Performance Measure Summary - Indio-Cathedral City CA

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.

Inventory Measures	2020	2019	2018	2017	2016	2015
Urban Area Information						
Population (1000s)	375	375	375	375	370	370
Rank	89	89	89	89	90	90
Commuters (1000s)	186	186	186	186	183	183
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,869	2,176	2,537	2,330	2,330	2,352
Arterial Streets	3,738	4,352	4,285	4,252	4,203	3,590
Cost Components						
Value of Time (\$/hour)	20.17	19.14	18.71	18.12	17.91	17.69
Commercial Cost (\$/hour)	55.24	61.03	54.71	52.14	50.20	46.87
Gasoline (\$/gallon)	3.43	3.70	3.72	2.96	2.78	3.18
Diesel (\$/gallon)	3.80	3.95	4.03	2.95	2.68	2.86
System Performance	2020	2019	2018	2017	2016	2015
Congested Travel (% of peak VMT)				8.8		
Congested System (% of lane-miles)				7.9		
Congested Time (number of "Rush Hours")				0.7		
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	1,055	2,405	2,383	2,281	2,224	2,169
Rank	100	98	97	97	97	97
Fuel per Peak Auto Commuter (gallons)	3	7	7	7	7	7
Rank	100	100	100	100	100	100
Annual Delay						
Total Delay (1000s of person-hours)	2,557	5,832	5,801	5,795	5,612	5,426
Rank	98	98	97	97	97	97
Delay per Auto Commuter (pers-hrs)	6	14	14	14	14	14
Rank	101	101	101	101	101	101
Travel Time Index	1.05	1.10	1.10	1.10	1.10	1.10
Rank	85	97	98	99	99	99
Commuter Stress Index	1.07	1.10	1.10	1.10		
Rank	75	100	100	101		
Freeway Planning Time Index (95th Pctile)		1.09	1.09	1.12		
Rank		99	99	96		
Congestion Cost						
Total Cost (\$ millions)	60	131	129	125	119	114
Rank	98	97	97	97	97	97
Cost per Auto Commuter (\$)	221	485	476	463	447	431
Rank	100	100	100	100	100	100
Truck Congestion						
Annual Person-Hours of Delay (000)	151	249	248	243	236	228
Rank	94	96	96	96	96	96
Annual Gallons of Wasted Fuel (000)	260	429	419	409	399	389
Rank	96	96	97	97	97	97
Annual Congestion Cost (\$ million)	8	15	14	13	12	11
Rank	94	94	96	96	96	96
Annual Greenhouse Gases (CO2) Produced					, ,	
Excess Due to Congestion (tons)	10,527	24,006				
Rank	100	98				
Due to All Travel (tons)	476,624	1,086,927				
Rank	92	91				
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	2,844	4,692				
P. 1	96	97				
Rank					1,	
Rank Due to Truck Travel (tons)	183,855 84	303,276 89				

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

Inventory Measures	2014	2013	2012	2011	2010	2009
Urban Area Information						
Population (1000s)	365	360	355	350	350	350
Rank	90	90	90	90	89	89
Commuters (1000s)	180	181	178	175	175	174
Daily Vehicle-Miles of Travel (1000s)						
Freeway	2,074	2,012	1,065	1,058	1,088	1,083
Arterial Streets	3,414	4,308	4,480	4,473	4,435	4,307
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)	3.63	3.89	3.89	3.51	3.05	2.61
Diesel (\$/gallon)	3.85	4.12	4.20	4.02	3.20	2.71
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)	2,051	2,008	1,807	1,673	1,524	1,330
Rank	97	97	97	99	100	100
Fuel per Peak Auto Commuter (gallons)	6	7	5	5	6	6
Rank	100	98	100	100	100	99
Annual Delay						
Total Delay (1000s of person-hours)	5,043	4,852	4,326	3,931	3,516	3,012
Rank	97	97	98	98	99	100
Delay per Auto Commuter (pers-hrs)	13	12	11	11	10	11
Rank	101	101	101	101	101	101
Travel Time Index	1.09	1.09	1.09	1.08	1.08	1.08
Rank	101	101	101	101	101	101
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	107	101	89	80	69	57
Rank	97	97	97	98	99	100
Cost per Auto Commuter (\$)	400	386	344	328	304	262
Rank	100	100	101	101	101	101
Truck Congestion						
Annual Person-Hours of Delay (000)	212	204	182	165	148	126
Rank	96	96	97	97	98	99
Annual Gallons of Wasted Fuel (000)	368	360	324	300	273	239
Rank	97	97 9	99	99	100	101
Annual Congestion Cost (\$ million) Rank	10 96	96	8 96	8 96	7 97	6 97
	90	90	90	90	9/	9/
Annual Greenhouse Gases (CO2) Produced				1	I	
Excess Due to Congestion (tons) Rank						
Nank Due to All Travel (tons)						
Rank			 			 -
Truck Annual Greenhouse Gases (CO2) Produced				1	I	
Excess Due to Truck Congestion (tons)						
Rank Due to Truck Travel (tons)						
Due to Truck Travel (tons)						
Rank						

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

Inventory Measures	2008	2007	2006	2005	2004	2003
Urban Area Information						
Population (1000s)	345	345	345	340	335	330
Rank	89	89	89	89	89	88
Commuters (1000s)	171	170	169	166	162	159
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,095	1,135	1,155	1,100	1,020	880
Arterial Streets	4,355	4,140	3,970	3,700	3,400	3,200
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)	3.84	3.24	2.88	2.62	2.28	1.78
Diesel (\$/gallon)	4.39	3.60	3.17	2.93	2.27	1.79
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)	1,088	1,065	1,165	1,029	816	731
Rank	100	101	100	100	101	101
Fuel per Peak Auto Commuter (gallons)	4	4	5	4	3	3
Rank	100	101	101	100	101	101
Annual Delay						
Total Delay (1000s of person-hours)	2,347	2,299	2,512	2,219	1,760	1,576
Rank	101	101	100	101	101	101
Delay per Auto Commuter (pers-hrs)	10	10	10	9	7	6
Rank	101	101	101	101	101	101
Travel Time Index	1.08	1.07	1.07	1.07	1.05	1.05
Rank	101	101	101	101	101	101
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	46	43	46	39	29	25
Rank	101	101	100	101	101	101
Cost per Auto Commuter (\$)	203	236	266	244	200	180
Rank	101	101	101	101	101	101
Truck Congestion						
Annual Person-Hours of Delay (000)	99	97	106	93	74	66
Rank	101	101	99	101	101	101
Annual Gallons of Wasted Fuel (000)	195	191	209	185	146	131
Rank	101	101	101	101	101	101
Annual Congestion Cost (\$ million)	5	4	4	4	3	2
Rank	101	101	100	99	100	101
Annual Greenhouse Gases (CO2) Produced				1	ı	
Excess Due to Congestion (tons)						
Rank						
Due to All Travel (tons)						
Rank						
Truck Annual Greenhouse Gases (CO2) Produced				1	I	
Excess Due to Truck Congestion (tons)						
Rank						
Due to Truck Travel (tons)						
Rank						

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

Inventory Measures	2002	2001	2000	1999	1998	1997
Urban Area Information						
Population (1000s)	325	320	315	310	300	285
Rank	87	87	86	87	87	89
Commuters (1000s)	155	150	146	142	136	127
Daily Vehicle-Miles of Travel (1000s)						
Freeway	800	750	700	660	600	585
Arterial Streets	2,975	2,900	2,840	2,760	2,700	2,630
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)	1.66	1.93	1.72	1.59	1.27	1.40
Diesel (\$/gallon)	1.58	1.78	1.68	1.50	1.39	1.51
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)	553	554	541	547	536	549
Rank	101	101	101	100	100	99
Fuel per Peak Auto Commuter (gallons)	2	2	2	2	2	2
Rank	101	101	100	99	99	99
Annual Delay						
Total Delay (1000s of person-hours)	1,191	1,194	1,166	1,180	1,157	1,184
Rank	101	101	101	100	100	100
Delay per Auto Commuter (pers-hrs)	5	5	5	5	5	6
Rank	101	101	101	101	101	100
Travel Time Index	1.04	1.04	1.04	1.04	1.04	1.04
Rank	101	101	100	100	100	100
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	19	19	17	17	16	16
Rank	101	101	101	100	100	100
Cost per Auto Commuter (\$)	141	143	145	148	151	159
Rank	101	101	101	100	100	99
Truck Congestion						
Annual Person-Hours of Delay (000)	50	50	49	50	49	50
Rank	101	101	101	100	100	100
Annual Gallons of Wasted Fuel (000)	99	99	97	98	96	99
Rank	101	101	101	101	100	100
Annual Congestion Cost (\$ million)	2	2	2	2	1	1
Rank	100	100	98	97	100	100
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.

Inventory Measures	1996	1995	1994	1993	1992	1991
Urban Area Information						
Population (1000s)	270	255	245	230	215	205
Rank	90	91	91	93	93	93
Commuters (1000s)	119	111	105	98	90	85
Daily Vehicle-Miles of Travel (1000s)						
Freeway	580	575	550	525	515	500
Arterial Streets	2,580	2,500	2,425	2,390	2,300	2,250
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	1.27	1.16	1.23	1.28	1.11
Diesel (\$/gallon)	1.24	1.31	1.19	1.26	1.25	1.25
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)	504	482	491	491	471	475
Rank	100	98	98	98	96	96
Fuel per Peak Auto Commuter (gallons)	2	1	2	2	1	1
Rank	98	100	96	96	98	98
Annual Delay						
Total Delay (1000s of person-hours)	1,087	1,038	1,059	1,061	1,016	1,024
Rank	100	99	99	99	97	97
Delay per Auto Commuter (pers-hrs)	6	6	6	7	7	7
Rank	100	99	98	98	98	98
Travel Time Index	1.04	1.04	1.05	1.05	1.05	1.06
Rank	99	99	96	93	92	88
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	15	14	14	13	12	12
Rank	100	99	99	99	97	97
Cost per Auto Commuter (\$)	143	142	148	162	151	168
Rank	99	98	98	98	98	96
Truck Congestion						
Annual Person-Hours of Delay (000)	46	44	44	45	43	43
Rank	100	100	99	99	96	96
Annual Gallons of Wasted Fuel (000)	90	86	88	88	85	85
Rank	100	100	100	99	99	97
Annual Congestion Cost (\$ million)	1	1	1	1	1	1
Rank	100	100	98	96	96	96
Annual Greenhouse Gases (CO2) Produced				1		
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 Travel (Travel (tons)						
Due to Truck Travel (tons)						
Rank						

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

Inventory Measures	1990	1989	1988	1987	1986	1985
Urban Area Information						
Population (1000s)	195	180	175	160	150	140
Rank	94	95	95	96	97	97
Commuters (1000s)	80	73	70	64	59	55
Daily Vehicle-Miles of Travel (1000s)						
Freeway	495	480	470	450	440	420
Arterial Streets	2,180	2,100	2,060	2,000	1,910	1,850
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)	1.14	1.14	1.05	1.05	1.03	1.35
Diesel (\$/gallon)	1.19	1.09	1.01	1.01	0.99	1.29
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)	458	392	385	385	353	298
Rank	96	96	95	95	94	96
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)	987	846	831	830	762	643
Rank	97	97	96	95	95	95
Delay per Auto Commuter (pers-hrs)	8	7	7	8	8	7
Rank	95	97	95	92	90	92
Travel Time Index	1.06	1.05	1.05	1.06	1.06	1.05
Rank	85	86	83	65	56	64
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	11	9	9	8	7	6
Rank	96	97	95	95	95	95
Cost per Auto Commuter (\$)	155	145	158	159	157	136
Rank	96	97	95	94	94	94
Truck Congestion						
Annual Person-Hours of Delay (000)	41	36	35	35	32	27
Rank	96	96	95	95	95	95
Annual Gallons of Wasted Fuel (000)	82	70	69	69	63	53
Rank	96	97	97	95	95	96
Annual Congestion Cost (\$ million)	1	1	1	1	1	1
Rank	92	90	89	86	86	86
Annual Greenhouse Gases (CO2) Produced				ı		
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			'	1 1	1	

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

Inventory Measures	1984	1983	1982
Urban Area Information			
Population (1000s)	130	115	105
Rank	97	97	97
Commuters (1000s)	51	45	40
Daily Vehicle-Miles of Travel (1000s)			
Freeway	410	400	390
Arterial Streets	1,775	1,700	1,600
Cost Components			
Value of Time (\$/hour)	7.75	7.43	7.20
Commercial Cost (\$/hour)	23.94	23.63	23.31
Gasoline (\$/gallon)	1.36	1.39	1.46
Diesel (\$/gallon)	1.31	1.34	1.40
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)	279	232	189
Rank	94	96	96
Fuel per Peak Auto Commuter (gallons)	1	1	1
Rank	87	86	82
Annual Delay			
Total Delay (1000s of person-hours)	601	500	408
Rank	95	96	98
Delay per Auto Commuter (pers-hrs)	7	7	6
Rank	90	85	90
Travel Time Index	1.05	1.05	1.05
Rank	57	55	51
Commuter Stress Index			
Rank			
Freeway Planning Time Index (95th Pctile)			
Rank			
Congestion Cost			
Total Cost (\$ millions)	6	5	4
Rank	94	94	94
Cost per Auto Commuter (\$)	120	103	93
Rank	95	96	95
Truck Congestion			
Annual Person-Hours of Delay (000)	25	21	17
Rank	95	96	97
Annual Gallons of Wasted Fuel (000)	50	42	34
Rank	96	97	96
Annual Congestion Cost (\$ million)	1	1	0
Rank	82	79	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)			
Excess Due to Truck Congestion (tons) Rank			

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