

Performance Measure Summary - Anchorage AK

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 Anchorage AK

Inventory Measures	2017	2016	2015	2014	2013	2012
Urban Area Information						
Population (1000s)	290	285	280	275	270	260
Rank	96	96	96	96	96	96
Commuters (1000s)	143	141	139	137	137	132
Daily Vehicle-Miles of Travel (1000s)						
Freeway	2,076	1,800	1,600	1,415	1,370	1,365
Arterial Streets	3,899	3,000	2,600	2,240	2,170	2,130
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)	2.81	2.54	3.06	3.91	4.01	3.89
Diesel (\$/gallon)	2.70	2.48	3.09	3.98	4.29	4.18
System Performance	2017	2016	2015	2014	2013	2012
Congested Travel (% of peak VMT)	22.0	--	--	--	--	--
Congested System (% of lane-miles)	18.7	--	--	--	--	--
Congested Time (number of "Rush Hours")	2.7	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	4,900	4,639	4,489	4,384	4,350	4,277
Rank	81	82	81	82	82	82
Fuel per Peak Auto Commuter (gallons)	22	22	22	20	19	18
Rank	32	33	29	38	45	52
Annual Delay						
Total Delay (1000s of person-hours)	11,149	10,487	9,976	9,658	9,501	9,177
Rank	82	83	83	83	83	83
Delay per Auto Commuter (pers-hrs)	42	42	41	41	41	40
Rank	67	62	63	59	52	55
Travel Time Index						
Rank	1.22	1.22	1.21	1.20	1.20	1.20
Rank	33	33	36	36	36	37
Commuter Stress Index						
Rank	1.27	--	--	--	--	--
Rank	27	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	1.64	--	--	--	--	--
Rank	35	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	229	211	200	197	190	181
Rank	82	82	83	83	82	83
Cost per Auto Commuter (\$)	1,153	1,090	1,031	992	988	964
Rank	24	27	29	29	27	28
Truck Congestion						
Annual Person-Hours of Delay (000)	468	440	419	406	399	385
Rank	82	83	83	83	83	83
Annual Gallons of Wasted Fuel (000)	1,039	983	952	929	922	907
Rank	81	82	81	82	82	82
Annual Congestion Cost (\$ million)	24	22	20	20	18	17
Rank	82	82	82	82	82	82

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

Mobility Data for Anchorage AK

Inventory Measures	2011	2010	2009	2008	2007	2006
Urban Area Information						
Population (1000s)	260	260	250	250	245	240
Rank	96	96	96	96	96	97
Commuters (1000s)	131	131	125	125	122	119
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,380	1,400	1,414	1,465	1,560	1,520
Arterial Streets	1,992	1,973	2,055	2,130	2,220	2,240
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)	3.80	3.42	2.97	3.71	3.15	2.69
Diesel (\$/gallon)	4.17	3.66	3.54	4.21	3.40	2.90
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)	4,231	3,980	3,745	4,196	3,990	3,864
Rank	82	82	83	81	82	82
Fuel per Peak Auto Commuter (gallons)	19	18	14	19	18	17
Rank	40	46	71	37	49	56
Annual Delay						
Total Delay (1000s of person-hours)	8,917	8,233	7,532	8,038	7,644	7,402
Rank	83	83	85	83	85	84
Delay per Auto Commuter (pers-hrs)	40	37	35	37	36	36
Rank	49	58	68	54	59	56
Travel Time Index						
Rank	37	38	39	38	40	39
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	174	155	139	152	137	128
Rank	83	83	83	82	84	84
Cost per Auto Commuter (\$)	967	923	858	907	899	896
Rank	27	30	32	27	31	31
Truck Congestion						
Annual Person-Hours of Delay (000)	374	346	316	338	321	311
Rank	83	83	85	83	85	84
Annual Gallons of Wasted Fuel (000)	897	844	794	889	846	819
Rank	82	82	83	81	82	82
Annual Congestion Cost (\$ million)	18	16	14	16	14	13
Rank	82	82	83	82	82	82

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

Mobility Data for Anchorage AK

Inventory Measures	2005	2004	2003	2002	2001	2000
Urban Area Information						
Population (1000s)	240	240	240	240	235	235
Rank	96	96	95	95	95	94
Commuters (1000s)	118	117	116	115	111	109
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,535	1,505	1,520	1,495	1,455	1,430
Arterial Streets	2,240	2,250	2,240	2,220	2,190	2,125
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)	2.37	2.08	1.75	1.56	1.73	1.65
Diesel (\$/gallon)	2.47	2.01	1.68	1.58	1.71	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)	3,710	3,688	3,599	3,527	3,418	3,234
Rank	82	80	79	78	78	78
Fuel per Peak Auto Commuter (gallons)	16	16	15	15	15	15
Rank	58	56	58	53	47	40
Annual Delay						
Total Delay (1000s of person-hours)	7,106	7,064	6,894	6,756	6,547	6,196
Rank	84	83	82	81	80	78
Delay per Auto Commuter (pers-hrs)	35	35	34	33	33	32
Rank	59	56	58	59	58	61
Travel Time Index						
Rank	1.18	1.18	1.18	1.17	1.17	1.16
Rank	41	38	38	41	38	45
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	118	112	106	101	96	88
Rank	83	83	82	81	80	78
Cost per Auto Commuter (\$)	888	912	912	918	896	869
Rank	33	28	28	25	24	24
Truck Congestion						
Annual Person-Hours of Delay (000)	298	297	290	284	275	260
Rank	84	83	82	81	80	78
Annual Gallons of Wasted Fuel (000)	786	782	763	748	725	686
Rank	82	80	79	78	78	78
Annual Congestion Cost (\$ million)	11	11	10	9	9	8
Rank	83	81	80	79	77	77

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

Mobility Data for Anchorage AK

Inventory Measures	1999	1998	1997	1996	1995	1994
Urban Area Information						
Population (1000s)	230	225	225	225	220	215
Rank	94	94	94	94	94	94
Commuters (1000s)	105	101	100	98	94	91
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,400	1,370	1,315	1,300	1,295	1,255
Arterial Streets	2,090	2,050	2,000	1,985	1,975	1,960
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)	1.22	1.22	1.33	1.32	1.29	1.25
Diesel (\$/gallon)	1.18	1.37	1.38	1.29	1.26	1.22
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)	3,016	2,687	2,551	2,467	2,340	2,179
Rank	78	77	78	77	77	77
Fuel per Peak Auto Commuter (gallons)	15	12	11	11	11	10
Rank	32	53	54	49	41	45
Annual Delay						
Total Delay (1000s of person-hours)	5,778	5,148	4,886	4,727	4,483	4,174
Rank	78	78	78	78	77	77
Delay per Auto Commuter (pers-hrs)	31	28	27	27	26	25
Rank	64	66	66	63	61	61
Travel Time Index						
Rank	41	55	62	50	59	51
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	79	69	65	61	56	51
Rank	78	78	78	78	77	77
Cost per Auto Commuter (\$)	848	773	735	736	715	686
Rank	23	26	26	24	24	26
Truck Congestion						
Annual Person-Hours of Delay (000)	243	216	205	199	188	175
Rank	78	78	78	78	77	77
Annual Gallons of Wasted Fuel (000)	639	570	541	523	496	462
Rank	78	77	78	77	77	77
Annual Congestion Cost (\$ million)	7	6	6	6	5	5
Rank	77	77	77	77	77	77

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Mobility Data for Anchorage AK

Inventory Measures	1993	1992	1991	1990	1989	1988
Urban Area Information						
Population (1000s)	210	210	205	205	205	205
Rank	95	94	94	94	92	90
Commuters (1000s)	88	86	83	82	81	80
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,170	1,120	1,075	1,045	1,030	1,000
Arterial Streets	1,905	1,920	1,920	1,900	1,890	1,885
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)	1.31	1.29	1.30	1.18	1.18	1.09
Diesel (\$/gallon)	1.28	1.18	1.21	1.48	1.38	1.28
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)	1,968	1,825	1,717	1,505	1,321	1,229
Rank	77	77	77	79	79	79
Fuel per Peak Auto Commuter (gallons)	9	9	8	7	6	6
Rank	49	45	45	50	53	45
Annual Delay						
Total Delay (1000s of person-hours)	3,769	3,496	3,289	2,882	2,531	2,354
Rank	78	78	77	80	80	80
Delay per Auto Commuter (pers-hrs)	23	22	21	19	17	16
Rank	64	62	61	64	62	61
Travel Time Index						
Rank	54	59	62	63	80	74
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	45	41	37	32	26	23
Rank	77	78	77	79	80	80
Cost per Auto Commuter (\$)	644	616	596	537	503	498
Rank	28	26	25	27	31	30
Truck Congestion						
Annual Person-Hours of Delay (000)	158	147	138	121	106	99
Rank	78	78	77	80	80	80
Annual Gallons of Wasted Fuel (000)	417	387	364	319	280	261
Rank	77	77	77	79	79	79
Annual Congestion Cost (\$ million)	4	4	4	3	3	3
Rank	77	77	77	77	76	73

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Mobility Data for Anchorage AK

Inventory Measures	1987	1986	1985	1984	1983	1982
Urban Area Information						
Population (1000s)	200	200	195	190	185	180
Rank	91	91	91	90	91	91
Commuters (1000s)	78	77	75	72	70	67
Daily Vehicle-Miles of Travel (1000s)						
Freeway	960	925	900	875	855	800
Arterial Streets	1,860	1,840	1,830	1,820	1,805	1,700
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)	1.09	1.07	1.40	1.41	1.44	1.51
Diesel (\$/gallon)	1.28	1.25	1.64	1.65	1.69	1.77
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)	1,090	990	916	813	737	612
Rank	79	80	79	78	77	78
Fuel per Peak Auto Commuter (gallons)	6	4	5	3	4	4
Rank	32	54	32	61	35	19
Annual Delay						
Total Delay (1000s of person-hours)	2,088	1,896	1,756	1,558	1,412	1,172
Rank	80	81	79	80	79	81
Delay per Auto Commuter (pers-hrs)	14	13	12	11	11	9
Rank	64	64	63	64	56	65
Travel Time Index						
Rank	79	85	81	85	90	98
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	20	18	16	14	12	10
Rank	79	80	79	79	78	79
Cost per Auto Commuter (\$)	459	429	400	364	358	304
Rank	32	33	34	36	35	44
Truck Congestion						
Annual Person-Hours of Delay (000)	88	80	74	65	59	49
Rank	80	80	79	80	78	81
Annual Gallons of Wasted Fuel (000)	231	210	194	172	156	130
Rank	79	80	79	78	77	78
Annual Congestion Cost (\$ million)	2	2	2	2	1	1
Rank	79	75	73	70	78	75

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