

Performance Measure Summary - Sarasota-Bradenton FL

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 Sarasota-Bradenton FL

Inventory Measures	2017	2016	2015	2014	2013	2012
Urban Area Information						
Population (1000s)	715	700	685	670	660	650
Rank	62	62	62	63	63	63
Commuters (1000s)	359	351	343	336	337	332
Daily Vehicle-Miles of Travel (1000s)						
Freeway	3,288	3,251	3,146	2,975	2,623	2,405
Arterial Streets	6,977	7,079	6,900	6,588	6,235	6,295
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)	2.28	2.12	2.23	3.27	3.47	3.50
Diesel (\$/gallon)	2.48	2.31	2.55	3.60	3.90	3.87
System Performance	2017	2016	2015	2014	2013	2012
Congested Travel (% of peak VMT)	2.8	--	--	--	--	--
Congested System (% of lane-miles)	12.3	--	--	--	--	--
Congested Time (number of "Rush Hours")	1.9	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	6,261	6,178	6,086	5,999	5,874	5,616
Rank	76	76	76	76	76	76
Fuel per Peak Auto Commuter (gallons)	14	13	12	12	13	12
Rank	90	92	96	95	89	93
Annual Delay						
Total Delay (1000s of person-hours)	15,886	15,449	15,088	14,617	14,061	13,323
Rank	72	72	72	72	73	75
Delay per Auto Commuter (pers-hrs)	33	32	30	30	29	28
Rank	92	92	92	91	90	90
Travel Time Index						
Rank	1.16	1.16	1.16	1.16	1.16	1.16
Rank	61	61	60	61	58	60
Commuter Stress Index						
Rank	1.20	--	--	--	--	--
Rank	47	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	1.53	--	--	--	--	--
Rank	43	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	321	307	296	292	277	258
Rank	72	72	72	72	73	76
Cost per Auto Commuter (\$)	605	594	575	556	539	517
Rank	92	91	91	92	92	92
Truck Congestion						
Annual Person-Hours of Delay (000)	667	649	634	614	591	560
Rank	72	72	72	72	73	75
Annual Gallons of Wasted Fuel (000)	1,327	1,310	1,290	1,272	1,245	1,191
Rank	76	76	76	76	76	76
Annual Congestion Cost (\$ million)	34	32	29	29	26	24
Rank	72	72	73	72	73	75

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

Mobility Data for Sarasota-Bradenton FL

Inventory Measures	2011	2010	2009	2008	2007	2006
Urban Area Information						
Population (1000s)	645	640	640	640	635	630
Rank	63	63	63	62	62	62
Commuters (1000s)	329	325	324	323	319	315
Daily Vehicle-Miles of Travel (1000s)						
Freeway	2,517	2,491	2,400	2,335	2,575	2,645
Arterial Streets	6,308	6,244	6,492	6,525	6,545	6,750
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)	3.24	2.74	2.33	3.47	2.98	2.66
Diesel (\$/gallon)	3.65	2.96	2.59	4.15	3.36	2.85
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)	5,571	5,469	5,216	5,712	5,688	5,613
Rank	76	76	76	75	75	74
Fuel per Peak Auto Commuter (gallons)	12	12	10	12	12	12
Rank	89	89	93	90	90	86
Annual Delay						
Total Delay (1000s of person-hours)	12,860	12,507	11,705	12,209	12,156	11,997
Rank	76	75	76	75	74	72
Delay per Auto Commuter (pers-hrs)	27	27	25	26	27	27
Rank	90	89	90	89	88	88
Travel Time Index						
Rank	1.16	1.15	1.15	1.16	1.16	1.16
Rank	59	68	71	63	63	62
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	247	230	210	227	215	205
Rank	75	75	76	75	74	72
Cost per Auto Commuter (\$)	516	517	491	507	525	534
Rank	92	92	93	89	89	88
Truck Congestion						
Annual Person-Hours of Delay (000)	540	525	492	513	511	504
Rank	76	75	76	75	74	72
Annual Gallons of Wasted Fuel (000)	1,181	1,159	1,106	1,211	1,206	1,190
Rank	76	76	76	75	75	74
Annual Congestion Cost (\$ million)	25	23	21	23	22	20
Rank	76	73	75	75	72	72

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

Mobility Data for Sarasota-Bradenton FL

Inventory Measures	2005	2004	2003	2002	2001	2000
Urban Area Information						
Population (1000s)	625	620	590	570	550	535
Rank	61	61	64	64	65	66
Commuters (1000s)	310	306	289	276	263	253
Daily Vehicle-Miles of Travel (1000s)						
Freeway	2,510	2,325	2,100	1,900	1,700	1,500
Arterial Streets	6,575	6,400	6,110	5,815	5,525	5,385
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)	2.34	1.99	1.53	1.41	1.51	1.54
Diesel (\$/gallon)	2.53	2.01	1.61	1.41	1.58	1.55
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)	5,416	5,181	4,970	4,734	4,608	4,572
Rank	74	74	74	73	73	72
Fuel per Peak Auto Commuter (gallons)	11	11	10	10	10	9
Rank	88	88	89	87	85	84
Annual Delay						
Total Delay (1000s of person-hours)	11,575	11,072	10,622	10,118	9,849	9,772
Rank	72	72	71	71	71	70
Delay per Auto Commuter (pers-hrs)	26	25	25	25	26	26
Rank	88	88	89	89	84	81
Travel Time Index						
Rank	1.16	1.15	1.16	1.15	1.16	1.16
Rank	61	66	56	61	51	45
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	190	174	161	149	143	138
Rank	72	72	71	71	71	70
Cost per Auto Commuter (\$)	530	526	519	504	497	508
Rank	88	87	85	86	82	78
Truck Congestion						
Annual Person-Hours of Delay (000)	486	465	446	425	414	410
Rank	72	72	71	71	71	70
Annual Gallons of Wasted Fuel (000)	1,148	1,098	1,054	1,004	977	969
Rank	74	74	74	73	73	72
Annual Congestion Cost (\$ million)	18	17	15	14	13	12
Rank	72	71	71	71	71	70

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

Mobility Data for Sarasota-Bradenton FL

Inventory Measures	1999	1998	1997	1996	1995	1994
Urban Area Information						
Population (1000s)	525	515	505	505	500	490
Rank	65	65	65	65	65	66
Commuters (1000s)	245	237	230	227	222	215
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,300	1,100	850	650	500	400
Arterial Streets	5,200	5,000	4,850	4,710	4,600	4,450
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)	1.14	1.07	1.17	1.30	1.20	1.08
Diesel (\$/gallon)	1.19	1.20	1.27	1.40	1.30	1.17
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)	4,421	4,048	3,772	3,586	3,305	3,208
Rank	72	72	72	72	72	70
Fuel per Peak Auto Commuter (gallons)	10	9	8	8	7	7
Rank	77	79	79	76	77	73
Annual Delay						
Total Delay (1000s of person-hours)	9,449	8,652	8,063	7,665	7,063	6,856
Rank	70	70	70	70	70	69
Delay per Auto Commuter (pers-hrs)	26	25	23	23	21	21
Rank	78	76	77	74	78	75
Travel Time Index						
Rank	41	44	47	45	47	42
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	128	115	106	99	88	83
Rank	69	70	70	70	70	69
Cost per Auto Commuter (\$)	506	477	449	436	416	417
Rank	76	76	77	76	76	74
Truck Congestion						
Annual Person-Hours of Delay (000)	397	363	339	322	297	288
Rank	70	70	70	70	70	69
Annual Gallons of Wasted Fuel (000)	937	858	800	760	701	680
Rank	72	72	72	72	72	70
Annual Congestion Cost (\$ million)	11	10	9	9	8	8
Rank	68	69	70	69	69	64

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

Mobility Data for Sarasota-Bradenton FL

Inventory Measures	1993	1992	1991	1990	1989	1988
Urban Area Information						
Population (1000s)	475	465	455	430	405	390
Rank	67	67	67	69	69	69
Commuters (1000s)	206	199	192	179	167	160
Daily Vehicle-Miles of Travel (1000s)						
Freeway	370	345	350	340	320	300
Arterial Streets	4,385	4,300	4,275	4,085	3,815	3,650
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)	1.13	1.12	1.10	1.05	1.08	1.00
Diesel (\$/gallon)	1.22	1.20	1.24	1.11	1.07	0.99
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)	3,098	2,749	2,730	2,392	2,068	2,023
Rank	68	70	65	67	67	67
Fuel per Peak Auto Commuter (gallons)	7	6	7	6	4	4
Rank	67	69	57	60	76	71
Annual Delay						
Total Delay (1000s of person-hours)	6,620	5,875	5,834	5,112	4,421	4,323
Rank	68	69	65	67	68	65
Delay per Auto Commuter (pers-hrs)	21	19	20	18	17	17
Rank	71	74	65	66	62	58
Travel Time Index						
Rank	39	40	38	41	43	32
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	79	68	66	55	46	43
Rank	67	69	64	67	68	64
Cost per Auto Commuter (\$)	411	377	386	355	326	329
Rank	70	70	64	68	70	66
Truck Congestion						
Annual Person-Hours of Delay (000)	278	247	245	215	186	182
Rank	68	69	65	66	68	65
Annual Gallons of Wasted Fuel (000)	657	583	579	507	439	429
Rank	68	70	65	67	67	67
Annual Congestion Cost (\$ million)	7	6	6	5	5	4
Rank	67	69	64	67	60	64

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

Mobility Data for Sarasota-Bradenton FL

Inventory Measures	1987	1986	1985	1984	1983	1982
Urban Area Information						
Population (1000s)	380	370	360	350	340	325
Rank	69	69	69	70	71	72
Commuters (1000s)	154	149	144	139	134	127
Daily Vehicle-Miles of Travel (1000s)						
Freeway	270	260	250	240	240	240
Arterial Streets	3,545	3,420	3,550	3,485	3,345	3,000
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)	1.00	0.98	1.28	1.29	1.32	1.38
Diesel (\$/gallon)	0.99	0.97	1.27	1.28	1.31	1.37
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)	1,994	1,901	1,771	1,702	1,564	1,386
Rank	63	63	63	61	59	61
Fuel per Peak Auto Commuter (gallons)	4	4	4	4	3	3
Rank	61	54	50	41	46	34
Annual Delay						
Total Delay (1000s of person-hours)	4,262	4,062	3,786	3,638	3,343	2,962
Rank	63	62	62	59	57	59
Delay per Auto Commuter (pers-hrs)	18	17	17	17	16	15
Rank	48	47	38	35	33	33
Travel Time Index						
Rank	29	26	26	26	22	25
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	41	37	35	32	29	25
Rank	63	62	61	59	56	58
Cost per Auto Commuter (\$)	338	335	324	323	306	285
Rank	60	59	55	45	47	47
Truck Congestion						
Annual Person-Hours of Delay (000)	179	171	159	153	140	124
Rank	63	62	62	59	57	59
Annual Gallons of Wasted Fuel (000)	423	403	376	361	332	294
Rank	63	63	63	61	59	61
Annual Congestion Cost (\$ million)	4	4	4	4	3	3
Rank	63	58	55	49	55	52

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