Performance Measure Summary - Oxnard 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)	380	380	385	385	380	375
Rank	88	88	88	88	88	88
Commuters (1000s)	191	191	194	194	191	188
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,748	2,035	2,115	2,091	2,091	2,018
Arterial Streets	2,355	2,741	2,856	3,145	3,137	3,009
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)	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)				26.1		
Congested System (% of lane-miles)				15.4		
Congested Time (number of "Rush Hours")				4.0		
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	1,255	2,413	2,420	2,431	2,439	2,438
Rank	96	97	96	96	96	96
Fuel per Peak Auto Commuter (gallons)	6	11	11	11	11	10
Rank	95	97	97	97	97	97
Annual Delay						
Total Delay (1000s of person-hours)	3,379	6,499	6,518	6,548	6,570	6,566
Rank	94	96	96	96	94	92
Delay per Auto Commuter (pers-hrs)	18	34	34	34	34	32
Rank	87	94	92	91	90	90
Travel Time Index	1.05	1.16	1.16	1.16	1.16	1.16
Rank	85	59	57	59	58	57
Commuter Stress Index	1.07	1.19	1.21	1.21		
Rank	75	54	45	41		
Freeway Planning Time Index (95th Pctile)		1.50	1.51	1.60		
Rank		42	43	39		
Congestion Cost						
Total Cost (\$ millions)	78	143	145	142	140	138
Rank	94	96	96	96	93	92
Cost per Auto Commuter (\$)	416	765	764	748	725	680
Rank	78	81	80	78	80	82
Truck Congestion						
Annual Person-Hours of Delay (000)	195	342	338	321	315	304
Rank	90	90	91	93	93	93
Annual Gallons of Wasted Fuel (000)	297	521	503	489	487	477
Rank	93	93	93	94	94	94
Annual Congestion Cost (\$ million)	11	17	19	17	16	15
Rank	90	91	89	92	92	91
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	12,603	24,238				
Rank	96	97				
Due to All Travel (tons)	374,405	720,061				
Rank	96	98				
Truck Annual Greenhouse Gases (CO2) Produced		_			1	
Excess Due to Truck Congestion (tons)	3,247	5,703				
Rank	94	93				
Due to Truck Travel (tons)	90,780	159,424				
Rank	97	98				

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

Inventory Measures	2014	2013	2012	2011	2010	2009
Urban Area Information						
Population (1000s)	370	365	360	355	350	345
Rank	89	88	88	88	89	90
Commuters (1000s)	185	186	183	180	177	174
Daily Vehicle-Miles of Travel (1000s)						
Freeway	2,059	2,018	7,060	7,015	6,956	6,958
Arterial Streets	3,107	3,197	6,365	6,324	6,271	6,236
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)	2,399	2,375	2,851	2,739	2,592	2,429
Rank	96	96	92	93	93	93
Fuel per Peak Auto Commuter (gallons)	10	9	9	8	8	7
Rank	97	97	97	97	97	97
Annual Delay						
Total Delay (1000s of person-hours)	6,461	6,397	7,678	7,376	6,981	6,542
Rank	92	92	87	86	88	88
Delay per Auto Commuter (pers-hrs)	31	29	28	26	26	24
Rank	90	90	90	91	91	91
Travel Time Index	1.16	1.16	1.16	1.15	1.15	1.15
Rank	58	55	57	67	65	68
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	136	133	157	148	135	123
Rank	92	92	87	87	88	88
Cost per Auto Commuter (\$)	636	622	614	611	595	569
Rank	82	84	83	83	88	89
Truck Congestion						
Annual Person-Hours of Delay (000)	293	282	322	310	293	275
Rank	92	92	88 530	87 519	88	88
Annual Gallons of Wasted Fuel (000)	468	454	530	518	495	473
Rank	94	95	92	92	92	92
Annual Congestion Cost (\$ million) Rank	14 92	13 92	14 88	15 87	13 88	12 88
	92	92	00	87	00	00
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 Excess Due to Truck Congestion (tons)				1	I	
Rank (tons)						
Nank Due to Truck Travel (tons)						
Rank		 	 			
IXAIIK						

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

Inventory Measures	2008	2007	2006	2005	2004	2003
Urban Area Information						
Population (1000s)	340	335	330	325	320	310
Rank	90	90	90	90	91	91
Commuters (1000s)	171	167	164	160	157	151
Daily Vehicle-Miles of Travel (1000s)						
Freeway	7,035	7,125	7,135	7,125	7,000	6,900
Arterial Streets	6,305	6,310	5,860	5,600	5,250	5,000
Cost Components	0,303	0,510	3,000	3,000	3,230	3,000
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	2.02	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)	2,309	2,596	2,731	2,492	2,285	2,167
Rank	95	92	91	92	92	92
Fuel per Peak Auto Commuter (gallons)	6	8	9	9	7	7
Rank	99	97	96	96	96	95
Annual Delay						
Total Delay (1000s of person-hours)	6,218	6,992	7,355	6,713	6,153	5,837
Rank	88	86	84	85	84	84
Delay per Auto Commuter (pers-hrs)	23	25	27	25	23	23
Rank	93	91	88	90	92	92
Travel Time Index	1.15	1.15	1.16	1.15	1.14	1.13
Rank	69	69	58	68	71	75
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	120	129	131	115	102	93
Rank	90	86	85	85	84	84
Cost per Auto Commuter (\$)	532	623	674	637	603	583
Rank	90	81	69	76	82	82
Truck Congestion						
Annual Person-Hours of Delay (000)	261	294	309	282	258	245
Rank	90	87	87	87	87	87
Annual Gallons of Wasted Fuel (000)	472	530	558	509	467	443
Rank	95	92	89	90	90	90
Annual Congestion Cost (\$ million)	12	13	13	11	10	9
Rank	90	87	86	87	87	87
Annual Greenhouse Gases (CO2) Produced	70	07		07	07	07
Excess Due to Congestion (tons)				1	I	
Rank						
Due to All Travel (tons)						
Rank						
Truck Annual Greenhouse Gases (CO2) Produced					1	
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)	300	295	290	285	285	280
Rank	91	91	91	91	90	90
Commuters (1000s)	145	141	136	132	131	127
Daily Vehicle-Miles of Travel (1000s)						
Freeway	6,750	6,625	6,375	6,275	6,080	5,950
Arterial Streets	4,800	4,545	4,435	4,460	4,380	4,320
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)	2,055	1,874	1,688	1,539	1,464	1,321
Rank	93	93	93	93	93	93
Fuel per Peak Auto Commuter (gallons)	7	7	5	5	6	4
Rank	95	93	97	94	91	94
Annual Delay						
Total Delay (1000s of person-hours)	5,536	5,046	4,546	4,144	3,944	3,559
Rank	84	85	85	87	85	86
Delay per Auto Commuter (pers-hrs)	23	21	20	18	17	16
Rank	92	92	92	93	93	94
Travel Time Index	1.13	1.12	1.11	1.11	1.10	1.09
Rank	75	78	79	78	80	83
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	86	77	67	59	55	49
Rank	84	85	86	88	85	87
Cost per Auto Commuter (\$)	573	528	484	456	445	405
Rank	80	81	82	83	81	81
Truck Congestion	222	212	101	1.7.	1.77	1.40
Annual Person-Hours of Delay (000)	233	212	191	174	166	149
Rank	87	88	88	88	87	87 270
Annual Gallons of Wasted Fuel (000) Rank	420 90	383 90	345 90	314 90	299 90	270 90
Rank Annual Congestion Cost (\$ million)	8	90 7	90 6	5	90 5	90 4
Rank	87	88	88	88	86	87
Annual Greenhouse Gases (CO2) Produced	07	00	00	00	80	67
Excess Due to Congestion (tons)				I		
Rank						
Due to All Travel (tons)						 -
Rank				<u></u>		
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)		_		_		
Rank						
Due to Truck Travel (tons)						
Rank				 		<u></u>
1 Willi	_ -					

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

Inventory Measures	1996	1995	1994	1993	1992	1991
Urban Area Information						
Population (1000s)	280	275	270	265	260	255
Rank	88	88	88	88	88	88
Commuters (1000s)	125	121	118	114	111	107
Daily Vehicle-Miles of Travel (1000s)						
Freeway	5,930	5,850	5,795	5,390	5,305	5,200
Arterial Streets	4,295	4,160	4,080	4,070	4,060	4,055
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)	1,215	1,076	996	822	741	637
Rank	93	93	93	93	93	93
Fuel per Peak Auto Commuter (gallons)	5	3	4	3	2	2
Rank	91	94	91	90	95	94
Annual Delay						
Total Delay (1000s of person-hours)	3,273	2,899	2,682	2,214	1,996	1,716
Rank	87	89	89	93	92	92
Delay per Auto Commuter (pers-hrs)	15	14	13	11	10	9
Rank	93	94	94	95	95	96
Travel Time Index	1.09	1.08	1.08	1.06	1.06	1.05
Rank	79	84	80	89	88	92
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	44	38	34	28	24	20
Rank	88	89	90	92	92	92
Cost per Auto Commuter (\$)	387	351	330	282	264	241
Rank	82	85	85	89	88	90
Truck Congestion						
Annual Person-Hours of Delay (000)	137	122	113	93	84	72
Rank	87	88	89	92	91	91
Annual Gallons of Wasted Fuel (000)	248	220	204	168	151	130
Rank	90	91	92	93	93	93
Annual Congestion Cost (\$ million)	4	3	3	3	2	2
Rank	86	89	86	85	90	88
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)						
Rank						
Due to All Travel (tons)						
Rank						
Truck Annual Greenhouse Gases (CO2) Produced					1	
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	1990	1989	1988	1987	1986	1985
Urban Area Information						
Population (1000s)	250	245	240	235	230	225
Rank	87	87	87	87	87	87
Commuters (1000s)	104	101	98	95	92	90
Daily Vehicle-Miles of Travel (1000s)						
Freeway	5,120	5,040	4,925	4,745	4,425	4,110
Arterial Streets	4,170	4,010	3,815	3,560	3,420	3,215
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
						1703
Congested Travel (% of Jane miles)						
Congested System (% of lane-miles) Congested Time (number of "Rush Hours")						
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	577	510	469	462	371	308
Rank	92	92	92	92	93	95
Fuel per Peak Auto Commuter (gallons)	2	2	1	1	1	1
Rank	93	90	94	93	91	90
Annual Delay						
Total Delay (1000s of person-hours)	1,553	1,373	1,262	1,243	998	830
Rank	92	92	92	89	92	93
Delay per Auto Commuter (pers-hrs)	8	8	7	7	6	5
Rank	95	95	95	94	97	97
Travel Time Index	1.05	1.04	1.04	1.04	1.04	1.03
Rank	89	92	91	88	85	89
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost					ĺ	
Total Cost (\$ millions)	18	15	13	12	10	8
Rank	92	92	92	89	91	93
Cost per Auto Commuter (\$)	224	203	203	197	176	140
Rank	89	89	89	90	90	92
Truck Congestion						
Annual Person-Hours of Delay (000)	65	58	53	52	42	35
Rank	90	90	91	89	91	93
Annual Gallons of Wasted Fuel (000)	118	104	96	94	76	63
Rank	92	92	92	92	93	94
Annual Congestion Cost (\$ million)	2	1	1	1	1	1
Rank	85	90	89	86	86	86
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)						
Rank						
Due to All Travel (tons)						
Rank					<u></u>	
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)				1	1	
Rank						
Natik						
Due to Truels Travel (tons)		ı			I	
Due to Truck Travel (tons) Rank						

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

Inventory Measures	1984	1983	1982
Urban Area Information			
Population (1000s)	220	215	210
Rank	87	87	86
Commuters (1000s)	87	84	82
Daily Vehicle-Miles of Travel (1000s)			
Freeway	3,595	3,370	3,005
Arterial Streets	3,110	3,000	2,905
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)	260	214	161
Rank	97	97	97
Fuel per Peak Auto Commuter (gallons)	1	1	1
Rank	87	86	82
Annual Delay			
Total Delay (1000s of person-hours)	699	576	433
Rank	94	94	96
Delay per Auto Commuter (pers-hrs)	4	4	3
Rank	98	98	98
Travel Time Index	1.03	1.02	1.02
Rank	85	89	89
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 (\$)	116	121	91
Rank	96	94	96
Truck Congestion			
Annual Person-Hours of Delay (000)	29	24	18
Rank	93	94	96
rain			33
Annual Gallons of Wasted Fuel (000)	53	44	33
	53 95	44 96	97
Annual Gallons of Wasted Fuel (000)			
Annual Gallons of Wasted Fuel (000) Rank	95	96	97
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million)	95 1	96 1	97 0
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million) Rank	95 1	96 1	97 0
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million) Rank Annual Greenhouse Gases (CO2) Produced	95 1	96 1	97 0
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million) Rank Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons)	95 1	96 1	97 0
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million) Rank Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons) Rank	95 1	96 1	97 0
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million) Rank Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons) Rank Due to All Travel (tons)	95 1 82	96 1 79 	97 0 95
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million) Rank Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons) Rank Due to All Travel (tons) Rank	95 1 82	96 1 79 	97 0 95
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million) Rank Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons) Rank Due to All Travel (tons) Rank Truck Annual Greenhouse Gases (CO2) Produced	95 1 82	96 1 79 	97 0 95
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million) Rank 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)	95 1 82	96 1 79 	97 0 95

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