

2010 Regional HOV Study

Clara Reschovsky

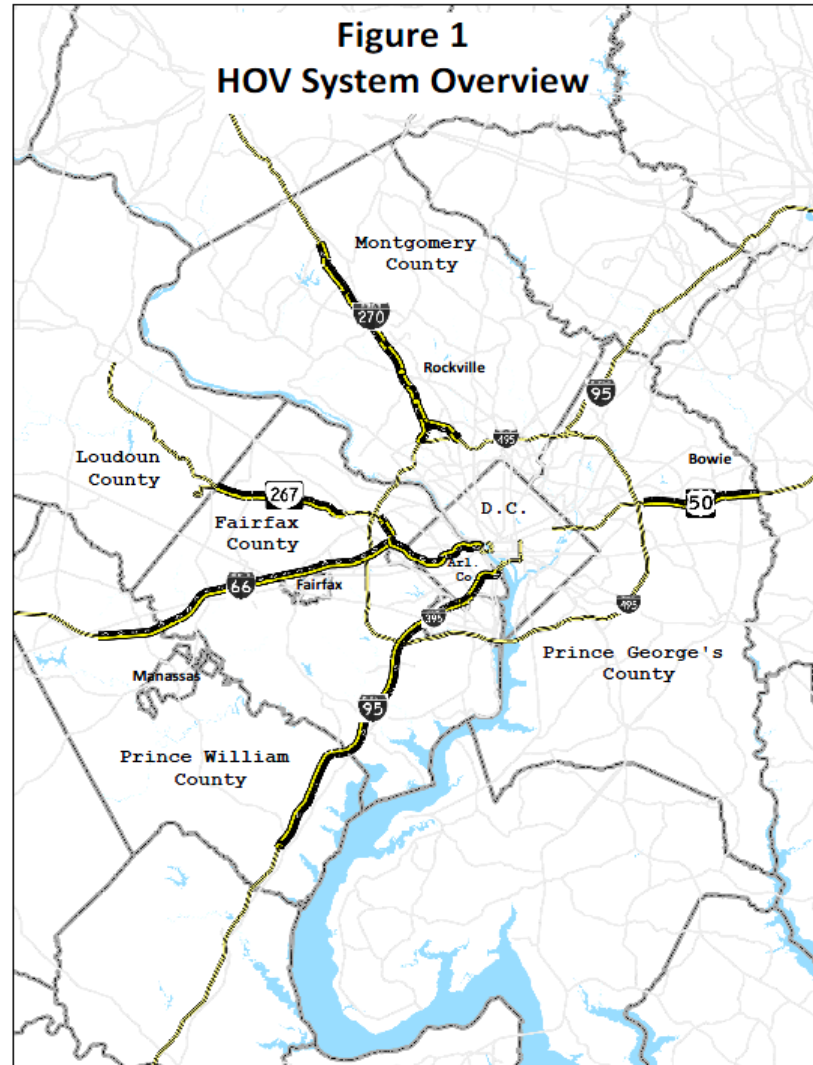
Travel Forecasting Subcommittee

May 20, 2011

Data Collection

- Spring and Fall months
- Good weather
- Not if serious accidents impact traffic
- Not during holidays
- Tues/Weds/Thurs
- Counts are from side of highways at designated locations
- Travel times are cars driven by floating car method

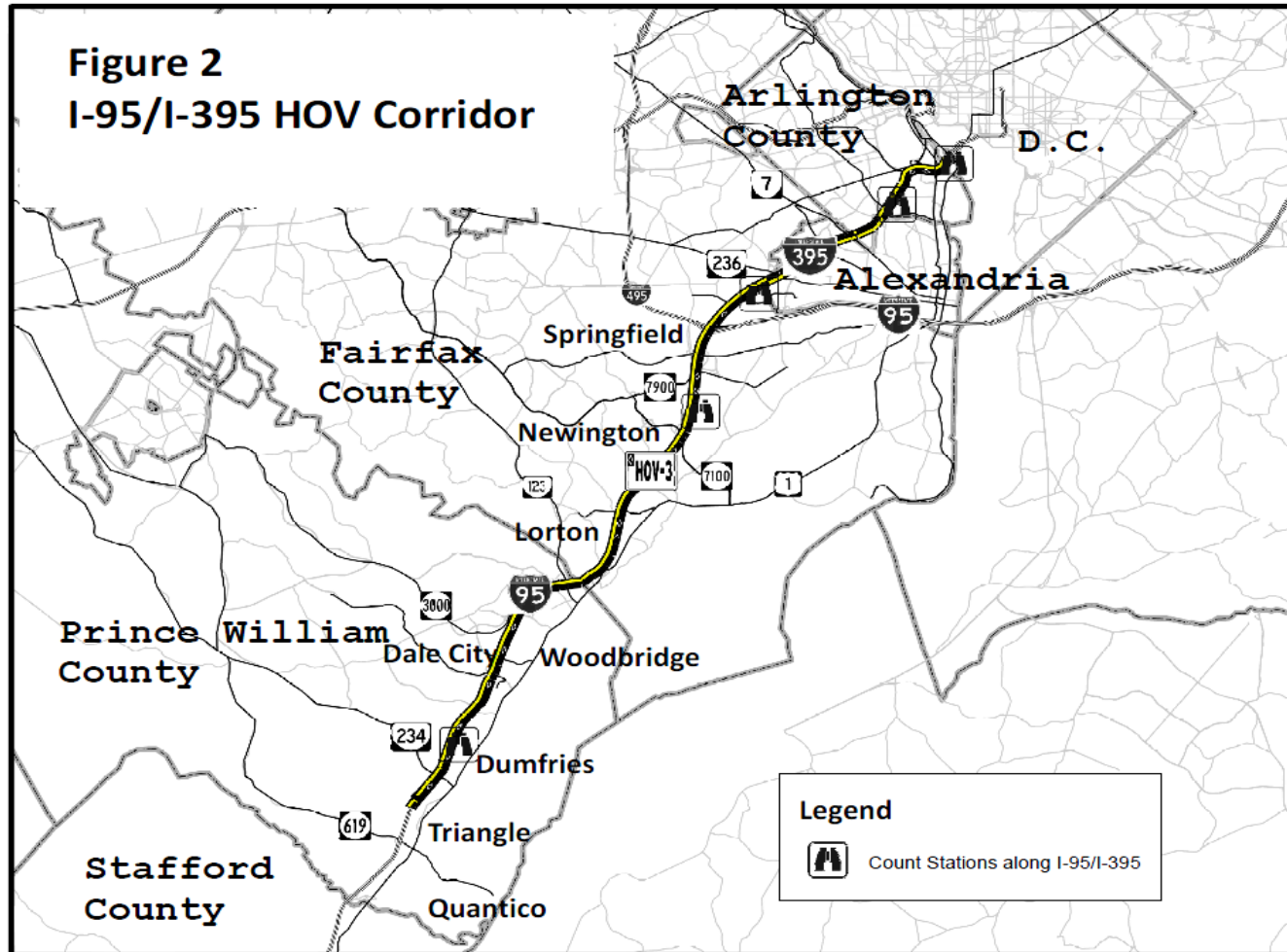
Regional HOV Facilities



Interstate 395/95

- HOV – 3
- Barrier separated, 2 reversible flow lanes
- 6 – 9 AM and 3:30 – 6 PM
- 28 miles
- 5 Count Stations
- 9 travel time runs (in each direction)

Interstate 395/95



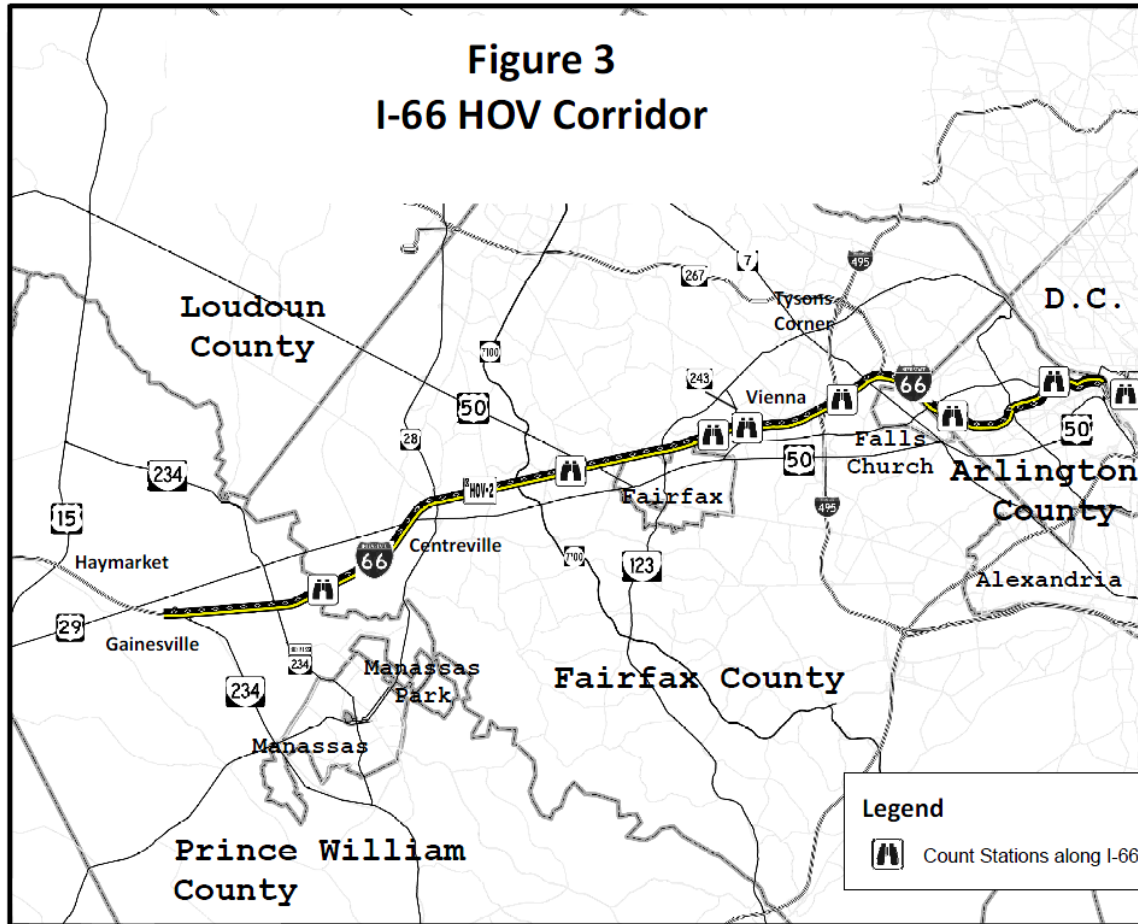
Interstate 66 (Outside Beltway)

- HOV – 2
- Single concurrent flow lane
- 5:30 to 9:30 AM
- 3:00 to 7:00 PM
- 18 miles of 28 miles total
- 4 Count Stations (outside the Beltway)
- 8 travel time runs (in each direction for entire facility)

Interstate 66 (Inside Beltway)

- HOV – 2
- Exclusive facility (2 lanes)
- 6:30 to 9:00 AM
- 4:00 to 6:30 PM
- 10 miles of 28 miles total
- 4 Count Stations (inside the Beltway)

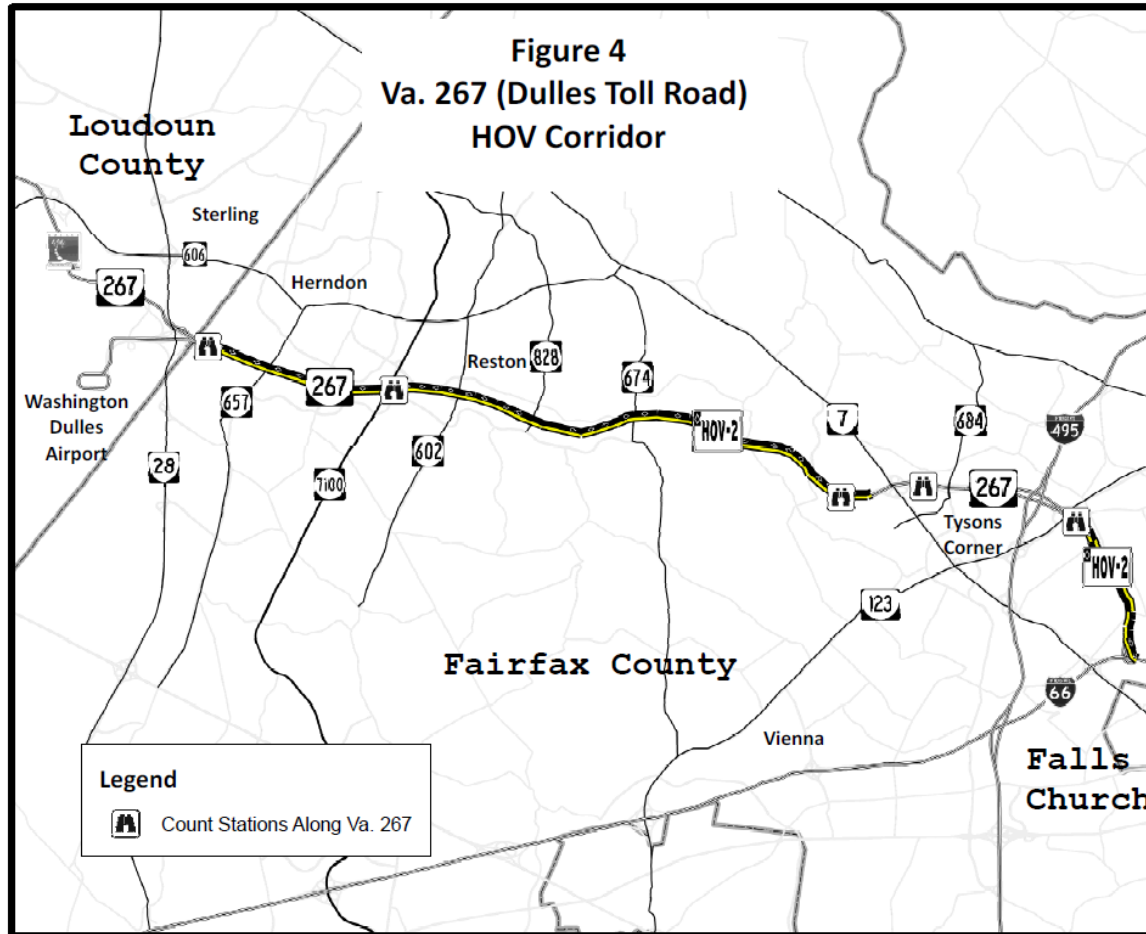
Interstate 66



VA-267 (Dulles Toll Road)

- HOV – 2
- Single concurrent flow lane
- 6:30 to 9:00 AM
- 4:00 to 6:30 PM
- 23 miles
- 5 Count Stations
- 7 travel time runs in each direction

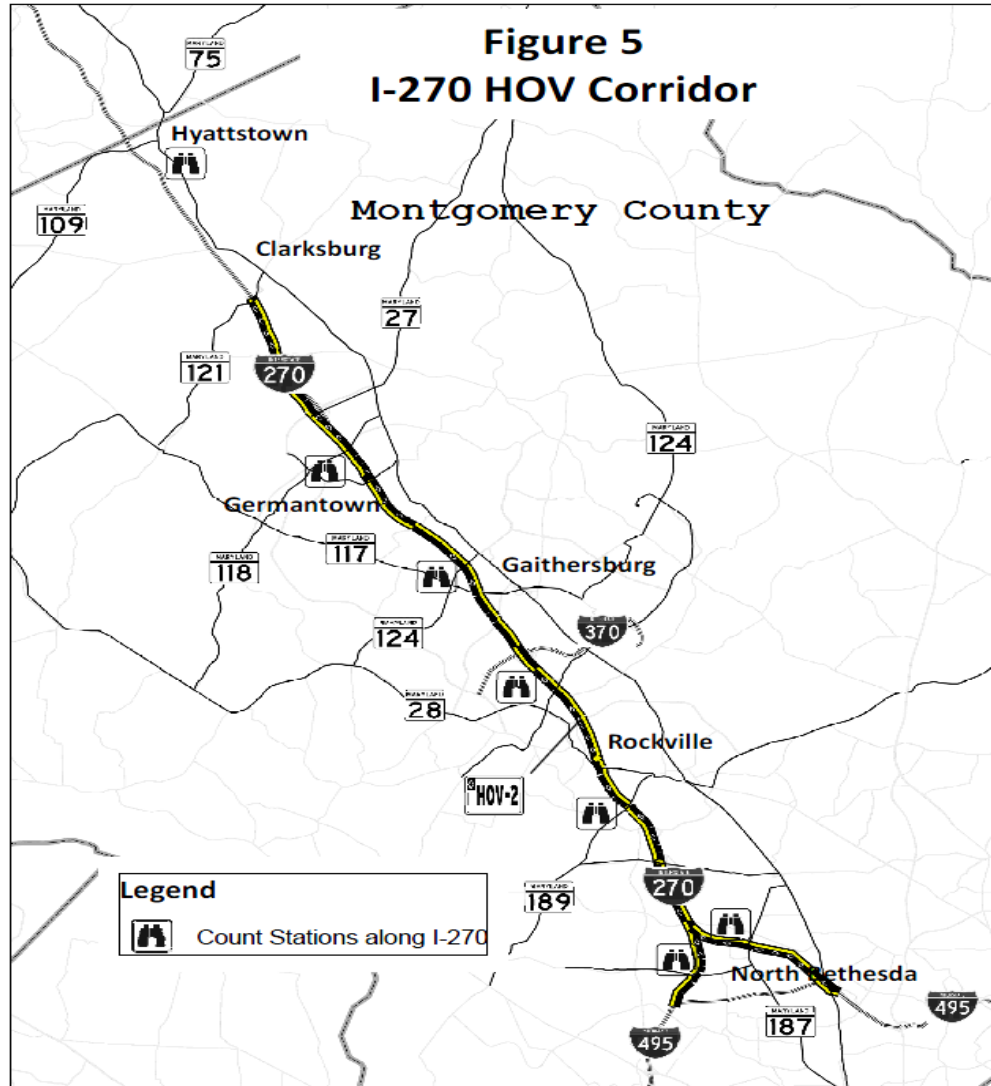
VA-267 (Dulles Toll Road)



Interstate 270

- HOV – 2
- Single concurrent lane (including I-270 spur)
- 6:00 to 9:00 AM
- 3:30 to 6:30 PM
- 9 miles southbound, 18 miles northbound
- 7 Count Stations
- 13 AM travel time runs
- 14 PM travel time runs

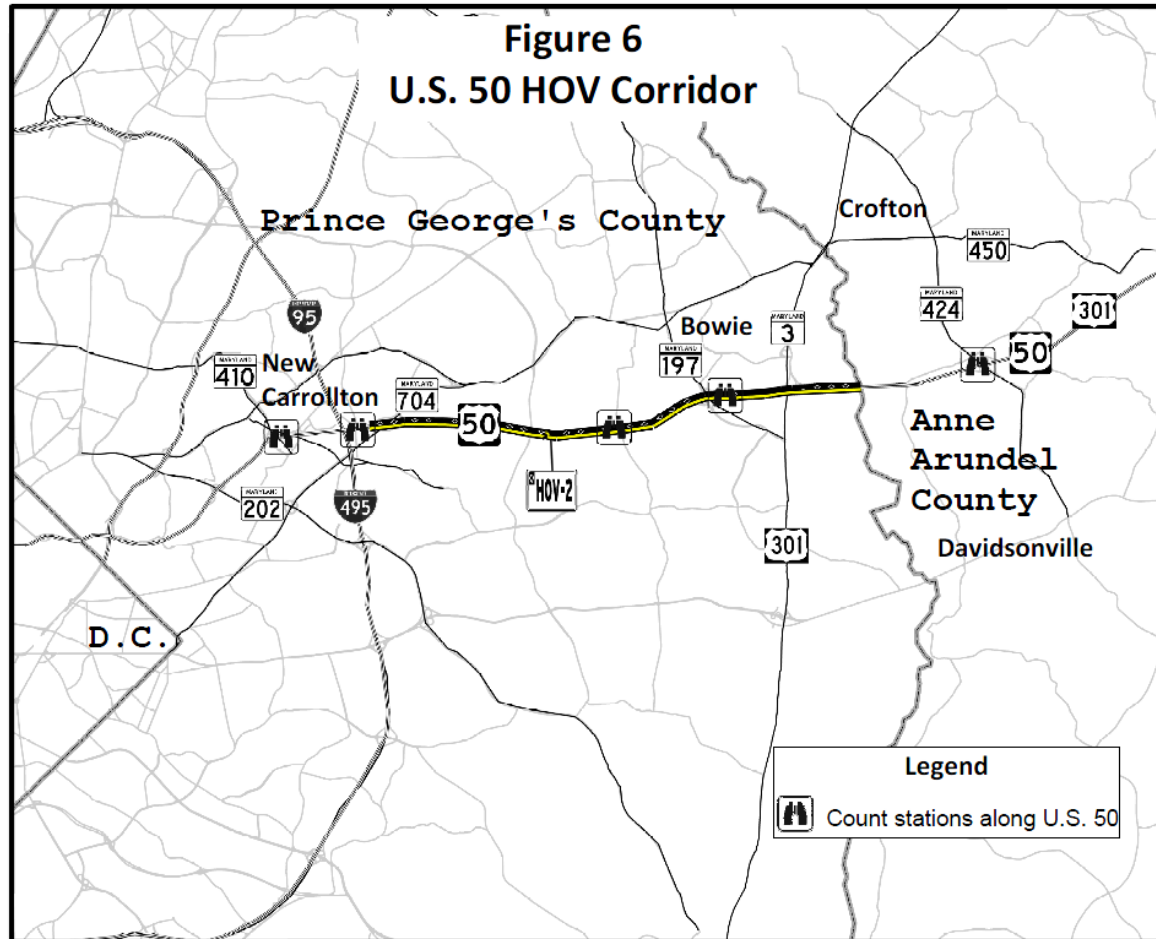
Interstate 270



US-50

- HOV – 2
- Single concurrent flow lane
- 24 hours a day/7 days a week
- 9 miles
- 7 Count Stations
- 5 AM travel time runs
- 6 PM travel time runs

US-50



AM Peak Period Travel Times

Facility	2007 HOV	2010 HOV	2007 non-HOV	2010 non-HOV
I-95/395	31 (+/- 6)	35 (+/- 8)	82 (+/- 22)	76 (+/-26)
I-66	48 (+/- 9)	66 (+/- 17)	76 (+/- 13)	102 (+/-29)
VA-267	26 (+/- 2)	47 (+/- 9)	33 (+/- 5)	77 (+/- 17)
I-270 & E. Spur	12 (+/- 4)	12 (+/- 3)	20 (+/- 8)	18 (+/- 3)
I-270 & W. Spur	13 (+/- 3)	12 (+/- 3)	18 (+/- 5)	16 (+/- 5)
US-50	7 (+/- 1)	7 (+/- 1)	8 (+/- 2)	8 (+/- 1)

Note: margins of error in parentheses ()

PM Peak Period Travel Times

Facility	2007 HOV	2010 HOV	2007 non-HOV	2010 non-HOV
I-95/395	33 (+/- 11)	30 (+/- 6)	61 (+/- 23)	73 (+/- 19)
I-66	37 (+/- 8)	44 (+/- 7)	55 (+/- 11)	68 (+/- 12)
VA-267	24 (+/- 1)	27 (+/- 3)	32 (+/- 3)	42 (+/- 7)
I-270 & E. Spur	22 (+/- 7)	21 (+/- 3)	29 (+/- 1)	31 (+/- 5)
I-270 & W. Spur	20 (+/- 2)	19 (+/- 2)	29 (+/- 5)	28 (+/- 4)
US-50	7 (+/- 0)	8 (+/- 2)	8 (+/- 2)	10 (+/- 4)

Note: margins of error in parentheses ()

AM and PM Travel Times

Facility	2010 HOV - AM	2010 HOV - PM	2010 non-HOV - AM	2010 non-HOV - PM
I-95/395	35 (+/- 8)	30 (+/- 6)	76 (+/-26)	73 (+/- 19)
I-66	66 (+/- 17)	44 (+/- 7)	102 (+/-29)	68 (+/- 12)
VA-267	47 (+/- 9)	27 (+/- 3)	77 (+/- 17)	42 (+/- 7)
I-270 & E. Spur	12 (+/- 3)	21 (+/- 3)	18 (+/- 3)	31 (+/- 5)
I-270 & W. Spur	12 (+/- 3)	19 (+/- 2)	16 (+/- 5)	28 (+/- 4)
US-50	7 (+/- 1)	8 (+/- 2)	8 (+/- 1)	10 (+/- 4)

Note: margins of error in parentheses ()

Travel Times 😊

- Most time saved on I-95/395 and reliability maintained in HOV lanes
- Reliability maintained on Dulles Toll Road and on I-66 in the afternoon
- More time savings on I-270 North (due to additional length of facility)
- US-50 has little congestion at peak periods

Travel Times ☹️

- Average speeds on I-66 and the Dulles Toll Road are low in the morning
- Travel time reliability on I-66 in the morning is poor (both HOV and non-HOV)
- Time savings on I-66 outside the Beltway is minimal (half of the time savings inside the Beltway over longer distance)

AM Auto Occupancies

Facility	HOV Ave. Occ.	Non-HOV Ave. Occ.
I-395	2.8	1.1
I-95	2.5	1.1
I-66 (inside Beltway)	1.5	Not applicable
I-66 (outside Beltway)	1.8	1.1
Dulles Toll Road	1.7	1.1
I-270 (max load point)	1.9	1.0
I-270 (East spur)	2.0	1.0
I-270 (West spur)	1.9	1.0
US-50	1.8	1.0

PM Auto Occupancies

Facility	HOV Ave. Occ.	Non-HOV Ave. Occ.
I-395	2.8	1.1
I-95	2.9	1.1
I-66 (inside Beltway)	1.4	Not applicable
I-66 (outside Beltway)	1.9	1.1
Dulles Toll Road	1.5	1.1
I-270 (max load point)	1.9	1.1
I-270 (East spur)	2.0	1.1
I-270 (West spur)	2.0	1.1
US-50	1.7	1.0

Trends

- Average auto occupancy in 2010 was little changed from 2004 and 2007
- Variability in travel time from 2004 and 2007 to 2010, but not significant

Issues for the Future

- Introduction of HOT lanes on I-95 and the Beltway
- Direct access into and out of HOV lanes
- Park and Ride lots availability and capacities

Acknowledgements

Patrick Zilliacus

Andrew Burke

Rich Roisman

Location of Full Report

<http://www.mwcog.org/uploads/committee-documents/bF5WWI9c20110519123739.pdf>

Questions?