

Editorial: North Texas' long, hard commute

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You probably thought commuting to and from work in North Texas couldn't get any worse. Not so fast: Road gridlock around here has gone from bad to – literally – worst.

A new study released last week anoints Dallas-area commutes as the nastiest of the nation's 90 largest metro areas, the first time a traffic study has placed us at the very bottom of the bumper-to-bumper heap. Even commuters in perpetually gridlocked Los Angeles , San Jose and Houston now fare better than Dallas-Fort Worth drivers, according to an analysis of commuting, population and spending data by Bundle.com and reporters at TheStreet.com.

So how bad is worst? For most of us, it costs time, money and peace of mind. And, oddly enough, it might have cost the Texas Rangers a pennant next year – or certainly complicated their efforts. The wife of half-season Rangers pitcher Cliff Lee , a key to the club's first World Series appearance, told Philadelphia reporters that easier game-time commutes up there played a part in the family's decision to turn down the Rangers' longer and more lucrative free-agent contract offer. "Even in Dallas, where we were staying, it was hard to get to the ballpark because of traffic," Kristen Lee said.

Yikes, now that hurts – and not just in the American League West standings. Traffic congestion has been unacceptable for too long in North Texas, and lawmakers must find new ways to improve road infrastructure and expand public transit. North Texas is a primary contributor to the state's economy, and the do-nothing option means losing our competitive edge in attracting residents, businesses and, yes, maybe even a premier left-handed starter.

Since the early 1980s, no other urban area has seen traffic grow worse faster than Dallas-Fort Worth. Four of Texas' 10 worst traffic bottlenecks are in Dallas or Tarrant counties. Overall, North Texans average 28 minutes on the road each way to work and lose 53 hours each year in traffic jams. And the quaint idea of "rush hour" actually means "rush hours," as in about eight hours of stalled traffic per work day.

Money for congestion-easing transportation projects obviously has not kept pace with traffic, and lawmakers have made matters worse by raiding the highway fund to pay for non-road programs, a shortsighted path they will be tempted to repeat to close a huge shortfall in the current state budget.

Instead, given the high stakes, they should find creative ways to keep Texas moving. Among two things, how about increasing the gas tax for highway construction and stop raiding the road fund? They also should allow voters in congested urban counties to decide whether to impose transportation fees or taxes to pay for local rail and road projects.

More of the same only means more and more time staring at taillights in traffic. And it's time lawmakers realize that.

Get moving on traffic congestion

North Texas transportation leaders should support this agenda in Austin:

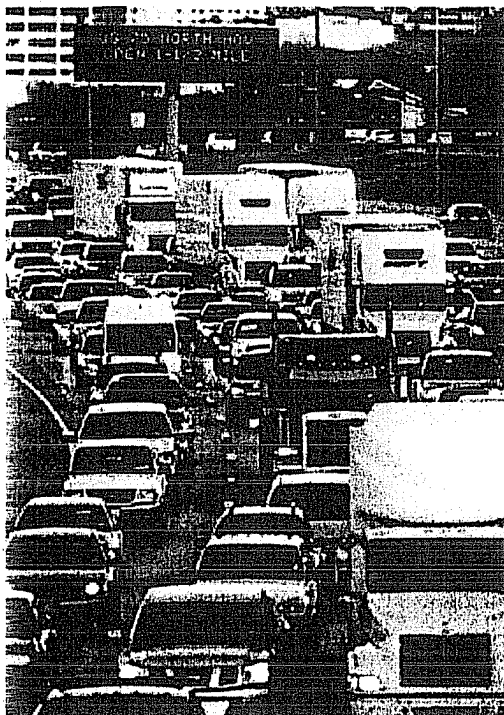
- Boost the state's motor-fuels tax
- Index the tax to fuel efficiency
- End the practice of siphoning highway-fund dollars for other purposes
- Allow county elections on road and rail projects through a new registration fee
- Let TxDOT start more projects using a private developer that would gain toll rights for added lanes
- Protect tolls collected in North Texas so lawmakers don't spend the money elsewhere

Dallas commute ranked worst in U.S. in new, comprehensive analysis



1:19 PM Tue, Dec 14, 2010 | [Permalink](#) | [Yahoo! Buzz](#)

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Update: Some really good comments here. For those of you who are offering perspective on your own commutes, could you email me at mlindemberger@dallas.com, and leave a call back number. I'd just like to touch base with a couple of you for a story we are putting together for tomorrow's paper. I am at 214-977-8794 as well.

It's nice to be number one, but here's a ranking Dallas would rather avoid.

In a new analysis of commuting that seeks to measure everything from delays to costs to distance, the money geeks over at Bundle have ranked the daily commutes in America's largest metropolitan areas, and Dallas places dead last. You can take a look here, or read Wired.com's take here.

Lots of studies have ranked traffic in the Dallas Fort Worth area as among the worst in the country, but this is the first to rank it absolutely worst. It's also a more complete analysis, measuring not just how long we are stuck in traffic, or how much we spend on gas, for instance.

Instead, the study factored in a range of data, relying on the Texas Transportation Institute, the U.S. Census and other sources. The rankings reflect the average commuting

time, how likely drivers are to commute during rush hour, total distance driven, annual hours of delay for each rush hour commuter, and how much we spend on gas and auto expenses.

Taking all that together, we come in dead last among the 90 metro areas measured. Just ahead of us in the rankings were San Jose, at 89th, Houston, Miami, Phoenix and Los Angeles.

Some other surprises: Austin, while faring better in the overall rankings, is spending a lot of jack on gasoline. The rankings say Austinites spend \$345 a month on fuel, compared to \$193 here.

Bloomberg

Traffic Jams Cost U.S. \$114.8 Billion in Time, Fuel in '09, Institute Says

By Carol Wolf - Jan 20, 2011

Traffic congestion cost the U.S. \$114.8 billion in time and fuel in 2009 as the average urban driver spent the equivalent of four work days waiting in cars, according a report by the Texas Transportation Institute.

The cost of congestion increased 1.2 percent from a year earlier, excluding the cost of longer delivery times and missed meetings, the institute said in its annual Urban Mobility Report today. Chicago and Washington tied for the most congested urban area with commuters delayed by 70 hours a year on average because of traffic, according to the study.

While congestion costs remain 8.7 percent lower than in 2007, the year the U.S. recession started, they may advance as the economy grows, according to the study. Congestion declines during economic slowdowns in the 1980s and 1990s were reversed when the economy improved, the College Station, Texas-based state agency said.

Congestion in 2009 wasted 28 gallons of fuel per commuter, up 3.7 percent from 2008, and caused the average urban driver to spend an extra 34 hours in traffic, the group said.

Truck congestion, the value of wasted time, fuel and truck operating costs, cost \$33 billion in 2009 and hurt productivity and delivery times, according to the report. A "significant" share of those costs were passed on to consumers through price increases, the institute said.

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Austin's traffic third-worst in U.S., report says

Study used different method this time.

By Ben Wear

AMERICAN-STATESMAN STAFF

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Austin has the third-worst traffic in the United States, at least according to one of several measures in the latest edition of a mobility report put out periodically by the Texas Transportation Institute.

That would mean Austin's traffic is worse than in not only Dallas and Houston, but also New York and Chicago. Only Los Angeles and Washington have worse traffic than Austin, according to the Urban Mobility Report released Thursday.

That is a notable departure from the last such report, put out in July 2009, by the Texas A&M University-based research institute, which said Austin's 2007 "travel time index" — the percentage increase for a trip at rush hour compared with an identical trip in the middle of the night — ranked 20th in the country.

However, several of the report's other rankings, which take into account the actual distance people commute, tend to put Austin and its suburbs somewhat farther down the list.

For instance, an average Austin-area commuter lost 39 hours to traffic congestion in 2009 (the most recent year in the report), putting Austin 15th among 101 cities listed. That would be about 10 minutes per work day, five minutes for each trip.

Moreover, Austin's 2009 travel time index of 1.28 — meaning a rush-hour trip takes 28 percent longer than an identical trip with free-flowing traffic — is slightly lower than the 2007 number in the previous report: 1.29. In 2005, the travel time index was 1.32.

The decline reflects a nationwide trend of fewer cars on the road since the start of the economic downturn.

"I don't think there's a single commuter in Austin who needs an institute to tell them there's a traffic problem here," said Mark Nathan, Austin Mayor Lee Leffingwell's chief of staff. "And whether we're 15th, 12th, 10th or third, we're in the midst of a very serious traffic crisis."

So, if the report shows Austin's traffic slightly improving, how did its ranking get worse?

Simply put, the data used and the formulas applied to that data changed since the last report, said Tim Lomax, senior researcher with the transportation institute. He has been an author of the report since its inception 29 years ago.

In the past, the report was based only on daily traffic counts taken on highways and major streets in cities around the country. The authors would massage the data using a complicated set of assumptions about how those traffic counts and each city's road network would react to those volumes of vehicles.

This year, for the first time, the transportation institute had actual traffic speed data, calculated from GPS devices in government and company vehicle fleets as well as some iPhones whose users allowed that information to be collected. That information caused the A&M researchers to rejigger some of their formulas.

The result was that Austin's travel time index essentially idled, while those of huge cities tended to fall precipitously. Austin shot up the list

...something, the No. 3 ranking counts as something of a mixed blessing. For years in the mobility report, Austin's congestion was the worst among a list of medium-sized cities. (Austin is no longer considered mediumsized in the report.) Officials pushing for various transportation initiatives — such as toll roads, commuter rail and higher gas taxes — pointed to that dubious honor to support spending for their agendas.

This ranking could serve as an even more dramatic rhetorical tool. Urban rail advocates and supporters of more highways have already seized on the report as justification for more rail or roads to alleviate congestion.

For others, the traffic itself is what matters, not the ranking.

"I definitely don't take joy in seeing a metric like that," said Jeremy Martin, senior vice president of government relations with the Greater Austin Chamber of Commerce. "But it is imperative that we work with all levels of government to improve transportation and mobility here in Central Texas, and this just provides additional information about the problems we face."

Lomax and his fellow researchers freely acknowledge that their methods have constantly evolved through the decades. But this addition of the speed information from a company called INRIX — Lomax said the donated data could be worth as much as \$1 million — is the most significant refinement in the study's history.

Next year, he said, the institute expects to get speed data for every 15 minutes rather than the hourly figures used this time.

That will, of course, lead to a further adjustment.

He cautioned against Austinites fixating on the ranking and the time travel index.

"You've got to look at all the measures," he said. "You can't just look at one."

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Travel delay

These are the 2009 travel time index figures for Austin and a sampling of other metro areas in the Urban Mobility Report. A travel time index of 1.25 means that a rush-hour trip takes 25 percent more time than that trip would take in the middle of the night. Thus, a 40-minute trip at 2 a.m., if the index is 1.25, would take 50 minutes during rush hour.

City* Travel time index

Los Angeles 1.38

Washington 1.30

Austin 1.28

New York/Newark, N.J. 1.27

Chicago 1.25

Houston 1.25

Dallas-Fort Worth 1.22

Boston 1.20

Average of 101 metro areas 1.20

The Washington Post

How we measure commuters' misery

Advertisement

By Robert Thomson
Washington Post Staff Writer
Saturday, January 22, 2011; 5:24 PM

When advocates for transportation improvements want to illustrate how bad the commute has gotten, they almost always cite their region's high ranking in a national study of congestion prepared by the [Texas Transportation Institute](#). [Tim Lomax](#), a researcher with the institute, recognized the benchmark status the organization's [Urban Mobility Report](#) has gained when he characterized it as "the second slide" in many transportation presentations, coming right after the title page.

With such an important role to play, the report has developed its share of critics. They question its methodology and conclusions about where we stand and what we should do next.

The debate reflects a fundamental issue for commuters: When we try to measure our commuting misery by the numbers, what values should we look at and what goals should they reflect?

Urban Mobility Report

The latest version, released last week, continued a depressing trend for the D.C. region. By any of the various measures of mobility, we don't have it. In fact, our congestion and delays are among the worst for very large urban areas, based on the 2009 statistics. Here's a [summary of our key nationwide rankings](#).

Travel Time Index: No. 2

This measure of congestion focuses on each trip and each mile of travel. It is a ratio of travel time in peak periods to travel time in free-flowing traffic.

Delay per peak auto commuter: No. 1

This is a yearly sum of delays for people who drive in the peak periods of 6 a.m. to 10 a.m. and 3 p.m. to 7 p.m. It illustrates the effect of per-mile congestion as well as the length of each trip, the report says. [We tied with Chicago.](#)

Delay per non-peak traveler: No. 1

This measure reflects annual extra travel time for people during midday, evening and weekends.

Congestion cost per peak commuter: No. 2

This is the value of travel delay for 2009, estimated at \$16.01 per hour for a person's travel, and the excess fuel consumption, estimated using a state's average cost per gallon.

Excess fuel consumed per commuter: No. 1

This is a measure of increased fuel consumed during travel in congestion rather than in free-flowing traffic.

In many of the key measures dating back to 1982, such as the Travel Time Index and the delay per peak auto commuter, we've moved up in the rankings.

"You have been one of the leaders," Lomax said of the D.C. region's commuters.

How do these misery rankings help us?

Lomax said, "Folks would like to know how bad things are in relation to other people - more importantly, how bad they are relative to where they've been - so they can make decisions about public expenditures of funds."

For the average commuter, there's something missing in such analyses: What about me? The measure of delays for non-peak travelers might in part reflect the severity of the lunchtime traffic in Tysons Corner, but the measures don't reach such specific levels for Tysons or any other area.

"What we're reporting are regional averages," Lomax said. "The average is just the average. It's not about any individual."

But he said the report still could serve to raise the consciousness of a commuter, who might focus on the cost of traveling at peak hours and ask whether it would make sense to leave 15 minutes early or to spend more time working from home.

The critics' case

CEOs for Cities, a national group whose goal is to discover ways that urban areas can be more successful economically, released a study last fall called "Driven Apart." Focusing on the mobility report's Travel Time Index, it faulted the transportation institute for missing the role that increasing travel distances and sprawl have played in the amount of time we spend commuting.

Over the history of the mobility report, many commuters have moved farther from where they want to get to each day. "That increase in distance was enough to explain the increase in travel time," said Joseph Cortright, the study's author.

A reexamination of the traffic data in that light shows that commuters' experience nationwide has not been universally bleak, he said. "In some cities, we've seen total travel times at peak hours actually decrease, because people are now driving shorter distances." He pointed to Portland, Ore., as one example. Even the D.C. region dropped from second to 12th place on peak travel time in this reworking of the data from the previous mobility report.

As with the mobility reports, the data Cortright used do not quantify how miserable you are on Interstate 66 at the Capital Beltway in the morning or on the inner loop through Bethesda in the afternoon. But they suggest something individuals can consider: The effect on their travel lives of being closer to work and in a community that offers options that include transit riding and walking.

For policymakers, Cortright suggests, the study asks whether their goal should be to increase road capacity for the sake of increasing peak-period speeds, or instead to concentrate on land-use plans that don't segregate home, office, commerce and entertainment into widely separated zones reachable only by cars.

Other factors

I asked readers of the [Dr. Gridlock blog](#) to tell me how they measure the misery of commuting. These themes emerged:

- Total time spent in the car isn't as important as stress factors, such as the unpredictable behavior of pedestrians, cyclists and drivers.
- It's difficult to measure individual misery because commuters have different tolerances, based in part on their ages and experiences with different travel patterns and travel modes.
- People make choices that are difficult to quantify. For some, the misery of a long commute is offset by the pleasure of hearing birds singing when they get home.
- An overall measure doesn't reflect the reality that some days and some routes are better than others.

Ronald F. Kirby, transportation planning director for the [Metropolitan Washington Council of Governments](#), said this about the big studies of commuting experience: "They are averages, based on a typical day - if there ever is such a thing. If you look at the individual commuters and what they think about in terms of what's involved in getting to work, there's an enormous variation in their concerns."

For example: Will my commuting time be the same today as it was yesterday?

"That's terribly important," Kirby said. "It's the reliability that really bothers people on the road and increasingly on the Metro. That's not picked up in any of these data, but that's what's really important to people."

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The Mobility Data for Dallas-Fort Worth-Arlington TX

Inventory Measures	2009	2008	2007	2006	2005	2004
Urban Area Information						
Population (1000s)	5,013	4,900	4,860	4,750	4,650	4,525
Rank	6	6	6	6	6	6
Peak Travelers (1000s)	2,998	2,920	2,892	2,822	2,748	2,661
Freeway						
Daily Vehicle-Miles of Travel (1000s)	62,777	62,465	63,300	63,000	61,500	59,180
Lane-Miles	3,650	3,650	3,610	3,570	3,530	3,510
Arterial Streets						
Daily Vehicle-Miles of Travel (1000s)	44,723	44,500	46,000	45,680	45,750	44,805
Lane-Miles	9,375	9,375	9,280	9,065	8,960	8,750
Public Transportation						
Annual Psgr-Miles of Travel (millions)	471.0	489.6	504.5	501.7	485.8	436.1
Annual Unlinked Psgr Trips (millions)	73.1	76.0	82.2	86.0	82.0	85.8
Cost Components						
Value of Time (\$/hour)	16.01	16.10	15.47	15.06	14.58	14.10
Commercial Cost (\$/hour)	105.67	106.06	102.12	98.77	94.06	86.24
Fuel Cost (\$/gallon)	2.43	3.36	2.92	2.55	2.23	1.83
System Performance						
	2009	2008	2007	2006	2005	2004
Congested Travel (% of peak VMT)	66	66	67	67	65	64
Congested System (% of lane-miles)	42	42	43	43	43	44
Congested Time (number of "Rush Hours")	5.25	5.50	6.00	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	126,112	122,505	128,556	130,811	123,482	113,906
Rank	6	6	5	5	6	7
Fuel per Peak Auto Commuter (gallons)	38	38	41	43	41	39
Rank	7	8	10	9	11	10
Annual Delay						
Total Delay (1000s of person-hours)	159,654	158,080	160,791	164,663	154,555	143,909
Rank	5	5	6	6	7	7
Delay per Peak Auto Commuter (pers-hrs)	48	49	51	53	51	49
Rank	7	8	9	10	14	12
Travel Time Index						
	1.22	1.23	1.28	1.29	1.27	1.26
Rank	16	13	11	12	16	15
Commuter Stress Index						
	1.33	1.34	1.42	--	--	--
Rank	15	15	12	--	--	--
Truck Congestion Cost (\$ millions)						
	948	924	909	--	--	--
Truck Commodity Value (\$ millions)						
	170,030	166,746	163,524	--	--	--
Congestion Cost						
Total Cost (\$ millions)	3,649	3,718	3,613	3,543	3,172	2,788
Rank	5	5	6	6	7	8
Cost per Peak Auto Commuter (\$)	1,077	1,141	1,578	1,583	1,448	1,308
Rank	8	10	11	11	14	13

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

**Benefits from Public Transportation Service and Operations Strategies in
Dallas-Fort Worth-Arlington TX**

Operations Strategies	2009	2008	2007
Freeway Ramp Metering			
Percent of Roadway Miles	2	2	2
Annual Delay Reduction (1000 hours)	162	157	202
Freeway Incident Management			
Cameras			
Percent of Roadway Miles	52	52	50
Service Patrols			
Percent of Roadway Miles	78	78	80
Annual Delay Reduction (1000 hours)	3,897	3,779	5,322
Arterial Signal Coordination			
Percent of Roadway Miles	86	86	85
Annual Delay Reduction (1000 hours)	739	739	654
Arterial Access Management			
Percent of Roadway Miles	60	60	60
Annual Delay Reduction (1000 hours)	4,854	4,857	4,297
HOV Lanes			
Daily Passenger-miles of travel (1000s)	390	390	381
HOV User Delay Savings	433	420	472
Added Congestion if Operations Treatments were Discontinued			
Annual Delay Reduction (1000 hours)	10,085	9,953	10,947
Annual Delay Saved per Peak Auto Commuter (hrs)	4	4	4
Annual Congestion Cost Savings (\$million)	231	234	246
Public Transportation Service	2009	2008	2007
Existing Service			
Annual Passenger-miles of travel (million)	471	490	504
Unlinked Passenger Trips (million)	73	76	82
Added Congestion if Public Transportation Service were Discontinued			
Annual Increase			
Delay (1000 hours)	5,989	6,319	6,271
Delay per Peak Auto Commuter (hours)	2	2	2
Congestion Cost (\$million)	137	149	141

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

The Mobility Data for Houston TX

Inventory Measures	2009	2008	2007	2006	2005	2004
Urban Area Information						
Population (1000s)	3,921	3,825	3,815	3,800	3,790	3,770
Rank	11	12	12	12	12	12
Peak Travelers (1000s)	2,306	2,241	2,232	2,219	2,198	2,175
Freeway						
Daily Vehicle-Miles of Travel (1000s)	54,290	54,020	55,000	53,500	52,600	51,000
Lane-Miles	3,260	3,260	3,200	3,150	3,100	3,020
Arterial Streets						
Daily Vehicle-Miles of Travel (1000s)	39,195	39,000	41,500	41,000	39,355	39,330
Lane-Miles	7,790	7,790	7,750	7,700	7,640	7,600
Public Transportation						
Annual Psgr-Miles of Travel (millions)	608.5	632.6	602.7	605.2	552.0	565.1
Annual Unlinked Psgr Trips (millions)	96.6	100.4	100.9	102.5	94.6	95.9
Cost Components						
Value of Time (\$/hour)	16.01	16.10	15.47	15.06	14.58	14.10
Commercial Cost (\$/hour)	105.67	106.06	102.12	98.77	94.06	86.24
Fuel Cost (\$/gallon)	2.43	3.36	2.92	2.55	2.23	1.83
System Performance						
	2009	2008	2007	2006	2005	2004
Congested Travel (% of peak VMT)	67	67	71	71	71	68
Congested System (% of lane-miles)	47	47	49	49	47	47
Congested Time (number of "Rush Hours")	6.00	6.00	6.25	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	129,627	135,759	110,369	111,461	110,908	102,938
Rank	5	5	9	8	9	9
Fuel per Peak Auto Commuter (gallons)	52	56	46	47	47	43
Rank	2	1	5	5	5	7
Annual Delay						
Total Delay (1000s of person-hours)	144,302	151,309	128,230	130,263	129,680	121,929
Rank	6	6	10	11	11	11
Delay per Peak Auto Commuter (pers-hrs)	58	63	54	55	55	52
Rank	4	3	7	9	8	8
Travel Time Index						
	1.25	1.28	1.31	1.32	1.33	1.31
Rank	7	3	6	6	5	7
Commuter Stress Index						
	1.37	1.41	1.47	--	--	--
Rank	6	4	7	--	--	--
Truck Congestion Cost (\$ millions)						
	940	971	774	--	--	--
Truck Commodity Value (\$ millions)						
	210,975	206,899	202,902	--	--	--
Congestion Cost						
Total Cost (\$ millions)	3,403	3,688	2,943	2,859	2,719	2,410
Rank	6	6	10	11	11	11
Cost per Peak Auto Commuter (\$)	1,322	1,500	1,669	1,628	1,552	1,383
Rank	4	3	7	7	8	8

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

**Benefits from Public Transportation Service and Operations Strategies in
Houston TX**

Operations Strategies	2009	2008	2007
Freeway Ramp Metering			
Percent of Roadway Miles	46	46	45
Annual Delay Reduction (1000 hours)	3,292	3,578	3,193
Freeway Incident Management			
Cameras			
Percent of Roadway Miles	90	90	85
Service Patrols			
Percent of Roadway Miles	63	63	62
Annual Delay Reduction (1000 hours)	4,652	5,055	4,023
Arterial Signal Coordination			
Percent of Roadway Miles	55	55	58
Annual Delay Reduction (1000 hours)	364	368	257
Arterial Access Management			
Percent of Roadway Miles	60	60	64
Annual Delay Reduction (1000 hours)	3,855	3,897	4,570
HOV Lanes			
Daily Passenger-miles of travel (1000s)	2,150	2,150	2,100
HOV User Delay Savings	2,791	3,033	2,554
Added Congestion if Operations Treatments were Discontinued			
Annual Delay Reduction (1000 hours)	14,954	15,931	14,598
Annual Delay Saved per Peak Auto Commuter (hrs)	7	8	7
Annual Congestion Cost Savings (\$million)	353	388	335
Public Transportation Service	2009	2008	2007
Existing Service			
Annual Passenger-miles of travel (million)	609	633	603
Unlinked Passenger Trips (million)	97	100	101
Added Congestion if Public Transportation Service were Discontinued			
Annual Increase			
Delay (1000 hours)	6,663	7,444	6,155
Delay per Peak Auto Commuter (hours)	3	3	3
Congestion Cost (\$million)	157	181	141

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

The Mobility Data for Austin TX

Inventory Measures	2009	2008	2007	2006	2005	2004
Urban Area Information						
Population (1000s)	1,250	1,210	1,160	1,100	1,070	1,040
Rank	36	37	37	38	38	40
Peak Travelers (1000s)	708	682	650	612	591	571
Freeway						
Daily Vehicle-Miles of Travel (1000s)	11,960	11,900	12,200	11,750	11,400	10,800
Lane-Miles	820	820	805	785	770	750
Arterial Streets						
Daily Vehicle-Miles of Travel (1000s)	10,854	10,800	11,000	10,500	10,000	9,400
Lane-Miles	1,895	1,895	1,770	1,675	1,600	1,520
Public Transportation						
Annual Psgr-Miles of Travel (millions)	155.5	161.6	136.6	131.5	113.4	121.3
Annual Unlinked Psgr Trips (millions)	36.0	37.4	34.0	35.4	33.2	35.7
Cost Components						
Value of Time (\$/hour)	16.01	16.10	15.47	15.06	14.58	14.10
Commercial Cost (\$/hour)	105.67	106.06	102.12	98.77	94.06	86.24
Fuel Cost (\$/gallon)	2.43	3.36	2.92	2.55	2.23	1.83
System Performance						
	2009	2008	2007	2006	2005	2004
Congested Travel (% of peak VMT)	58	58	61	61	61	59
Congested System (% of lane-miles)	47	47	47	47	47	47
Congested Time (number of "Rush Hours")	5.50	5.50	5.25	--	--	--
Annual Excess Fuel Consumed						
Total Fuel (1000 gallons)	25,631	25,626	26,961	27,143	28,200	24,764
Rank	29	28	29	30	29	31
Fuel per Peak Auto Commuter (gallons)	32	34	37	39	42	38
Rank	14	15	12	12	9	11
Annual Delay						
Total Delay (1000s of person-hours)	30,272	30,573	32,951	33,743	34,506	30,168
Rank	28	28	29	29	29	30
Delay per Peak Auto Commuter (pers-hrs)	39	41	46	50	52	47
Rank	15	14	16	12	13	14
Travel Time Index						
	1.28	1.27	1.28	1.30	1.32	1.30
Rank	3	5	11	11	8	10
Commuter Stress Index						
	1.38	1.37	1.48	--	--	--
Rank	4	10	6	--	--	--
Truck Congestion Cost (\$ millions)						
	174	174	183	--	--	--
Truck Commodity Value (\$ millions)						
	33,185	32,544	31,915	--	--	--
Congestion Cost						
Total Cost (\$ millions)	691	722	739	734	725	598
Rank	28	28	29	29	29	30
Cost per Peak Auto Commuter (\$)	882	962	1,443	1,512	1,534	1,302
Rank	19	18	17	14	10	14

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

**Benefits from Public Transportation Service and Operations Strategies in
Austin TX**

Operations Strategies	2009	2008	2007
Freeway Ramp Metering			
Percent of Roadway Miles	--	--	--
Annual Delay Reduction (1000 hours)	--	--	--
Freeway Incident Management			
Cameras			
Percent of Roadway Miles	42	42	36
Service Patrols			
Percent of Roadway Miles	74	74	60
Annual Delay Reduction (1000 hours)	1,082	1,066	1,028
Arterial Signal Coordination			
Percent of Roadway Miles	59	59	53
Annual Delay Reduction (1000 hours)	130	134	171
Arterial Access Management			
Percent of Roadway Miles	26	26	25
Annual Delay Reduction (1000 hours)	292	301	428
HOV Lanes			
Daily Passenger-miles of travel (1000s)	--	--	--
HOV User Delay Savings	--	--	--
Added Congestion if Operations Treatments were Discontinued			
Annual Delay Reduction (1000 hours)	1,503	1,501	1,628
Annual Delay Saved per Peak Auto Commuter (hrs)	2	2	2
Annual Congestion Cost Savings (\$million)	34	35	37
Public Transportation Service	2009	2008	2007
Existing Service			
Annual Passenger-miles of travel (million)	155	162	137
Unlinked Passenger Trips (million)	36	37	34
Added Congestion if Public Transportation Service were Discontinued			
Annual Increase			
Delay (1000 hours)	1,893	2,037	2,142
Delay per Peak Auto Commuter (hours)	2	2	2
Congestion Cost (\$million)	43	48	48

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

Performance Measure Summary - Dallas-Fort Worth-Arlington TX

There are several inventory and performance measures listed in the pages of this Urban Area Report for the years from 1982 to 2009. 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 Report 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 a 20-minute free-flow trip takes 26 minutes in the peak.

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 the per-mile congestion 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 overnight speeds in the INRIX speed database. They are used as the national comparison thresholds. Other speed values may be appropriate for urban project evaluations or sub-regions studies.

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 2009 (estimated at \$16.01 per hour of person travel and \$105.67 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). The annual change in miles traveled and lane-miles, therefore, includes both new travel and roads due to growth and travel and roads that were previously in areas designated as rural.

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