

Performance Measure Summary - Eugene OR

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 Eugene OR

Inventory Measures	2017	2016	2015	2014	2013	2012
Urban Area Information						
Population (1000s)	260	260	255	250	250	250
Rank	98	97	97	99	97	97
Commuters (1000s)	118	118	115	113	112	111
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,797	1,751	1,701	1,584	1,583	1,605
Arterial Streets	1,944	1,928	1,876	1,787	1,852	1,910
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)	2.69	2.42	2.64	3.51	3.70	3.67
Diesel (\$/gallon)	2.68	2.42	2.68	3.69	3.92	4.06
System Performance	2017	2016	2015	2014	2013	2012
Congested Travel (% of peak VMT)	15.6	--	--	--	--	--
Congested System (% of lane-miles)	12.2	--	--	--	--	--
Congested Time (number of "Rush Hours")	1.1	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	3,279	3,227	3,204	3,153	3,089	3,044
Rank	92	93	91	91	90	90
Fuel per Peak Auto Commuter (gallons)	19	19	19	19	19	19
Rank	55	53	50	47	45	42
Annual Delay						
Total Delay (1000s of person-hours)	6,589	6,436	6,281	6,126	5,897	5,759
Rank	96	96	96	96	96	96
Delay per Auto Commuter (pers-hrs)	40	40	39	38	37	36
Rank	75	72	71	71	71	72
Travel Time Index						
Rank	1.17	1.17	1.17	1.17	1.16	1.16
Rank	49	49	49	52	58	60
Commuter Stress Index						
Rank	1.18	--	--	--	--	--
Rank	56	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	1.31	--	--	--	--	--
Rank	69	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	136	130	126	125	119	114
Rank	96	96	96	96	96	96
Cost per Auto Commuter (\$)	707	695	673	651	633	627
Rank	79	78	77	77	77	76
Truck Congestion						
Annual Person-Hours of Delay (000)	277	270	264	257	248	242
Rank	96	96	96	96	96	96
Annual Gallons of Wasted Fuel (000)	695	684	679	668	655	645
Rank	92	93	91	91	90	90
Annual Congestion Cost (\$ million)	15	14	13	13	12	11
Rank	96	96	96	95	95	95

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

Mobility Data for Eugene OR

Inventory Measures	2011	2010	2009	2008	2007	2006
Urban Area Information						
Population (1000s)	250	245	245	245	245	245
Rank	97	97	97	97	96	96
Commuters (1000s)	111	108	108	107	107	106
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,763	1,746	1,680	1,540	1,580	1,545
Arterial Streets	1,866	1,860	1,858	1,915	1,980	2,020
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)	3.56	2.86	2.42	3.54	3.14	2.81
Diesel (\$/gallon)	3.91	3.10	2.63	4.27	3.45	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)	2,999	2,877	2,859	3,168	3,056	2,986
Rank	90	90	90	90	91	91
Fuel per Peak Auto Commuter (gallons)	19	18	16	21	19	18
Rank	40	46	54	24	40	47
Annual Delay						
Total Delay (1000s of person-hours)	5,572	5,246	5,116	5,400	5,210	5,090
Rank	96	96	96	96	96	95
Delay per Auto Commuter (pers-hrs)	35	33	33	35	33	33
Rank	74	77	77	66	73	73
Travel Time Index						
Rank	1.17	1.17	1.17	1.18	1.18	1.17
Rank	45	43	45	44	44	53
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	110	98	93	103	95	89
Rank	96	96	96	95	96	95
Cost per Auto Commuter (\$)	622	609	599	630	633	635
Rank	75	75	75	68	71	70
Truck Congestion						
Annual Person-Hours of Delay (000)	234	220	215	227	219	214
Rank	96	96	96	96	96	95
Annual Gallons of Wasted Fuel (000)	636	610	606	672	648	633
Rank	90	90	90	90	91	91
Annual Congestion Cost (\$ million)	12	10	9	11	10	9
Rank	95	96	96	93	95	94

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

Mobility Data for Eugene OR

Inventory Measures	2005	2004	2003	2002	2001	2000
Urban Area Information						
Population (1000s)	240	240	240	235	230	220
Rank	96	96	95	96	97	97
Commuters (1000s)	103	103	102	99	95	90
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,535	1,515	1,390	1,305	1,325	1,335
Arterial Streets	1,950	1,925	1,900	1,825	1,800	1,900
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)	2.48	2.11	1.65	1.52	1.67	1.64
Diesel (\$/gallon)	2.77	2.19	1.65	1.47	1.67	1.61
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)	2,933	2,839	2,739	2,648	2,521	2,371
Rank	89	89	88	88	86	86
Fuel per Peak Auto Commuter (gallons)	19	19	18	17	17	15
Rank	34	27	30	34	31	40
Annual Delay						
Total Delay (1000s of person-hours)	4,999	4,839	4,668	4,514	4,297	4,041
Rank	95	95	95	94	93	90
Delay per Auto Commuter (pers-hrs)	33	32	31	31	30	30
Rank	71	73	75	72	71	68
Travel Time Index						
Rank	1.17	1.17	1.16	1.16	1.16	1.16
Rank	50	47	56	54	51	45
Commuter Stress Index						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	84	78	72	68	64	58
Rank	95	95	94	93	92	90
Cost per Auto Commuter (\$)	647	650	639	633	606	586
Rank	65	65	67	66	68	65
Truck Congestion						
Annual Person-Hours of Delay (000)	210	203	196	190	180	170
Rank	95	95	95	94	93	90
Annual Gallons of Wasted Fuel (000)	622	602	581	561	534	503
Rank	89	89	88	88	86	86
Annual Congestion Cost (\$ million)	8	8	7	6	6	5
Rank	95	89	92	92	87	89

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

Mobility Data for Eugene OR

Inventory Measures	1999	1998	1997	1996	1995	1994
Urban Area Information						
Population (1000s)	220	220	215	210	200	200
Rank	96	95	96	96	96	96
Commuters (1000s)	88	87	84	80	75	74
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,300	1,235	1,185	1,165	1,100	1,060
Arterial Streets	1,840	1,775	1,740	1,725	1,700	1,680
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)	1.47	1.19	1.40	1.37	1.28	1.24
Diesel (\$/gallon)	1.37	1.27	1.39	1.40	1.31	1.26
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)	2,297	2,131	2,014	1,837	1,670	1,560
Rank	84	83	82	81	83	83
Fuel per Peak Auto Commuter (gallons)	15	14	13	12	11	10
Rank	32	31	38	38	41	45
Annual Delay						
Total Delay (1000s of person-hours)	3,916	3,632	3,433	3,131	2,847	2,659
Rank	91	90	89	89	90	92
Delay per Auto Commuter (pers-hrs)	30	28	27	26	25	23
Rank	65	66	66	67	65	69
Travel Time Index						
Rank	41	44	47	50	47	51
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	54	49	46	41	36	33
Rank	90	90	88	88	89	88
Cost per Auto Commuter (\$)	589	559	541	497	473	455
Rank	63	63	62	66	65	64
Truck Congestion						
Annual Person-Hours of Delay (000)	164	153	144	131	120	112
Rank	91	90	89	89	90	91
Annual Gallons of Wasted Fuel (000)	487	452	427	389	354	331
Rank	84	83	82	81	83	83
Annual Congestion Cost (\$ million)	5	4	4	4	3	3
Rank	84	88	86	82	88	85

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Mobility Data for Eugene OR

Inventory Measures	1993	1992	1991	1990	1989	1988
Urban Area Information						
Population (1000s)	195	195	195	185	190	185
Rank	96	96	96	96	95	95
Commuters (1000s)	71	70	69	65	66	64
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,040	930	905	905	880	790
Arterial Streets	1,705	1,675	1,660	1,640	1,640	1,620
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)	1.26	1.26	1.48	1.16	1.32	1.22
Diesel (\$/gallon)	1.29	1.33	1.28	1.01	1.17	1.08
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)	1,506	1,410	1,272	1,082	976	843
Rank	82	83	83	85	85	85
Fuel per Peak Auto Commuter (gallons)	10	10	9	8	7	6
Rank	38	24	27	35	39	45
Annual Delay						
Total Delay (1000s of person-hours)	2,566	2,404	2,168	1,845	1,664	1,436
Rank	87	86	88	90	89	89
Delay per Auto Commuter (pers-hrs)	23	22	20	18	16	14
Rank	64	62	65	66	68	75
Travel Time Index						
Rank	44	40	45	46	56	48
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	31	28	25	20	18	14
Rank	85	86	86	90	88	89
Cost per Auto Commuter (\$)	455	432	402	367	342	313
Rank	61	59	61	65	66	70
Truck Congestion						
Annual Person-Hours of Delay (000)	108	101	91	77	70	60
Rank	87	86	88	90	89	89
Annual Gallons of Wasted Fuel (000)	319	299	270	229	207	179
Rank	82	83	83	85	85	85
Annual Congestion Cost (\$ million)	3	3	2	2	2	2
Rank	82	80	85	83	82	80

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Mobility Data for Eugene OR

Inventory Measures	1987	1986	1985	1984	1983	1982
Urban Area Information						
Population (1000s)	185	185	190	190	190	190
Rank	95	94	92	90	90	90
Commuters (1000s)	63	63	64	63	63	62
Daily Vehicle-Miles of Travel (1000s)						
Freeway	715	700	705	730	680	670
Arterial Streets	1,610	1,595	1,580	1,575	1,550	1,540
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)	1.22	1.19	1.56	1.58	1.61	1.69
Diesel (\$/gallon)	1.08	1.06	1.38	1.40	1.43	1.50
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)	683	659	593	539	498	466
Rank	86	85	85	85	84	84
Fuel per Peak Auto Commuter (gallons)	4	4	4	3	3	3
Rank	61	54	50	61	46	34
Annual Delay						
Total Delay (1000s of person-hours)	1,163	1,123	1,011	919	849	795
Rank	92	90	91	91	91	90
Delay per Auto Commuter (pers-hrs)	12	11	10	9	8	8
Rank	79	78	80	78	76	73
Travel Time Index						
Rank	66	57	64	57	68	61
Commuter Stress Index						
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)						
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost (\$ millions)	11	11	10	8	8	7
Rank	91	87	88	89	88	89
Cost per Auto Commuter (\$)	269	251	232	217	213	221
Rank	74	73	74	73	72	65
Truck Congestion						
Annual Person-Hours of Delay (000)	49	47	42	39	36	33
Rank	91	90	91	91	90	90
Annual Gallons of Wasted Fuel (000)	145	140	126	114	106	99
Rank	86	85	85	85	84	84
Annual Congestion Cost (\$ million)	1	1	1	1	1	1
Rank	87	84	83	81	78	75

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