

PROBE DATA ANALYTICS SUITE

u s e r g r o u p

Quarterly Web Meeting

May 11, 2017



Webcast and Audio Information

- The call-in phone number is:
1-719-867-1571 & enter 725437# at the prompt
- Please call 917-974-4810 for difficulties with the web or audio application
- This is a **virtual meeting** experience
 - Please keep your phone muted until asking a question or speaking (press *6 to mute/unmute individual phone lines)
 - Please do not place call “on hold” as your hold music will be heard by the group
- This web meeting is being recorded
- All materials will be available to participants after the web meeting



Welcome

Marygrace Parker, I-95 Corridor Coalition





Introductions



John C. Allen

University of Maryland CATT Laboratory
Faculty Assistant

jallen35@umd.edu

215.666.3057



Ted Lucas

Pennsylvania Department of Transportation
Consultant, Signals & Regional TMC Technician

c-telucas@pa.gov

215.906.3399



Participating Agencies

Agency	
Baltimore Metropolitan Council	North Jersey TPA
Delaware Valley Regional Planning Commission	Pennsylvania DOT
Durham-Chapel Hill-Carrboro (NC) MPO	Richmond Regional TPO
Federal Highway Administration	South Jersey TPO
ITRE/NSCU (NC)	Virginia DOT
MWCOG	UMD – CATT Lab & CATT Works
New Jersey DOT (and NJIT)	I-95 Corridor Coalition & support





Please confirm
that your line is
muted
***6**

Thank
You!



Topics for today

- › Coalition Update
- › Feb/March Survey Results
- › CY 2017 Deployment - Schedule Update & Summary Table
- › Agency Spotlight Presentation: Managing the Delaware River Bridge Closure - PennDOT
- › Video Tutorials
- › O-D Data Suite Focus Group Status
- › My History  Quick-demo
- › Agency Input Session
- ›  Instant Polls



Coalition Update

› Recent Meetings

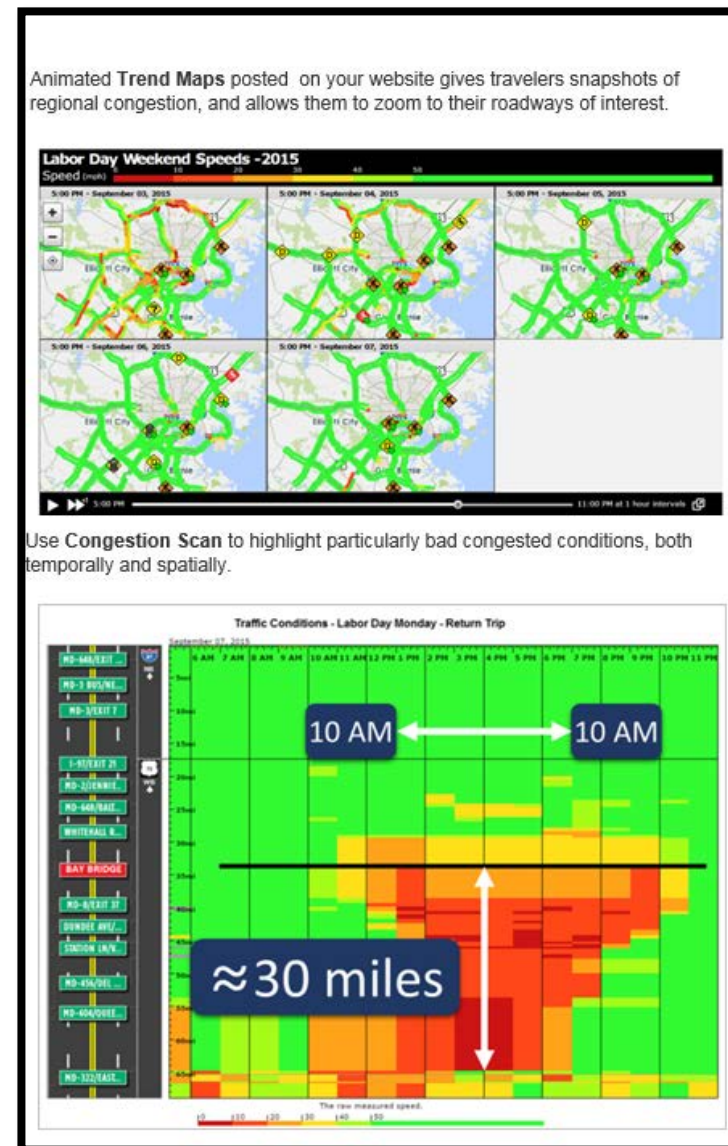
- Volume & Turning Movement Steering Committee meeting – April 13, 2017
- Using PMs to Justify Signal Systems on Arterials (PennDOT & GDOT) – May 4, 2017

› Upcoming Meetings

- RITIS User Group Meeting – June 8, 2017 (in-person & via web)

› Reminder

- Use the PDA Suite **Trend Map** and **Congestion Scan** tools to help travelers better plan for holiday travel



Volume & Turning Movement Project

- Coalition project funded through MCOM2 Grant
- Work being conducted in collaboration with the:
 - UMD CATT, Kaveh Sadabadi
 - NREL, Stan Young
 - Coalition, Denise Markow
 - INRIX (Rick Schuman), HERE (Terri Johnson), TomTom (Nick Cohn)



Volume & Turning Movement Project ◦ Goal

- Accelerate the timeframe to a ...
 - viable real-time volume and turning movement data feed,
 - anywhere on the network, and
 - to make every effort to ensure that initial data products meet the I-95 Coalition members' information needs for...
 - operations,
 - performance measurement, and
 - planning.



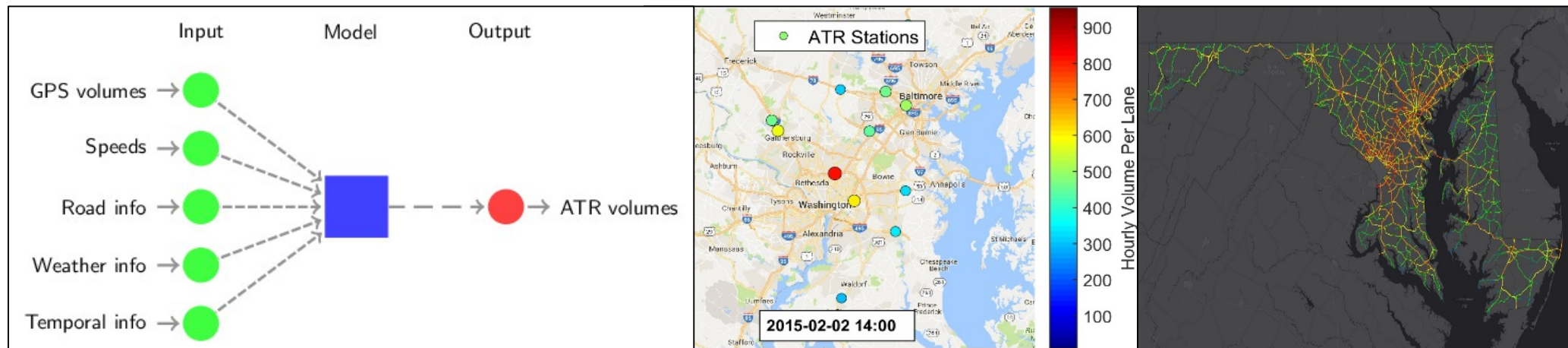
Volume & Turning Movement Project ◦ Status

- › INRIX/UMD – Maryland dataset
 - Expanding analysis to more locations
 - More data at procurement stage
- › TomTom/NREL – Data is flowing, work has commenced
- › HERE – Still in process
- › Calibration – FHWA TMAS
- › Validation – In collaboration with TTI



Volume & Turning Movement Project ◦ INRIX/UMD

- INRIX traces dataset/Maryland/4 months during 2015
- 20 million trips/1.4 billion waypoints/112GB
- ATR counts/MD SHA
- Machine learning technics used to estimate hourly counts
 - Artificial Neural Networks



Volume & Turning Movement Project ◦ Next Steps

- How different time granularities would impact model accuracy (60, 30, 15, 10, 5 minutes)
- Grouping ATR locations based on factors such as proximity, highway type and geometry to calibrate group-specific models
- Pick two state/regions for INRIX to provide additional GPS trace data and repeat the analysis



RITIS User Group Reminder



Save the date...

▶ June 8, 2017, from 10:30 AM to 2:00 PM

Quarterly Webinar / In-person Meeting

Please join us for our first-ever webinar AND in-person RITIS User Group meeting, to be held at the CATT Lab at the University of Maryland. This special session will include our **regular 10:30 AM -12:00 PM meeting** that will demonstrate existing tools as well as present some upcoming features and functions, share recent agency use cases and provide ample opportunity for questions and feedback. For those attending in person, we'll have a working **lunch and networking opportunities from 12:00 – 1:00 PM, followed by some hands-on training geared towards real-world scenario evaluations until 2:00 PM** (we highly recommend bringing your laptop for this part of the meeting.)

- ✓ hands-on training
- ✓ agency info-sharing
- ✓ upcoming new features
- ✓ networking opportunities
- ✓ and more!



An agenda, along with directions to the CATT Lab will be coming to your inbox soon...

Questions?

Please contact Denise Markow:
Dmarkow@i95coalition.org



PDA Suite User Group Meeting Follow-up Survey ◦ Results Summary

- › From the survey conducted on-line, Feb/Mar 2017:
 - **43%** of respondents attended the last meeting
 - Overall, **100%** found the meeting useful and/or informative
 - **92%** said quarterly meetings work for them
 - **73%** would consider giving a spotlight presentation
 - **54%** consider themselves an intermediate-skilled user
 - Roughly **25%** use the tools on a weekly, or by task basis:



Instant Poll

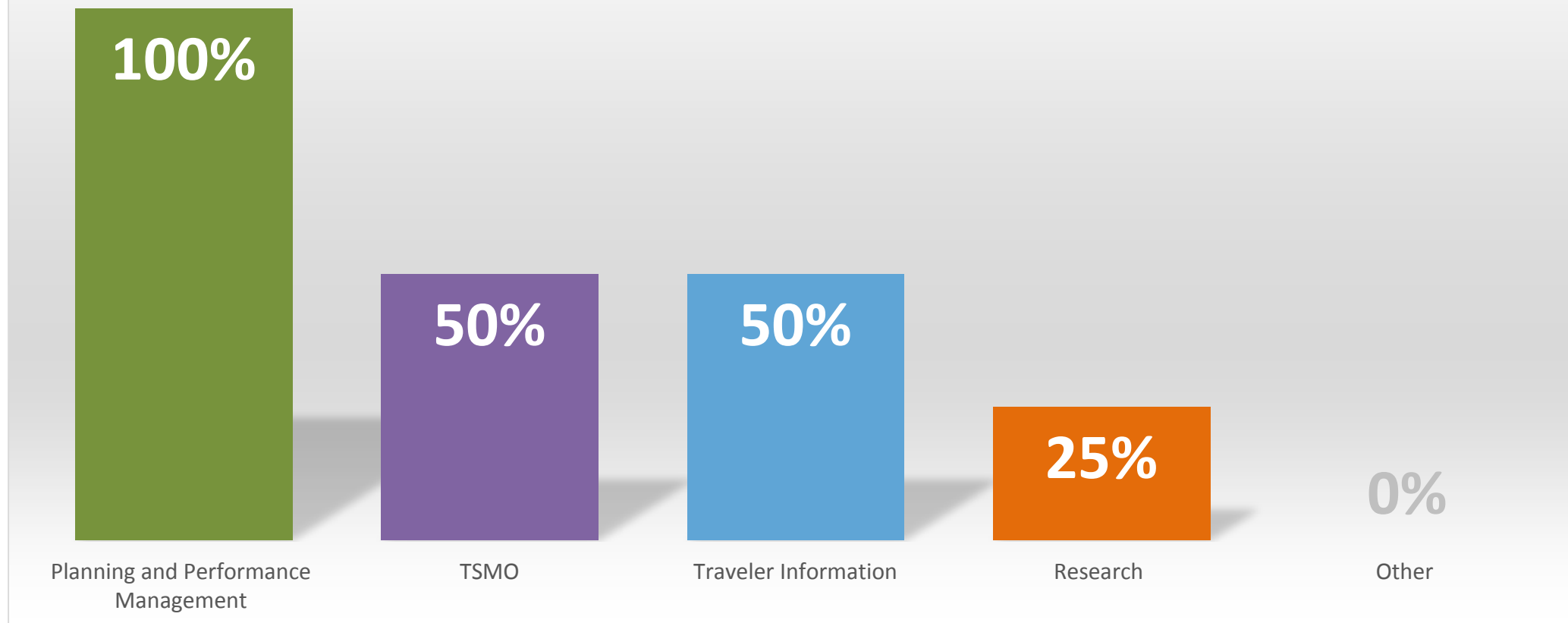
1 What will help you **the most** in becoming a more skilled user? *(select one)*

- ☐ More targeted spotlight presentations
- ☐ More “how-to” guidance
- ☐ Some “hands-on” training
- ☐ More user-friendly tool interfaces



Results Summary (continued)

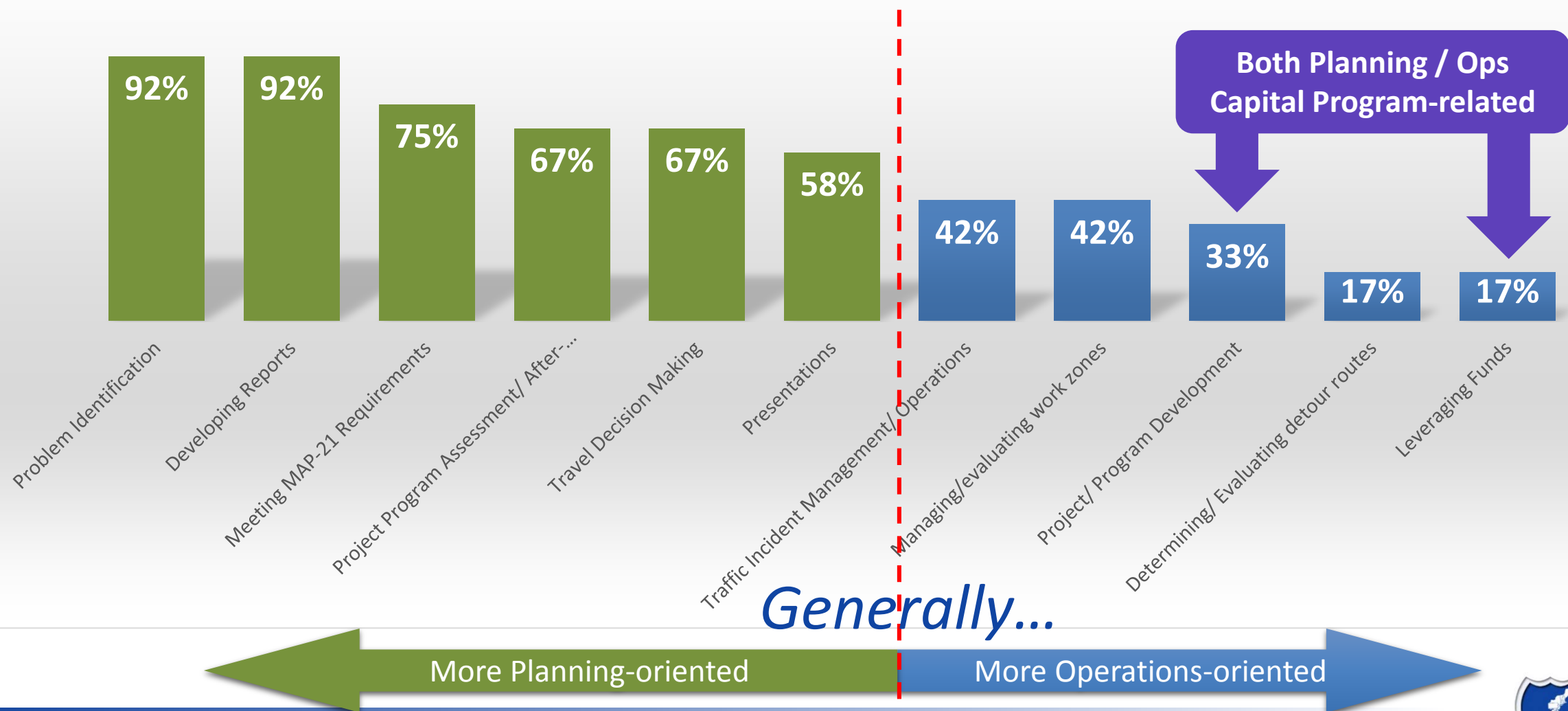
What key focus areas are important to you?
(Users could select multiple topics)



Results Summary(continued)

What ways are you using, or would like to use the PDA Suite?

(Users could select multiple topics)



Instant Poll

2 In what **areas** are you using/want to use the PDA Suite? *(select all that apply)*

- ☐ Planning
- ☐ TSMO / TIM
- ☐ Project / Program Development & Assessment
- ☐ Leveraging Funding
- ☐ Communication
- ☐ Research



Current Deployment Schedule for CY 2017 • Update

Q1

(Jan-Mar)

- › Query Submission pages Flash Player dependency removed (**done**)
- › “My Reports” New Functionality (**done**)
- › MAP-21 Final Rule Widgets (**in progress, pending Final Rule**)
- › Removal of TMC and Date range restrictions (**done**)

Q2

(Apr-Jun)

- › Results pages Flash Player dependency removed (**Performance charts in Q2, other tools in Q3; possibly Q4**)
- › Select TMCs via click and drag (**Q3**)
- › Advanced Time Selection (**Q3, possibly Q4**)
- › Custom graph formatting/exports (**Q2**)
- › Basic O-D Data Analytics (Phase I)* (**Q3**)

Q3

(July-Sep)

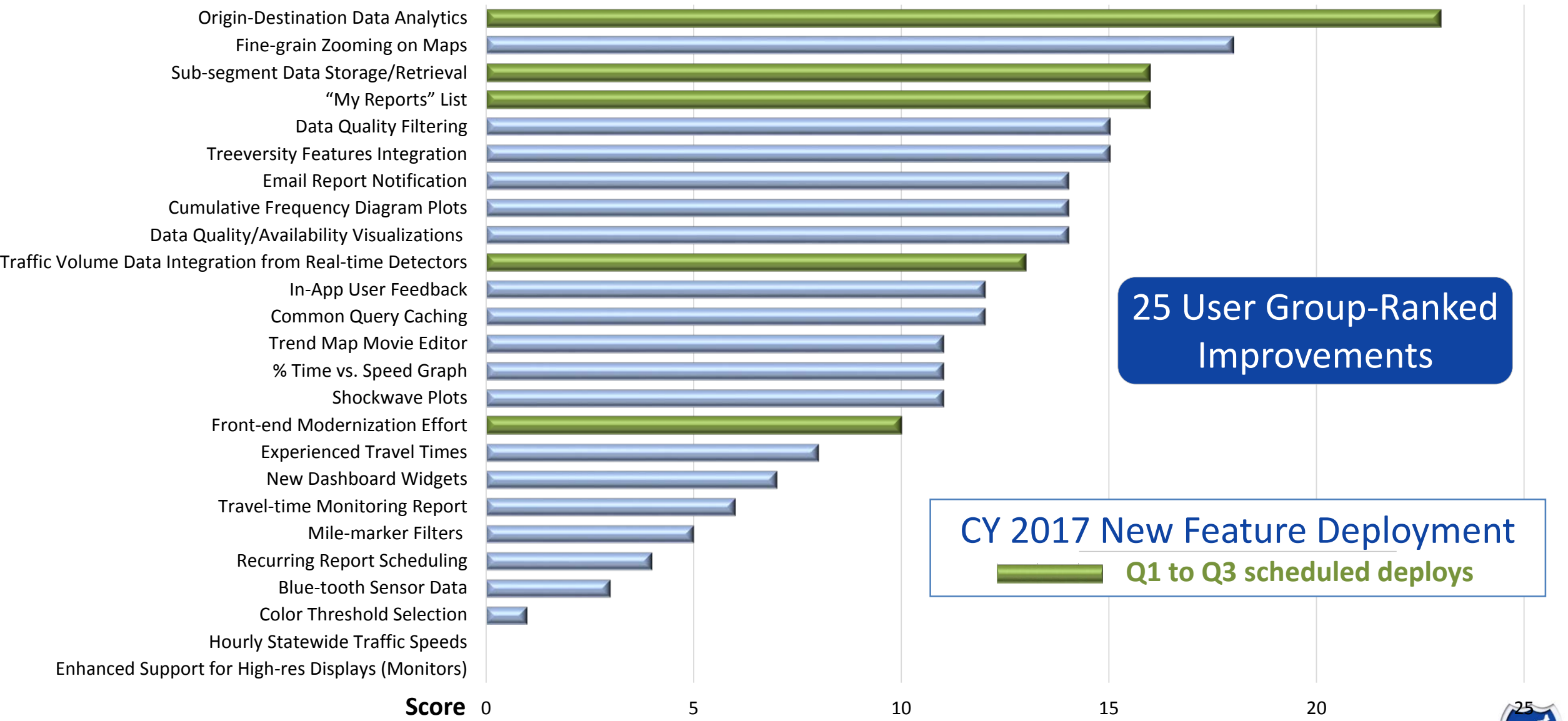
- › Sub-segment Data in results pages** (**Q3**)
- › NWS/NASA Radar Data mapped to TMCs (**on hold**)
- › Bottleneck Ranking with additional parameters, like volumes/capacity (**Q2**)
- › Map tiling & rendering performance updates (**Q3**)

* Will require purchase of O-D Data from a vendor, and may be independent of the PDA Suite.

** Requires sub-segment data from a vendor and *may* require additional storage.



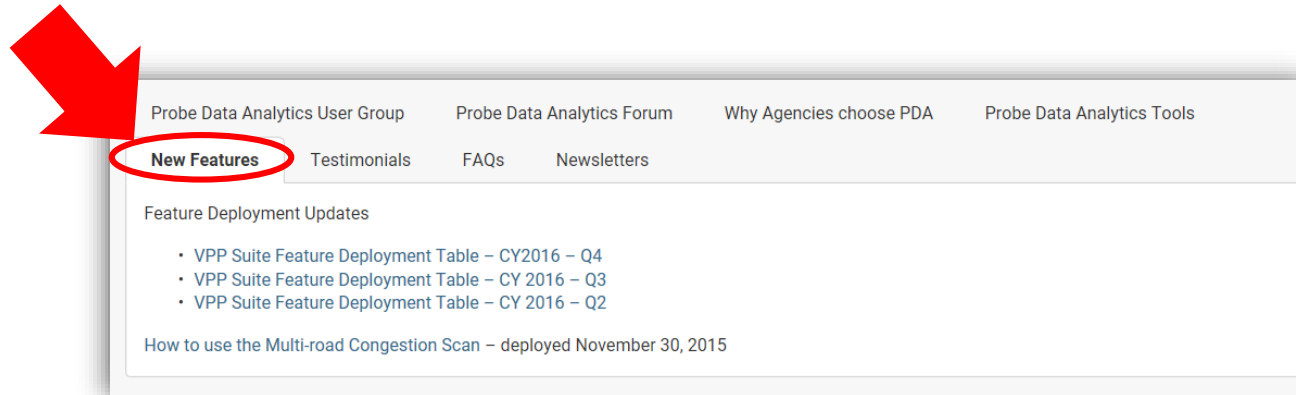
How are we doing (based upon PDA Suite Feature Survey – from July 2016)



Coming *real* soon...

> 2017 Q1 Deploy Summary Table

<http://i95coalition.org/projects/probe-data-analytics/>



Probe Data Analytics User Group Probe Data Analytics Forum Why Agencies choose PDA Probe Data Analytics Tools

New Features Testimonials FAQs Newsletters

Feature Deployment Updates

- VPP Suite Feature Deployment Table – CY2016 – Q4
- VPP Suite Feature Deployment Table – CY 2016 – Q3
- VPP Suite Feature Deployment Table – CY 2016 – Q2

How to use the Multi-road Congestion Scan – deployed November 30, 2015

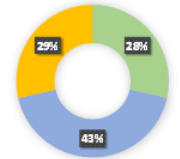
Probe Data Analytics Suite | Calendar Year 2017 Deployments

Q1 | Q2 | Q3 | Q4

Summary

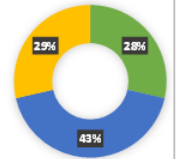
6 Q1 Improvements

- 2 Major New Features
- 3 Functional Enhancements
- 1 Significant Bug Fix



6 YTD Improvements



- 2 Major New Features
- 3 Functional Enhancements
- 1 Significant Bug Fix



Detail

Improvement	Tool(s) Affected	Description	Deploy Date
Visual Redesign Update	PROBE DATA ANALYTICS SUITE	Fixes a handful of minor issues present in the previous release.	03.06.2017
The Vehicle Probe Project Suite is now the Probe Data Analytics Suite	PROBE DATA ANALYTICS SUITE	The Vehicle Probe Project Suite is now known as the Probe Data Analytics (PDA) Suite, to more accurately describe its purpose and function.	03.03.2017
Visual Redesign and Platform Upgrade	PROBE DATA ANALYTICS SUITE	Includes a visual redesign and platform upgrade to both modernize its appearance and replace much of the underlying Adobe Flash code with a modern platform, ensuring compatibility for years to come. As a result, this release also ends support for Microsoft Internet Explorer (IE) version 10 and earlier. IE 11 replaced IE 10 in 2013.	03.03.2017
Introducing My History	PROBE DATA ANALYTICS SUITE	My History is a new feature that lets you access the results of any of your past reports from one location. This replaces the download manager found in Massive Data Downloader, Region Explorer and the "Report Archive" that listed User Delay Cost Analysis reports. My History also allows you, for the first time, to see and access results from Congestion Scan, Trend Map, Performance Charts, Performance Summaries, and Bottleneck Ranking.	03.03.2017
Performance Summaries Time Range Fix	PROBE DATA ANALYTICS SUITE	Today's release addresses an issue that prevented queries from returning results for additional time periods selected after the initial return.	02.03.2017
Help Page Improvements	PROBE DATA ANALYTICS SUITE	Additional content has been added to the help pages.	01.04.2017

Large-scale, system-wide efforts (that extend beyond one quarter & aren't included above)

Backend Hadoop System		Continuing to configure the hardware for maximum storage and performance capabilities.
Flash Migration		Continuing to remove the dependence on Flash by reworking the front end and back ends to newer web standards.


Key


Major New Features
Provides you with significant new abilities to interact with the tools in ways you couldn't do before.

Functional Enhancements
Smaller, but important new features or functions that help existing tools work better, faster or more efficiently.

Significant Bug Fix
Corrects errors, flaws or faults in the system that may have been confusing, annoying or inhibiting.

+ Substantial, high-value deploys.

 Center for Advanced Transportation Technology Laboratory
www.cattlab.umd.edu

 I-95 Corridor Coalition
www.i95coalition.org

3 Are you getting **value** from the Deploy Summary Table? (select one)

- ☐ Yes, definitely
- ☐ Some
- ☐ No, not really
- ☐ Never checked it out



NPMRDS v2 ◦ Status Update*

- › Awarded new contract in April 2017
- › Monthly data backdated to February 2017 will be available on or before July 10th
- › Webinar will be scheduled around July 10th to explain the new process
- › The third performance measures rule on System Performance, CMAQ and Freight Movement is still on hold
 - Currently scheduled to become effective May 20, 2017

* - excerpts from the National Performance Management Research Data Set (NPMRDS) Quarterly Technical Assistance Webinar
presented on May 4, 2017 by USDOT / FHWA



NPMRDS v2 ◦ Main Highlights/Improvements

- › Conflation Services
(for HPMS Volumes over to the TMC network)
- › Sample size indicator
- › Epochs filled with Nulls
(makes data management a little easier for some)
- › Inner/outer TMC segments provided
- › Improved data portal
- › Faster Availability

https://ops.fhwa.dot.gov/freight/freight_analysis/perform_meas/



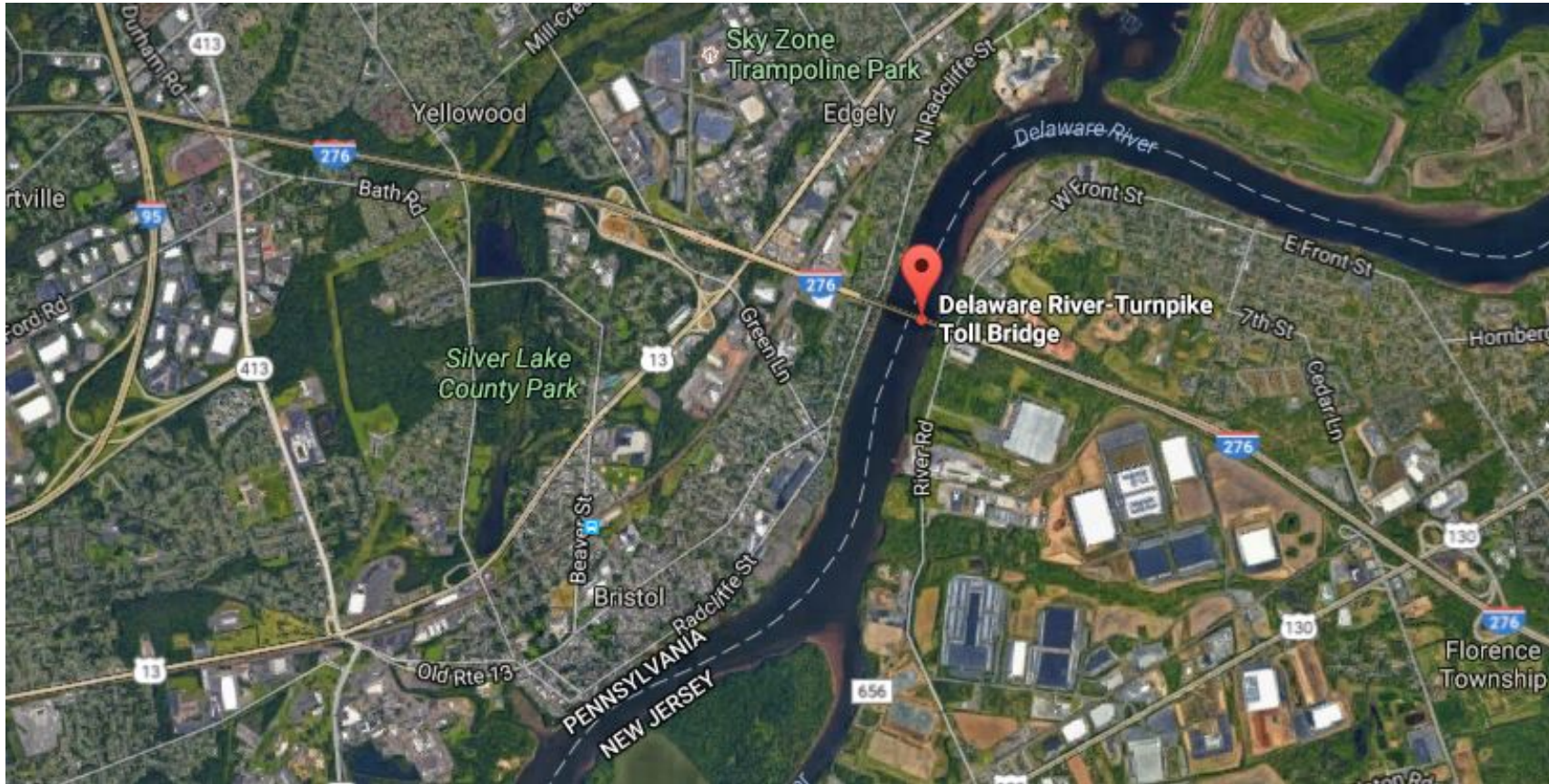
In the spotlight...

Agency Spotlight Presentation: Using the Dashboard for the I-276 Turnpike Closure

**Ted Lucas, Pennsylvania DOT Consultant
Signals & Regional TMC Technician**

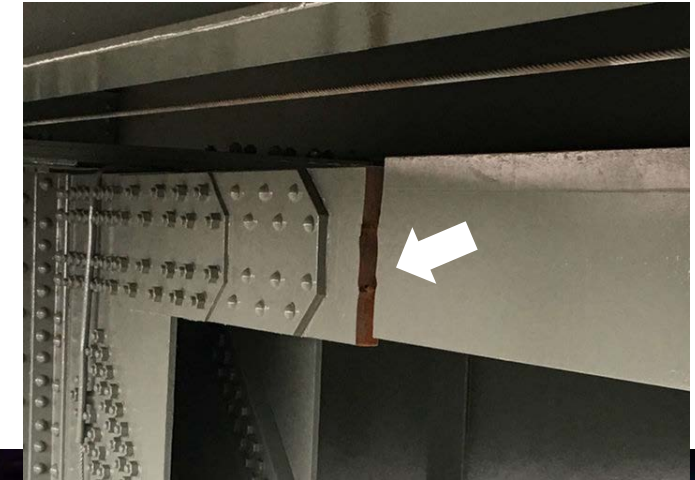


The Delaware River Bridge: Context



- Located in Bucks County (PA) & Burlington County (NJ)
- Crosses the Delaware River
- Connects the PA (I-276) and NJ (I-95) Turnpikes
- Serves $\approx 42,000$ motorists each day

The Delaware River Bridge: Closure Cause



- On Friday January 20, 2017 a fractured steel truss was spotted under the bridge decking on the Pennsylvania side of the bridge.

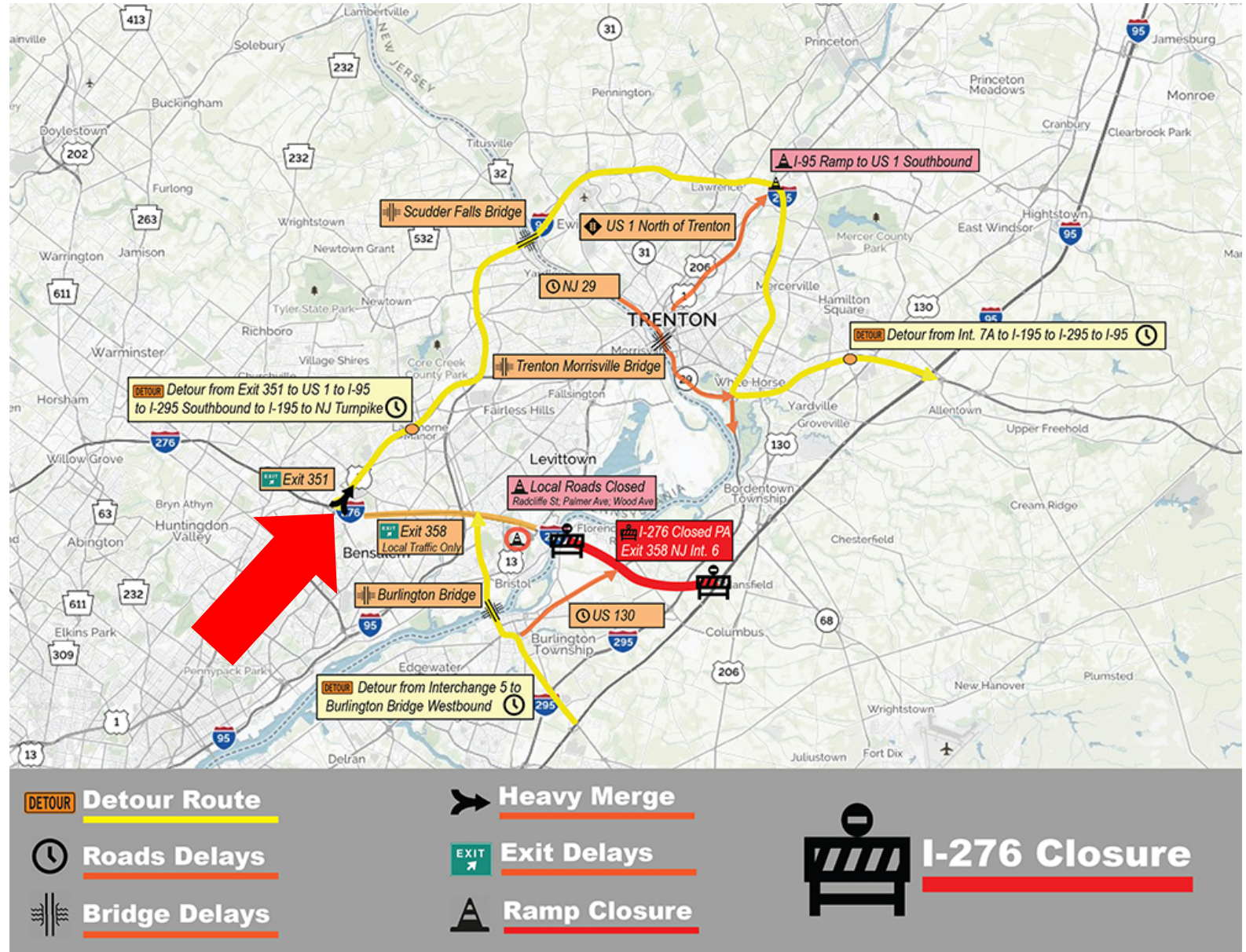
The Delaware River Bridge: Closure Effect

- The Turnpike was closed in both directions on Friday January 20, 2017 at 3:15 PM.
- All Eastbound Traffic detoured off at US-1/Exit 351 (PA Turnpike).
- All Westbound Traffic detoured off Exit 7A/I-195 (NJ Turnpike).



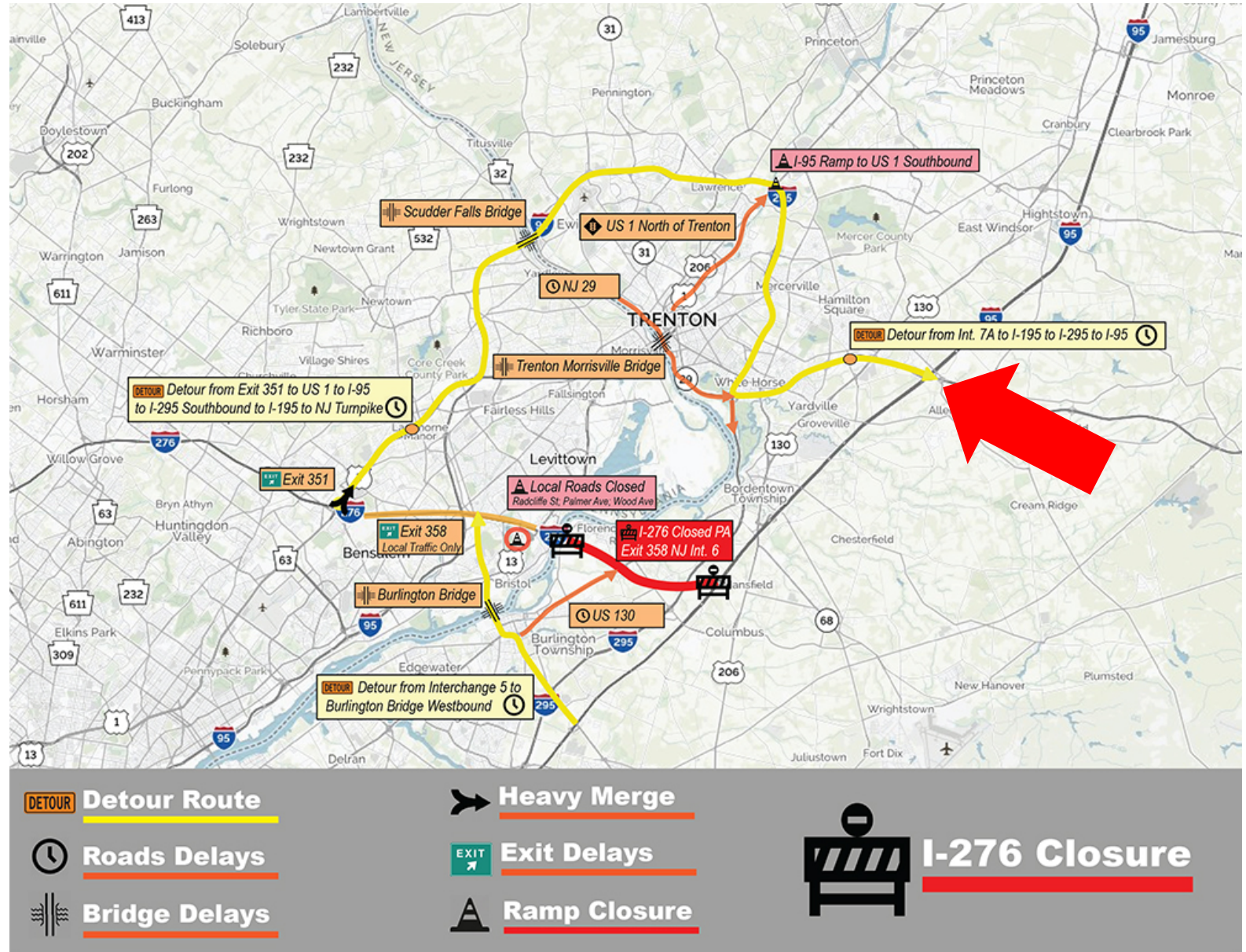
I-276 Turnpike Closure Impact Map (1)

- EB PA Turnpike Traffic detoured to Exit 351 (US-1) to I-95 North



I-276 Turnpike Closure Impact Map (2)

- EB PA Turnpike Traffic detoured to Exit 351 (US-1) to I-95 North
- WB NJ Turnpike Traffic detoured to Exit 7A to I-195



District 6-0 Regional Traffic Management Center

- Located in King of Prussia District 6-0 Office
- Monitor roadways and report incident information
 - 396 CCTV cameras
 - 163 message boards
- Dispatch service patrol vehicles (SPV) to incidents
 - 19 SPV



I-276 Turnpike Closure Impact Analysis

- GoogleMaps travel time information, and what RTMC operators could see traffic cameras were initially used to quantify congestion. Not easy to summarize this information.
- PennDOT used PDA **Dashboard** (with INRIX data) to monitor travel times on detour routes and anticipated alternate routes of travel.



The screenshot displays a grid of tool cards on a dark background. A red banner in the top right corner reads 'What's New 3/6/17'. The tools include:

- REGION EXPLORER**: Explore the relationships between bottlenecks and traffic events in real-time and in the past. (Tutorial, FAQ)
- MASSIVE DATA DOWNLOADER**: Download raw probe data from our archive for offline analysis. (Tutorial, FAQ)
- CONGESTION SCAN**: Analyze the rise and fall of congested conditions on a stretch of road. (Tutorial, FAQ)
- TREND MAP**: Create animated maps of roadway conditions. (Tutorial, FAQ)
- PERFORMANCE CHARTS**: Chart performance metrics over time. (Tutorial, FAQ)
- PERFORMANCE SUMMARIES**: Report on Buffer Time Index, Planning Time Index, and other performance metrics. (Tutorial, FAQ)
- BOTTLENECK RANKING**: Rank bottlenecks and discover which ones have the greatest impact. (Tutorial, FAQ)
- USER DELAY COST ANALYSIS**: Put a dollar amount on how much a road's performance impacts its users. (Tutorial, FAQ, My History)
- DASHBOARD**: Create your own personal dashboards to monitor corridor performance in regions of interest. (Tutorial, FAQ)
- TUTORIALS**: Learn how to use each of the tools in the suite.
- MAP-21**: Create a dashboard widget to monitor states', MPOs', and Urbanized Areas' performances against the new MAP-21 ruling. (FAQ)

Regional Traffic Management Process Overview

Travel Time is a metric that is quickly understood and easy to identify trends.

- Widgets were set up to show anticipated alternate travel routes from PA/to NJ, and from NJ/to PA.
- PDA Dashboard Tool was used by TMC Operators to monitor travel times during Peak Periods:
 - between 6:00AM and 10:00AM and
 - between 4:00PM and 8:00PM.
- The dashboard was
 - Saved every 30 minutes
 - Emailed a screenshot to PennDOT staff / consultants and PA Turnpike staff / consultants
- The data was summarized and emailed at the conclusion of each peak period.
- The Dashboard data was saved between Monday January 23, 2017 and Monday February 6, 2017.

Using the PDA Suite Dashboard (1)

PA Turnpike Closure (includes NJ)

+ Add widget

Select a dashboard...

PA Turnpike Closure Travel Times into NJ (includes NJ)

Corridor	Differential	Current	Historic	Differential	Current	Historic
US-1 Northbound between I-276/Pennsylvania Tpke and I-95	↓ 8	50 mph	58 mph	↑ 1	07 min	06 min
I-95 Northbound between US-1/Exit 46 and PA--NJ State Border	↓ 1	63 mph	64 mph	0	05 min	05 min
I-95 between PA--NJ State Border and US-1/Exit 67 Northbound	0	63 mph	63 mph	↑ 1	10 min	09 min
I-295 between US-1/Exit 67 and Exit 60 Southbound	↑ 1	66 mph	65 mph	0	07 min	07 min
I-195 between I-295/Exit 60 and Exit 7 Eastbound	↓ 18	39 mph	57 mph	↑ 3	09 min	06 min
NJ-29 between I-95 and US-1 (TRENTON) (SOUTH) Southbound	↓ 6	39 mph	45 mph	↑ 1	08 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-195/I-295/Exit 60 Southbound	↓ 13	30 mph	43 mph	↑ 3	09 min	06 min
US-1 Northbound between I-95 and PA--NJ State Border	↑ 5	65 mph	60 mph	0	06 min	06 min
US-1 between PA--NJ State Border and I-295/I-95 Northbound	↓ 3	46 mph	49 mph	0	08 min	08 min
10S - 413 (PA/NJ) - I-95 to US 130	↓ 1	23 mph	24 mph	↑ 1	09 min	08 min
I-295 between Exit 60 and US-130/Exit 57 Southbound	↑ 2	67 mph	65 mph	0	02 min	02 min
Using INRIX data			Updated Feb 2, 2017 4:33 PM (21s ago)			

PA Turnpike Closure Travel Times into PA (includes NJ)

Corridor	Differential	Current	Historic	Differential	Current	Historic
US-1 Southbound between I-95 and I-276/Pennsylvania Tpke	↓ 43	13 mph	56 mph	↑ 23	29 min	06 min
I-95 Southbound between PA--NJ State Border and US-1/Exit 46	0	60 mph	60 mph	0	05 min	05 min
I-95 between PA--NJ State Border and US-1/Exit 67 Southbound	↑ 2	59 mph	57 mph	↓ 1	10 min	11 min
I-295 between US-1/Exit 67 and Exit 60 Northbound	0	66 mph	66 mph	0	07 min	07 min
I-195 between I-295/Exit 60 and Exit 7 Westbound	↓ 18	44 mph	62 mph	↑ 3	10 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-95 Northbound	↓ 2	42 mph	44 mph	↑ 1	08 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-195/I-295/Exit 60 Northbound	↓ 3	52 mph	55 mph	0	04 min	04 min
US-1 Southbound between PA--NJ State Border and I-95	↓ 3	51 mph	54 mph	0	07 min	07 min
US-1 between PA--NJ State Border and I-295/I-95 Southbound	↑ 4	52 mph	48 mph	↓ 1	07 min	08 min
10N - 413 (PA/NJ) - US 130 to I-95 (PA)	↓ 5	18 mph	23 mph	↑ 2	10 min	08 min
I-295 between US-130/Exit 57 and Exit 60 Northbound	↓ 1	65 mph	66 mph	0	02 min	02 min
Using INRIX data			Updated Feb 2, 2017 4:33 PM (22s ago)			

Travel Time US 1/I-95 (PA) to Tpk Exit 7 (NJ)

Corridor	Differential	Current	Historic	Differential	Current	Historic
US 1 (PA) to Exit 7 (NJ) via 95	↓ 9	53 mph	62 mph	↑ 5	35 min	30 min
US 1 (PA) to Exit 7 (NJ) via US 1/NJ 29	↓ 17	37 mph	54 mph	↑ 11	32 min	21 min

Using the PDA Suite Dashboard (2)

PA Turnpike Closure (includes NJ)						
+ Add widget Select a dashboard...						
PA Turnpike Closure Travel Times into NJ (includes NJ)						
Corridor	Differential	Current	Historic	Differential	Current	Historic
US-1 Northbound between I-276/Pennsylvania Tpke and I-95	↓ 8	50 mph	58 mph	↑ 1	07 min	06 min
I-95 Northbound between US-1/Exit 46 and PA--NJ State Border	↓ 1	63 mph	64 mph	0	05 min	05 min
I-95 between PA--NJ State Border and US-1/Exit 67 Northbound	0	63 mph	63 mph	↑ 1	10 min	09 min
I-295 between US-1/Exit 67 and Exit 60 Southbound	↑ 1	66 mph	65 mph	0	07 min	07 min
I-195 between I-295/Exit 60 and Exit 7 Eastbound	↓ 18	39 mph	57 mph	↑ 3	09 min	06 min
NJ-29 between I-95 and US-1 (TRENTON) (SOUTH) Southbound	↓ 6	39 mph	45 mph	↑ 1	08 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-195/I-295/Exit 60 Southbound	↓ 13	30 mph	43 mph	↑ 3	09 min	06 min
US-1 Northbound between I-95 and PA--NJ State Border	↑ 5	65 mph	60 mph	0	06 min	06 min
US-1 between PA--NJ State Border and I-295/I-95 Northbound	↓ 3	46 mph	49 mph	0	08 min	08 min
10S - 413 (PA/NJ) - I-95 to US 130	↓ 1	23 mph	24 mph	↑ 1	09 min	08 min
I-295 between Exit 60 and US-130/Exit 57 Southbound	↑ 2	67 mph	65 mph	0	02 min	02 min
Using INRIX data Updated Feb 2, 2017 4:33 PM (21s ago)						
PA Turnpike Closure Travel Times into PA (includes NJ)						
Corridor	Differential	Current	Historic	Differential	Current	Historic
US-1 Southbound between I-95 and I-276/Pennsylvania Tpke	↓ 43	13 mph	56 mph	↑ 23	29 min	06 min
I-95 Southbound between PA--NJ State Border and US-1/Exit 46	0	60 mph	60 mph	0	05 min	05 min
I-95 between PA--NJ State Border and US-1/Exit 67 Southbound	↑ 2	59 mph	57 mph	↓ 1	10 min	11 min
I-295 between US-1/Exit 67 and Exit 60 Northbound	0	66 mph	66 mph	0	07 min	07 min
I-195 between I-295/Exit 60 and Exit 7 Westbound	↓ 18	44 mph	62 mph	↑ 3	10 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-95 Northbound	↓ 2	42 mph	44 mph	↑ 1	08 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-195/I-295/Exit 60 Northbound	↓ 3	52 mph	55 mph	0	04 min	04 min
US-1 Southbound between PA--NJ State Border and I-95	↓ 3	51 mph	54 mph	0	07 min	07 min
US-1 between PA--NJ State Border and I-295/I-95 Southbound	↑ 4	52 mph	48 mph	↓ 1	07 min	08 min
10N - 413 (PA/NJ) - US 130 to I-95 (PA)	↓ 5	18 mph	23 mph	↑ 2	10 min	08 min
I-295 between US-130/Exit 57 and Exit 60 Northbound	↓ 1	65 mph	66 mph	0	02 min	02 min
Using INRIX data Updated Feb 2, 2017 4:33 PM (22s ago)						
Travel Time US 1/I-95 (PA) to Tpk Exit 7 (NJ)						
Corridor	Differential	Current	Historic	Differential	Current	Historic
US 1 (PA) to Exit 7 (NJ) via 95	↓ 9	53 mph	62 mph	↑ 5	35 min	30 min
US 1 (PA) to Exit 7 (NJ) via US 1/NJ 29	↓ 17	37 mph	54 mph	↑ 11	32 min	21 min

Using the PDA Suite Dashboard (3)

PA Turnpike Closure (includes NJ)

+ Add widget

Select a dashboard...

PA Turnpike Closure Travel Times into NJ (includes NJ)

Corridor	Differential	Current	Historic	Differential	Current	Historic
US-1 Northbound between I-276/Pennsylvania Tpke and I-95	↓ 8	50 mph	58 mph	↑ 1	07 min	06 min
I-95 Northbound between US-1/Exit 46 and PA--NJ State Border	↓ 1	63 mph	64 mph	0	05 min	05 min
I-95 between PA--NJ State Border and US-1/Exit 67 Northbound	0	63 mph	63 mph	↑ 1	10 min	09 min
I-295 between US-1/Exit 67 and Exit 60 Southbound	↑ 1	66 mph	65 mph	0	07 min	07 min
I-195 between I-295/Exit 60 and Exit 7 Eastbound	↓ 18	39 mph	57 mph	↑ 3	09 min	06 min
NJ-29 between I-95 and US-1 (TRENTON) (SOUTH) Southbound	↓ 6	39 mph	45 mph	↑ 1	08 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-195/I-295/Exit 60 Southbound	↓ 13	30 mph	43 mph	↑ 3	09 min	06 min
US-1 Northbound between I-95 and PA--NJ State Border	↑ 5	65 mph	60 mph	0	06 min	06 min
US-1 between PA--NJ State Border and I-295/I-95 Northbound	↓ 3	46 mph	49 mph	0	08 min	08 min
10S - 413 (PA/NJ) - I-95 to US 130	↓ 1	23 mph	24 mph	↑ 1	09 min	08 min
I-295 between Exit 60 and US-130/Exit 57 Southbound	↑ 2	67 mph	65 mph	0	02 min	02 min

Using INRIX data

Updated Feb 2, 2017 4:33 PM (21s ago)

PA Turnpike Closure Travel Times into PA (includes NJ)

Corridor	Differential	Current	Historic	Differential	Current	Historic
US-1 Southbound between I-95 and I-276/Pennsylvania Tpke	↓ 43	13 mph	56 mph	↑ 23	29 min	06 min
I-95 Southbound between PA--NJ State Border and US-1/Exit 46	0	60 mph	60 mph	0	05 min	05 min
I-95 between PA--NJ State Border and US-1/Exit 67 Southbound	↑ 2	59 mph	57 mph	↓ 1	10 min	11 min
I-295 between US-1/Exit 67 and Exit 60 Northbound	0	66 mph	66 mph	0	07 min	07 min
I-195 between I-295/Exit 60 and Exit 7 Westbound	↓ 18	44 mph	62 mph	↑ 3	10 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-95 Northbound	↓ 2	42 mph	44 mph	↑ 1	08 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-195/I-295/Exit 60 Northbound	↓ 3	52 mph	55 mph	0	04 min	04 min
US-1 Southbound between PA--NJ State Border and I-95	↓ 3	51 mph	54 mph	0	07 min	07 min
US-1 between PA--NJ State Border and I-295/I-95 Southbound	↑ 4	52 mph	48 mph	↓ 1	07 min	08 min
10N - 413 (PA/NJ) - US 130 to I-95 (PA)	↓ 5	18 mph	23 mph	↑ 2	10 min	08 min
I-295 between US-130/Exit 57 and Exit 60 Northbound	↓ 1	65 mph	66 mph	0	02 min	02 min

Using INRIX data

Updated Feb 2, 2017 4:33 PM (22s ago)

Travel Time US 1/I-95 (PA) to Tpk Exit 7 (NJ)

Corridor	Differential	Current	Historic	Differential	Current	Historic
US 1 (PA) to Exit 7 (NJ) via 95	↓ 9	53 mph	62 mph	↑ 5	35 min	30 min
US 1 (PA) to Exit 7 (NJ) via US 1/NJ 29	↓ 17	37 mph	54 mph	↑ 11	32 min	21 min

Using the PDA Suite Dashboard (4)

PA Turnpike Closure (includes NJ)

PA Turnpike Closure Travel Times into NJ (includes NJ)

Corridor	Differential	Current	Historic	Differential	Current	Historic
US-1 Northbound between I-276/Pennsylvania Tpke and I-95 Northbound between US-1/Exit 46 and PA--NJ State	8	50 mph	58 mph	1	07 min	06 min
I-95 Northbound between US-1/Exit 46 and PA--NJ State	1	63 mph	64 mph	0	05 min	05 min
I-95 between PA--NJ State Border and US-1/Exit 67 Northbound	0	63 mph	63 mph	1	10 min	09 min
I-295 between US-1/Exit 67 and Exit 60 Southbound	1	66 mph	65 mph	0	07 min	07 min
I-195 between I-295/Exit 60 and Exit 7 Eastbound	18	39 mph	57 mph	3	09 min	06 min
NJ-29 between I-95 and US-1 (TRENTON) (SOUTH) Southbound	6	39 mph	45 mph	1	08 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-195/I-295	13	30 mph	43 mph	3	09 min	06 min
US-1 Northbound between I-95 and PA--NJ State Border	5	65 mph	60 mph	0	06 min	06 min
US-1 between PA--NJ State Border and I-295/I-95 Northbound	3	56 mph	49 mph	0	08 min	08 min
10S - 413 (PA/NJ) - I-95 to US 130	1	23 mph	24 mph	1	09 min	08 min
I-295 between Exit 60 and US-130/Exit 57 Southbound	2	67 mph	65 mph	0	02 min	02 min

Using INRIX data

Updated Feb 2, 2017 4:33 PM (21s ago)

PA Turnpike Closure Travel Times into PA (includes NJ)

Corridor	Differential	Current	Historic	Differential	Current	Historic
US-1 Southbound between I-95 and I-276/Pennsylvania Tpke	43	13 mph	56 mph	23	29 min	06 min
I-95 Southbound between PA--NJ State Border and US-1/Exit 46	0	60 mph	60 mph	0	05 min	05 min
I-95 between PA--NJ State Border and US-1/Exit 67 Southbound	2	59 mph	57 mph	1	10 min	11 min
I-295 between US-1/Exit 67 and Exit 60 Northbound	0	66 mph	66 mph	0	07 min	07 min
I-195 between I-295/Exit 60 and Exit 7 Westbound	18	44 mph	62 mph	3	10 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-95 Northbound	2	42 mph	44 mph	1	08 min	07 min
NJ-29 between US-1 (TRENTON) (SOUTH) and I-195/I-295/Exit 60 Northbound	3	52 mph	55 mph	0	04 min	04 min
US-1 Southbound between PA--NJ State Border and I-95	3	51 mph	54 mph	0	07 min	07 min
US-1 between PA--NJ State Border and I-295/I-95 Southbound	4	52 mph	48 mph	1	07 min	08 min
10N - 413 (PA/NJ) - US 130 to I-95 (PA)	5	18 mph	23 mph	2	10 min	08 min
I-295 between US-130/Exit 57 and Exit 60 Northbound	1	65 mph	66 mph	0	02 min	02 min

Using INRIX data

Updated Feb 2, 2017 4:33 PM (22s ago)

Travel Time US 1/I-95 (PA) to Tpk Exit 7 (NJ)

Corridor	Differential	Current	Historic	Differential	Current	Historic
US 1 (PA) to Exit 7 (NJ) via 95	9	53 mph	62 mph	5	35 min	30 min
US 1 (PA) to Exit 7 (NJ) via US 1/NJ 29	17	37 mph	54 mph	11	32 min	21 min

TMC operator was alerted by high travel time on Dashboard and found accident at 4:09 PM. Multi-vehicle accident had the right lane blocked for approximately 30 minutes.

Peak Period Summary (1)

Travel Time* Thursday February 2, 2017																		
	6:00 AM		6:30 AM		7:00 AM		7:30 AM		8:00 AM		8:30 AM		9:00 AM		9:30 AM		10:00 AM	
Travel Times into New Jersey																		
US 1 NB from PA Turnpike to I-95	5	6	6	6	6	6	8	6	10	6	6	6	6	6	6	6	6	6
US 1 NB from I-95 to PA/NJ Border	6	6	6	7	8	7	14	7	14	7	13	7	10	7	6	6	7	6
I-95 NB from US 1 to PA/NJ Border	5	5	5	5	5	5	10	7	14	7	12	7	10	7	5	5	5	5
PA 413 SB from I-95 and PA/NJ Border	5	5	7	6	8	6	11	7	11	7	13	7	8	7	5	6	5	6
US 13 between I-276 and Bensalem Blvd Northbound	4	5	5	5	4	5	5	6	5	6	4	6	4	6	4	6	5	6
Travel Times into Pennsylvania																		
US 1 SB from PA/NJ Border to I-95	7	7	6	7	6	7	6	7	7	7	7	7	6	7	6	6	6	7
US 1 SB from I-95 to PA Turnpike	6	6	6	6	7	6	40	6	86	6	24	6	18	6	6	6	6	6
I-95 SB from PA/NJ Border to US 1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
PA 413 NB from PA/NJ Border and I-95	6	5	6	5	8	5	8	6	9	6	9	6	12	6	5	6	5	6
US 13 between I-276 and Bensalem Blvd Northbound	5	5	5	5	4	5	4	6	5	6	4	6	5	6	4	6	4	6

Notes:

Current and historical travel times from VPP Suite Dashboard

* in minutes

Travel Time* Thursday February 2, 2017																		
	4:00 PM		4:30 PM		5:00 PM		5:30 PM		6:00 PM		6:30 PM		7:00 PM		7:30 PM		8:00 PM	
Travel Times into New Jersey	current	historic	current	historic	current	historic	current	historic	current	historic	current	historic	current	historic	current	historic	current	historic
US 1 NB from PA Turnpike to I-95	6	6	7	6	6	6	6	6	7	6	6	7	6	6	6	6	6	6
US 1 NB from I-95 to PA/NJ Border	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
I-95 NB from US 1 to PA/NJ Border	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
PA 413 SB from I-95 and PA/NJ Border	6	6	6	6	8	6	10	6	12	6	11	6	8	5	5	5	6	5
US 13 between I-276 and PA 413	5	7	5	7	6	7	10	7	6	7	5	6	4	5	4	5	5	5
Travel Times into Pennsylvania																		
US 1 SB from PA/NJ Border to I-95	7	6	7	7	7	7	7	7	7	7	7	7	6	7	7	7	6	7
US 1 SB from I-95 to PA Turnpike	7	6	29	6	20	6	18	7	15	7	14	6	9	6	7	6	6	6
I-95 SB from PA/NJ Border to US 1	6	5	5	5	6	5	6	6	5	6	6	6	5	6	5	5	5	5
PA 413 NB from PA/NJ Border and I-95	7	6	7	6	6	6	11	7	10	7	7	6	7	6	5	5	6	5
US 13 between I-276 and Bensalem Blvd Northbound	5	7	6	7	5	7	6	6	4	6	7	5	4	5	4	5	4	5

Notes:

Current and historical travel times from VPP Suite Dashboard

* in minutes

Peak Period Summary (2)

	Travel Time* Thursday February 2, 2017																	
	6:00 AM		6:30 AM		7:00 AM		7:30 AM		8:00 AM		8:30 AM		9:00 AM		9:30 AM		10:00 AM	
Travel Times into New Jersey																		
US 1 NB from PA Turnpike to I-95	5	6	6	6	6	6	8	6	10	6	6	6	6	6	6	6	6	6
US 1 NB from I-95 to PA/NJ Border	6	6	6	7	8	7	14	7	14	7	13	7	10	7	6	6	7	6
I-95 NB from US 1 to PA/NJ Border	5	5	5	5	5	5	10	7	14	7	12	7	10	7	5	5	5	5
PA 413 SB from I-95 and PA/NJ Border	5	5	7	6	8	6	11	7	11	7	13	7	8	7	5	6	5	6
US 13 between I-276 and Bensalem Blvd Northbound	4	5	5	5	4	5	5	6	5	6	4	6	4	6	4	6	5	6
Travel Times into Pennsylvania																		
US 1 SB from PA/NJ Border to I-95	7	7	6	7	6	7	6	7	7	7	7	7	6	7	6	6	6	7
US 1 SB from I-95 to PA Turnpike	6	6	6	6	7		40	6	86		24	6	18	6	6	6	6	6
I-95 SB from PA/NJ Border to US 1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
PA 413 NB from PA/NJ Border and I-95	6	5	6	5	8	5	8	6	9		9	6	12	6	5	6	5	6
US 13 between I-276 and Bensalem Blvd Northbound	5	5	5	5	4	5	4	6	5	6	4	6	5	6	4	6	4	6

Notes:

Current and historical travel times from VPP Suite Dashboard

* in minutes

	Travel Time* Thursday February 2, 2017																	
	4:00 PM		4:30 PM		5:00 PM		5:30 PM		6:00 PM		6:30 PM		7:00 PM		7:30 PM		8:00 PM	
	current	historic	current	historic	current	historic	current	historic	current	historic	current	historic	current	historic	current	historic	current	historic
Travel Times into New Jersey																		
US 1 NB from PA Turnpike to I-95	6	6	7	6	6	6	6	6	7	6	6	7	6	6	6	6	6	6
US 1 NB from I-95 to PA/NJ Border	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
I-95 NB from US 1 to PA/NJ Border	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
PA 413 SB from I-95 and PA/NJ Border	6	6	6	6	8	6	10	6	12	6	11	6	11	6	11	6	11	6
US 13 between I-276 and PA 413	5	7	5	7	6	7	10	7	6	7	5	6	6	6	6	6	6	6
Travel Times into Pennsylvania																		
US 1 SB from PA/NJ Border to I-95	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
US 1 SB from I-95 to PA Turnpike	7	6	29	6	20	6	18	7	15	7	14	6	14	6	14	6	14	6
I-95 SB from PA/NJ Border to US 1	6	5	5	5	6	5	6	6	5	6	6	6	6	6	6	6	6	6
PA 413 NB from PA/NJ Border and I-95	7	6	7	6	6	6	11	7	10	7	7	6	7	6	5	5	6	5
US 13 between I-276 and Bensalem Blvd Northbound	5	7	6	7	5	7	6	6	4	6	7	5	4	5	4	5	4	5

TMC operator was alerted by high travel time on Dashboard and found accident at 7:29 AM. Multi-vehicle accident had the right lane blocked for approximately 35 minutes.

Notes:

Current and historical travel times from VPP Suite Dashboard

* in minutes

TMC operator was alerted by high travel time on Dashboard and found accident at 7:29 AM. Multi-vehicle accident had the right lane blocked for approximately 35 minutes.

Dashboard Benefits to PennDOT

- Data helped **quantify the effects** of the PA Turnpike closure and **confirm Traffic Management Plan**.
- Data used to **mitigate effects** of the PA Turnpike closure.
- Several **incidents were identified** by noticing significant spikes in travel time.
- **Identified increase in travel time** on PA-413 which initiated signal timing changes.
- Used to **monitor the effect of signal timing changes** on PA-413.

Regional Traffic Management Overview (1)

AM Peak Period 8:30 AM

Monday Before Turnpike Closure

First Monday of Turnpike Closure

First Thursday of Turnpike Closure



Regional Traffic Management Overview (2)

AM Peak Period 8:30 AM

Monday Before Turnpike Closure

First Monday of Turnpike Closure

First Thursday of Turnpike Closure



Regional Traffic Management Overview (3)

PM Peak Period 5:45 PM

Monday Before Turnpike Closure

First Monday of Turnpike Closure

First Thursday of Turnpike Closure



Regional Traffic Management Overview (4)

PM Peak Period 5:45 PM

Monday Before Turnpike Closure

First Monday of Turnpike Closure

First Thursday of Turnpike Closure



Overall Benefits

- Provided data for Multi-Jurisdictional Management Plan.
- Dashboard data helped quantify effects of the Turnpike closure on neighboring roadways.
- Helped to monitor and mitigate delays by:
 - › Retiming traffic signals (~ 20% reduction in travel time)
 - › Identifying incidents on roadways
- US-1 SPV to start May 2018
- Dashboard Tool used to monitor
 - › Major Events (Papal Visit, DNC)
 - › Work Zones

Postscript

- Crews realigned the bisected segment by erecting eight temporary towers and hydraulic jacks to return the span to its original position, then constructed a permanent splice.
- The bridge was reopened on Thursday March 9, 2017 at 10:56 PM.



Thanks!



For More Information...

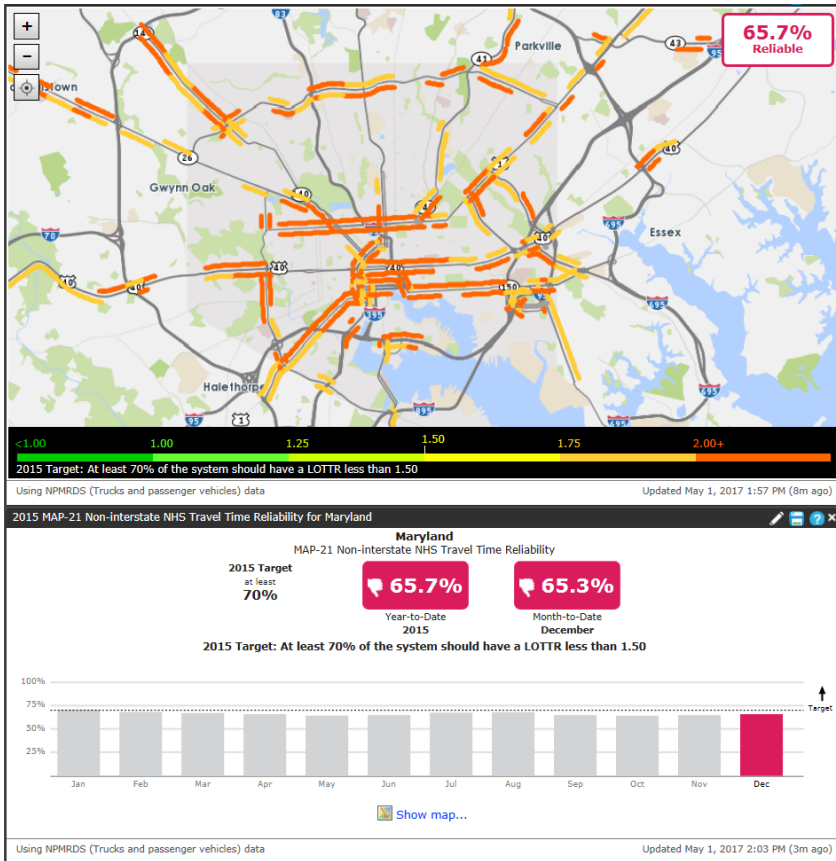
Ted Lucas

c-telucas@pa.gov

(215) 906-3399

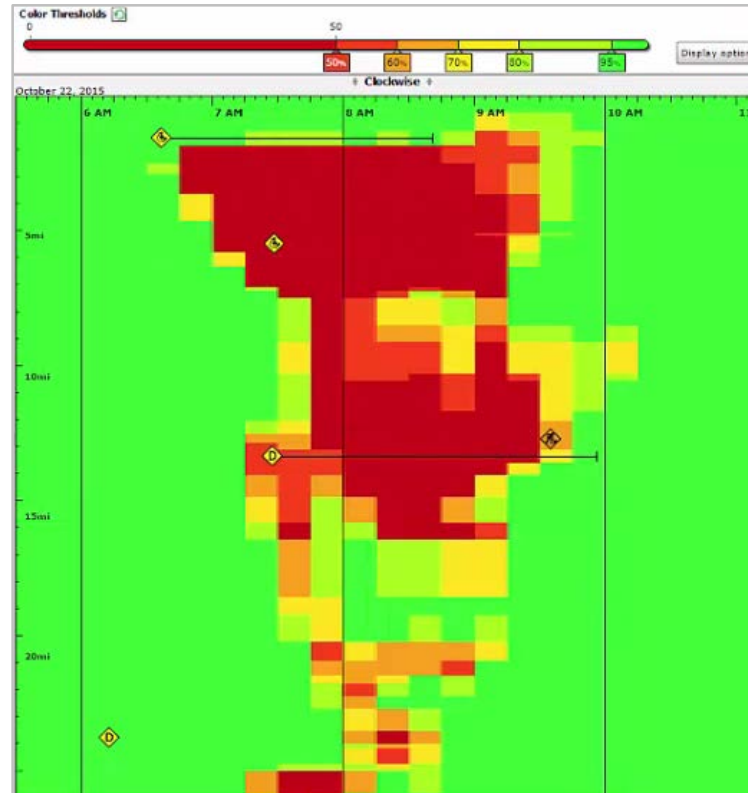
Free Video Tutorials

Using NPMRDS and MAP-21 Analytics



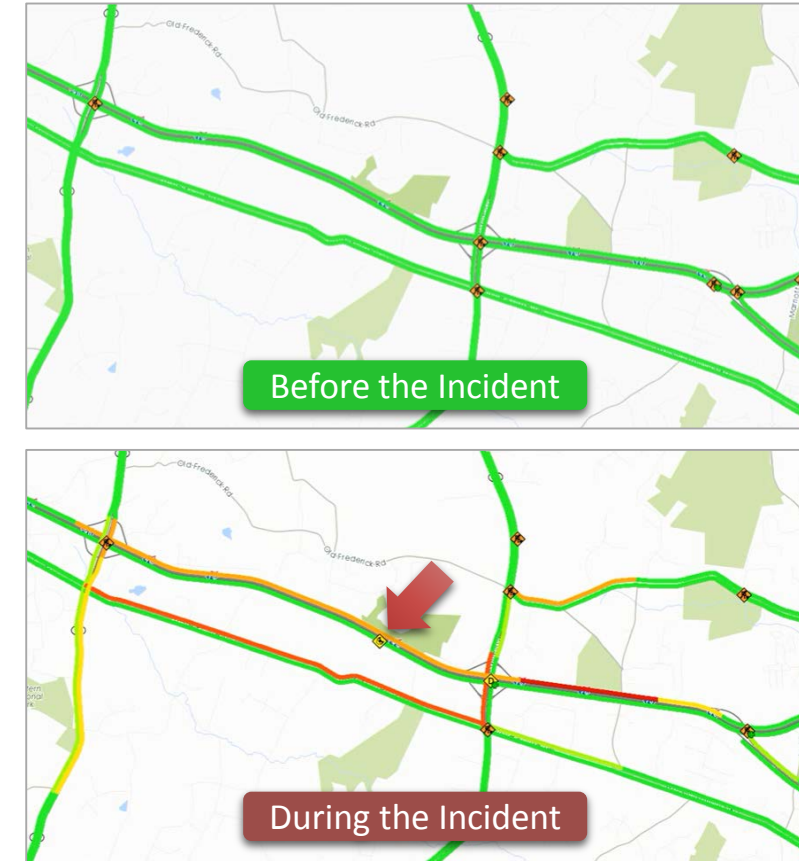
<https://vimeo.com/208589756>

Transportation Project Prioritization



<https://vimeo.com/179829037>

Trend Map Incident Evaluation



<https://vimeo.com/192022736>



Other Free Video Tutorials Available

EQT

Event Query Tool

**Using the Event Query Tool
(Maps, Tables & Graphs)**



**Analyzing Police
Crash Records**



**Using Traffic Sensor
Analytics**



**ATMS Data Analytics
using ICE**



**Work Zone Performance Monitoring
Application Overview**

(<https://vimeo.com/user55759816/videos>; new videos added regularly)



4 What other **video tutorials** would you like to see in the future? *(select all that apply)*

- ☐ Tool “how-to’s”
- ☐ “Tool tips” (on more subtle features)
- ☐ Using the tools for a specific purpose
- ☐ Something else



Focus Group

Inaugural Meeting

Date TBD • Time TBD

Technology Ventures Building • University of Maryland



- › Assembled Focus Group members (agencies / CATT Lab)
- › Selecting a date / time to meet at the Lab
- › Spend the good part of the day brainstorming use cases, desired features and functions and reviewing concepts to date
- › Will share results at an upcoming User Group meeting

(Note: O-D data will require purchase from a vendor, and tools may be independent of the PDA Suite.)



Set Up Your Origin and Destination Matrix

Currently Using the MD Data Set

[Switch Data Set](#)

Matrix Layout

☒ Matching axes ☐ Custom axes

Select one or more geographies

Primary geography

Maryland (23 counties selected)

☐ State☒ Counties (23 selected)☐ Districts☐ TAZs☐ Zip Codes

Additional geography

☐ All available states☒ My custom geographies[Add Shape File](#)[Add a Custom Geography](#)☒ My custom geography 1☒ My custom geography 2

Delaware (3 counties selected)

DC

New Jersey (21 counties selected)

Pennsylvania (67 counties selected)

[Swap Axes](#)

February, June, July, and October 2015

Destinations

20 of 264 geographies

Origins

Maryland		Maryland																			
		CountyA	CountyB	CountyC	CountyD	CountyE	CountyF	CountyG	CountyH	CountyI	CountyJ	CountyK	CountyL	CountyM	CountyN	CountyO	CountyP	CountyQ	CountyR	CountyS	CountyT
Maryland	CountyA																				
	CountyB																				
	CountyC																				
	CountyD																				
	CountyE																				
	CountyF																				
	CountyG																				
	CountyH																				
	CountyI																				
	CountyJ																				
	CountyK																				
	CountyL																				
	CountyM																				
	CountyN																				

[Generate Matrix](#)

14 of 264 geographies

Origin and Destination Matrix

Currently Using the MD Data Set

SWITCH DATA SET

▶ Selected date range June and July 2015 and March 2016 All Days of Week

▶ Matrix controls

▶ Display options



Legend

0% of Trips



MATRIX OVERVIEW

Destinations

		Maryland					
		Frederick County	Howard County	Baltimore County	Montgomery County	Total trips from selected geographies	
Origins	Maryland	Frederick County	6%	5%	5%	4%	20%
		Howard County	4%	8%	3%	7%	22%
		Baltimore County	7%	4%	6%	8%	25%
		Montgomery County	7%	12%	5%	10%	33%
	Total trips into selected geographies	24%	29%	19%	29%	100%	

Origin and Destination Matrix

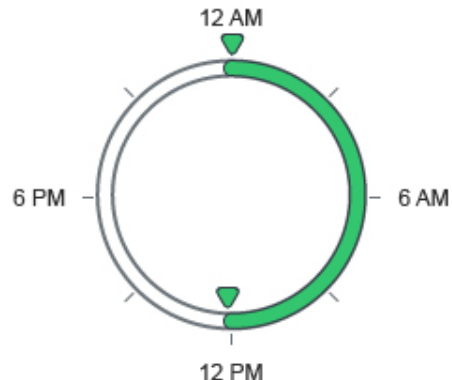
Currently Using MD Data Set

[SWITCH DATA SET](#)

▼ Selected date range June and July 2015 and March 2016 All Days of Week

Time of day

12 AM - 12PM



Include dates

☒ All days ☐ Only the following days☐ Except for...

Days of week

☒ Sun ☒ Mon ☒ Tue ☒ Wed ☒ Thu ☒ Fri ☒ Sat

2015

☐ Jan ☒ Feb ☐ Mar ☐ Apr ☐ May ☒ Jun ☒ Jul ☐ Aug ☐ Sep ☐ Oct ☐ Nov ☐ Dec

2016

☐ Jan ☒ Feb ☐ Mar ☐ Apr ☐ May ☐ Jun ☐ Jul ☐ Aug ☐ Sep ☐ Oct ☐ Nov ☐ DecAvailable Date Range February, June, July, and October 2015
January, February and March 2016

▼ Matrix controls

☐ Show all other trips that only passed through the selected geographies.

Show vehicle types

☒ Light vehicles
☒ Medium vehicles
☒ Heavy vehicles

Show trips that were...

☒ Arriving
☐ Departing
☐ En Route

... during selected time period.

Show trips as...

☒ Percentages
☐ Daily average
☐ Total counts

▼ Display options

Sort Origins and Destinations

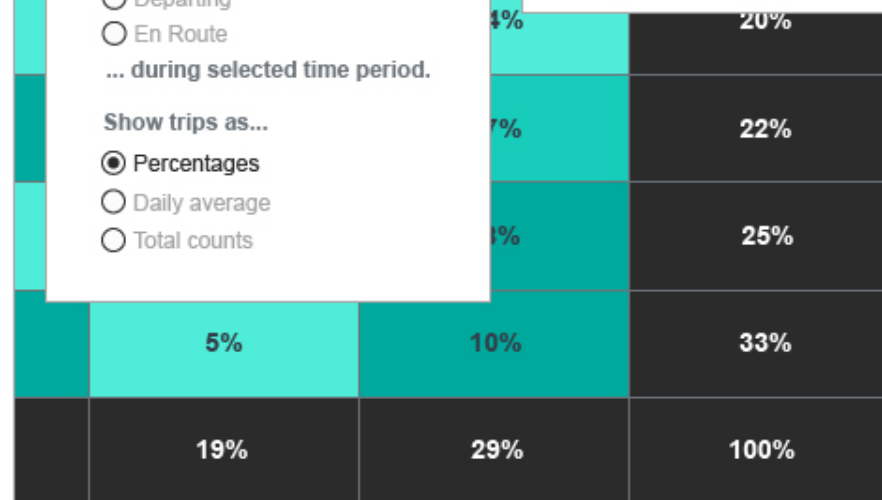
In order selected ▼

Group by

State ▼

Display as

Total percents ▼

☒ Show numbers

Origin and Destination Matrix

Currently Using MD Data Set

SWITCH DATA SET

► Selected date range June and July 2015 and March 2016 All Days of Week

► Matrix controls

► Display options



Legend

0% of Trips



Gray tiles

Only trips from the MD Data Set accounted for.

MATRIX OVERVIEW

Destinations

28 of 264 geographies

		Origins																												
		Delaware ⓘ			Maryland																								New Jersey	
					CountyA	CountyB	CountyC	CountyA	CountyB	CountyC	CountyD	CountyE	CountyF	CountyG	CountyH	CountyI	CountyJ	CountyK	CountyL	CountyM	CountyN	CountyO	CountyP	CountyQ	CountyR	CountyS	CountyT	CountyU		
Delaware ⓘ	CountyA	7%	1%	4%	6%	9%	4%	0%	7%	4%	9%	6%	8%	5%	2%	9%	8%	4%	5%	2%	6%	9%	2%	6%	7%	8%	6%	9%	3%	
	CountyB	9%	5%	0%	7%	3%	1%	0%	5%	7%	6%	9%	5%	0%	1%	6%	3%	8%	7%	4%	6%	7%	8%	0%	1%	7%	5%	0%	6%	
	CountyC	4%	6%	7%	0%	9%	7%	1%	3%	8%	4%	0%	0%	6%	0%	5%	5%	9%	0%	8%	7%	9%	2%	4%	8%	5%	6%	4%	7%	
	CountyA	0%	5%	4%	8%	2%	4%	6%	0%	7%	1%	9%	7%	4%	6%	3%	8%	4%	7%	1%	4%	3%	9%	8%	2%	4%	9%	5%	6%	
	CountyB	9%	2%	6%	4%	9%	8%	0%	3%	7%	6%	4%	8%	5%	4%	2%	6%	9%	0%	2%	3%	5%	6%	6%	2%	7%	6%	9%	1%	
	CountyC	6%	7%	4%	8%	6%	6%	9%	3%	9%	6%	0%	8%	9%	4%	6%	1%	8%	7%	6%	2%	0%	6%	7%	9%	3%	1%	0%	4%	
	CountyD	0%	1%	1%	0%	9%	8%	1%	5%	8%	4%	7%	0%	9%	0%	1%	5%	9%	0%	8%	1%	6%	2%	4%	8%	6%	5%	7%	7%	
	CountyE	0%	3%	6%	4%	0%	3%	8%	2%	8%	2%	9%	2%	2%	0%	6%	4%	3%	7%	2%	1%	3%	4%	8%	2%	0%	2%	3%	9%	
	CountyF	6%	2%	0%	4%	5%	8%	6%	9%	7%	1%	7%	5%	3%	8%	4%	0%	6%	8%	1%	0%	7%	9%	0%	7%	4%	6%	5%	1%	
	CountyG	4%	8%	2%	6%	7%	3%	7%	6%	8%	0%	6%	8%	7%	1%	1%	4%	0%	9%	7%	8%	2%	6%	5%	0%	1%	8%	4%	6%	
CountyH	5%	7%	6%	8%	0%	4%	9%	0%	6%	3%	2%	4%	0%	8%	6%	9%	6%	2%	1%	5%	4%	0%	4%	9%	1%	2%	9%	3%		
CountyI	9%	1%	9%	8%	5%	2%	6%	7%	4%	7%	8%	6%	4%	9%	2%	5%	6%	7%	7%	4%	3%	1%	6%	6%	5%	5%	7%	7%		
CountyJ	2%	3%	4%	6%	7%	9%	7%	5%	3%	9%	4%	5%	1%	7%	5%	9%	3%	2%	5%	7%	8%	1%	0%	4%	9%	7%	8%	0%		

14 of 264 geographies

Origin and Destination Matrix

Currently Using MD Data Set

[SWITCH DATA SET](#)

► Selected date range June and July 2015 and March 2016 All Days of Week

► Matrix controls

► Display options



Legend  

0% of Trips

100% of Trips



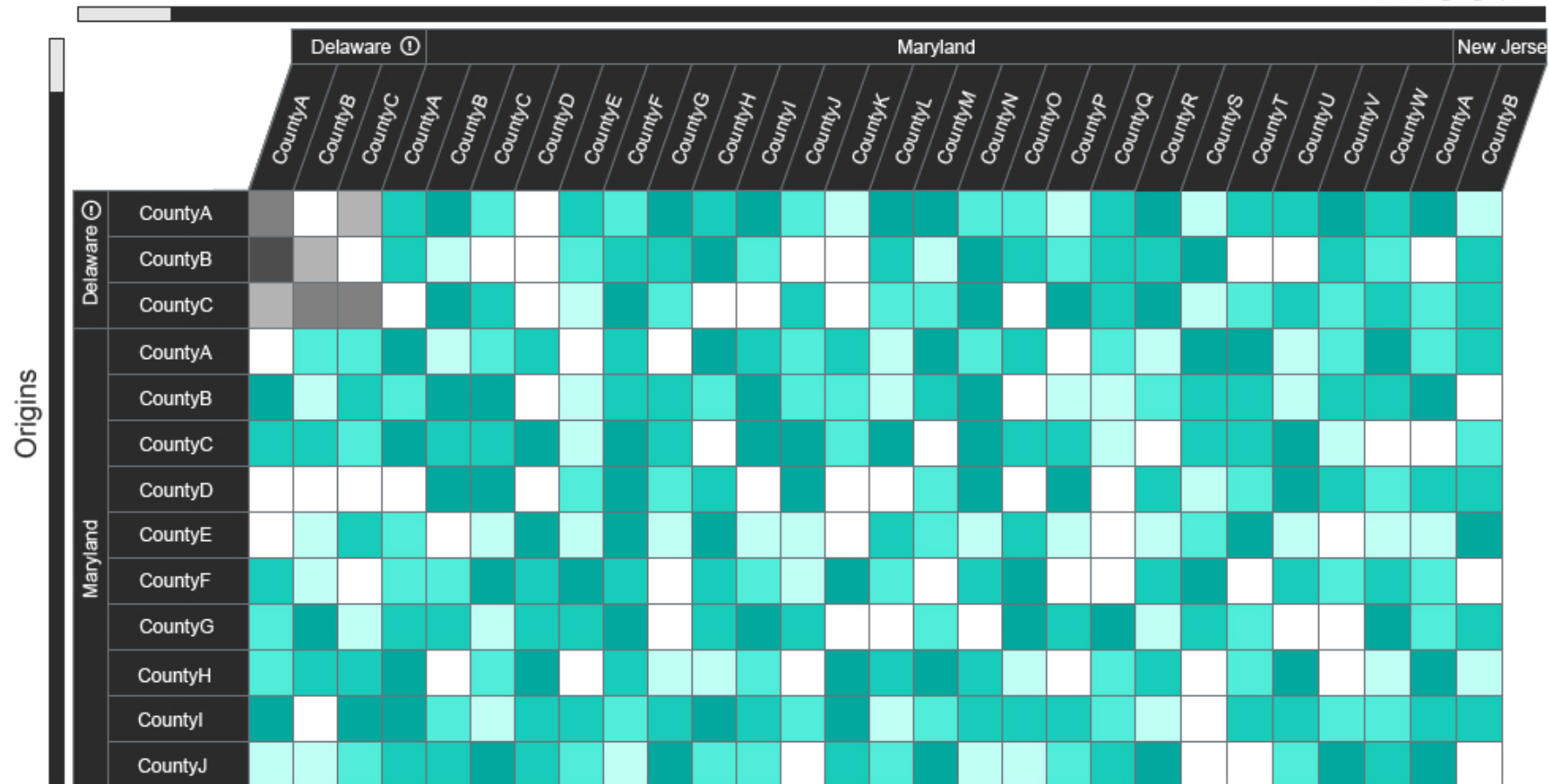
Gray tiles 

Only trips from the MD Data Set accounted for.

[MATRIX OVERVIEW](#)

Destinations

28 of 264 geographies



14 of 264 geographies

Set Up Your Origin and Destination Matrix

Currently Using the MD Data Set

[Switch Data Set](#)

Select geography from map

From state






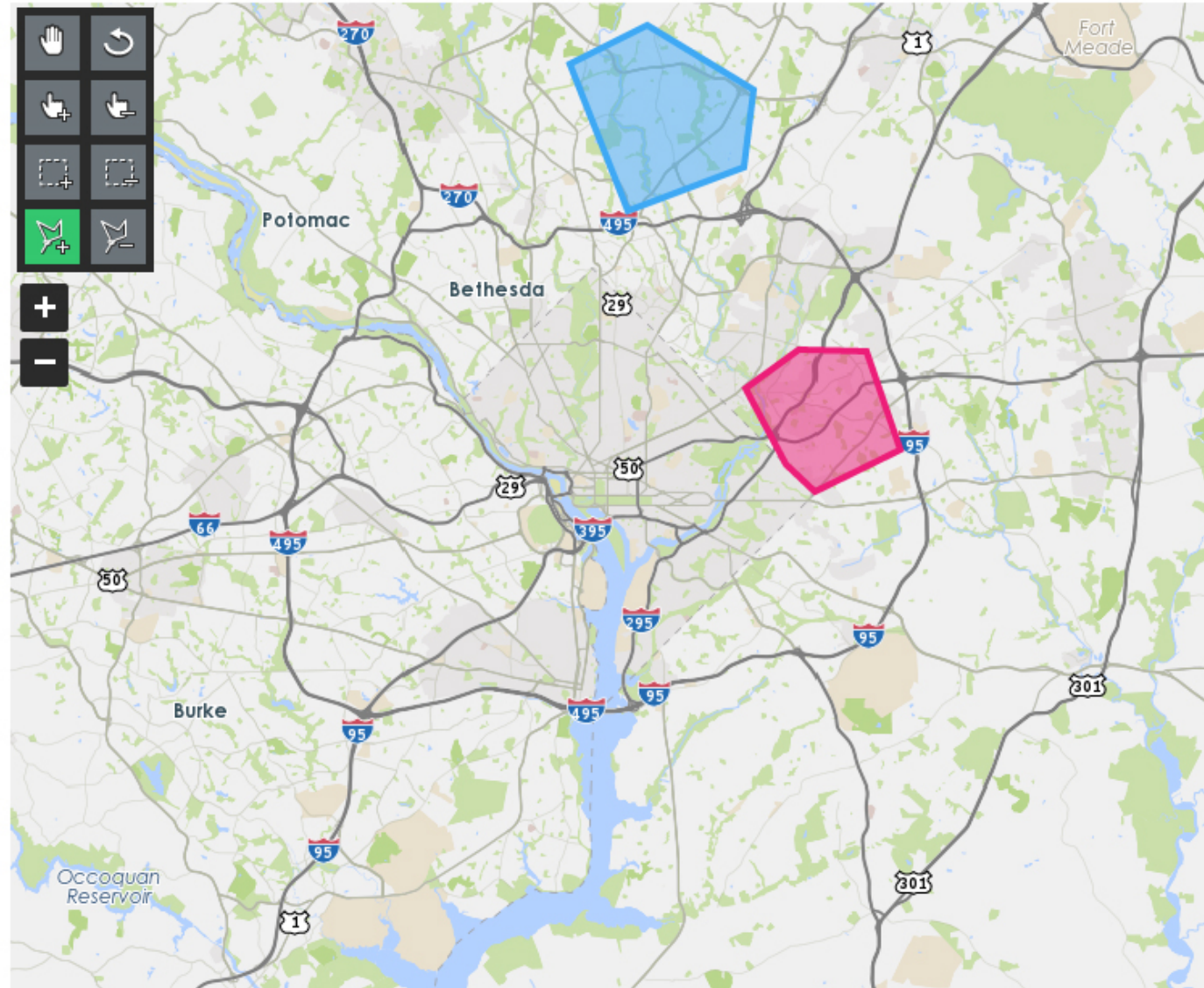

Maryland ▼

Road class

All ▼

Use the controls on the map to define your geography. Controls with a '+' allow you to add TMCs while controls with a '-' allow you to remove TMCs from your selection.

Selected geography

 Geography 1   Geography 2  [Back to Query Page](#)

Trips that traveled on the selected road segment

I-270 Southbound between Sam Eig Hwy and Montrose Rd

Geographic resolution

Subcounty

Show the...

- ☒ Origins of trips passing through the selected road segment
- ☐ Destinations of trips passing through the selected road segment
- ☐ Net totals of trips traveling through the selected road segment
- ☒ Routes

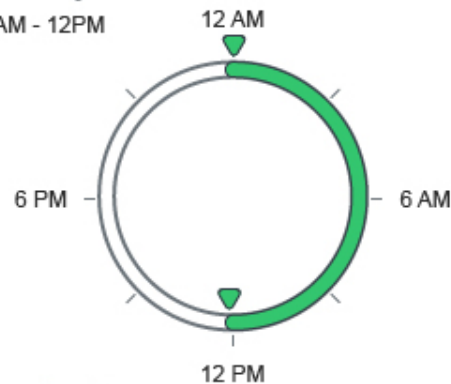
Number of trip origins



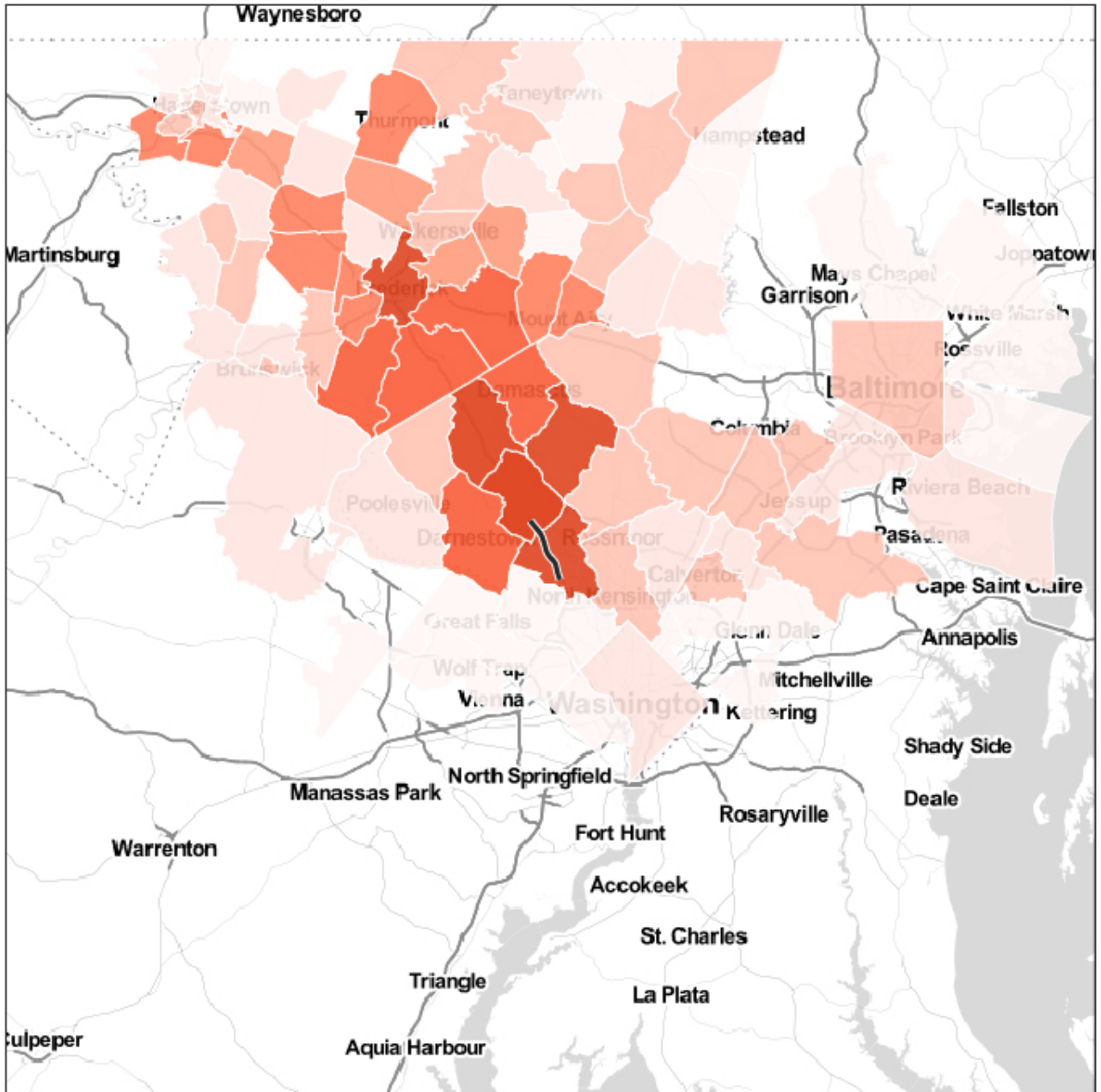
Date range - July 2015

Time of day

12 AM - 12 PM



Days of week



Trips that traveled on the selected road segments

I-270 Southbound between Sam Eig Hwy and Montrose Rd

Map Controls

Time Range

Geographic resolution

Sub-county

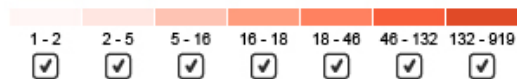
Show the...

- ☒ Origins of trips passing through the selected road segment
- ☐ Destinations of trips passing through the selected road segment
- ☐ Net totals of origins and destinations trips traveling through the selected road segment
- ☐ Routes

Data appearance

- ☒ Use the maps geometry ☐ Use simplified shapes
- ☒ Show values on map

Number of trip origins

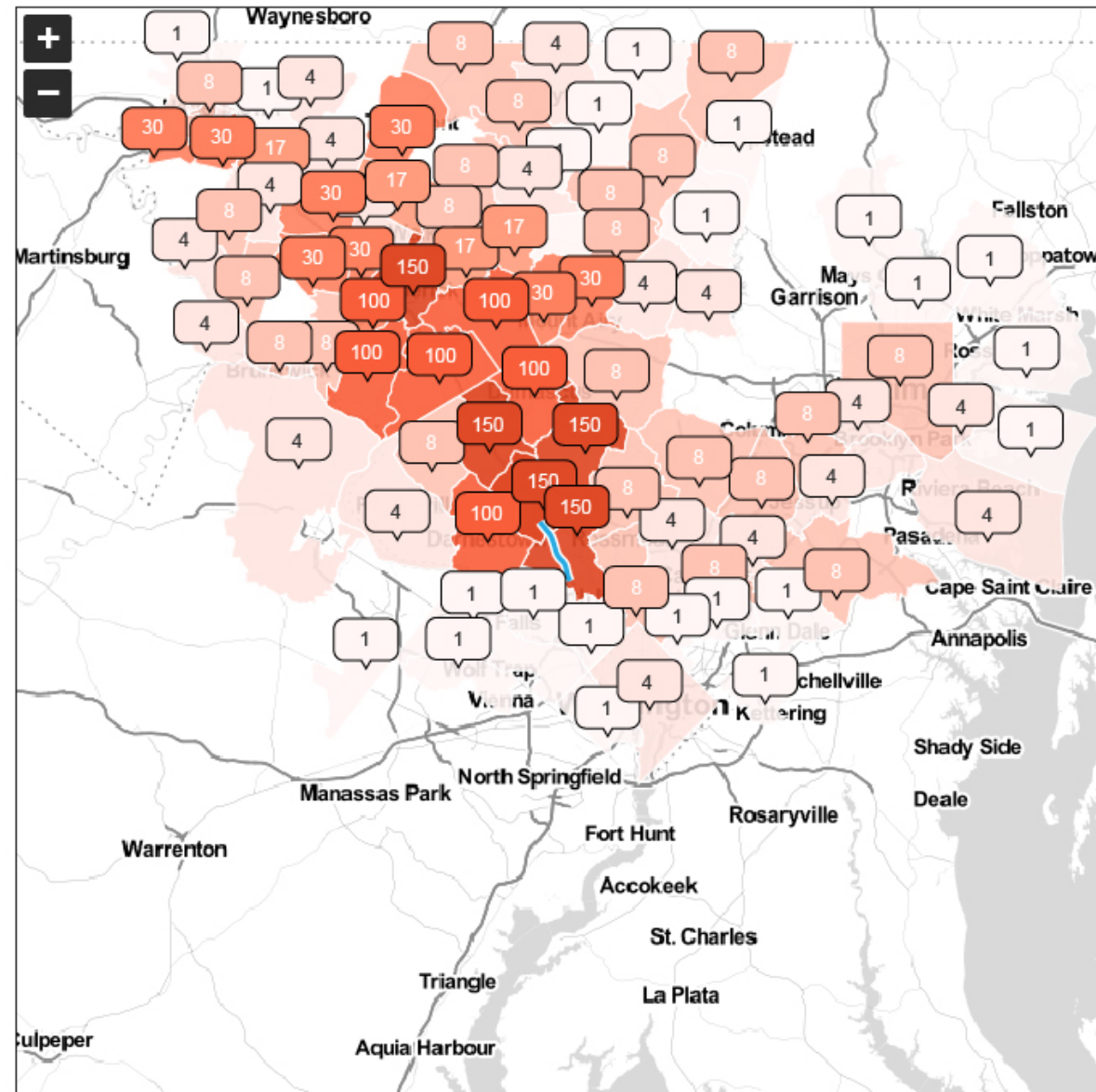


Selected road segment

View Matrix

Currently using the MD Data Set

Switch Data Set



Trips that traveled on the selected road segment

I-270 Southbound between Sam Eig Hwy and Montrose Rd

Map Controls

Time Range

Geographic resolution

Sub-county

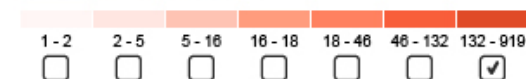
Show the...

- ☒ Origins of trips passing through the selected road segment
- ☐ Destinations of trips passing through the selected road segment
- ☐ Net totals of origins and destinations trips traveling through the selected road segment
- ☐ Routes

Data appearance

- ☒ Use the maps geometry ☐ Use simplified shapes
- ☒ Show values on map

Number of trip origins

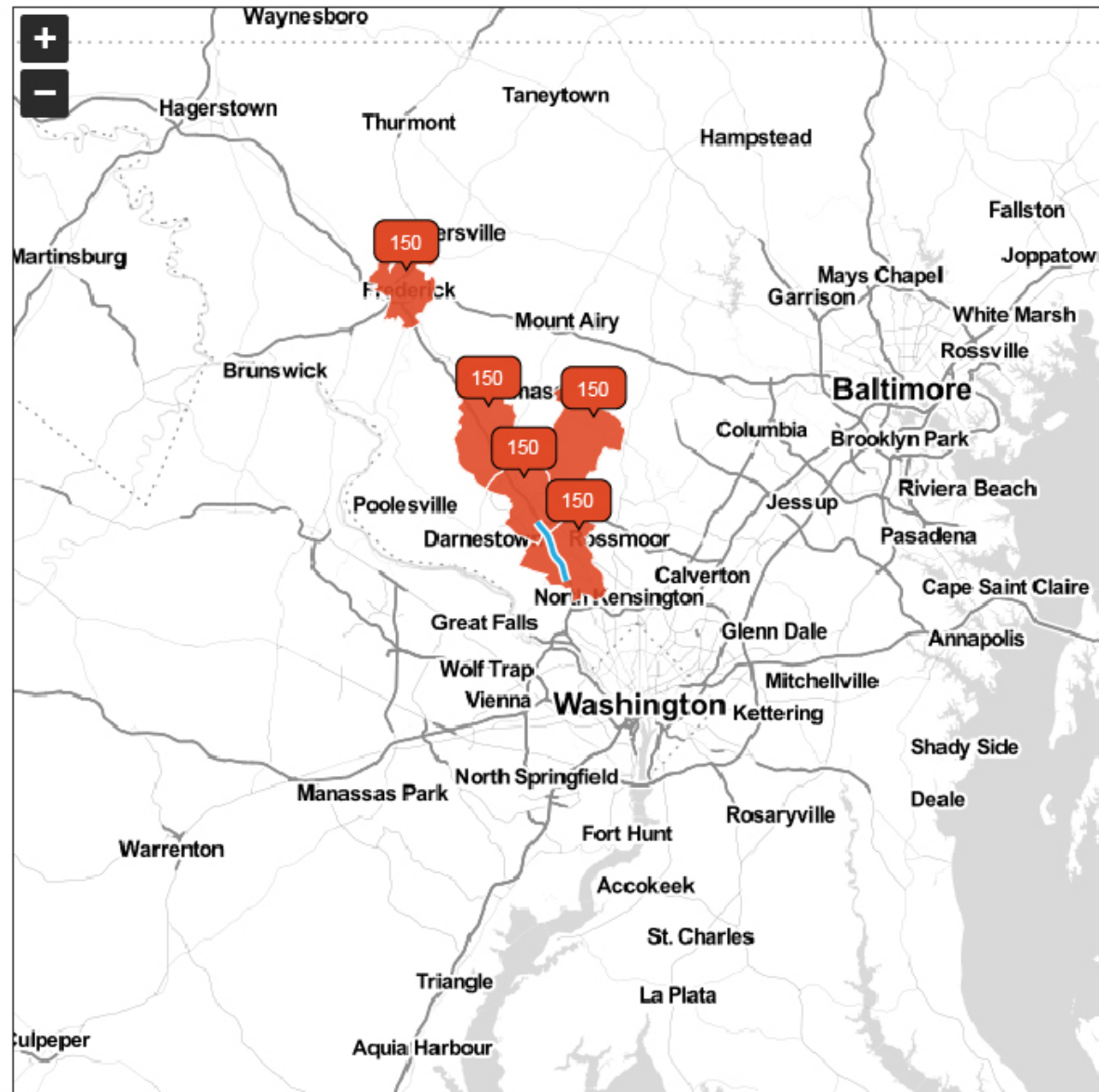


Selected road segment

View Matrix

Currently using the MD Data Set

Switch Data Set



Trips that traveled on the selected road segment

I-270 Southbound between Sam Eig Hwy and Montrose Rd

Geographic resolution

Subcounty ▼

Show the...

- ☐ Origins of trips passing through the selected road segment
- ☒ Destinations of trips passing through the selected road segment
- ☐ Net totals of trips traveling through the selected road segment
- ☒ Routes

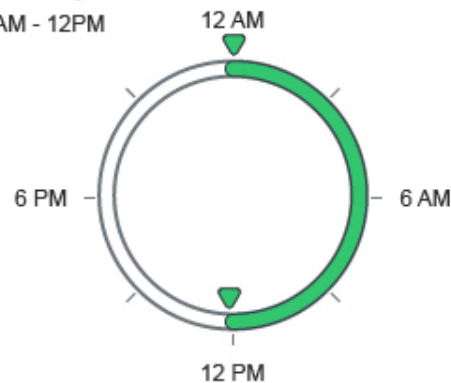
Number of trip destinations



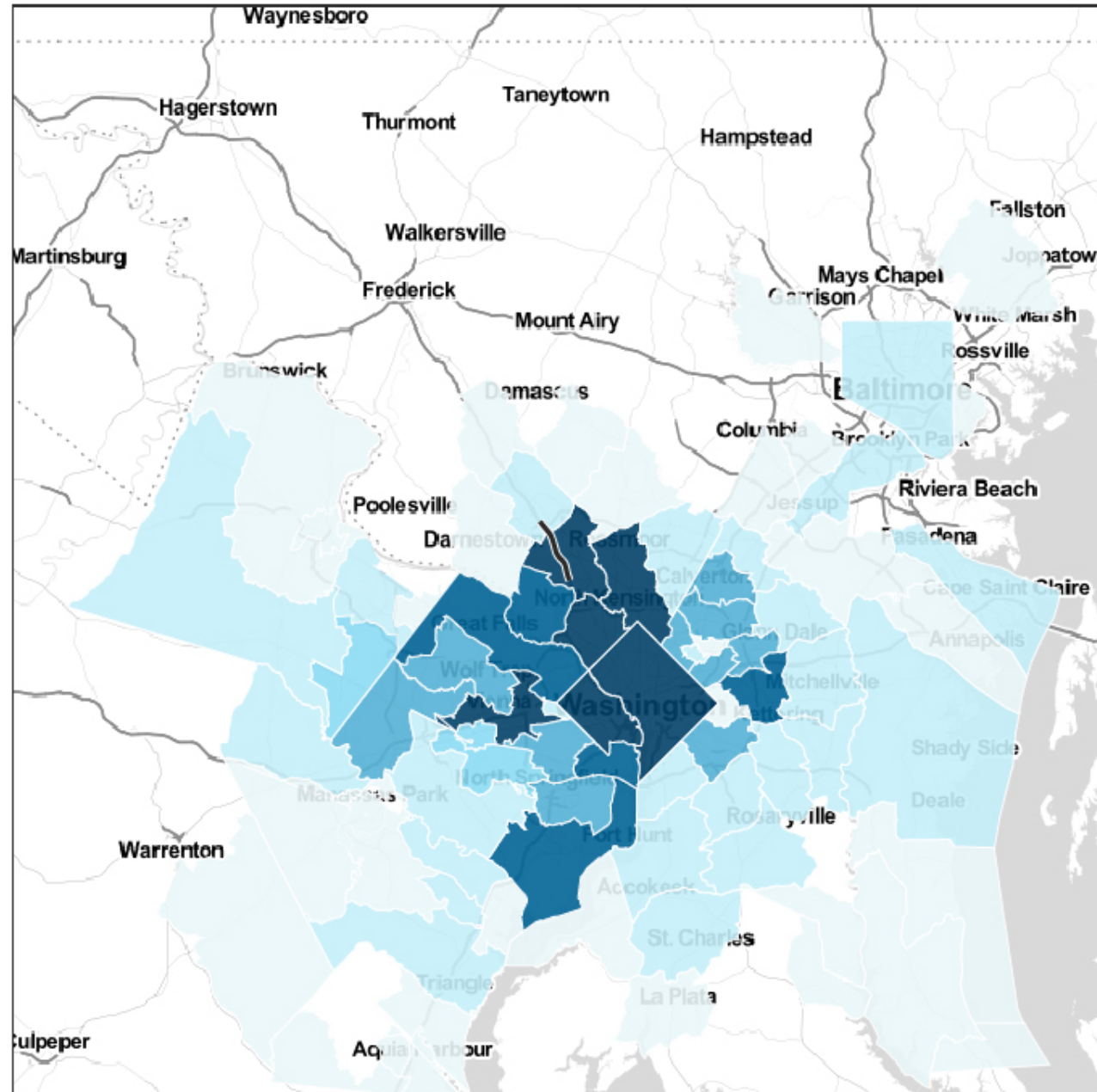
Date range - July 2015

Time of day

12 AM - 12 PM



Days of week



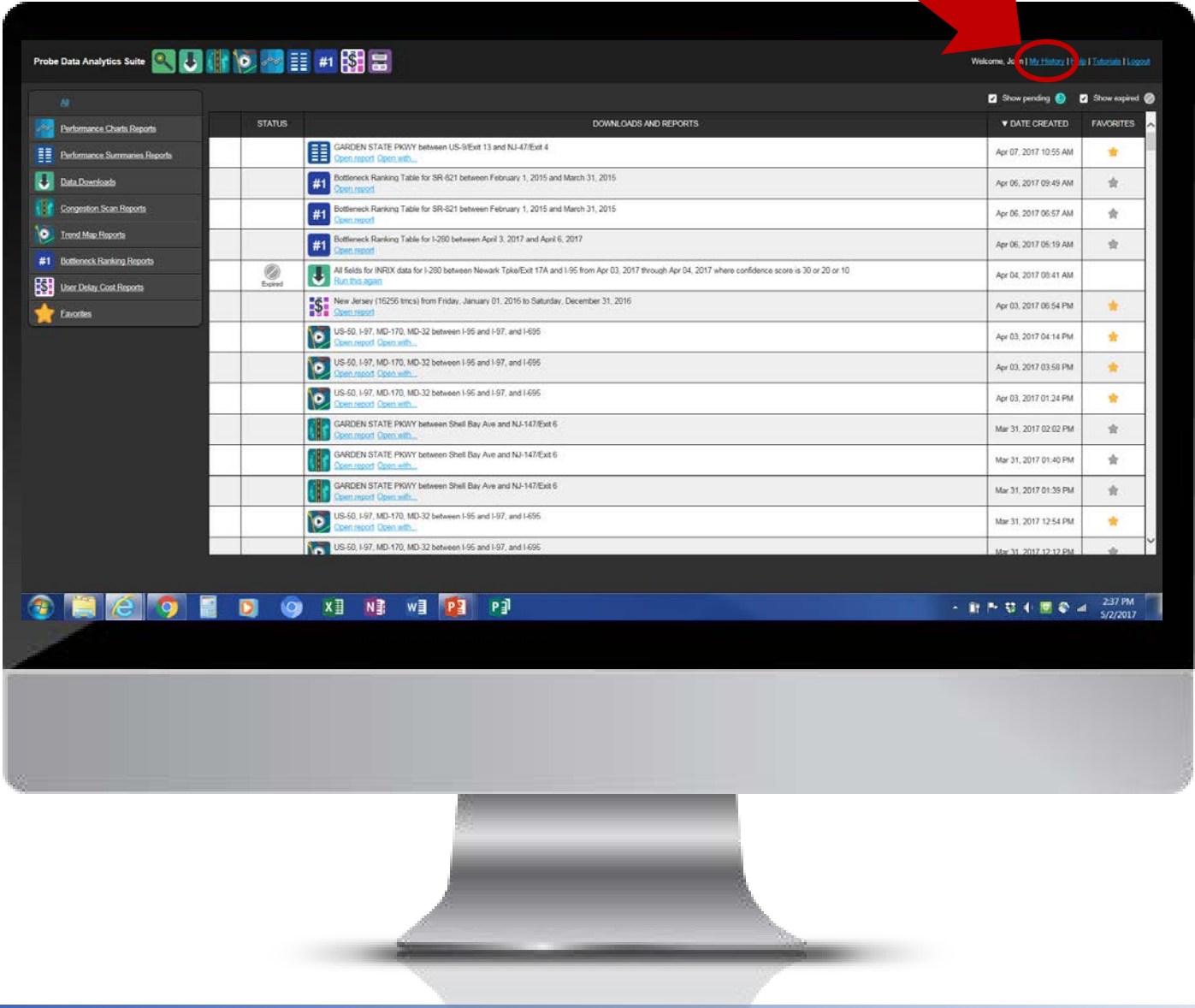
Instant Poll

5 If you were to acquire O-D data, what would be your **most likely** use(s)? (select all that apply)

- ☐ Modeling (calibration / validation)
- ☐ Mapping / Graphics
- ☐ Studies (e.g. - Traffic Impact Studies)
- ☐ Project / Program Development & Assessment
- ☐ Reports / communication with various audiences
- ☐ I don't use O-D data



My History quick-demo



Agency Input Session



“What’s on your mind?”



Wrap Up

Marygrace Parker, I-95 Corridor Coalition

- Thanks!
- Next meeting
- Contact information

thank
you!



Next Meeting

**Thursday,
August 10, 2017**

10:30 am to Noon



Thank You!

For Questions, please contact:

PDA Suite – Denise Markow 301.789.9088 or dmarkow@i95coalition.org

PDA Suite Technical Support – vpp-support@ritis.org or John Allen (jallen35@umd.edu)

Logistics – Joanna Reagle 610.228.0760 or jreagle@kmjinc.com



I-95 CORRIDOR
COALITION

