The Eastern Transportation
RITIS User Group Web Meeting – September 30, 2021
Question and Answer Summary

Spotlight Presentation: Use of PDA Suite in Support of Transportation Planning for Maricopa Association of Governments

Q: **Simona Babiceanu (Virginia DOT):** Congestion and delay data have volume and speed components - have you looked at volumes or VMTs specifically to identify how the rebound happened?

A: Wang Zhang (Maricopa Association of Governments): We do. We monitor not only the congestion but the number of cars on the road. Our traffic volume for example has returned to the kind of pre-pandemic levels and has maintained that level for the last six months. We can have 100% of cars on the road but don't necessarily have the same amount of congestion on the freeways. We believe there are two major reasons. First of all, people's travel patterns have changed to a large degree. There's a certain amount of the workforce that is still telecommuting. People go to work, go shopping, and see entertainment a little bit differently these days. They're all contributing to that. We're looking at more spread-out congestion in particular in the morning as compared to pre-COVID. Since COVID, the Arizona DOT has completed quite a few significant roadway improvement projects which have added additional lanes and capacities to our freeway system, so you have the same level of demand but more capacity. I think that also contributes to the reduced congestion that we observed.

Q: **Tom Edinger (DVRPC):** How do you consider non-recurring congestion, such as crashes, disabled vehicles, etc. to analyze overall congestion?

A: Wang Zhang (Maricopa Association of Governments): We consider everything for this kind of system analysis. We understand we have non-recurring congestion happening every day at some points in our freeway systems. There's no way you can specifically throw them out of the analysis, so it's all included. When you see the trend for a particular day, you're going to see some spikes that are likely tied to a certain big crash. We can look at the data and go back to our incident database to link them together.

Spotlight Presentation: RITIS Signal Analytics Tools: Recent Updates and Use Cases

Q: **Luis Velasquez (Arcadis):** Has the split failure metrics from the probe data been validated against traditional detector locations? Can you share the calculations used to develop the metrics?

A: Charles Lattimer (University of Maryland CATT Lab): I would have to reach out directly with the actual calculations. A part of what the data provider has done is when defining their intersection zones, they've tried to be as consistent as possible to get results consistent with the Automated Traffic Signal Performance Measures (ATSPM) and other traditional methods.

Q: **Jason Simmons (South Jersey Transportation Planning Organization):** Are the INRIX signal analytics "extra" or are they available through a standard RITIS account?

A: Charles Lattimer (University of Maryland CATT Lab): Signal Analytics is a separate trajectory data set. It's not something that you would normally get through the standard RITIS PDA suite. It's a special kind of probe data that uses very high-resolution pings.
For more information, you can contact me at lattimer@umd.edu.

Q: **Tom Edinger (DVRPC):** Those intersection matrix tool plots look great! For case 2, it was unclear to me why the travel time remain unchanged, but the control delay significantly improved. I would have thought that if the delay improved, then travel time would have improved as well.

A: Charles Lattimer (University of Maryland CATT Lab): The travel times shown were travel times along the entire corridor. So, the delay improvements for this signal were washed out by the overall effects along the corridor (this was during mid-day). The average control delay improvements at this intersection were between 5 - 10 seconds.

C: **Andrew Ludasi (New Jersey DOT):** I'm logged in, but I can't find Signal Analytics.

A: Charles Lattimer (University of Maryland CATT Lab): Signal Analytics is a separate data set/tool. You can find it at https://signals.ritis.org/

Q: **Jesse Buerk (DVRPC):** Is there any way to bring in multimodal considerations into the signal analytics tool. For example, if there's a pedestrian movement, is there's any way to factor those in, or is it only looking at the auto movements? Just curious especially in our region there are certain signals where if you're not looking at that whole picture, you're going to have a difficult time calibrating.

A: Charles Lattimer (University of Maryland CATT Lab): Currently, the focus we have is really on the probe data. You can always add more data. That's something that we can explore further as the tool is developed more.

Q: Jesse Buerk (DVRPC): Would that have to do more with a volume count or more information about the signal kind of phasing itself - whether there are pedestrian signals incorporated?

A: Charles Lattimer (University of Maryland CATT Lab): That would be one way to do it. We could incorporate some of the signal timing/phasing information and high-resolution data into the platform. Another option may be to take a look at some location-based services and cell phone data.

RITIS Product Enhancement Working Group Update

Q: **Simona Babiceanu (Virginia DOT):** Can you please elaborate on the data sources of causes of congestion pies? For example, weather?

A: Mark Franz (University of Maryland CATT Lab): Waze data was used for incidents and work zones. Open Street Maps were used for signal locations. NOAA weather radar was used for the weather. Holidays came from dates related to holiday travel.

PDA Suite Performance Measures Working Group Update

Q: **David Heller (South Jersey Transportation Planning Organization):** Is the training from Rick Ayers available to any agency? Also, is there a fee?

A: John Allen (University of Maryland CATT Lab): There's no fee. I would reach out to Rick Ayers and ask him about it. He just did some training for New Jersey DOT. FYI to members - David is from the South Jersey Transportation Planning Organization, and does a lot of good work in performance reporting using their own templates.

C: **John Allen (University of Maryland CATT Lab):** One thing I wanted to mention - if you saw anything that you like template-wise, reach out to me. We'll send you the templates, how-to guides; whatever you need to evaluate a project or a program. We're here to help you.