

# Performance Measure Summary - Corpus Christi TX

There are several inventory and performance measures listed in the pages of this Urban Area Report for the years from 1982 to 2017. There is no single performance measure that experts agree "says it all". A few key points should be recognized by users of the Urban Mobility Scorecard data.

**Use the trends** - The multi-year performance measures are better indicators, in most cases, than any single year. Examining a few measures over many years reduces the chance that data variations or the estimating procedures may have caused a "spike" in any single year. (5 years is 5 times better than 1 year.)

**Use several measures** - Each performance measure illustrates a different element of congestion. (The view is more interesting from atop several measures.)

**Compare to similar regions** - Congestion analyses that compare areas with similar characteristics (for example, population, growth rate, road and public transportation system design) are usually more insightful than comparisons of different regions. (Los Angeles is not Peoria.)

**Compare ranking changes and performance measure values** - In some performance measures, a small change in the value may cause a significant change in rank from one year to the next. This is the case when there are several regions with nearly the same value. (15 hours is only 1 hour more than 14 hours.)

**Consider the scope of improvement options** - Any improvement project in a corridor within most of the regions will only have a modest effect on the regional congestion level. (To have an effect on areawide congestion, there must be significant change in the system or service.)

## Performance Measures and Definition of Terms

**Travel Time Index** - A measure of congestion that focuses on each trip and each mile of travel. It is calculated as the ratio of travel time in the peak period to travel time in free-flow. A value of 1.30 indicates that a 20-minute free-flow trip takes 26 minutes in the peak.

**Planning Time Index** - A travel time reliability measure that represents the total travel time that should be planned for a trip. Computed with the 95th percentile travel time it represents the amount of time that should be planned for a commute trip to be late for only 1 day a month. If it is computed with the 80th percentile travel time it represents the amount of time that should be planned for a trip to be late for only 1 day a week. A PTI of 2.00 means that for a 20-minute trip in light traffic, 40 minutes should be planned.

**Peak Commuters** - Number of travelers who begin a trip during the morning or evening peak travel periods (6 to 10 a.m. and 3 to 7 p.m.). "Commuters" are private vehicle users unless specifically noted.

**Annual Delay per Commuter** - A yearly sum of all the per-trip delays for those persons who travel in the peak period (6 to 10 a.m. and 3 to 7 p.m.). This measure illustrates the effect of traffic slowdowns as well as the length of each trip.

**Total Delay** - The overall size of the congestion problem. Measured by the total travel time above that needed to complete a trip at free-flow speeds. The ranking of total delay usually follows the population ranking (larger regions usually have more delay).

**Free-Flow Speeds** - These values are derived from time periods with lighter traffic volumes in the INRIX speed database. They are used as the national comparison thresholds. Other speed thresholds may be appropriate for urban project evaluations or sub-region studies.

**Excess Fuel Consumed** - Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

**Congestion Cost** - Value of travel delay for 2017 (estimated at \$18.29 per hour of person travel and \$59.94 per hour of truck time) and excess fuel consumption estimated using state average cost per gallon.

**Urban Area** - The developed area (population density more than 1,000 persons per square mile) within a metropolitan region. The urban area boundaries change frequently (every year for most growing areas), so increases include both new growth and development that was previously in areas designated as rural.

**Number of Rush Hours** - Time when the road system might have congestion.

# Mobility Data for Corpus Christi TX

Inventory Measures	2017	2016	2015	2014	2013	2012
<b>Urban Area Information</b>						
Population (1000s)	340	340	340	340	340	340
Rank	93	93	92	92	92	92
Commuters (1000s)	175	175	175	175	178	178
<b>Daily Vehicle-Miles of Travel (1000s)</b>						
Freeway	4,048	3,981	3,812	3,272	2,985	2,860
Arterial Streets	2,551	2,575	2,463	2,493	2,717	2,680
<b>Cost Components</b>						
Value of Time (\$/hour)	18.12	17.91	17.69	17.67	17.39	17.14
Commercial Cost (\$/hour)	52.14	50.20	46.87	44.82	41.23	39.66
Gasoline (\$/gallon)	2.17	1.97	2.11	3.12	3.37	3.33
Diesel (\$/gallon)	2.31	2.10	2.36	3.47	3.76	3.75
System Performance	2017	2016	2015	2014	2013	2012
<b>Congested Travel (% of peak VMT)</b>	15.9	--	--	--	--	--
<b>Congested System (% of lane-miles)</b>	14.5	--	--	--	--	--
<b>Congested Time (number of "Rush Hours")</b>	1.2	--	--	--	--	--
<b>Annual Excess Fuel Consumed</b>						
Total Fuel (1000 gallons)	4,112	4,069	4,016	3,984	3,948	3,751
Rank	85	85	85	85	85	85
Fuel per Peak Auto Commuter (gallons)	17	17	17	16	17	16
Rank	68	68	65	70	64	69
<b>Annual Delay</b>						
Total Delay (1000s of person-hours)	9,458	9,279	9,001	8,851	8,694	8,115
Rank	89	87	86	86	86	87
Delay per Auto Commuter (pers-hrs)	38	37	36	35	35	32
Rank	80	81	82	80	79	83
<b>Travel Time Index</b>						
Rank	1.13	1.13	1.13	1.12	1.12	1.12
Rank	83	83	83	92	92	91
<b>Commuter Stress Index</b>						
Rank	1.15	--	--	--	--	--
Rank	78	--	--	--	--	--
<b>Freeway Planning Time Index (95th Pctile)</b>						
Rank	1.16	--	--	--	--	--
Rank	95	--	--	--	--	--
<b>Congestion Cost</b>						
Total Cost (\$ millions)	191	185	177	177	172	158
Rank	89	87	86	86	86	87
Cost per Auto Commuter (\$)	745	738	711	692	691	651
Rank	69	68	68	68	63	69
<b>Truck Congestion</b>						
Annual Person-Hours of Delay (000)	397	390	378	372	365	341
Rank	89	86	86	86	86	87
Annual Gallons of Wasted Fuel (000)	872	863	851	845	837	795
Rank	85	85	85	85	85	85
Annual Congestion Cost (\$ million)	20	19	18	18	16	15
Rank	87	86	84	84	86	86

\* Note: Zeroes in the table reflect values less than 0.5.

# Mobility Data for Corpus Christi TX

Inventory Measures	2011	2010	2009	2008	2007	2006
<b>Urban Area Information</b>						
Population (1000s)	335	335	330	330	325	325
Rank	92	91	91	91	91	91
Commuters (1000s)	176	175	172	171	168	167
<b>Daily Vehicle-Miles of Travel (1000s)</b>						
Freeway	2,942	2,916	3,100	3,150	3,110	3,150
Arterial Streets	2,706	2,682	2,744	2,730	2,760	2,675
<b>Cost Components</b>						
Value of Time (\$/hour)	16.79	16.28	16.01	16.07	15.47	15.06
Commercial Cost (\$/hour)	44.62	42.50	41.83	40.77	39.30	37.88
Gasoline (\$/gallon)	3.29	2.56	2.13	3.36	2.92	2.55
Diesel (\$/gallon)	3.56	2.83	2.43	4.07	3.30	2.73
System Performance	2011	2010	2009	2008	2007	2006
<b>Congested Travel (% of peak VMT)</b>	--	--	--	--	--	--
<b>Congested System (% of lane-miles)</b>	--	--	--	--	--	--
<b>Congested Time (number of "Rush Hours")</b>	--	--	--	--	--	--
<b>Annual Excess Fuel Consumed</b>						
Total Fuel (1000 gallons)	3,455	3,410	3,346	3,215	3,170	3,052
Rank	86	87	87	89	89	89
Fuel per Peak Auto Commuter (gallons)	14	14	14	13	14	12
Rank	79	80	71	84	81	86
<b>Annual Delay</b>						
Total Delay (1000s of person-hours)	7,340	7,111	6,847	6,265	6,178	5,949
Rank	89	88	88	88	91	91
Delay per Auto Commuter (pers-hrs)	29	29	28	26	26	25
Rank	87	85	85	89	90	91
<b>Travel Time Index</b>						
Rank	1.11	1.11	1.11	1.10	1.10	1.10
Rank	93	93	92	97	97	96
<b>Commuter Stress Index</b>						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
<b>Freeway Planning Time Index (95th Pctile)</b>						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
<b>Congestion Cost</b>						
Total Cost (\$ millions)	142	131	123	117	110	102
Rank	88	88	88	88	89	92
Cost per Auto Commuter (\$)	605	606	596	538	552	545
Rank	78	76	76	86	87	86
<b>Truck Congestion</b>						
Annual Person-Hours of Delay (000)	308	299	288	263	259	250
Rank	89	88	88	88	91	91
Annual Gallons of Wasted Fuel (000)	732	723	709	681	672	647
Rank	86	87	87	89	89	89
Annual Congestion Cost (\$ million)	15	13	12	12	11	10
Rank	87	87	88	88	90	89

\* Note: Zeroes in the table reflect values less than 0.5.

# Mobility Data for Corpus Christi TX

Inventory Measures	2005	2004	2003	2002	2001	2000
<b>Urban Area Information</b>						
Population (1000s)	325	325	320	320	320	315
Rank	90	90	90	90	87	86
Commuters (1000s)	165	165	161	159	156	152
<b>Daily Vehicle-Miles of Travel (1000s)</b>						
Freeway	3,180	3,095	2,960	2,960	2,915	2,815
Arterial Streets	2,595	2,640	2,530	2,500	2,440	2,460
<b>Cost Components</b>						
Value of Time (\$/hour)	14.58	14.10	13.73	13.43	13.22	12.85
Commercial Cost (\$/hour)	36.51	35.19	33.92	32.69	31.51	30.38
Gasoline (\$/gallon)	2.23	1.83	1.45	1.32	1.46	1.47
Diesel (\$/gallon)	2.40	1.85	1.43	1.29	1.48	1.42
System Performance	2005	2004	2003	2002	2001	2000
<b>Congested Travel (% of peak VMT)</b>	--	--	--	--	--	--
<b>Congested System (% of lane-miles)</b>	--	--	--	--	--	--
<b>Congested Time (number of "Rush Hours")</b>	--	--	--	--	--	--
<b>Annual Excess Fuel Consumed</b>						
Total Fuel (1000 gallons)	2,953	2,909	2,839	2,809	2,756	2,674
Rank	88	88	86	85	83	81
Fuel per Peak Auto Commuter (gallons)	12	12	11	11	11	11
Rank	86	83	86	84	78	74
<b>Annual Delay</b>						
Total Delay (1000s of person-hours)	5,755	5,670	5,533	5,476	5,372	5,212
Rank	90	88	87	87	85	84
Delay per Auto Commuter (pers-hrs)	24	24	24	24	24	24
Rank	91	91	91	90	90	88
<b>Travel Time Index</b>						
Rank	1.10	1.10	1.10	1.10	1.10	1.10
Rank	96	96	91	91	88	86
<b>Commuter Stress Index</b>						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
<b>Freeway Planning Time Index (95th Pctile)</b>						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
<b>Congestion Cost</b>						
Total Cost (\$ millions)	95	89	84	81	78	74
Rank	90	88	87	85	85	84
Cost per Auto Commuter (\$)	546	556	557	565	562	560
Rank	86	84	81	77	75	72
<b>Truck Congestion</b>						
Annual Person-Hours of Delay (000)	242	238	232	230	226	219
Rank	89	88	87	87	85	84
Annual Gallons of Wasted Fuel (000)	626	617	602	596	584	567
Rank	88	88	86	85	83	81
Annual Congestion Cost (\$ million)	9	8	8	7	7	7
Rank	91	89	85	85	84	81

\* Note: Zeroes in the table reflect values less than 0.5.

# Mobility Data for Corpus Christi TX

Inventory Measures	1999	1998	1997	1996	1995	1994
<b>Urban Area Information</b>						
Population (1000s)	315	315	310	310	305	295
Rank	85	85	85	84	84	85
Commuters (1000s)	149	147	142	140	136	129
<b>Daily Vehicle-Miles of Travel (1000s)</b>						
Freeway	2,785	2,750	2,745	2,540	2,395	2,390
Arterial Streets	2,470	2,495	2,475	2,470	2,460	2,445
<b>Cost Components</b>						
Value of Time (\$/hour)	12.43	12.17	11.98	11.71	11.37	11.06
Commercial Cost (\$/hour)	29.28	28.89	28.50	28.12	27.75	27.38
Gasoline (\$/gallon)	1.07	1.01	1.12	1.21	1.14	1.03
Diesel (\$/gallon)	1.07	1.10	1.19	1.29	1.21	1.09
System Performance	1999	1998	1997	1996	1995	1994
<b>Congested Travel (% of peak VMT)</b>	--	--	--	--	--	--
<b>Congested System (% of lane-miles)</b>	--	--	--	--	--	--
<b>Congested Time (number of "Rush Hours")</b>	--	--	--	--	--	--
<b>Annual Excess Fuel Consumed</b>						
Total Fuel (1000 gallons)	2,611	2,556	2,303	2,094	1,937	1,799
Rank	80	79	80	80	80	80
Fuel per Peak Auto Commuter (gallons)	10	11	10	9	9	7
Rank	77	65	66	69	59	73
<b>Annual Delay</b>						
Total Delay (1000s of person-hours)	5,089	4,981	4,488	4,082	3,775	3,506
Rank	82	79	80	80	80	79
Delay per Auto Commuter (pers-hrs)	23	23	21	19	18	18
Rank	87	83	86	88	87	86
<b>Travel Time Index</b>						
Rank	1.09	1.09	1.09	1.08	1.07	1.07
Rank	87	84	83	87	88	88
<b>Commuter Stress Index</b>						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
<b>Freeway Planning Time Index (95th Pctile)</b>						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
<b>Congestion Cost</b>						
Total Cost (\$ millions)	69	66	59	53	47	43
Rank	82	79	79	79	80	79
Cost per Auto Commuter (\$)	569	564	519	485	463	440
Rank	66	62	67	69	67	68
<b>Truck Congestion</b>						
Annual Person-Hours of Delay (000)	214	209	189	171	159	147
Rank	82	79	79	80	80	79
Annual Gallons of Wasted Fuel (000)	554	542	488	444	411	381
Rank	80	79	80	80	80	80
Annual Congestion Cost (\$ million)	6	6	5	5	4	4
Rank	81	77	79	79	79	79

\* Note: Zeroes in the table reflect values less than 0.5.

# Mobility Data for Corpus Christi TX

Inventory Measures	1993	1992	1991	1990	1989	1988
<b>Urban Area Information</b>						
Population (1000s)	290	285	285	280	275	275
Rank	85	85	84	84	84	84
Commuters (1000s)	125	121	120	116	113	112
<b>Daily Vehicle-Miles of Travel (1000s)</b>						
Freeway	2,400	2,240	2,100	1,980	1,830	1,750
Arterial Streets	2,410	2,405	2,415	2,410	2,400	2,395
<b>Cost Components</b>						
Value of Time (\$/hour)	10.78	10.47	10.17	9.75	9.25	8.83
Commercial Cost (\$/hour)	27.02	26.66	26.30	25.95	25.60	25.26
Gasoline (\$/gallon)	1.10	1.09	1.12	1.04	1.07	0.99
Diesel (\$/gallon)	1.17	1.17	1.20	1.07	1.05	0.97
System Performance	1993	1992	1991	1990	1989	1988
<b>Congested Travel (% of peak VMT)</b>	--	--	--	--	--	--
<b>Congested System (% of lane-miles)</b>	--	--	--	--	--	--
<b>Congested Time (number of "Rush Hours")</b>	--	--	--	--	--	--
<b>Annual Excess Fuel Consumed</b>						
Total Fuel (1000 gallons)	1,710	1,676	1,612	1,547	1,474	1,426
Rank	80	80	79	78	78	77
Fuel per Peak Auto Commuter (gallons)	7	7	6	6	6	7
Rank	67	59	67	60	53	27
<b>Annual Delay</b>						
Total Delay (1000s of person-hours)	3,333	3,267	3,142	3,015	2,873	2,780
Rank	79	79	80	78	78	77
Delay per Auto Commuter (pers-hrs)	17	18	17	17	16	16
Rank	85	80	78	70	68	61
<b>Travel Time Index</b>						
Rank	1.07	1.07	1.07	1.07	1.07	1.06
Rank	83	82	81	76	66	74
<b>Commuter Stress Index</b>						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
<b>Freeway Planning Time Index (95th Pctile)</b>						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
<b>Congestion Cost</b>						
Total Cost (\$ millions)	40	38	35	33	30	28
Rank	79	79	80	78	78	77
Cost per Auto Commuter (\$)	432	428	436	428	435	440
Rank	63	61	51	50	45	40
<b>Truck Congestion</b>						
Annual Person-Hours of Delay (000)	140	137	132	127	121	117
Rank	79	79	80	78	78	77
Annual Gallons of Wasted Fuel (000)	363	355	342	328	313	302
Rank	80	80	79	78	78	77
Annual Congestion Cost (\$ million)	4	4	3	3	3	3
Rank	77	77	80	77	76	73

\* Note: Zeroes in the table reflect values less than 0.5.

# Mobility Data for Corpus Christi TX

Inventory Measures	1987	1986	1985	1984	1983	1982
<b>Urban Area Information</b>						
Population (1000s)	275	270	260	250	250	250
Rank	84	83	83	83	82	82
Commuters (1000s)	111	108	103	99	98	97
<b>Daily Vehicle-Miles of Travel (1000s)</b>						
Freeway	1,620	1,560	1,425	1,360	1,080	1,010
Arterial Streets	2,385	2,370	2,350	2,330	2,310	2,300
<b>Cost Components</b>						
Value of Time (\$/hour)	8.48	8.18	8.03	7.75	7.43	7.20
Commercial Cost (\$/hour)	24.93	24.60	24.27	23.94	23.63	23.31
Gasoline (\$/gallon)	0.99	0.97	1.27	1.28	1.31	1.37
Diesel (\$/gallon)	0.97	0.95	1.24	1.25	1.28	1.34
System Performance	1987	1986	1985	1984	1983	1982
<b>Congested Travel (% of peak VMT)</b>	--	--	--	--	--	--
<b>Congested System (% of lane-miles)</b>	--	--	--	--	--	--
<b>Congested Time (number of "Rush Hours")</b>	--	--	--	--	--	--
<b>Annual Excess Fuel Consumed</b>						
Total Fuel (1000 gallons)	1,273	1,176	1,042	948	860	818
Rank	76	74	75	75	73	73
Fuel per Peak Auto Commuter (gallons)	5	6	4	4	3	3
Rank	48	28	50	41	46	34
<b>Annual Delay</b>						
Total Delay (1000s of person-hours)	2,481	2,292	2,030	1,848	1,675	1,594
Rank	78	76	76	77	73	74
Delay per Auto Commuter (pers-hrs)	14	14	13	12	11	10
Rank	64	57	56	56	56	58
<b>Travel Time Index</b>						
Rank	66	74	64	57	68	61
<b>Commuter Stress Index</b>						
Rank	--	--	--	--	--	--
<b>Freeway Planning Time Index (95th Pctile)</b>						
Rank	--	--	--	--	--	--
<b>Congestion Cost</b>						
Total Cost (\$ millions)	24	21	19	17	14	13
Rank	76	75	76	74	73	74
Cost per Auto Commuter (\$)	420	397	354	333	319	317
Rank	40	40	44	44	42	41
<b>Truck Congestion</b>						
Annual Person-Hours of Delay (000)	104	96	85	78	70	67
Rank	78	76	76	77	73	73
Annual Gallons of Wasted Fuel (000)	270	249	221	201	182	173
Rank	76	74	75	74	73	73
Annual Congestion Cost (\$ million)	3	2	2	2	2	2
Rank	69	75	73	70	66	65

\* Note: Zeroes in the table reflect values less than 0.5.