TRANSPORTATION IMPACTS OF WMATA'S SAFETRACK PROGRAM

Overview of Preliminary Analysis

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TPB Technical Committee
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Agenda Item 12

National Capital Region
Transportation Planning Board

Overview of Analysis

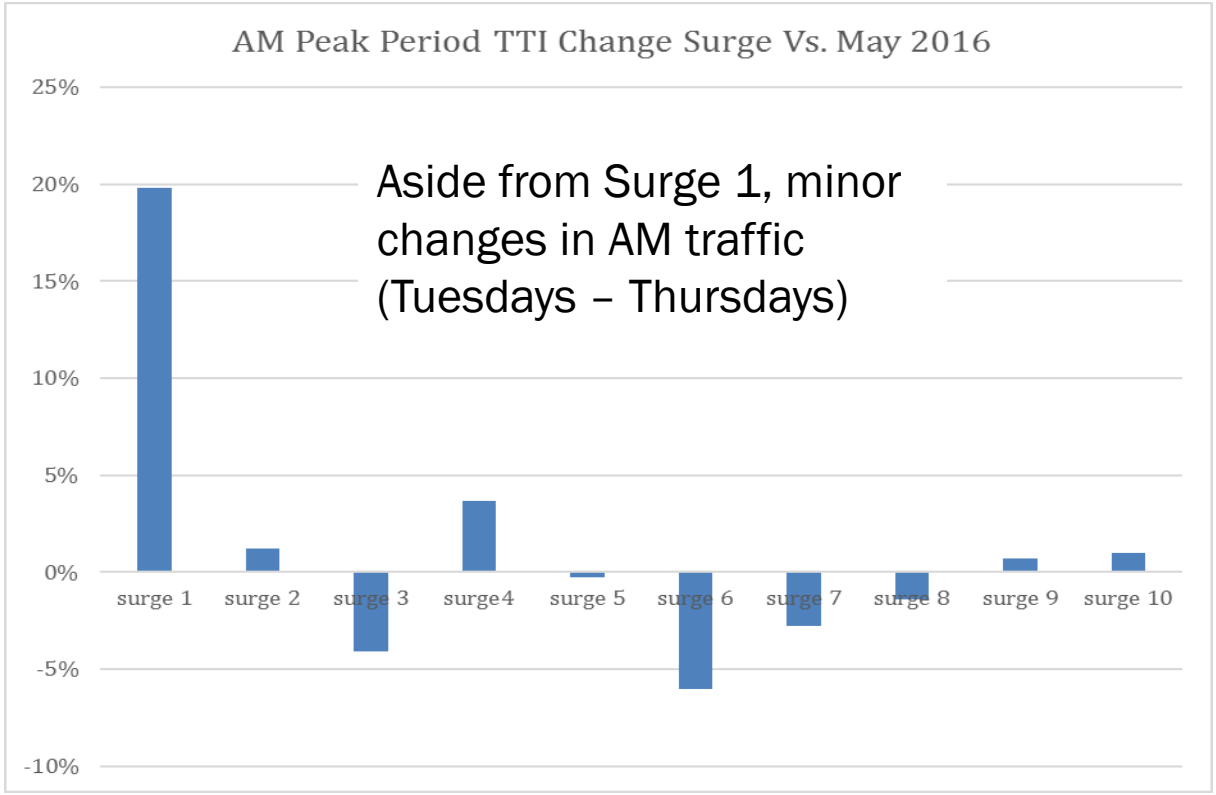
- TPB staff conducted multimodal analysis of transportation impacts for Surges 1 through 10 of the WMATA SafeTrack Program
  - Traffic Congestion Impacts
  - Transit Usage
  - Traffic Counts
  - Bike Impacts

- Presentation and memo provide examples of the analysis that has been done to date.
  - More analysis, leading to multiple charts, maps, tables, etc., could be conducted

Traffic Congestion Analysis

Similar to previous analysis work, INRIX data was used to look at traffic congestion regionally and proximate to surge work areas

- Focus on Travel Time Index (TTI), comparing observed travel times to a baseline in May (Pre-SafeTrack)



Transit Usage

Collected ridership data from Metrorail, Metrobus, and other transit systems

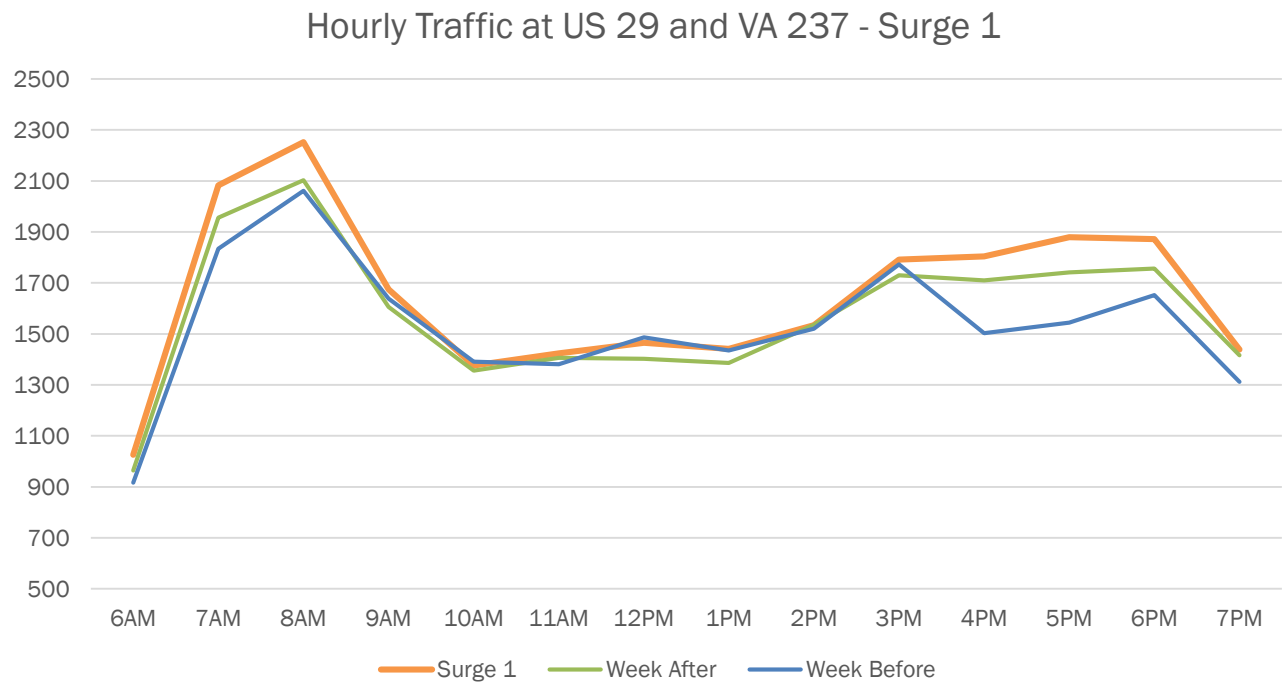
- On average, 32% of affected Metrorail users for each surge diverted from the system, with considerable variation among surges
- About 5% of Metrorail riders switched to Metrobus
- About 4% of Metrorail riders switched to Local Transit

	Surge	Weekday Averages							Single-tracking Shutdowns		
	1	2	3	4	5	6	7	8	9	10	AVERAGE
TRANSIT											
Metrorail Ridership (AM Boardings)	-22,500	-37,000	-10,800	-19,000	-18,000	-19,000	-11,000	-8,000	-9,000	-9,200	-16,350
Added Nearby Metrobus Ridership	1,900	2,454	5,063	5,526	1,508	2,204	166	14	-7	-513	
Divided by 2 for Round Trips	950	1,227	2,532	2,763	754	1,102	83	7	-4	-257	
% Metrorail Switched to Metrobus	4%	3%	23%	15%	4%	6%	1%	0%	0%	-3%	5%
Added Nearby Local Transit Ridership	574	656	1,233	1,233	-767	344	97	1,951	421	-629	
% Metrorail Switched to Local Transit	3%	2%	11%	6%	-4%	2%	1%	24%	5%	-7%	4%
WMATA Estimate of Affected Trips from SafeTrack Plan	73,000	61,000	50,000	86,000	73,000	94,000	32,200	18,000	30,000	108,000	
Didn't Ride Diversion %	-31%	-61%	-22%	-22%	-25%	-20%	-34%	-44%	-30%	-9%	-32%
Shuttle ridership	1,238	18,460	17,871	26,115	1,575	1,734	1,727	2,083	5,612	11,883	
Divided by 2 for Round Trips	619	9,230	8,936	13,058	788	867	864	1,042	2,806	5,942	

Traffic Counts

Collected and analyzed data for permanent traffic count stations along highways parallel to SafeTrack work zones

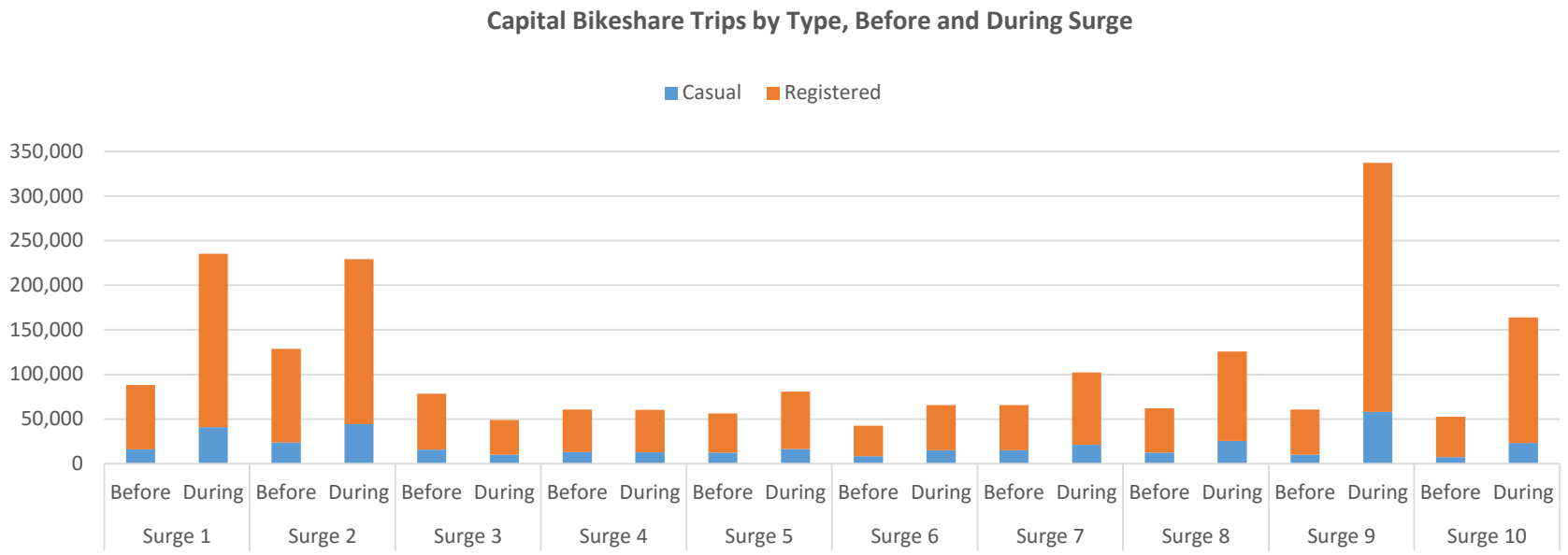
- Where counters were proximate to SafeTrack work zones, some local increases in traffic were observed



Bikeshare Data

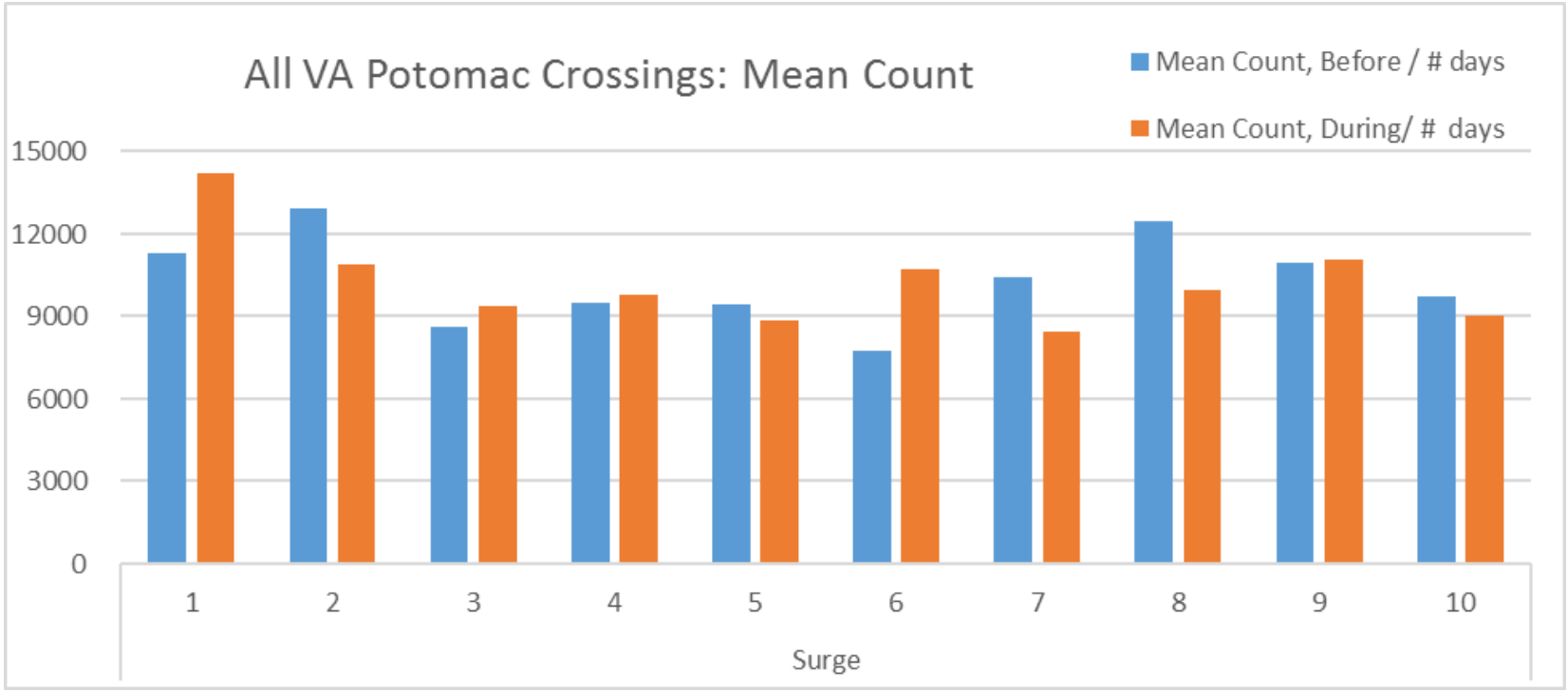
In a first-time effort, Capital Bikeshare system data on station origins and destinations was analyzed to determine changes in use during the surges, compared to use the preceding week.

- Also looked at registered users (i.e., those with memberships) and casual users to determine any differences in who used bikeshare.



Bicycle/Pedestrian Counts

Data collected from the counters on the Potomac River bridge crossings from Virginia was used to compare counts the week before each surge to crossings during the surge



Overall Results of Analysis

- Overall conclusion that local impacts can be observed for each surge, but the region's overall transportation system is large and resilient and the impacts of SafeTrack were within normal day-to-day variation
- Choices by individual travelers are unknown, with many options available: telework, leave, carpool, rideshare, use different Metrorail line, etc.
  - Mitigating actions, including shuttles and increased bus service, also provided options for travelers
- Six of the 10 surges analyzed took place between July and Labor Day, which likely affected results

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