16	0.065585	0.066223	0.069616	0.064915	0.065382	0.070878	0.069823	0.066320	0.067865
17	0.064609	0.064609	0.068682	0.064131	0.063232	0.072246	0.068053	0.066227	0.067231
18	0.063190	0.062809	0.066575	0.063551	0.060520	0.070640	0.065168	0.065465	0.064686
19	0.059438	0.060373	0.060928	0.059882	0.056398	0.064651	0.057829	0.063812	0.058167
20	0.051520	0.053316	0.049776	0.052277	0.049380	0.054168	0.047751	0.053593	0.049448
21	0.043965	0.045214	0.040783	0.044247	0.042079	0.045522	0.040224	0.044153	0.042137
22	0.040582	0.041921	0.037636	0.041325	0.035724	0.040681	0.034393	0.039021	0.035329
23	0.036678	0.037844	0.033797	0.036828	0.029231	0.032757	0.027439	0.032256	0.028341
24	0.029372	0.030468	0.025171	0.028498	0.022893	0.022167	0.019523	0.024155	0.021241

Saturday Hourly Travel Factors by District – Fall (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.016159	0.018004	0.018152	0.013636	0.018132	0.017817	0.015521
2	0.010050	0.013367	0.012155	0.009039	0.013417	0.013061	0.011291
3	0.009196	0.010753	0.010721	0.007351	0.010860	0.010757	0.009406
4	0.005909	0.009650	0.008164	0.005875	0.009771	0.008147	0.008768
5	0.005633	0.010914	0.008774	0.007209	0.010481	0.008522	0.010817
6	0.009251	0.015813	0.013945	0.013205	0.014262	0.012651	0.015833
7	0.017690	0.023759	0.023335	0.022553	0.022717	0.022367	0.025175
8	0.029802	0.033956	0.032800	0.033372	0.034418	0.031546	0.036106
9	0.041220	0.045599	0.042477	0.043026	0.046553	0.040705	0.048454
10	0.049724	0.057400	0.050971	0.052141	0.058225	0.051502	0.060198
11	0.057577	0.066517	0.057745	0.059474	0.067746	0.060443	0.069768
12	0.064924	0.071298	0.063544	0.064754	0.072035	0.067117	0.073129
13	0.069932	0.071865	0.067060	0.067826	0.071366	0.069837	0.072200
14	0.070845	0.070884	0.067665	0.068947	0.070209	0.069059	0.070247
15	0.070769	0.070044	0.067760	0.069044	0.069145	0.068485	0.068108
16	0.071362	0.068572	0.067524	0.070293	0.067581	0.067127	0.066294
17	0.069137	0.066383	0.065931	0.070533	0.065417	0.065839	0.064283
18	0.066421	0.061825	0.063939	0.069453	0.061433	0.063406	0.060170
19	0.062250	0.054953	0.060251	0.063083	0.053355	0.061342	0.054225
20	0.053910	0.046096	0.051495	0.052524	0.044873	0.051934	0.045562
21	0.046534	0.038213	0.043204	0.045013	0.038463	0.043514	0.038379
22	0.041595	0.031366	0.039851	0.038970	0.032998	0.039429	0.032036
23	0.033988	0.024658	0.035465	0.030874	0.026645	0.031770	0.025467
24	0.026120	0.018110	0.027073	0.021807	0.019896	0.023623	0.018563

Sunday Hourly Travel Factors by District – Fall.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.014688	0.020082	0.017414	0.024834	0.017938	0.009105	0.010794	0.019606	0.019900
2	0.011083	0.015660	0.013691	0.017615	0.012764	0.006342	0.007466	0.016083	0.012167
3	0.008629	0.013885	0.011570	0.017306	0.010617	0.004261	0.005579	0.013677	0.010784
4	0.007430	0.011319	0.010367	0.011052	0.008450	0.003237	0.004414	0.012626	0.006553
5	0.007549	0.012862	0.010275	0.007925	0.010031	0.004517	0.004499	0.012829	0.006849
6	0.009098	0.013675	0.012217	0.009708	0.013086	0.006971	0.006183	0.014456	0.011152
7	0.012997	0.018716	0.016426	0.014689	0.016318	0.010932	0.010411	0.018975	0.016980
8	0.018916	0.025493	0.023040	0.020913	0.021952	0.016373	0.016740	0.026031	0.020022
9	0.029235	0.035846	0.033303	0.029733	0.029844	0.027128	0.025793	0.036897	0.028743
10	0.040085	0.046706	0.046744	0.044029	0.044910	0.045662	0.038461	0.049421	0.042040
11	0.051508	0.055271	0.058048	0.057186	0.056242	0.061655	0.053068	0.059943	0.056309
12	0.059804	0.061034	0.066591	0.065109	0.063073	0.075048	0.066152	0.065604	0.068710
13	0.071961	0.068915	0.075363	0.071066	0.075459	0.089788	0.076477	0.070620	0.078011
14	0.077032	0.072875	0.077860	0.072512	0.078939	0.091907	0.083040	0.071626	0.079775
15	0.080122	0.073998	0.077811	0.071474	0.077205	0.091878	0.086217	0.073363	0.079655
16	0.082175	0.074165	0.076483	0.070613	0.077399	0.089988	0.087469	0.074531	0.079329
17	0.082038	0.072972	0.074287	0.069004	0.076229	0.085472	0.086591	0.073121	0.077707
18	0.077663	0.068970	0.070021	0.067143	0.072627	0.077922	0.081212	0.067575	0.074318
19	0.068983	0.062154	0.060801	0.063202	0.064453	0.064181	0.070999	0.058412	0.065897
20	0.058217	0.052468	0.051801	0.055312	0.053048	0.049134	0.058526	0.049315	0.053136
21	0.047550	0.042774	0.040854	0.046680	0.043153	0.036340	0.045927	0.039971	0.041842
22	0.037214	0.034710	0.032239	0.039950	0.034121	0.025586	0.034432	0.031455	0.032467
23	0.027140	0.025932	0.024670	0.031334	0.025008	0.017035	0.024108	0.024816	0.022800
24	0.018884	0.019518	0.018124	0.021611	0.017133	0.009537	0.015442	0.019046	0.014854

Sunday Hourly Travel Factors by District – Fall (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.025052	0.028261	0.021340	0.024336	0.020699	0.018358	0.015483	0.022298	0.017039
2	0.018059	0.021282	0.014373	0.017071	0.014941	0.012569	0.011872	0.016685	0.012295
3	0.016493	0.020532	0.012520	0.015912	0.011815	0.009747	0.007941	0.014757	0.009249
4	0.011243	0.014692	0.008165	0.010207	0.009655	0.006801	0.006324	0.010837	0.007675
5	0.009015	0.010057	0.007012	0.009527	0.010668	0.005981	0.006330	0.012027	0.007889
6	0.011656	0.011432	0.010383	0.013661	0.014699	0.007723	0.008904	0.015084	0.010125
7	0.016584	0.017182	0.016827	0.018616	0.019511	0.011717	0.013669	0.021740	0.013531
8	0.022162	0.024167	0.021468	0.022952	0.023480	0.017366	0.019821	0.024932	0.019662
9	0.029573	0.031888	0.029969	0.030702	0.030860	0.027429	0.030403	0.029860	0.029604
10	0.041342	0.041775	0.043061	0.042964	0.040728	0.041672	0.046254	0.038636	0.043171
11	0.053205	0.051312	0.055978	0.054628	0.050232	0.050534	0.057347	0.048371	0.056387
12	0.058825	0.058695	0.063584	0.060017	0.055740	0.058241	0.063149	0.054284	0.065220
13	0.068137	0.066095	0.075823	0.067917	0.065870	0.072857	0.079535	0.065319	0.075892
14	0.074484	0.070671	0.077625	0.072273	0.069779	0.077894	0.081870	0.068771	0.078052
15	0.073814	0.071904	0.076329	0.071667	0.071367	0.077451	0.082394	0.070119	0.078293
16	0.072352	0.071170	0.076205	0.071471	0.071801	0.077543	0.081401	0.071306	0.077885
17	0.071022	0.068743	0.075991	0.070785	0.071795	0.079486	0.079356	0.072272	0.077040
18	0.069331	0.064966	0.072959	0.068995	0.070070	0.077987	0.076431	0.070496	0.073330
19	0.064132	0.061207	0.064601	0.064188	0.066251	0.071954	0.065918	0.069270	0.065405
20	0.054618	0.054161	0.052557	0.055423	0.059795	0.060606	0.054260	0.058870	0.055763
21	0.046109	0.046567	0.042312	0.046507	0.051693	0.049254	0.042647	0.048926	0.045459
22	0.039905	0.039814	0.035548	0.039804	0.042944	0.040335	0.032148	0.041379	0.035631
23	0.031466	0.031427	0.027231	0.030462	0.032487	0.028718	0.022438	0.031457	0.026533
24	0.021421	0.022002	0.018139	0.019915	0.023116	0.017776	0.014103	0.022301	0.018873

Sunday Hourly Travel Factors by District – Fall (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.022361	0.012859	0.021865	0.019296	0.013744	0.019763	0.012361
2	0.014416	0.009627	0.014565	0.013539	0.009882	0.014931	0.008913
3	0.013278	0.007906	0.012878	0.010208	0.007651	0.012435	0.006715
4	0.007804	0.006969	0.008523	0.007045	0.006384	0.008645	0.005373
5	0.005977	0.007717	0.007678	0.006551	0.006062	0.007546	0.006065
6	0.008061	0.010258	0.010454	0.009880	0.007677	0.009383	0.008190
7	0.013172	0.014623	0.015564	0.015477	0.011615	0.016614	0.012348
8	0.020783	0.020352	0.021191	0.023089	0.017774	0.021811	0.017870
9	0.029881	0.029894	0.029576	0.036562	0.026781	0.029796	0.027002
10	0.043060	0.043139	0.042719	0.051630	0.039308	0.045214	0.039555
11	0.054567	0.055195	0.054540	0.057217	0.053503	0.054512	0.053602
12	0.064961	0.065413	0.063958	0.059642	0.065549	0.062934	0.065039
13	0.073396	0.075112	0.072508	0.075276	0.074100	0.077422	0.074859
14	0.077456	0.079923	0.076197	0.078306	0.078550	0.077720	0.080220
15	0.077690	0.081811	0.076226	0.076969	0.080820	0.077155	0.082814
16	0.076988	0.082457	0.074928	0.074298	0.081838	0.075758	0.083563
17	0.074463	0.080887	0.073325	0.074505	0.080797	0.073263	0.082302
18	0.070369	0.075312	0.071119	0.074882	0.076996	0.070926	0.078542
19	0.064381	0.066030	0.065250	0.065454	0.069488	0.066304	0.070603
20	0.055374	0.055339	0.054760	0.055148	0.059890	0.055327	0.059217
21	0.046419	0.044325	0.045657	0.044543	0.048510	0.043340	0.047476
22	0.038571	0.033719	0.037847	0.033810	0.037466	0.035072	0.035665
23	0.028142	0.024241	0.029154	0.022904	0.026929	0.026551	0.025104
24	0.018430	0.016892	0.019517	0.013772	0.018686	0.017577	0.016604

Weekday Hourly Travel Factors by District – Winter.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.013205	0.014945	0.014129	0.011901	0.009156	0.005129	0.010805	0.017698	0.006858
2	0.010765	0.011756	0.012294	0.008373	0.006769	0.003757	0.008634	0.015146	0.004296
3	0.009746	0.009383	0.011771	0.007686	0.006197	0.003829	0.008080	0.013658	0.003805
4	0.009801	0.009582	0.012041	0.006904	0.007847	0.004617	0.009137	0.012921	0.004136
5	0.011850	0.015890	0.014977	0.010144	0.015565	0.009943	0.013472	0.013801	0.009091
6	0.018552	0.026092	0.024530	0.026610	0.033964	0.020100	0.021355	0.017832	0.025740
7	0.032116	0.044086	0.036575	0.054244	0.048326	0.038493	0.036589	0.028181	0.049278
8	0.055055	0.052033	0.050751	0.062611	0.061718	0.061525	0.056098	0.037125	0.069762
9	0.052612	0.048360	0.048919	0.058779	0.054410	0.056358	0.051663	0.044618	0.061576
10	0.053339	0.051387	0.050764	0.055605	0.050770	0.058119	0.052245	0.052506	0.052315
11	0.055793	0.053559	0.054023	0.053343	0.053944	0.062511	0.056213	0.059088	0.051507
12	0.058303	0.055501	0.058339	0.055462	0.058648	0.065565	0.061274	0.062426	0.055586
13	0.061125	0.057566	0.061741	0.057188	0.061565	0.067690	0.064508	0.063603	0.058376
14	0.062904	0.060152	0.062564	0.057939	0.062552	0.068944	0.066138	0.065203	0.058658
15	0.064589	0.065737	0.064438	0.059831	0.063780	0.071058	0.067150	0.066510	0.059923
16	0.067914	0.070192	0.068209	0.062436	0.069944	0.074468	0.069284	0.068434	0.066270
17	0.070967	0.075948	0.070598	0.062370	0.073273	0.079060	0.072956	0.068428	0.076774
18	0.075047	0.073556	0.072058	0.062386	0.071039	0.079528	0.075068	0.065459	0.093232
19	0.059230	0.056129	0.056270	0.058855	0.055848	0.056636	0.055783	0.055890	0.064067
20	0.045314	0.042478	0.044744	0.049284	0.042140	0.037968	0.043261	0.046594	0.042573
21	0.038532	0.035223	0.037449	0.039565	0.033857	0.029409	0.035109	0.040125	0.032101
22	0.031625	0.029195	0.030912	0.034129	0.026490	0.021837	0.028640	0.033903	0.025026
23	0.023976	0.022582	0.023741	0.026184	0.018994	0.014765	0.021456	0.028339	0.017567
24	0.017639	0.018670	0.018162	0.018173	0.013206	0.008690	0.015082	0.022511	0.011485

Weekday Hourly Travel Factors by District – Winter (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.010465	0.009933	0.008525	0.008471	0.013068	0.007336	0.007752	0.008694	0.013657
2	0.007008	0.006645	0.005445	0.005596	0.009435	0.005080	0.005711	0.006394	0.010918
3	0.006484	0.005284	0.004951	0.005213	0.007801	0.004304	0.005537	0.005717	0.009374
4	0.007016	0.005116	0.005096	0.006006	0.008096	0.004574	0.007150	0.006478	0.009931
5	0.012184	0.007232	0.009199	0.013384	0.012367	0.006963	0.011553	0.010697	0.013764
6	0.031152	0.016900	0.024679	0.039464	0.026141	0.015232	0.022225	0.025835	0.022601
7	0.056217	0.036937	0.053283	0.064687	0.039303	0.035386	0.040317	0.053248	0.033617
8	0.066033	0.065452	0.072696	0.068464	0.051622	0.075895	0.068902	0.073489	0.049790
9	0.059401	0.069233	0.063334	0.058488	0.049932	0.063564	0.056025	0.062046	0.050721
10	0.051919	0.058654	0.052035	0.052246	0.049728	0.055520	0.053125	0.052881	0.053414
11	0.049334	0.053931	0.049716	0.050444	0.052465	0.053764	0.055605	0.051400	0.058081
12	0.051216	0.055884	0.052661	0.051979	0.055955	0.054081	0.059214	0.053549	0.061444
13	0.053888	0.058573	0.054840	0.053699	0.058735	0.059013	0.062885	0.054983	0.062822
14	0.055233	0.059946	0.056143	0.054566	0.060145	0.058215	0.064392	0.056437	0.063742
15	0.058830	0.062061	0.059860	0.057639	0.061491	0.062611	0.067718	0.057393	0.065624
16	0.064164	0.067846	0.069045	0.063878	0.065005	0.068613	0.073713	0.061684	0.068836
17	0.069413	0.072773	0.079176	0.069268	0.069468	0.076636	0.075895	0.070599	0.071415
18	0.070574	0.073939	0.083270	0.072014	0.076900	0.087603	0.080209	0.085976	0.071376
19	0.061369	0.062064	0.062682	0.059786	0.064904	0.065334	0.055493	0.065662	0.056861
20	0.047099	0.046861	0.042234	0.045604	0.050041	0.044834	0.039857	0.045447	0.044676
21	0.037167	0.036457	0.031845	0.034292	0.040254	0.035621	0.031917	0.033890	0.036853
22	0.031911	0.029765	0.026186	0.028943	0.032916	0.028239	0.024741	0.026421	0.029573
23	0.024944	0.022739	0.019758	0.021748	0.025422	0.019501	0.018058	0.018582	0.023119
24	0.016978	0.015775	0.013339	0.014120	0.018804	0.012082	0.012004	0.012496	0.017791

Weekday Hourly Travel Factors by District – Winter (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.008146	0.012893	0.009412	0.005942	0.014579	0.009382	0.011262
2	0.004703	0.010131	0.006470	0.004104	0.011889	0.006805	0.008746
3	0.003958	0.008576	0.005699	0.003640	0.010611	0.005823	0.007931
4	0.003622	0.008528	0.006042	0.004968	0.011029	0.005809	0.008929
5	0.005448	0.011362	0.009694	0.009891	0.014004	0.008547	0.013415
6	0.012858	0.020399	0.023033	0.024352	0.022712	0.018345	0.022586
7	0.031928	0.035064	0.053269	0.049595	0.038907	0.041812	0.038919
8	0.066794	0.050459	0.070816	0.082144	0.055305	0.069167	0.056557
9	0.060763	0.049444	0.062017	0.058938	0.050949	0.051871	0.052509
10	0.054829	0.051000	0.050563	0.051581	0.050883	0.047961	0.052619
11	0.055766	0.055451	0.048765	0.051111	0.054988	0.050897	0.057884
12	0.059454	0.059567	0.051417	0.052482	0.059154	0.057388	0.061803
13	0.062732	0.062015	0.053870	0.055779	0.061304	0.062030	0.063729
14	0.063661	0.063700	0.055716	0.057112	0.062591	0.060469	0.064945
15	0.065041	0.064957	0.059592	0.061047	0.064835	0.064232	0.066296
16	0.069471	0.068049	0.068806	0.068929	0.067038	0.072940	0.067944
17	0.075536	0.072096	0.078074	0.080000	0.069371	0.079547	0.071684
18	0.083459	0.073996	0.080336	0.090835	0.069268	0.079663	0.073651
19	0.064206	0.059982	0.062494	0.061833	0.054279	0.058336	0.054932
20	0.046752	0.048481	0.043493	0.041589	0.043372	0.045294	0.042777
21	0.036562	0.040232	0.034259	0.033255	0.037382	0.037205	0.036326
22	0.029592	0.031819	0.028796	0.024878	0.031461	0.029293	0.028399
23	0.020956	0.023886	0.022132	0.016124	0.024951	0.021846	0.020891
24	0.013763	0.017912	0.015235	0.009871	0.019137	0.015338	0.015265

Friday Hourly Travel Factors by District – Winter.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.011919	0.015776	0.013907	0.013346	0.009147	0.004734	0.008998	0.016396	0.007777
2	0.009665	0.012305	0.012098	0.009668	0.006804	0.003327	0.007187	0.014070	0.004729
3	0.008682	0.009815	0.011576	0.009428	0.006324	0.003272	0.006689	0.012793	0.004376
4	0.008621	0.009944	0.011664	0.007807	0.007301	0.003684	0.007187	0.012226	0.004124
5	0.010039	0.015165	0.013625	0.010053	0.012950	0.007111	0.009911	0.012798	0.008197
6	0.015267	0.022776	0.020206	0.023561	0.026086	0.014071	0.014994	0.016269	0.020339
7	0.025977	0.036062	0.031223	0.048302	0.038956	0.027229	0.025786	0.024828	0.038768
8	0.044572	0.045515	0.044246	0.056790	0.052975	0.044895	0.040461	0.032997	0.057254
9	0.044193	0.044959	0.044907	0.053617	0.048661	0.043666	0.039651	0.040723	0.052919
10	0.047299	0.049556	0.048301	0.052160	0.048279	0.048218	0.043314	0.049419	0.047413
11	0.052746	0.052476	0.053050	0.052292	0.053688	0.055469	0.050480	0.057183	0.049387
12	0.057706	0.055318	0.058142	0.055387	0.059341	0.061278	0.058316	0.061506	0.055039
13	0.062090	0.057726	0.061407	0.057195	0.062913	0.066106	0.064447	0.062779	0.058871
14	0.065556	0.061588	0.063094	0.057964	0.064320	0.070275	0.069440	0.064967	0.060393
15	0.068382	0.067150	0.065090	0.059047	0.065915	0.074959	0.072743	0.067305	0.063328
16	0.071876	0.071918	0.068730	0.059687	0.070142	0.079115	0.075194	0.069228	0.071553
17	0.074264	0.073106	0.070260	0.058936	0.069856	0.084577	0.077541	0.068967	0.078336
18	0.075560	0.069911	0.069744	0.058930	0.067488	0.083780	0.078665	0.066872	0.082787
19	0.065271	0.059573	0.059814	0.057684	0.060090	0.069485	0.067204	0.059738	0.065875
20	0.052286	0.046827	0.049958	0.052339	0.049795	0.050884	0.055964	0.051459	0.049850
21	0.043329	0.038255	0.042430	0.044318	0.040191	0.038682	0.045634	0.044245	0.039061
22	0.035922	0.033339	0.036203	0.040175	0.033817	0.029767	0.036207	0.037657	0.033420
23	0.028408	0.028162	0.028712	0.034723	0.026266	0.021980	0.026586	0.031276	0.027150
24	0.020369	0.022779	0.021615	0.026591	0.018696	0.013437	0.017399	0.024301	0.019053

Friday Hourly Travel Factors by District – Winter (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.011190	0.010992	0.009070	0.009537	0.013044	0.007885	0.007852	0.008942	0.012926
2	0.007676	0.007648	0.005916	0.006410	0.009827	0.005672	0.005610	0.006747	0.010268
3	0.007220	0.006722	0.005512	0.006184	0.008446	0.004882	0.005378	0.006237	0.008730
4	0.007140	0.005969	0.005102	0.006282	0.008653	0.004630	0.006457	0.006583	0.009050
5	0.011272	0.007368	0.008347	0.012149	0.012243	0.006541	0.009697	0.010454	0.012047
6	0.027296	0.015459	0.020885	0.033470	0.024052	0.013494	0.017876	0.023767	0.018791
7	0.049407	0.032881	0.044855	0.057021	0.035715	0.030080	0.032633	0.047959	0.027940
8	0.058879	0.058845	0.062470	0.062623	0.047120	0.062527	0.055095	0.066125	0.041400
9	0.053743	0.062799	0.056025	0.054484	0.046633	0.054183	0.047855	0.057142	0.043824
10	0.048593	0.054989	0.048676	0.049981	0.047410	0.049716	0.047676	0.050283	0.047867
11	0.048498	0.052438	0.049236	0.050441	0.050953	0.050699	0.053002	0.050619	0.054069
12	0.051659	0.055672	0.053668	0.053181	0.054846	0.053795	0.058877	0.054392	0.058680
13	0.054901	0.059082	0.056719	0.055340	0.058204	0.057919	0.063867	0.056813	0.061398
14	0.056779	0.060238	0.059164	0.056307	0.059965	0.059555	0.066611	0.057811	0.063829
15	0.059924	0.062187	0.063738	0.059323	0.061591	0.062866	0.069861	0.059582	0.067027
16	0.063997	0.066908	0.071758	0.063635	0.065277	0.070176	0.074026	0.064025	0.070464
17	0.066568	0.069415	0.076878	0.065794	0.069440	0.076204	0.075888	0.070687	0.073558
18	0.066367	0.068579	0.076686	0.066514	0.074438	0.083595	0.078111	0.079121	0.073828
19	0.060868	0.060827	0.063017	0.058566	0.065560	0.070333	0.062895	0.064997	0.064361
20	0.051901	0.049410	0.047636	0.049335	0.053689	0.051742	0.048298	0.048642	0.053273
21	0.042257	0.040292	0.036072	0.038707	0.043945	0.040059	0.038602	0.036566	0.043974
22	0.037046	0.035852	0.031444	0.033703	0.036260	0.034807	0.031796	0.030432	0.035056
23	0.032326	0.031171	0.027249	0.029186	0.029610	0.029114	0.024918	0.024481	0.027255
24	0.024494	0.024258	0.019878	0.021828	0.023079	0.019525	0.017117	0.017594	0.020385

Friday Hourly Travel Factors by District – Winter (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.008725	0.012636	0.009682	0.006383	0.012825	0.009789	0.009662
2	0.005180	0.009988	0.006738	0.004716	0.010402	0.007361	0.007700
3	0.004708	0.008334	0.006090	0.004063	0.009413	0.006343	0.007130
4	0.003799	0.008056	0.006091	0.004849	0.009721	0.005888	0.007708
5	0.005180	0.010019	0.009001	0.008697	0.011467	0.008047	0.010642
6	0.011372	0.017071	0.019580	0.020931	0.017218	0.016063	0.016811
7	0.027272	0.028827	0.044377	0.042214	0.028635	0.035382	0.029091
8	0.057478	0.042387	0.060792	0.070738	0.041215	0.058714	0.043159
9	0.053778	0.043307	0.053307	0.052780	0.040514	0.046696	0.042651
10	0.050890	0.047170	0.046749	0.048416	0.043560	0.044989	0.045501
11	0.053437	0.053885	0.047671	0.050111	0.050073	0.049657	0.053096
12	0.058073	0.059786	0.051952	0.052822	0.057075	0.057277	0.059469
13	0.061759	0.062884	0.055632	0.056256	0.061388	0.061919	0.063604
14	0.063240	0.065735	0.057810	0.058377	0.065194	0.061562	0.067078
15	0.065522	0.068064	0.062271	0.062519	0.068776	0.065553	0.070378
16	0.070371	0.070934	0.070092	0.070164	0.070850	0.073066	0.072219
17	0.074395	0.073334	0.074856	0.078811	0.072136	0.076429	0.074704
18	0.078102	0.072254	0.074843	0.082878	0.071701	0.075154	0.076002
19	0.066405	0.063280	0.064913	0.065208	0.065260	0.062470	0.065877
20	0.052152	0.053249	0.050688	0.047823	0.055834	0.050261	0.055937
21	0.041667	0.044362	0.039905	0.037211	0.047008	0.041693	0.045195
22	0.035700	0.035901	0.035039	0.031338	0.038862	0.036292	0.034098
23	0.029232	0.028106	0.030077	0.025182	0.029636	0.028484	0.025001
24	0.021563	0.020430	0.021841	0.017513	0.021237	0.020910	0.017286

Saturday Hourly Travel Factors by District – Winter.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.018080	0.020094	0.019181	0.020781	0.016262	0.010138	0.014020	0.019514	0.015361
2	0.013205	0.015101	0.015441	0.014848	0.011476	0.006045	0.009620	0.015903	0.009549
3	0.010735	0.011835	0.013770	0.014295	0.009682	0.004497	0.007741	0.013853	0.008070
4	0.009839	0.010591	0.012917	0.009893	0.008713	0.004173	0.006932	0.013043	0.005772
5	0.010505	0.013905	0.013358	0.008782	0.012124	0.006854	0.008371	0.013491	0.007722
6	0.014178	0.016683	0.017213	0.013647	0.018825	0.011792	0.012710	0.016179	0.015857
7	0.021741	0.022890	0.023831	0.023936	0.024402	0.020247	0.022648	0.022909	0.024687
8	0.033260	0.031520	0.033016	0.033344	0.032754	0.032740	0.035583	0.031262	0.029493
9	0.045697	0.041538	0.043538	0.043268	0.042278	0.046605	0.048185	0.043176	0.038944
10	0.057016	0.051107	0.053608	0.052206	0.051617	0.061896	0.060327	0.055186	0.048069
11	0.065743	0.058664	0.061789	0.058244	0.060408	0.073747	0.070420	0.063451	0.056822
12	0.069898	0.063880	0.066167	0.062298	0.065830	0.079291	0.074595	0.066828	0.064128
13	0.070429	0.065522	0.067665	0.064205	0.068616	0.079959	0.074415	0.066484	0.068267
14	0.069813	0.066846	0.067893	0.064390	0.068778	0.077208	0.073130	0.065891	0.068857
15	0.068460	0.067783	0.067508	0.063989	0.067922	0.075435	0.071498	0.066464	0.069695
16	0.067794	0.068548	0.066705	0.063730	0.068769	0.073485	0.069937	0.066566	0.071659
17	0.066672	0.068203	0.065217	0.062582	0.068030	0.070466	0.067053	0.065291	0.071644
18	0.062934	0.064596	0.061854	0.061226	0.065379	0.065205	0.062279	0.061815	0.070566
19	0.056736	0.058211	0.056110	0.058263	0.059812	0.055624	0.053957	0.055834	0.065301
20	0.047395	0.049500	0.048574	0.051622	0.049980	0.044365	0.045202	0.048318	0.053796
21	0.039866	0.042300	0.040615	0.044655	0.041947	0.035688	0.037701	0.041227	0.043768
22	0.033548	0.037265	0.034504	0.041851	0.036223	0.028921	0.031557	0.034824	0.037683
23	0.026577	0.030259	0.028075	0.037583	0.028649	0.021689	0.024673	0.028992	0.030823
24	0.019876	0.023158	0.021451	0.030361	0.021524	0.013928	0.017448	0.023495	0.023469

Saturday Hourly Travel Factors by District – Winter (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.019625	0.020948	0.017298	0.017862	0.019445	0.014942	0.014036	0.016931	0.017124
2	0.013333	0.015174	0.011015	0.012109	0.014369	0.009910	0.009531	0.012596	0.012408
3	0.012140	0.014472	0.009511	0.011442	0.011893	0.007692	0.007452	0.011352	0.009659
4	0.009072	0.010936	0.006817	0.008351	0.011007	0.005994	0.007035	0.009528	0.008574
5	0.009529	0.008713	0.007704	0.010449	0.013541	0.006277	0.008579	0.011852	0.010127
6	0.016217	0.011871	0.013631	0.019862	0.021827	0.009964	0.014054	0.019326	0.014511
7	0.026524	0.020189	0.024479	0.029619	0.028953	0.017980	0.022438	0.032151	0.020525
8	0.034760	0.031537	0.033159	0.035735	0.035398	0.028671	0.034091	0.037971	0.030950
9	0.042640	0.042139	0.042781	0.043753	0.044729	0.040057	0.045477	0.042275	0.043013
10	0.049705	0.049093	0.051343	0.050177	0.053145	0.050457	0.056287	0.047523	0.055118
11	0.055657	0.053903	0.059104	0.055406	0.059382	0.059375	0.065532	0.053126	0.065618
12	0.060540	0.059433	0.064833	0.059769	0.063694	0.066174	0.071174	0.058605	0.070546
13	0.064382	0.064504	0.068079	0.063122	0.066328	0.069822	0.072943	0.063888	0.070437
14	0.065424	0.066649	0.068873	0.063539	0.066804	0.070646	0.071775	0.064082	0.069293
15	0.065691	0.066720	0.069064	0.064242	0.066272	0.069863	0.070372	0.064741	0.068257
16	0.065527	0.066207	0.069557	0.064814	0.065655	0.070821	0.069881	0.066326	0.068022
17	0.064598	0.064787	0.068577	0.064150	0.063510	0.071915	0.068030	0.066348	0.067331
18	0.063273	0.062986	0.066454	0.063646	0.060743	0.070325	0.064988	0.065555	0.064665
19	0.059550	0.060393	0.060745	0.059979	0.056413	0.064488	0.057712	0.063819	0.058087
20	0.051684	0.053553	0.049839	0.052407	0.049229	0.054058	0.047849	0.053744	0.049402
21	0.043997	0.045408	0.040811	0.044077	0.041584	0.045338	0.040085	0.044148	0.042014
22	0.040334	0.041940	0.037458	0.040827	0.035005	0.040298	0.034030	0.038685	0.035199
23	0.036486	0.037940	0.033593	0.036371	0.028626	0.032589	0.027257	0.031670	0.028081
24	0.029313	0.030504	0.025275	0.028292	0.022448	0.022346	0.019392	0.023760	0.021038

Saturday Hourly Travel Factors by District – Winter (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.016122	0.018309	0.018091	0.013865	0.018066	0.017837	0.015603
2	0.009933	0.013452	0.012063	0.009056	0.013299	0.012986	0.011182
3	0.009093	0.010790	0.010637	0.007294	0.010763	0.010678	0.009283
4	0.005870	0.009653	0.008100	0.005874	0.009730	0.008094	0.008718
5	0.005644	0.010944	0.008782	0.007175	0.010442	0.008537	0.010847
6	0.009390	0.015914	0.014053	0.013235	0.014314	0.012696	0.016014
7	0.018029	0.023782	0.023511	0.022538	0.022822	0.022389	0.025355
8	0.030241	0.033942	0.032952	0.033422	0.034563	0.031603	0.036216
9	0.041675	0.045659	0.042656	0.043227	0.046844	0.040876	0.048662
10	0.049881	0.057436	0.050970	0.052468	0.058288	0.051645	0.060395
11	0.057665	0.066726	0.057717	0.059781	0.067935	0.060639	0.069903
12	0.065062	0.071508	0.063577	0.064864	0.072175	0.067297	0.073194
13	0.070038	0.071915	0.067081	0.067780	0.071433	0.069854	0.072302
14	0.070926	0.070885	0.067638	0.068839	0.070104	0.069060	0.070314
15	0.070863	0.069997	0.067702	0.069030	0.068926	0.068416	0.068192
16	0.071523	0.068511	0.067560	0.070195	0.067477	0.067062	0.066448
17	0.069162	0.066250	0.066099	0.070602	0.065368	0.065939	0.064441
18	0.066436	0.061783	0.064091	0.069638	0.061071	0.063593	0.060157
19	0.062178	0.054845	0.060259	0.063281	0.053074	0.061406	0.054018
20	0.053917	0.046112	0.051508	0.052700	0.044813	0.051952	0.045454
21	0.046216	0.038128	0.043257	0.044556	0.038490	0.043442	0.038256
22	0.040898	0.031119	0.039659	0.038260	0.033079	0.039013	0.031702
23	0.033431	0.024430	0.035195	0.030524	0.026777	0.031544	0.025078
24	0.025807	0.017913	0.026843	0.021795	0.020147	0.023442	0.018265

Sunday Hourly Travel Factors by District – Winter.

Hour	Abilene	Amarillo	Atlanta	Austin	Beaumont	Brownwood	Bryan	Childress	Corpus Christi
1	0.014460	0.020240	0.017313	0.024906	0.017725	0.009006	0.011104	0.019454	0.020152
2	0.010883	0.015854	0.013670	0.017609	0.012695	0.006273	0.007534	0.016026	0.012391
3	0.008482	0.013837	0.011459	0.017152	0.010478	0.004184	0.005588	0.013638	0.010903
4	0.007304	0.011341	0.010250	0.011097	0.008418	0.003232	0.004428	0.012567	0.006723
5	0.007431	0.013020	0.010189	0.007956	0.010073	0.004517	0.004531	0.012804	0.006945
6	0.009023	0.013775	0.012192	0.009700	0.013238	0.007056	0.006216	0.014516	0.011461
7	0.012913	0.018700	0.016303	0.014708	0.016393	0.010870	0.010405	0.018934	0.017541
8	0.018761	0.025347	0.022929	0.020983	0.021967	0.016167	0.016723	0.025930	0.020511
9	0.029001	0.035631	0.033199	0.029878	0.029884	0.026882	0.025911	0.036837	0.029107
10	0.039933	0.046595	0.046667	0.044258	0.045035	0.045771	0.038734	0.049355	0.042329
11	0.051425	0.055054	0.058129	0.057329	0.056536	0.062158	0.053523	0.059967	0.056304
12	0.059993	0.060923	0.066767	0.065251	0.063351	0.075925	0.066567	0.065741	0.068483
13	0.071915	0.068795	0.075516	0.070926	0.075487	0.090518	0.076512	0.070718	0.077488
14	0.076989	0.072700	0.077985	0.072360	0.078835	0.092312	0.082755	0.071846	0.079210
15	0.079983	0.073925	0.077934	0.071323	0.077234	0.091971	0.085844	0.073559	0.079024
16	0.082134	0.074104	0.076660	0.070568	0.077390	0.089854	0.087137	0.074675	0.078945
17	0.082037	0.073070	0.074536	0.068921	0.076390	0.085356	0.086319	0.073207	0.077449
18	0.077762	0.069199	0.070130	0.067057	0.072876	0.077685	0.081154	0.067613	0.074204
19	0.069396	0.062594	0.060978	0.063247	0.064783	0.063996	0.071121	0.058446	0.066101
20	0.058817	0.052686	0.051916	0.055696	0.053242	0.049197	0.058790	0.049218	0.053606
21	0.047958	0.043004	0.040797	0.046773	0.042905	0.036120	0.046001	0.039912	0.041704
22	0.037373	0.034588	0.032009	0.039533	0.033574	0.025084	0.034199	0.031393	0.032030
23	0.027167	0.025714	0.024489	0.031104	0.024618	0.016542	0.023732	0.024696	0.022570
24	0.018859	0.019305	0.017982	0.021665	0.016875	0.009326	0.015173	0.018948	0.014818

Sunday Hourly Travel Factors by District – Winter (Continued).

Hour	Dallas	El Paso	Fort Worth	Houston	Laredo	Lubbock	Lufkin	Odessa	Paris
1	0.025083	0.028726	0.021460	0.024302	0.020372	0.018362	0.015339	0.022053	0.016764
2	0.018098	0.021644	0.014381	0.017078	0.014776	0.012455	0.011773	0.016465	0.012191
3	0.016429	0.020413	0.012422	0.015863	0.011622	0.009612	0.007976	0.014665	0.009139
4	0.011222	0.014912	0.008158	0.010266	0.009557	0.006785	0.006300	0.010883	0.007594
5	0.009004	0.010114	0.007006	0.009588	0.010554	0.006015	0.006368	0.012050	0.007808
6	0.011631	0.011346	0.010316	0.013773	0.014732	0.007769	0.009072	0.015176	0.010111
7	0.016497	0.016939	0.016667	0.018755	0.019648	0.011773	0.013705	0.021793	0.013458
8	0.022167	0.023982	0.021412	0.023116	0.023379	0.017359	0.019847	0.024952	0.019476
9	0.029783	0.031772	0.030022	0.030994	0.030851	0.027465	0.030462	0.029858	0.029426
10	0.041724	0.041698	0.043257	0.043332	0.040857	0.041786	0.046423	0.038766	0.043126
11	0.053684	0.051318	0.056312	0.055076	0.050592	0.050675	0.057649	0.048426	0.056627
12	0.059338	0.058673	0.064014	0.060288	0.056187	0.058578	0.063746	0.054484	0.065450
13	0.068154	0.065787	0.075767	0.067603	0.066190	0.072775	0.079461	0.065317	0.075894
14	0.074264	0.070359	0.077600	0.071694	0.070026	0.077753	0.081779	0.068783	0.078188
15	0.073673	0.071889	0.076291	0.071193	0.071499	0.077281	0.082270	0.070043	0.078433
16	0.072375	0.071233	0.076297	0.071467	0.072065	0.077617	0.081350	0.071393	0.078093
17	0.070974	0.068758	0.076051	0.071040	0.072105	0.079584	0.079389	0.072314	0.077381
18	0.069247	0.065225	0.072920	0.069265	0.070446	0.078125	0.076541	0.070583	0.073733
19	0.064199	0.061776	0.064670	0.064529	0.066537	0.072282	0.066258	0.069477	0.065816
20	0.055090	0.054799	0.053021	0.055902	0.059965	0.061112	0.054559	0.059404	0.055842
21	0.046062	0.046656	0.042394	0.046311	0.051355	0.049450	0.042389	0.049138	0.045419
22	0.039243	0.039248	0.034968	0.039018	0.042108	0.039797	0.031516	0.040914	0.035310
23	0.030853	0.030965	0.026615	0.029825	0.031876	0.028072	0.021956	0.031022	0.026135
24	0.021206	0.021767	0.017980	0.019722	0.022699	0.017515	0.013871	0.022042	0.018585

Sunday Hourly Travel Factors by District – Winter (Continued).

Hour	Pharr	San Angelo	San Antonio	Tyler	Waco	Wichita Falls	Yoakum
1	0.022434	0.012582	0.021807	0.019342	0.013817	0.019513	0.012155
2	0.014503	0.009490	0.014576	0.013698	0.009895	0.014776	0.008810
3	0.013282	0.007775	0.012839	0.010265	0.007607	0.012296	0.006625
4	0.007859	0.006872	0.008565	0.007095	0.006347	0.008576	0.005302
5	0.006025	0.007657	0.007748	0.006737	0.006039	0.007499	0.006030
6	0.008236	0.010266	0.010571	0.009996	0.007671	0.009408	0.008211
7	0.013415	0.014516	0.015678	0.015407	0.011639	0.016564	0.012341
8	0.020867	0.020215	0.021295	0.023011	0.017779	0.021786	0.017875
9	0.030016	0.029768	0.029775	0.036783	0.026986	0.029873	0.027143
10	0.043168	0.043074	0.042960	0.052041	0.039712	0.045274	0.039821
11	0.054666	0.055328	0.054760	0.057794	0.053997	0.054761	0.053948
12	0.065169	0.065754	0.064149	0.059987	0.065929	0.063422	0.065231
13	0.073420	0.075209	0.072437	0.075160	0.074130	0.077534	0.074853
14	0.077423	0.080006	0.076050	0.078266	0.078286	0.077861	0.080103
15	0.077625	0.081889	0.076112	0.076937	0.080422	0.077203	0.082733
16	0.077056	0.082604	0.074953	0.074295	0.081414	0.075994	0.083363
17	0.074447	0.080959	0.073290	0.074426	0.080368	0.073483	0.082422
18	0.070499	0.075382	0.071008	0.074806	0.076586	0.070954	0.078757
19	0.064717	0.066221	0.065371	0.065738	0.069141	0.066510	0.070875
20	0.055811	0.055533	0.055045	0.055665	0.059862	0.055700	0.059349
21	0.046100	0.044392	0.045541	0.043828	0.048586	0.043115	0.047478
22	0.037645	0.033585	0.037329	0.032717	0.037768	0.034405	0.035423
23	0.027470	0.024119	0.028731	0.022359	0.027170	0.026132	0.024729
24	0.018149	0.016804	0.019408	0.013647	0.018849	0.017360	0.016420

APPENDIX H: SOURCE TYPE AGE AND FUEL ENGINE FRACTIONS INPUTS TO MOVES

Abilene TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.049678	0.062171	0.055737	0.055737	0.059425	0.059425	0.059425	0.061584	0.120326	0.108951	0.061584	0.053033	0.068825
1	0.048006	0.077201	0.068207	0.068207	0.056278	0.056049	0.056126	0.058783	0.117067	0.103650	0.059749	0.057612	0.059543
2	0.040841	0.074608	0.052901	0.052901	0.077657	0.089224	0.082493	0.031055	0.106905	0.111268	0.016870	0.033384	0.047903
3	0.051827	0.070837	0.047367	0.047367	0.074548	0.088197	0.075226	0.032240	0.088363	0.085755	0.017304	0.056085	0.060675
4	0.054693	0.076798	0.051011	0.051011	0.066205	0.075412	0.073770	0.039198	0.116137	0.102451	0.017642	0.065815	0.071965
5	0.055171	0.072598	0.056026	0.056026	0.062205	0.076463	0.069847	0.034777	0.062607	0.056032	0.016433	0.055895	0.057263
6	0.049678	0.064988	0.045629	0.045629	0.039216	0.057216	0.038513	0.030450	0.050504	0.050813	0.019981	0.077642	0.058116
7	0.046334	0.056220	0.040552	0.040552	0.034210	0.062000	0.038935	0.030412	0.071839	0.071436	0.010366	0.072682	0.060032
8	0.035348	0.045725	0.039943	0.039943	0.030011	0.048785	0.039295	0.022374	0.055004	0.048826	0.019524	0.024227	0.030871
9	0.026272	0.038382	0.030079	0.030079	0.032064	0.062349	0.035567	0.016303	0.013421	0.017043	0.003285	0.015643	0.019997
10	0.054454	0.031142	0.027121	0.027121	0.035851	0.059873	0.044399	0.029673	0.015593	0.016190	0.005810	0.022510	0.027428
11	0.059231	0.043818	0.045248	0.045248	0.035632	0.053319	0.044195	0.024857	0.035066	0.041381	0.021897	0.024037	0.024805
12	0.065202	0.043878	0.045340	0.045340	0.036334	0.036523	0.037978	0.071052	0.020636	0.027061	0.037079	0.071156	0.078722
13	0.065202	0.037171	0.042550	0.042550	0.044184	0.030999	0.035563	0.057430	0.024438	0.030204	0.049771	0.045593	0.050902
14	0.048245	0.035831	0.037930	0.037930	0.026523	0.022832	0.030633	0.048417	0.020791	0.025697	0.038754	0.042541	0.043087
15	0.033914	0.030635	0.039973	0.039973	0.025731	0.023757	0.033332	0.040846	0.015749	0.019228	0.060197	0.024037	0.024421
16	0.041796	0.026418	0.038235	0.038235	0.032993	0.023980	0.024239	0.044622	0.012258	0.015792	0.045168	0.019840	0.021618
17	0.037019	0.023120	0.035857	0.035857	0.030141	0.022019	0.028259	0.039990	0.009930	0.013489	0.042355	0.015452	0.016864
18	0.026033	0.018396	0.035765	0.035765	0.033912	0.019753	0.031018	0.042040	0.008999	0.013534	0.027663	0.026326	0.023545
19	0.020779	0.015760	0.028387	0.028387	0.039077	0.013221	0.026772	0.050535	0.007448	0.009828	0.051312	0.037581	0.032228
20	0.016480	0.011697	0.022319	0.022319	0.022574	0.008240	0.013980	0.040722	0.005431	0.009369	0.078902	0.028615	0.024374
21	0.010031	0.007661	0.017288	0.017288	0.017918	0.004294	0.012859	0.025282	0.004112	0.004506	0.035433	0.023274	0.018389
22	0.010509	0.006304	0.018050	0.018050	0.015873	0.001857	0.010981	0.016347	0.004577	0.004678	0.058982	0.015071	0.012671
23	0.009553	0.004792	0.012715	0.012715	0.011968	0.002405	0.009202	0.020428	0.002172	0.002323	0.030700	0.017360	0.012375
24	0.005254	0.004268	0.011419	0.011419	0.011735	0.000420	0.009873	0.022635	0.001552	0.002388	0.033527	0.015643	0.011774
25	0.004060	0.002903	0.011022	0.011022	0.008795	0.000749	0.004891	0.013931	0.001319	0.001414	0.035078	0.009729	0.008079
26	0.004538	0.002473	0.007729	0.007729	0.007540	0.000103	0.005571	0.010624	0.000931	0.001073	0.020622	0.006868	0.006273
27	0.004538	0.001709	0.005244	0.005244	0.004518	0.000147	0.004886	0.008302	0.000621	0.000713	0.019902	0.004769	0.003870
28	0.001194	0.001512	0.004070	0.004070	0.003881	0.000115	0.006055	0.010307	0.000621	0.000730	0.013178	0.003434	0.003640
29	0.000239	0.001125	0.003613	0.003613	0.005366	0.000132	0.006055	0.011368	0.000776	0.000653	0.019856	0.005723	0.003493
30	0.023883	0.009859	0.022670	0.022670	0.017635	0.000143	0.010061	0.013416	0.004810	0.003525	0.031075	0.028424	0.016255

Amarillo TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.038491	0.041308	0.034321	0.034321	0.059425	0.059425	0.059425	0.061584	0.084202	0.108951	0.061584	0.047954	0.068825
1	0.039551	0.057340	0.044990	0.044990	0.056278	0.056049	0.056126	0.058783	0.082612	0.103650	0.059749	0.028524	0.059543
2	0.035915	0.059374	0.042222	0.042222	0.077657	0.089224	0.082493	0.031055	0.097980	0.111268	0.016870	0.029971	0.047903
3	0.044401	0.061232	0.039335	0.039335	0.074548	0.088197	0.075226	0.032240	0.089207	0.085755	0.017304	0.050331	0.060675
4	0.051371	0.070307	0.047943	0.047943	0.066205	0.075412	0.073770	0.039198	0.111288	0.102451	0.017642	0.056532	0.071965
5	0.046825	0.060137	0.051904	0.051904	0.062205	0.076463	0.069847	0.034777	0.061002	0.056032	0.016433	0.048574	0.057263
6	0.043795	0.063145	0.045175	0.045175	0.039216	0.057216	0.038513	0.030450	0.057410	0.050813	0.019981	0.053431	0.058116
7	0.053038	0.055537	0.042201	0.042201	0.034210	0.062000	0.038935	0.030412	0.081788	0.071436	0.010366	0.061079	0.060032
8	0.035157	0.049374	0.044762	0.044762	0.030011	0.048785	0.039295	0.022374	0.064417	0.048826	0.019524	0.031418	0.030871
9	0.027731	0.042348	0.033116	0.033116	0.032064	0.062349	0.035567	0.016303	0.020668	0.017043	0.003285	0.018809	0.019997
10	0.057584	0.034132	0.028394	0.028394	0.035851	0.059873	0.044399	0.029673	0.018666	0.016190	0.005810	0.023150	0.027428
11	0.061373	0.054417	0.053359	0.053359	0.035632	0.053319	0.044195	0.024857	0.046282	0.041381	0.021897	0.027594	0.024805
12	0.067586	0.056350	0.051503	0.051503	0.036334	0.036523	0.037978	0.071052	0.027910	0.027061	0.037079	0.078131	0.078722
13	0.054402	0.045397	0.045240	0.045240	0.044184	0.030999	0.035563	0.057430	0.026909	0.030204	0.049771	0.054775	0.050902
14	0.052432	0.043121	0.043492	0.043492	0.026523	0.022832	0.030633	0.048417	0.026026	0.025697	0.038754	0.051881	0.043087
15	0.039551	0.037441	0.045435	0.045435	0.025731	0.023757	0.033332	0.040846	0.018430	0.019228	0.060197	0.029454	0.024421
16	0.047280	0.032394	0.040030	0.040030	0.032993	0.023980	0.024239	0.044622	0.014191	0.015792	0.045168	0.028421	0.021618
17	0.038188	0.027849	0.039683	0.039683	0.030141	0.022019	0.028259	0.039990	0.010481	0.013489	0.042355	0.020050	0.016864
18	0.029550	0.022329	0.038662	0.038662	0.033912	0.019753	0.031018	0.042040	0.013072	0.013534	0.027663	0.029351	0.023545
19	0.027731	0.019281	0.030837	0.030837	0.039077	0.013221	0.026772	0.050535	0.007537	0.009828	0.051312	0.038136	0.032228
20	0.020912	0.015649	0.026256	0.026256	0.022574	0.008240	0.013980	0.040722	0.008773	0.009369	0.078902	0.028834	0.024374
21	0.014396	0.010672	0.020514	0.020514	0.017918	0.004294	0.012859	0.025282	0.004298	0.004506	0.035433	0.023977	0.018389
22	0.011820	0.008689	0.021361	0.021361	0.015873	0.001857	0.010981	0.016347	0.003710	0.004678	0.058982	0.017466	0.012671
23	0.008486	0.005916	0.014501	0.014501	0.011968	0.002405	0.009202	0.020428	0.003003	0.002323	0.030700	0.016432	0.012375
24	0.007577	0.005444	0.013611	0.013611	0.011735	0.000420	0.009873	0.022635	0.002767	0.002388	0.033527	0.016019	0.011774
25	0.007577	0.003857	0.013188	0.013188	0.008795	0.000749	0.004891	0.013931	0.001472	0.001414	0.035078	0.013745	0.008079
26	0.002879	0.002888	0.008694	0.008694	0.007540	0.000103	0.005571	0.010624	0.001825	0.001073	0.020622	0.011885	0.006273
27	0.003637	0.001969	0.005850	0.005850	0.004518	0.000147	0.004886	0.008302	0.000942	0.000713	0.019902	0.006304	0.003870
28	0.002273	0.001637	0.004678	0.004678	0.003881	0.000115	0.006055	0.010307	0.001237	0.000730	0.013178	0.006408	0.003640
29	0.003031	0.001431	0.004135	0.004135	0.005366	0.000132	0.006055	0.011368	0.001413	0.000653	0.019856	0.005374	0.003493
30	0.025458	0.009035	0.024606	0.024606	0.017635	0.000143	0.010061	0.013416	0.010481	0.003525	0.031075	0.045990	0.016255

Atlanta TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.047883	0.049894	0.038940	0.038940	0.059425	0.059425	0.059425	0.061584	0.089159	0.108951	0.061584	0.111730	0.068825
1	0.047267	0.067896	0.050418	0.050418	0.056278	0.056049	0.056126	0.058783	0.091605	0.103650	0.059749	0.074981	0.059543
2	0.051582	0.069782	0.044095	0.044095	0.077657	0.089224	0.082493	0.031055	0.094209	0.111268	0.016870	0.043244	0.047903
3	0.058570	0.066801	0.037964	0.037964	0.074548	0.088197	0.075226	0.032240	0.080401	0.085755	0.017304	0.055865	0.060675
4	0.048705	0.073021	0.042685	0.042685	0.066205	0.075412	0.073770	0.039198	0.101468	0.102451	0.017642	0.080735	0.071965
5	0.047061	0.064163	0.047021	0.047021	0.062205	0.076463	0.069847	0.034777	0.053416	0.056032	0.016433	0.042131	0.057263
6	0.036786	0.061625	0.039686	0.039686	0.039216	0.057216	0.038513	0.030450	0.049629	0.050813	0.019981	0.046028	0.058116
7	0.047678	0.054380	0.037073	0.037073	0.034210	0.062000	0.038935	0.030412	0.071485	0.071436	0.010366	0.048812	0.060032
8	0.029799	0.048666	0.038374	0.038374	0.030011	0.048785	0.039295	0.022374	0.053338	0.048826	0.019524	0.019117	0.030871
9	0.025688	0.041212	0.032062	0.032062	0.032064	0.062349	0.035567	0.016303	0.017201	0.017043	0.003285	0.012806	0.019997
10	0.051993	0.032619	0.026666	0.026666	0.035851	0.059873	0.044399	0.029673	0.016569	0.016190	0.005810	0.021715	0.027428
11	0.058981	0.049660	0.046648	0.046648	0.035632	0.053319	0.044195	0.024857	0.045211	0.041381	0.021897	0.020230	0.024805
12	0.075832	0.050248	0.050406	0.050406	0.036334	0.036523	0.037978	0.071052	0.034480	0.027061	0.037079	0.075538	0.078722
13	0.064529	0.040162	0.044853	0.044853	0.044184	0.030999	0.035563	0.057430	0.037163	0.030204	0.049771	0.047699	0.050902
14	0.055487	0.039997	0.043541	0.043541	0.026523	0.022832	0.030633	0.048417	0.029509	0.025697	0.038754	0.036748	0.043087
15	0.045212	0.035308	0.048178	0.048178	0.025731	0.023757	0.033332	0.040846	0.028168	0.019228	0.060197	0.021715	0.024421
16	0.044595	0.030404	0.043119	0.043119	0.032993	0.023980	0.024239	0.044622	0.021225	0.015792	0.045168	0.025241	0.021618
17	0.031854	0.025779	0.041650	0.041650	0.030141	0.022019	0.028259	0.039990	0.015228	0.013489	0.042355	0.020416	0.016864
18	0.024455	0.020843	0.043613	0.043613	0.033912	0.019753	0.031018	0.042040	0.016254	0.013534	0.027663	0.020601	0.023545
19	0.022400	0.018217	0.033399	0.033399	0.039077	0.013221	0.026772	0.050535	0.012624	0.009828	0.051312	0.030809	0.032228
20	0.014180	0.013832	0.027473	0.027473	0.022574	0.008240	0.013980	0.040722	0.011046	0.009369	0.078902	0.022086	0.024374
21	0.012125	0.009365	0.021788	0.021788	0.017918	0.004294	0.012859	0.025282	0.006470	0.004506	0.035433	0.020416	0.018389
22	0.009042	0.007631	0.022969	0.022969	0.015873	0.001857	0.010981	0.016347	0.006628	0.004678	0.058982	0.014291	0.012671
23	0.009042	0.005575	0.017392	0.017392	0.011968	0.002405	0.009202	0.020428	0.002525	0.002323	0.030700	0.015219	0.012375
24	0.005549	0.005005	0.016669	0.016669	0.011735	0.000420	0.009873	0.022635	0.003787	0.002388	0.033527	0.012064	0.011774
25	0.003905	0.003525	0.013815	0.013815	0.008795	0.000749	0.004891	0.013931	0.001736	0.001414	0.035078	0.008352	0.008079
26	0.003905	0.002455	0.009407	0.009407	0.007540	0.000103	0.005571	0.010624	0.001973	0.001073	0.020622	0.008352	0.006273
27	0.002672	0.001867	0.006480	0.006480	0.004518	0.000147	0.004886	0.008302	0.000710	0.000713	0.019902	0.004454	0.003870
28	0.001644	0.001310	0.005263	0.005263	0.003881	0.000115	0.006055	0.010307	0.000789	0.000730	0.013178	0.005754	0.003640
29	0.003699	0.001164	0.004107	0.004107	0.005366	0.000132	0.006055	0.011368	0.001262	0.000653	0.019856	0.004083	0.003493
30	0.017879	0.007593	0.024245	0.024245	0.017635	0.000143	0.010061	0.013416	0.004734	0.003525	0.031075	0.028768	0.016255

Austin TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.056053	0.069375	0.057308	0.057308	0.059425	0.059425	0.059425	0.061584	0.110981	0.108951	0.061584	0.065807	0.068825
1	0.063344	0.084897	0.064386	0.064386	0.056278	0.056049	0.056126	0.058783	0.099894	0.103650	0.059749	0.062218	0.059543
2	0.060903	0.080134	0.055553	0.055553	0.077657	0.089224	0.082493	0.031055	0.110666	0.111268	0.016870	0.065209	0.047903
3	0.062563	0.082599	0.055051	0.055051	0.074548	0.088197	0.075226	0.032240	0.096928	0.085755	0.017304	0.074944	0.060675
4	0.061228	0.087000	0.055034	0.055034	0.066205	0.075412	0.073770	0.039198	0.108386	0.102451	0.017642	0.076521	0.071965
5	0.059145	0.074568	0.053340	0.053340	0.062205	0.076463	0.069847	0.034777	0.055287	0.056032	0.016433	0.057704	0.057263
6	0.051691	0.072784	0.046480	0.046480	0.039216	0.057216	0.038513	0.030450	0.047055	0.050813	0.019981	0.050579	0.058116
7	0.048208	0.059673	0.038410	0.038410	0.034210	0.062000	0.038935	0.030412	0.067542	0.071436	0.010366	0.043455	0.060032
8	0.029459	0.046887	0.038407	0.038407	0.030011	0.048785	0.039295	0.022374	0.048223	0.048826	0.019524	0.023169	0.030871
9	0.025911	0.041489	0.033830	0.033830	0.032064	0.062349	0.035567	0.016303	0.015351	0.017043	0.003285	0.017295	0.019997
10	0.059048	0.032772	0.027399	0.027399	0.035851	0.059873	0.044399	0.029673	0.014702	0.016190	0.005810	0.024855	0.027428
11	0.048827	0.043823	0.044885	0.044885	0.035632	0.053319	0.044195	0.024857	0.037952	0.041381	0.021897	0.026486	0.024805
12	0.058852	0.041199	0.047326	0.047326	0.036334	0.036523	0.037978	0.071052	0.027013	0.027061	0.037079	0.072823	0.078722
13	0.052277	0.033016	0.043708	0.043708	0.044184	0.030999	0.035563	0.057430	0.030499	0.030204	0.049771	0.047153	0.050902
14	0.039452	0.028506	0.038014	0.038014	0.026523	0.022832	0.030633	0.048417	0.027235	0.025697	0.038754	0.038669	0.043087
15	0.031705	0.023996	0.042722	0.042722	0.025731	0.023757	0.033332	0.040846	0.019986	0.019228	0.060197	0.023930	0.024421
16	0.035643	0.020473	0.040576	0.040576	0.032993	0.023980	0.024239	0.044622	0.016816	0.015792	0.045168	0.022625	0.021618
17	0.027929	0.016445	0.038670	0.038670	0.030141	0.022019	0.028259	0.039990	0.014128	0.013489	0.042355	0.014195	0.016864
18	0.021256	0.013185	0.036891	0.036891	0.033912	0.019753	0.031018	0.042040	0.014053	0.013534	0.027663	0.023223	0.023545
19	0.017089	0.011040	0.029023	0.029023	0.039077	0.013221	0.026772	0.050535	0.009752	0.009828	0.051312	0.034318	0.032228
20	0.012923	0.008481	0.022352	0.022352	0.022574	0.008240	0.013980	0.040722	0.009567	0.009369	0.078902	0.025126	0.024374
21	0.009505	0.005730	0.014828	0.014828	0.017918	0.004294	0.012859	0.025282	0.003689	0.004506	0.035433	0.019851	0.018389
22	0.008333	0.004351	0.015414	0.015414	0.015873	0.001857	0.010981	0.016347	0.004153	0.004678	0.058982	0.011475	0.012671
23	0.006901	0.002654	0.010533	0.010533	0.011968	0.002405	0.009202	0.020428	0.001854	0.002323	0.030700	0.013542	0.012375
24	0.005664	0.002380	0.009802	0.009802	0.011735	0.000420	0.009873	0.022635	0.002058	0.002388	0.033527	0.013542	0.011774
25	0.003906	0.001711	0.008233	0.008233	0.008795	0.000749	0.004891	0.013931	0.001279	0.001414	0.035078	0.010061	0.008079
26	0.003548	0.001344	0.005542	0.005542	0.007540	0.000103	0.005571	0.010624	0.000871	0.001073	0.020622	0.008049	0.006273
27	0.002637	0.001054	0.003945	0.003945	0.004518	0.000147	0.004886	0.008302	0.000630	0.000713	0.019902	0.004460	0.003870
28	0.001888	0.000993	0.003020	0.003020	0.003881	0.000115	0.006055	0.010307	0.000556	0.000730	0.013178	0.004949	0.003640
29	0.001562	0.000779	0.002429	0.002429	0.005366	0.000132	0.006055	0.011368	0.000426	0.000653	0.019856	0.004514	0.003493
30	0.032551	0.006663	0.016889	0.016889	0.017635	0.000143	0.010061	0.013416	0.002466	0.003525	0.031075	0.019253	0.016255

Beaumont TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.060552	0.061510	0.050350	0.050350	0.059425	0.059425	0.059425	0.061584	0.098319	0.108951	0.061584	0.045499	0.068825
1	0.064768	0.084163	0.068453	0.068453	0.056278	0.056049	0.056126	0.058783	0.113322	0.103650	0.059749	0.053595	0.059543
2	0.053781	0.086339	0.061521	0.061521	0.077657	0.089224	0.082493	0.031055	0.128485	0.111268	0.016870	0.045175	0.047903
3	0.056847	0.074536	0.047492	0.047492	0.074548	0.088197	0.075226	0.032240	0.097517	0.085755	0.017304	0.042260	0.060675
4	0.049949	0.079867	0.051527	0.051527	0.066205	0.075412	0.073770	0.039198	0.102050	0.102451	0.017642	0.060881	0.071965
5	0.048671	0.068611	0.056270	0.056270	0.062205	0.076463	0.069847	0.034777	0.057764	0.056032	0.016433	0.044527	0.057263
6	0.046883	0.062272	0.043656	0.043656	0.039216	0.057216	0.038513	0.030450	0.050624	0.050813	0.019981	0.049709	0.058116
7	0.041518	0.052303	0.038245	0.038245	0.034210	0.062000	0.038935	0.030412	0.070480	0.071436	0.010366	0.050032	0.060032
8	0.027338	0.043101	0.037517	0.037517	0.030011	0.048785	0.039295	0.022374	0.048257	0.048826	0.019524	0.032869	0.030871
9	0.028232	0.037793	0.031432	0.031432	0.032064	0.062349	0.035567	0.016303	0.014160	0.017043	0.003285	0.016030	0.019997
10	0.059913	0.032607	0.028045	0.028045	0.035851	0.059873	0.044399	0.029673	0.014882	0.016190	0.005810	0.031250	0.027428
11	0.054931	0.047066	0.049192	0.049192	0.035632	0.053319	0.044195	0.024857	0.036143	0.041381	0.021897	0.028821	0.024805
12	0.057869	0.046047	0.048180	0.048180	0.036334	0.036523	0.037978	0.071052	0.025111	0.027061	0.037079	0.086140	0.078722
13	0.061446	0.038689	0.046473	0.046473	0.044184	0.030999	0.035563	0.057430	0.027799	0.030204	0.049771	0.049223	0.050902
14	0.047138	0.033288	0.036598	0.036598	0.026523	0.022832	0.030633	0.048417	0.021421	0.025697	0.038754	0.046632	0.043087
15	0.037046	0.028304	0.041050	0.041050	0.025731	0.023757	0.033332	0.040846	0.016046	0.019228	0.060197	0.030278	0.024421
16	0.042156	0.024837	0.040487	0.040487	0.032993	0.023980	0.024239	0.044622	0.015324	0.015792	0.045168	0.025583	0.021618
17	0.035386	0.021210	0.040421	0.040421	0.030141	0.022019	0.028259	0.039990	0.012957	0.013489	0.042355	0.024288	0.016864
18	0.027593	0.016668	0.037319	0.037319	0.033912	0.019753	0.031018	0.042040	0.012997	0.013534	0.027663	0.026716	0.023545
19	0.019417	0.014276	0.027999	0.027999	0.039077	0.013221	0.026772	0.050535	0.008103	0.009828	0.051312	0.039508	0.032228
20	0.017501	0.011516	0.022622	0.022622	0.022574	0.008240	0.013980	0.040722	0.008865	0.009369	0.078902	0.031412	0.024374
21	0.009836	0.008169	0.015994	0.015994	0.017918	0.004294	0.012859	0.025282	0.003650	0.004506	0.035433	0.026231	0.018389
22	0.010347	0.006108	0.017191	0.017191	0.015873	0.001857	0.010981	0.016347	0.005054	0.004678	0.058982	0.018135	0.012671
23	0.007026	0.003857	0.012508	0.012508	0.011968	0.002405	0.009202	0.020428	0.002086	0.002323	0.030700	0.016192	0.012375
24	0.006132	0.003526	0.011026	0.011026	0.011735	0.000420	0.009873	0.022635	0.002246	0.002388	0.033527	0.016516	0.011774
25	0.005621	0.002343	0.009333	0.009333	0.008795	0.000749	0.004891	0.013931	0.001364	0.001414	0.035078	0.010687	0.008079
26	0.002810	0.001726	0.005748	0.005748	0.007540	0.000103	0.005571	0.010624	0.001003	0.001073	0.020622	0.009553	0.006273
27	0.001277	0.001261	0.004293	0.004293	0.004518	0.000147	0.004886	0.008302	0.000602	0.000713	0.019902	0.004858	0.003870
28	0.001405	0.001172	0.003426	0.003426	0.003881	0.000115	0.006055	0.010307	0.000401	0.000730	0.013178	0.005181	0.003640
29	0.001277	0.000815	0.002805	0.002805	0.005366	0.000132	0.006055	0.011368	0.000642	0.000653	0.019856	0.005829	0.003493
30	0.015330	0.006022	0.012826	0.012826	0.017635	0.000143	0.010061	0.013416	0.002327	0.003525	0.031075	0.026392	0.016255

Brownwood TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.036015	0.048649	0.036398	0.036398	0.059425	0.059425	0.059425	0.061584	0.082847	0.108951	0.061584	0.037546	0.068825
1	0.036015	0.064683	0.052857	0.052857	0.056278	0.056049	0.056126	0.058783	0.096033	0.103650	0.059749	0.058560	0.059543
2	0.046773	0.069375	0.044951	0.044951	0.077657	0.089224	0.082493	0.031055	0.089148	0.111268	0.016870	0.015410	0.047903
3	0.052853	0.065776	0.038104	0.038104	0.074548	0.088197	0.075226	0.032240	0.085064	0.085755	0.017304	0.031942	0.060675
4	0.046773	0.073044	0.043844	0.043844	0.066205	0.075412	0.073770	0.039198	0.103617	0.102451	0.017642	0.152704	0.071965
5	0.050514	0.065441	0.044420	0.044420	0.062205	0.076463	0.069847	0.034777	0.053909	0.056032	0.016433	0.045671	0.057263
6	0.042095	0.062601	0.037620	0.037620	0.039216	0.057216	0.038513	0.030450	0.049008	0.050813	0.019981	0.047913	0.058116
7	0.046305	0.055581	0.033310	0.033310	0.034210	0.062000	0.038935	0.030412	0.084597	0.071436	0.010366	0.043149	0.060032
8	0.029935	0.042863	0.035868	0.035868	0.030011	0.048785	0.039295	0.022374	0.055776	0.048826	0.019524	0.023816	0.030871
9	0.022919	0.036619	0.029898	0.029898	0.032064	0.062349	0.035567	0.016303	0.019370	0.017043	0.003285	0.011208	0.019997
10	0.050982	0.030533	0.026140	0.026140	0.035851	0.059873	0.044399	0.029673	0.014936	0.016190	0.005810	0.029420	0.027428
11	0.066885	0.048208	0.045020	0.045020	0.035632	0.053319	0.044195	0.024857	0.042240	0.041381	0.021897	0.024377	0.024805
12	0.072498	0.047661	0.047302	0.047302	0.036334	0.036523	0.037978	0.071052	0.031039	0.027061	0.037079	0.086299	0.078722
13	0.066885	0.040746	0.046172	0.046172	0.044184	0.030999	0.035563	0.057430	0.035823	0.030204	0.049771	0.045671	0.050902
14	0.053789	0.040729	0.045066	0.045066	0.026523	0.022832	0.030633	0.048417	0.031155	0.025697	0.038754	0.045951	0.043087
15	0.037418	0.036160	0.049376	0.049376	0.025731	0.023757	0.033332	0.040846	0.027655	0.019228	0.060197	0.022976	0.024421
16	0.050514	0.031204	0.047256	0.047256	0.032993	0.023980	0.024239	0.044622	0.018086	0.015792	0.045168	0.022415	0.021618
17	0.042563	0.028646	0.044536	0.044536	0.030141	0.022019	0.028259	0.039990	0.016569	0.013489	0.042355	0.019894	0.016864
18	0.039757	0.022543	0.045780	0.045780	0.033912	0.019753	0.031018	0.042040	0.015636	0.013534	0.027663	0.023256	0.023545
19	0.016370	0.019333	0.034762	0.034762	0.039077	0.013221	0.026772	0.050535	0.008518	0.009828	0.051312	0.033903	0.032228
20	0.013096	0.014764	0.029737	0.029737	0.022574	0.008240	0.013980	0.040722	0.010618	0.009369	0.078902	0.024096	0.024374
21	0.011693	0.010125	0.021254	0.021254	0.017918	0.004294	0.012859	0.025282	0.005834	0.004506	0.035433	0.023256	0.018389
22	0.009822	0.009067	0.022337	0.022337	0.015873	0.001857	0.010981	0.016347	0.007001	0.004678	0.058982	0.015410	0.012671
23	0.008419	0.005168	0.016989	0.016989	0.011968	0.002405	0.009202	0.020428	0.003267	0.002323	0.030700	0.015410	0.012375
24	0.007484	0.005821	0.014845	0.014845	0.011735	0.000420	0.009873	0.022635	0.002217	0.002388	0.033527	0.018493	0.011774
25	0.009355	0.003475	0.013093	0.013093	0.008795	0.000749	0.004891	0.013931	0.001984	0.001414	0.035078	0.013169	0.008079
26	0.002806	0.003193	0.009797	0.009797	0.007540	0.000103	0.005571	0.010624	0.001400	0.001073	0.020622	0.009246	0.006273
27	0.001871	0.002346	0.006385	0.006385	0.004518	0.000147	0.004886	0.008302	0.000467	0.000713	0.019902	0.005884	0.003870
28	0.000935	0.002029	0.005071	0.005071	0.003881	0.000115	0.006055	0.010307	0.000700	0.000730	0.013178	0.006164	0.003640
29	0.003274	0.001535	0.004380	0.004380	0.005366	0.000132	0.006055	0.011368	0.000467	0.000653	0.019856	0.006725	0.003493
30	0.023386	0.012083	0.027431	0.027431	0.017635	0.000143	0.010061	0.013416	0.005018	0.003525	0.031075	0.040067	0.016255

Bryan TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.050450	0.057754	0.046308	0.046308	0.059425	0.059425	0.059425	0.061584	0.097755	0.108951	0.061584	0.064423	0.068825
1	0.060901	0.076594	0.058913	0.058913	0.056278	0.056049	0.056126	0.058783	0.096978	0.103650	0.059749	0.046795	0.059543
2	0.054955	0.075954	0.047804	0.047804	0.077657	0.089224	0.082493	0.031055	0.102420	0.111268	0.016870	0.041346	0.047903
3	0.057297	0.074179	0.044677	0.044677	0.074548	0.088197	0.075226	0.032240	0.084491	0.085755	0.017304	0.054968	0.060675
4	0.049189	0.079774	0.048489	0.048489	0.066205	0.075412	0.073770	0.039198	0.102079	0.102451	0.017642	0.070513	0.071965
5	0.051712	0.069074	0.049454	0.049454	0.062205	0.076463	0.069847	0.034777	0.056117	0.056032	0.016433	0.061058	0.057263
6	0.046306	0.065184	0.041685	0.041685	0.039216	0.057216	0.038513	0.030450	0.046740	0.050813	0.019981	0.060417	0.058116
7	0.042883	0.054509	0.036280	0.036280	0.034210	0.062000	0.038935	0.030412	0.073025	0.071436	0.010366	0.056250	0.060032
8	0.032072	0.046115	0.035102	0.035102	0.030011	0.048785	0.039295	0.022374	0.050287	0.048826	0.019524	0.027404	0.030871
9	0.025405	0.039965	0.031917	0.031917	0.032064	0.062349	0.035567	0.016303	0.017345	0.017043	0.003285	0.022436	0.019997
10	0.053333	0.032865	0.025132	0.025132	0.035851	0.059873	0.044399	0.029673	0.016082	0.016190	0.005810	0.027244	0.027428
11	0.051532	0.047045	0.044889	0.044889	0.035632	0.053319	0.044195	0.024857	0.038626	0.041381	0.021897	0.030449	0.024805
12	0.059099	0.044990	0.047572	0.047572	0.036334	0.036523	0.037978	0.071052	0.033524	0.027061	0.037079	0.068109	0.078722
13	0.057658	0.038290	0.043895	0.043895	0.044184	0.030999	0.035563	0.057430	0.032747	0.030204	0.049771	0.045833	0.050902
14	0.053694	0.034780	0.040285	0.040285	0.026523	0.022832	0.030633	0.048417	0.030172	0.025697	0.038754	0.039263	0.043087
15	0.040000	0.029070	0.044040	0.044040	0.025731	0.023757	0.033332	0.040846	0.021281	0.019228	0.060197	0.020833	0.024421
16	0.043243	0.026680	0.043702	0.043702	0.032993	0.023980	0.024239	0.044622	0.021475	0.015792	0.045168	0.019391	0.021618
17	0.035495	0.023165	0.043914	0.043914	0.030141	0.022019	0.028259	0.039990	0.015402	0.013489	0.042355	0.018429	0.016864
18	0.027568	0.018775	0.043634	0.043634	0.033912	0.019753	0.031018	0.042040	0.018171	0.013534	0.027663	0.027404	0.023545
19	0.019099	0.015520	0.032786	0.032786	0.039077	0.013221	0.026772	0.050535	0.009814	0.009828	0.051312	0.034135	0.032228
20	0.017658	0.011695	0.026397	0.026397	0.022574	0.008240	0.013980	0.040722	0.011029	0.009369	0.078902	0.029647	0.024374
21	0.014234	0.007835	0.019911	0.019911	0.017918	0.004294	0.012859	0.025282	0.005782	0.004506	0.035433	0.020513	0.018389
22	0.007568	0.006455	0.020587	0.020587	0.015873	0.001857	0.010981	0.016347	0.004907	0.004678	0.058982	0.015224	0.012671
23	0.006847	0.004200	0.014554	0.014554	0.011968	0.002405	0.009202	0.020428	0.002381	0.002323	0.030700	0.015545	0.012375
24	0.005405	0.003215	0.013483	0.013483	0.011735	0.000420	0.009873	0.022635	0.002818	0.002388	0.033527	0.015865	0.011774
25	0.005586	0.002600	0.011225	0.011225	0.008795	0.000749	0.004891	0.013931	0.001117	0.001414	0.035078	0.013301	0.008079
26	0.004324	0.001945	0.008377	0.008377	0.007540	0.000103	0.005571	0.010624	0.001117	0.001073	0.020622	0.009295	0.006273
27	0.002162	0.001350	0.005636	0.005636	0.004518	0.000147	0.004886	0.008302	0.000729	0.000713	0.019902	0.005609	0.003870
28	0.001081	0.001235	0.004604	0.004604	0.003881	0.000115	0.006055	0.010307	0.000923	0.000730	0.013178	0.005288	0.003640
29	0.001261	0.001065	0.003619	0.003619	0.005366	0.000132	0.006055	0.011368	0.000486	0.000653	0.019856	0.004327	0.003493
30	0.021982	0.008125	0.021127	0.021127	0.017635	0.000143	0.010061	0.013416	0.004178	0.003525	0.031075	0.028686	0.016255

Childress TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.034884	0.050114	0.034190	0.034190	0.059425	0.059425	0.059425	0.061584	0.082244	0.108951	0.061584	0.016371	0.068825
1	0.030233	0.066298	0.042087	0.042087	0.056278	0.056049	0.056126	0.058783	0.084935	0.103650	0.059749	0.021828	0.059543
2	0.032558	0.066753	0.042423	0.042423	0.077657	0.089224	0.082493	0.031055	0.091084	0.111268	0.016870	0.019100	0.047903
3	0.039535	0.056939	0.036038	0.036038	0.074548	0.088197	0.075226	0.032240	0.078017	0.085755	0.017304	0.023192	0.060675
4	0.039535	0.070458	0.044439	0.044439	0.066205	0.075412	0.073770	0.039198	0.112221	0.102451	0.017642	0.021828	0.071965
5	0.081395	0.066623	0.046455	0.046455	0.062205	0.076463	0.069847	0.034777	0.064181	0.056032	0.016433	0.027285	0.057263
6	0.055814	0.062593	0.043011	0.043011	0.039216	0.057216	0.038513	0.030450	0.051499	0.050813	0.019981	0.025921	0.058116
7	0.030233	0.054729	0.036290	0.036290	0.034210	0.062000	0.038935	0.030412	0.081860	0.071436	0.010366	0.035471	0.060032
8	0.041860	0.043549	0.041751	0.041751	0.030011	0.048785	0.039295	0.022374	0.059570	0.048826	0.019524	0.017735	0.030871
9	0.023256	0.038999	0.028982	0.028982	0.032064	0.062349	0.035567	0.016303	0.015373	0.017043	0.003285	0.006821	0.019997
10	0.048837	0.031719	0.028310	0.028310	0.035851	0.059873	0.044399	0.029673	0.021906	0.016190	0.005810	0.021828	0.027428
11	0.062791	0.047124	0.047967	0.047967	0.035632	0.053319	0.044195	0.024857	0.042275	0.041381	0.021897	0.027285	0.024805
12	0.079070	0.047579	0.049311	0.049311	0.036334	0.036523	0.037978	0.071052	0.025749	0.027061	0.037079	0.073670	0.078722
13	0.055814	0.039974	0.050739	0.050739	0.044184	0.030999	0.035563	0.057430	0.038432	0.030204	0.049771	0.072306	0.050902
14	0.051163	0.040819	0.043347	0.043347	0.026523	0.022832	0.030633	0.048417	0.035357	0.025697	0.038754	0.042292	0.043087
15	0.027907	0.035489	0.044691	0.044691	0.025731	0.023757	0.033332	0.040846	0.014988	0.019228	0.060197	0.030014	0.024421
16	0.044186	0.030939	0.042339	0.042339	0.032993	0.023980	0.024239	0.044622	0.014604	0.015792	0.045168	0.035471	0.021618
17	0.030233	0.027559	0.041835	0.041835	0.030141	0.022019	0.028259	0.039990	0.018832	0.013489	0.042355	0.025921	0.016864
18	0.034884	0.021904	0.041751	0.041751	0.033912	0.019753	0.031018	0.042040	0.011914	0.013534	0.027663	0.040928	0.023545
19	0.032558	0.021774	0.032930	0.032930	0.039077	0.013221	0.026772	0.050535	0.013067	0.009828	0.051312	0.049113	0.032228
20	0.023256	0.016185	0.031670	0.031670	0.022574	0.008240	0.013980	0.040722	0.011530	0.009369	0.078902	0.039563	0.024374
21	0.020930	0.011765	0.024782	0.024782	0.017918	0.004294	0.012859	0.025282	0.003459	0.004506	0.035433	0.027285	0.018389
22	0.013953	0.009035	0.024782	0.024782	0.015873	0.001857	0.010981	0.016347	0.004228	0.004678	0.058982	0.035471	0.012671
23	0.006977	0.006695	0.014953	0.014953	0.011968	0.002405	0.009202	0.020428	0.001922	0.002323	0.030700	0.034106	0.012375
24	0.013953	0.006110	0.013777	0.013777	0.011735	0.000420	0.009873	0.022635	0.001922	0.002388	0.033527	0.045020	0.011774
25	0.004651	0.004420	0.014533	0.014533	0.008795	0.000749	0.004891	0.013931	0.002690	0.001414	0.035078	0.028649	0.008079
26	0.009302	0.003835	0.010165	0.010165	0.007540	0.000103	0.005571	0.010624	0.000384	0.001073	0.020622	0.020464	0.006273
27	0.000000	0.002860	0.007392	0.007392	0.004518	0.000147	0.004886	0.008302	0.001537	0.000713	0.019902	0.012278	0.003870
28	0.002326	0.002340	0.007644	0.007644	0.003881	0.000115	0.006055	0.010307	0.002306	0.000730	0.013178	0.015007	0.003640
29	0.002326	0.001950	0.004704	0.004704	0.005366	0.000132	0.006055	0.011368	0.001153	0.000653	0.019856	0.012278	0.003493
30	0.025581	0.012870	0.026714	0.026714	0.017635	0.000143	0.010061	0.013416	0.010761	0.003525	0.031075	0.095498	0.016255

Corpus Christi TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.060014	0.067164	0.055193	0.055193	0.059425	0.059425	0.059425	0.061584	0.118685	0.108951	0.061584	0.043868	0.068825
1	0.061261	0.088442	0.069347	0.069347	0.056278	0.056049	0.056126	0.058783	0.102937	0.103650	0.059749	0.048493	0.059543
2	0.051698	0.081014	0.057061	0.057061	0.077657	0.089224	0.082493	0.031055	0.128565	0.111268	0.016870	0.027902	0.047903
3	0.064865	0.080107	0.052657	0.052657	0.074548	0.088197	0.075226	0.032240	0.079123	0.085755	0.017304	0.039391	0.060675
4	0.059321	0.087580	0.057020	0.057020	0.066205	0.075412	0.073770	0.039198	0.118337	0.102451	0.017642	0.076992	0.071965
5	0.058628	0.075832	0.062206	0.062206	0.062205	0.076463	0.069847	0.034777	0.061523	0.056032	0.016433	0.052372	0.057263
6	0.058905	0.069666	0.052536	0.052536	0.039216	0.057216	0.038513	0.030450	0.057779	0.050813	0.019981	0.083110	0.058116
7	0.052114	0.056789	0.045265	0.045265	0.034210	0.062000	0.038935	0.030412	0.091358	0.071436	0.010366	0.085497	0.060032
8	0.033680	0.044330	0.040869	0.040869	0.030011	0.048785	0.039295	0.022374	0.052530	0.048826	0.019524	0.029543	0.030871
9	0.032155	0.038423	0.033518	0.033518	0.032064	0.062349	0.035567	0.016303	0.013933	0.017043	0.003285	0.016413	0.019997
10	0.054886	0.028248	0.024517	0.024517	0.035851	0.059873	0.044399	0.029673	0.012621	0.016190	0.005810	0.033423	0.027428
11	0.055856	0.043527	0.044903	0.044903	0.035632	0.053319	0.044195	0.024857	0.031070	0.041381	0.021897	0.030737	0.024805
12	0.052252	0.040411	0.044847	0.044847	0.036334	0.036523	0.037978	0.071052	0.020688	0.027061	0.037079	0.083408	0.078722
13	0.049619	0.033597	0.041739	0.041739	0.044184	0.030999	0.035563	0.057430	0.021537	0.030204	0.049771	0.053118	0.050902
14	0.042689	0.030406	0.036538	0.036538	0.026523	0.022832	0.030633	0.048417	0.017561	0.025697	0.038754	0.052671	0.043087
15	0.035343	0.025713	0.040209	0.040209	0.025731	0.023757	0.033332	0.040846	0.013509	0.019228	0.060197	0.025962	0.024421
16	0.036175	0.023685	0.038848	0.038848	0.032993	0.023980	0.024239	0.044622	0.011116	0.015792	0.045168	0.022829	0.021618
17	0.026057	0.019247	0.036103	0.036103	0.030141	0.022019	0.028259	0.039990	0.009881	0.013489	0.042355	0.017159	0.016864
18	0.023839	0.014702	0.034976	0.034976	0.033912	0.019753	0.031018	0.042040	0.010421	0.013534	0.027663	0.023277	0.023545
19	0.017186	0.012188	0.026320	0.026320	0.039077	0.013221	0.026772	0.050535	0.006407	0.009828	0.051312	0.026261	0.032228
20	0.016078	0.009194	0.020531	0.020531	0.022574	0.008240	0.013980	0.040722	0.005211	0.009369	0.078902	0.024620	0.024374
21	0.008039	0.006155	0.015411	0.015411	0.017918	0.004294	0.012859	0.025282	0.003435	0.004506	0.035433	0.017010	0.018389
22	0.005405	0.004871	0.015048	0.015048	0.015873	0.001857	0.010981	0.016347	0.002895	0.004678	0.058982	0.012981	0.012671
23	0.004851	0.003331	0.010274	0.010274	0.011968	0.002405	0.009202	0.020428	0.001505	0.002323	0.030700	0.011191	0.012375
24	0.005960	0.003061	0.009686	0.009686	0.011735	0.000420	0.009873	0.022635	0.001428	0.002388	0.033527	0.012832	0.011774
25	0.004158	0.001899	0.008068	0.008068	0.008795	0.000749	0.004891	0.013931	0.000965	0.001414	0.035078	0.009549	0.008079
26	0.002772	0.001514	0.005266	0.005266	0.007540	0.000103	0.005571	0.010624	0.001274	0.001073	0.020622	0.009997	0.006273
27	0.001940	0.000970	0.003816	0.003816	0.004518	0.000147	0.004886	0.008302	0.000463	0.000713	0.019902	0.004178	0.003870
28	0.000554	0.001010	0.002987	0.002987	0.003881	0.000115	0.006055	0.010307	0.000463	0.000730	0.013178	0.004476	0.003640
29	0.002079	0.000807	0.002657	0.002657	0.005366	0.000132	0.006055	0.011368	0.000811	0.000653	0.019856	0.003133	0.003493
30	0.021622	0.006118	0.011586	0.011586	0.017635	0.000143	0.010061	0.013416	0.001968	0.003525	0.031075	0.017607	0.016255

Dallas TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.059816	0.068616	0.059889	0.059889	0.059425	0.059425	0.059425	0.061584	0.124050	0.108951	0.061584	0.092432	0.068825
1	0.066664	0.080942	0.064985	0.064985	0.056278	0.056049	0.056126	0.058783	0.103335	0.103650	0.059749	0.076480	0.059543
2	0.060442	0.078600	0.053685	0.053685	0.077657	0.089224	0.082493	0.031055	0.103607	0.111268	0.016870	0.065969	0.047903
3	0.067553	0.079501	0.055807	0.055807	0.074548	0.088197	0.075226	0.032240	0.086011	0.085755	0.017304	0.080051	0.060675
4	0.059553	0.081577	0.050441	0.050441	0.066205	0.075412	0.073770	0.039198	0.093799	0.102451	0.017642	0.079184	0.071965
5	0.060987	0.071823	0.051394	0.051394	0.062205	0.076463	0.069847	0.034777	0.051720	0.056032	0.016433	0.061769	0.057263
6	0.052442	0.069013	0.044022	0.044022	0.039216	0.057216	0.038513	0.030450	0.049375	0.050813	0.019981	0.057143	0.058116
7	0.047756	0.058102	0.036934	0.036934	0.034210	0.062000	0.038935	0.030412	0.064323	0.071436	0.010366	0.049235	0.060032
8	0.029817	0.046630	0.037274	0.037274	0.030011	0.048785	0.039295	0.022374	0.044079	0.048826	0.019524	0.026582	0.030871
9	0.025231	0.041402	0.033902	0.033902	0.032064	0.062349	0.035567	0.016303	0.019260	0.017043	0.003285	0.019881	0.019997
10	0.052927	0.033626	0.025587	0.025587	0.035851	0.059873	0.044399	0.029673	0.017229	0.016190	0.005810	0.027143	0.027428
11	0.048948	0.046213	0.047390	0.047390	0.035632	0.053319	0.044195	0.024857	0.047135	0.041381	0.021897	0.021939	0.024805
12	0.061937	0.045165	0.050028	0.050028	0.036334	0.036523	0.037978	0.071052	0.028848	0.027061	0.037079	0.072313	0.078722
13	0.054200	0.035636	0.043611	0.043611	0.044184	0.030999	0.035563	0.057430	0.033653	0.030204	0.049771	0.048112	0.050902
14	0.043089	0.031296	0.040304	0.040304	0.026523	0.022832	0.030633	0.048417	0.026430	0.025697	0.038754	0.034983	0.043087
15	0.031756	0.026783	0.044540	0.044540	0.025731	0.023757	0.033332	0.040846	0.018015	0.019228	0.060197	0.018827	0.024421
16	0.037857	0.023096	0.040429	0.040429	0.032993	0.023980	0.024239	0.044622	0.014822	0.015792	0.045168	0.016701	0.021618
17	0.029332	0.018796	0.039906	0.039906	0.030141	0.022019	0.028259	0.039990	0.015324	0.013489	0.042355	0.016735	0.016864
18	0.022100	0.014973	0.036721	0.036721	0.033912	0.019753	0.031018	0.042040	0.014477	0.013534	0.027663	0.020867	0.023545
19	0.016605	0.012555	0.029013	0.029013	0.039077	0.013221	0.026772	0.050535	0.012205	0.009828	0.051312	0.027857	0.032228
20	0.012242	0.009244	0.023151	0.023151	0.022574	0.008240	0.013980	0.040722	0.010687	0.009369	0.078902	0.020408	0.024374
21	0.009313	0.006219	0.016115	0.016115	0.017918	0.004294	0.012859	0.025282	0.005077	0.004506	0.035433	0.014388	0.018389
22	0.006949	0.004561	0.015759	0.015759	0.015873	0.001857	0.010981	0.016347	0.005077	0.004678	0.058982	0.010697	0.012671
23	0.005717	0.002918	0.010468	0.010468	0.011968	0.002405	0.009202	0.020428	0.002544	0.002323	0.030700	0.008793	0.012375
24	0.004747	0.002361	0.009654	0.009654	0.011735	0.000420	0.009873	0.022635	0.002711	0.002388	0.033527	0.008333	0.011774
25	0.003374	0.001577	0.008093	0.008093	0.008795	0.000749	0.004891	0.013931	0.001424	0.001414	0.035078	0.004762	0.008079
26	0.003091	0.001151	0.005106	0.005106	0.007540	0.000103	0.005571	0.010624	0.000921	0.001073	0.020622	0.004133	0.006273
27	0.001758	0.000894	0.003538	0.003538	0.004518	0.000147	0.004886	0.008302	0.000544	0.000713	0.019902	0.002772	0.003870
28	0.001697	0.000810	0.002722	0.002722	0.003881	0.000115	0.006055	0.010307	0.000586	0.000730	0.013178	0.002194	0.003640
29	0.001353	0.000647	0.002601	0.002601	0.005366	0.000132	0.006055	0.011368	0.000576	0.000653	0.019856	0.002058	0.003493
30	0.020747	0.005272	0.016929	0.016929	0.017635	0.000143	0.010061	0.013416	0.002156	0.003525	0.031075	0.007262	0.016255

El Paso TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.045328	0.053899	0.048362	0.048362	0.059425	0.059425	0.059425	0.061584	0.073299	0.108951	0.061584	0.071878	0.068825
1	0.050529	0.065885	0.047996	0.047996	0.056278	0.056049	0.056126	0.058783	0.084639	0.103650	0.059749	0.055801	0.059543
2	0.045699	0.069263	0.049241	0.049241	0.077657	0.089224	0.082493	0.031055	0.083441	0.111268	0.016870	0.041256	0.047903
3	0.064184	0.070952	0.046806	0.046806	0.074548	0.088197	0.075226	0.032240	0.074498	0.085755	0.017304	0.072048	0.060675
4	0.061583	0.076754	0.044268	0.044268	0.066205	0.075412	0.073770	0.039198	0.082888	0.102451	0.017642	0.070092	0.071965
5	0.061211	0.066709	0.046875	0.046875	0.062205	0.076463	0.069847	0.034777	0.051909	0.056032	0.016433	0.058013	0.057263
6	0.056660	0.061500	0.033464	0.033464	0.039216	0.057216	0.038513	0.030450	0.036603	0.050813	0.019981	0.060565	0.058116
7	0.047093	0.051075	0.030676	0.030676	0.034210	0.062000	0.038935	0.030412	0.061221	0.071436	0.010366	0.065158	0.060032
8	0.030002	0.039426	0.031063	0.031063	0.030011	0.048785	0.039295	0.022374	0.046377	0.048826	0.019524	0.034365	0.030871
9	0.028609	0.039802	0.030144	0.030144	0.032064	0.062349	0.035567	0.016303	0.025632	0.017043	0.003285	0.025944	0.019997
10	0.057124	0.032339	0.024838	0.024838	0.035851	0.059873	0.044399	0.029673	0.022773	0.016190	0.005810	0.035812	0.027428
11	0.054895	0.048951	0.047173	0.047173	0.035632	0.053319	0.044195	0.024857	0.064724	0.041381	0.021897	0.023903	0.024805
12	0.067063	0.049622	0.049192	0.049192	0.036334	0.036523	0.037978	0.071052	0.030518	0.027061	0.037079	0.062776	0.078722
13	0.053037	0.043193	0.045492	0.045492	0.044184	0.030999	0.035563	0.057430	0.047114	0.030204	0.049771	0.045849	0.050902
14	0.045699	0.039671	0.044517	0.044517	0.026523	0.022832	0.030633	0.048417	0.034483	0.025697	0.038754	0.040150	0.043087
15	0.033067	0.033661	0.048134	0.048134	0.025731	0.023757	0.033332	0.040846	0.028674	0.019228	0.060197	0.019479	0.024421
16	0.043749	0.030329	0.041743	0.041743	0.032993	0.023980	0.024239	0.044622	0.025355	0.015792	0.045168	0.022627	0.021618
17	0.029723	0.025319	0.041280	0.041280	0.030141	0.022019	0.028259	0.039990	0.018809	0.013489	0.042355	0.015992	0.016864
18	0.024336	0.019572	0.038942	0.038942	0.033912	0.019753	0.031018	0.042040	0.017241	0.013534	0.027663	0.022967	0.023545
19	0.014954	0.017803	0.032890	0.032890	0.039077	0.013221	0.026772	0.050535	0.019362	0.009828	0.051312	0.036917	0.032228
20	0.016812	0.012989	0.025876	0.025876	0.022574	0.008240	0.013980	0.040722	0.015674	0.009369	0.078902	0.029262	0.024374
21	0.010775	0.009997	0.020840	0.020840	0.017918	0.004294	0.012859	0.025282	0.006546	0.004506	0.035433	0.017608	0.018389
22	0.007338	0.007577	0.021124	0.021124	0.015873	0.001857	0.010981	0.016347	0.011986	0.004678	0.058982	0.013355	0.012671
23	0.006873	0.005128	0.013861	0.013861	0.011968	0.002405	0.009202	0.020428	0.005255	0.002323	0.030700	0.010037	0.012375
24	0.004644	0.004875	0.014380	0.014380	0.011735	0.000420	0.009873	0.022635	0.006362	0.002388	0.033527	0.009442	0.011774
25	0.004273	0.003553	0.013502	0.013502	0.008795	0.000749	0.004891	0.013931	0.003965	0.001414	0.035078	0.007145	0.008079
26	0.002879	0.002707	0.008964	0.008964	0.007540	0.000103	0.005571	0.010624	0.002674	0.001073	0.020622	0.005869	0.006273
27	0.002136	0.002147	0.007325	0.007325	0.004518	0.000147	0.004886	0.008302	0.002582	0.000713	0.019902	0.004678	0.003870
28	0.001579	0.001856	0.005208	0.005208	0.003881	0.000115	0.006055	0.010307	0.002121	0.000730	0.013178	0.003488	0.003640
29	0.002415	0.001529	0.004697	0.004697	0.005366	0.000132	0.006055	0.011368	0.002121	0.000653	0.019856	0.003488	0.003493
30	0.025729	0.011916	0.041127	0.041127	0.017635	0.000143	0.010061	0.013416	0.011156	0.003525	0.031075	0.014035	0.016255

Fort Worth TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULht	MH	CSht	CLht
0	0.056438	0.063354	0.050782	0.050782	0.059425	0.059425	0.059425	0.061584	0.105345	0.108951	0.061584	0.093378	0.068825
1	0.062128	0.077509	0.062635	0.062635	0.056278	0.056049	0.056126	0.058783	0.099360	0.103650	0.059749	0.076360	0.059543
2	0.057382	0.075776	0.054333	0.054333	0.077657	0.089224	0.082493	0.031055	0.114444	0.111268	0.016870	0.060059	0.047903
3	0.062829	0.077043	0.050063	0.050063	0.074548	0.088197	0.075226	0.032240	0.093304	0.085755	0.017304	0.083063	0.060675
4	0.060240	0.080428	0.050422	0.050422	0.066205	0.075412	0.073770	0.039198	0.100569	0.102451	0.017642	0.083286	0.071965
5	0.058218	0.071008	0.054144	0.054144	0.062205	0.076463	0.069847	0.034777	0.053213	0.056032	0.016433	0.067776	0.057263
6	0.048726	0.068023	0.043793	0.043793	0.039216	0.057216	0.038513	0.030450	0.050768	0.050813	0.019981	0.058031	0.058116
7	0.044492	0.058796	0.037059	0.037059	0.034210	0.062000	0.038935	0.030412	0.069463	0.071436	0.010366	0.056992	0.060032
8	0.030902	0.047748	0.037474	0.037474	0.030011	0.048785	0.039295	0.022374	0.049545	0.048826	0.019524	0.029584	0.030871
9	0.027208	0.041436	0.033411	0.033411	0.032064	0.062349	0.035567	0.016303	0.017430	0.017043	0.003285	0.019591	0.019997
10	0.051261	0.034213	0.026770	0.026770	0.035851	0.059873	0.044399	0.029673	0.015766	0.016190	0.005810	0.024860	0.027428
11	0.053553	0.047151	0.047077	0.047077	0.035632	0.053319	0.044195	0.024857	0.041626	0.041381	0.021897	0.025181	0.024805
12	0.065336	0.046062	0.048689	0.048689	0.036334	0.036523	0.037978	0.071052	0.027893	0.027061	0.037079	0.067356	0.078722
13	0.054146	0.036580	0.043344	0.043344	0.044184	0.030999	0.035563	0.057430	0.031803	0.030204	0.049771	0.042768	0.050902
14	0.046488	0.032728	0.040929	0.040929	0.026523	0.022832	0.030633	0.048417	0.028405	0.025697	0.038754	0.033394	0.043087
15	0.033679	0.028035	0.045351	0.045351	0.025731	0.023757	0.033332	0.040846	0.020600	0.019228	0.060197	0.019987	0.024421
16	0.039935	0.024294	0.041737	0.041737	0.032993	0.023980	0.024239	0.044622	0.016036	0.015792	0.045168	0.019517	0.021618
17	0.031226	0.020392	0.039905	0.039905	0.030141	0.022019	0.028259	0.039990	0.013236	0.013489	0.042355	0.012962	0.016864
18	0.023460	0.015977	0.038448	0.038448	0.033912	0.019753	0.031018	0.042040	0.013620	0.013534	0.027663	0.019690	0.023545
19	0.017177	0.013274	0.029632	0.029632	0.039077	0.013221	0.026772	0.050535	0.009141	0.009828	0.051312	0.024637	0.032228
20	0.013051	0.009998	0.024128	0.024128	0.022574	0.008240	0.013980	0.040722	0.009454	0.009369	0.078902	0.017884	0.024374
21	0.009114	0.006715	0.016861	0.016861	0.017918	0.004294	0.012859	0.025282	0.004407	0.004506	0.035433	0.013333	0.018389
22	0.007604	0.005064	0.017003	0.017003	0.015873	0.001857	0.010981	0.016347	0.004180	0.004678	0.058982	0.008905	0.012671
23	0.007038	0.003286	0.011474	0.011474	0.011968	0.002405	0.009202	0.020428	0.001848	0.002323	0.030700	0.007718	0.012375
24	0.005636	0.002670	0.010468	0.010468	0.011735	0.000420	0.009873	0.022635	0.002189	0.002388	0.033527	0.007841	0.011774
25	0.003883	0.001912	0.008912	0.008912	0.008795	0.000749	0.004891	0.013931	0.001208	0.001414	0.035078	0.005293	0.008079
26	0.002831	0.001426	0.005758	0.005758	0.007540	0.000103	0.005571	0.010624	0.000910	0.001073	0.020622	0.004106	0.006273
27	0.001968	0.001109	0.004218	0.004218	0.004518	0.000147	0.004886	0.008302	0.000469	0.000713	0.019902	0.002053	0.003870
28	0.001456	0.000998	0.003246	0.003246	0.003881	0.000115	0.006055	0.010307	0.000597	0.000730	0.013178	0.002127	0.003640
29	0.001672	0.000790	0.003008	0.003008	0.005366	0.000132	0.006055	0.011368	0.000569	0.000653	0.019856	0.002523	0.003493
30	0.020925	0.006207	0.018924	0.018924	0.017635	0.000143	0.010061	0.013416	0.002602	0.003525	0.031075	0.009746	0.016255

Houston TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.063508	0.065425	0.054429	0.054429	0.059425	0.059425	0.059425	0.061584	0.106742	0.108951	0.061584	0.054991	0.068825
1	0.070938	0.082309	0.067113	0.067113	0.056278	0.056049	0.056126	0.058783	0.097976	0.103650	0.059749	0.056519	0.059543
2	0.061246	0.079530	0.053679	0.053679	0.077657	0.089224	0.082493	0.031055	0.112672	0.111268	0.016870	0.044525	0.047903
3	0.063369	0.077739	0.051263	0.051263	0.074548	0.088197	0.075226	0.032240	0.089695	0.085755	0.017304	0.054166	0.060675
4	0.059862	0.085416	0.053873	0.053873	0.066205	0.075412	0.073770	0.039198	0.101482	0.102451	0.017642	0.064658	0.071965
5	0.058169	0.073880	0.056993	0.056993	0.062205	0.076463	0.069847	0.034777	0.056412	0.056032	0.016433	0.056451	0.057263
6	0.053154	0.069211	0.048233	0.048233	0.039216	0.057216	0.038513	0.030450	0.053656	0.050813	0.019981	0.057749	0.058116
7	0.046431	0.057444	0.040856	0.040856	0.034210	0.062000	0.038935	0.030412	0.069089	0.071436	0.010366	0.063874	0.060032
8	0.030769	0.047025	0.041039	0.041039	0.030011	0.048785	0.039295	0.022374	0.048131	0.048826	0.019524	0.032437	0.030871
9	0.026031	0.040804	0.034964	0.034964	0.032064	0.062349	0.035567	0.016303	0.017989	0.017043	0.003285	0.022148	0.019997
10	0.053708	0.034086	0.028750	0.028750	0.035851	0.059873	0.044399	0.029673	0.018136	0.016190	0.005810	0.028489	0.027428
11	0.050738	0.046375	0.050872	0.050872	0.035632	0.053319	0.044195	0.024857	0.044672	0.041381	0.021897	0.026326	0.024805
12	0.061954	0.044751	0.052354	0.052354	0.036334	0.036523	0.037978	0.071052	0.028575	0.027061	0.037079	0.087820	0.078722
13	0.054400	0.035898	0.045817	0.045817	0.044184	0.030999	0.035563	0.057430	0.030573	0.030204	0.049771	0.056897	0.050902
14	0.043046	0.030954	0.039810	0.039810	0.026523	0.022832	0.030633	0.048417	0.024245	0.025697	0.038754	0.048419	0.043087
15	0.031246	0.025839	0.041676	0.041676	0.025731	0.023757	0.033332	0.040846	0.018527	0.019228	0.060197	0.028976	0.024421
16	0.037185	0.022411	0.039166	0.039166	0.032993	0.023980	0.024239	0.044622	0.014742	0.015792	0.045168	0.022540	0.021618
17	0.030200	0.018703	0.038915	0.038915	0.030141	0.022019	0.028259	0.039990	0.013314	0.013489	0.042355	0.018565	0.016864
18	0.020431	0.014715	0.035484	0.035484	0.033912	0.019753	0.031018	0.042040	0.013188	0.013534	0.027663	0.025501	0.023545
19	0.015462	0.012256	0.027324	0.027324	0.039077	0.013221	0.026772	0.050535	0.010937	0.009828	0.051312	0.035209	0.032228
20	0.012169	0.009077	0.020722	0.020722	0.022574	0.008240	0.013980	0.040722	0.009543	0.009369	0.078902	0.026867	0.024374
21	0.008769	0.006294	0.014257	0.014257	0.017918	0.004294	0.012859	0.025282	0.003858	0.004506	0.035433	0.019863	0.018389
22	0.006492	0.004611	0.013816	0.013816	0.015873	0.001857	0.010981	0.016347	0.004482	0.004678	0.058982	0.013143	0.012671
23	0.006169	0.002798	0.009228	0.009228	0.011968	0.002405	0.009202	0.020428	0.002331	0.002323	0.030700	0.011980	0.012375
24	0.004569	0.002168	0.008132	0.008132	0.011735	0.000420	0.009873	0.022635	0.002185	0.002388	0.033527	0.012061	0.011774
25	0.003769	0.001529	0.006826	0.006826	0.008795	0.000749	0.004891	0.013931	0.001255	0.001414	0.035078	0.007437	0.008079
26	0.002769	0.001160	0.004378	0.004378	0.007540	0.000103	0.005571	0.010624	0.000983	0.001073	0.020622	0.005774	0.006273
27	0.001938	0.000892	0.003320	0.003320	0.004518	0.000147	0.004886	0.008302	0.000750	0.000713	0.019902	0.003691	0.003870
28	0.001231	0.000806	0.002491	0.002491	0.003881	0.000115	0.006055	0.010307	0.000711	0.000730	0.013178	0.002853	0.003640
29	0.001508	0.000638	0.002195	0.002195	0.005366	0.000132	0.006055	0.011368	0.000545	0.000653	0.019856	0.002285	0.003493
30	0.018769	0.005255	0.012023	0.012023	0.017635	0.000143	0.010061	0.013416	0.002603	0.003525	0.031075	0.007788	0.016255

Laredo TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.081194	0.059232	0.045951	0.045951	0.059425	0.059425	0.059425	0.061584	0.088511	0.108951	0.061584	0.064295	0.068825
1	0.076701	0.078684	0.053858	0.053858	0.056278	0.056049	0.056126	0.058783	0.091051	0.103650	0.059749	0.049755	0.059543
2	0.065789	0.075256	0.046433	0.046433	0.077657	0.089224	0.082493	0.031055	0.103165	0.111268	0.016870	0.037700	0.047903
3	0.062259	0.068711	0.040432	0.040432	0.074548	0.088197	0.075226	0.032240	0.072098	0.085755	0.017304	0.089136	0.060675
4	0.056483	0.070716	0.041867	0.041867	0.066205	0.075412	0.073770	0.039198	0.100039	0.102451	0.017642	0.078688	0.071965
5	0.050064	0.064434	0.044068	0.044068	0.062205	0.076463	0.069847	0.034777	0.055002	0.056032	0.016433	0.075765	0.057263
6	0.054557	0.059080	0.037048	0.037048	0.039216	0.057216	0.038513	0.030450	0.050117	0.050813	0.019981	0.071820	0.058116
7	0.046213	0.051002	0.031310	0.031310	0.034210	0.062000	0.038935	0.030412	0.080793	0.071436	0.010366	0.082560	0.060032
8	0.034339	0.042541	0.034091	0.034091	0.030011	0.048785	0.039295	0.022374	0.049238	0.048826	0.019524	0.050924	0.030871
9	0.020539	0.040720	0.029338	0.029338	0.032064	0.062349	0.035567	0.016303	0.019441	0.017043	0.003285	0.030248	0.019997
10	0.055520	0.032033	0.022647	0.022647	0.035851	0.059873	0.044399	0.029673	0.019441	0.016190	0.005810	0.031417	0.027428
11	0.052311	0.051075	0.046576	0.046576	0.035632	0.053319	0.044195	0.024857	0.051680	0.041381	0.021897	0.017316	0.024805
12	0.063864	0.051831	0.049883	0.049883	0.036334	0.036523	0.037978	0.071052	0.026377	0.027061	0.037079	0.067875	0.078722
13	0.061297	0.043024	0.047791	0.047791	0.044184	0.030999	0.035563	0.057430	0.036049	0.030204	0.049771	0.046467	0.050902
14	0.045250	0.041775	0.046740	0.046740	0.026523	0.022832	0.030633	0.048417	0.034682	0.025697	0.038754	0.041353	0.043087
15	0.031772	0.033057	0.051547	0.051547	0.025731	0.023757	0.033332	0.040846	0.020027	0.019228	0.060197	0.019215	0.024421
16	0.032092	0.031151	0.051964	0.051964	0.032993	0.023980	0.024239	0.044622	0.016901	0.015792	0.045168	0.019069	0.021618
17	0.023748	0.024554	0.047813	0.047813	0.030141	0.022019	0.028259	0.039990	0.014263	0.013489	0.042355	0.013955	0.016864
18	0.017972	0.019531	0.046554	0.046554	0.033912	0.019753	0.031018	0.042040	0.015045	0.013534	0.027663	0.018485	0.023545
19	0.016688	0.015510	0.035723	0.035723	0.039077	0.013221	0.026772	0.050535	0.010551	0.009828	0.051312	0.026375	0.032228
20	0.007060	0.010566	0.028188	0.028188	0.022574	0.008240	0.013980	0.040722	0.010942	0.009369	0.078902	0.018996	0.024374
21	0.008023	0.007637	0.019099	0.019099	0.017918	0.004294	0.012859	0.025282	0.006643	0.004506	0.035433	0.013370	0.018389
22	0.004172	0.005826	0.019208	0.019208	0.015873	0.001857	0.010981	0.016347	0.006155	0.004678	0.058982	0.006503	0.012671
23	0.000963	0.003527	0.013065	0.013065	0.011968	0.002405	0.009202	0.020428	0.003322	0.002323	0.030700	0.008110	0.012375
24	0.005135	0.003564	0.012156	0.012156	0.011735	0.000420	0.009873	0.022635	0.003810	0.002388	0.033527	0.005041	0.011774
25	0.002888	0.002267	0.011324	0.011324	0.008795	0.000749	0.004891	0.013931	0.003224	0.001414	0.035078	0.003726	0.008079
26	0.002246	0.001711	0.007381	0.007381	0.007540	0.000103	0.005571	0.010624	0.002052	0.001073	0.020622	0.002703	0.006273
27	0.003209	0.001438	0.005333	0.005333	0.004518	0.000147	0.004886	0.008302	0.001075	0.000713	0.019902	0.001607	0.003870
28	0.001926	0.001118	0.004293	0.004293	0.003881	0.000115	0.006055	0.010307	0.001465	0.000730	0.013178	0.001096	0.003640
29	0.000642	0.000966	0.003855	0.003855	0.005366	0.000132	0.006055	0.011368	0.000782	0.000653	0.019856	0.001023	0.003493
30	0.015083	0.007464	0.024465	0.024465	0.017635	0.000143	0.010061	0.013416	0.006057	0.003525	0.031075	0.005407	0.016255

Lubbock TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.067289	0.052437	0.047875	0.047875	0.059425	0.059425	0.059425	0.061584	0.112455	0.108951	0.061584	0.053272	0.068825
1	0.053374	0.068995	0.060037	0.060037	0.056278	0.056049	0.056126	0.058783	0.106351	0.103650	0.059749	0.050151	0.059543
2	0.046130	0.070346	0.050851	0.050851	0.077657	0.089224	0.082493	0.031055	0.111335	0.111268	0.016870	0.028717	0.047903
3	0.062524	0.072051	0.045411	0.045411	0.074548	0.088197	0.075226	0.032240	0.093806	0.085755	0.017304	0.039018	0.060675
4	0.045749	0.079338	0.053203	0.053203	0.066205	0.075412	0.073770	0.039198	0.115311	0.102451	0.017642	0.049318	0.071965
5	0.053755	0.068614	0.055825	0.055825	0.062205	0.076463	0.069847	0.034777	0.063116	0.056032	0.016433	0.042659	0.057263
6	0.052230	0.067691	0.047020	0.047020	0.039216	0.057216	0.038513	0.030450	0.054659	0.050813	0.019981	0.055249	0.058116
7	0.046512	0.055818	0.041636	0.041636	0.034210	0.062000	0.038935	0.030412	0.080029	0.071436	0.010366	0.061492	0.060032
8	0.032215	0.047365	0.043942	0.043942	0.030011	0.048785	0.039295	0.022374	0.053987	0.048826	0.019524	0.031006	0.030871
9	0.030499	0.040252	0.033919	0.033919	0.032064	0.062349	0.035567	0.016303	0.018985	0.017043	0.003285	0.020601	0.019997
10	0.055661	0.031812	0.028071	0.028071	0.035851	0.059873	0.044399	0.029673	0.015961	0.016190	0.005810	0.023619	0.027428
11	0.054518	0.048725	0.050507	0.050507	0.035632	0.053319	0.044195	0.024857	0.036178	0.041381	0.021897	0.024659	0.024805
12	0.062905	0.048293	0.048991	0.048991	0.036334	0.036523	0.037978	0.071052	0.021449	0.027061	0.037079	0.079180	0.078722
13	0.049371	0.038065	0.046258	0.046258	0.044184	0.030999	0.035563	0.057430	0.023073	0.030204	0.049771	0.051191	0.050902
14	0.048418	0.036834	0.040139	0.040139	0.026523	0.022832	0.030633	0.048417	0.019769	0.025697	0.038754	0.057018	0.043087
15	0.035837	0.032566	0.041274	0.041274	0.025731	0.023757	0.033332	0.040846	0.014281	0.019228	0.060197	0.032983	0.024421
16	0.042127	0.028146	0.037815	0.037815	0.032993	0.023980	0.024239	0.044622	0.011369	0.015792	0.045168	0.033711	0.021618
17	0.028021	0.023781	0.035565	0.035565	0.030141	0.022019	0.028259	0.039990	0.008457	0.013489	0.042355	0.017168	0.016864
18	0.026306	0.019306	0.032748	0.032748	0.033912	0.019753	0.031018	0.042040	0.008681	0.013534	0.027663	0.030382	0.023545
19	0.024781	0.015332	0.027513	0.027513	0.039077	0.013221	0.026772	0.050535	0.005432	0.009828	0.051312	0.042035	0.032228
20	0.016584	0.012162	0.021013	0.021013	0.022574	0.008240	0.013980	0.040722	0.005656	0.009369	0.078902	0.031214	0.024374
21	0.009912	0.008454	0.018243	0.018243	0.017918	0.004294	0.012859	0.025282	0.003248	0.004506	0.035433	0.021018	0.018389
22	0.010675	0.006676	0.017666	0.017666	0.015873	0.001857	0.010981	0.016347	0.003192	0.004678	0.058982	0.016023	0.012671
23	0.006291	0.004663	0.011437	0.011437	0.011968	0.002405	0.009202	0.020428	0.001400	0.002323	0.030700	0.017792	0.012375
24	0.005337	0.004323	0.011334	0.011334	0.011735	0.000420	0.009873	0.022635	0.002072	0.002388	0.033527	0.019873	0.011774
25	0.003241	0.003083	0.010228	0.010228	0.008795	0.000749	0.004891	0.013931	0.001568	0.001414	0.035078	0.010821	0.008079
26	0.002287	0.002325	0.006351	0.006351	0.007540	0.000103	0.005571	0.010624	0.001008	0.001073	0.020622	0.008844	0.006273
27	0.001906	0.001654	0.004519	0.004519	0.004518	0.000147	0.004886	0.008302	0.000952	0.000713	0.019902	0.005619	0.003870
28	0.001716	0.001355	0.003831	0.003831	0.003881	0.000115	0.006055	0.010307	0.000616	0.000730	0.013178	0.006451	0.003640
29	0.001716	0.001199	0.003059	0.003059	0.005366	0.000132	0.006055	0.011368	0.000504	0.000653	0.019856	0.005723	0.003493
30	0.022112	0.008339	0.023719	0.023719	0.017635	0.000143	0.010061	0.013416	0.005096	0.003525	0.031075	0.033191	0.016255

Lufkin TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.058361	0.052115	0.036764	0.036764	0.059425	0.059425	0.059425	0.061584	0.083339	0.108951	0.061584	0.073371	0.068825
1	0.055892	0.070436	0.049263	0.049263	0.056278	0.056049	0.056126	0.058783	0.103830	0.103650	0.059749	0.069702	0.059543
2	0.047138	0.068906	0.043020	0.043020	0.077657	0.089224	0.082493	0.031055	0.095712	0.111268	0.016870	0.043159	0.047903
3	0.054770	0.067741	0.040361	0.040361	0.074548	0.088197	0.075226	0.032240	0.086481	0.085755	0.017304	0.065818	0.060675
4	0.049158	0.074099	0.043188	0.043188	0.066205	0.075412	0.073770	0.039198	0.098658	0.102451	0.017642	0.062797	0.071965
5	0.050954	0.067404	0.044728	0.044728	0.062205	0.076463	0.069847	0.034777	0.055646	0.056032	0.016433	0.057833	0.057263
6	0.037935	0.061931	0.038496	0.038496	0.039216	0.057216	0.038513	0.030450	0.047005	0.050813	0.019981	0.050496	0.058116
7	0.046914	0.055181	0.037654	0.037654	0.034210	0.062000	0.038935	0.030412	0.072799	0.071436	0.010366	0.041001	0.060032
8	0.024916	0.047399	0.037955	0.037955	0.030011	0.048785	0.039295	0.022374	0.050213	0.048826	0.019524	0.020501	0.030871
9	0.026712	0.040109	0.031699	0.031699	0.032064	0.062349	0.035567	0.016303	0.020622	0.017043	0.003285	0.014458	0.019997
10	0.054994	0.032839	0.028632	0.028632	0.035851	0.059873	0.044399	0.029673	0.017480	0.016190	0.005810	0.024169	0.027428
11	0.057688	0.049350	0.046761	0.046761	0.035632	0.053319	0.044195	0.024857	0.043339	0.041381	0.021897	0.018990	0.024805
12	0.063749	0.049034	0.050623	0.050623	0.036334	0.036523	0.037978	0.071052	0.032930	0.027061	0.037079	0.062365	0.078722
13	0.056566	0.040361	0.048132	0.048132	0.044184	0.030999	0.035563	0.057430	0.036399	0.030204	0.049771	0.041433	0.050902
14	0.053648	0.038600	0.043140	0.043140	0.026523	0.022832	0.030633	0.048417	0.028216	0.025697	0.038754	0.041649	0.043087
15	0.036813	0.032587	0.048289	0.048289	0.025731	0.023757	0.033332	0.040846	0.022651	0.019228	0.060197	0.029780	0.024421
16	0.041077	0.028713	0.043970	0.043970	0.032993	0.023980	0.024239	0.044622	0.020295	0.015792	0.045168	0.025032	0.021618
17	0.034119	0.025085	0.044174	0.044174	0.030141	0.022019	0.028259	0.039990	0.016759	0.013489	0.042355	0.018558	0.016864
18	0.029854	0.021135	0.044379	0.044379	0.033912	0.019753	0.031018	0.042040	0.017087	0.013534	0.027663	0.026327	0.023545
19	0.021998	0.018251	0.034057	0.034057	0.039077	0.013221	0.026772	0.050535	0.011391	0.009828	0.051312	0.036254	0.032228
20	0.019080	0.013704	0.028343	0.028343	0.022574	0.008240	0.013980	0.040722	0.011784	0.009369	0.078902	0.026975	0.024374
21	0.016386	0.009248	0.022316	0.022316	0.017918	0.004294	0.012859	0.025282	0.007136	0.004506	0.035433	0.022011	0.018389
22	0.009203	0.007775	0.021630	0.021630	0.015873	0.001857	0.010981	0.016347	0.004910	0.004678	0.058982	0.018558	0.012671
23	0.008530	0.005193	0.016445	0.016445	0.011968	0.002405	0.009202	0.020428	0.002619	0.002323	0.030700	0.017911	0.012375
24	0.010325	0.005031	0.016818	0.016818	0.011735	0.000420	0.009873	0.022635	0.003273	0.002388	0.033527	0.020285	0.011774
25	0.004714	0.003080	0.012535	0.012535	0.008795	0.000749	0.004891	0.013931	0.001571	0.001414	0.035078	0.013379	0.008079
26	0.002918	0.002337	0.008565	0.008565	0.007540	0.000103	0.005571	0.010624	0.001178	0.001073	0.020622	0.007337	0.006273
27	0.002918	0.001691	0.006544	0.006544	0.004518	0.000147	0.004886	0.008302	0.000720	0.000713	0.019902	0.005611	0.003870
28	0.001347	0.001410	0.004956	0.004956	0.003881	0.000115	0.006055	0.010307	0.000786	0.000730	0.013178	0.007337	0.003640
29	0.002245	0.001298	0.004475	0.004475	0.005366	0.000132	0.006055	0.011368	0.000917	0.000653	0.019856	0.006042	0.003493
30	0.019080	0.007957	0.022087	0.022087	0.017635	0.000143	0.010061	0.013416	0.004255	0.003525	0.031075	0.030859	0.016255

Odessa TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.090231	0.079571	0.085438	0.085438	0.059425	0.059425	0.059425	0.061584	0.186673	0.108951	0.061584	0.046515	0.068825
1	0.077171	0.099027	0.113164	0.113164	0.056278	0.056049	0.056126	0.058783	0.158281	0.103650	0.059749	0.040980	0.059543
2	0.052917	0.085156	0.075340	0.075340	0.077657	0.089224	0.082493	0.031055	0.164177	0.111268	0.016870	0.023997	0.047903
3	0.055801	0.079754	0.047574	0.047574	0.074548	0.088197	0.075226	0.032240	0.059294	0.085755	0.017304	0.025475	0.060675
4	0.057666	0.085203	0.059679	0.059679	0.066205	0.075412	0.073770	0.039198	0.105734	0.102451	0.017642	0.075370	0.071965
5	0.059362	0.072604	0.070765	0.070765	0.062205	0.076463	0.069847	0.034777	0.053037	0.056032	0.016433	0.051331	0.057263
6	0.056818	0.065988	0.053074	0.053074	0.039216	0.057216	0.038513	0.030450	0.051313	0.050813	0.019981	0.086312	0.058116
7	0.055970	0.052651	0.046263	0.046263	0.034210	0.062000	0.038935	0.030412	0.064721	0.071436	0.010366	0.094508	0.060032
8	0.029681	0.041916	0.040653	0.040653	0.030011	0.048785	0.039295	0.022374	0.040587	0.048826	0.019524	0.041276	0.030871
9	0.021031	0.034017	0.028405	0.028405	0.032064	0.062349	0.035567	0.016303	0.010152	0.017043	0.003285	0.017575	0.019997
10	0.049016	0.025815	0.020275	0.020275	0.035851	0.059873	0.044399	0.029673	0.009067	0.016190	0.005810	0.032742	0.027428
11	0.054444	0.042654	0.043055	0.043055	0.035632	0.053319	0.044195	0.024857	0.026114	0.041381	0.021897	0.027207	0.024805
12	0.060380	0.041445	0.040740	0.040740	0.036334	0.036523	0.037978	0.071052	0.011450	0.027061	0.037079	0.109675	0.078722
13	0.046981	0.031866	0.035564	0.035564	0.044184	0.030999	0.035563	0.057430	0.012578	0.030204	0.049771	0.071314	0.050902
14	0.040197	0.030584	0.031787	0.031787	0.026523	0.022832	0.030633	0.048417	0.010109	0.025697	0.038754	0.055640	0.043087
15	0.030868	0.025988	0.031527	0.031527	0.025731	0.023757	0.033332	0.040846	0.006811	0.019228	0.060197	0.027250	0.024421
16	0.032564	0.021555	0.026778	0.026778	0.032993	0.023980	0.024239	0.044622	0.005576	0.015792	0.045168	0.022307	0.021618
17	0.028155	0.018126	0.025008	0.025008	0.030141	0.022019	0.028259	0.039990	0.005129	0.013489	0.042355	0.014998	0.016864
18	0.020353	0.014321	0.025008	0.025008	0.033912	0.019753	0.031018	0.042040	0.005001	0.013534	0.027663	0.021757	0.023545
19	0.015943	0.012075	0.018387	0.018387	0.039077	0.013221	0.026772	0.050535	0.002937	0.009828	0.051312	0.027841	0.032228
20	0.010516	0.008814	0.015234	0.015234	0.022574	0.008240	0.013980	0.040722	0.003107	0.009369	0.078902	0.020237	0.024374
21	0.011024	0.006255	0.010722	0.010722	0.017918	0.004294	0.012859	0.025282	0.001532	0.004506	0.035433	0.015463	0.018389
22	0.007123	0.004742	0.011331	0.011331	0.015873	0.001857	0.010981	0.016347	0.002064	0.004678	0.058982	0.009632	0.012671
23	0.005597	0.003099	0.007182	0.007182	0.011968	0.002405	0.009202	0.020428	0.000873	0.002323	0.030700	0.010055	0.012375
24	0.003731	0.002853	0.006914	0.006914	0.011735	0.000420	0.009873	0.022635	0.000936	0.002388	0.033527	0.007816	0.011774
25	0.003053	0.002444	0.006187	0.006187	0.008795	0.000749	0.004891	0.013931	0.000468	0.001414	0.035078	0.005323	0.008079
26	0.002374	0.001507	0.004496	0.004496	0.007540	0.000103	0.005571	0.010624	0.000404	0.001073	0.020622	0.004225	0.006273
27	0.002035	0.001272	0.002900	0.002900	0.004518	0.000147	0.004886	0.008302	0.000341	0.000713	0.019902	0.002028	0.003870
28	0.001526	0.001036	0.002331	0.002331	0.003881	0.000115	0.006055	0.010307	0.000362	0.000730	0.013178	0.001817	0.003640
29	0.000678	0.000911	0.001881	0.001881	0.005366	0.000132	0.006055	0.011368	0.000213	0.000653	0.019856	0.001986	0.003493
30	0.016791	0.006747	0.012342	0.012342	0.017635	0.000143	0.010061	0.013416	0.000958	0.003525	0.031075	0.007351	0.016255

Paris TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.043450	0.050995	0.038755	0.038755	0.059425	0.059425	0.059425	0.061584	0.080586	0.108951	0.061584	0.037736	0.068825
1	0.052113	0.066478	0.049636	0.049636	0.056278	0.056049	0.056126	0.058783	0.106203	0.103650	0.059749	0.051092	0.059543
2	0.052638	0.068714	0.042446	0.042446	0.077657	0.089224	0.082493	0.031055	0.099976	0.111268	0.016870	0.039432	0.047903
3	0.062484	0.069570	0.042340	0.042340	0.074548	0.088197	0.075226	0.032240	0.088650	0.085755	0.017304	0.052576	0.060675
4	0.049882	0.072445	0.041193	0.041193	0.066205	0.075412	0.073770	0.039198	0.090014	0.102451	0.017642	0.044732	0.071965
5	0.049226	0.067210	0.043776	0.043776	0.062205	0.076463	0.069847	0.034777	0.053961	0.056032	0.016433	0.030316	0.057263
6	0.044106	0.064674	0.037675	0.037675	0.039216	0.057216	0.038513	0.030450	0.044889	0.050813	0.019981	0.027560	0.058116
7	0.040956	0.054755	0.033868	0.033868	0.034210	0.062000	0.038935	0.030412	0.067600	0.071436	0.010366	0.036888	0.060032
8	0.029667	0.045348	0.034610	0.034610	0.030011	0.048785	0.039295	0.022374	0.047616	0.048826	0.019524	0.021412	0.030871
9	0.025072	0.039695	0.029155	0.029155	0.032064	0.062349	0.035567	0.016303	0.017789	0.017043	0.003285	0.016748	0.019997
10	0.051326	0.033079	0.024635	0.024635	0.035851	0.059873	0.044399	0.029673	0.015655	0.016190	0.005810	0.029256	0.027428
11	0.056183	0.048651	0.044461	0.044461	0.035632	0.053319	0.044195	0.024857	0.038722	0.041381	0.021897	0.028196	0.024805
12	0.070622	0.049540	0.048749	0.048749	0.036334	0.036523	0.037978	0.071052	0.031606	0.027061	0.037079	0.082044	0.078722
13	0.059596	0.041135	0.044441	0.044441	0.044184	0.030999	0.035563	0.057430	0.036112	0.030204	0.049771	0.049184	0.050902
14	0.052507	0.039508	0.042832	0.042832	0.026523	0.022832	0.030633	0.048417	0.032199	0.025697	0.038754	0.055968	0.043087
15	0.040824	0.033743	0.049636	0.049636	0.025731	0.023757	0.033332	0.040846	0.028582	0.019228	0.060197	0.032648	0.024421
16	0.043318	0.029835	0.046128	0.046128	0.032993	0.023980	0.024239	0.044622	0.023897	0.015792	0.045168	0.027560	0.021618
17	0.033605	0.026188	0.047121	0.047121	0.030141	0.022019	0.028259	0.039990	0.017789	0.013489	0.042355	0.022472	0.016864
18	0.029535	0.020280	0.047053	0.047053	0.033912	0.019753	0.031018	0.042040	0.019983	0.013534	0.027663	0.032012	0.023545
19	0.022709	0.017960	0.036625	0.036625	0.039077	0.013221	0.026772	0.050535	0.012927	0.009828	0.051312	0.047912	0.032228
20	0.015752	0.014308	0.029965	0.029965	0.022574	0.008240	0.013980	0.040722	0.012690	0.009369	0.078902	0.036252	0.024374
21	0.010370	0.009639	0.022852	0.022852	0.017918	0.004294	0.012859	0.025282	0.008065	0.004506	0.035433	0.029256	0.018389
22	0.009451	0.008007	0.023642	0.023642	0.015873	0.001857	0.010981	0.016347	0.005870	0.004678	0.058982	0.020988	0.012671
23	0.007876	0.005495	0.016838	0.016838	0.011968	0.002405	0.009202	0.020428	0.003736	0.002323	0.030700	0.025440	0.012375
24	0.008532	0.004827	0.016722	0.016722	0.011735	0.000420	0.009873	0.022635	0.002965	0.002388	0.033527	0.019504	0.011774
25	0.007088	0.003298	0.012896	0.012896	0.008795	0.000749	0.004891	0.013931	0.001660	0.001414	0.035078	0.014416	0.008079
26	0.002757	0.002138	0.008828	0.008828	0.007540	0.000103	0.005571	0.010624	0.001482	0.001073	0.020622	0.013992	0.006273
27	0.002100	0.001671	0.006467	0.006467	0.004518	0.000147	0.004886	0.008302	0.001127	0.000713	0.019902	0.008268	0.003870
28	0.001181	0.001244	0.005513	0.005513	0.003881	0.000115	0.006055	0.010307	0.001186	0.000730	0.013178	0.010176	0.003640
29	0.001969	0.001248	0.004559	0.004559	0.005366	0.000132	0.006055	0.011368	0.000534	0.000653	0.019856	0.010812	0.003493
30	0.023103	0.008321	0.026582	0.026582	0.017635	0.000143	0.010061	0.013416	0.005930	0.003525	0.031075	0.045156	0.016255

Pharr TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.062500	0.059411	0.048095	0.048095	0.059425	0.059425	0.059425	0.061584	0.084554	0.108951	0.061584	0.050368	0.068825
1	0.053464	0.074074	0.050327	0.050327	0.056278	0.056049	0.056126	0.058783	0.091411	0.103650	0.059749	0.056242	0.059543
2	0.060743	0.067499	0.043551	0.043551	0.077657	0.089224	0.082493	0.031055	0.103744	0.111268	0.016870	0.042278	0.047903
3	0.053840	0.066197	0.046165	0.046165	0.074548	0.088197	0.075226	0.032240	0.082581	0.085755	0.017304	0.058458	0.060675
4	0.059613	0.070862	0.042609	0.042609	0.066205	0.075412	0.073770	0.039198	0.099403	0.102451	0.017642	0.055078	0.071965
5	0.055723	0.065662	0.044385	0.044385	0.062205	0.076463	0.069847	0.034777	0.056041	0.056032	0.016433	0.054968	0.057263
6	0.058484	0.060559	0.031836	0.031836	0.039216	0.057216	0.038513	0.030450	0.048296	0.050813	0.019981	0.060897	0.058116
7	0.047691	0.054568	0.028662	0.028662	0.034210	0.062000	0.038935	0.030412	0.072468	0.071436	0.010366	0.068100	0.060032
8	0.035015	0.043975	0.031925	0.031925	0.030011	0.048785	0.039295	0.022374	0.050220	0.048826	0.019524	0.037624	0.030871
9	0.032380	0.040290	0.028519	0.028519	0.032064	0.062349	0.035567	0.016303	0.018105	0.017043	0.003285	0.027927	0.019997
10	0.054970	0.032705	0.024889	0.024889	0.035851	0.059873	0.044399	0.029673	0.017414	0.016190	0.005810	0.028924	0.027428
11	0.061245	0.054452	0.050138	0.050138	0.035632	0.053319	0.044195	0.024857	0.055794	0.041381	0.021897	0.025212	0.024805
12	0.064132	0.054129	0.053675	0.053675	0.036334	0.036523	0.037978	0.071052	0.026294	0.027061	0.037079	0.090264	0.078722
13	0.058735	0.043863	0.049204	0.049204	0.044184	0.030999	0.035563	0.057430	0.032855	0.030204	0.049771	0.048374	0.050902
14	0.044553	0.041351	0.048018	0.048018	0.026523	0.022832	0.030633	0.048417	0.029846	0.025697	0.038754	0.044273	0.043087
15	0.033007	0.032637	0.051547	0.051547	0.025731	0.023757	0.033332	0.040846	0.021607	0.019228	0.060197	0.024713	0.024421
16	0.038278	0.030759	0.049254	0.049254	0.032993	0.023980	0.024239	0.044622	0.018697	0.015792	0.045168	0.024381	0.021618
17	0.028112	0.025814	0.046933	0.046933	0.030141	0.022019	0.028259	0.039990	0.014651	0.013489	0.042355	0.015016	0.016864
18	0.016566	0.019774	0.046416	0.046416	0.033912	0.019753	0.031018	0.042040	0.015145	0.013534	0.027663	0.023550	0.023545
19	0.015437	0.016171	0.037751	0.037751	0.039077	0.013221	0.026772	0.050535	0.012678	0.009828	0.051312	0.037181	0.032228
20	0.011672	0.011875	0.030747	0.030747	0.022574	0.008240	0.013980	0.040722	0.014503	0.009369	0.078902	0.027151	0.024374
21	0.008158	0.007773	0.020993	0.020993	0.017918	0.004294	0.012859	0.025282	0.006068	0.004506	0.035433	0.021056	0.018389
22	0.005146	0.005988	0.020882	0.020882	0.015873	0.001857	0.010981	0.016347	0.007301	0.004678	0.058982	0.014296	0.012671
23	0.004644	0.003828	0.012962	0.012962	0.011968	0.002405	0.009202	0.020428	0.004440	0.002323	0.030700	0.015460	0.012375
24	0.004644	0.003200	0.012344	0.012344	0.011735	0.000420	0.009873	0.022635	0.003749	0.002388	0.033527	0.009752	0.011774
25	0.002008	0.002245	0.011279	0.011279	0.008795	0.000749	0.004891	0.013931	0.003059	0.001414	0.035078	0.008755	0.008079
26	0.002887	0.001635	0.006997	0.006997	0.007540	0.000103	0.005571	0.010624	0.001677	0.001073	0.020622	0.005486	0.006273
27	0.001632	0.001265	0.004695	0.004695	0.004518	0.000147	0.004886	0.008302	0.001480	0.000713	0.019902	0.004156	0.003870
28	0.002008	0.001087	0.003529	0.003529	0.003881	0.000115	0.006055	0.010307	0.000740	0.000730	0.013178	0.003657	0.003640
29	0.000879	0.000827	0.003506	0.003506	0.005366	0.000132	0.006055	0.011368	0.000789	0.000653	0.019856	0.003325	0.003493
30	0.021837	0.005525	0.018167	0.018167	0.017635	0.000143	0.010061	0.013416	0.004391	0.003525	0.031075	0.013077	0.016255

San Angelo TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.043057	0.060376	0.050646	0.050646	0.059425	0.059425	0.059425	0.061584	0.117641	0.108951	0.061584	0.033772	0.068825
1	0.045384	0.084629	0.066497	0.066497	0.056278	0.056049	0.056126	0.058783	0.099134	0.103650	0.059749	0.028369	0.059543
2	0.048875	0.085086	0.051547	0.051547	0.077657	0.089224	0.082493	0.031055	0.108486	0.111268	0.016870	0.023978	0.047903
3	0.057797	0.077386	0.048639	0.048639	0.074548	0.088197	0.075226	0.032240	0.082398	0.085755	0.017304	0.031071	0.060675
4	0.048487	0.079739	0.051076	0.051076	0.066205	0.075412	0.073770	0.039198	0.113408	0.102451	0.017642	0.052347	0.071965
5	0.056245	0.070822	0.052612	0.052612	0.062205	0.076463	0.069847	0.034777	0.057787	0.056032	0.016433	0.044580	0.057263
6	0.048099	0.066691	0.044748	0.044748	0.039216	0.057216	0.038513	0.030450	0.051290	0.050813	0.019981	0.044580	0.058116
7	0.045772	0.056519	0.039567	0.039567	0.034210	0.062000	0.038935	0.030412	0.080823	0.071436	0.010366	0.047281	0.060032
8	0.031808	0.043811	0.037949	0.037949	0.030011	0.048785	0.039295	0.022374	0.052963	0.048826	0.019524	0.026680	0.030871
9	0.027541	0.035143	0.030883	0.030883	0.032064	0.062349	0.035567	0.016303	0.015357	0.017043	0.003285	0.017899	0.019997
10	0.057797	0.027704	0.024903	0.024903	0.035851	0.059873	0.044399	0.029673	0.014865	0.016190	0.005810	0.028031	0.027428
11	0.058573	0.044021	0.045977	0.045977	0.035632	0.053319	0.044195	0.024857	0.038196	0.041381	0.021897	0.030395	0.024805
12	0.067882	0.040922	0.045813	0.045813	0.036334	0.036523	0.037978	0.071052	0.024119	0.027061	0.037079	0.092536	0.078722
13	0.053142	0.032306	0.042454	0.042454	0.044184	0.030999	0.035563	0.057430	0.025300	0.030204	0.049771	0.069909	0.050902
14	0.051590	0.031090	0.038235	0.038235	0.026523	0.022832	0.030633	0.048417	0.025891	0.025697	0.038754	0.064168	0.043087
15	0.042669	0.028279	0.039997	0.039997	0.025731	0.023757	0.033332	0.040846	0.018704	0.019228	0.060197	0.031408	0.024421
16	0.038014	0.026253	0.038645	0.038645	0.032993	0.023980	0.024239	0.044622	0.015357	0.015792	0.045168	0.020263	0.021618
17	0.040729	0.021768	0.038031	0.038031	0.030141	0.022019	0.028259	0.039990	0.011420	0.013489	0.042355	0.027693	0.016864
18	0.023662	0.016944	0.038338	0.038338	0.033912	0.019753	0.031018	0.042040	0.012601	0.013534	0.027663	0.028031	0.023545
19	0.018619	0.013845	0.028835	0.028835	0.039077	0.013221	0.026772	0.050535	0.006694	0.009828	0.051312	0.039176	0.032228
20	0.018619	0.011205	0.023982	0.023982	0.022574	0.008240	0.013980	0.040722	0.007482	0.009369	0.078902	0.036474	0.024374
21	0.012413	0.008211	0.017572	0.017572	0.017918	0.004294	0.012859	0.025282	0.004332	0.004506	0.035433	0.030733	0.018389
22	0.011637	0.006812	0.019353	0.019353	0.015873	0.001857	0.010981	0.016347	0.004922	0.004678	0.058982	0.018237	0.012671
23	0.010473	0.004393	0.014725	0.014725	0.011968	0.002405	0.009202	0.020428	0.002363	0.002323	0.030700	0.026680	0.012375
24	0.006594	0.004524	0.012288	0.012288	0.011735	0.000420	0.009873	0.022635	0.001575	0.002388	0.033527	0.022627	0.011774
25	0.003879	0.002942	0.010445	0.010445	0.008795	0.000749	0.004891	0.013931	0.001674	0.001414	0.035078	0.015873	0.008079
26	0.003103	0.002327	0.006922	0.006922	0.007540	0.000103	0.005571	0.010624	0.000591	0.001073	0.020622	0.009119	0.006273
27	0.002327	0.002040	0.005611	0.005611	0.004518	0.000147	0.004886	0.008302	0.000492	0.000713	0.019902	0.004728	0.003870
28	0.002715	0.001294	0.004567	0.004567	0.003881	0.000115	0.006055	0.010307	0.000788	0.000730	0.013178	0.005741	0.003640
29	0.001552	0.001255	0.003482	0.003482	0.005366	0.000132	0.006055	0.011368	0.000295	0.000653	0.019856	0.007768	0.003493
30	0.020946	0.011662	0.025661	0.025661	0.017635	0.000143	0.010061	0.013416	0.003052	0.003525	0.031075	0.039851	0.016255

San Antonio TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.056976	0.080504	0.065478	0.065478	0.059425	0.059425	0.059425	0.061584	0.107745	0.108951	0.061584	0.078366	0.068825
1	0.057947	0.085119	0.062304	0.062304	0.056278	0.056049	0.056126	0.058783	0.103847	0.103650	0.059749	0.061708	0.059543
2	0.058008	0.076116	0.051063	0.051063	0.077657	0.089224	0.082493	0.031055	0.108381	0.111268	0.016870	0.056602	0.047903
3	0.063560	0.078224	0.049745	0.049745	0.074548	0.088197	0.075226	0.032240	0.084801	0.085755	0.017304	0.059825	0.060675
4	0.059495	0.082059	0.048133	0.048133	0.066205	0.075412	0.073770	0.039198	0.102285	0.102451	0.017642	0.083472	0.071965
5	0.057856	0.069655	0.051154	0.051154	0.062205	0.076463	0.069847	0.034777	0.059718	0.056032	0.016433	0.059644	0.057263
6	0.054519	0.065618	0.043233	0.043233	0.039216	0.057216	0.038513	0.030450	0.048815	0.050813	0.019981	0.051604	0.058116
7	0.048026	0.055392	0.037636	0.037636	0.034210	0.062000	0.038935	0.030412	0.073184	0.071436	0.010366	0.052872	0.060032
8	0.036680	0.044066	0.036934	0.036934	0.030011	0.048785	0.039295	0.022374	0.048587	0.048826	0.019524	0.025603	0.030871
9	0.027608	0.039364	0.033750	0.033750	0.032064	0.062349	0.035567	0.016303	0.016226	0.017043	0.003285	0.016405	0.019997
10	0.056157	0.031326	0.024484	0.024484	0.035851	0.059873	0.044399	0.029673	0.015817	0.016190	0.005810	0.026219	0.027428
11	0.055945	0.043458	0.043337	0.043337	0.035632	0.053319	0.044195	0.024857	0.040141	0.041381	0.021897	0.024915	0.024805
12	0.065229	0.041836	0.045698	0.045698	0.036334	0.036523	0.037978	0.071052	0.026538	0.027061	0.037079	0.072862	0.078722
13	0.056279	0.034848	0.043310	0.043310	0.044184	0.030999	0.035563	0.057430	0.030344	0.030204	0.049771	0.049975	0.050902
14	0.042474	0.031833	0.039139	0.039139	0.026523	0.022832	0.030633	0.048417	0.027797	0.025697	0.038754	0.046100	0.043087
15	0.031583	0.027133	0.044226	0.044226	0.025731	0.023757	0.033332	0.040846	0.021337	0.019228	0.060197	0.023756	0.024421
16	0.038166	0.023557	0.042839	0.042839	0.032993	0.023980	0.024239	0.044622	0.015832	0.015792	0.045168	0.022018	0.021618
17	0.027032	0.019697	0.041254	0.041254	0.030141	0.022019	0.028259	0.039990	0.015165	0.013489	0.042355	0.017346	0.016864
18	0.018689	0.015737	0.038686	0.038686	0.033912	0.019753	0.031018	0.042040	0.012951	0.013534	0.027663	0.020750	0.023545
19	0.015291	0.012888	0.029252	0.029252	0.039077	0.013221	0.026772	0.050535	0.009220	0.009828	0.051312	0.030202	0.032228
20	0.013986	0.009847	0.023865	0.023865	0.022574	0.008240	0.013980	0.040722	0.008993	0.009369	0.078902	0.022380	0.024374
21	0.007949	0.006543	0.016636	0.016636	0.017918	0.004294	0.012859	0.025282	0.004610	0.004506	0.035433	0.017745	0.018389
22	0.006705	0.005066	0.017296	0.017296	0.015873	0.001857	0.010981	0.016347	0.004504	0.004678	0.058982	0.012204	0.012671
23	0.006280	0.003362	0.011723	0.011723	0.011968	0.002405	0.009202	0.020428	0.002002	0.002323	0.030700	0.012675	0.012375
24	0.004703	0.003059	0.011243	0.011243	0.011735	0.000420	0.009873	0.022635	0.002199	0.002388	0.033527	0.011769	0.011774
25	0.003853	0.002076	0.009749	0.009749	0.008795	0.000749	0.004891	0.013931	0.001304	0.001414	0.035078	0.008329	0.008079
26	0.003186	0.001565	0.006575	0.006575	0.007540	0.000103	0.005571	0.010624	0.001198	0.001073	0.020622	0.005541	0.006273
27	0.002791	0.001196	0.004869	0.004869	0.004518	0.000147	0.004886	0.008302	0.000758	0.000713	0.019902	0.003983	0.003870
28	0.001547	0.001065	0.003574	0.003574	0.003881	0.000115	0.006055	0.010307	0.000971	0.000730	0.013178	0.003730	0.003640
29	0.001669	0.000809	0.002939	0.002939	0.005366	0.000132	0.006055	0.011368	0.000682	0.000653	0.019856	0.004092	0.003493
30	0.019811	0.006982	0.019875	0.019875	0.017635	0.000143	0.010061	0.013416	0.004049	0.003525	0.031075	0.017310	0.016255

Tyler TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.042722	0.051698	0.041471	0.041471	0.059425	0.059425	0.059425	0.061584	0.096213	0.108951	0.061584	0.053521	0.068825
1	0.041060	0.068384	0.053569	0.053569	0.056278	0.056049	0.056126	0.058783	0.106608	0.103650	0.059749	0.044196	0.059543
2	0.044384	0.070235	0.044006	0.044006	0.077657	0.089224	0.082493	0.031055	0.102392	0.111268	0.016870	0.035260	0.047903
3	0.057484	0.067357	0.040882	0.040882	0.074548	0.088197	0.075226	0.032240	0.077639	0.085755	0.017304	0.036425	0.060675
4	0.045850	0.074409	0.045311	0.045311	0.066205	0.075412	0.073770	0.039198	0.096431	0.102451	0.017642	0.077902	0.071965
5	0.049760	0.066502	0.048014	0.048014	0.062205	0.076463	0.069847	0.034777	0.057429	0.056032	0.016433	0.070520	0.057263
6	0.045557	0.063925	0.041881	0.041881	0.039216	0.057216	0.038513	0.030450	0.046852	0.050813	0.019981	0.060418	0.058116
7	0.041646	0.056077	0.037262	0.037262	0.034210	0.062000	0.038935	0.030412	0.075022	0.071436	0.010366	0.067897	0.060032
8	0.029524	0.049717	0.037735	0.037735	0.030011	0.048785	0.039295	0.022374	0.049106	0.048826	0.019524	0.040699	0.030871
9	0.026396	0.041124	0.032527	0.032527	0.032064	0.062349	0.035567	0.016303	0.016575	0.017043	0.003285	0.018164	0.019997
10	0.056604	0.032981	0.025407	0.025407	0.035851	0.059873	0.044399	0.029673	0.017083	0.016190	0.005810	0.025255	0.027428
11	0.052889	0.048618	0.045230	0.045230	0.035632	0.053319	0.044195	0.024857	0.039510	0.041381	0.021897	0.026518	0.024805
12	0.068726	0.049689	0.050370	0.050370	0.036334	0.036523	0.037978	0.071052	0.030678	0.027061	0.037079	0.094998	0.078722
13	0.064229	0.040728	0.045092	0.045092	0.044184	0.030999	0.035563	0.057430	0.034094	0.030204	0.049771	0.049539	0.050902
14	0.053280	0.039386	0.041841	0.041841	0.026523	0.022832	0.030633	0.048417	0.029333	0.025697	0.038754	0.035066	0.043087
15	0.041646	0.033594	0.047020	0.047020	0.025731	0.023757	0.033332	0.040846	0.024862	0.019228	0.060197	0.025838	0.024421
16	0.047805	0.029018	0.043458	0.043458	0.032993	0.023980	0.024239	0.044622	0.021445	0.015792	0.045168	0.017581	0.021618
17	0.038127	0.024725	0.042147	0.042147	0.030141	0.022019	0.028259	0.039990	0.015084	0.013489	0.042355	0.014764	0.016864
18	0.028937	0.020174	0.043365	0.043365	0.033912	0.019753	0.031018	0.042040	0.016356	0.013534	0.027663	0.026323	0.023545
19	0.023365	0.016841	0.032943	0.032943	0.039077	0.013221	0.026772	0.050535	0.010359	0.009828	0.051312	0.031180	0.032228
20	0.020628	0.012965	0.027024	0.027024	0.022574	0.008240	0.013980	0.040722	0.010432	0.009369	0.078902	0.024284	0.024374
21	0.013882	0.008973	0.020637	0.020637	0.017918	0.004294	0.012859	0.025282	0.005598	0.004506	0.035433	0.019330	0.018389
22	0.012220	0.007207	0.022018	0.022018	0.015873	0.001857	0.010981	0.016347	0.005561	0.004678	0.058982	0.014959	0.012671
23	0.009190	0.004720	0.015822	0.015822	0.011968	0.002405	0.009202	0.020428	0.002871	0.002323	0.030700	0.014862	0.012375
24	0.006648	0.004416	0.015510	0.015510	0.011735	0.000420	0.009873	0.022635	0.002799	0.002388	0.033527	0.014862	0.011774
25	0.005768	0.002973	0.012802	0.012802	0.008795	0.000749	0.004891	0.013931	0.001781	0.001414	0.035078	0.010782	0.008079
26	0.003910	0.002090	0.008176	0.008176	0.007540	0.000103	0.005571	0.010624	0.000872	0.001073	0.020622	0.008936	0.006273
27	0.003324	0.001657	0.006236	0.006236	0.004518	0.000147	0.004886	0.008302	0.000800	0.000713	0.019902	0.005925	0.003870
28	0.001955	0.001401	0.004816	0.004816	0.003881	0.000115	0.006055	0.010307	0.000545	0.000730	0.013178	0.005148	0.003640
29	0.001173	0.001013	0.004175	0.004175	0.005366	0.000132	0.006055	0.011368	0.000981	0.000653	0.019856	0.005828	0.003493
30	0.021312	0.007406	0.023253	0.023253	0.017635	0.000143	0.010061	0.013416	0.004689	0.003525	0.031075	0.023021	0.016255

Waco TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.049891	0.056674	0.048017	0.048017	0.059425	0.059425	0.059425	0.061584	0.079302	0.108951	0.061584	0.062639	0.068825
1	0.054771	0.076194	0.059060	0.059060	0.056278	0.056049	0.056126	0.058783	0.095952	0.103650	0.059749	0.041159	0.059543
2	0.050619	0.076245	0.050625	0.050625	0.077657	0.089224	0.082493	0.031055	0.094022	0.111268	0.016870	0.046563	0.047903
3	0.065768	0.076683	0.048772	0.048772	0.074548	0.088197	0.075226	0.032240	0.085809	0.085755	0.017304	0.055294	0.060675
4	0.056810	0.078971	0.048222	0.048222	0.066205	0.075412	0.073770	0.039198	0.100664	0.102451	0.017642	0.067627	0.071965
5	0.054188	0.071116	0.047574	0.047574	0.062205	0.076463	0.069847	0.034777	0.053451	0.056032	0.016433	0.039634	0.057263
6	0.048944	0.066099	0.040068	0.040068	0.039216	0.057216	0.038513	0.030450	0.050579	0.050813	0.019981	0.040327	0.058116
7	0.048944	0.056814	0.037098	0.037098	0.034210	0.062000	0.038935	0.030412	0.074365	0.071436	0.010366	0.040604	0.060032
8	0.032338	0.045524	0.035669	0.035669	0.030011	0.048785	0.039295	0.022374	0.051746	0.048826	0.019524	0.024390	0.030871
9	0.029789	0.039201	0.032051	0.032051	0.032064	0.062349	0.035567	0.016303	0.018670	0.017043	0.003285	0.020371	0.019997
10	0.058194	0.032792	0.026148	0.026148	0.035851	0.059873	0.044399	0.029673	0.017144	0.016190	0.005810	0.021757	0.027428
11	0.057902	0.045037	0.044211	0.044211	0.035632	0.053319	0.044195	0.024857	0.040840	0.041381	0.021897	0.020510	0.024805
12	0.067371	0.044742	0.047592	0.047592	0.036334	0.036523	0.037978	0.071052	0.034153	0.027061	0.037079	0.071231	0.078722
13	0.060015	0.037659	0.043169	0.043169	0.044184	0.030999	0.035563	0.057430	0.038327	0.030204	0.049771	0.048919	0.050902
14	0.047414	0.034930	0.041197	0.041197	0.026523	0.022832	0.030633	0.048417	0.034422	0.025697	0.038754	0.042683	0.043087
15	0.035178	0.030603	0.046120	0.046120	0.025731	0.023757	0.033332	0.040846	0.023606	0.019228	0.060197	0.026330	0.024421
16	0.038383	0.026352	0.042501	0.042501	0.032993	0.023980	0.024239	0.044622	0.021093	0.015792	0.045168	0.024252	0.021618
17	0.030954	0.022049	0.040767	0.040767	0.030141	0.022019	0.028259	0.039990	0.014631	0.013489	0.042355	0.017600	0.016864
18	0.022651	0.017800	0.041066	0.041066	0.033912	0.019753	0.031018	0.042040	0.017009	0.013534	0.027663	0.033398	0.023545
19	0.015586	0.015069	0.030996	0.030996	0.039077	0.013221	0.026772	0.050535	0.012701	0.009828	0.051312	0.043514	0.032228
20	0.015805	0.011297	0.025793	0.025793	0.022574	0.008240	0.013980	0.040722	0.011354	0.009369	0.078902	0.030349	0.024374
21	0.009832	0.007870	0.019223	0.019223	0.017918	0.004294	0.012859	0.025282	0.006777	0.004506	0.035433	0.027300	0.018389
22	0.006191	0.006389	0.019578	0.019578	0.015873	0.001857	0.010981	0.016347	0.006014	0.004678	0.058982	0.018708	0.012671
23	0.006264	0.004296	0.014475	0.014475	0.011968	0.002405	0.009202	0.020428	0.003052	0.002323	0.030700	0.019263	0.012375
24	0.005098	0.003695	0.013264	0.013264	0.011735	0.000420	0.009873	0.022635	0.003186	0.002388	0.033527	0.021896	0.011774
25	0.003714	0.002458	0.011237	0.011237	0.008795	0.000749	0.004891	0.013931	0.001616	0.001414	0.035078	0.017461	0.008079
26	0.003277	0.001946	0.007562	0.007562	0.007540	0.000103	0.005571	0.010624	0.001346	0.001073	0.020622	0.012334	0.006273
27	0.001311	0.001484	0.005696	0.005696	0.004518	0.000147	0.004886	0.008302	0.000718	0.000713	0.019902	0.007622	0.003870
28	0.001238	0.001233	0.004336	0.004336	0.003881	0.000115	0.006055	0.010307	0.001032	0.000730	0.013178	0.007483	0.003640
29	0.001529	0.000972	0.004118	0.004118	0.005366	0.000132	0.006055	0.011368	0.000763	0.000653	0.019856	0.007899	0.003493
30	0.020029	0.007806	0.023796	0.023796	0.017635	0.000143	0.010061	0.013416	0.005655	0.003525	0.031075	0.040881	0.016255

Wichita Falls TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.039731	0.050297	0.038964	0.038964	0.059425	0.059425	0.059425	0.061584	0.103556	0.108951	0.061584	0.153395	0.068825
1	0.046027	0.067432	0.055882	0.055882	0.056278	0.056049	0.056126	0.058783	0.108935	0.103650	0.059749	0.085353	0.059543
2	0.043205	0.073441	0.042607	0.042607	0.077657	0.089224	0.082493	0.031055	0.108851	0.111268	0.016870	0.080837	0.047903
3	0.054060	0.072366	0.038245	0.038245	0.074548	0.088197	0.075226	0.032240	0.080356	0.085755	0.017304	0.043504	0.060675
4	0.056014	0.073408	0.046568	0.046568	0.066205	0.075412	0.073770	0.039198	0.098512	0.102451	0.017642	0.057203	0.071965
5	0.051889	0.067944	0.051265	0.051265	0.062205	0.076463	0.069847	0.034777	0.058502	0.056032	0.016433	0.047719	0.057263
6	0.047764	0.065886	0.042511	0.042511	0.039216	0.057216	0.038513	0.030450	0.050517	0.050813	0.019981	0.035978	0.058116
7	0.043205	0.054876	0.037079	0.037079	0.034210	0.062000	0.038935	0.030412	0.072203	0.071436	0.010366	0.052085	0.060032
8	0.031264	0.046891	0.039268	0.039268	0.030011	0.048785	0.039295	0.022374	0.051442	0.048826	0.019524	0.038988	0.030871
9	0.028658	0.038642	0.031312	0.031312	0.032064	0.062349	0.035567	0.016303	0.017315	0.017043	0.003285	0.007978	0.019997
10	0.055363	0.033162	0.029331	0.029331	0.035851	0.059873	0.044399	0.029673	0.015970	0.016190	0.005810	0.021526	0.027428
11	0.054277	0.046718	0.047687	0.047687	0.035632	0.053319	0.044195	0.024857	0.038413	0.041381	0.021897	0.020322	0.024805
12	0.082501	0.047767	0.049827	0.049827	0.036334	0.036523	0.037978	0.071052	0.028411	0.027061	0.037079	0.039741	0.078722
13	0.066218	0.039593	0.045179	0.045179	0.044184	0.030999	0.035563	0.057430	0.027318	0.030204	0.049771	0.026946	0.050902
14	0.054711	0.038543	0.041696	0.041696	0.026523	0.022832	0.030633	0.048417	0.024880	0.025697	0.038754	0.025139	0.043087
15	0.034520	0.032931	0.047192	0.047192	0.025731	0.023757	0.033332	0.040846	0.019837	0.019228	0.060197	0.021526	0.024421
16	0.040382	0.028938	0.041760	0.041760	0.032993	0.023980	0.024239	0.044622	0.017652	0.015792	0.045168	0.016107	0.021618
17	0.031698	0.024590	0.041169	0.041169	0.030141	0.022019	0.028259	0.039990	0.014121	0.013489	0.042355	0.012795	0.016864
18	0.025619	0.019400	0.041584	0.041584	0.033912	0.019753	0.031018	0.042040	0.015214	0.013534	0.027663	0.019871	0.023545
19	0.018454	0.016226	0.031823	0.031823	0.039077	0.013221	0.026772	0.050535	0.009918	0.009828	0.051312	0.023182	0.032228
20	0.016500	0.013085	0.026344	0.026344	0.022574	0.008240	0.013980	0.040722	0.008994	0.009369	0.078902	0.019720	0.024374
21	0.012158	0.009704	0.020864	0.020864	0.017918	0.004294	0.012859	0.025282	0.004539	0.004506	0.035433	0.018817	0.018389
22	0.008250	0.007596	0.020512	0.020512	0.015873	0.001857	0.010981	0.016347	0.005632	0.004678	0.058982	0.013247	0.012671
23	0.009770	0.005017	0.014857	0.014857	0.011968	0.002405	0.009202	0.020428	0.002269	0.002323	0.030700	0.015053	0.012375
24	0.006947	0.004877	0.014122	0.014122	0.011735	0.000420	0.009873	0.022635	0.002606	0.002388	0.033527	0.014451	0.011774
25	0.003908	0.003182	0.012525	0.012525	0.008795	0.000749	0.004891	0.013931	0.001261	0.001414	0.035078	0.012795	0.008079
26	0.003040	0.002323	0.008978	0.008978	0.007540	0.000103	0.005571	0.010624	0.001513	0.001073	0.020622	0.008580	0.006273
27	0.003040	0.001835	0.005735	0.005735	0.004518	0.000147	0.004886	0.008302	0.001009	0.000713	0.019902	0.006473	0.003870
28	0.000651	0.001570	0.004936	0.004936	0.003881	0.000115	0.006055	0.010307	0.001429	0.000730	0.013178	0.007075	0.003640
29	0.001520	0.001298	0.003978	0.003978	0.005366	0.000132	0.006055	0.011368	0.000841	0.000653	0.019856	0.007527	0.003493
30	0.028658	0.010464	0.026200	0.026200	0.017635	0.000143	0.010061	0.013416	0.007985	0.003525	0.031075	0.046064	0.016255

Yoakum TxDOT District 2019 Age Distributions Inputs to MOVES.

Age	MC	PC	PT	LCT	OBus	TBus	SBus	RT	SUSht	SULhT	MH	CSht	CLhT
0	0.046858	0.055692	0.039113	0.039113	0.059425	0.059425	0.059425	0.061584	0.083516	0.108951	0.061584	0.050372	0.068825
1	0.050799	0.076604	0.053823	0.053823	0.056278	0.056049	0.056126	0.058783	0.092361	0.103650	0.059749	0.037225	0.059543
2	0.047515	0.074198	0.044082	0.044082	0.077657	0.089224	0.082493	0.031055	0.099618	0.111268	0.016870	0.026453	0.047903
3	0.045325	0.073589	0.040906	0.040906	0.074548	0.088197	0.075226	0.032240	0.081627	0.085755	0.017304	0.034215	0.060675
4	0.048829	0.081525	0.051334	0.051334	0.066205	0.075412	0.073770	0.039198	0.118597	0.102451	0.017642	0.048630	0.071965
5	0.048172	0.070824	0.055715	0.055715	0.062205	0.076463	0.069847	0.034777	0.060587	0.056032	0.016433	0.040868	0.057263
6	0.056711	0.067265	0.046982	0.046982	0.039216	0.057216	0.038513	0.030450	0.062261	0.050813	0.019981	0.043719	0.058116
7	0.046639	0.055966	0.041396	0.041396	0.034210	0.062000	0.038935	0.030412	0.086522	0.071436	0.010366	0.053065	0.060032
8	0.032187	0.044525	0.039387	0.039387	0.030011	0.048785	0.039295	0.022374	0.052986	0.048826	0.019524	0.020276	0.030871
9	0.028246	0.038475	0.031498	0.031498	0.032064	0.062349	0.035567	0.016303	0.014900	0.017043	0.003285	0.020276	0.019997
10	0.057149	0.030336	0.025971	0.025971	0.035851	0.059873	0.044399	0.029673	0.015973	0.016190	0.005810	0.026295	0.027428
11	0.061528	0.045504	0.044189	0.044189	0.035632	0.053319	0.044195	0.024857	0.037271	0.041381	0.021897	0.024236	0.024805
12	0.068754	0.045134	0.045963	0.045963	0.036334	0.036523	0.037978	0.071052	0.027610	0.027061	0.037079	0.081419	0.078722
13	0.064813	0.035495	0.045561	0.045561	0.044184	0.030999	0.035563	0.057430	0.027738	0.030204	0.049771	0.057976	0.050902
14	0.050580	0.034624	0.039593	0.039593	0.026523	0.022832	0.030633	0.048417	0.027051	0.025697	0.038754	0.050372	0.043087
15	0.041603	0.029799	0.044170	0.044170	0.025731	0.023757	0.033332	0.040846	0.021899	0.019228	0.060197	0.028354	0.024421
16	0.042041	0.027028	0.041338	0.041338	0.032993	0.023980	0.024239	0.044622	0.018678	0.015792	0.045168	0.026137	0.021618
17	0.033501	0.023248	0.043445	0.043445	0.030141	0.022019	0.028259	0.039990	0.015243	0.013489	0.042355	0.026295	0.016864
18	0.023648	0.019402	0.042131	0.042131	0.033912	0.019753	0.031018	0.042040	0.015844	0.013534	0.027663	0.032156	0.023545
19	0.019926	0.016100	0.033399	0.033399	0.039077	0.013221	0.026772	0.050535	0.008845	0.009828	0.051312	0.043244	0.032228
20	0.017079	0.012511	0.025922	0.025922	0.022574	0.008240	0.013980	0.040722	0.009146	0.009369	0.078902	0.039284	0.024374
21	0.012700	0.008695	0.019375	0.019375	0.017918	0.004294	0.012859	0.025282	0.004165	0.004506	0.035433	0.025820	0.018389
22	0.008977	0.007178	0.020541	0.020541	0.015873	0.001857	0.010981	0.016347	0.003950	0.004678	0.058982	0.021384	0.012671
23	0.009634	0.004694	0.014926	0.014926	0.011968	0.002405	0.009202	0.020428	0.002533	0.002323	0.030700	0.022810	0.012375
24	0.005474	0.004234	0.014103	0.014103	0.011735	0.000420	0.009873	0.022635	0.002147	0.002388	0.033527	0.023760	0.011774
25	0.004817	0.002771	0.011731	0.011731	0.008795	0.000749	0.004891	0.013931	0.001374	0.001414	0.035078	0.015682	0.008079
26	0.001971	0.002078	0.008644	0.008644	0.007540	0.000103	0.005571	0.010624	0.000988	0.001073	0.020622	0.012514	0.006273
27	0.003284	0.001594	0.006262	0.006262	0.004518	0.000147	0.004886	0.008302	0.000644	0.000713	0.019902	0.006970	0.003870
28	0.002409	0.001350	0.004449	0.004449	0.003881	0.000115	0.006055	0.010307	0.000558	0.000730	0.013178	0.008395	0.003640
29	0.001095	0.000967	0.004204	0.004204	0.005366	0.000132	0.006055	0.011368	0.001031	0.000653	0.019856	0.006495	0.003493
30	0.017736	0.008599	0.019846	0.019846	0.017635	0.000143	0.010061	0.013416	0.004337	0.003525	0.031075	0.045303	0.016255

Texas Statewide 2019 Fuel Engine Fractions Summary by Model Year.

SUT	Fuel Type	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
MC	Gas	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
PC	Gas	0.9668	0.9693	0.9698	0.9486	0.9375	0.9437	0.9402	0.9397	0.9031	0.9357	0.9466	0.9478	0.9692	0.9575	0.9812	0.9871
PC	Diesel	0.0033	0.0011	0.0003	0.0012	0.0242	0.0150	0.0135	0.0126	0.0118	0.0106	0.0078	0.0007	0.0005	0.0069	0.0049	0.0034
PT	Gas	0.8276	0.8358	0.8436	0.8232	0.7684	0.7749	0.6941	0.6859	0.7573	0.7941	0.8410	0.8867	0.8563	0.9113	0.9105	0.8919
PT	Diesel	0.0551	0.0465	0.0389	0.0347	0.0303	0.0237	0.0201	0.0264	0.0234	0.0133	0.0172	0.0300	0.0279	0.0440	0.0359	0.0406
LCT	Gas	0.8276	0.8358	0.8436	0.8232	0.7684	0.6161	0.5943	0.6265	0.6230	0.6382	0.7656	0.8132	0.8157	0.8518	0.8698	0.8597
LCT	Diesel	0.0551	0.0465	0.0389	0.0347	0.0303	0.0263	0.0312	0.0562	0.0601	0.0348	0.0465	0.0802	0.0679	0.0998	0.0852	0.0927
OBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
TBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
SBus	Gas	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0370	0.0450	0.0314	0.0389	0.0275	0.0130	0.0078	0.0101	0.0066	0.0038
SBus	Diesel	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9630	0.9550	0.9686	0.9611	0.9725	0.9870	0.9922	0.9899	0.9934	0.9962
RT	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0066	0.0000	0.0000	0.0000	0.0046	0.0020	0.0023	0.0009	0.0007	0.0000
RT	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9934	1.0000	1.0000	1.0000	0.9954	0.9980	0.9977	0.9991	0.9993	1.0000
SUSHT	Gas	0.5186	0.4743	0.4991	0.4898	0.4429	0.4001	0.4214	0.2754	0.2837	0.3323	0.3834	0.3310	0.2717	0.2733	0.2492	0.2572
SUSHT	Diesel	0.4814	0.5257	0.5009	0.5102	0.5571	0.5999	0.5786	0.7246	0.7163	0.6677	0.6166	0.6690	0.7283	0.7267	0.7508	0.7428
SULHT	Gas	0.5186	0.4743	0.4991	0.4898	0.4429	0.4001	0.4214	0.2754	0.2837	0.3323	0.3834	0.3310	0.2717	0.2733	0.2492	0.2572
SULHT	Diesel	0.4814	0.5257	0.5009	0.5102	0.5571	0.5999	0.5786	0.7246	0.7163	0.6677	0.6166	0.6690	0.7283	0.7267	0.7508	0.7428
MH	Gas	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.7076	0.7251	0.7013	0.0059	0.5339	0.3808	0.4420	0.5778	0.3493	0.6016
MH	Diesel	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.2924	0.2749	0.2987	0.9941	0.4661	0.6192	0.5580	0.4222	0.6507	0.3984
CShT	Gas	0.0806	0.0910	0.1062	0.0930	0.0730	0.0976	0.0870	0.0811	0.0645	0.0768	0.0769	0.0790	0.0543	0.0649	0.0607	0.0769
CShT	Diesel	0.9194	0.9090	0.8938	0.9070	0.9270	0.9024	0.9130	0.9189	0.9355	0.9232	0.9231	0.9210	0.9457	0.9351	0.9393	0.9231
CLHT	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

¹ Conventional internal combustion engine technology only.

Texas Statewide 2019 Fuel Engine Fractions Summary by Model Year (Continued).

SUT	Fuel Type	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989
MC	Gas	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
PC	Gas	0.9816	0.9874	0.9872	0.9844	0.9812	0.9888	0.9991	0.9988	0.9991	0.9998	0.9993	0.9988	0.9972	0.9989	0.9991
PC	Diesel	0.0042	0.0046	0.0034	0.0031	0.0019	0.0022	0.0009	0.0012	0.0009	0.0002	0.0007	0.0012	0.0028	0.0011	0.0009
PT	Gas	0.8574	0.8724	0.9215	0.9056	0.9099	0.9721	0.9555	0.9575	0.9609	0.9662	0.9575	0.9619	0.9660	0.9692	0.9741
PT	Diesel	0.0386	0.0347	0.0410	0.0297	0.0392	0.0128	0.0445	0.0425	0.0391	0.0338	0.0425	0.0381	0.0340	0.0308	0.0259
LCT	Gas	0.8401	0.8430	0.8820	0.8728	0.8633	0.9414	0.8988	0.9070	0.9083	0.9212	0.9056	0.9222	0.9187	0.9259	0.9376
LCT	Diesel	0.0841	0.0848	0.0882	0.0773	0.0986	0.0450	0.1012	0.0930	0.0917	0.0788	0.0944	0.0778	0.0813	0.0741	0.0624
OBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
TBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
SBus	Gas	0.0055	0.0260	0.0117	0.0257	0.0100	0.0100	0.0100	0.0415	0.1143	0.1475	0.1205	0.0100	0.0895	0.1240	0.2290
SBus	Diesel	0.9945	0.9740	0.9883	0.9743	0.9900	0.9900	0.9900	0.9585	0.8857	0.8525	0.8795	0.9900	0.9105	0.8760	0.7710
RT	Gas	0.0004	0.0000	0.0000	0.0000	0.1688	0.4036	0.0193	0.0253	0.0235	0.1050	0.0315	0.2103	0.1012	0.2040	0.0294
RT	Diesel	0.9996	1.0000	1.0000	1.0000	0.8312	0.5964	0.9807	0.9747	0.9765	0.8950	0.9685	0.7897	0.8988	0.7960	0.9706
SUSHT	Gas	0.2512	0.2749	0.3024	0.3629	0.3252	0.4135	0.4154	0.3828	0.6233	0.5018	0.4900	0.4938	0.5069	0.5453	0.7823
SUSHT	Diesel	0.7488	0.7251	0.6976	0.6371	0.6748	0.5865	0.5846	0.6172	0.3767	0.4982	0.5100	0.5062	0.4931	0.4547	0.2177
SULHT	Gas	0.2512	0.2749	0.3024	0.3629	0.3252	0.4135	0.4154	0.3828	0.6233	0.5018	0.4900	0.4938	0.5069	0.5453	0.7823
SULHT	Diesel	0.7488	0.7251	0.6976	0.6371	0.6748	0.5865	0.5846	0.6172	0.3767	0.4982	0.5100	0.5062	0.4931	0.4547	0.2177
MH	Gas	0.5619	0.6028	0.5459	0.6539	0.7975	0.6494	0.8361	0.8008	0.8510	0.8084	0.7276	0.7869	0.8497	0.9199	0.9513
MH	Diesel	0.4381	0.3972	0.4541	0.3461	0.2025	0.3506	0.1639	0.1992	0.1490	0.1916	0.2724	0.2131	0.1503	0.0801	0.0487
CShT	Gas	0.0859	0.0932	0.0957	0.1104	0.1105	0.1092	0.1217	0.1185	0.2083	0.1003	0.1042	0.1162	0.1415	0.1370	0.2556
CShT	Diesel	0.9141	0.9068	0.9043	0.8896	0.8895	0.8908	0.8783	0.8815	0.7917	0.8997	0.8958	0.8838	0.8585	0.8630	0.7444
CLHT	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

¹ Conventional internal combustion engine technology only.

Texas Statewide 2023 Fuel Engine Fractions Summary by Model Year.

SUT	Fuel Type	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
MC	Gas	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
PC	Gas	0.9602	0.9617	0.9631	0.9643	0.9668	0.9693	0.9698	0.9486	0.9375	0.9437	0.9402	0.9397	0.9031	0.9357	0.9466	0.9478
PC	Diesel	0.0092	0.0078	0.0066	0.0057	0.0033	0.0011	0.0003	0.0012	0.0242	0.0150	0.0135	0.0126	0.0118	0.0106	0.0078	0.0007
PT	Gas	0.8156	0.8167	0.8185	0.8201	0.8276	0.8358	0.8436	0.8232	0.7684	0.7749	0.6941	0.6859	0.7573	0.7941	0.8410	0.8867
PT	Diesel	0.0678	0.0663	0.0644	0.0628	0.0551	0.0465	0.0389	0.0347	0.0303	0.0237	0.0201	0.0264	0.0234	0.0133	0.0172	0.0300
LCT	Gas	0.8156	0.8167	0.8185	0.8201	0.8276	0.8358	0.8436	0.8232	0.7684	0.6161	0.5943	0.6265	0.6230	0.6382	0.7656	0.8132
LCT	Diesel	0.0678	0.0663	0.0644	0.0628	0.0551	0.0465	0.0389	0.0347	0.0303	0.0263	0.0312	0.0562	0.0601	0.0348	0.0465	0.0802
OBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
TBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
SBus	Gas	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0370	0.0450	0.0314	0.0389	0.0275	0.0130
SBus	Diesel	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9630	0.9550	0.9686	0.9611	0.9725	0.9870
RT	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0066	0.0000	0.0000	0.0000	0.0046	0.0020
RT	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9934	1.0000	1.0000	1.0000	0.9954	0.9980
SUSHT	Gas	0.5186	0.5186	0.5186	0.5186	0.5186	0.4743	0.4991	0.4898	0.4429	0.4001	0.4214	0.2754	0.2837	0.3323	0.3834	0.3310
SUSHT	Diesel	0.4814	0.4814	0.4814	0.4814	0.4814	0.5257	0.5009	0.5102	0.5571	0.5999	0.5786	0.7246	0.7163	0.6677	0.6166	0.6690
SULHT	Gas	0.5186	0.5186	0.5186	0.5186	0.5186	0.4743	0.4991	0.4898	0.4429	0.4001	0.4214	0.2754	0.2837	0.3323	0.3834	0.3310
SULHT	Diesel	0.4814	0.4814	0.4814	0.4814	0.4814	0.5257	0.5009	0.5102	0.5571	0.5999	0.5786	0.7246	0.7163	0.6677	0.6166	0.6690
MH	Gas	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.7076	0.7251	0.7013	0.0059	0.5339	0.3808
MH	Diesel	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.2924	0.2749	0.2987	0.9941	0.4661	0.6192
CShT	Gas	0.0806	0.0806	0.0806	0.0806	0.0806	0.0910	0.1062	0.0930	0.0730	0.0976	0.0870	0.0811	0.0645	0.0768	0.0769	0.0790
CShT	Diesel	0.9194	0.9194	0.9194	0.9194	0.9194	0.9090	0.8938	0.9070	0.9270	0.9024	0.9130	0.9189	0.9355	0.9232	0.9231	0.9210
CLHT	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

¹ Conventional internal combustion engine technology only.

Texas Statewide 2023 Fuel Engine Fractions Summary by Model Year (Continued).

SUT	Fuel Type	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993
MC	Gas	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
PC	Gas	0.9692	0.9575	0.9812	0.9871	0.9816	0.9874	0.9872	0.9844	0.9812	0.9888	0.9991	0.9988	0.9991	0.9998	0.9993
PC	Diesel	0.0005	0.0069	0.0049	0.0034	0.0042	0.0046	0.0034	0.0031	0.0019	0.0022	0.0009	0.0012	0.0009	0.0002	0.0007
PT	Gas	0.8563	0.9113	0.9105	0.8919	0.8574	0.8724	0.9215	0.9056	0.9099	0.9721	0.9555	0.9575	0.9609	0.9662	0.9575
PT	Diesel	0.0279	0.0440	0.0359	0.0406	0.0386	0.0347	0.0410	0.0297	0.0392	0.0128	0.0445	0.0425	0.0391	0.0338	0.0425
LCT	Gas	0.8157	0.8518	0.8698	0.8597	0.8401	0.8430	0.8820	0.8728	0.8633	0.9414	0.8988	0.9070	0.9083	0.9212	0.9056
LCT	Diesel	0.0679	0.0998	0.0852	0.0927	0.0841	0.0848	0.0882	0.0773	0.0986	0.0450	0.1012	0.0930	0.0917	0.0788	0.0944
OBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
TBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
SBus	Gas	0.0078	0.0101	0.0066	0.0038	0.0055	0.0260	0.0117	0.0257	0.0100	0.0100	0.0100	0.0415	0.1143	0.1475	0.1205
SBus	Diesel	0.9922	0.9899	0.9934	0.9962	0.9945	0.9740	0.9883	0.9743	0.9900	0.9900	0.9900	0.9585	0.8857	0.8525	0.8795
RT	Gas	0.0023	0.0009	0.0007	0.0000	0.0004	0.0000	0.0000	0.0000	0.1688	0.4036	0.0193	0.0253	0.0235	0.1050	0.0315
RT	Diesel	0.9977	0.9991	0.9993	1.0000	0.9996	1.0000	1.0000	1.0000	0.8312	0.5964	0.9807	0.9747	0.9765	0.8950	0.9685
SUSHT	Gas	0.2717	0.2733	0.2492	0.2572	0.2512	0.2749	0.3024	0.3629	0.3252	0.4135	0.4154	0.3828	0.6233	0.5018	0.4900
SUSHT	Diesel	0.7283	0.7267	0.7508	0.7428	0.7488	0.7251	0.6976	0.6371	0.6748	0.5865	0.5846	0.6172	0.3767	0.4982	0.5100
SULHT	Gas	0.2717	0.2733	0.2492	0.2572	0.2512	0.2749	0.3024	0.3629	0.3252	0.4135	0.4154	0.3828	0.6233	0.5018	0.4900
SULHT	Diesel	0.7283	0.7267	0.7508	0.7428	0.7488	0.7251	0.6976	0.6371	0.6748	0.5865	0.5846	0.6172	0.3767	0.4982	0.5100
MH	Gas	0.4420	0.5778	0.3493	0.6016	0.5619	0.6028	0.5459	0.6539	0.7975	0.6494	0.8361	0.8008	0.8510	0.8084	0.7276
MH	Diesel	0.5580	0.4222	0.6507	0.3984	0.4381	0.3972	0.4541	0.3461	0.2025	0.3506	0.1639	0.1992	0.1490	0.1916	0.2724
CShT	Gas	0.0543	0.0649	0.0607	0.0769	0.0859	0.0932	0.0957	0.1104	0.1105	0.1092	0.1217	0.1185	0.2083	0.1003	0.1042
CShT	Diesel	0.9457	0.9351	0.9393	0.9231	0.9141	0.9068	0.9043	0.8896	0.8895	0.8908	0.8783	0.8815	0.7917	0.8997	0.8958
CLHT	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

¹ Conventional internal combustion engine technology only.

Texas Statewide 2026 Fuel Engine Fractions Summary by Model Year.

SUT	Fuel Type	2026	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	
MC	Gas	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
PC	Gas	0.9538	0.9564	0.9586	0.9602	0.9617	0.9631	0.9643	0.9668	0.9693	0.9698	0.9486	0.9375	0.9437	0.9402	0.9397	0.9031	
PC	Diesel	0.0153	0.0128	0.0107	0.0092	0.0078	0.0066	0.0057	0.0033	0.0011	0.0003	0.0012	0.0242	0.0150	0.0135	0.0126	0.0118	
PT	Gas	0.8143	0.8141	0.8149	0.8156	0.8167	0.8185	0.8201	0.8276	0.8358	0.8436	0.8232	0.7684	0.7749	0.6941	0.6859	0.7573	
PT	Diesel	0.0686	0.0690	0.0684	0.0678	0.0663	0.0644	0.0628	0.0551	0.0465	0.0389	0.0347	0.0303	0.0237	0.0201	0.0264	0.0234	
LCT	Gas	0.8143	0.8141	0.8149	0.8156	0.8167	0.8185	0.8201	0.8276	0.8358	0.8436	0.8232	0.7684	0.6161	0.5943	0.6265	0.6230	
LCT	Diesel	0.0686	0.0690	0.0684	0.0678	0.0663	0.0644	0.0628	0.0551	0.0465	0.0389	0.0347	0.0303	0.0263	0.0312	0.0562	0.0601	
OBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
OBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
TBus	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
TBus	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
SBus	Gas	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0370	0.0450	0.0314
SBus	Diesel	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9921	0.9630	0.9550	0.9686
RT	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0066	0.0000	0.0000
RT	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9934	1.0000	1.0000
SUSHT	Gas	0.5186	0.5186	0.5186	0.5186	0.5186	0.5186	0.5186	0.5186	0.4743	0.4991	0.4898	0.4429	0.4001	0.4214	0.2754	0.2837	
SUSHT	Diesel	0.4814	0.4814	0.4814	0.4814	0.4814	0.4814	0.4814	0.4814	0.5257	0.5009	0.5102	0.5571	0.5999	0.5786	0.7246	0.7163	
SULHT	Gas	0.5186	0.5186	0.5186	0.5186	0.5186	0.5186	0.5186	0.5186	0.4743	0.4991	0.4898	0.4429	0.4001	0.4214	0.2754	0.2837	
SULHT	Diesel	0.4814	0.4814	0.4814	0.4814	0.4814	0.4814	0.4814	0.4814	0.5257	0.5009	0.5102	0.5571	0.5999	0.5786	0.7246	0.7163	
MH	Gas	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.5797	0.7076	0.7251	0.7013	
MH	Diesel	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.4203	0.2924	0.2749	0.2987	
CShT	Gas	0.0806	0.0806	0.0806	0.0806	0.0806	0.0806	0.0806	0.0806	0.0910	0.1062	0.0930	0.0730	0.0976	0.0870	0.0811	0.0645	
CShT	Diesel	0.9194	0.9194	0.9194	0.9194	0.9194	0.9194	0.9194	0.9194	0.9090	0.8938	0.9070	0.9270	0.9024	0.9130	0.9189	0.9355	
CLHT	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	

¹ Conventional internal combustion engine technology only.

Texas Statewide 2026 Fuel Engine Fractions Summary by Model Year (Continued).

SUT	Fuel Type	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
MC	Gas	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
PC	Gas	0.9357	0.9466	0.9478	0.9692	0.9575	0.9812	0.9871	0.9816	0.9874	0.9872	0.9844	0.9812	0.9888	0.9991	0.9988
PC	Diesel	0.0106	0.0078	0.0007	0.0005	0.0069	0.0049	0.0034	0.0042	0.0046	0.0034	0.0031	0.0019	0.0022	0.0009	0.0012
PT	Gas	0.7941	0.8410	0.8867	0.8563	0.9113	0.9105	0.8919	0.8574	0.8724	0.9215	0.9056	0.9099	0.9721	0.9555	0.9575
PT	Diesel	0.0133	0.0172	0.0300	0.0279	0.0440	0.0359	0.0406	0.0386	0.0347	0.0410	0.0297	0.0392	0.0128	0.0445	0.0425
LCT	Gas	0.6382	0.7656	0.8132	0.8157	0.8518	0.8698	0.8597	0.8401	0.8430	0.8820	0.8728	0.8633	0.9414	0.8988	0.9070
LCT	Diesel	0.0348	0.0465	0.0802	0.0679	0.0998	0.0852	0.0927	0.0841	0.0848	0.0882	0.0773	0.0986	0.0450	0.1012	0.0930
OBUS	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OBUS	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
TBUS	Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TBUS	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
SBUS	Gas	0.0389	0.0275	0.0130	0.0078	0.0101	0.0066	0.0038	0.0055	0.0260	0.0117	0.0257	0.0100	0.0100	0.0100	0.0415
SBUS	Diesel	0.9611	0.9725	0.9870	0.9922	0.9899	0.9934	0.9962	0.9945	0.9740	0.9883	0.9743	0.9900	0.9900	0.9900	0.9585
RT	Gas	0.0000	0.0046	0.0020	0.0023	0.0009	0.0007	0.0000	0.0004	0.0000	0.0000	0.0000	0.1688	0.4036	0.0193	0.0253
RT	Diesel	1.0000	0.9954	0.9980	0.9977	0.9991	0.9993	1.0000	0.9996	1.0000	1.0000	1.0000	0.8312	0.5964	0.9807	0.9747
SUSHT	Gas	0.3323	0.3834	0.3310	0.2717	0.2733	0.2492	0.2572	0.2512	0.2749	0.3024	0.3629	0.3252	0.4135	0.4154	0.3828
SUSHT	Diesel	0.6677	0.6166	0.6690	0.7283	0.7267	0.7508	0.7428	0.7488	0.7251	0.6976	0.6371	0.6748	0.5865	0.5846	0.6172
SULHT	Gas	0.3323	0.3834	0.3310	0.2717	0.2733	0.2492	0.2572	0.2512	0.2749	0.3024	0.3629	0.3252	0.4135	0.4154	0.3828
SULHT	Diesel	0.6677	0.6166	0.6690	0.7283	0.7267	0.7508	0.7428	0.7488	0.7251	0.6976	0.6371	0.6748	0.5865	0.5846	0.6172
MH	Gas	0.0059	0.5339	0.3808	0.4420	0.5778	0.3493	0.6016	0.5619	0.6028	0.5459	0.6539	0.7975	0.6494	0.8361	0.8008
MH	Diesel	0.9941	0.4661	0.6192	0.5580	0.4222	0.6507	0.3984	0.4381	0.3972	0.4541	0.3461	0.2025	0.3506	0.1639	0.1992
CShT	Gas	0.0768	0.0769	0.0790	0.0543	0.0649	0.0607	0.0769	0.0859	0.0932	0.0957	0.1104	0.1105	0.1092	0.1217	0.1185
CShT	Diesel	0.9232	0.9231	0.9210	0.9457	0.9351	0.9393	0.9231	0.9141	0.9068	0.9043	0.8896	0.8895	0.8908	0.8783	0.8815
CLHT	Diesel	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

¹ Conventional internal combustion engine technology only.

APPENDIX I: METEOROLOGICAL INPUTS TO MOVES

District Number/TxDOT District Name Correlations.

District Number	TxDOT District Name
D01	Abilene
D02	Amarillo
D03	Atlanta
D04	Austin
D05	Beaumont
D06	Brownwood
D07	Bryan
D08	Childress
D09	Corpus Christi
D10	Dallas
D11C	El Paso - Central
D11M	El Paso - Mountain
D12	Fort Worth
D13	Houston
D14	Laredo
D15	Lubbock
D16	Lufkin
D17	Odessa
D18	Paris
D19	Pharr
D20	San Angelo
D21	San Antonio
D22	Tyler
D23	Waco
D24	Wichita Falls
D25	Yoakum

TxDOT District Spring Season Temperature Inputs (Degrees Fahrenheit).¹

Hour	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11C	D11M	D12
1	59.50	51.04	60.42	62.77	65.94	60.56	63.67	56.39	69.37	61.96	61.55	64.22	61.34
2	58.26	49.66	59.25	61.83	65.26	59.39	62.59	54.53	68.64	60.78	60.06	62.60	60.17
3	57.39	48.57	58.57	61.26	64.92	58.55	62.03	53.37	68.35	60.15	59.01	61.25	59.48
4	56.54	47.69	57.81	60.83	64.59	57.72	61.50	52.14	68.00	59.54	57.90	60.06	58.86
5	55.80	46.89	57.19	60.43	64.26	57.02	61.09	51.30	67.79	58.98	56.90	58.78	58.21
6	55.16	46.05	56.72	60.03	63.89	56.32	60.85	50.71	67.51	58.34	55.93	57.59	57.52
7	54.61	45.40	56.45	59.78	63.64	55.85	60.61	50.00	67.25	57.79	55.30	56.86	56.92
8	54.59	45.50	56.91	59.99	64.14	55.81	60.98	50.49	67.52	58.00	55.30	57.65	57.17
9	56.27	47.85	59.05	61.66	66.01	57.77	62.80	53.26	68.97	59.66	58.61	60.24	58.96
10	58.99	51.39	61.95	63.91	68.18	60.74	65.27	56.68	70.78	62.02	63.02	63.26	61.62
11	61.84	54.68	64.44	66.42	70.05	63.64	67.74	60.03	72.49	64.21	66.67	66.53	64.16
12	64.50	57.93	66.45	68.51	71.56	66.12	69.81	62.87	73.92	66.15	69.98	69.36	66.37
13	66.87	60.79	67.96	70.44	72.71	68.09	71.29	65.34	75.08	67.85	72.71	71.61	68.24
14	68.77	63.00	69.52	72.01	73.45	69.90	72.57	67.36	75.83	69.27	75.11	73.55	69.71
15	70.63	64.77	70.57	73.22	73.99	71.37	73.74	68.98	76.37	70.48	76.87	74.95	70.94
16	71.79	66.00	71.39	74.14	74.20	72.46	74.50	69.73	76.55	71.38	77.99	76.01	71.88
17	72.20	66.57	71.74	74.40	73.96	72.97	74.80	70.40	76.36	71.85	78.56	76.52	72.16
18	72.11	66.46	71.54	73.88	73.15	72.82	74.36	70.05	75.69	71.64	78.45	76.12	71.84
19	71.07	65.37	70.51	72.60	71.98	71.78	73.13	68.89	74.49	70.72	77.46	75.20	70.87
20	68.97	62.83	67.97	70.17	70.17	69.31	70.69	65.98	72.82	68.84	74.93	73.20	68.76
21	65.50	58.67	65.11	67.44	68.43	66.15	68.17	62.40	71.37	66.61	70.23	71.07	66.35
22	63.31	55.64	63.40	65.74	67.51	64.03	66.53	60.29	70.68	65.10	66.84	69.20	64.62
23	61.87	53.74	62.22	64.54	66.88	62.56	65.41	58.72	70.21	63.94	64.64	67.22	63.33
24	60.62	52.30	61.30	63.57	66.37	61.43	64.45	57.55	69.78	62.88	62.93	65.64	62.24

¹ Average hourly - March through May 2019.

TxDOT District Spring Season Temperature Inputs (Degrees Fahrenheit)¹ (Continued).

Hour	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24	D25
1	67.02	68.63	53.98	60.36	60.66	60.37	70.70	60.45	64.74	61.17	61.63	58.61	66.53
2	66.28	67.43	52.33	59.43	59.25	59.25	70.08	59.27	63.66	60.06	60.58	57.34	65.72
3	65.90	66.55	51.12	58.89	58.01	58.66	69.67	58.24	63.13	59.39	59.96	56.47	65.28
4	65.51	65.89	50.01	58.36	57.07	58.19	69.20	57.55	62.74	58.73	59.41	55.61	64.93
5	65.21	65.39	49.06	57.93	56.14	57.61	68.80	56.98	62.34	58.20	58.97	54.81	64.60
6	64.99	64.83	48.19	57.51	55.35	57.08	68.40	56.38	62.00	57.87	58.44	54.21	64.44
7	64.83	64.47	47.38	57.41	54.58	56.56	68.12	55.77	61.71	57.63	58.10	53.69	64.20
8	65.36	64.57	47.47	58.46	54.49	57.09	68.27	55.70	61.86	58.12	58.34	53.77	64.57
9	67.11	66.07	49.85	61.51	56.75	59.21	69.88	57.60	63.30	60.23	60.51	55.88	66.76
10	69.07	68.42	53.93	64.48	60.37	61.92	72.08	60.74	65.54	62.84	63.07	58.99	69.32
11	70.95	70.85	57.79	66.90	63.93	64.24	74.41	63.85	67.90	65.23	65.39	61.89	71.67
12	72.55	73.41	61.24	69.27	67.21	66.07	76.58	66.66	70.20	67.18	67.54	64.26	73.57
13	73.72	75.94	64.09	70.95	70.08	67.68	78.30	69.07	72.27	68.84	69.28	66.37	75.04
14	74.56	78.03	66.15	72.24	72.30	68.89	79.62	70.80	74.00	70.19	70.80	68.03	76.16
15	75.10	79.90	68.18	72.91	74.18	70.00	80.56	72.58	75.44	71.30	72.03	69.50	76.97
16	75.29	81.35	69.45	73.28	75.27	70.69	80.85	73.77	76.48	72.21	72.81	70.51	77.34
17	75.05	82.07	70.02	73.37	75.72	71.25	80.60	74.22	76.91	72.55	73.07	70.99	77.19
18	74.35	82.00	69.89	72.88	75.44	70.93	79.69	73.96	76.63	72.22	72.71	70.81	76.35
19	73.20	80.92	68.99	71.18	74.29	69.97	78.10	72.79	75.52	71.11	71.42	69.71	74.81
20	71.51	78.67	66.91	67.67	71.97	67.24	76.02	70.73	73.24	68.51	68.96	67.21	72.42
21	69.91	75.50	62.49	64.69	68.13	64.55	73.95	66.69	70.32	65.65	66.24	63.95	69.97
22	68.90	73.28	59.28	63.13	65.44	63.01	72.70	64.17	68.32	64.01	64.65	61.90	68.68
23	68.17	71.50	57.25	62.05	63.47	61.85	71.87	62.60	66.87	62.95	63.53	60.56	67.81
24	67.53	69.89	55.56	60.98	61.96	61.05	71.25	61.50	65.69	61.96	62.41	59.46	67.04

¹ Average hourly - March through May 2019.

TxDOT District Spring Season Relative Humidity Inputs (Percent).¹

Hour	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11C	D11M	D12
1	68.52	70.80	80.91	78.63	87.71	74.19	83.06	69.68	83.16	74.30	43.73	28.25	72.53
2	70.75	72.89	82.20	79.79	88.38	76.27	85.14	72.76	84.04	75.64	44.74	29.33	74.24
3	73.09	75.20	83.67	81.34	88.90	78.36	86.76	74.52	84.76	76.89	47.02	30.82	75.97
4	75.29	76.76	85.29	82.51	89.29	80.07	87.97	76.40	85.30	78.57	49.13	32.21	77.62
5	77.31	78.05	86.52	83.35	89.84	81.40	88.83	78.15	85.86	79.91	50.32	33.74	79.37
6	78.60	79.44	87.28	84.13	90.11	82.92	89.59	78.31	86.06	81.31	51.20	35.73	80.78
7	79.48	80.31	88.00	84.57	90.66	83.80	90.19	79.78	86.46	82.63	52.07	37.35	82.01
8	79.77	80.26	87.39	84.15	89.88	84.10	89.87	79.72	86.22	82.28	52.33	37.12	81.70
9	76.64	75.92	83.85	80.90	84.89	80.64	86.51	74.30	82.66	78.40	48.27	34.10	77.94
10	70.27	68.10	76.27	74.86	77.45	73.39	80.23	67.25	77.18	72.17	41.88	30.92	71.30
11	63.93	60.90	69.44	68.78	70.80	66.65	73.56	60.39	71.86	66.60	36.31	27.23	65.27
12	58.55	54.15	64.81	63.73	66.41	61.24	67.83	55.23	68.29	62.26	31.62	23.69	60.41
13	53.92	48.77	61.47	59.33	63.18	57.44	63.88	51.20	65.65	58.62	28.18	21.08	56.64
14	50.14	44.75	58.01	55.99	61.77	54.07	61.11	48.32	63.99	55.98	25.56	18.96	53.73
15	46.55	41.93	55.91	53.55	60.19	51.12	59.07	45.85	62.63	53.69	23.46	17.84	51.68
16	44.12	39.93	54.65	51.67	59.71	49.11	57.54	44.59	62.54	52.23	22.04	16.88	50.07
17	43.20	39.11	53.73	51.12	60.95	47.88	56.89	43.38	63.32	51.59	21.49	16.38	49.79
18	43.39	39.11	54.13	51.88	63.16	48.01	57.38	43.34	65.15	52.11	21.09	17.15	50.49
19	45.22	41.05	56.47	54.31	66.48	49.65	59.89	44.45	68.79	54.01	21.67	17.87	52.18
20	48.94	45.33	62.30	59.03	72.16	54.33	65.32	49.37	73.89	58.19	24.12	19.31	56.20
21	55.74	53.51	69.97	65.85	79.50	60.88	71.06	56.60	78.30	63.42	29.02	21.13	61.20
22	60.31	59.80	75.06	70.21	82.95	65.66	75.00	61.32	80.52	66.85	33.70	22.79	64.92
23	63.28	63.95	77.73	73.41	84.98	69.04	77.81	64.48	81.70	69.66	37.62	24.98	67.99
24	66.11	67.55	79.30	76.25	86.70	71.87	80.59	66.99	82.56	72.19	41.57	26.77	70.42

¹ Average hourly - March through May 2019.

TxDOT District Spring Season Relative Humidity Inputs (Percent)¹ (Continued).

Hour	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24	D25
1	82.91	73.25	64.95	88.15	60.40	77.94	81.96	71.59	79.09	81.56	80.12	76.23	87.20
2	83.91	75.54	67.70	89.29	62.56	79.43	83.26	73.87	81.10	83.08	81.43	77.93	88.19
3	84.91	77.80	71.17	90.16	65.79	80.84	84.28	76.27	82.55	84.55	82.99	79.81	89.20
4	85.76	79.12	73.89	90.62	67.94	81.76	85.12	77.80	83.57	85.90	84.23	81.40	90.05
5	86.32	80.09	76.41	91.35	69.72	82.87	86.00	78.59	84.34	87.00	85.60	82.87	90.53
6	86.72	81.35	78.21	92.41	70.91	84.09	86.65	79.78	84.90	87.69	86.67	84.51	91.05
7	87.08	82.14	79.92	92.71	72.13	85.37	86.93	81.06	85.02	88.42	87.71	85.65	91.23
8	85.83	81.98	79.97	92.06	72.18	85.19	86.73	81.55	84.43	87.98	87.66	86.05	90.89
9	81.07	78.26	75.40	87.26	67.93	81.34	82.78	78.28	80.82	83.74	83.16	82.07	87.05
10	74.75	72.46	66.98	79.85	60.63	74.78	76.05	71.80	74.43	77.04	76.02	74.51	80.11
11	68.86	66.87	58.89	73.50	53.12	68.89	68.95	65.41	68.82	70.76	70.05	67.45	73.21
12	64.71	61.39	52.01	68.32	46.74	64.67	63.34	59.40	63.50	66.21	65.21	62.08	67.91
13	61.95	56.56	46.70	64.62	41.78	60.99	59.08	54.65	59.59	62.26	61.32	58.19	64.32
14	60.04	52.57	43.16	61.76	38.41	58.70	56.01	51.35	56.09	59.31	58.41	55.29	62.08
15	59.07	48.77	39.56	60.61	35.51	56.52	53.74	47.94	53.10	56.95	55.97	52.93	60.20
16	58.68	45.81	37.30	59.04	34.08	54.72	53.07	45.50	51.18	55.21	54.19	51.29	59.70
17	59.37	44.45	36.22	58.62	33.74	53.90	53.50	44.37	50.50	54.48	53.93	50.46	60.06
18	61.30	44.36	36.54	59.37	34.26	54.09	55.48	44.32	51.23	55.15	54.22	50.77	61.75
19	64.32	46.42	37.76	62.49	36.12	56.82	59.14	46.05	53.67	57.43	56.63	52.60	64.97
20	69.18	51.19	40.45	70.62	39.50	62.18	64.44	49.47	58.76	63.89	62.03	57.02	70.36
21	73.99	57.24	47.28	78.03	45.64	67.78	70.62	56.83	65.28	71.25	68.65	64.19	77.22
22	77.36	62.27	53.16	81.41	50.54	71.54	74.90	62.19	69.72	75.52	72.27	68.80	80.87
23	79.83	66.26	57.70	84.02	54.78	74.27	77.74	66.07	73.45	77.88	75.33	71.69	83.45
24	81.51	70.27	61.36	86.59	57.64	76.48	79.89	69.05	76.66	79.86	77.72	74.21	85.53

¹ Average hourly - March through May 2019.

TxDOT District Summer Season Temperature Inputs (Degrees Fahrenheit).¹

Hour	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11C	D11M	D12
1	78.04	72.78	75.88	77.83	79.30	77.55	78.29	77.37	81.84	79.34	77.02	82.39	79.23
2	76.98	71.66	75.10	76.82	78.78	76.36	77.36	75.97	81.44	78.42	75.68	80.87	78.17
3	75.86	70.52	74.45	75.89	78.41	75.32	76.59	74.63	80.99	77.49	74.55	79.55	77.18
4	74.80	69.50	73.86	75.20	78.10	74.41	75.87	73.43	80.58	76.65	73.30	78.44	76.28
5	73.92	68.60	73.35	74.60	77.79	73.62	75.34	72.28	80.17	75.91	72.34	77.31	75.51
6	73.16	67.64	72.88	74.07	77.37	72.90	74.95	71.74	79.75	75.31	71.31	76.27	74.83
7	72.46	66.80	72.65	73.69	77.12	72.24	74.70	70.94	79.46	74.87	70.32	75.67	74.31
8	73.13	67.61	73.86	74.64	78.09	73.19	75.69	72.54	80.32	75.81	70.89	76.92	75.28
9	76.18	71.47	76.63	77.35	80.55	76.50	78.54	75.99	82.93	78.27	75.12	79.36	78.02
10	79.53	75.70	79.57	80.27	82.68	80.02	81.62	79.79	85.44	81.03	78.86	82.05	81.21
11	82.67	79.22	82.09	83.15	84.35	83.21	84.40	83.21	87.58	83.61	82.12	85.17	84.15
12	85.44	82.54	84.11	85.84	85.55	85.96	86.77	86.21	89.26	85.95	85.03	87.87	86.60
13	87.98	85.31	85.73	88.21	86.42	88.23	88.64	89.04	90.25	87.81	87.52	90.10	88.57
14	89.97	87.43	86.93	90.08	86.87	90.06	90.04	90.62	90.75	89.15	89.56	92.03	90.02
15	91.69	89.13	87.72	91.43	87.24	91.50	91.08	92.00	90.81	90.15	90.97	93.50	90.93
16	92.76	90.31	88.23	92.23	87.19	92.49	91.58	92.93	90.76	90.91	91.61	94.48	91.56
17	93.16	90.52	88.30	92.45	86.96	92.82	91.63	93.25	90.39	91.20	91.50	94.91	91.87
18	92.65	90.09	87.85	92.02	86.47	92.41	91.14	92.55	89.46	90.91	90.74	94.78	91.59
19	91.42	88.85	86.73	90.68	85.43	91.14	89.77	91.24	88.03	89.74	89.57	93.88	90.32
20	89.47	86.32	84.27	88.24	83.75	88.61	87.39	88.63	86.16	87.72	87.67	91.95	88.13
21	85.60	82.00	80.88	84.75	81.77	84.78	84.24	84.51	84.26	84.94	84.38	89.69	85.28
22	82.72	78.09	78.84	82.30	80.81	81.87	82.16	81.98	83.26	82.94	81.26	87.75	83.02
23	80.75	75.80	77.68	80.57	80.23	80.15	80.75	80.05	82.67	81.57	79.54	85.70	81.57
24	79.31	74.03	76.67	79.11	79.75	78.78	79.46	78.64	82.23	80.38	78.34	83.91	80.33

¹ Average hourly - June through August 2019.

TxDOT District Summer Season Temperature Inputs (Degrees Fahrenheit)¹ (Continued).

Hour	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24	D25
1	80.46	83.85	73.86	75.42	79.15	77.58	81.65	77.74	79.11	76.59	78.51	77.20	79.94
2	79.93	82.57	72.64	74.57	77.80	76.71	81.10	76.62	77.96	75.80	77.42	76.08	79.32
3	79.52	81.28	71.21	73.73	76.45	75.97	80.57	75.24	77.02	75.19	76.41	75.10	78.80
4	79.15	80.17	70.14	73.29	75.30	75.35	80.11	74.18	76.38	74.63	75.60	74.32	78.39
5	78.81	79.26	69.20	72.87	74.24	74.72	79.70	73.20	75.97	74.15	74.94	73.54	77.98
6	78.43	78.40	68.18	72.64	73.27	74.22	79.29	72.35	75.64	73.75	74.35	72.92	77.64
7	78.16	77.72	67.26	72.64	72.39	73.93	78.97	71.62	75.36	73.49	73.97	72.43	77.35
8	79.29	78.33	67.68	74.50	72.95	75.58	79.68	72.01	76.04	74.71	75.14	73.49	78.34
9	81.80	80.88	71.62	77.69	76.20	78.42	82.60	75.43	78.28	77.15	78.13	76.83	81.50
10	83.96	83.90	75.86	80.91	80.00	81.53	85.70	79.05	80.90	79.73	81.32	80.35	84.49
11	85.73	87.04	79.50	83.36	83.71	84.02	88.49	82.49	83.59	82.20	84.18	83.60	86.93
12	87.26	90.20	82.88	85.58	87.08	86.21	90.84	85.59	86.25	84.38	86.55	86.23	88.93
13	88.31	93.11	85.87	87.29	90.03	87.70	92.64	88.29	88.59	86.15	88.49	88.28	90.28
14	88.75	95.52	88.03	88.62	92.25	89.01	93.96	90.11	90.53	87.51	90.04	89.90	91.38
15	88.98	97.50	89.92	89.32	94.02	90.02	94.68	92.10	92.02	88.48	91.17	91.27	92.09
16	89.15	98.65	90.88	89.49	95.12	90.46	94.74	93.07	93.13	88.99	91.84	92.06	92.27
17	88.94	99.40	91.39	89.27	95.45	90.57	94.25	93.41	93.63	89.03	91.80	92.38	91.98
18	88.32	99.15	91.13	88.08	95.20	90.09	93.15	93.00	93.49	88.47	91.31	91.97	91.07
19	87.17	98.15	89.97	86.56	93.92	88.68	91.34	91.79	92.51	87.24	90.22	90.73	89.49
20	85.50	96.01	88.01	83.53	91.69	86.37	88.94	89.92	90.24	84.93	88.05	88.50	87.35
21	83.59	92.35	83.81	79.94	88.23	82.93	86.25	85.88	86.85	81.57	84.62	84.42	84.32
22	82.43	89.44	79.80	78.33	85.04	80.66	84.50	82.82	84.17	79.63	82.40	81.45	82.47
23	81.65	87.19	77.30	77.27	82.69	79.44	83.27	80.78	82.26	78.47	80.77	79.78	81.42
24	81.01	85.51	75.31	76.22	80.78	78.43	82.37	79.11	80.55	77.49	79.53	78.47	80.58

¹ Average hourly - June through August 2019.

TxDOT District Summer Season Relative Humidity Inputs (Percent).¹

Hour	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11C	D11M	D12
1	60.87	63.83	86.50	75.76	89.08	69.12	82.84	63.07	84.39	74.20	48.98	32.09	69.96
2	63.41	66.17	87.90	78.59	90.07	72.17	85.80	65.35	85.18	76.53	52.07	34.12	72.72
3	66.26	69.13	89.20	81.63	90.83	75.43	88.36	69.13	86.16	79.02	54.33	36.28	75.27
4	68.83	71.45	90.08	83.65	91.28	78.10	90.28	71.48	86.87	80.99	56.62	38.17	77.46
5	71.24	73.56	90.99	85.33	91.64	80.58	91.68	74.24	87.70	82.72	58.05	40.06	79.50
6	73.40	75.65	91.79	86.70	91.97	82.62	92.62	75.75	88.35	84.26	59.72	41.74	81.34
7	75.61	77.33	92.25	87.83	92.20	84.52	93.25	77.90	88.98	85.49	61.61	42.62	82.82
8	74.64	76.20	90.44	86.10	90.31	83.40	92.07	75.95	87.25	83.39	60.96	41.20	81.05
9	68.34	68.12	83.83	79.73	83.68	75.92	86.10	68.62	79.73	77.00	53.56	37.68	74.83
10	61.51	59.10	75.88	71.15	76.96	67.19	77.05	60.40	71.65	69.63	46.21	34.03	67.11
11	55.28	52.21	68.90	63.26	71.43	59.86	68.37	54.33	65.20	63.36	40.42	29.79	60.50
12	49.84	46.01	63.86	56.87	67.32	54.01	61.66	49.43	60.64	57.97	35.60	26.27	55.24
13	44.76	41.41	60.02	51.74	64.45	49.43	56.97	44.76	58.15	54.08	31.69	23.49	51.19
14	41.20	38.03	57.20	47.77	63.16	45.64	53.84	41.82	57.21	51.43	28.69	21.32	48.38
15	37.80	35.13	55.71	45.17	62.10	42.70	51.71	39.81	56.92	49.57	26.70	19.66	46.49
16	35.73	33.09	54.71	43.45	62.47	40.56	50.84	37.63	57.74	48.06	26.09	18.60	45.00
17	34.98	32.46	54.56	43.07	63.50	39.61	50.68	36.50	59.23	47.34	26.53	17.92	44.35
18	35.64	32.90	55.73	43.68	65.11	40.09	51.65	36.81	61.58	47.68	27.47	17.84	44.42
19	37.37	34.66	58.21	45.99	68.46	41.85	54.42	38.31	65.60	49.79	28.93	18.63	46.48
20	40.29	38.32	64.80	50.44	73.74	46.17	59.92	42.18	70.57	54.02	30.87	20.63	50.52
21	46.78	45.79	74.13	58.04	81.21	53.09	67.26	48.35	76.42	60.36	35.46	22.77	56.01
22	51.59	52.94	80.13	63.69	84.76	58.92	72.24	53.49	79.68	65.17	40.34	24.81	60.73
23	55.21	57.41	82.86	68.08	86.62	62.64	75.85	57.73	81.72	68.55	43.24	27.12	64.16
24	57.96	61.05	85.03	72.02	87.94	65.91	79.41	60.14	83.18	71.42	46.07	29.62	67.04

¹ Average hourly - June through August 2019.

TxDOT District Summer Season Relative Humidity Inputs (Percent)¹ (Continued).

Hour	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24	D25
1	83.36	64.86	59.16	90.93	51.65	79.67	80.16	63.95	76.43	86.06	76.53	74.38	86.49
2	84.92	67.95	61.68	92.41	54.14	81.94	82.19	66.99	79.44	87.89	79.54	76.86	88.02
3	85.99	71.58	65.11	94.00	57.05	84.15	83.98	71.07	82.37	89.35	82.29	79.47	89.45
4	86.88	74.71	67.70	94.56	59.66	85.22	85.32	74.20	84.29	90.64	84.39	81.29	90.41
5	87.72	76.91	70.05	94.73	62.41	86.68	86.48	77.14	85.56	91.79	86.25	83.31	91.17
6	88.37	79.67	72.57	94.52	64.94	87.89	87.49	79.63	86.75	92.59	88.23	84.91	91.77
7	88.61	82.00	74.63	94.88	67.35	88.48	88.40	81.79	87.61	93.09	89.52	86.35	92.19
8	85.77	80.45	74.13	92.54	66.85	86.19	87.21	81.66	86.46	90.77	87.86	84.98	91.52
9	78.94	74.65	66.30	86.90	61.13	79.53	79.00	75.52	80.77	84.55	80.34	77.49	85.33
10	72.37	67.48	57.89	79.09	54.16	71.29	68.33	67.24	72.88	77.14	71.37	69.47	75.64
11	66.44	60.36	51.28	72.40	47.26	65.27	59.10	59.43	65.20	70.25	64.09	62.45	67.35
12	61.65	53.27	45.28	66.49	41.07	60.33	52.41	52.88	58.17	64.69	58.55	57.26	61.69
13	58.82	47.16	39.89	62.53	35.83	57.00	47.58	47.25	52.63	60.52	54.46	53.17	58.42
14	57.56	42.61	36.31	59.47	32.30	54.15	44.48	43.55	48.43	57.56	51.13	50.15	55.95
15	56.97	38.06	32.63	57.99	29.29	52.12	42.92	39.58	44.83	55.59	48.61	47.45	54.53
16	56.86	35.64	30.79	57.18	27.60	51.28	43.02	37.48	42.59	54.49	47.11	46.00	54.39
17	57.71	34.15	29.88	57.78	26.98	50.83	44.03	36.47	41.62	54.36	46.94	45.41	54.99
18	59.48	34.49	29.96	60.21	27.15	51.43	46.15	36.82	41.69	55.45	47.68	45.85	56.92
19	62.60	35.82	31.27	63.58	28.54	53.97	50.31	38.17	43.82	58.47	49.54	47.71	60.37
20	67.27	40.08	33.89	71.36	31.70	59.25	56.12	40.56	48.84	64.90	53.82	51.35	65.39
21	72.69	47.77	40.23	80.77	36.57	66.94	63.82	47.00	56.64	74.54	61.47	59.25	73.44
22	76.37	52.91	46.90	84.53	41.47	72.37	69.52	52.18	62.66	79.37	66.54	65.33	78.83
23	79.27	57.15	51.78	86.97	45.26	75.05	73.88	56.18	67.49	81.92	70.40	68.81	82.08
24	81.48	60.56	55.77	89.20	48.71	77.71	77.33	60.24	72.38	83.91	73.71	71.54	84.46

¹ Average hourly - June through August 2019.

TxDOT District Fall Season Temperature Inputs (Degrees Fahrenheit).¹

Hour	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11C	D11M	D12
1	60.62	52.73	61.02	65.01	67.23	61.80	65.10	57.26	72.08	63.97	60.87	63.54	63.54
2	60.12	52.29	60.46	64.39	66.97	61.02	64.47	56.43	71.66	63.22	60.40	62.81	62.76
3	59.10	51.40	59.82	63.49	66.62	60.14	63.66	55.16	71.15	62.39	59.63	61.85	61.90
4	58.40	50.59	59.12	62.69	66.28	59.18	62.95	54.25	70.69	61.63	58.81	60.98	61.12
5	57.78	49.78	58.45	62.02	65.92	58.43	62.13	53.50	70.24	60.98	58.20	60.11	60.42
6	57.19	48.90	57.95	61.55	65.58	57.79	61.51	52.75	69.94	60.54	57.61	59.27	59.88
7	56.57	48.14	57.50	61.14	65.22	57.30	61.09	52.22	69.60	60.01	56.92	58.56	59.37
8	56.10	47.59	57.29	61.01	65.04	56.68	60.80	51.76	69.44	59.80	56.33	58.55	59.05
9	57.44	48.82	59.26	62.94	66.67	58.59	62.85	54.22	70.92	61.52	57.80	60.33	60.75
10	60.89	52.92	62.96	66.25	69.37	62.60	66.66	58.58	73.58	64.64	61.94	63.12	64.16
11	64.58	57.04	66.53	69.58	71.96	66.74	70.24	62.62	75.83	67.82	65.24	66.32	67.63
12	67.67	60.74	69.56	72.58	74.13	70.09	73.20	66.11	77.64	70.64	68.14	69.03	70.58
13	70.15	63.60	71.75	75.09	75.69	72.64	75.56	68.97	79.00	72.79	70.79	71.15	72.89
14	72.34	65.76	73.35	76.89	76.42	74.65	77.31	71.02	79.76	74.48	72.76	72.78	74.71
15	73.96	67.38	74.42	78.24	76.65	76.09	78.27	72.34	80.20	75.73	74.03	74.03	75.98
16	74.92	68.61	74.97	79.00	76.86	76.91	78.79	73.06	80.38	76.46	74.87	74.75	76.73
17	75.25	68.89	74.75	79.01	76.58	77.14	78.78	73.08	79.98	76.56	74.93	74.95	76.70
18	74.65	68.00	73.64	78.07	75.45	76.26	77.76	72.04	78.71	75.74	74.17	74.28	75.84
19	72.44	65.30	70.60	75.77	73.23	74.01	75.31	68.47	76.85	73.63	72.04	72.78	73.67
20	69.02	61.47	67.29	72.65	71.12	70.50	72.29	64.91	75.10	71.08	68.47	70.78	70.76
21	66.19	58.29	65.10	70.21	69.73	67.76	70.11	62.50	74.10	69.05	65.58	69.01	68.55
22	64.20	56.42	63.63	68.53	68.82	65.72	68.60	60.66	73.48	67.42	63.96	67.58	66.93
23	62.78	55.00	62.60	67.21	68.17	64.35	67.28	59.40	72.94	66.14	62.74	65.93	65.67
24	61.60	53.73	61.78	66.02	67.66	63.01	66.13	58.09	72.48	65.02	61.80	64.64	64.63

¹ Average hourly - September through November 2019.

TxDOT District Fall Season Temperature Inputs (Degrees Fahrenheit)¹ (Continued).

Hour	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24	D25
1	68.56	69.93	54.17	62.21	61.57	62.29	71.67	61.57	66.34	62.68	64.20	60.09	67.97
2	68.26	69.24	53.80	61.74	60.83	61.74	71.22	60.94	65.66	62.23	63.44	59.60	67.58
3	67.86	68.35	52.73	61.41	59.68	61.11	70.62	59.66	64.88	61.49	62.40	58.75	67.06
4	67.49	67.61	51.74	60.58	58.72	60.59	70.16	58.71	64.21	60.72	61.53	58.06	66.62
5	67.09	67.01	51.07	60.08	57.81	59.95	69.70	57.95	63.61	59.91	60.78	57.23	66.04
6	66.72	66.38	50.41	59.68	57.12	59.62	69.38	57.34	63.15	59.43	60.26	56.63	65.60
7	66.42	65.79	49.80	59.45	56.45	59.14	69.09	56.67	62.73	58.99	60.01	55.99	65.27
8	66.39	65.50	49.24	59.82	55.93	58.90	68.99	56.29	62.48	58.93	59.61	55.56	65.07
9	68.00	66.82	50.79	63.16	57.43	61.29	70.73	58.17	63.97	61.05	61.72	57.36	67.19
10	70.66	69.68	55.28	66.93	61.33	64.87	73.97	62.33	66.94	64.62	65.29	61.39	70.87
11	72.98	72.67	59.83	70.66	65.40	68.25	76.94	66.47	70.04	68.00	68.90	65.55	74.24
12	74.85	75.52	63.40	73.49	68.89	71.02	79.35	69.98	72.96	70.77	71.77	68.89	76.94
13	76.13	78.14	66.16	75.51	71.72	73.27	81.04	72.68	75.40	72.99	73.96	71.59	78.93
14	76.94	80.24	67.96	77.02	73.92	74.88	82.16	74.37	77.38	74.58	75.70	73.32	80.01
15	77.50	81.95	69.61	77.61	75.59	75.96	82.68	76.15	78.83	75.48	77.11	74.78	80.74
16	77.70	83.08	70.60	77.97	76.68	76.53	82.80	77.25	79.70	75.97	78.04	75.50	80.81
17	77.35	83.56	70.71	77.54	77.07	76.37	82.37	77.49	80.01	75.91	78.02	75.48	80.27
18	76.22	82.93	70.06	75.46	76.47	75.18	81.20	76.82	79.45	74.98	77.11	74.46	78.75
19	74.23	80.91	67.38	71.67	74.34	72.27	79.14	74.51	77.36	72.12	74.30	71.72	76.10
20	72.40	78.02	63.56	68.49	71.14	69.22	76.88	71.57	74.36	68.83	71.20	68.15	73.38
21	71.16	75.52	59.91	66.32	68.15	66.60	75.22	67.89	71.91	66.68	69.07	65.31	71.40
22	70.29	73.82	57.82	65.07	65.99	65.25	74.06	65.77	70.05	65.43	67.54	63.63	70.25
23	69.58	72.26	56.27	64.19	64.35	64.16	73.08	64.20	68.57	64.38	66.29	62.28	69.38
24	69.03	71.04	55.07	63.28	62.87	63.12	72.33	62.79	67.33	63.52	64.91	61.09	68.63

¹ Average hourly - September through November 2019.

TxDOT District Fall Season Relative Humidity Inputs (Percent).¹

Hour	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11C	D11M	D12
1	60.76	66.43	85.51	74.19	88.06	66.39	80.27	65.88	82.13	71.11	62.04	47.61	67.93
2	63.02	68.71	87.02	76.30	88.83	69.29	82.28	68.08	82.79	73.93	63.66	49.63	70.95
3	65.22	70.73	87.86	79.03	89.29	71.49	84.07	70.88	83.90	76.09	65.25	51.57	73.10
4	66.95	72.55	88.73	81.06	89.82	73.75	85.47	73.02	84.65	78.08	66.27	53.25	75.10
5	68.50	74.11	89.62	82.64	90.18	76.07	86.89	74.91	85.48	79.79	67.37	55.08	77.01
6	70.11	75.73	90.43	83.73	90.60	78.08	87.94	75.23	86.10	81.41	68.34	56.56	78.66
7	71.29	76.88	91.01	84.54	90.64	79.73	88.64	76.00	86.45	82.72	69.25	57.71	80.30
8	72.69	77.83	90.93	84.49	90.37	81.17	88.82	77.33	86.27	83.48	70.32	57.35	81.34
9	70.05	75.29	87.72	80.62	86.49	78.02	85.36	72.39	82.37	79.78	67.96	53.63	77.97
10	63.54	66.60	80.26	72.59	78.84	69.91	77.59	64.59	75.74	72.24	61.09	48.67	70.29
11	56.52	58.03	70.44	64.15	71.28	60.89	68.28	57.34	69.51	64.22	54.84	42.81	61.84
12	50.73	50.88	62.67	56.98	65.39	53.75	60.74	51.42	64.33	57.31	49.53	38.48	55.08
13	46.17	45.69	57.44	51.19	61.22	48.52	55.09	46.91	60.70	52.27	45.06	35.10	50.16
14	42.94	42.25	54.09	47.29	59.53	44.46	51.30	44.04	58.55	48.86	42.26	32.85	46.55
15	40.19	39.76	51.96	44.64	59.10	41.85	49.11	41.69	57.45	46.57	40.22	31.37	44.11
16	38.90	37.92	50.81	43.25	59.01	40.36	48.21	40.00	57.66	45.10	38.65	30.33	42.69
17	38.13	37.35	51.34	43.04	59.79	39.98	48.24	39.79	59.26	44.90	38.87	29.78	42.52
18	38.56	38.55	54.06	44.61	63.00	40.78	50.29	41.30	62.74	46.53	39.81	30.62	43.85
19	41.53	42.72	62.51	48.97	70.56	44.04	55.58	45.85	67.89	50.64	42.56	32.44	47.60
20	46.56	49.06	71.91	55.13	77.69	49.33	62.48	51.61	72.54	55.90	47.76	35.48	52.96
21	51.59	55.04	77.44	60.67	82.47	53.98	67.40	55.59	76.07	60.33	52.71	38.36	57.14
22	55.10	58.66	80.90	64.61	84.90	57.90	70.98	58.87	78.13	63.68	56.06	40.58	59.94
23	57.23	61.37	83.15	68.14	86.48	60.67	74.48	61.36	79.77	66.32	58.45	43.44	62.70
24	59.27	64.16	84.49	71.42	87.39	63.54	77.63	64.05	81.14	68.70	60.33	45.58	65.23

¹ Average hourly - September through November 2019.

TxDOT District Fall Season Relative Humidity Inputs (Percent)¹ (Continued).

Hour	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24	D25
1	83.47	68.08	66.56	88.32	58.84	77.35	81.84	65.11	75.94	82.07	72.77	71.87	86.39
2	84.68	70.80	68.32	90.13	60.68	79.05	83.07	67.47	78.35	84.17	75.79	74.19	87.69
3	85.42	73.68	70.92	90.91	62.68	80.45	84.14	70.67	80.47	85.76	78.78	76.56	88.75
4	86.08	75.89	73.09	91.41	64.40	82.51	84.92	72.92	82.20	87.22	80.90	78.60	89.62
5	86.51	77.81	74.38	91.71	66.20	83.99	85.49	75.09	83.15	88.48	82.77	80.51	90.15
6	86.84	79.28	75.85	92.15	67.63	85.34	86.14	76.87	84.01	89.38	84.52	82.06	90.62
7	87.22	80.83	76.92	92.43	68.99	85.21	86.56	78.41	84.82	90.08	86.21	83.59	90.89
8	87.06	81.69	77.94	92.19	69.98	85.64	86.56	79.59	85.35	89.86	87.08	84.46	90.85
9	83.32	77.96	74.98	87.54	67.19	83.60	83.11	76.89	81.18	85.61	82.86	80.94	87.94
10	76.46	71.40	65.89	78.93	60.46	75.46	75.05	69.99	73.15	77.27	74.21	72.17	79.81
11	69.51	63.97	57.43	70.17	53.15	66.57	66.66	61.63	64.98	68.62	65.11	63.11	70.87
12	64.04	57.10	51.33	63.46	46.97	59.62	60.14	54.64	57.66	61.88	58.22	56.16	63.45
13	60.53	51.20	46.35	58.73	42.27	54.56	55.82	49.33	52.16	56.72	53.15	50.98	58.75
14	58.63	46.87	43.44	56.01	38.75	51.38	53.01	46.13	48.43	53.16	49.14	48.35	56.22
15	57.43	43.21	40.76	55.00	36.16	49.23	51.83	42.61	45.06	51.18	46.14	46.01	54.79
16	57.17	41.09	38.85	54.22	34.66	47.99	51.51	40.31	43.14	50.05	44.21	44.50	54.67
17	58.32	40.11	38.78	55.40	33.99	48.03	52.32	39.32	42.43	50.15	44.03	44.13	55.74
18	61.48	41.05	39.32	59.59	35.13	50.09	54.82	39.76	43.45	52.25	45.63	45.43	58.55
19	67.19	44.37	42.76	68.96	38.20	56.56	60.09	42.70	48.03	59.64	50.95	49.44	64.75
20	72.08	49.51	47.83	76.92	42.79	63.62	66.18	46.84	54.54	68.15	56.98	55.22	71.41
21	75.58	54.72	55.11	81.26	47.46	69.00	71.50	53.16	60.19	73.31	61.66	60.70	76.83
22	78.36	58.54	59.28	83.39	51.08	71.78	75.16	57.01	64.72	76.21	65.05	64.07	79.99
23	80.62	61.88	62.26	85.69	54.12	73.34	77.96	60.30	69.00	78.60	67.94	66.89	82.44
24	82.21	64.98	64.38	87.31	56.53	75.08	80.14	62.65	73.11	80.47	70.40	69.70	84.59

¹ Average hourly - September through November 2019.

TxDOT District Winter Season Temperature Inputs (Degrees Fahrenheit).¹

Hour	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11C	D11M	D12
1	43.66	34.15	45.18	48.49	53.56	44.35	48.82	37.79	57.56	46.05	45.15	45.16	45.37
2	43.03	33.33	44.61	47.90	53.18	43.92	48.34	36.98	57.02	45.47	44.15	44.08	44.77
3	42.31	32.68	44.10	47.38	52.69	43.36	47.95	36.13	56.52	44.91	43.14	43.08	44.22
4	41.62	32.20	43.64	46.94	52.22	42.86	47.51	35.40	56.18	44.38	42.44	42.16	43.66
5	40.87	31.47	43.28	46.44	51.79	42.17	47.08	34.93	55.84	43.77	41.87	41.36	43.04
6	40.33	30.97	42.97	46.04	51.40	41.72	46.66	34.54	55.41	43.22	41.22	40.73	42.56
7	39.69	30.54	42.70	45.72	51.22	41.27	46.32	33.91	55.08	42.82	40.67	40.19	42.16
8	39.31	30.16	42.61	45.69	51.46	41.16	46.32	33.50	55.12	42.74	40.21	40.82	42.06
9	41.27	31.90	44.56	47.56	53.38	43.23	48.08	36.73	56.71	44.30	43.74	43.27	43.72
10	45.01	36.04	47.44	50.39	55.83	46.92	50.57	41.01	58.88	46.82	48.76	46.65	46.46
11	48.47	40.71	50.14	53.29	58.11	50.35	53.20	45.02	61.04	49.46	52.24	49.96	49.29
12	51.55	44.52	52.58	55.90	59.94	53.28	55.52	48.55	62.89	51.76	55.23	52.69	51.86
13	53.95	47.50	54.42	58.04	61.17	55.70	57.42	51.42	64.18	53.52	57.76	55.16	53.87
14	56.15	49.88	55.68	59.81	61.95	57.54	58.90	52.81	65.07	54.92	59.87	56.90	55.37
15	57.35	51.49	56.50	60.86	62.26	58.61	59.85	54.11	65.60	55.80	61.17	57.97	56.24
16	57.94	52.19	56.61	61.15	62.05	59.32	60.10	54.99	65.59	55.98	61.68	58.35	56.40
17	57.37	51.50	55.79	60.41	61.06	58.62	59.43	54.02	64.77	55.24	61.13	57.70	55.60
18	54.85	48.30	53.47	58.05	59.06	55.90	57.23	49.91	62.90	53.32	58.68	55.93	53.37
19	51.46	44.35	51.07	55.31	57.24	52.28	54.83	46.37	61.06	51.30	54.32	53.64	50.98
20	48.73	41.40	49.42	53.34	56.09	49.85	53.20	44.23	59.92	49.77	51.52	51.85	49.40
21	47.16	39.44	48.19	51.90	55.28	48.09	51.98	42.80	59.22	48.66	49.76	50.48	48.28
22	46.02	37.78	47.16	50.77	54.69	46.88	50.90	41.38	58.69	47.77	48.36	49.07	47.30
23	45.03	36.38	46.27	49.77	54.21	45.86	50.01	39.96	58.22	47.03	47.15	47.81	46.49
24	44.33	35.29	45.47	48.91	53.76	45.00	49.29	38.96	57.80	46.43	46.06	46.67	45.86

¹ Average hourly - December through February 2019.

TxDOT District Winter Season Temperature Inputs (Degrees Fahrenheit)¹ (Continued).

Hour	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24	D25
1	54.68	53.91	37.12	46.43	44.28	44.15	59.23	43.82	50.65	46.17	46.42	41.65	53.19
2	54.20	53.00	35.94	45.89	43.14	43.71	58.77	43.02	49.99	45.77	45.83	41.02	52.52
3	53.77	52.23	35.05	45.35	42.15	43.29	58.33	42.35	49.46	45.29	45.32	40.44	52.09
4	53.30	51.58	34.28	44.99	41.41	42.85	57.92	41.67	48.95	44.93	44.86	39.80	51.57
5	52.91	50.97	33.52	44.66	40.54	42.40	57.58	41.17	48.44	44.54	44.28	39.17	51.26
6	52.60	50.37	33.05	44.46	39.89	42.02	57.26	40.68	48.08	44.29	43.85	38.79	50.90
7	52.32	49.91	32.80	44.28	39.30	41.54	57.03	40.30	47.79	44.03	43.39	38.42	50.61
8	52.38	49.76	32.48	45.14	39.08	41.65	57.09	40.06	47.79	44.03	43.43	38.31	50.79
9	54.07	52.16	34.65	47.80	42.02	43.75	58.96	42.74	49.72	45.86	45.57	40.06	53.11
10	56.36	55.34	40.10	50.34	46.71	46.61	61.71	47.31	52.59	48.49	48.49	43.22	56.20
11	58.45	58.44	45.16	52.82	50.91	49.38	64.32	51.66	55.58	51.10	51.46	46.37	59.11
12	60.10	61.40	49.21	55.16	54.50	51.63	66.43	55.13	58.15	53.40	54.06	49.07	61.41
13	61.28	63.73	52.04	56.91	57.24	53.32	68.02	57.30	60.26	55.20	56.08	51.15	62.89
14	62.17	65.78	54.41	58.09	59.38	54.34	69.24	59.59	61.97	56.57	57.60	52.79	63.94
15	62.66	67.11	55.76	58.84	60.79	55.09	69.94	60.79	63.17	57.40	58.52	53.84	64.64
16	62.64	68.00	56.24	58.88	61.51	55.08	69.95	61.36	63.80	57.63	58.80	54.29	64.72
17	61.95	67.80	55.36	57.59	61.25	53.86	69.14	60.82	63.36	56.81	57.84	53.58	63.85
18	60.25	65.71	52.57	54.24	58.81	51.24	67.10	58.00	61.28	54.53	55.21	51.03	61.21
19	58.60	62.83	48.16	51.67	55.06	49.16	64.66	54.36	58.48	52.16	52.66	48.22	58.70
20	57.45	60.20	44.59	50.30	51.90	47.50	62.84	50.31	56.24	50.48	50.74	46.16	56.94
21	56.60	58.55	42.50	49.23	49.76	46.31	61.70	48.09	54.63	49.21	49.46	44.76	55.91
22	55.94	57.04	40.74	48.44	48.21	45.54	60.89	46.55	53.34	48.20	48.40	43.72	55.12
23	55.40	55.88	39.47	47.63	46.84	44.91	60.26	45.41	52.15	47.29	47.54	42.95	54.36
24	54.96	54.72	38.18	46.91	45.56	44.38	59.74	44.50	51.24	46.50	46.96	42.04	53.67

¹ Average hourly - December through February 2019.

TxDOT District Winter Season Relative Humidity Inputs (Percent).¹

Hour	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11C	D11M	D12
1	65.14	69.02	83.65	78.29	87.05	74.89	83.35	67.90	83.37	75.65	52.97	49.19	73.79
2	66.91	70.81	84.63	79.26	87.43	76.21	83.81	69.77	84.26	76.83	54.52	51.31	74.93
3	68.59	72.06	85.39	80.12	88.12	77.53	84.18	71.00	84.77	77.89	55.94	52.87	76.26
4	70.13	72.74	86.12	80.84	88.49	78.85	84.64	72.63	84.75	78.95	56.94	54.15	77.32
5	71.18	73.98	86.72	81.67	88.92	80.00	85.47	73.39	84.53	80.16	57.68	55.29	78.49
6	72.00	74.76	87.16	82.27	89.12	80.75	85.85	74.06	85.08	80.87	58.85	56.19	79.45
7	73.33	75.37	87.61	82.46	89.01	81.47	86.60	74.80	85.19	81.53	59.96	56.94	80.42
8	74.44	75.85	87.45	82.99	88.22	81.85	86.65	75.50	84.85	81.64	60.96	55.23	80.56
9	71.56	73.61	84.44	79.24	84.28	78.97	83.32	70.69	81.39	78.57	56.75	50.47	77.18
10	63.88	66.16	77.99	72.93	78.01	71.30	78.20	62.62	76.30	72.44	48.47	44.81	71.06
11	56.56	55.76	70.54	66.42	71.37	63.32	72.43	54.82	70.85	66.08	43.15	39.78	64.80
12	50.96	48.12	64.27	60.96	66.49	57.34	67.68	48.49	66.29	61.02	38.53	35.72	59.24
13	47.05	43.07	60.18	56.62	63.26	52.89	63.64	43.59	63.09	57.57	34.86	32.29	55.31
14	43.54	39.20	57.33	53.45	60.88	49.35	60.80	40.85	60.96	55.26	31.94	29.93	52.77
15	41.41	36.90	55.55	51.45	59.65	47.05	59.12	39.48	59.80	53.80	30.39	29.00	51.15
16	40.21	35.82	55.25	50.93	60.59	45.70	58.62	38.10	60.14	53.48	29.33	28.71	50.79
17	40.58	36.79	57.36	52.47	63.84	46.35	59.94	39.06	62.74	55.11	29.76	29.88	52.18
18	44.68	42.16	63.78	57.35	71.01	50.70	64.81	44.61	68.32	59.21	32.32	32.57	56.17
19	49.82	48.46	70.28	63.30	76.65	56.98	70.38	49.89	73.56	63.37	37.83	36.33	60.87
20	55.03	54.23	74.42	68.36	80.48	62.21	74.13	54.19	77.13	66.60	41.65	39.48	64.68
21	57.91	58.50	77.58	71.56	82.65	66.34	76.64	57.32	79.25	69.10	44.99	41.45	67.44
22	60.22	62.20	79.82	73.80	84.34	69.16	79.04	60.37	80.74	71.30	47.60	43.25	69.86
23	62.31	65.13	81.29	76.14	85.50	71.40	80.73	63.57	81.92	73.10	49.90	44.85	71.62
24	63.80	67.22	82.50	77.89	86.49	73.30	82.48	66.03	82.46	74.56	51.46	46.74	72.66

¹ Average hourly - December through February 2019.

TxDOT District Winter Season Relative Humidity Inputs (Percent)¹ (Continued).

Hour	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24	D25
1	82.83	73.05	62.94	87.87	59.00	80.52	82.80	71.99	78.42	82.92	79.29	77.33	86.75
2	83.47	75.16	65.48	88.40	61.44	81.23	83.54	73.75	79.32	83.69	80.00	78.75	87.06
3	84.09	76.47	67.84	88.94	63.51	82.13	84.17	74.69	79.74	84.30	81.39	79.66	87.38
4	84.70	77.63	69.49	88.95	64.69	82.84	84.83	76.15	80.31	85.10	82.34	80.71	87.74
5	85.11	79.07	71.03	89.11	66.56	83.94	85.30	77.16	81.27	86.11	83.40	81.67	88.12
6	85.29	80.10	72.10	89.43	67.72	84.54	85.46	78.12	81.79	86.62	84.11	82.45	88.50
7	85.33	80.72	72.70	89.71	68.82	85.15	85.27	78.72	81.97	87.00	85.17	83.13	88.74
8	85.04	81.48	73.26	89.67	69.29	85.11	84.75	79.43	81.67	87.09	85.07	83.35	88.36
9	81.40	76.21	69.85	85.76	63.90	81.74	81.41	75.77	77.33	83.90	81.44	80.32	85.34
10	75.48	69.09	59.49	80.03	55.17	75.56	75.21	67.39	70.94	77.83	75.26	73.28	79.46
11	69.97	62.54	50.24	73.87	47.76	69.21	68.64	58.98	64.29	70.87	68.63	66.16	72.54
12	65.61	56.92	43.41	68.37	41.94	63.82	63.22	52.36	59.19	65.25	63.19	60.26	67.05
13	62.30	52.86	38.82	64.55	37.96	60.34	59.03	48.66	55.41	61.39	59.26	56.14	63.57
14	60.04	48.73	34.65	61.89	34.65	58.26	56.09	44.69	52.38	58.51	56.50	53.22	61.22
15	58.97	46.36	32.40	60.38	32.56	57.20	54.46	42.57	50.46	56.77	54.51	51.20	59.88
16	59.16	44.87	31.62	60.40	31.51	56.76	54.14	41.22	49.56	56.59	53.83	50.39	59.71
17	61.36	45.32	32.71	63.54	31.80	58.92	56.07	41.63	50.80	58.59	55.94	51.48	61.44
18	66.34	49.27	35.83	71.69	35.14	64.21	60.99	45.74	55.32	64.04	61.64	56.12	67.52
19	71.01	54.58	41.12	79.03	40.28	68.76	67.13	51.27	60.93	69.92	67.25	61.66	73.81
20	74.41	59.66	47.10	82.35	45.20	72.77	72.29	59.08	66.10	74.29	70.82	66.75	78.17
21	76.93	62.78	50.91	84.53	49.07	75.57	75.69	63.61	70.07	77.08	73.63	70.27	80.76
22	78.92	65.88	54.03	85.56	52.14	77.05	78.11	66.56	72.73	79.21	75.55	72.84	82.86
23	80.39	68.78	57.50	86.20	54.64	78.42	79.94	68.71	75.17	80.96	77.45	74.59	84.47
24	81.75	71.20	60.82	87.18	57.26	79.69	81.52	70.94	77.02	82.48	78.18	76.45	85.52

¹ Average hourly - December through February 2019.

District Annual Average Barometric Pressure (inches Mercury).¹

District	Barometric Pressure
D01	29.95
D02	29.94
D03	30.04
D04	30.01
D05	30.01
D06	29.86
D07	30.01
D08	29.97
D09	29.98
D10	29.85
D11C	29.97
D11M	29.88
D12	29.64
D13	30.02
D14	29.96
D15	29.94
D16	30.04
D17	29.92
D18	30.07
D19	29.97
D20	29.96
D21	29.98
D22	30.01
D23	30.01
D24	29.46
D25	30.00

¹ 2019 Annual Average.