

## Performance Measure Summary – Richmond, VA

There are several inventory and performance measures listed in the pages of this Urban Area Report for the years from 1982 to 2007. There is no single performance measure that experts agree “says it all.” The best comparison of congestion levels and trends is done between regions of similar size, over several years, and with a few measures of congestion. 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. A few key points should be recognized by users of the Urban Mobility Report data.

**Use the Trends** – The multi-year performance measures are better indicators, in most cases, than 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 the top of a few 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. The ratio of travel time in the peak period to travel time in free-flow. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak.

**Peak Travelers** – Number of travelers (using any travel mode) who begin a trip during the morning or evening peak travel periods (6 to 9 a.m. and 4 to 7 p.m.).

**Annual Delay per Traveler** – A yearly sum of all the per-trip delays. This measure illustrates the effect of the per-mile congestion as well as the length of each trip. The extra time required to travel in the peak period is divided by the number of travelers who begin a trip during the peak period (6 to 9 a.m. and 4 to 7 p.m.).

**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** (60 mph on freeways and 35 mph on arterials) – These values are used as the national comparison thresholds. Other speed values may be appropriate for urban areas or sub-regions.

**Excess Fuel Consumed** – Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

**Public Transportation** – Regular route service from all public transportation providers in an urban area.

**Operations Treatments** – Freeway incident management, freeway ramp metering, arterial street signal coordination and arterial street access management.

**Congestion Cost** – Value of travel delay for 2007 (estimated at \$15.47 per hour of person travel and \$102.12 per hour of truck time) and excess fuel consumption (estimated using state average cost per gallon).

**Annual Increase Needed to Maintain Constant Congestion Level** – Number of lane-miles that must be added to the road system each year – or – the number of new transit riders or carpoolers that must be added to keep congestion levels the same as the previous year.

**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). The annual change in miles traveled, therefore, includes both new travel due to growth and travel that previously occurred in areas designated as rural.

**Number of Rush Hours** – Time when system might have congestion.

## The Mobility Data for Richmond VA

Inventory Measures	2007	2006	2005	2004	2003	2002
<b>Urban Area Information</b>						
Population (1000s)	935	925	920	920	915	870
Rank	46	46	46	46	45	47
Urban Area (square miles)	700	695	695	690	685	600
Population Density (persons/sq mile)	1,336	1,331	1,324	1,333	1,336	1,450
Peak Travelers (1000s)	514	506	500	497	491	462
<b>Freeway</b>						
Daily Vehicle-Miles of Travel (1000s)	11,960	11,860	11,680	11,510	10,830	9,965
Lane-Miles	1,050	1,050	1,045	1,035	990	960
<b>Arterial Streets</b>						
Daily Vehicle-Miles of Travel (1000s)	9,925	10,030	9,760	9,730	9,895	9,350
Lane-Miles	2,245	2,245	2,200	2,200	2,190	2,030
<b>Public Transportation</b>						
Annual Psgr-Miles of Travel (millions)	58.9	50.3	46.8	44.2	43.3	53.7
Annual Unlinked Psgr Trips (millions)	15.7	14.3	13.2	12.1	12.6	14.5
<b>Cost Components</b>						
Value of Time (\$/hour)	15.47	15.06	14.58	14.10	13.73	13.43
Commercial Cost (\$/hour)	102.12	98.77	94.06	86.24	82.38	79.96
Fuel Cost (\$/gallon)	2.88	2.57	2.24	1.85	1.46	1.32
System Performance	2007	2006	2005	2004	2003	2002
<b>Congested Travel</b> (% of peak VMT)	29	28	28	28	26	23
<b>Congested System</b> (% of lane-miles)	30	30	30	30	28	27
<b>Congested Time</b> (number of "Rush Hours")	4.2	4.2	4.0	4.0	4.0	3.6
<b>Annual Increase Needed to Maintain Constant Congestion Level:</b>						
Lane-miles	84	122	130	148	140	103
Transit Riders or Carpoolers (millions)	19	28	30	34	32	23
<b>Annual Excess Fuel Consumed</b>						
Total Fuel (1000 gallons)	6,557	6,596	6,382	6,319	5,713	4,952
Rank	54	52	52	51	52	55
Fuel per Peak Traveler (gallons)	13	13	13	13	12	11
Rank	60	59	60	57	59	64
<b>Annual Delay</b>						
Total Delay (1000s of person-hours)	10,212	10,290	10,065	10,016	9,085	8,010
Rank	52	53	51	50	52	54
Delay per Peak Traveler (person-hours)	20	20	20	20	18	17
Rank	61	60	57	57	62	66
Delay due to Incidents (percent)	59	59	59	59	58	58
<b>Travel Time Index</b>	1.09	1.09	1.09	1.09	1.08	1.08
Rank	70	70	66	67	75	72
<b>Congestion Cost</b>						
Total Cost (\$ millions)	202	198	186	175	152	131
Rank	54	53	51	51	52	55
Cost per Peak Traveler (\$)	394	391	372	353	310	283
Rank	64	63	60	60	63	66

Note: System Performance statistics for 2000 through 2007 data reflect the effects of operational treatments.

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

## The Mobility Data for Richmond VA, Continued

Inventory Measures	2001	2000	1999	1998	1997
<b>Urban Area Information</b>					
Population (1000s)	830	790	755	740	730
Rank	47	50	50	49	48
Urban Area (square miles)	550	500	485	485	480
Population Density (persons/sq mile)	1,509	1,580	1,557	1,526	1,521
Peak Travelers (1000s)	435	408	386	374	364
<b>Freeway</b>					
Daily Vehicle-Miles of Travel (1000s)	9,425	9,290	8,960	9,175	9,270
Lane-Miles	940	920	910	890	840
<b>Arterial Streets</b>					
Daily Vehicle-Miles of Travel (1000s)	8,840	8,335	8,025	7,540	7,030
Lane-Miles	1,900	1,830	1,775	1,715	1,655
<b>Public Transportation</b>					
Annual Psgr-Miles of Travel (millions)	51.2	43.6	41.4	39.2	37.0
Annual Unlinked Psgr Trips (millions)	16.2	14.3	14.1	15.9	16.4
<b>Cost Components</b>					
Value of Time (\$/hour)	13.22	12.85	12.43	12.17	11.98
Commercial Cost (\$/hour)	80.88	80.75	74.23	72.61	74.32
Fuel Cost (\$/gallon)	1.47	1.49	1.05	1.02	1.13
System Performance	2001	2000	1999	1998	1997
<b>Congested Travel</b> (% of peak VMT)	24	23	22	24	24
<b>Congested System</b> (% of lane-miles)	30	30	30	33	33
<b>Congested Time</b> (number of "Rush Hours")	3.4	3.4	3.2	3.4	3.8
<b>Annual Increase Needed to Maintain Constant Congestion Level:</b>					
Lane-miles	75	78	92	129	140
Transit Riders or Carpoolers (millions)	17	17	20	29	32
<b>Annual Excess Fuel Consumed</b>					
Total Fuel (1000 gallons)	4,651	4,271	4,447	4,429	4,554
Rank	56	58	55	55	53
Fuel per Peak Traveler (gallons)	11	10	12	12	13
Rank	64	67	62	57	52
<b>Annual Delay</b>					
Total Delay (1000s of person-hours)	7,387	6,739	7,299	7,158	7,506
Rank	56	62	54	55	53
Delay per Peak Traveler (person-hours)	17	16	19	19	21
Rank	65	67	62	59	52
Delay due to Incidents (percent)	57	57	59	58	58
<b>Travel Time Index</b>	1.08	1.07	1.08	1.08	1.08
Rank	72	75	71	68	67
<b>Congestion Cost</b>					
Total Cost (\$ millions)	119	107	109	105	109
Rank	56	61	56	56	53
Cost per Peak Traveler (\$)	274	261	283	281	301
Rank	68	66	63	60	56

Note: System Performance statistics for 2000 through 2007 data reflect the effects of operational treatments.

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

## The Mobility Data for Richmond VA, Continued

Inventory Measures	1996	1995	1994	1993	1992
<b>Urban Area Information</b>					
Population (1000s)	720	715	705	700	690
Rank	48	48	48	48	47
Urban Area (square miles)	480	475	475	450	420
Population Density (persons/sq mile)	1,500	1,505	1,484	1,556	1,643
Peak Travelers (1000s)	354	347	338	332	323
<b>Freeway</b>					
Daily Vehicle-Miles of Travel (1000s)	9,315	9,020	8,315	7,500	7,100
Lane-Miles	790	740	700	650	625
<b>Arterial Streets</b>					
Daily Vehicle-Miles of Travel (1000s)	6,715	6,320	6,015	5,610	5,300
Lane-Miles	1,600	1,520	1,465	1,710	1,350
<b>Public Transportation</b>					
Annual Psgr-Miles of Travel (millions)	37.9	36.1	39.1	48.9	48.2
Annual Unlinked Psgr Trips (millions)	16.6	15.3	16.9	19.8	22.8
<b>Cost Components</b>					
Value of Time (\$/hour)	11.71	11.37	11.06	10.78	10.47
Commercial Cost (\$/hour)	74.17	71.54	69.53	67.77	66.19
Fuel Cost (\$/gallon)	1.21	1.15	1.03	1.07	1.08
System Performance	1996	1995	1994	1993	1992
<b>Congested Travel</b> (% of peak VMT)	26	26	23	21	20
<b>Congested System</b> (% of lane-miles)	32	28	29	29	27
<b>Congested Time</b> (number of "Rush Hours")	4.4	4.6	4.4	3.6	3.8
<b>Annual Increase Needed to Maintain Constant Congestion Level:</b>					
Lane-miles	155	143	130	141	114
Transit Riders or Carpoolers (millions)	36	34	30	27	25
<b>Annual Excess Fuel Consumed</b>					
Total Fuel (1000 gallons)	4,959	4,691	3,788	2,985	2,833
Rank	48	47	48	54	53
Fuel per Peak Traveler (gallons)	14	14	11	9	9
Rank	44	44	51	59	54
<b>Annual Delay</b>					
Total Delay (1000s of person-hours)	8,143	7,545	6,238	4,845	4,658
Rank	47	47	49	54	53
Delay per Peak Traveler (person-hours)	23	22	18	15	14
Rank	44	42	54	59	57
Delay due to Incidents (percent)	58	58	57	56	55
<b>Travel Time Index</b>	1.09	1.09	1.08	1.07	1.07
Rank	60	58	57	61	58
<b>Congestion Cost</b>					
Total Cost (\$ millions)	117	105	83	63	59
Rank	48	47	51	54	53
Cost per Peak Traveler (\$)	331	303	247	191	183
Rank	47	48	54	59	58

Note: System Performance statistics for 2000 through 2007 data reflect the effects of operational treatments.

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

## The Mobility Data for Richmond VA, Continued

Inventory Measures	1991	1990	1989	1988	1987
<b>Urban Area Information</b>					
Population (1000s)	685	680	665	650	635
Rank	47	46	45	46	45
Urban Area (square miles)	400	380	365	355	340
Population Density (persons/sq mile)	1,713	1,789	1,822	1,831	1,868
Peak Travelers (1000s)	316	310	301	292	283
<b>Freeway</b>					
Daily Vehicle-Miles of Travel (1000s)	6,700	6,300	5,800	5,025	4,645
Lane-Miles	610	605	585	570	550
<b>Arterial Streets</b>					
Daily Vehicle-Miles of Travel (1000s)	5,000	4,985	4,905	4,790	4,720
Lane-Miles	1,300	1,295	1,265	1,235	1,205
<b>Public Transportation</b>					
Annual Psgr-Miles of Travel (millions)	48.2	48.1	59.2	60.0	60.0
Annual Unlinked Psgr Trips (millions)	22.7	22.7	25.8	26.5	25.5
<b>Cost Components</b>					
Value of Time (\$/hour)	10.17	9.75	9.25	8.83	8.48
Commercial Cost (\$/hour)	64.55	62.47	59.16	56.03	54.62
Fuel Cost (\$/gallon)	1.08	1.06	1.10	1.02	1.02
System Performance	1991	1990	1989	1988	1987
<b>Congested Travel</b> (% of peak VMT)	19	19	18	18	16
<b>Congested System</b> (% of lane-miles)	27	30	31	31	27
<b>Congested Time</b> (number of "Rush Hours")	3.6	3.0	3.0	2.8	2.7
<b>Annual Increase Needed to Maintain Constant Congestion Level:</b>					
Lane-miles	106	154	149	124	118
Transit Riders or Carpoolers (millions)	23	32	30	24	22
<b>Annual Excess Fuel Consumed</b>					
Total Fuel (1000 gallons)	2,389	2,173	2,030	1,783	1,610
Rank	53	53	54	55	55
Fuel per Peak Traveler (gallons)	8	7	7	6	6
Rank	53	56	55	59	53
<b>Annual Delay</b>					
Total Delay (1000s of person-hours)	3,839	3,490	3,307	2,929	2,708
Rank	55	54	54	54	54
Delay per Peak Traveler (person-hours)	12	11	11	10	10
Rank	59	61	58	61	59
Delay due to Incidents (percent)	56	55	55	54	54
<b>Travel Time Index</b>	1.06	1.06	1.06	1.05	1.05
Rank	56	56	56	59	58
<b>Congestion Cost</b>					
Total Cost (\$ millions)	48	42	38	32	28
Rank	55	56	56	54	54
Cost per Peak Traveler (\$)	151	135	126	109	99
Rank	60	63	61	64	60

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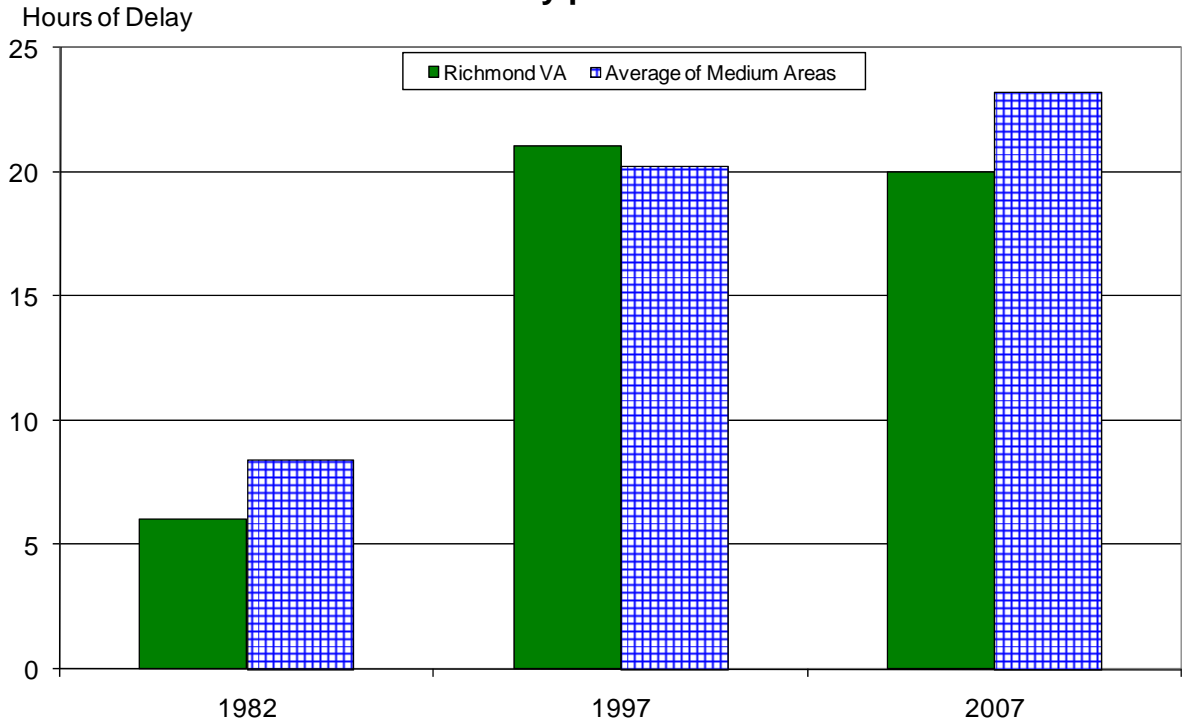
## The Mobility Data for Richmond VA, Continued

Inventory Measures	1986	1985	1984	1983	1982
<b>Urban Area Information</b>					
Population (1000s)	630	620	615	610	600
Rank	45	45	45	46	46
Urban Area (square miles)	325	315	300	290	280
Population Density (persons/sq mile)	1,938	1,968	2,050	2,103	2,143
Peak Travelers (1000s)	278	272	268	264	256
<b>Freeway</b>					
Daily Vehicle-Miles of Travel (1000s)	4,415	3,520	3,365	3,215	3,000
Lane-Miles	535	500	470	420	395
<b>Arterial Streets</b>					
Daily Vehicle-Miles of Travel (1000s)	4,520	4,120	3,900	3,810	3,760
Lane-Miles	1,150	1,100	1,095	1,060	1,005
<b>Public Transportation</b>					
Annual Psgr-Miles of Travel (millions)	64.2	64.2	61.9	61.9	61.9
Annual Unlinked Psgr Trips (millions)	26.7	26.3	25.1	25.1	25.1
<b>Cost Components</b>					
Value of Time (\$/hour)	8.18	8.03	7.75	7.43	7.20
Commercial Cost (\$/hour)	52.63	55.80	54.65	52.70	52.13
Fuel Cost (\$/gallon)	0.99	1.30	1.31	1.34	1.41
System Performance	1986	1985	1984	1983	1982
<b>Congested Travel</b> (% of peak VMT)	16	13	13	14	14
<b>Congested System</b> (% of lane-miles)	27	22	22	23	23
<b>Congested Time</b> (number of "Rush Hours")	2.7	2.5	2.5	2.5	2.6
<b>Annual Increase Needed to Maintain Constant Congestion Level:</b>					
Lane-miles	--	--	--	--	--
Transit Riders or Carpoolers (millions)	--	--	--	--	--
<b>Annual Excess Fuel Consumed</b>					
Total Fuel (1000 gallons)	1,547	1,087	980	1,009	984
Rank	52	58	60	55	50
Fuel per Peak Traveler (gallons)	6	4	4	4	4
Rank	53	60	58	55	53
<b>Annual Delay</b>					
Total Delay (1000s of person-hours)	2,646	1,886	1,666	1,715	1,664
Rank	51	56	58	54	51
Delay per Peak Traveler (person-hours)	10	7	6	7	6
Rank	57	61	63	55	55
Delay due to Incidents (percent)	54	54	54	54	54
<b>Travel Time Index</b>	1.05	1.04	1.04	1.04	1.04
Rank	55	59	55	53	50
<b>Congestion Cost</b>					
Total Cost (\$ millions)	26	19	16	16	15
Rank	52	57	58	55	52
Cost per Peak Traveler (\$)	94	69	60	61	60
Rank	60	65	65	58	56

Note: System Performance statistics for 2000 through 2007 data reflect the effects of operational treatments.

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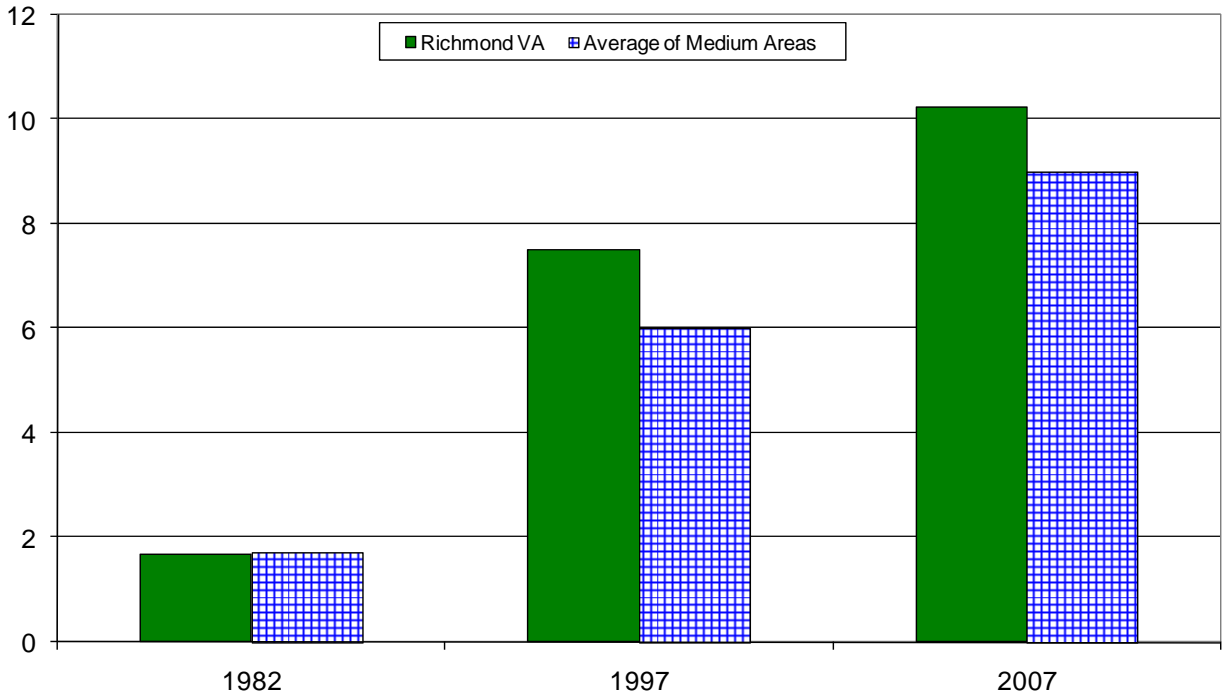
### Growth in Delay per Peak Traveler



Note: Medium areas have populations between 0.5 and 1 million

Annual Hours of Delay (millions)

### Growth in Total Delay



Note: Medium areas have populations between 0.5 and 1 million

**Benefits from Public Transportation Service and Operations Strategies in  
Richmond VA**

<b>Operations Strategies</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>
<b>Freeway Ramp Metering</b>				
Percent of Roadway Miles	--	--	--	--
Annual Delay Reduction (1000 hours)	--	--	--	--
<b>Freeway Incident Management</b>				
<b>Cameras</b>				
Percent of Roadway Miles	19	19	20	20
<b>Service Patrols</b>				
Percent of Roadway Miles	19	19	19	19
Annual Delay Reduction (1000 hours)	122	121	117	116
<b>Arterial Signal Coordination</b>				
Percent of Roadway Miles	39	38	37	37
Annual Delay Reduction (1000 hours)	61	84	90	90
<b>Arterial Access Management</b>				
Percent of Roadway Miles	26	26	26	25
Annual Delay Reduction (1000 hours)	91	133	107	79
<b>HOV Lanes</b>				
Daily Passenger-miles of travel (1000s)	--	--	--	--
HOV User Delay Savings	--	--	--	--
<b>Total Effect of Operations Treatments</b>				
Annual Delay Reduction (1000 hours)	274	338	314	284
Annual Delay Saved per Peak Traveler (hours)	1	1	1	1
Annual Congestion Cost Savings (\$million)	5.4	6.4	5.7	5.0
Travel Time Index with Strategies	1.091	1.092	1.091	1.091
Travel Time Index (Base)	1.093	1.094	1.093	1.093
<b>Public Transportation Service</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>
<b>Existing Service</b>				
Annual Passenger-miles of travel (million)	58.9	50.3	46.8	44.2
Unlinked Passenger Trips (million)	15.7	14.3	13.2	12.1
Travel Time Index (combined road and transit)	1.092	1.093	1.092	1.092
<b>Condition if Public Transportation Service were Discontinued</b>				
Travel Time Index	1.096	1.095	1.093	1.094
Annual Increase				
Delay (1000 hours)	435	242	184	270
Delay per Peak Traveler (hours)	1	0	0	1
Congestion Cost (\$million)	8.6	4.6	3.3	4.7

**Benefits from Public Transportation Service and Operations Strategies in  
Richmond VA, Continued**

<b>Operations Strategies</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>
<b>Freeway Ramp Metering</b>				
Percent of Roadway Miles	--	--	--	--
Annual Delay Reduction (1000 hours)	--	--	--	--
<b>Freeway Incident Management</b>				
<b>Cameras</b>				
Percent of Roadway Miles	21	4	--	--
<b>Service Patrols</b>				
Percent of Roadway Miles	20	21	--	--
Annual Delay Reduction (1000 hours)	89	77	--	--
<b>Arterial Signal Coordination</b>				
Percent of Roadway Miles	37	37	38	39
Annual Delay Reduction (1000 hours)	88	80	83	41
<b>Arterial Access Management</b>				
Percent of Roadway Miles	25	27	28	30
Annual Delay Reduction (1000 hours)	75	93	110	74
<b>HOV Lanes</b>				
Daily Passenger-miles of travel (1000s)	--	--	--	--
HOV User Delay Savings	--	--	--	--
<b>Total Effect of Operations Treatments</b>				
Annual Delay Reduction (1000 hours)	253	250	193	115
Annual Delay Saved per Peak Traveler (hours)	1	1	0	0
Annual Congestion Cost Savings (\$million)	4.2	4.1	3.0	1.8
Travel Time Index with Strategies	1.083	1.077	1.077	1.073
Travel Time Index (Base)	1.085	1.079	1.078	1.074
<b>Public Transportation Service</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>
<b>Existing Service</b>				
Annual Passenger-miles of travel (million)	43.3	53.7	51.2	43.6
Unlinked Passenger Trips (million)	12.6	14.5	16.2	14.3
Travel Time Index (combined road and transit)	1.085	1.079	1.077	1.073
<b>Condition if Public Transportation Service were Discontinued</b>				
Travel Time Index	1.088	1.080	1.081	1.075
Annual Increase				
Delay (1000 hours)	332	244	350	166
Delay per Peak Traveler (hours)	1	1	1	0
Congestion Cost (\$million)	5.5	4.0	5.6	2.6

**Comparison of Several Key Mobility Performance Measures  
Medium Group – 500,000 to 1 million population urban areas**

Urban Area	Delay per Traveler	Travel Time Index	Total Delay	1982 to 2007	
				Delay per Traveler	Total Delay
Nashville-Davidson, TN	H+	0	H+	F	F+
Salt Lake City, UT	H	H+	H+	F	F+
<b>Richmond, VA</b>	<b>L</b>	<b>L-</b>	<b>H</b>	<b>0</b>	<b>F+</b>
Louisville, KY-IN	H+	H+	H+	F+	F+
Hartford, CT	L	L	H	F	F+
Bridgeport-Stamford, CT-NY	H+	H+	H+	F+	F+
Oklahoma City, OK	H	L	H+	F+	F+
Tulsa, OK	0	L	0	0	F
Tucson, AZ	H+	H+	H+	F	F+
Dayton, OH	L-	L-	L-	S-	S-
Rochester, NY	L-	L-	L-	S-	S-
Birmingham, AL	H+	0	H+	F+	F+
Lancaster-Palmdale, CA	L-	L	L-	S-	S-
Honolulu, HI	H	H+	H	S	S
El Paso, TX-NM	L	L	L	0	S
Oxnard-Ventura, CA	H+	H+	H+	F+	F+
Sarasota-Bradenton, FL	H	H+	0	S-	0
Springfield, MA-CT	L-	L-	L-	S-	S-
Omaha, NE-IA	H	H	0	F+	F
Fresno, CA	L	0	L	S-	S-
Allentown-Bethlehem, PA-NJ	0	0	L	S	S-
Akron, OH	L-	L-	L-	S-	S-
Grand Rapids, MI	0	L	L	0	S
Albany-Schenectady, NY	L	L	L	0	S-
Albuquerque, NM	H+	H	H	F+	F+
New Haven, CT	L	L	L-	0	S-
Indio-Cathedral City-Palm Springs, CA	L-	0	L-	S-	S-
Toledo, OH-MI	L-	L-	L-	S	S-
Poughkeepsie-Newburgh, NY	L-	L-	L-	S-	S-
Bakersfield, CA	L-	L-	L-	S-	S-
Colorado Springs, CO	0	0	L	F	S-

0 – Average congestion levels or average congestion growth

H Higher congestion; H+ Much higher congestion; F Faster congestion growth; F+ Much faster growth

L Lower congestion; L- Much lower congestion; S Slower congestion growth; S- Much slower growth

**Key Mobility Performance Measure Labels**

Note: Designation of an urban area congestion problem as “Much higher”, “Much faster growth”, etc. is determined using a general indicator of the accuracy of the congestion estimates. For regions with the same indicator label, there may be no difference in congestion levels. Different values are used for the indicators in regions over 1 million population and below 1 million population.

Measures	Differences Within These Values May Not Indicate a Difference in Congestion Level	
	Above 1M Population	Below 1M Population
<b>2007 Values</b> Delay per Traveler - Travel Time Index - Total Delay -	Above 1M Population 5 Hours 5 Index Points 5 Hours x Average Population	Below 1M Population 3 Hours 3 Index Points 3 Hours x Average Population
<b>1982 to 2007 Trends</b> Delay per Traveler - Total Delay -	5 Hours 5 Hours x Average Population	3 Hours 3 Hours x Average Population