

Performance Measure Summary - Bridgeport-Stamford CT-NY

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 Bridgeport-Stamford CT-NY

Inventory Measures	2017	2016	2015	2014	2013	2012
Urban Area Information						
Population (1000s)	960	960	955	955	950	935
Rank	49	49	49	49	49	49
Commuters (1000s)	484	483	480	479	468	461
Daily Vehicle-Miles of Travel (1000s)						
Freeway	10,497	10,650	10,703	10,417	10,214	10,410
Arterial Streets	5,956	6,019	6,038	6,033	5,794	5,980
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)	2.48	2.29	2.48	3.65	3.82	3.75
Diesel (\$/gallon)	2.66	2.50	2.87	3.87	4.20	4.17
System Performance	2017	2016	2015	2014	2013	2012
Congested Travel (% of peak VMT)	31.6	--	--	--	--	--
Congested System (% of lane-miles)	18.2	--	--	--	--	--
Congested Time (number of "Rush Hours")	5.0	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	14,746	14,478	14,209	13,854	13,690	13,341
Rank	44	44	45	45	45	45
Fuel per Peak Auto Commuter (gallons)	22	22	22	21	21	20
Rank	32	33	29	30	30	33
Annual Delay						
Total Delay (1000s of person-hours)	38,789	37,908	36,570	35,036	34,008	32,544
Rank	42	42	42	42	42	42
Delay per Auto Commuter (pers-hrs)	57	57	54	53	52	50
Rank	28	22	28	26	23	23
Travel Time Index						
Rank	1.34	1.34	1.34	1.34	1.34	1.35
Rank	11	11	9	7	7	6
Commuter Stress Index						
Rank	1.35	--	--	--	--	--
Rank	17	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	1.99	--	--	--	--	--
Rank	16	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	785	754	719	702	672	633
Rank	42	42	42	42	42	42
Cost per Auto Commuter (\$)	991	976	936	892	875	847
Rank	33	33	35	36	38	38
Truck Congestion						
Annual Person-Hours of Delay (000)	1,629	1,592	1,536	1,471	1,428	1,367
Rank	42	42	42	42	42	42
Annual Gallons of Wasted Fuel (000)	3,126	3,069	3,012	2,937	2,902	2,828
Rank	44	44	45	45	45	45
Annual Congestion Cost (\$ million)	83	78	72	69	64	59
Rank	42	42	42	42	42	42

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

Mobility Data for Bridgeport-Stamford CT-NY

Inventory Measures	2011	2010	2009	2008	2007	2006
Urban Area Information						
Population (1000s)	930	925	920	910	900	895
Rank	49	48	48	48	48	48
Commuters (1000s)	457	453	449	443	436	431
Daily Vehicle-Miles of Travel (1000s)						
Freeway	10,873	10,692	10,125	10,335	10,550	10,490
Arterial Streets	5,974	5,929	5,902	6,085	6,230	6,190
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)	3.59	2.91	2.41	3.55	3.23	2.83
Diesel (\$/gallon)	3.90	3.20	2.88	4.46	3.66	2.99
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)	13,054	12,855	12,693	13,533	13,163	12,845
Rank	45	45	44	43	44	44
Fuel per Peak Auto Commuter (gallons)	19	19	18	21	19	19
Rank	40	40	34	24	40	36
Annual Delay						
Total Delay (1000s of person-hours)	31,552	30,783	29,826	30,286	29,457	28,746
Rank	42	42	42	42	42	42
Delay per Auto Commuter (pers-hrs)	49	48	47	49	48	47
Rank	22	22	23	18	19	24
Travel Time Index						
Rank	1.35	1.35	1.35	1.36	1.36	1.36
Rank	6	5	5	5	5	5
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	607	566	535	562	523	492
Rank	42	42	42	41	42	42
Cost per Auto Commuter (\$)	849	853	842	846	855	856
Rank	37	37	34	31	34	33
Truck Congestion						
Annual Person-Hours of Delay (000)	1,325	1,293	1,253	1,272	1,237	1,207
Rank	42	42	42	42	42	42
Annual Gallons of Wasted Fuel (000)	2,767	2,725	2,691	2,869	2,790	2,723
Rank	45	45	44	43	44	44
Annual Congestion Cost (\$ million)	63	57	54	58	53	48
Rank	42	42	42	41	41	42

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

Mobility Data for Bridgeport-Stamford CT-NY

Inventory Measures	2005	2004	2003	2002	2001	2000
Urban Area Information						
Population (1000s)	885	870	860	850	820	800
Rank	49	49	49	49	49	48
Commuters (1000s)	423	413	406	397	378	364
Daily Vehicle-Miles of Travel (1000s)						
Freeway	10,380	10,200	10,000	10,170	9,700	9,300
Arterial Streets	6,180	6,185	6,200	6,090	5,860	5,620
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)	2.35	2.08	1.60	1.46	1.77	1.70
Diesel (\$/gallon)	2.65	2.11	1.68	1.42	1.60	1.58
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)	12,682	12,320	11,853	11,097	10,405	9,766
Rank	42	42	44	44	43	43
Fuel per Peak Auto Commuter (gallons)	20	19	18	17	16	15
Rank	25	27	30	34	36	40
Annual Delay						
Total Delay (1000s of person-hours)	28,382	27,570	26,527	24,835	23,285	21,855
Rank	41	41	40	42	42	42
Delay per Auto Commuter (pers-hrs)	47	47	46	44	43	42
Rank	22	22	20	24	24	22
Travel Time Index						
Rank	1.36	1.36	1.35	1.33	1.33	1.32
Rank	5	4	4	4	4	4
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	465	434	401	366	340	310
Rank	41	40	40	42	42	41
Cost per Auto Commuter (\$)	876	880	869	830	790	762
Rank	35	34	33	36	37	36
Truck Congestion						
Annual Person-Hours of Delay (000)	1,192	1,158	1,114	1,043	978	918
Rank	41	41	40	42	42	42
Annual Gallons of Wasted Fuel (000)	2,689	2,612	2,513	2,353	2,206	2,070
Rank	42	42	44	43	43	43
Annual Congestion Cost (\$ million)	45	41	37	33	31	28
Rank	40	40	41	42	40	40

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

Mobility Data for Bridgeport-Stamford CT-NY

Inventory Measures	1999	1998	1997	1996	1995	1994
Urban Area Information						
Population (1000s)	785	775	760	750	735	725
Rank	47	47	47	47	47	47
Commuters (1000s)	353	344	333	325	314	306
Daily Vehicle-Miles of Travel (1000s)						
Freeway	9,000	8,700	8,400	8,100	7,985	7,700
Arterial Streets	5,430	5,210	5,005	4,860	4,750	4,610
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)	1.24	1.22	1.39	1.47	1.34	1.18
Diesel (\$/gallon)	1.16	1.19	1.30	1.41	1.29	1.13
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)	9,193	8,752	8,104	7,476	6,863	6,528
Rank	45	43	42	41	41	41
Fuel per Peak Auto Commuter (gallons)	14	14	14	13	12	11
Rank	42	31	26	29	35	37
Annual Delay						
Total Delay (1000s of person-hours)	20,574	19,586	18,137	16,731	15,359	14,609
Rank	40	41	41	40	39	38
Delay per Auto Commuter (pers-hrs)	41	40	38	36	34	33
Rank	21	19	19	20	24	22
Travel Time Index						
Rank	4	4	5	5	6	6
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	278	260	238	216	192	177
Rank	40	41	41	41	39	39
Cost per Auto Commuter (\$)	743	723	680	639	608	596
Rank	38	33	37	36	39	36
Truck Congestion						
Annual Person-Hours of Delay (000)	864	823	762	703	645	614
Rank	40	41	41	40	39	38
Annual Gallons of Wasted Fuel (000)	1,949	1,855	1,718	1,585	1,455	1,384
Rank	45	43	42	41	41	41
Annual Congestion Cost (\$ million)	24	23	21	20	18	16
Rank	40	40	42	38	39	39

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

Mobility Data for Bridgeport-Stamford CT-NY

Inventory Measures	1993	1992	1991	1990	1989	1988
Urban Area Information						
Population (1000s)	720	715	715	715	715	715
Rank	46	46	45	44	43	43
Commuters (1000s)	300	294	291	287	284	283
Daily Vehicle-Miles of Travel (1000s)						
Freeway	7,480	7,455	7,150	7,300	7,400	7,370
Arterial Streets	4,505	4,430	4,345	4,300	4,255	4,210
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)	1.23	1.26	1.23	1.12	1.21	1.12
Diesel (\$/gallon)	1.18	1.25	1.38	1.20	1.23	1.14
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)	6,060	5,592	5,243	5,039	4,823	4,348
Rank	41	42	41	40	39	38
Fuel per Peak Auto Commuter (gallons)	10	10	8	8	9	7
Rank	38	24	45	35	19	27
Annual Delay						
Total Delay (1000s of person-hours)	13,561	12,515	11,734	11,278	10,794	9,730
Rank	40	39	39	38	38	38
Delay per Auto Commuter (pers-hrs)	31	29	27	26	25	23
Rank	26	28	30	27	26	28
Travel Time Index						
Rank	6	6	8	9	11	13
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	161	145	132	122	112	96
Rank	40	39	39	38	38	38
Cost per Auto Commuter (\$)	568	537	520	523	527	502
Rank	35	40	34	30	28	29
Truck Congestion						
Annual Person-Hours of Delay (000)	570	526	493	474	453	409
Rank	40	39	39	38	38	38
Annual Gallons of Wasted Fuel (000)	1,285	1,186	1,112	1,068	1,023	922
Rank	41	42	41	40	39	38
Annual Congestion Cost (\$ million)	15	14	13	12	11	10
Rank	39	39	39	38	38	38

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

Mobility Data for Bridgeport-Stamford CT-NY

Inventory Measures	1987	1986	1985	1984	1983	1982
Urban Area Information						
Population (1000s)	715	710	710	710	705	705
Rank	43	42	42	42	41	41
Commuters (1000s)	280	276	274	272	268	265
Daily Vehicle-Miles of Travel (1000s)						
Freeway	7,125	6,700	6,500	6,040	5,575	5,470
Arterial Streets	4,195	4,160	4,100	4,040	4,010	3,975
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)	1.12	1.09	1.43	1.44	1.48	1.55
Diesel (\$/gallon)	1.14	1.11	1.45	1.47	1.50	1.57
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)	4,151	3,991	3,741	3,367	2,796	2,701
Rank	38	38	37	38	40	40
Fuel per Peak Auto Commuter (gallons)	6	6	7	6	4	3
Rank	32	28	15	20	35	34
Annual Delay						
Total Delay (1000s of person-hours)	9,290	8,932	8,372	7,536	6,257	6,044
Rank	38	37	36	35	38	38
Delay per Auto Commuter (pers-hrs)	22	21	20	18	15	15
Rank	28	26	25	30	40	33
Travel Time Index						
Rank	1.17	1.16	1.16	1.14	1.12	1.12
Rank	15	15	11	16	16	15
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	89	82	77	67	54	51
Rank	38	37	36	35	38	38
Cost per Auto Commuter (\$)	501	503	475	443	383	384
Rank	25	25	25	25	31	27
Truck Congestion						
Annual Person-Hours of Delay (000)	390	375	352	316	263	254
Rank	38	37	36	35	38	38
Annual Gallons of Wasted Fuel (000)	880	846	793	714	593	573
Rank	38	38	37	38	40	40
Annual Congestion Cost (\$ million)	10	9	9	8	6	6
Rank	37	36	32	32	38	35

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