

Performance Measure Summary - Colorado Springs CO

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 Colorado Springs CO

Inventory Measures	2017	2016	2015	2014	2013	2012
Urban Area Information						
Population (1000s)	615	605	600	595	590	580
Rank	69	70	70	71	70	70
Commuters (1000s)	301	298	294	290	293	288
Daily Vehicle-Miles of Travel (1000s)						
Freeway	5,412	5,231	5,074	4,863	4,547	4,500
Arterial Streets	5,640	5,490	5,367	5,133	5,160	4,800
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)	2.34	2.15	2.47	3.33	3.54	3.28
Diesel (\$/gallon)	2.42	2.18	2.43	3.59	3.80	3.85
System Performance	2017	2016	2015	2014	2013	2012
Congested Travel (% of peak VMT)	2.2	--	--	--	--	--
Congested System (% of lane-miles)	14.4	--	--	--	--	--
Congested Time (number of "Rush Hours")	3.1	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	7,223	7,163	7,134	7,083	7,021	6,976
Rank	69	69	69	69	67	67
Fuel per Peak Auto Commuter (gallons)	19	18	18	17	16	16
Rank	55	60	58	65	71	69
Annual Delay						
Total Delay (1000s of person-hours)	17,883	17,470	17,103	16,832	16,538	16,141
Rank	67	66	66	65	64	63
Delay per Auto Commuter (pers-hrs)	43	42	40	40	37	38
Rank	63	62	68	63	71	65
Travel Time Index						
Rank	1.15	1.15	1.15	1.16	1.15	1.15
Rank	71	71	69	61	70	71
Commuter Stress Index						
Rank	1.16	--	--	--	--	--
Rank	72	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	1.37	--	--	--	--	--
Rank	59	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	362	348	337	337	326	312
Rank	67	67	66	64	64	64
Cost per Auto Commuter (\$)	785	772	752	734	729	720
Rank	59	59	58	56	56	56
Truck Congestion						
Annual Person-Hours of Delay (000)	751	734	718	707	695	678
Rank	67	66	66	65	64	63
Annual Gallons of Wasted Fuel (000)	1,531	1,519	1,512	1,502	1,488	1,479
Rank	69	69	69	69	67	67
Annual Congestion Cost (\$ million)	38	36	33	33	31	29
Rank	66	65	68	64	64	64

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

Mobility Data for Colorado Springs CO

Inventory Measures	2011	2010	2009	2008	2007	2006
Urban Area Information						
Population (1000s)	570	560	550	535	520	505
Rank	70	71	72	72	72	73
Commuters (1000s)	283	277	271	262	254	245
Daily Vehicle-Miles of Travel (1000s)						
Freeway	4,624	4,315	4,100	3,955	4,065	4,060
Arterial Streets	5,129	5,055	5,120	5,230	5,200	5,410
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)	3.27	2.62	2.17	3.39	3.20	2.60
Diesel (\$/gallon)	3.67	2.90	2.48	4.10	3.68	2.88
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)	6,930	6,830	6,751	6,688	6,596	6,295
Rank	66	66	64	69	68	69
Fuel per Peak Auto Commuter (gallons)	16	16	15	15	16	14
Rank	67	68	62	75	70	78
Annual Delay						
Total Delay (1000s of person-hours)	15,748	15,234	14,777	13,942	13,751	13,123
Rank	63	62	61	65	65	66
Delay per Auto Commuter (pers-hrs)	37	36	37	35	36	35
Rank	66	64	57	66	59	62
Travel Time Index						
Rank	1.15	1.15	1.16	1.16	1.16	1.16
Rank	70	68	58	63	63	62
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	302	280	265	259	245	224
Rank	63	63	62	65	65	67
Cost per Auto Commuter (\$)	725	723	714	669	683	672
Rank	53	54	52	58	61	62
Truck Congestion						
Annual Person-Hours of Delay (000)	661	640	621	586	578	551
Rank	63	62	61	65	65	66
Annual Gallons of Wasted Fuel (000)	1,469	1,448	1,431	1,418	1,398	1,335
Rank	66	66	64	69	68	69
Annual Congestion Cost (\$ million)	31	28	26	27	25	22
Rank	63	63	62	65	64	65

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

Mobility Data for Colorado Springs CO

Inventory Measures	2005	2004	2003	2002	2001	2000
Urban Area Information						
Population (1000s)	490	480	480	475	470	465
Rank	72	72	71	70	70	70
Commuters (1000s)	236	230	229	224	218	213
Daily Vehicle-Miles of Travel (1000s)						
Freeway	4,125	3,705	3,435	3,300	3,150	3,000
Arterial Streets	5,415	5,200	4,970	4,720	4,610	4,485
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)	2.32	1.94	1.51	1.39	1.70	1.55
Diesel (\$/gallon)	2.56	2.04	1.55	1.40	1.68	1.51
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)	6,154	5,960	5,771	5,571	5,471	5,358
Rank	69	68	69	68	67	65
Fuel per Peak Auto Commuter (gallons)	14	14	13	13	12	13
Rank	75	71	74	71	74	56
Annual Delay						
Total Delay (1000s of person-hours)	12,829	12,424	12,031	11,613	11,406	11,169
Rank	66	66	66	66	64	64
Delay per Auto Commuter (pers-hrs)	36	36	35	34	34	34
Rank	53	52	53	54	51	49
Travel Time Index						
Rank	1.16	1.16	1.16	1.15	1.15	1.15
Rank	61	59	56	61	58	56
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	211	196	182	171	167	158
Rank	66	66	66	66	64	64
Cost per Auto Commuter (\$)	678	678	676	667	661	667
Rank	60	59	59	57	53	52
Truck Congestion						
Annual Person-Hours of Delay (000)	539	522	505	488	479	469
Rank	66	66	66	66	64	64
Annual Gallons of Wasted Fuel (000)	1,305	1,263	1,223	1,181	1,160	1,136
Rank	69	68	69	68	67	65
Annual Congestion Cost (\$ million)	21	19	17	16	15	14
Rank	64	63	64	61	62	63

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Mobility Data for Colorado Springs CO

Inventory Measures	1999	1998	1997	1996	1995	1994
Urban Area Information						
Population (1000s)	440	425	415	400	385	370
Rank	71	72	72	72	74	74
Commuters (1000s)	199	190	183	175	166	158
Daily Vehicle-Miles of Travel (1000s)						
Freeway	2,800	2,650	2,500	2,260	2,185	2,000
Arterial Streets	4,280	4,020	3,840	3,650	3,530	3,420
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)	1.16	1.10	1.24	1.36	1.22	1.16
Diesel (\$/gallon)	1.18	1.22	1.33	1.41	1.26	1.20
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)	5,016	4,729	4,262	3,905	3,481	3,066
Rank	65	65	66	67	69	72
Fuel per Peak Auto Commuter (gallons)	12	12	11	10	9	8
Rank	64	53	54	57	59	65
Annual Delay						
Total Delay (1000s of person-hours)	10,457	9,859	8,884	8,141	7,257	6,392
Rank	64	64	65	68	69	70
Delay per Auto Commuter (pers-hrs)	34	33	31	30	28	25
Rank	45	46	49	49	52	61
Travel Time Index						
Rank	1.15	1.15	1.14	1.13	1.12	1.11
Rank	52	44	47	50	59	63
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	142	131	117	105	91	78
Rank	65	63	65	67	69	70
Cost per Auto Commuter (\$)	648	624	572	533	493	448
Rank	55	53	60	59	61	66
Truck Congestion						
Annual Person-Hours of Delay (000)	439	414	373	342	305	268
Rank	64	64	65	68	69	70
Annual Gallons of Wasted Fuel (000)	1,063	1,003	903	828	738	650
Rank	65	65	66	67	69	72
Annual Congestion Cost (\$ million)	13	12	11	10	8	7
Rank	60	62	62	63	69	70

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Mobility Data for Colorado Springs CO

Inventory Measures	1993	1992	1991	1990	1989	1988
Urban Area Information						
Population (1000s)	355	340	330	320	310	310
Rank	74	75	76	77	78	78
Commuters (1000s)	149	141	135	129	124	123
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,890	1,815	1,795	1,780	1,780	1,760
Arterial Streets	3,310	3,170	3,005	2,910	2,795	2,705
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	1.23	1.19	1.11	1.15	1.06
Diesel (\$/gallon)	1.25	1.23	1.28	1.15	1.14	1.05
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)	2,858	2,452	2,246	1,986	1,683	1,467
Rank	71	72	72	73	75	76
Fuel per Peak Auto Commuter (gallons)	8	7	6	6	5	3
Rank	58	59	67	60	63	81
Annual Delay						
Total Delay (1000s of person-hours)	5,957	5,111	4,683	4,139	3,508	3,058
Rank	70	71	71	71	75	74
Delay per Auto Commuter (pers-hrs)	25	23	21	20	17	15
Rank	53	58	61	59	62	67
Travel Time Index						
Rank	54	59	51	56	56	60
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	71	59	53	45	36	30
Rank	70	71	71	71	74	74
Cost per Auto Commuter (\$)	427	379	359	328	295	275
Rank	65	69	69	73	75	77
Truck Congestion						
Annual Person-Hours of Delay (000)	250	215	197	174	147	128
Rank	70	71	71	71	75	74
Annual Gallons of Wasted Fuel (000)	606	520	476	421	357	311
Rank	71	72	72	73	75	76
Annual Congestion Cost (\$ million)	7	6	5	4	4	3
Rank	67	69	70	71	69	73

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Mobility Data for Colorado Springs CO

Inventory Measures	1987	1986	1985	1984	1983	1982
Urban Area Information						
Population (1000s)	305	300	295	290	285	280
Rank	77	77	77	77	77	77
Commuters (1000s)	120	118	115	112	109	106
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,760	1,705	1,640	1,300	1,105	1,000
Arterial Streets	2,610	2,550	2,465	2,410	2,330	2,220
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)	1.06	1.04	1.36	1.37	1.41	1.47
Diesel (\$/gallon)	1.05	1.03	1.35	1.36	1.39	1.46
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)	1,344	1,009	825	674	621	595
Rank	75	79	81	82	82	79
Fuel per Peak Auto Commuter (gallons)	4	2	2	2	1	1
Rank	61	84	84	79	86	82
Annual Delay						
Total Delay (1000s of person-hours)	2,803	2,103	1,720	1,405	1,295	1,240
Rank	75	78	81	81	81	79
Delay per Auto Commuter (pers-hrs)	14	11	9	8	7	7
Rank	64	78	83	83	85	82
Travel Time Index						
Rank	66	74	81	85	80	76
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	27	19	16	13	11	10
Rank	74	78	79	81	80	79
Cost per Auto Commuter (\$)	261	196	171	147	139	142
Rank	77	85	86	88	87	85
Truck Congestion						
Annual Person-Hours of Delay (000)	118	88	72	59	54	52
Rank	75	78	81	81	81	79
Annual Gallons of Wasted Fuel (000)	285	214	175	143	132	126
Rank	75	79	81	82	82	79
Annual Congestion Cost (\$ million)	3	2	2	1	1	1
Rank	69	75	73	81	78	75

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