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 2020. 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 2020 (estimated at $20.17 per hour of person travel and $55.24 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.

Annual Greenhouse Gases (CO2) Produced -Tons of CO2 produced from all vehicle travel.

Excess Greenhouse Gases (CO2) Produced due to Congestion-Tons of CO2 produced due to congested portion of travel. The excess CO2 is a subset of the total CO2 produced.

Mobility Data for Anchorage AK

Inventory Measures	2020	2019	2018	2017	2016	2015
Urban Area Information						
Population (1000s)	280	280	285	290	285	280
Rank	95	95	95	95	95	95
Commuters (1000s)	138	138	141	143	141	139
Daily Vehicle-Miles of Travel (1000s)						
Freeway	806	950	882	2,076	1,800	1,600
Arterial Streets	1,765	2,081	2,055	3,899	3,000	2,600
Cost Components						
Value of Time ($/hour)	20.17	19.14	18.71	18.12	17.91	17.69
Commercial Cost ($/hour)	55.24	49.49	54.71	52.14	50.20	46.87
Gasoline ($/gallon)	2.93	2.98	3.40	2.81	2.54	3.06
Diesel ($/gallon)	2.93	2.96	3.40	2.70	2.48	3.09
System Performance	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**
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)	1,158	2,747	2,807	2,900	2,746	2,657
Rank	98	96	94	94	94	94
Fuel per Peak Auto Commuter (gallons)	9	21	22	22	22	22
Rank	70	43	37	32	33	29
Annual Delay						
Total Delay (1000s of person-hours)	3,080	7,304	7,023	7,149	6,725	6,397
Rank	97	93	92	92	92	93
Delay per Auto Commuter (pers-hrs)	18	43	42	42	42	41
Rank	87	69	69	67	62	63
Travel Time Index	1.07	1.18	1.19	1.19	1.19	1.18
Rank	57	41	40	38	38	41
Commuter Stress Index	1.08	1.24	1.26	1.27	--	--
Rank	58	40	35	27	--	--
Freeway Planning Time Index (95th Pctile)	--	1.41	1.48	1.64	--	--
Rank	--	51	46	35	--	--
Congestion Cost						
Total Cost ($ millions)	69	155	151	151	139	132
Rank	97	93	93	92	94	95
Cost per Auto Commuter ($)	563	1,265	1,240	1,216	1,150	1,088
Rank	44	23	24	24	27	29
Truck Congestion						
Annual Person-Hours of Delay (000)	128	227	203	198	186	177
Rank	98	98	100	99	99	99
Annual Gallons of Wasted Fuel (000)	230	406	421	439	415	402
Rank	98	98	96	96	96	96
Annual Congestion Cost ($ million)	7	11	12	11	10	9
Rank	97	98	97	97	98	98
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	11,476	27,212	--	--	--	--
Rank	98	96	--	--	--	--
Due to All Travel (tons)	300,302	712,092	--	--	--	--
Rank	100	99	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	2,497	4,417	--	--	--	--
Rank	98	98	--	--	--	--
Due to Truck Travel (tons)	59,976	106,071	--	--	--	--
Rank	100	99	--	--	--	--

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

Mobility Data for Anchorage AK

Inventory Measures	2014	2013	2012	2011	2010	2009
Urban Area Information						
Population (1000s)	275	270	260	260	260	250
Rank	95	95	95	95	95	95
Commuters (1000s)	137	137	132	131	131	125
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,415	1,370	1,365	1,380	1,400	1,414
Arterial Streets	2,240	2,170	2,130	1,992	1,973	2,055
Cost Components						
Value of Time ($/hour)	17.67	17.39	17.14	16.79	16.28	16.01
Commercial Cost ($/hour)	44.82	41.23	39.66	44.62	42.50	41.83
Gasoline ($/gallon)	3.91	4.01	3.89	3.80	3.42	2.97
Diesel ($/gallon)	3.98	4.29	4.18	4.17	3.66	3.54
System Performance	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	2,595	2,574	2,531	2,504	2,356	2,216
Rank	93	93	94	94	95	95
Fuel per Peak Auto Commuter (gallons)	20	19	18	19	18	14
Rank	38	45	52	40	46	71
Annual Delay						
Total Delay (1000s of person-hours)	6,193	6,092	5,885	5,718	5,279	4,830
Rank	93	93	93	93	94	95
Delay per Auto Commuter (pers-hrs)	41	41	40	40	37	35
Rank	59	52	55	49	58	68
Travel Time Index	1.17	1.17	1.17	1.17	1.16	1.16
Rank	49	48	47	43	54	55
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	130	126	120	115	102	92
Rank	95	94	95	95	95	95
Cost per Auto Commuter ($)	1,046	1,042	1,017	1,020	974	905
Rank	29	27	28	27	30	32
Truck Congestion						
Annual Person-Hours of Delay (000)	172	169	163	158	146	134
Rank	99	99	98	98	99	98
Annual Gallons of Wasted Fuel (000)	393	390	383	379	357	335
Rank	96	96	96	96	96	96
Annual Congestion Cost ($ million)	9	8	8	8	7	6
Rank	97	97	96	96	97	97
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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Mobility Data for Anchorage AK

Inventory Measures	2008	2007	2006	2005	2004	2003
Urban Area Information						
Population (1000s)	250	245	240	240	240	240
Rank	95	95	96	95	95	95
Commuters (1000s)	125	122	119	118	117	116
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,465	1,560	1,520	1,535	1,505	1,520
Arterial Streets	2,130	2,220	2,240	2,240	2,250	2,240
Cost Components						
Value of Time ($/hour)	16.07	15.47	15.06	14.58	14.10	13.73
Commercial Cost ($/hour)	40.77	39.30	37.88	36.51	35.19	33.92
Gasoline ($/gallon)	3.71	3.15	2.69	2.37	2.08	1.75
Diesel ($/gallon)	4.21	3.40	2.90	2.47	2.01	1.68
System Performance	**2008**	**2007**	**2006**	**2005**	**2004**	**2003**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	2,483	2,361	2,287	2,196	2,183	2,130
Rank	94	95	94	94	93	93
Fuel per Peak Auto Commuter (gallons)	19	18	17	16	16	15
Rank	37	49	56	58	56	58
Annual Delay						
Total Delay (1000s of person-hours)	5,154	4,902	4,746	4,557	4,530	4,421
Rank	95	95	95	94	94	94
Delay per Auto Commuter (pers-hrs)	37	36	36	35	35	34
Rank	54	59	56	59	56	58
Travel Time Index	1.17	1.16	1.16	1.16	1.16	1.16
Rank	51	59	58	57	55	52
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	100	91	84	78	74	70
Rank	95	95	95	94	94	94
Cost per Auto Commuter ($)	957	948	945	937	962	962
Rank	27	31	31	33	28	28
Truck Congestion						
Annual Person-Hours of Delay (000)	143	136	132	126	126	123
Rank	97	98	98	98	98	98
Annual Gallons of Wasted Fuel (000)	376	357	346	332	330	322
Rank	96	96	96	96	96	95
Annual Congestion Cost ($ million)	7	6	6	5	5	4
Rank	96	97	96	97	96	96
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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

Mobility Data for Anchorage AK

Inventory Measures	2002	2001	2000	1999	1998	1997
Urban Area Information						
Population (1000s)	240	235	235	230	225	225
Rank	95	95	94	94	94	94
Commuters (1000s)	115	111	109	105	101	100
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,495	1,455	1,430	1,400	1,370	1,315
Arterial Streets	2,220	2,190	2,125	2,090	2,050	2,000
Cost Components						
Value of Time ($/hour)	13.43	13.22	12.85	12.43	12.17	11.98
Commercial Cost ($/hour)	32.69	31.51	30.38	29.28	28.89	28.50
Gasoline ($/gallon)	1.56	1.73	1.65	1.22	1.22	1.33
Diesel ($/gallon)	1.58	1.71	1.58	1.18	1.37	1.38
System Performance	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	2,087	2,023	1,914	1,785	1,590	1,510
Rank	92	91	90	91	92	92
Fuel per Peak Auto Commuter (gallons)	15	15	15	15	12	11
Rank	53	47	40	32	53	54
Annual Delay						
Total Delay (1000s of person-hours)	4,332	4,198	3,973	3,705	3,301	3,133
Rank	94	92	93	92	93	92
Delay per Auto Commuter (pers-hrs)	33	33	32	31	28	27
Rank	59	58	61	64	66	66
Travel Time Index	1.15	1.15	1.14	1.14	1.12	1.11
Rank	58	55	62	58	71	71
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	67	64	59	52	46	43
Rank	94	93	93	92	92	92
Cost per Auto Commuter ($)	968	945	917	894	815	775
Rank	25	24	24	23	26	26
Truck Congestion						
Annual Person-Hours of Delay (000)	120	116	110	103	91	87
Rank	95	95	95	95	95	95
Annual Gallons of Wasted Fuel (000)	316	306	290	270	241	229
Rank	95	94	94	94	94	94
Annual Congestion Cost ($ million)	4	4	4	3	3	3
Rank	95	94	94	94	94	94
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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

Mobility Data for Anchorage AK

Inventory Measures	1996	1995	1994	1993	1992	1991
Urban Area Information						
Population (1000s)	225	220	215	210	210	205
Rank	94	94	94	94	94	93
Commuters (1000s)	98	94	91	88	86	83
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,300	1,295	1,255	1,170	1,120	1,075
Arterial Streets	1,985	1,975	1,960	1,905	1,920	1,920
Cost Components						
Value of Time ($/hour)	11.71	11.37	11.06	10.78	10.47	10.17
Commercial Cost ($/hour)	28.12	27.75	27.38	27.02	26.66	26.30
Gasoline ($/gallon)	1.32	1.29	1.25	1.31	1.29	1.30
Diesel ($/gallon)	1.29	1.26	1.22	1.28	1.18	1.21
System Performance	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	1,460	1,385	1,290	1,165	1,080	1,016
Rank	89	90	89	90	89	89
Fuel per Peak Auto Commuter (gallons)	11	11	10	9	9	8
Rank	49	41	45	49	45	45
Annual Delay						
Total Delay (1000s of person-hours)	3,031	2,875	2,676	2,417	2,242	2,109
Rank	91	90	90	89	89	89
Delay per Auto Commuter (pers-hrs)	27	26	25	23	22	21
Rank	63	61	61	64	62	61
Travel Time Index	1.11	1.10	1.10	1.10	1.09	1.08
Rank	71	72	69	64	67	68
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	41	37	34	30	27	25
Rank	91	91	90	89	89	89
Cost per Auto Commuter ($)	776	754	724	679	650	629
Rank	24	24	26	28	26	25
Truck Congestion						
Annual Person-Hours of Delay (000)	84	80	74	67	62	58
Rank	94	94	94	94	95	95
Annual Gallons of Wasted Fuel (000)	221	210	195	176	164	154
Rank	93	93	93	92	92	91
Annual Congestion Cost ($ million)	2	2	2	2	2	2
Rank	94	94	93	93	90	88
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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

Mobility Data for Anchorage AK

Inventory Measures	1990	1989	1988	1987	1986	1985
Urban Area Information						
Population (1000s)	205	205	205	200	200	195
Rank	93	92	90	90	90	90
Commuters (1000s)	82	81	80	78	77	75
Daily Vehicle-Miles of Travel (1000s)						
Freeway	1,045	1,030	1,000	960	925	900
Arterial Streets	1,900	1,890	1,885	1,860	1,840	1,830
Cost Components						
Value of Time ($/hour)	9.75	9.25	8.83	8.48	8.18	8.03
Commercial Cost ($/hour)	25.95	25.60	25.26	24.93	24.60	24.27
Gasoline ($/gallon)	1.18	1.18	1.09	1.09	1.07	1.40
Diesel ($/gallon)	1.48	1.38	1.28	1.28	1.25	1.64
System Performance	**1990**	**1989**	**1988**	**1987**	**1986**	**1985**
Congested Travel (% of peak VMT)	--	--	--	--	--	--
Congested System (% of lane-miles)	--	--	--	--	--	--
Congested Time (number of "Rush Hours")	--	--	--	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	891	782	727	645	586	542
Rank	90	89	89	88	88	88
Fuel per Peak Auto Commuter (gallons)	7	6	6	6	4	5
Rank	50	53	45	32	54	32
Annual Delay						
Total Delay (1000s of person-hours)	1,848	1,623	1,509	1,339	1,216	1,126
Rank	89	89	87	87	88	88
Delay per Auto Commuter (pers-hrs)	19	17	16	14	13	12
Rank	64	62	61	64	64	63
Travel Time Index	1.07	1.05	1.05	1.04	1.03	1.03
Rank	74	86	83	88	91	89
Commuter Stress Index	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Congestion Cost						
Total Cost ($ millions)	21	17	16	13	12	11
Rank	89	89	86	87	86	87
Cost per Auto Commuter ($)	566	531	525	484	453	422
Rank	27	31	30	32	33	34
Truck Congestion						
Annual Person-Hours of Delay (000)	51	45	42	37	34	31
Rank	95	94	94	94	94	94
Annual Gallons of Wasted Fuel (000)	135	118	110	98	89	82
Rank	90	90	90	91	90	90
Annual Congestion Cost ($ million)	1	1	1	1	1	1
Rank	92	90	89	86	86	86
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to All Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--
Due to Truck Travel (tons)	--	--	--	--	--	--
Rank	--	--	--	--	--	--

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

Mobility Data for Anchorage AK

Inventory Measures	1984	1983	1982
Urban Area Information			
Population (1000s)	190	185	180
Rank	89	90	90
Commuters (1000s)	72	70	67
Daily Vehicle-Miles of Travel (1000s)			
Freeway	875	855	800
Arterial Streets	1,820	1,805	1,700
Cost Components			
Value of Time ($/hour)	7.75	7.43	7.20
Commercial Cost ($/hour)	23.94	23.63	23.31
Gasoline ($/gallon)	1.41	1.44	1.51
Diesel ($/gallon)	1.65	1.69	1.77
System Performance	**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)	481	436	362
Rank	89	89	89
Fuel per Peak Auto Commuter (gallons)	3	4	4
Rank	61	35	19
Annual Delay			
Total Delay (1000s of person-hours)	999	905	752
Rank	87	88	89
Delay per Auto Commuter (pers-hrs)	11	11	9
Rank	64	56	65
Travel Time Index	1.03	1.02	1.01
Rank	85	89	97
Commuter Stress Index	--	--	--
Rank	--	--	--
Freeway Planning Time Index (95th Pctile)	--	--	--
Rank	--	--	--
Congestion Cost			
Total Cost ($ millions)	9	8	7
Rank	87	87	88
Cost per Auto Commuter ($)	384	378	321
Rank	36	35	44
Truck Congestion			
Annual Person-Hours of Delay (000)	28	25	21
Rank	94	93	93
Annual Gallons of Wasted Fuel (000)	73	66	55
Rank	90	90	88
Annual Congestion Cost ($ million)	1	1	1
Rank	82	79	78
Annual Greenhouse Gases (CO2) Produced			
Excess Due to Congestion (tons)	--	--	--
Rank	--	--	--
Due to All Travel (tons)	--	--	--
Rank	--	--	--
Truck Annual Greenhouse Gases (CO2) Produced			
Excess Due to Truck Congestion (tons)	--	--	--
Rank	--	--	--
Due to Truck Travel (tons)	--	--	--
Rank	--	--	--

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