



I-95 Corridor Coalition: Mobility as a Service (MaaS) Webinar – Understanding the Concept, Current Status, and the Role of Data

July 11, 2019

Question and Answer Summary

General Questions:

Q: Kelli Raboy (District DOT): Still struggling to understand the distinction between MoD (Mobility on Demand) and MaaS. The concepts seem very similar. Is there a simple way to describe the difference? Our executives frequently encounter both terms and are asked to speak on one or the other. They rely on staff to provide simple, clear distinction to hone their messages. While we have been working on concepts that seem to touch both, explaining the difference in a simple way has really been a struggle.

A: Denise Markow (I-95CC): I call it the daisy chain concept. I drive my car on the highway and get off the ramp onto the signalized arterial where I stop at the transit or light rail station where I park and take the light rail into the urban area. I then get off the rail and need to take an Uber or hail a cab or hop on a bike to get to my final destination. I used car, rail, uber, bike etc. – several modes to get to my destination. That would be Mobility on Demand – a chain of services in a system.

A: Carol Schweiger (Schweiger Consulting): MaaS is a tool to help you achieve MoD.

Q: Thomas Hill (FDOT): Why does the difference between MaaS and MoD matter?

A: Carol Schweiger (Schweiger Consulting): In the future it might not matter. It matters right now because MoD is a much broader concept that doesn't rely on MaaS to work. If we're talking about this five years from now, there won't be any difference.

Q: Ginny Crowson (Athey Creek Consultants): Is anyone aware of the status of FTA's MoD Sandbox evaluations? They published evaluation plans for each project last year? Have any evaluation results been published yet?

A: Carol Schweiger (Schweiger Consulting): Most of the evaluations are still underway. The integrated mobility innovation demonstration RFP is out and those applications are due August 1, 2019. Evaluation for the first sandbox are not yet complete but there is some documentation out for a few of them. You can find that documentation here: <https://www.transit.dot.gov/research-innovation/mobility-demand-mod-sandbox-program>

Q: Emma Lowe (PennDOT): Is a customized approach feasible beyond the local level? It sounds great I just wonder about revenue.

A: Carol Schweiger (Schweiger Consulting): We don't have a lot of experience yet so we don't know how feasible it's going to be financially to have personalization like in my rural example. One of the MaaS services in Europe that started deploying has changed their subscription packages based on what they're learning. I don't want to sweep this under the table – a number of private MaaS providers (particularly one in Finland called MaaS Global, which has a MaaS system called Whim) are supported by venture capital. This brings to bear the same questions people have about Uber



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and Lyft going public and losing VC money. We're waiting to see if MaaS subscription packages will lead to enough revenue to keep this as a feasible tool to serve in MoD. The jury is still out.

Q: Mohan Venigalla (USDOT): Would you call MaaS the Netflix of transportation? The Spotify of transportation?

A: Carol Schweiger (Schweiger Consulting): Some people definitely call MaaS the Netflix of transportation, but some of us don't agree with that. There has been some good discussion about how it differs from Netflix, especially in a pay-as-you-go situation. Spotify could be close to MaaS.

Q: Mohan Venigalla (USDOT): Does CA public utilities have data on TNC trips?

A: Joe Castiglione (SF County Transportation): We've gotten no data. We've gone through this process because they've refused to share data with us.

Q: Nathan Webster (NCDOT): Do you have before-after count of total VMT (taxi + TNC) considering 'before' as early 2010s before TNCs were available? Note that the personal vehicle VMT may now be lower because of TNCs!

A: Joe Castiglione (SF County Transportation): We had taxi data from before and after because SFMTA regulates taxis. In 2010 we considered TNCs zero – then as after we used 2016 data because that's when our project partners collected TNC data. With respect to estimating the effects of TNCs due to all those other factors, the population growth, employment growth, and other factors came out of an activity-based model we've used in SF for 20 years that has been validated prior to this.

Q: Ginny Crowson (Athey Creek Consultants): What TRB study was the transit ridership impact graphic from?

A: Joe Castiglione (SF County Transportation): "Understanding the Recent Ridership Decline in Major US Cities – Service Cuts or Emerging Modes"

A: Justin Ferri (KMJ Consulting, Inc.): Bruce Schaller also has some excellent work on TNC impacts on transit and other modes.

Q: Thomas Hill (FDOT): Please explain the methodology you used to determine the percent impact of TNCs to travel time increases.

A: Joe Castiglione (SF County Transportation): You can find references in the TNCs and Congestion reports and also a very academic paper published recently in *Science Advances*. There are three major sources of data – speed data from INRIX (observed data) over 1400 TMCs (Traffic Message Channels) that cover SF. With that we impute volumes via traditional volume-delay curves and use our TNC information that tells us how many TNC vehicles are on the streets (carrying passengers or empty). For population growth and employment growth, we use our travel demand model run in each year that's validated first to base year, then since we're looking back in time (no forecast) we use observed data for where population and employment were.



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Combining all of that, we can estimate the delta on 'private' (TNC) travel. The model also accounts for changes in freight movement due to new industry.

Q: Tom Houck (NJDOT): Has the data that you have looked at identify any transit deserts? Has that allowed you to make any policy decisions for new services?

A: Joe Castiglione (SF County Transportation): SF has a relatively robust transit system – both local and regional. There is extensive coverage across the city. That doesn't mean there are better areas and worse areas, but that hasn't been the charge as part of our research to identify where transit service needs to be improved. We're looking at a deeper dive on TNCs and transit and where that effect has been. For decades, transit ridership tracked with employment and population growth. In 2010-2011, that pattern stopped. We expected to see a transit ridership increase with the 230,000-person population growth, but transit ridership has remained flat, which is very surprising.

Q: Ginny Crowson (Athey Creek Consultants): Are there any indications of how TNCs – for both people and goods transport – may be impacting state/interstate routes (like I-95)?

A: Joe Castiglione (SF County Transportation): I don't think our analysis could help find that. There were freeway segments included, but they were only within the SF limits. Nothing we've done so far can allow insight into that other than highlighting the need to find data to understand it. With that data, such as INRIX or your other in-house resources, may help you find changes and try to answer to that question.