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 2020. 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 2020 (estimated at $20.17 per hour of person travel and $55.24 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.

Annual Greenhouse Gases (CO2) Produced -Tons of CO2 produced from all vehicle travel.

Excess Greenhouse Gases (CO2) Produced due to Congestion-Tons of CO2 produced due to congested portion of travel. The excess CO2 is a subset of the total CO2 produced.

Mobility Data for Laredo TX

Inventory Measures	2020	2019	2018	2017	2016	2015
Urban Area Information						
Population (1000s)	265	265	265	265	260	255
Rank	97	97	96	96	96	96
Commuters (1000s)	138	138	138	138	136	133
Daily Vehicle-Miles of Travel (1000s)						
Freeway	411	505	498	508	506	521
Arterial Streets	2,000	2,460	2,668	2,257	2,320	2,351
Cost Components						
Value of Time ($/hour)	20.17	19.14	18.71	18.12	17.91	17.69
Commercial Cost ($/hour)	55.24	49.49	54.71	52.14	50.20	46.87
Gasoline ($/gallon)	2.05	2.37	2.63	2.17	1.97	2.11
Diesel ($/gallon)	2.51	2.73	2.99	2.31	2.10	2.36
System Performance	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**
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)	1,803	3,755	3,411	3,107	2,924	2,723
Rank	90	88	90	91	93	93
Fuel per Peak Auto Commuter (gallons)	9	18	16	15	15	14
Rank	70	69	79	84	83	87
Annual Delay						
Total Delay (1000s of person-hours)	3,594	7,487	7,004	6,812	6,341	5,855
Rank	93	92	93	93	96	96
Delay per Auto Commuter (pers-hrs)	17	35	33	32	30	29
Rank	92	91	94	93	93	95
Travel Time Index	1.07	1.17	1.17	1.17	1.17	1.17
Rank	57	49	48	47	46	46
Commuter Stress Index	1.08	1.30	1.31	1.27	--	--
Rank	58	29	27	27	--	--
Freeway Planning Time Index (95th Pctile)	--	1.25	1.53	1.43	--	--
Rank	--	80	40	52	--	--
Congestion Cost						
Total Cost ($ millions)	84	168	160	151	137	125
Rank	92	90	92	92	95	96
Cost per Auto Commuter ($)	349	697	661	626	589	541
Rank	92	88	92	94	94	94
Truck Congestion						
Annual Person-Hours of Delay (000)	275	567	500	465	413	381
Rank	81	81	82	85	86	86
Annual Gallons of Wasted Fuel (000)	496	1,022	939	886	834	777
Rank	82	80	81	84	86	86
Annual Congestion Cost ($ million)	15	28	28	25	21	18
Rank	81	81	82	85	86	87
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	18,211	37,936	--	--	--	--
Rank	90	88	--	--	--	--
Due to All Travel (tons)	364,798	759,948	--	--	--	--
Rank	97	96	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	4,566	9,407	--	--	--	--
Rank	87	86	--	--	--	--
Due to Truck Travel (tons)	91,458	188,439	--	--	--	--
Rank	96	96	--	--	--	--

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

Mobility Data for Laredo TX

Inventory Measures	2014	2013	2012	2011	2010	2009
Urban Area Information						
Population (1000s)	255	250	245	235	230	225
Rank	96	96	98	98	98	98
Commuters (1000s)	132	132	129	123	120	117
Daily Vehicle-Miles of Travel (1000s)						
Freeway	568	574	550	586	574	530
Arterial Streets	1,927	1,896	1,880	1,917	1,876	1,864
Cost Components						
Value of Time ($/hour)	17.67	17.39	17.14	16.79	16.28	16.01
Commercial Cost ($/hour)	44.82	41.23	39.66	44.62	42.50	41.83
Gasoline ($/gallon)	3.12	3.37	3.33	3.29	2.56	2.13
Diesel ($/gallon)	3.47	3.76	3.75	3.56	2.83	2.43
System Performance	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	2,516	2,481	2,397	2,249	2,178	2,068
Rank	95	95	96	96	96	96
Fuel per Peak Auto Commuter (gallons)	13	12	13	11	12	9
Rank	88	95	87	95	89	96
Annual Delay						
Total Delay (1000s of person-hours)	5,317	5,150	4,932	4,545	4,320	4,024
Rank	96	96	96	96	96	97
Delay per Auto Commuter (pers-hrs)	26	25	23	23	21	20
Rank	96	96	96	96	96	98
Travel Time Index	1.17	1.16	1.16	1.16	1.16	1.16
Rank	49	55	57	56	54	55
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	116	110	104	95	86	79
Rank	96	96	96	96	96	96
Cost per Auto Commuter ($)	485	474	460	438	428	411
Rank	96	95	95	97	97	97
Truck Congestion						
Annual Person-Hours of Delay (000)	346	334	321	296	281	263
Rank	88	88	89	89	90	90
Annual Gallons of Wasted Fuel (000)	718	708	683	641	621	590
Rank	88	88	88	88	88	89
Annual Congestion Cost ($ million)	17	16	14	15	13	12
Rank	88	88	88	87	88	88
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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

Mobility Data for Laredo TX

Inventory Measures	2008	2007	2006	2005	2004	2003
Urban Area Information						
Population (1000s)	220	220	215	210	205	200
Rank	98	98	98	98	98	98
Commuters (1000s)	114	114	110	107	104	101
Daily Vehicle-Miles of Travel (1000s)						
Freeway	500	620	540	500	480	470
Arterial Streets	1,855	2,010	1,870	1,780	1,725	1,680
Cost Components						
Value of Time ($/hour)	16.07	15.47	15.06	14.58	14.10	13.73
Commercial Cost ($/hour)	40.77	39.30	37.88	36.51	35.19	33.92
Gasoline ($/gallon)	3.36	2.92	2.55	2.23	1.83	1.45
Diesel ($/gallon)	4.07	3.30	2.73	2.40	1.85	1.43
System Performance	**2008**	**2007**	**2006**	**2005**	**2004**	**2003**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	2,237	2,034	1,622	1,397	1,303	1,238
Rank	96	96	97	98	98	98
Fuel per Peak Auto Commuter (gallons)	10	11	9	8	6	5
Rank	95	94	96	97	98	98
Annual Delay						
Total Delay (1000s of person-hours)	4,146	3,771	3,008	2,589	2,416	2,293
Rank	96	96	98	99	99	99
Delay per Auto Commuter (pers-hrs)	19	18	15	14	13	12
Rank	98	98	99	99	99	99
Travel Time Index	1.16	1.15	1.12	1.11	1.11	1.10
Rank	61	69	88	92	91	91
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	84	73	56	46	41	38
Rank	96	96	98	99	99	99
Cost per Auto Commuter ($)	412	397	324	291	281	267
Rank	96	97	100	100	100	99
Truck Congestion						
Annual Person-Hours of Delay (000)	269	246	196	169	157	149
Rank	87	93	95	95	95	94
Annual Gallons of Wasted Fuel (000)	639	580	463	398	373	352
Rank	89	89	94	95	95	94
Annual Congestion Cost ($ million)	13	11	8	7	6	5
Rank	87	89	95	95	94	94
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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

Mobility Data for Laredo TX

Inventory Measures	2002	2001	2000	1999	1998	1997
Urban Area Information						
Population (1000s)	190	190	185	180	175	165
Rank	98	98	98	98	98	98
Commuters (1000s)	94	93	89	85	82	76
Daily Vehicle-Miles of Travel (1000s)						
Freeway	470	430	415	430	405	360
Arterial Streets	1,570	1,575	1,445	1,440	1,300	1,180
Cost Components						
Value of Time ($/hour)	13.43	13.22	12.85	12.43	12.17	11.98
Commercial Cost ($/hour)	32.69	31.51	30.38	29.28	28.89	28.50
Gasoline ($/gallon)	1.32	1.46	1.47	1.07	1.01	1.12
Diesel ($/gallon)	1.29	1.48	1.42	1.07	1.10	1.19
System Performance	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	1,144	1,057	969	929	808	789
Rank	98	98	97	97	97	97
Fuel per Peak Auto Commuter (gallons)	4	4	4	5	3	4
Rank	98	98	98	94	98	94
Annual Delay						
Total Delay (1000s of person-hours)	2,121	1,959	1,797	1,722	1,497	1,461
Rank	99	99	99	99	99	99
Delay per Auto Commuter (pers-hrs)	11	11	10	10	9	9
Rank	99	98	98	97	98	98
Travel Time Index	1.10	1.09	1.09	1.09	1.08	1.08
Rank	91	94	92	86	89	87
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	34	31	28	25	21	21
Rank	99	99	98	98	99	98
Cost per Auto Commuter ($)	252	243	223	223	197	201
Rank	98	98	98	97	98	98
Truck Congestion						
Annual Person-Hours of Delay (000)	139	127	117	112	97	95
Rank	94	94	94	94	94	94
Annual Gallons of Wasted Fuel (000)	326	302	276	265	230	224
Rank	94	95	95	95	95	95
Annual Congestion Cost ($ million)	5	4	4	3	3	3
Rank	94	94	94	94	94	94
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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

Mobility Data for Laredo TX

Inventory Measures	1996	1995	1994	1993	1992	1991
Urban Area Information						
Population (1000s)	150	145	140	130	125	125
Rank	98	98	98	98	98	98
Commuters (1000s)	68	65	62	56	53	53
Daily Vehicle-Miles of Travel (1000s)						
Freeway	370	340	335	300	250	205
Arterial Streets	1,060	940	820	700	615	600
Cost Components						
Value of Time ($/hour)	11.71	11.37	11.06	10.78	10.47	10.17
Commercial Cost ($/hour)	28.12	27.75	27.38	27.02	26.66	26.30
Gasoline ($/gallon)	1.21	1.14	1.03	1.10	1.09	1.12
Diesel ($/gallon)	1.29	1.21	1.09	1.17	1.17	1.20
System Performance	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	626	481	321	261	246	218
Rank	98	99	100	100	100	100
Fuel per Peak Auto Commuter (gallons)	3	3	1	1	1	1
Rank	97	94	100	99	98	98
Annual Delay						
Total Delay (1000s of person-hours)	1,161	891	594	483	455	405
Rank	99	100	100	100	100	100
Delay per Auto Commuter (pers-hrs)	8	7	5	4	4	4
Rank	98	98	99	101	99	99
Travel Time Index	1.07	1.06	1.04	1.04	1.04	1.03
Rank	90	93	99	99	97	99
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	16	12	8	6	6	5
Rank	99	100	100	100	100	100
Cost per Auto Commuter ($)	158	121	89	71	79	63
Rank	98	99	100	100	100	101
Truck Congestion						
Annual Person-Hours of Delay (000)	75	59	38	32	30	27
Rank	96	96	100	100	100	100
Annual Gallons of Wasted Fuel (000)	178	137	92	75	70	62
Rank	95	96	99	100	100	100
Annual Congestion Cost ($ million)	2	2	1	1	1	1
Rank	94	94	98	96	96	96
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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

Mobility Data for Laredo TX

Inventory Measures	1990	1989	1988	1987	1986	1985
Urban Area Information						
Population (1000s)	120	120	120	110	105	100
Rank	98	98	98	98	98	100
Commuters (1000s)	50	49	49	44	42	40
Daily Vehicle-Miles of Travel (1000s)						
Freeway	165	135	125	125	125	120
Arterial Streets	545	525	555	500	485	505
Cost Components						
Value of Time ($/hour)	9.75	9.25	8.83	8.48	8.18	8.03
Commercial Cost ($/hour)	25.95	25.60	25.26	24.93	24.60	24.27
Gasoline ($/gallon)	1.04	1.07	0.99	0.99	0.97	1.27
Diesel ($/gallon)	1.07	1.05	0.97	0.97	0.95	1.24
System Performance	**1990**	**1989**	**1988**	**1987**	**1986**	**1985**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	159	152	138	119	111	104
Rank	101	101	101	100	100	100
Fuel per Peak Auto Commuter (gallons)	1	1	1	1	1	1
Rank	98	97	94	93	91	90
Annual Delay						
Total Delay (1000s of person-hours)	296	282	256	221	205	192
Rank	101	101	101	100	100	100
Delay per Auto Commuter (pers-hrs)	3	3	2	2	2	2
Rank	100	100	101	100	100	100
Travel Time Index	1.03	1.02	1.02	1.02	1.02	1.02
Rank	96	100	98	96	96	96
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	3	3	3	2	2	2
Rank	100	100	100	100	100	100
Cost per Auto Commuter ($)	45	61	50	38	33	59
Rank	101	101	101	101	101	99
Truck Congestion						
Annual Person-Hours of Delay (000)	20	18	17	15	13	12
Rank	100	100	100	100	99	99
Annual Gallons of Wasted Fuel (000)	46	43	39	35	32	30
Rank	100	100	100	100	99	99
Annual Congestion Cost ($ million)	1	0	0	0	0	0
Rank	92	100	100	99	99	99
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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

Mobility Data for Laredo TX

Inventory Measures	1984	1983	1982
Urban Area Information			
Population (1000s)	95	95	95
Rank	100	100	100
Commuters (1000s)	38	37	37
Daily Vehicle-Miles of Travel (1000s)			
Freeway	120	120	115
Arterial Streets	470	475	435
Cost Components			
Value of Time ($/hour)	7.75	7.43	7.20
Commercial Cost ($/hour)	23.94	23.63	23.31
Gasoline ($/gallon)	1.28	1.31	1.37
Diesel ($/gallon)	1.25	1.28	1.34
System Performance	**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)	98	89	79
Rank	100	100	100
Fuel per Peak Auto Commuter (gallons)	1	1	1
Rank	87	86	82
Annual Delay			
Total Delay (1000s of person-hours)	181	165	146
Rank	100	100	100
Delay per Auto Commuter (pers-hrs)	2	2	2
Rank	99	99	99
Travel Time Index	1.02	1.02	1.02
Rank	95	89	89
Commuter Stress Index	--	--	--
Rank	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--
Rank	--	--	--
Congestion Cost			
Total Cost ($ millions)	2	2	1
Rank	99	99	100
Cost per Auto Commuter ($)	53	43	34
Rank	99	99	100
Truck Congestion			
Annual Person-Hours of Delay (000)	12	10	10
Rank	99	99	99
Annual Gallons of Wasted Fuel (000)	27	26	23
Rank	99	99	98
Annual Congestion Cost ($ million)	0	0	0
Rank	97	97	95
Annual Greenhouse Gases (CO2) Produced			
Excess Due to Congestion (tons)	--	--	--
Rank	--	--	--
Due to All Travel (tons)	--	--	--
Rank	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced			
Excess Due to Truck Congestion (tons)	--	--	--
Rank	--	--	--
Due to Truck Travel (tons)	--	--	--
Rank	--	--	--

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