

Performance Measure Summary - Poughkeepsie-Newburgh NY-NJ

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 Poughkeepsie-Newburgh NY-NJ

Inventory Measures	2017	2016	2015	2014	2013	2012
Urban Area Information						
Population (1000s)	440	440	440	440	440	440
Rank	83	82	82	82	82	82
Commuters (1000s)	205	205	205	205	208	208
Daily Vehicle-Miles of Travel (1000s)						
Freeway	5,641	5,192	5,067	5,353	5,301	5,050
Arterial Streets	4,794	4,778	4,637	4,759	4,718	4,670
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	2.33	2.51	3.63	3.79	3.75
Diesel (\$/gallon)	2.70	2.49	2.88	3.92	4.20	4.17
System Performance	2017	2016	2015	2014	2013	2012
Congested Travel (% of peak VMT)	6.6	--	--	--	--	--
Congested System (% of lane-miles)	5.9	--	--	--	--	--
Congested Time (number of "Rush Hours")	0.5	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	3,908	3,781	3,640	3,568	3,555	3,485
Rank	86	86	86	86	86	87
Fuel per Peak Auto Commuter (gallons)	19	18	17	17	16	16
Rank	55	60	65	65	71	69
Annual Delay						
Total Delay (1000s of person-hours)	10,379	9,934	9,400	9,054	8,941	8,609
Rank	84	84	84	84	84	84
Delay per Auto Commuter (pers-hrs)	37	36	35	34	32	31
Rank	86	86	86	85	85	86
Travel Time Index						
Rank	1.11	1.11	1.11	1.11	1.12	1.12
Rank	96	96	96	97	92	91
Commuter Stress Index						
Rank	1.12	--	--	--	--	--
Rank	96	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	1.10	--	--	--	--	--
Rank	100	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	210	198	185	181	176	167
Rank	84	84	84	85	84	84
Cost per Auto Commuter (\$)	608	588	552	530	527	514
Rank	91	92	93	93	93	93
Truck Congestion						
Annual Person-Hours of Delay (000)	436	417	395	380	376	362
Rank	84	84	84	84	84	84
Annual Gallons of Wasted Fuel (000)	829	802	772	756	754	739
Rank	86	86	86	86	86	87
Annual Congestion Cost (\$ million)	22	20	18	18	17	16
Rank	84	84	84	84	84	84

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

Mobility Data for Poughkeepsie-Newburgh NY-NJ

Inventory Measures	2011	2010	2009	2008	2007	2006
Urban Area Information						
Population (1000s)	440	440	440	435	430	425
Rank	82	81	81	81	81	81
Commuters (1000s)	208	207	207	204	200	197
Daily Vehicle-Miles of Travel (1000s)						
Freeway	5,123	5,114	5,083	5,240	5,340	5,480
Arterial Streets	4,779	4,770	4,700	4,720	4,715	4,690
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)	3.65	2.95	2.47	3.55	3.19	2.82
Diesel (\$/gallon)	3.99	3.21	2.90	4.52	3.71	3.03
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)	3,415	3,367	3,227	3,405	3,319	3,240
Rank	87	88	88	87	87	87
Fuel per Peak Auto Commuter (gallons)	16	16	14	16	15	16
Rank	67	68	71	68	73	64
Annual Delay						
Total Delay (1000s of person-hours)	8,283	8,091	7,610	7,645	7,453	7,277
Rank	84	84	83	84	86	87
Delay per Auto Commuter (pers-hrs)	30	29	28	28	28	28
Rank	85	85	85	85	85	85
Travel Time Index						
Rank	1.12	1.12	1.11	1.12	1.12	1.12
Rank	91	89	92	90	90	88
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	160	149	137	142	132	124
Rank	84	84	84	84	86	86
Cost per Auto Commuter (\$)	510	516	492	491	498	499
Rank	93	93	92	93	91	91
Truck Congestion						
Annual Person-Hours of Delay (000)	348	340	320	321	313	306
Rank	84	84	83	84	86	87
Annual Gallons of Wasted Fuel (000)	724	714	684	722	704	687
Rank	87	88	88	87	87	87
Annual Congestion Cost (\$ million)	17	15	14	15	13	12
Rank	84	84	83	83	86	85

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

Mobility Data for Poughkeepsie-Newburgh NY-NJ

Inventory Measures	2005	2004	2003	2002	2001	2000
Urban Area Information						
Population (1000s)	415	410	400	390	380	375
Rank	80	80	80	79	79	79
Commuters (1000s)	191	187	182	175	168	164
Daily Vehicle-Miles of Travel (1000s)						
Freeway	5,200	5,010	4,750	4,480	4,250	4,060
Arterial Streets	4,380	4,160	3,925	3,710	3,570	3,445
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)	2.40	2.14	1.62	1.49	1.72	1.64
Diesel (\$/gallon)	2.66	2.14	1.73	1.51	1.70	1.65
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)	3,113	2,950	2,654	2,453	2,150	2,062
Rank	87	87	89	89	90	89
Fuel per Peak Auto Commuter (gallons)	15	16	13	13	10	9
Rank	64	56	74	71	85	84
Annual Delay						
Total Delay (1000s of person-hours)	6,991	6,625	5,959	5,509	4,828	4,630
Rank	86	85	85	86	88	86
Delay per Auto Commuter (pers-hrs)	28	27	27	27	26	26
Rank	85	86	86	84	84	81
Travel Time Index						
Rank	1.11	1.11	1.10	1.10	1.09	1.09
Rank	92	91	91	91	94	92
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	115	104	90	81	70	66
Rank	85	85	85	85	88	86
Cost per Auto Commuter (\$)	496	484	447	420	375	373
Rank	91	91	91	90	93	90
Truck Congestion						
Annual Person-Hours of Delay (000)	294	278	250	231	203	194
Rank	86	85	85	86	88	86
Annual Gallons of Wasted Fuel (000)	660	625	563	520	456	437
Rank	87	87	89	89	90	89
Annual Congestion Cost (\$ million)	11	10	8	7	6	6
Rank	83	84	85	85	87	85

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

Mobility Data for Poughkeepsie-Newburgh NY-NJ

Inventory Measures	1999	1998	1997	1996	1995	1994
Urban Area Information						
Population (1000s)	365	365	365	360	360	355
Rank	79	79	79	78	77	76
Commuters (1000s)	158	156	154	150	148	144
Daily Vehicle-Miles of Travel (1000s)						
Freeway	4,000	3,925	3,830	3,720	3,615	3,570
Arterial Streets	3,355	3,270	3,185	3,105	3,030	2,965
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)	1.19	1.15	1.31	1.37	1.27	1.15
Diesel (\$/gallon)	1.24	1.29	1.39	1.28	1.19	1.07
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)	2,000	1,888	1,753	1,697	1,537	1,465
Rank	87	86	86	86	86	85
Fuel per Peak Auto Commuter (gallons)	10	10	8	9	7	7
Rank	77	73	79	69	77	73
Annual Delay						
Total Delay (1000s of person-hours)	4,491	4,240	3,936	3,810	3,452	3,289
Rank	85	84	85	83	84	82
Delay per Auto Commuter (pers-hrs)	26	25	23	23	21	20
Rank	78	76	77	74	78	80
Travel Time Index						
Rank	1.09	1.08	1.08	1.08	1.07	1.07
Rank	87	90	88	87	88	88
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	61	56	52	49	43	40
Rank	85	84	85	83	84	82
Cost per Auto Commuter (\$)	371	356	335	335	309	302
Rank	90	88	89	87	89	88
Truck Congestion						
Annual Person-Hours of Delay (000)	189	178	165	160	145	138
Rank	85	84	85	83	84	82
Annual Gallons of Wasted Fuel (000)	424	400	372	360	326	311
Rank	87	86	86	86	86	85
Annual Congestion Cost (\$ million)	5	5	5	4	4	4
Rank	84	84	79	82	79	79

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Mobility Data for Poughkeepsie-Newburgh NY-NJ

Inventory Measures	1993	1992	1991	1990	1989	1988
Urban Area Information						
Population (1000s)	355	355	345	340	330	315
Rank	74	74	74	74	74	76
Commuters (1000s)	142	141	135	131	126	120
Daily Vehicle-Miles of Travel (1000s)						
Freeway	3,440	3,350	3,280	3,230	3,120	3,040
Arterial Streets	2,900	2,835	2,795	2,720	2,640	2,590
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)	1.21	1.24	1.21	1.07	1.13	1.04
Diesel (\$/gallon)	1.13	1.00	1.35	1.09	1.05	0.97
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)	1,443	1,414	1,433	1,341	1,220	1,076
Rank	83	82	81	81	81	81
Fuel per Peak Auto Commuter (gallons)	7	7	7	7	7	6
Rank	67	59	57	50	39	45
Annual Delay						
Total Delay (1000s of person-hours)	3,239	3,176	3,218	3,011	2,739	2,415
Rank	81	80	79	79	79	79
Delay per Auto Commuter (pers-hrs)	20	20	21	20	19	18
Rank	74	67	61	59	55	52
Travel Time Index						
Rank	83	82	81	76	80	74
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	38	37	36	32	28	24
Rank	81	80	78	79	79	79
Cost per Auto Commuter (\$)	312	309	328	316	304	280
Rank	83	82	75	74	73	74
Truck Congestion						
Annual Person-Hours of Delay (000)	136	133	135	126	115	101
Rank	81	80	79	79	79	79
Annual Gallons of Wasted Fuel (000)	306	300	304	284	259	228
Rank	83	82	81	81	81	81
Annual Congestion Cost (\$ million)	4	3	4	3	3	2
Rank	77	80	77	77	76	80

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

Mobility Data for Poughkeepsie-Newburgh NY-NJ

Inventory Measures	1987	1986	1985	1984	1983	1982
Urban Area Information						
Population (1000s)	305	295	285	280	270	265
Rank	77	78	79	80	80	80
Commuters (1000s)	115	110	106	103	99	96
Daily Vehicle-Miles of Travel (1000s)						
Freeway	2,950	2,815	2,700	2,570	2,450	2,385
Arterial Streets	2,450	2,375	2,250	2,130	2,080	2,000
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)	1.05	1.02	1.34	1.35	1.38	1.44
Diesel (\$/gallon)	0.97	0.95	1.24	1.25	1.28	1.34
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)	958	850	776	700	630	567
Rank	82	82	82	81	80	80
Fuel per Peak Auto Commuter (gallons)	5	4	4	3	3	2
Rank	48	54	50	61	46	55
Annual Delay						
Total Delay (1000s of person-hours)	2,152	1,908	1,743	1,572	1,414	1,273
Rank	79	80	80	79	78	78
Delay per Auto Commuter (pers-hrs)	16	15	14	13	12	11
Rank	55	55	54	52	51	53
Travel Time Index						
Rank	79	74	64	75	68	61
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	20	18	16	14	12	11
Rank	79	80	79	79	78	77
Cost per Auto Commuter (\$)	273	242	234	207	199	178
Rank	73	76	73	76	76	79
Truck Congestion						
Annual Person-Hours of Delay (000)	90	80	73	66	59	53
Rank	79	80	80	79	78	78
Annual Gallons of Wasted Fuel (000)	203	180	165	148	134	120
Rank	82	82	82	81	79	80
Annual Congestion Cost (\$ million)	2	2	2	2	1	1
Rank	79	75	73	70	78	75

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