

Performance Measure Summary - Laredo 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 Laredo TX

Inventory Measures	2017	2016	2015	2014	2013	2012
Urban Area Information						
Population (1000s)	265	260	255	255	250	245
Rank	97	97	97	97	97	99
Commuters (1000s)	138	136	133	132	132	129
Daily Vehicle-Miles of Travel (1000s)						
Freeway	508	506	521	568	574	550
Arterial Streets	2,257	2,320	2,351	1,927	1,896	1,880
Cost Components						
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
Congested Travel (% of peak VMT)	23.4	--	--	--	--	--
Congested System (% of lane-miles)	2.0	--	--	--	--	--
Congested Time (number of "Rush Hours")	1.7	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	2,907	2,736	2,548	2,354	2,321	2,243
Rank	95	96	96	97	97	97
Fuel per Peak Auto Commuter (gallons)	15	15	14	13	12	13
Rank	84	83	87	88	95	87
Annual Delay						
Total Delay (1000s of person-hours)	6,312	5,876	5,425	4,927	4,772	4,570
Rank	97	97	98	98	98	97
Delay per Auto Commuter (pers-hrs)	32	30	29	26	25	23
Rank	93	93	95	96	96	96
Travel Time Index						
Rank	1.17	1.17	1.17	1.17	1.16	1.16
Rank	49	49	49	52	58	60
Commuter Stress Index						
Rank	1.27	--	--	--	--	--
Rank	27	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	1.43	--	--	--	--	--
Rank	52	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	128	117	107	99	95	89
Rank	97	97	97	98	97	97
Cost per Auto Commuter (\$)	593	558	513	460	449	436
Rank	94	94	94	96	95	95
Truck Congestion						
Annual Person-Hours of Delay (000)	265	247	228	207	200	192
Rank	97	97	97	98	98	97
Annual Gallons of Wasted Fuel (000)	616	580	540	499	492	475
Rank	95	96	96	97	97	97
Annual Congestion Cost (\$ million)	14	12	11	10	9	8
Rank	97	97	97	97	97	97

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

Mobility Data for Laredo TX

Inventory Measures	2011	2010	2009	2008	2007	2006
Urban Area Information						
Population (1000s)	235	230	225	220	220	215
Rank	99	99	99	99	99	99
Commuters (1000s)	123	120	117	114	114	110
Daily Vehicle-Miles of Travel (1000s)						
Freeway	586	574	530	500	620	540
Arterial Streets	1,917	1,876	1,864	1,855	2,010	1,870
Cost Components						
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
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	2,104	2,038	1,935	2,093	1,903	1,518
Rank	97	97	97	97	97	98
Fuel per Peak Auto Commuter (gallons)	11	12	9	10	11	9
Rank	95	89	96	95	94	96
Annual Delay						
Total Delay (1000s of person-hours)	4,211	4,003	3,729	3,842	3,494	2,787
Rank	98	98	98	97	98	99
Delay per Auto Commuter (pers-hrs)	23	21	20	19	18	15
Rank	96	96	98	98	98	99
Travel Time Index						
Rank	1.16	1.16	1.16	1.16	1.15	1.12
Rank	59	58	58	63	72	88
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	82	74	67	72	63	48
Rank	97	97	98	97	97	99
Cost per Auto Commuter (\$)	415	406	390	391	376	307
Rank	97	97	97	96	97	100
Truck Congestion						
Annual Person-Hours of Delay (000)	177	168	157	161	147	117
Rank	98	98	98	97	98	99
Annual Gallons of Wasted Fuel (000)	446	432	410	444	403	322
Rank	97	97	97	97	97	98
Annual Congestion Cost (\$ million)	9	7	7	8	6	5
Rank	97	97	97	97	97	98

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

Mobility Data for Laredo TX

Inventory Measures	2005	2004	2003	2002	2001	2000
Urban Area Information						
Population (1000s)	210	205	200	190	190	185
Rank	99	99	99	99	99	99
Commuters (1000s)	107	104	101	94	93	89
Daily Vehicle-Miles of Travel (1000s)						
Freeway	500	480	470	470	430	415
Arterial Streets	1,780	1,725	1,680	1,570	1,575	1,445
Cost Components						
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
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	1,307	1,219	1,158	1,070	989	907
Rank	98	98	98	98	98	97
Fuel per Peak Auto Commuter (gallons)	8	6	5	4	4	4
Rank	97	98	98	98	98	98
Annual Delay						
Total Delay (1000s of person-hours)	2,399	2,239	2,125	1,965	1,815	1,665
Rank	99	99	99	99	99	99
Delay per Auto Commuter (pers-hrs)	14	13	12	11	11	10
Rank	99	99	99	99	98	98
Travel Time Index						
Rank	1.11	1.11	1.10	1.10	1.09	1.09
Rank	92	91	91	91	94	92
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	40	35	32	29	27	24
Rank	99	99	99	99	99	99
Cost per Auto Commuter (\$)	276	266	253	239	230	211
Rank	100	100	99	98	98	98
Truck Congestion						
Annual Person-Hours of Delay (000)	101	94	89	83	76	70
Rank	99	99	99	99	99	99
Annual Gallons of Wasted Fuel (000)	277	259	245	227	210	192
Rank	98	98	98	98	98	97
Annual Congestion Cost (\$ million)	4	3	3	3	2	2
Rank	99	99	99	98	99	98

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Mobility Data for Laredo TX

Inventory Measures	1999	1998	1997	1996	1995	1994
Urban Area Information						
Population (1000s)	180	175	165	150	145	140
Rank	99	99	99	99	99	99
Commuters (1000s)	85	82	76	68	65	62
Daily Vehicle-Miles of Travel (1000s)						
Freeway	430	405	360	370	340	335
Arterial Streets	1,440	1,300	1,180	1,060	940	820
Cost Components						
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
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	869	756	738	586	450	300
Rank	97	98	97	98	99	100
Fuel per Peak Auto Commuter (gallons)	5	3	4	3	3	1
Rank	94	98	94	97	94	100
Annual Delay						
Total Delay (1000s of person-hours)	1,596	1,387	1,354	1,076	826	550
Rank	99	99	99	100	100	100
Delay per Auto Commuter (pers-hrs)	10	9	9	8	7	5
Rank	97	98	98	98	98	99
Travel Time Index						
Rank	1.09	1.08	1.08	1.07	1.06	1.04
Rank	87	90	88	91	93	99
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	22	18	18	14	10	7
Rank	99	99	99	99	100	100
Cost per Auto Commuter (\$)	211	187	191	150	115	84
Rank	97	98	98	98	99	100
Truck Congestion						
Annual Person-Hours of Delay (000)	67	58	57	45	35	23
Rank	99	99	99	100	100	100
Annual Gallons of Wasted Fuel (000)	184	160	156	124	95	64
Rank	97	98	97	98	99	100
Annual Congestion Cost (\$ million)	2	2	2	1	1	1
Rank	97	96	96	99	98	98

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Mobility Data for Laredo TX

Inventory Measures	1993	1992	1991	1990	1989	1988
Urban Area Information						
Population (1000s)	130	125	125	120	120	120
Rank	99	99	99	99	99	99
Commuters (1000s)	56	53	53	50	49	49
Daily Vehicle-Miles of Travel (1000s)						
Freeway	300	250	205	165	135	125
Arterial Streets	700	615	600	545	525	555
Cost Components						
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
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	244	230	204	149	142	129
Rank	100	100	100	101	101	101
Fuel per Peak Auto Commuter (gallons)	1	1	1	1	1	1
Rank	99	98	98	98	97	94
Annual Delay						
Total Delay (1000s of person-hours)	448	422	375	274	261	237
Rank	100	100	100	101	101	101
Delay per Auto Commuter (pers-hrs)	4	4	4	3	3	2
Rank	101	99	99	100	100	101
Travel Time Index						
Rank	99	97	99	96	100	98
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	5	5	4	3	3	2
Rank	100	100	100	100	100	101
Cost per Auto Commuter (\$)	67	75	60	43	58	47
Rank	100	100	101	101	101	101
Truck Congestion						
Annual Person-Hours of Delay (000)	19	18	16	12	11	10
Rank	100	100	100	101	101	101
Annual Gallons of Wasted Fuel (000)	52	49	43	32	30	27
Rank	100	100	100	101	101	101
Annual Congestion Cost (\$ million)	1	-	-	-	-	-
Rank	97	100	100	100	100	100

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

Mobility Data for Laredo TX

Inventory Measures	1987	1986	1985	1984	1983	1982
Urban Area Information						
Population (1000s)	110	105	100	95	95	95
Rank	99	99	100	100	100	100
Commuters (1000s)	44	42	40	38	37	37
Daily Vehicle-Miles of Travel (1000s)						
Freeway	125	125	120	120	120	115
Arterial Streets	500	485	505	470	475	435
Cost Components						
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
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	111	104	97	92	83	74
Rank	101	101	100	100	100	100
Fuel per Peak Auto Commuter (gallons)	1	1	1	1	1	1
Rank	93	91	90	87	86	82
Annual Delay						
Total Delay (1000s of person-hours)	205	190	178	168	153	135
Rank	101	101	100	100	100	100
Delay per Auto Commuter (pers-hrs)	2	2	2	2	2	2
Rank	100	100	100	99	99	99
Travel Time Index						
Rank	96	96	96	96	90	90
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	2	2	2	2	1	1
Rank	100	100	100	99	100	100
Cost per Auto Commuter (\$)	36	31	56	50	41	32
Rank	101	101	99	99	99	100
Truck Congestion						
Annual Person-Hours of Delay (000)	9	8	7	7	6	6
Rank	100	100	100	100	100	100
Annual Gallons of Wasted Fuel (000)	24	22	21	19	18	16
Rank	100	100	100	100	100	100
Annual Congestion Cost (\$ million)	-	-	-	-	-	-
Rank	99	99	99	98	96	95

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