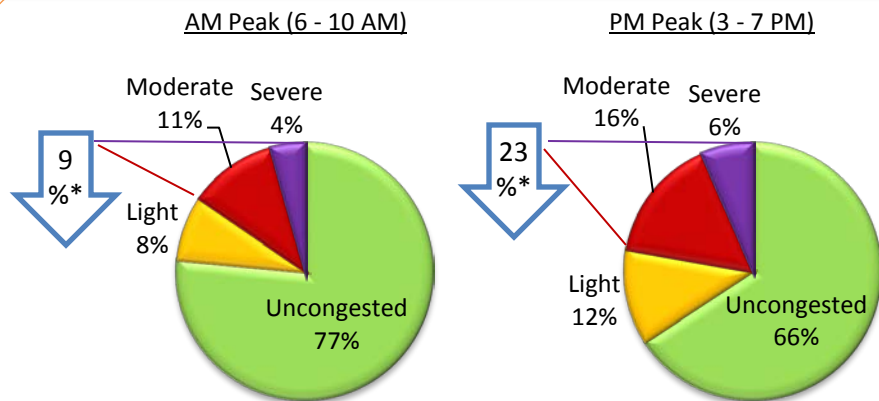


FREEWAY CONGESTION

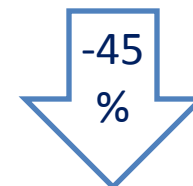
Percentages of Freeway Lane-Miles by Congestion Level in 4th Quarter 2010



* Q4/2010 vs. Q4/2009, see p. 11 for more information.

Freeway Delay per Freeway Traveler

7.6 Hours
→ **\$122***



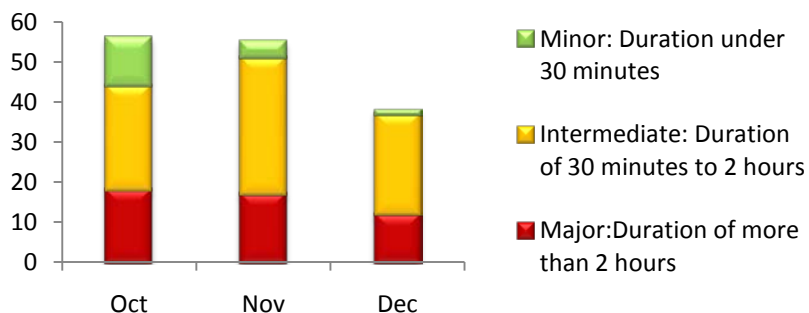
Per month during Q4/2010
*Cost of time: \$16/ hour

Q4/2010 vs. Q4/2009
Major factors: weather, fuel prices, economy (see p. 11)

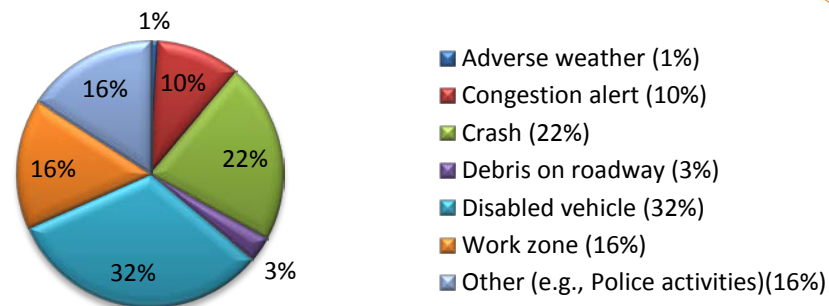
Congestion level	Ratio of actual travel time to free flow travel time
Uncongested	< 1.15
Light	1.15 - 1.30
Moderate	1.30 - 2.00
Severe	> 2.00

INCIDENTS

MATOC: Number of Notifications by Incident Severity in 4th Quarter 2010

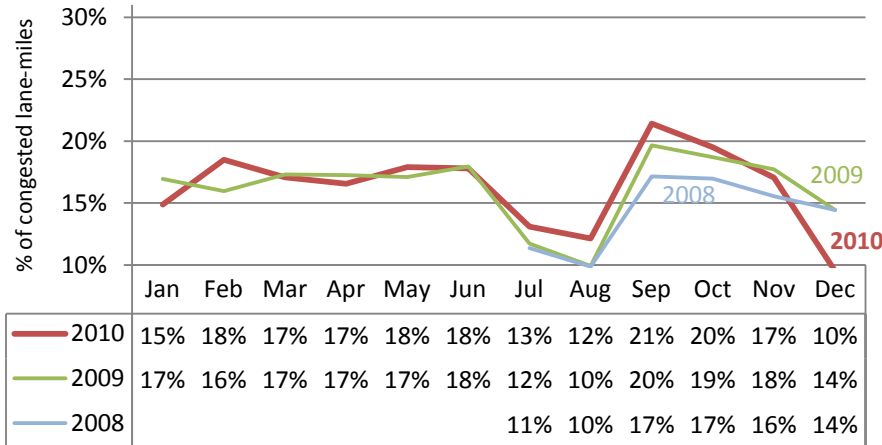


RITIS: Percentages of Different Types of Recorded* Incidents in 4th Quarter 2010 (total 11,610 incidents)

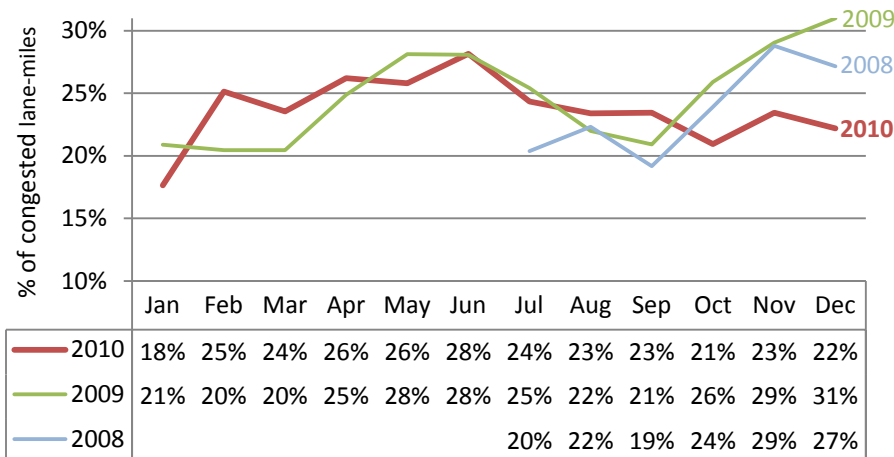


*Only RITIS-recorded incidents included. Data were not available for the District of Columbia.

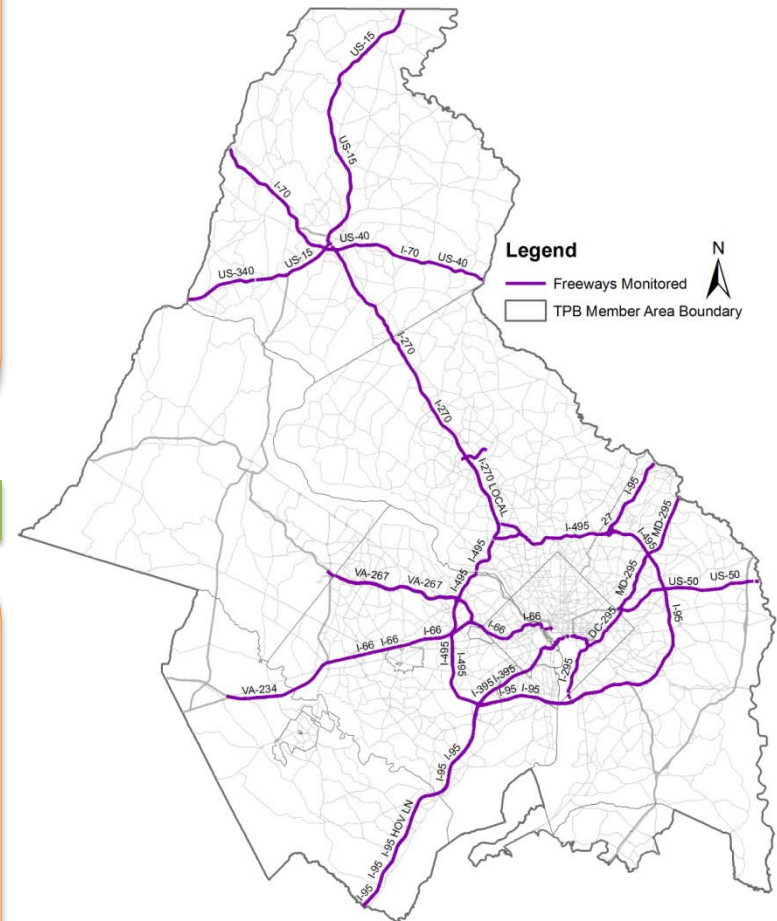
Percentages of Congested Freeway Lane-Miles: AM Peak (6 – 10 AM)



Percentages of Congested Freeway Lane-Miles : PM Peak (3 – 7 PM)

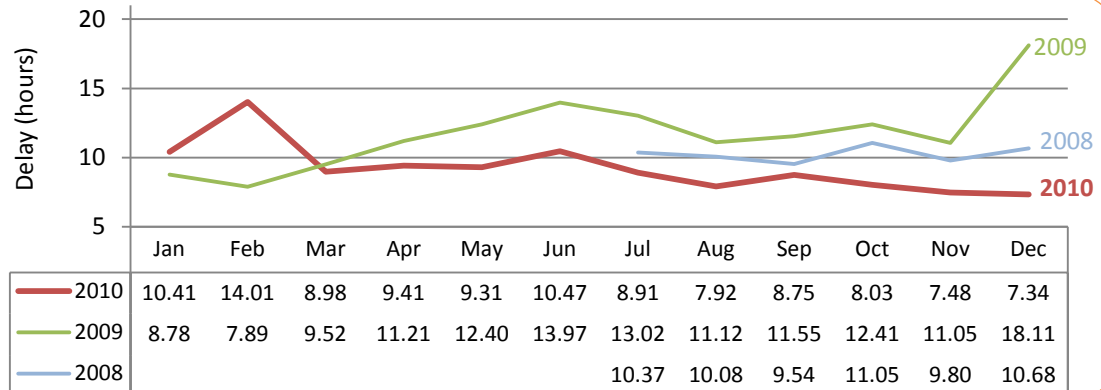


Data Coverage on Freeways

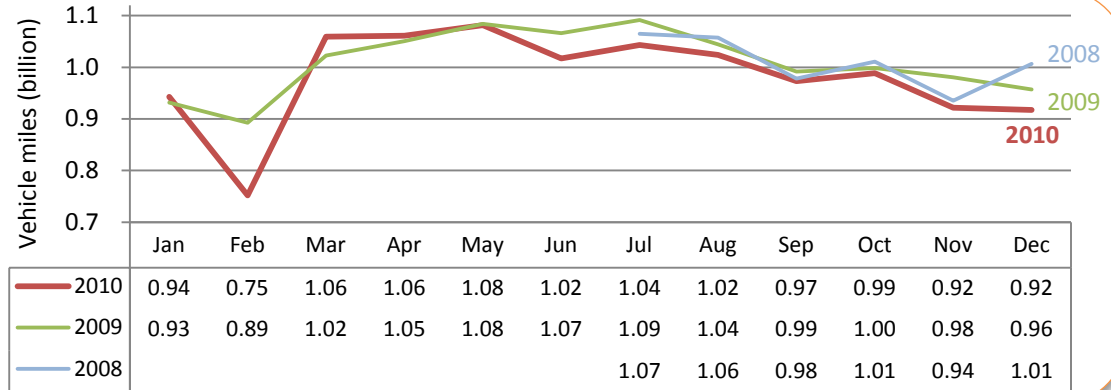


*Congestion is defined if travel time is longer than 1.3 times of free flow travel time (National Transportation Operations Coalition, 2005).

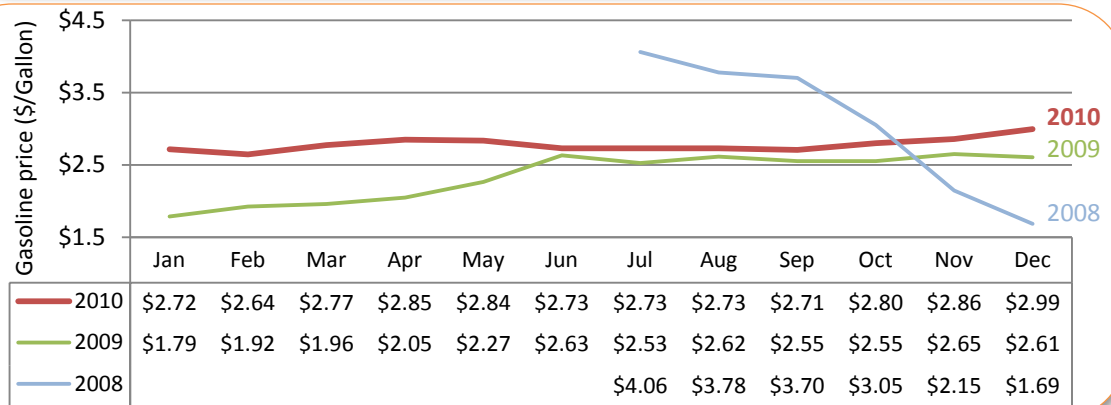
Monthly Freeway Delay per Freeway Traveler (hours)



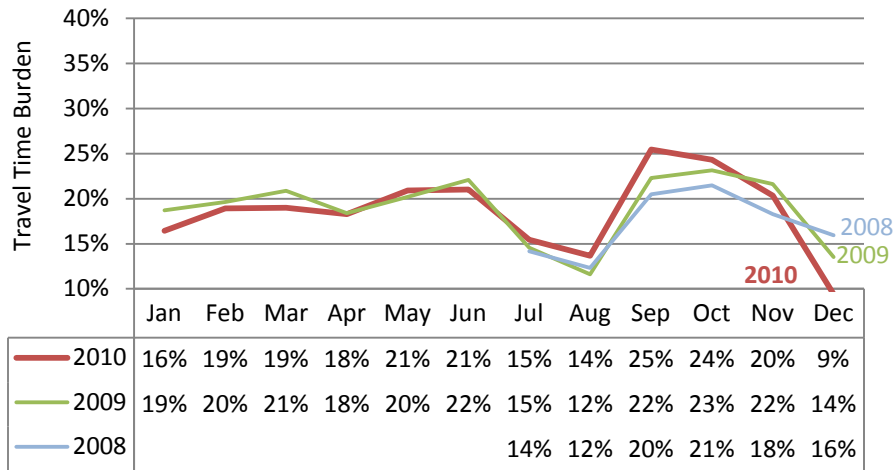
Monthly Freeway Vehicle Miles of Travel (billion vehicle miles)



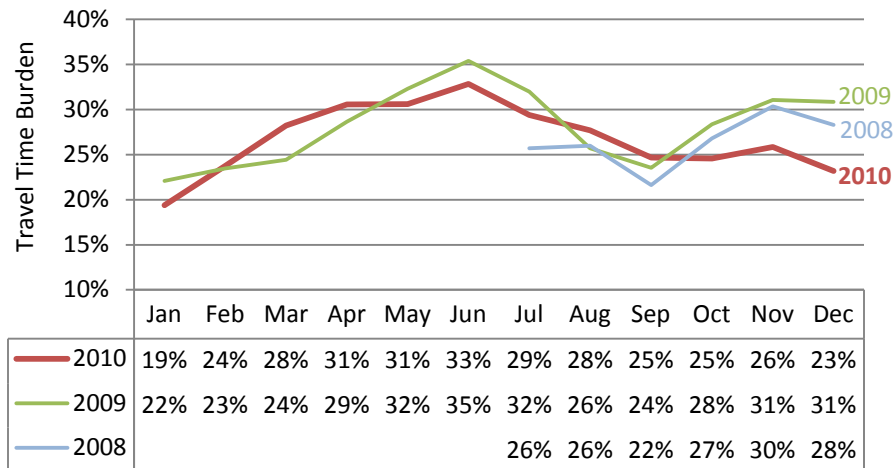
Monthly Average of U.S. Retail Gasoline Prices (\$/Gallon, Regular)



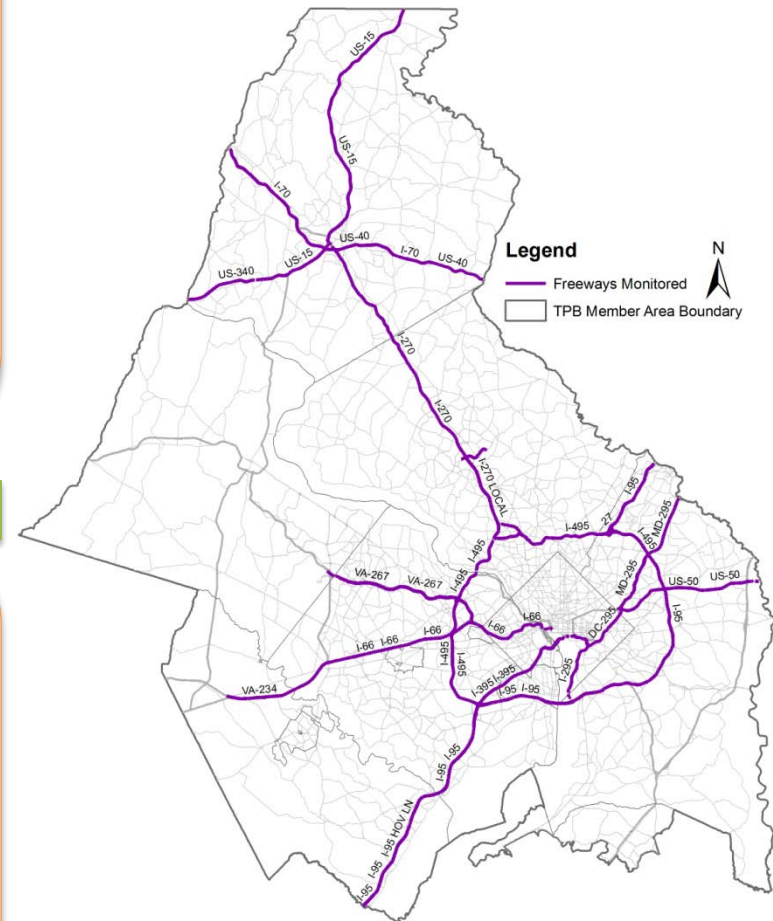
Freeway Travel Time Burden: AM Peak (6 – 10 AM)



Freeway Travel Time Burden: PM Peak (3 – 7 PM)

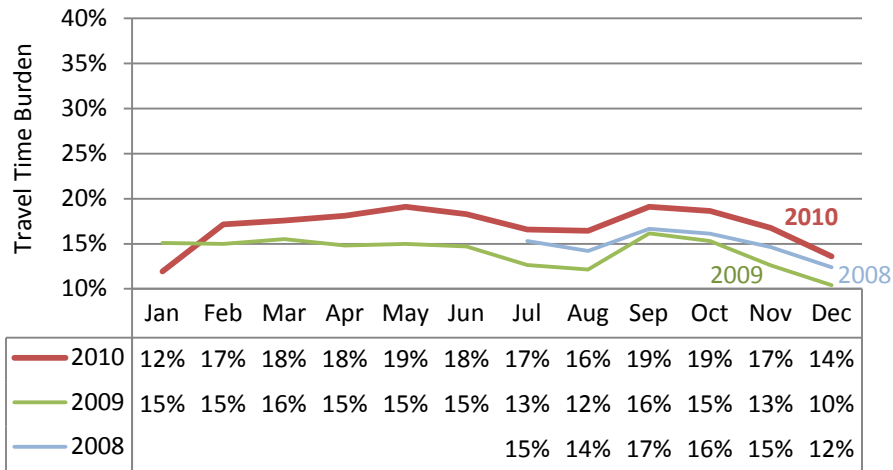


Data Coverage on Freeways

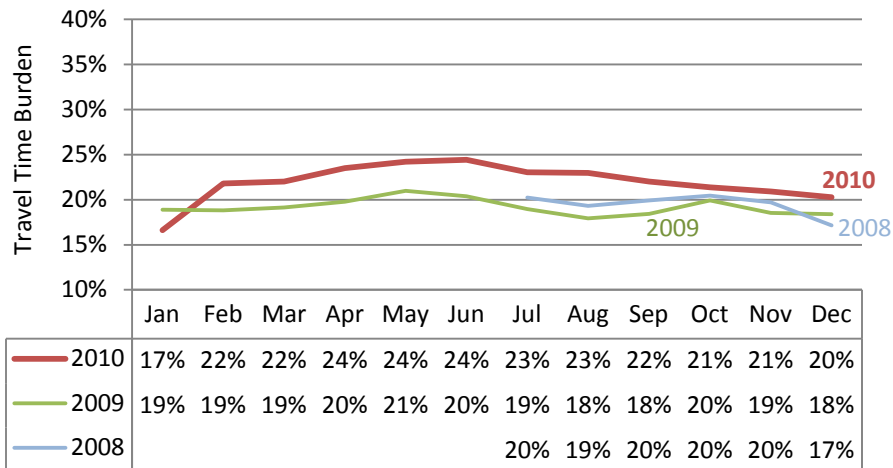


*Travel time burden is the percentage of additional travel time over and above free flow travel time, i.e., travel time burden = (actual travel time – free flow travel time)/free flow travel time * 100%.

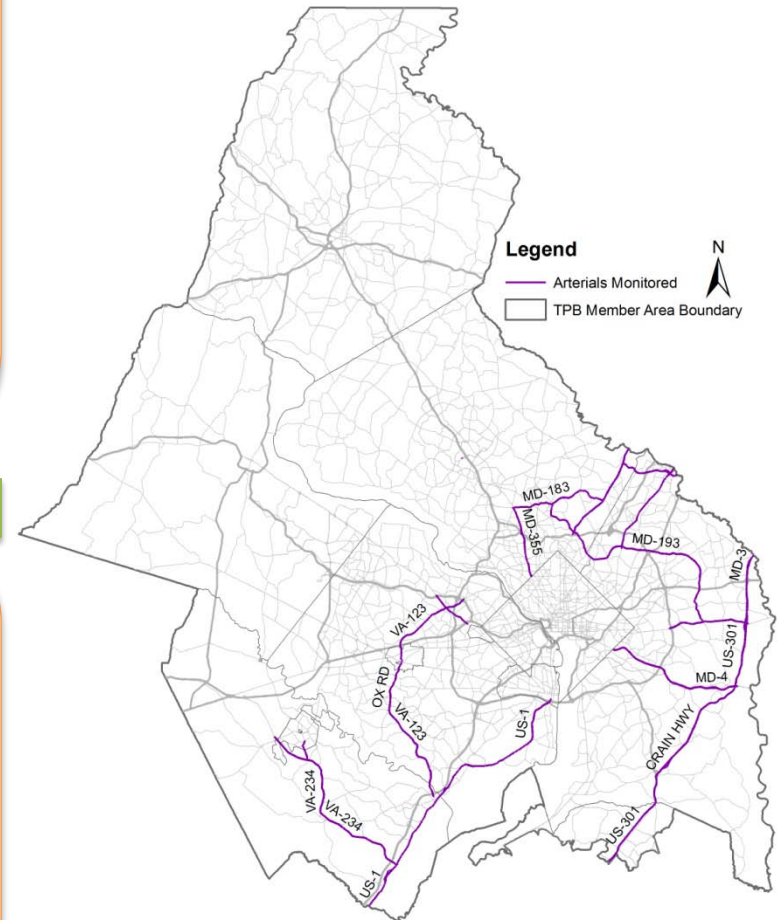
Arterial Travel Time Burden: AM Peak (6 – 10 AM)



Arterial Travel Time Burden: PM Peak (3 – 7 PM)



Data Coverage on Arterials

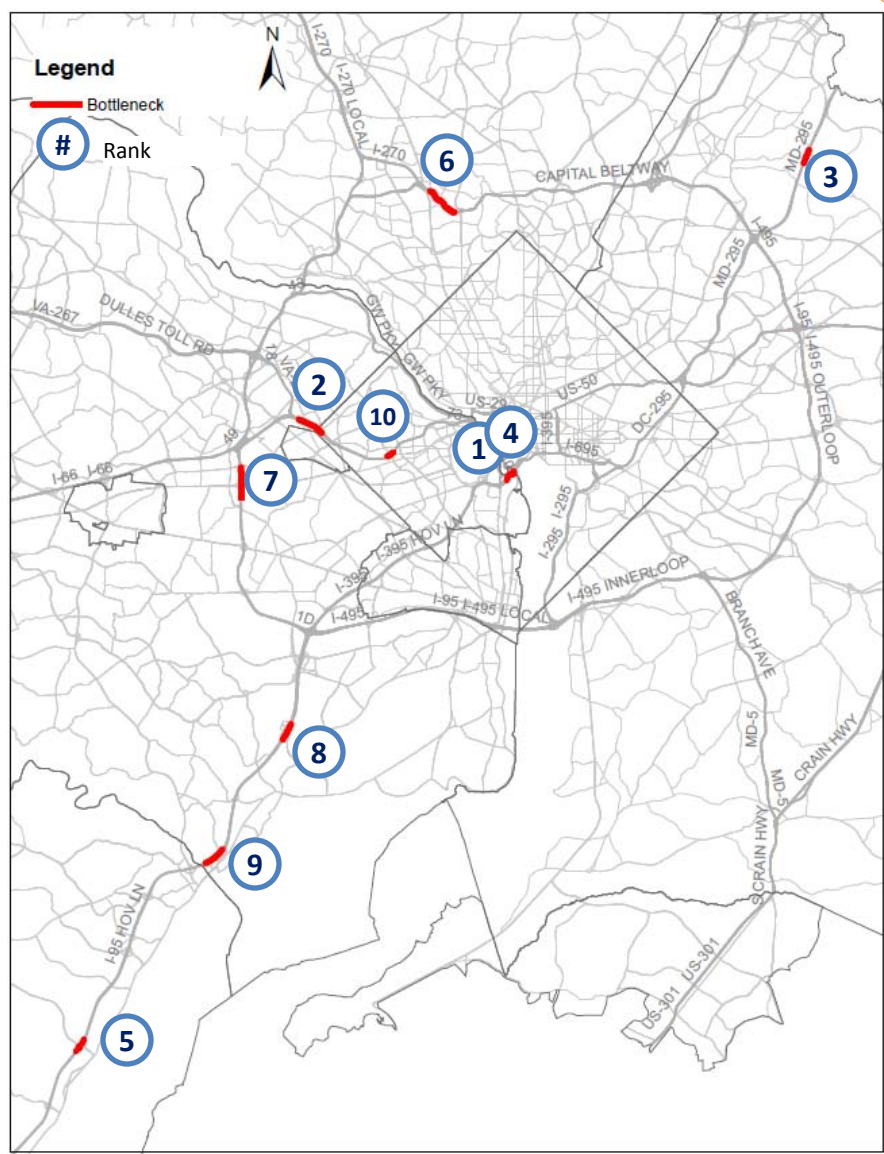


*Travel time burden is the percentage of additional travel time over and above free flow travel time, i.e., travel time burden = (actual travel time – free flow travel time)/free flow travel time * 100%.

Most Severe Freeway Bottlenecks

Road/Direction	Location	Daily Hours of Congestion*	Average Speed when Congested (mph)	Rank		
				2010Q4	2010Q3	2009Q4
I-395 HOV NB	10TH ST/EXIT 10	2.05	40	1	4	>10
I-66 EB	VA-267/EXIT 67	1.43	29	2	>10	>10
MD-295 NB	POWDER MILL RD	1.47	32	3	6	10
I-395 NB	11TH ST/EXIT 11	1.64	27	4	1	>10
I-95 HOV SB	End of HOV	1.37	34	5	5	>10
I-495 IL	MD-185/EXIT 33	1.49	32	6	9	8
I-495 IL	US-50/EXIT 50	1.47	34	7	>10	>10
I-95 HOV NB	VA-7900/EXIT 169	1.53	37	8	10	>10
I-95 SB	US-1/EXIT 161	1.16	29	9	>10	2
I-66 WB	FAIRFAX DR/EXIT 71	1.55	36	10	3	>10

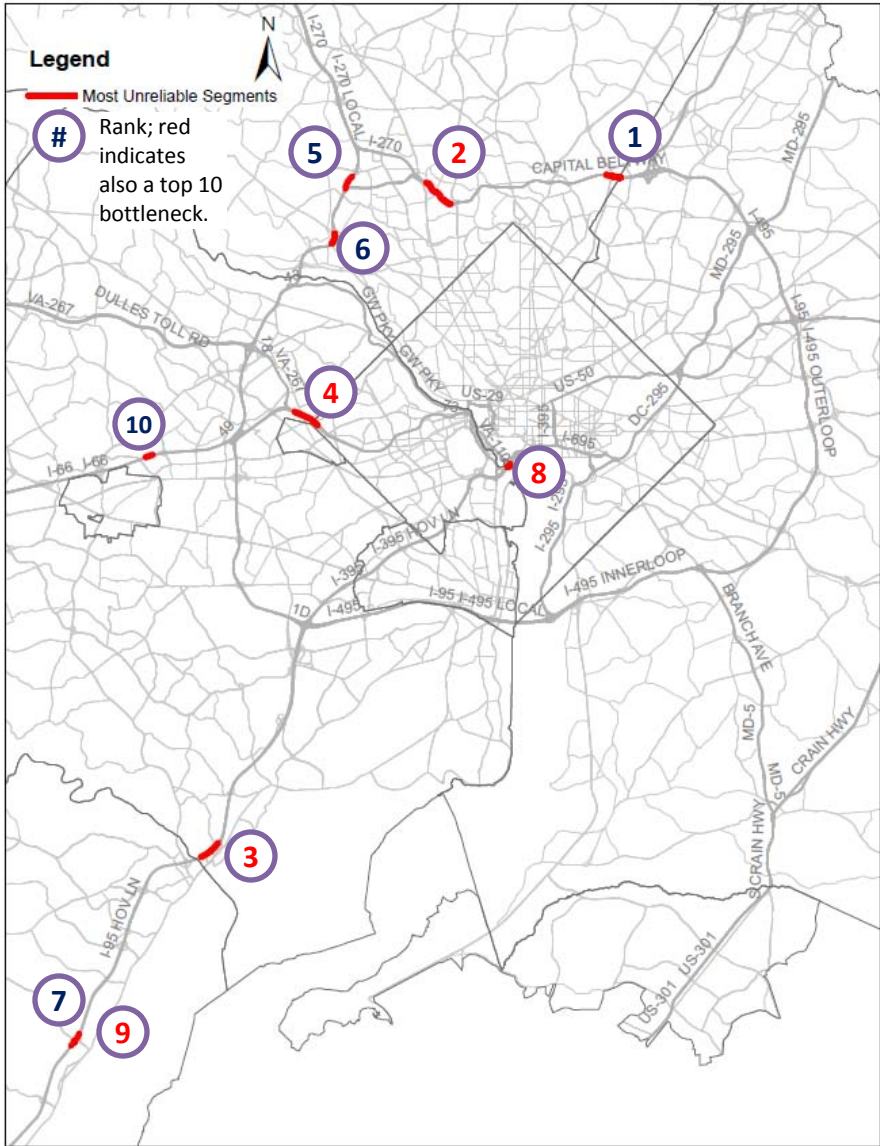
* Daily Hours of Congestion is calculated by the total number of congested hours in the quarter, divided by the number of days (including weekends and holidays) in the quarter. Congestion is defined if travel time is longer than 1.3 times of free flow travel time (National Transportation Operations Coalition, 2005).



Most Unreliable Freeway Segments

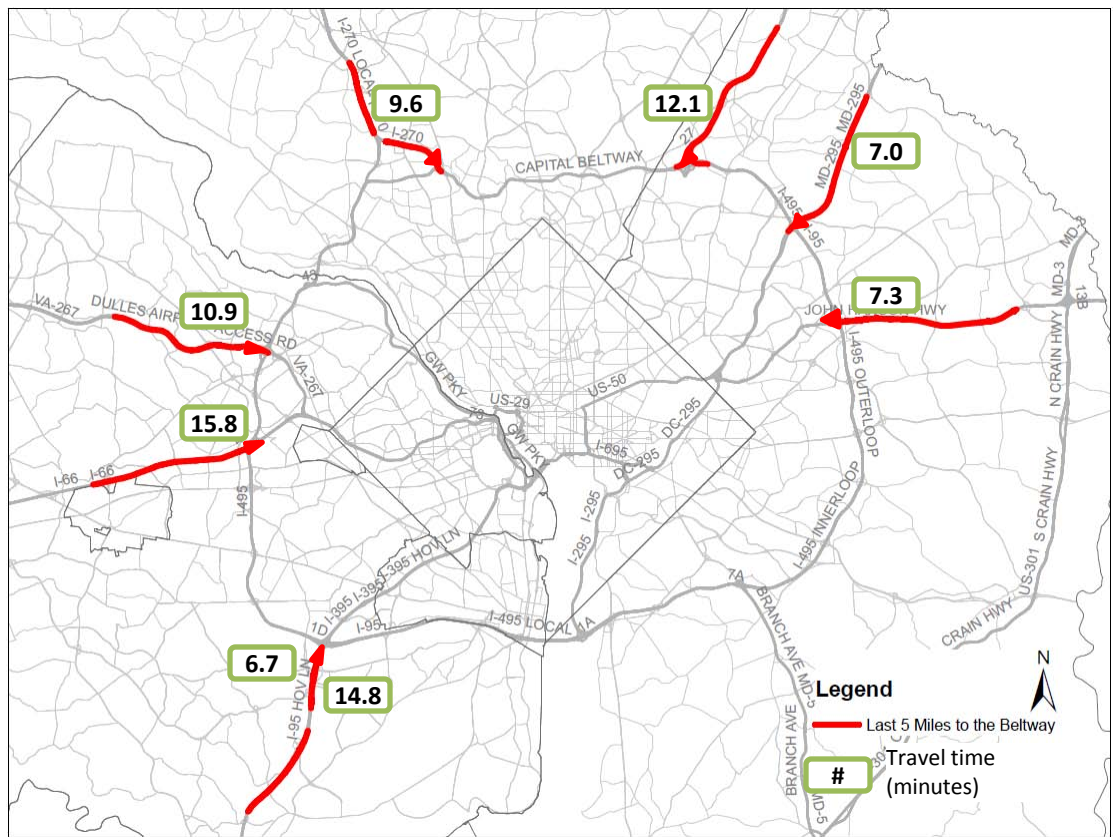
Road/Direction	Location	Buffer Time Index*	Also A Top 10 Bottleneck?	Rank		
				2010Q4	2010Q3	2009Q4
I-495 OL	MD-650/EXIT 28	3.43	No	1	4	>10
I-495 IL	MD-185/EXIT 33	3.20	Yes	2	2	1
I-95 SB	US-1/EXIT 161	3.17	Yes	3	>10	>10
I-66 EB	VA-267/EXIT 67	3.01	Yes	4	9	>10
I-270 Spur SB	I-495	2.98	No	5	8	3
I-495 IL	C.J.PKWY/EXIT 40	2.95	No	6	>10	10
I-95 SB	VA-234/EXIT 152	2.85	No	7	1	>10
I-395 NB	11TH ST/EXIT 11	2.75	Yes	8	5	7
I-95 HOV SB	End of HOV	2.58	Yes	9	6	>10
I-66 WB	VADEN DR/EXIT 62	2.54	No	10	>10	>10

* Buffer time index = $(95^{\text{th}} \text{ travel time} - 50^{\text{th}} \text{ travel time}) / 50^{\text{th}} \text{ travel time}$.
 Buffer Time Index measures the ratio of the extra time a traveler has to budget for on-time arrival to median travel time.



Travel Time of the Last 5 Miles to the Beltway (Freeways Only) in AM Peak Hour (8 – 9 AM)

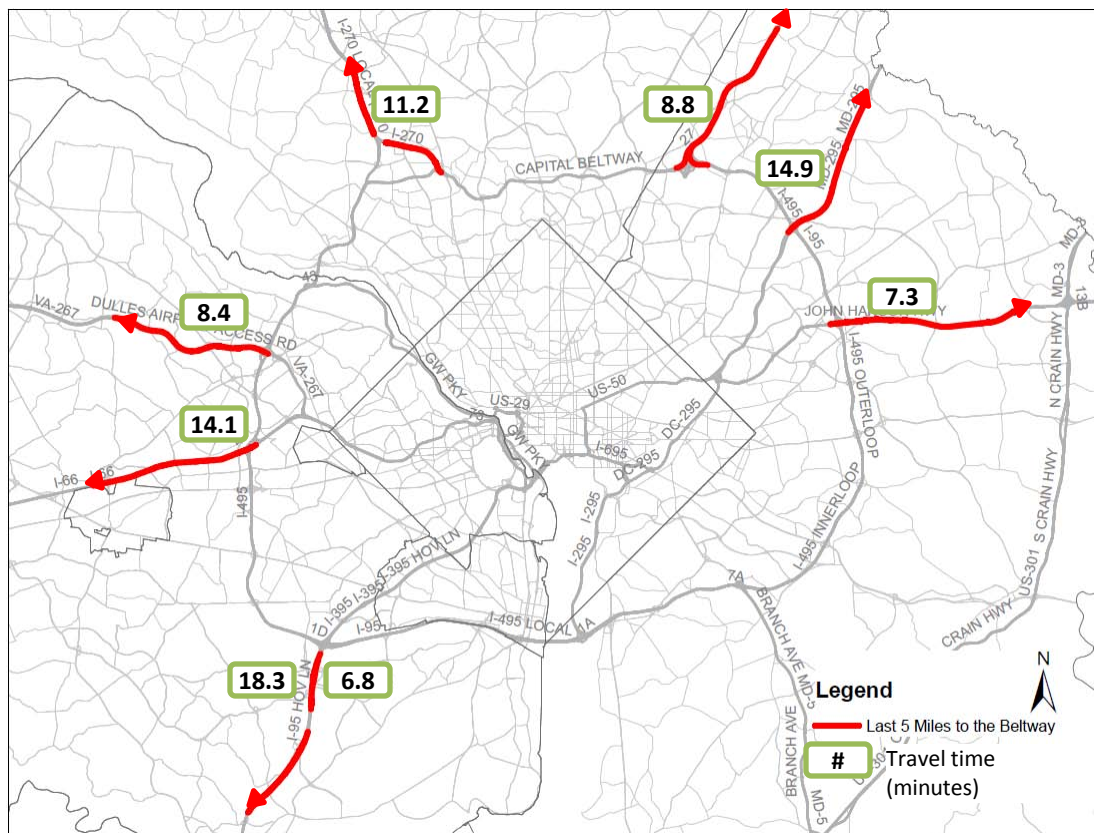
Route	From	To	Travel Time (min)	Buffer Time Index*	Rank		
					2010Q4	2010Q3	2009Q4
I-66 EB	VA-123/EXIT 60	Beltway	15.8	0.53	1	1	1
I-95 NB	LORTON RD/EXIT 163	Beltway	14.8	1.08	2	2	2
I-95 SB	MD-198/EXIT 33	Beltway	12.1	0.87	3	3	3
VA-267 EB	HUNTER MILL RD/EXIT 14	Beltway	10.9	0.29	4	4	4
I-270 SB	FALLS RD/EXIT 5	Beltway	9.6	0.67	5	5	5
US-50 WB	MD-197/EXIT 11	Beltway	7.3	0.81	6	6	8
MD-295 SB	MD-197/EXIT 11	Beltway	7.0	0.78	7	8	7
I-95 HOV NB	LORTON RD/EXIT 163	Beltway	6.7	0.36	8	7	6



* Buffer time index = $(95^{\text{th}} \text{ travel time} - 50^{\text{th}} \text{ travel time}) / 50^{\text{th}} \text{ travel time}$. Buffer Time Index measures the ratio of the extra time a traveler has to budget for on-time arrival to median travel time.

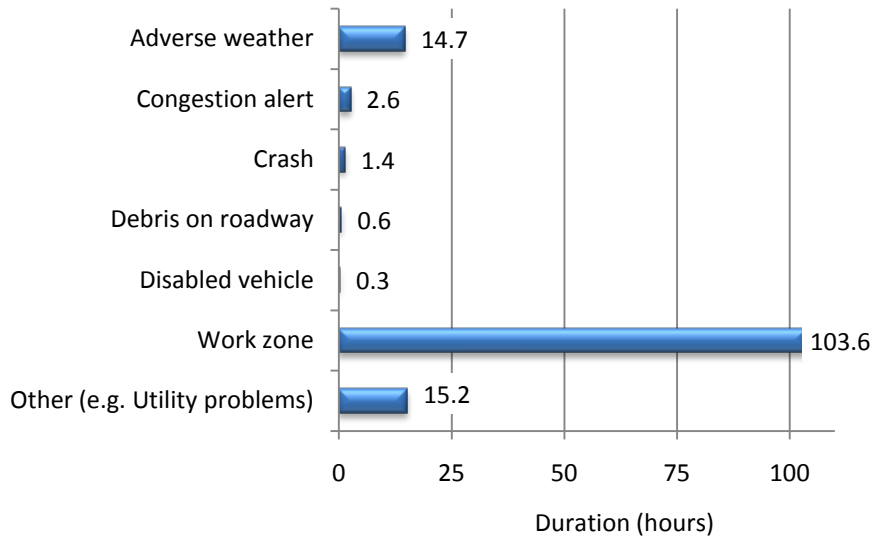
Travel Time of the First 5 Miles from the Beltway (Freeways Only) in PM Peak Hour (5 – 6 PM)

Route	From	To	Travel Time (min)	Buffer Time Index*	Rank		
					2010Q4	2010Q3	2009Q4
I-95 SB	Beltway	LORTON RD/EXIT 163	18.3	0.56	1	1	1
MD-295 NB	Beltway	MD-197/EXIT 11	14.9	0.20	2	2	2
I-66 WB	Beltway	VA-123/EXIT 60	14.1	0.37	3	3	4
I-270 NB	Beltway	FALLS RD/EXIT 5	11.2	0.21	4	4	3
I-95 NB	Beltway	MD-198/EXIT 33	8.8	0.57	5	5	5
VA-267 WB	Beltway	HUNTER MILL RD/EXIT 14	8.4	0.45	6	7	6
US-50 EB	Beltway	MD-197/EXIT 11	7.3	0.42	7	6	8
I-95 HOV SB	Beltway	LORTON RD/EXIT 163	6.8	0.07	8	8	7

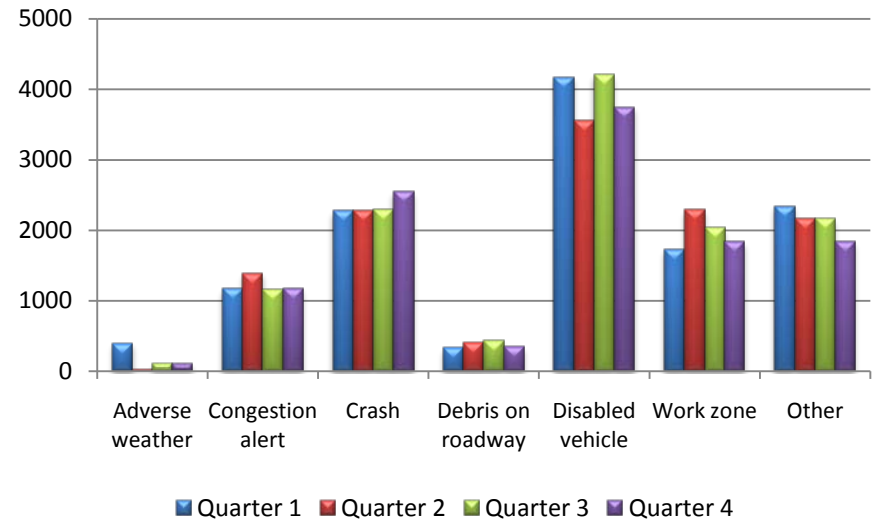


* Buffer time index = $(95^{\text{th}} \text{ travel time} - 50^{\text{th}} \text{ travel time}) / 50^{\text{th}} \text{ travel time}$. Buffer Time Index measures the ratio of the extra time a traveler has to budget for on-time arrival to median travel time.

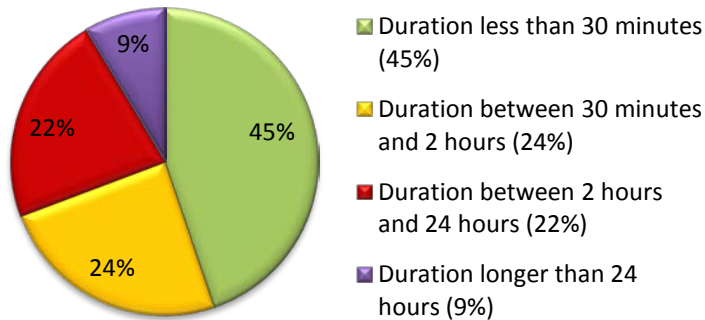
Average Duration of RITIS-Recorded Incidents in 4th Quarter 2010



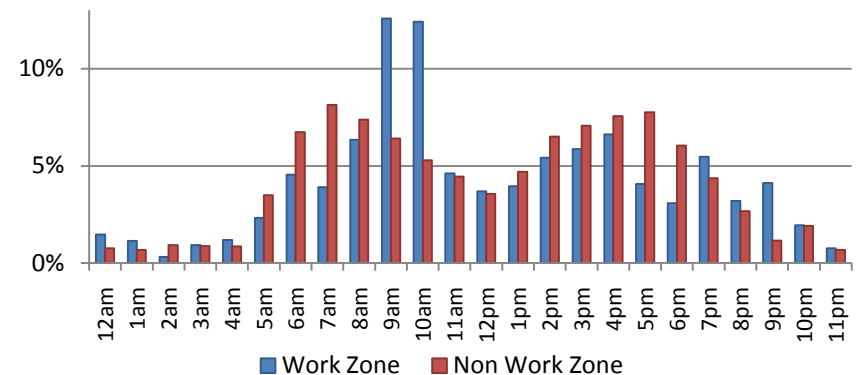
Number of RITIS-Recorded Incidents in 2010



Distribution of Duration of RITIS-Recorded Incidents in 4th Quarter 2010 (total 11,610 Incidents)



Time of Day Distribution of RITIS-Recorded Incidents in 4th Quarter 2010 (total 1844 work zone and 9766 non work zone Incidents)



*Data sources: the Regional Integrated Transportation Information System (www.RITIS.org). Data were not available for the District of Columbia.

Summary of 4th Quarter 2010

1. The overall congestion on the region's freeway system decreased significantly in the 4th quarter of 2010 compared to the same quarter in 2009 as detailed below.
 - The total delay experienced by a freeway traveler in this quarter was 23 hours, a 45% decrease from Q4/2009.
 - The congested freeway lane-miles during the PM peak Period (3 -7 pm) was 22% , a 23% decrease from Q4/2009.
 - The congested freeway lane-miles during the AM peak period (6 -10 am) was 15% , a 9% decrease from Q4/2009.
2. The overall congestion on the data-covered arterials in the region increased slightly in the 4th quarter of 2010 compared to the same time in 2009.
 - Travel Time Index increased 3% and 2% for AM peak period and PM peak period respectively, compared to Q4/2009.
3. The most severe bottlenecks were mainly on the I-95/395 corridor, I-66 corridor and the west and north portion of the Beltway.
4. The most unreliable freeway segments were mainly on the north portion of the Beltway, and the I-95/395 corridor.
5. The I-66 EB carried the slowest traffic to the Beltway in the AM peak hour (8-9 am) and the I-95 SB in Virginia carried the slowest traffic from the Beltway in the PM peak hour (5-6 pm).
6. A total of 11,610 incidents were recorded by RITIS in the 4th quarter of 2010, of which 45% had duration less than 30 minutes, and 1% were acted upon by the MATOC Program.
7. The causal factors influencing congestion levels this quarter compared to the same quarter last year cannot be definitively determined. However, known notable factors included:
 - Differencing weather conditions (a major snow storm hit this region on Dec. 19, 2009 and the impacts lasted for multiple days)
 - Higher fuel prices (p.3)
 - Lower vehicle miles of travel (VMT) in total (p. 3)