Performance Measure Summary - Jacksonville FL

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)	1,165	1,165	1,160	1,150	1,120	1,105
Rank	41	41	41	41	41	42
Commuters (1000s)	601	601	598	593	578	571
Daily Vehicle-Miles of Travel (1000s)						
Freeway	13,503	14,504	13,645	13,537	12,967	12,377
Arterial Streets	9,209	9,891	9,856	9,625	9,712	9,267
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)	2.26	2.48	2.77	2.28	2.12	2.23
Diesel (\$/gallon)	2.71	2.85	3.15	2.48	2.31	2.55
System Performance	2020	2019	2018	2017	2016	2015
Congested Travel (% of peak VMT)				24.1		
Congested System (% of lane-miles)				16.4		
Congested Time (number of "Rush Hours")				3.3		
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	5,730	14,458	12,678	11,921	11,788	11,722
Rank	52	46	49	49	49	49
Fuel per Peak Auto Commuter (gallons)	7	18	16	15	15	15
Rank	90	69	79	84	83	83
Annual Delay						
Total Delay (1000s of person-hours)	16,143	40,733	37,025	34,792	33,935	33,457
Rank	48	40	45	45	45	44
Delay per Auto Commuter (pers-hrs)	21	53	49	46	46	44
Rank	77	33	42	47	47	49
Travel Time Index	1.06	1.21	1.20	1.19	1.19	1.19
Rank	75	37	37	38	38	38
Commuter Stress Index	1.09	1.28	1.23	1.24		
Rank	44	31	40	36		
Freeway Planning Time Index (95th Pctile)		1.66	1.61	1.68		
Rank		36	37	32		
Congestion Cost						
Total Cost (\$ millions)	355	863	795	737	707	687
Rank	50	41	45	45	45	45
Cost per Auto Commuter (\$)	448	1,089	1,008	942	924	906
Rank	72	38	41	44	44	44
Truck Congestion						
Annual Person-Hours of Delay (000)	567	1,501	1,473	1,461	1,425	1,405
Rank	62	48	48	47	47	46
Annual Gallons of Wasted Fuel (000)	893	2,362	2,288	2,227	2,202	2,190
Rank	67	49	49	50	50	50
Annual Congestion Cost (\$ million)	30	73	80	76	72	67
Rank	62	49	48	47	47	47
Annual Greenhouse Gases (CO2) Produced				ı	1	
Excess Due to Congestion (tons)	57,225	144,394				
Rank	53	46				
Due to All Travel (tons)	1,821,662	4,596,532				
Rank	56	40				
Truck Annual Greenhouse Gases (CO2) Produced				ı	ı	
Excess Due to Truck Congestion (tons)	9,783	25,891				
Rank	67	50				
Due to Truck Travel (tons)	377,285	998,471				
Rank	65	45				

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

Inventory Measures	2014	2013	2012	2011	2010	2009
Urban Area Information						
Population (1000s)	1,085	1,080	1,075	1,065	1,060	1,055
Rank	43	41	41	41	41	40
Commuters (1000s)	560	569	566	560	555	551
Daily Vehicle-Miles of Travel (1000s)						
Freeway	11,810	11,468	11,535	12,226	12,113	11,900
Arterial Streets	8,895	8,947	8,905	9,360	9,400	9,632
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)	3.27	3.47	3.50	3.24	2.74	2.33
Diesel (\$/gallon)	3.60	3.90	3.87	3.65	2.96	2.59
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)	11,615	11,478	11,389	11,028	11,343	11,247
Rank	49	49	49	49	49	48
Fuel per Peak Auto Commuter (gallons)	15	15	15	15	15	14
Rank	81	82	78	74	73	71
Annual Delay						
Total Delay (1000s of person-hours)	32,579	31,630	31,106	29,576	29,864	29,058
Rank	44	44	44	44	44	44
Delay per Auto Commuter (pers-hrs)	43	41	41	39	41	40
Rank	49	52	50	54	42	43
Travel Time Index	1.18	1.17	1.17	1.17	1.18	1.18
Rank	39	48	47	43	38	40
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	679	649	630	592	574	546
Rank	45	45	44	44	44	44
Cost per Auto Commuter (\$)	879	861	857	843	877	866
Rank	44	45	44	45	40	41
Truck Congestion						
Annual Person-Hours of Delay (000)	1,368	1,328	1,306	1,242	1,254	1,220
Rank	46	45	45	45	45	45
Annual Gallons of Wasted Fuel (000)	2,170	2,144	2,128	2,060	2,119	2,101
Rank	50	50	50	50	49	49
Annual Congestion Cost (\$ million)	65	59 46	57	59	56	53
Rank	47	46	46	46	45	45
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					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	2008	2007	2006	2005	2004	2003
Urban Area Information						
Population (1000s)	1,050	1,040	1,015	990	965	925
Rank	39	40	41	42	42	45
Commuters (1000s)	546	537	520	504	488	466
Daily Vehicle-Miles of Travel (1000s)			7=0			
Freeway	11,760	12,460	12,420	11,500	10,825	10,275
Arterial Streets	9,680	9,645	9,815	10,000	9,895	9,275
Cost Components	2,000	7,043	7,013	10,000	7,073	7,213
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)	3.47	2.98	2.66	2.34	1.99	1.53
Diesel (\$/gallon)	4.15	3.36	2.85	2.54	2.01	1.61
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)	11,793	12,477	12,222	11,782	10,997	10,364
Rank	48	47	46	46	47	47
Fuel per Peak Auto Commuter (gallons)	15	17	17	17	16	15
Rank	75	61	56	48	56	58
Annual Delay						
Total Delay (1000s of person-hours)	29,017	30,699	30,072	28,990	27,058	25,500
Rank	44	41	40	40	43	43
Delay per Auto Commuter (pers-hrs)	40	43	43	43	41	40
Rank	38	31	31	30	32	32
Travel Time Index	1.19	1.20	1.20	1.20	1.19	1.19
Rank	39	38	37	36	37	37
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	562	567	537	498	446	404
Rank	44	41	40	41	43	43
Cost per Auto Commuter (\$)	859	944	949	946	915	885
Rank	39	32	30	31	36	38
Truck Congestion	3,	52		0.1		
Annual Person-Hours of Delay (000)	1,219	1,289	1,263	1,218	1,136	1,071
Rank	45	43	42	42	42	42
Annual Gallons of Wasted Fuel (000)	2,203	2,331	2,283	2,201	2,054	1,936
Rank	49	2,331	2,283	45	2,034	1,936
Annual Congestion Cost (\$ million)	56	55	51	43 47	40	37
Rank	45	43	42	47	41 42	42
	43	43	42	42	42	42
Annual Greenhouse Gases (CO2) Produced				ı	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)						
Excess Due to Truck Congestion (tons)		 		 		

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

Inventory Measures	2002	2001	2000	1999	1998	1997
Urban Area Information						
Population (1000s)	905	890	865	850	840	825
Rank	44	43	43	44	44	45
Commuters (1000s)	449	434	416	401	390	377
Daily Vehicle-Miles of Travel (1000s)						
Freeway	9,965	9,750	9,835	9,355	9,025	8,650
Arterial Streets	8,925	8,555	8,565	8,325	8,425	8,205
Cost Components	0,520	0,000	3,000	0,520	0,120	0,200
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)	1.41	1.51	1.54	1.14	1.07	1.17
Diesel (\$/gallon)	1.41	1.58	1.55	1.19	1.20	1.17
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)	9,574	9,058	8,579	8,344	7,804	7,369
Rank	48	49	50	47	46	46
Fuel per Peak Auto Commuter (gallons)	14	13	11	12	11	10
Rank	61	63	74	64	65	66
Annual Delay						
Total Delay (1000s of person-hours)	23,556	22,288	21,108	20,531	19,203	18,132
Rank	43	44	44	41	42	42
Delay per Auto Commuter (pers-hrs)	39	38	37	37	35	34
Rank	36	38	37	35	37	38
Travel Time Index	1.18	1.17	1.17	1.17	1.16	1.16
Rank	37	38	36	36	36	36
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	364	340	313	291	267	249
Rank	44	44	44	42	42	42
Cost per Auto Commuter (\$)	833	801	780	785	751	719
Rank	40	39	39	37	34	35
Truck Congestion						
Annual Person-Hours of Delay (000)	989	936	887	862	807	762
Rank	42	44	44	43	43	43
Annual Gallons of Wasted Fuel (000)	1,789	1,692	1,603	1,559	1,459	1,377
Rank	47	48	48	48	48	48
Annual Congestion Cost (\$ million)	33	30	28	25	23	22
Rank	42	44	44	43	43	43
Annual Greenhouse Gases (CO2) Produced	72	7-7	77	73	73	73
				ı	I	
Excess Due to Congestion (tons) Rank						
Due to All Travel (tons) Rank						
Truck Annual Greenhouse Gases (CO2) Produced				ı	ı	
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)	820	805	785	770	760	750
Rank	44	44	44	44	44	44
Commuters (1000s)	369	356	342	330	321	311
Daily Vehicle-Miles of Travel (1000s)						
Freeway	8,150	7,000	6,520	6,065	5,760	5,470
Arterial Streets	8,120	8,200	8,275	8,090	8,080	7,810
Cost Components	0,120	0,200	0,270	0,070	5,000	7,010
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)	1.30	1.20	1.08	1.13	1.12	1.10
Diesel (\$/gallon)	1.40	1.30	1.17	1.13	1.20	1.10
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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)	7,056	6,177	5,746	5,299	5,001	4,762
Rank	45	47	47	47	46	45
Fuel per Peak Auto Commuter (gallons)	10	9	9	7	7	7
Rank	57	59	56	67	59	57
Annual Delay						
Total Delay (1000s of person-hours)	17,362	15,199	14,137	13,038	12,305	11,716
Rank	39	41	41	41	41	40
Delay per Auto Commuter (pers-hrs)	33	30	29	28	27	26
Rank	38	46	42	40	38	37
Travel Time Index	1.16	1.14	1.14	1.13	1.12	1.12
Rank	34	41	39	40	41	39
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	234	199	180	162	149	138
Rank	39	41	41	41	41	40
Cost per Auto Commuter (\$)	705	636	610	576	561	549
Rank	33	40	42	42	42	34
Truck Congestion						
Annual Person-Hours of Delay (000)	729	638	594	548	517	492
Rank	42	42	42	42	41	40
Annual Gallons of Wasted Fuel (000)	1,318	1,154	1,073	990	934	889
Rank	46	49	48	48	47	44
Annual Congestion Cost (\$ million)	21	18	16	15	14	13
Rank	42	43	42	42	41	40
Annual Greenhouse Gases (CO2) Produced	72	73	72	72	71	70
				1	I	
Excess Due to Congestion (tons) Rank						
Due to All Travel (tons) Rank						
Truck Annual Greenhouse Gases (CO2) Produced					ı	
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)	720	715	690	660	650	645
Rank	43	43	44	45	45	45
Commuters (1000s)	294	290	277	263	257	253
Daily Vehicle-Miles of Travel (1000s)	_, _		=		==-	
Freeway	5,375	5,010	5,205	4,715	4,720	4,480
Arterial Streets	7,470	7,280	7,115	6,775	6,710	6,520
Cost Components	7,170	7,200	7,113	0,775	0,710	0,320
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)	1.05	1.08	1.00	1.00	0.98	1.28
Diesel (\$/gallon)	1.11	1.03	0.99	0.99	0.98	1.27
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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)	4,316	3,999	3,681	3,156	2,997	2,691
Rank	45	45	43	45	45	46
Fuel per Peak Auto Commuter (gallons)	6	5	6	4	4	4
Rank	60	63	45	61	54	50
Annual Delay						
Total Delay (1000s of person-hours)	10,620	9,840	9,058	7,765	7,374	6,622
Rank	39	39	39	40	40	40
Delay per Auto Commuter (pers-hrs)	25	23	22	20	20	18
Rank	35	37	32	36	32	35
Travel Time Index	1.12	1.11	1.10	1.09	1.09	1.08
Rank	35	37	41	41	39	40
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	120	106	94	77	71	64
Rank	39	39	39	40	40	40
Cost per Auto Commuter (\$)	521	508	497	444	435	402
Rank	37	37	37	38	36	37
Truck Congestion						
Annual Person-Hours of Delay (000)	446	413	380	326	310	278
Rank	40	40	40	42	41	42
Annual Gallons of Wasted Fuel (000)	806	747	687	590	560	503
Rank	45	45	44	45	45	45
Annual Congestion Cost (\$ million)	12	11	10	8	8	7
Rank	39	39	39	42	38	41
	37	37	37	74	50	71
Annual Greenhouse Gases (CO2) Produced				ı	I	
Excess Due to Congestion (tons) Rank						
Due to All Travel (tons)						
Rank						
Truck Annual Greenhouse Gases (CO2) Produced				1	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	1984	1983	1982
Urban Area Information			
Population (1000s)	630	620	615
Rank	45	45	45
Commuters (1000s)	246	240	235
Daily Vehicle-Miles of Travel (1000s)			
Freeway	4,505	4,085	3,900
Arterial Streets	6,555	6,565	6,285
Cost Components			
Value of Time (\$/hour)	7.75	7.43	7.20
Commercial Cost (\$/hour)	23.94	23.63	23.31
Gasoline (\$/gallon)	1.29	1.32	1.38
Diesel (\$/gallon)	1.28	1.31	1.37
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)	2,471	2,289	2,041
Rank	45	44	45
Fuel per Peak Auto Commuter (gallons)	3	3	3
Rank	61	46	34
Annual Delay			
Total Delay (1000s of person-hours)	6,079	5,633	5,022
Rank	40	40	41
Delay per Auto Commuter (pers-hrs)	17	16	14
Rank	35	33	40
Travel Time Index	1.08	1.07	1.07
Rank	39	40	36
Commuter Stress Index			
Rank			
Freeway Planning Time Index (95th Pctile)			
Rank			
Congestion Cost			
Total Cost (\$ millions)	57	51	44
Rank	40	40	41
Cost per Auto Commuter (\$)	383	370	343
Rank	37	38	39
Truck Congestion			
Annual Person-Hours of Delay (000)	255	237	211
Rank	42	42	43
Annual Gallons of Wasted Fuel (000)	462	427	382
Rank	46	45	46
Annual Congestion Cost (\$ million)	6	6	5
Rank	42	37	40
Annual Greenhouse Gases (CO2) Produced			. 0
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			
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^{*} Note: Zeroes in the table reflect values less than 0.5.