Performance Measure Summary - Cincinnati OH-KY-IN

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.

Inventory Measures	2020	2019	2018	2017	2016	2015
Urban Area Information						
Population (1000s)	1,680	1,680	1,675	1,670	1,660	1,650
Rank	31	31	31	31	30	30
Commuters (1000s)	858	858	856	853	846	840
Daily Vehicle-Miles of Travel (1000s)						
Freeway	16,355	19,129	19,163	19,442	18,394	17,059
Arterial Streets	12,023	14,062	14,019	14,116	16,676	16,149
Cost Components	,	- 1,000	- 1,0 - 2	- 1,0	20,010	,
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)	2.20	2.78	2.70	2.29	2.17	2.18
Diesel (\$\(\frac{9}{2}\)gallon)	2.76	2.96	3.14	2.53	2.29	2.49
System Performance	2020	2019	2018	2017	2016	2015
Congested Travel (% of peak VMT)				21.2		
Congested System (% of lane-miles)				12.6		
Congested Time (number of "Rush Hours")				2.8		
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	12,451	25,279	24,624	24,896	24,779	24,047
Rank	30	29	29	28	28	28
Fuel per Peak Auto Commuter (gallons)	12	25	25	25	26	25
Rank	39	21	20	20	15	15
Annual Delay						
Total Delay (1000s of person-hours)	28,436	57,734	57,145	57,061	56,185	53,591
Rank	31	31	30	30	30	30
Delay per Auto Commuter (pers-hrs)	26	52	52	52	51	50
Rank	47	36	33	32	32	32
Travel Time Index	1.06	1.17	1.17	1.17	1.17	1.17
Rank	75	49	48	47	46	46
Commuter Stress Index	1.07	1.18	1.20	1.18		
Rank	75	60	47	56		
Freeway Planning Time Index (95th Pctile)		1.47	1.49	1.53		
Rank		46	45	43		
Congestion Cost			-			
Total Cost (\$ millions)	637	1,248	1,240	1,218	1,180	1,109
Rank	31	31	31	31	30	31
Cost per Auto Commuter (\$)	608	1,192	1,188	1,171	1,157	1,097
Rank	35	28	28	27	25	28
	33	20	20	27	23	
Truck Congestion Annual Person-Hours of Delay (000)	1,226	2,343	2,253	2,281	2,239	2,136
Rank	39	2,343	35	33	32	2,136
Annual Gallons of Wasted Fuel (000)	2,026	3,872	3,775	3,925	3,907	3,791
Rank	40	3,872	3,773	3,923	3,907	3,791
Annual Congestion Cost (\$ million)	65	115	124	121	113	103
Rank	39	42	35	32	32	32
	39	42	33	32	34	32
Annual Greenhouse Gases (CO2) Produced	105.045	252.005			ı	
Excess Due to Congestion (tons)	125,047	253,885				
Rank	30	30				
Due to All Travel (tons)	4,400,612	8,934,667				
Rank	21	21				
Truck Annual Greenhouse Gases (CO2) Produced						
Excess Due to Truck Congestion (tons)	22,260	42,539				
Rank	39	36				
			ı I			
Due to Truck Travel (tons) Rank	937,579	1,791,731 25				

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

Inventory Measures	2014	2013	2012	2011	2010	2009
Urban Area Information						
Population (1000s)	1,640	1,635	1,630	1,625	1,620	1,615
Rank	30	30	30	30	30	30
Commuters (1000s)	833	860	858	853	848	844
Daily Vehicle-Miles of Travel (1000s)						
Freeway	17,657	18,070	18,550	19,370	19,314	18,750
Arterial Streets	15,626	15,439	13,380	13,323	12,784	12,125
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)	3.17	3.48	3.58	3.25	2.64	2.19
Diesel (\$/gallon)	3.65	3.91	3.87	3.69	2.96	2.58
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)	23,494	23,149	22,997	22,119	21,272	20,655
Rank	28	27	27	27	31	30
Fuel per Peak Auto Commuter (gallons)	23	22	22	21	20	18
Rank	19	24	21	25	29	34
Annual Delay						
Total Delay (1000s of person-hours)	51,903	50,694	49,469	46,723	44,108	42,029
Rank	30	30	31	31	31	31
Delay per Auto Commuter (pers-hrs)	49	47	46	44	41	39
Rank	32	33	34	35	42	47
Travel Time Index	1.18	1.18	1.17	1.17	1.16	1.16
Rank	39	39	47	43	54	55
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	1,095	1,057	1,019	949	857	795
Rank	31	31	31	31	31	31
Cost per Auto Commuter (\$)	1,057	1,042	1,030	1,004	977	947
Rank	28	27	27	29	28	28
Truck Congestion						
Annual Person-Hours of Delay (000)	2,069	2,021	1,972	1,862	1,758	1,675
Rank	33	32	31	32	33	33
Annual Gallons of Wasted Fuel (000)	3,704	3,650	3,626	3,488	3,354	3,257
Rank	33	33	33	33	33	33
Annual Congestion Cost (\$ million)	100	92	87	90	80	74
Rank	32	32	32	32	34	33
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)						
Rank						
Due to All Travel (tons)						
Rank						
Truck Annual Greenhouse Gases (CO2) Produced						
	. 1					
Excess Due to Truck Congestion (tons)					I	
Rank		 				

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

Rank 30 30 30 30 29	Inventory Measures	2008	2007	2006	2005	2004	2003
Rank Commuters (1000s) 838 834 830 30 29 Daily Vehicle-Miles of Travel (1000s) 18,240 18,990 18,820 18,560 17,790 17,790 Freeway 11,995 12,175 12,800 12,030 12,270 12,270 Cost Components 11,995 12,175 12,080 12,300 12,270 12,270 Value of Time (Shour) 40,77 39,30 37,88 36,51 35,19 33 Gosoline (Spallon) 3,40 2,88 2,28 2,24 18,19 1 Discel (Sgallon) 4,17 33.5 2,83 2,48 1,94 1 System Performance 2008 2007 2006 2005 2004 2003 Congested Travel (% of peak VMT) - <td>Urban Area Information</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Urban Area Information						
Ramk	Population (1000s)	1,610	1,605	1,600	1,590	1,585	1,575
Daily Vehicle-Miles of Travel (1000s) Freeway 18,240 18,990 18,820 18,560 17,790 17,40		30	30	30	30	29	28
Freeway	Commuters (1000s)	838	834	830	821	815	807
Freeway	Daily Vehicle-Miles of Travel (1000s)						
Arterial Streets		18,240	18,990	18,820	18,560	17,790	17,635
Value of Time (Shour)			12,175	12,080	12,030	I	12,200
Value of Time (Shour)	Cost Components						
Commercial Cost (\$/hour)	-	16.07	15.47	15.06	14.58	14.10	13.73
Discel (S/gallon)		40.77	39.30	37.88	36.51	35.19	33.92
System Performance 2008 2007 2006 2005 2004 2005 2004 2005 2006 2005 2004 2005 2006 2005 2006 2005 2006 2005 2006 2005 2006	Gasoline (\$/gallon)	3.40	2.88	2.58	2.24	1.81	1.52
Congested Travel (% of peak VMT)	Diesel (\$/gallon)	4.17	3.35	2.83	2.48	1.94	1.49
Congested System (% of Iane-miles)	System Performance	2008	2007	2006	2005	2004	2003
Congested Time (number of "Rush Hours")	Congested Travel (% of peak VMT)						
Annual Excess Fuel Consumed Total Fuel (1000 gallons) 22,095 22,195 21,801 21,408 21,114 20,9 Rank 29 30 28 26 26 26 26 20 20 20 20							
Total Fuel (1000 gallons)	Congested Time (number of "Rush Hours")						
Rank	Annual Excess Fuel Consumed						
Fuel per Peak Auto Commuter (gallons) 20 20 20 20 19 Rank 31 28 28 25 27	Total Fuel (1000 gallons)	22,095	22,195	21,801	21,408	21,114	20,905
Rank	Rank	29	30	28	26	26	26
Annual Delay Total Delay (1000s of person-hours)	Fuel per Peak Auto Commuter (gallons)	20	20	20	20	19	19
Total Delay (1000s of person-hours)	Rank	31	28	28	25	27	23
Rank 30 29 29 29 29 29 29 29 2	Annual Delay						
Delay per Auto Commuter (pers-hrs) 39 39 39 38 38 38 39 39	Total Delay (1000s of person-hours)	42,819	43,012	42,248	41,486	40,916	40,512
Rank	Rank	30	29	29	29	29	28
Travel Time Index	Delay per Auto Commuter (pers-hrs)	39	39	39	39	38	38
Rank	Rank	43	44	43	43	42	42
Commuter Stress Index	Travel Time Index	1.17	1.17	1.17	1.17	1.17	1.17
Rank		51	54	51	49	46	44
Freeway Planning Time Index (95th Pctile)	Commuter Stress Index						
Rank -							
Congestion Cost 843 805 764 720 678 6 Rank 29 <td></td> <td></td> <td></td> <td> </td> <td></td> <td></td> <td></td>							
Total Cost (\$ millions) 843 805 764 720 678 0 Rank 29 30 29 30 29 30 29 30 29 30 29 30 30 30 30 30 30 30 30 30 <							
Rank 29 29 29 29 29 29 29 2							
Cost per Auto Commuter (\$) 957 999 1,006 1,022 1,044	`						647
Rank 27 27 25 24 23 Truck Congestion Annual Person-Hours of Delay (000) 1,706 1,714 1,684 1,654 1,631 1,684 Rank 33 32 32 30 29 Annual Gallons of Wasted Fuel (000) 3,484 3,500 3,437 3,375 3,329 3,375 Rank 33 33 32 32 31 Annual Congestion Cost (\$ million) 80 75 69 65 60 Rank 33 33 33 30 29 Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons)							28
Truck Congestion 1,706 1,714 1,684 1,654 1,631	•						1,061
Annual Person-Hours of Delay (000)		21	21	25	24	23	19
Rank 33 32 32 30 29 Annual Gallons of Wasted Fuel (000) 3,484 3,500 3,437 3,375 3,329 3,2 Rank 33 33 32 32 31 Annual Congestion Cost (\$ million) 80 75 69 65 60 Rank 33 33 33 30 29 Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons) <td< td=""><td></td><td>1 506</td><td>1 1</td><td>1.004</td><td>1 (5)</td><td>1 (21</td><td>1 (15</td></td<>		1 506	1 1	1.004	1 (5)	1 (21	1 (15
Annual Gallons of Wasted Fuel (000) Rank Annual Congestion Cost (\$ million) Rank Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons) Rank	• ` ` '			·			1,615
Rank 33 33 32 32 31 Annual Congestion Cost (\$ million) 80 75 69 65 60 Rank 33 33 33 30 29 Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons)							29
Annual Congestion Cost (\$ million) 80 75 69 65 60 Rank 33 33 33 30 29 Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons)	· · ·						3,296
Rank 33 33 33 30 29 Annual Greenhouse Gases (CO2) Produced							31 56
Annual Greenhouse Gases (CO2) Produced Excess Due to Congestion (tons) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>29</td>							29
Excess Due to Congestion (tons) <td></td> <td>33</td> <td>33</td> <td>33</td> <td>30</td> <td>29</td> <td>29</td>		33	33	33	30	29	29
Rank Due to All Travel (tons)					1	I	
Due to All Travel (tons)							
Rank							<u></u>
Truck Annual Greenhouse Gases (CO2) Produced							
Excess Due to Truck Congestion (tons)							_
Rank			<u> </u>		<u></u>		
Due to Truck Travel (tons)							
Rank							

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

Inventory Measures	2002	2001	2000	1999	1998	1997
Urban Area Information						
Population (1000s)	1,570	1,540	1,500	1,470	1,425	1,390
Rank	27	27	27	27	29	29
Commuters (1000s)	790	762	730	703	670	642
Daily Vehicle-Miles of Travel (1000s)						
Freeway	16,900	16,200	16,000	15,500	15,195	14,930
Arterial Streets	11,200	11,000	10,700	10,300	10,000	9,640
Cost Components	11,200	,	24,744			-,
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)	1.38	1.30	1.55	1.14	1.11	1.13
Diesel (\$/gallon)	1.36	1.49	1.53	1.15	1.17	1.25
System Performance	2002	2001	2000	1999	1998	1997
						1))//
Congested Travel (% of peak VMT)						
Congested System (% of lane-miles) Congested Time (number of "Rush Hours")						
Annual Excess Fuel Consumed		20.5.5		40.50		
Total Fuel (1000 gallons)	20,552	20,260	19,372	18,396	17,344	16,193
Rank	25	25	25	24	24	24
Fuel per Peak Auto Commuter (gallons)	19	19	19	18	17	16
Rank	18	13	11	12	13	14
Annual Delay						
Total Delay (1000s of person-hours)	39,828	39,262	37,540	35,652	33,613	31,380
Rank	28	27	27	25	26	26
Delay per Auto Commuter (pers-hrs)	38	39	38	38	37	36
Rank	40	32	34	32	31	28
Travel Time Index	1.17	1.17	1.17	1.16	1.16	1.16
Rank	40	38	36	39	36	36
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	620	600	562	509	471	433
Rank	28	27	27	26	26	27
Cost per Auto Commuter (\$)	1,066	1,065	1,046	1,027	989	940
Rank	17	15	16	18	18	18
Truck Congestion						
Annual Person-Hours of Delay (000)	1,588	1,565	1,496	1,421	1,339	1,251
Rank	29	28	27	27	27	27
Annual Gallons of Wasted Fuel (000)	3,241	3,194	3,055	2,901	2,735	2,553
Rank	29	29	29	29	29	29
Annual Congestion Cost (\$ million)	53	51	47	42	39	36
Rank	29	28	27	27	27	27
Annual Greenhouse Gases (CO2) Produced						
Excess Due to Congestion (tons)						
Rank					<u></u>	
Due to All Travel (tons)					<u></u>	
Rank						
Truck Annual Greenhouse Gases (CO2) Produced				1	I	
Excess Due to Truck Congestion (tons)						
D only						
Rank Due to Truck Troyal (tons)						
Rank Due to Truck Travel (tons) Rank						

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

Inventory Measures	1996	1995	1994	1993	1992	1991
Urban Area Information						
Population (1000s)	1,350	1,300	1,255	1,250	1,220	1,200
Rank	29	30	30	29	29	29
Commuters (1000s)	614	580	551	540	518	501
Daily Vehicle-Miles of Travel (1000s)						
Freeway	13,870	13,425	13,415	12,560	11,610	11,360
Arterial Streets	9,020	8,510	7,990	7,485	7,015	6,525
Cost Components	7,020	0,010	.,,	,,,,,,,	7,70.20	*,*=*
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)	1.28	1.12	1.08	1.09	1.11	1.13
Diesel (\$/gallon)	1.39	1.22	1.17	1.19	1.19	1.25
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)	15 160	13,935	12,480	11 446	10 470	9,732
Rank	15,162	13,933	27	11,446 26	10,478	9,732
Fuel per Peak Auto Commuter (gallons)	15	15	12	11	11	10
Rank	13	13	21	22	16	19
	13	11	21	22	10	17
Annual Delay	20.392	27.006	24.196	22 192	20.205	10.071
Total Delay (1000s of person-hours)	29,382	27,006	24,186	22,182	20,305	18,861
Rank	27	27	27	27	28	27
Delay per Auto Commuter (pers-hrs) Rank	35	34	32	30	28	27
	25	24	27	30	32	30
Travel Time Index	1.15	1.15	1.14	1.13	1.12	1.12
Rank	40	36	39	40	41	39
Commuter Stress Index Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost	400	255	210	270	240	224
Total Cost (\$ millions)	400	355	310	278	248	224
Rank	27	27	27	27	28	28
Cost per Auto Commuter (\$)	901	854	788	740	700	671
Rank	18	18	20	21	21	24
Truck Congestion	1 171	1 077	064	004	000	750
Annual Person-Hours of Delay (000)	1,171	1,077	964	884	809	752
Rank	27	28	28	1 205	1 652	28
Annual Gallons of Wasted Fuel (000)	2,391	2,197	1,967	1,805	1,652	1,534
Rank Annual Congestion Cost (\$ million)	29 34	31 30	30 27	32 24	32 22	32 20
Rank	27	28	27 28	29	22	28
	21	20	20	29	28	28
Annual Greenhouse Gases (CO2) Produced					1	
Excess Due to Congestion (tons)						
Rank						
Due to All Travel (tons)						
Rank						
Truck Annual Greenhouse Gases (CO2) Produced					1	
Excess Due to Truck Congestion (tons)						
Rank						
		I				
Due to Truck Travel (tons) Rank						

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

Inventory Measures	1990	1989	1988	1987	1986	1985
Urban Area Information						
Population (1000s)	1,140	1,140	1,130	1,130	1,130	1,130
Rank	31	31	30	29	29	28
Commuters (1000s)	467	463	455	451	447	443
Daily Vehicle-Miles of Travel (1000s)						
Freeway	11,260	10,800	9,750	9,415	8,775	8,840
Arterial Streets	6,025	5,490	5,010	4,700	4,650	4,565
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)	1.06	1.08	1.00	1.00	0.98	1.28
Diesel (\$/gallon)	1.10	1.05	0.97	0.97	0.95	1.24
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)	8,963	8,230	6,884	5,619	4,680	4,337
Rank	27	27	28	30	32	31
Fuel per Peak Auto Commuter (gallons)	9	10	7	6	4	4
Rank	23	11	27	32	54	50
Annual Delay						
Total Delay (1000s of person-hours)	17,369	15,950	13,339	10,889	9,070	8,404
Rank	28	26	30	33	36	34
Delay per Auto Commuter (pers-hrs)	26	24	21	17	14	13
Rank	27	29	38	51	57	56
Travel Time Index	1.11	1.11	1.09	1.07	1.06	1.06
Rank	42	37	44	54	56	53
Commuter Stress Index						
Rank						
Freeway Planning Time Index (95th Pctile)						
Rank						
Congestion Cost						
Total Cost (\$ millions)	198	174	139	109	88	82
Rank	28	28	30	32	36	35
Cost per Auto Commuter (\$)	646	627	550	470	404	380
Rank	22	21	26	34	43	40
Truck Congestion						
Annual Person-Hours of Delay (000)	693	636	531	434	361	335
Rank	28	29	32	33	35	34
Annual Gallons of Wasted Fuel (000)	1,413	1,298	1,085	886	738	684
Rank	32	33	33	36	37	37
Annual Congestion Cost (\$ million)	18	16	14	11	9	8
Rank	28	30	31	33	34	36
Annual Greenhouse Gases (CO2) Produced					I	
Excess Due to Congestion (tons)						
Rank						
Due to All Travel (tons) Rank	 	 				
Truck Annual Greenhouse Gases (CO2) Produced					I	
Excess Due to Truck Congestion (tons)						
Rank Due to Truck Travel (tons)						
Due to Truck Travel (tons)						
Rank						

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

Inventory Measures	1984	1983	1982
Urban Area Information			
Population (1000s)	1,130	1,130	1,130
Rank	28	26	26
Commuters (1000s)	438	434	431
Daily Vehicle-Miles of Travel (1000s)			
Freeway	8,255	8,310	7,460
Arterial Streets	4,345	4,150	3,930
Cost Components			·
Value of Time (\$/hour)	7.75	7.43	7.20
Commercial Cost (\$/hour)	23.94	23.63	23.31
Gasoline (\$/gallon)	1.29	1.32	1.38
Diesel (\$/gallon)	1.26	1.29	1.34
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)	3,862	3,523	3,134
Rank	32	32	32
Fuel per Peak Auto Commuter (gallons)	4	3	3
Rank	41	46	34
Annual Delay			
Total Delay (1000s of person-hours)	7,485	6,828	6,072
Rank	34	34	36
Delay per Auto Commuter (pers-hrs)	12	11	10
Rank	56	56	58
Travel Time Index	1.05	1.05	1.04
Rank	57	55	61
Commuter Stress Index			
Rank			
Freeway Planning Time Index (95th Pctile)			
Rank			
Congestion Cost			
Total Cost (\$ millions)	71	62	54
Rank	34	35	37
Cost per Auto Commuter (\$)	352	335	308
Rank	43	44	46
Truck Congestion			
Annual Person-Hours of Delay (000)	298	272	242
Rank	34	35	36
Annual Gallons of Wasted Fuel (000)	609	556	494
Rank	37	36	39
Annual Congestion Cost (\$ million)	7	7	6
Rank	35	32	35
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		I	
Rank Due to Truck Travel (tons)			

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