

## KEY TAKEAWAYS

One agency can't do operations alone and there isn't one technology to serve as a panacea for all our problems. It is important to find champions and partners outside of your agency.

The National Operations Center of Excellence convened the Southwest Peer Exchange to bring agencies together to exchange ideas, share best practices, and discuss how operations can be improved at each agency. This peer exchange discussed three overall topics:

1. Integrating data, legal/institutional issues, probe data, and crowdsourcing data
2. Performance measures
3. Emerging technologies in TSMO and traffic incident management (TIM)

During the meeting, two key themes emerged across the different discussion areas:

1. The importance of interagency collaboration
2. Different ways to make the business case for TSMO

These best practices are summarized below. All presentations from this peer exchange are available at <http://www.transportationops.org/ondemand-learning/2016-southwest-peer-exchange>

## INTERAGENCY COLLABORATION

**Co-locating staff from multiple agencies** – Co-locating staff from different agencies in one location has the potential to improve interagency collaboration. However, to be successful, co-locating should be done purposefully (i.e., with a plan in mind on how to leverage the setup), rather than simply because others are doing the same.

- Arizona DOT and the Maricopa Association of Governments (MAG) funded a three-year pilot project to co-locate Department of Public Safety (DPS) troopers and ADOT operators at the traffic operations center (TOC). The program began in October 2014, and became fully operational in January 2015.
  - Troopers are permanently assigned to the TOC. If you rotate troopers or give them temporary duty, the quality of work will drop.
  - Time to clear crashes was reduced by 63% on average, despite a 23% increase in total crashes.
  - Time to clear all freeway lanes at crash sites was reduced by nearly one-hour on average.
  - Overall savings due to reduced traffic delay during 2015 is estimated at \$165 million (does not include potential savings from reduced secondary crashes).
  - Benefit/Cost ratio: 368:1.
- When co-locating staff, it is important to be truly collaborative
  - Give staff from other agencies access to and ability to control DOT equipment (e.g. cameras)

- Don't put a line on the floor and segregate staff. Staff from all agencies should communicate and comingle.
- Texas DOT has a queue free-lane closure advisory system.
  - They are working on a full upgrade of Virginia DOT's Lane Closure Advisory Management System (LCAMS). This is different than what they currently have in Texas.
  - It is a good practice to bring together construction, maintenance, and operations people together on a regular basis.

**Public-Private Interactions** – The private sector should not be seen as an adversary or a roadblock. DOTs have a lot to gain from working with the private sector and vice versa. DOTs can engage in mutually beneficial relationships with private companies.

- How do you prevent the communications line from being cut during a construction project?
  - When laying fiber, only use the lines you need, and lease out the rest to telecommunications.
  - Construction workers won't want to cut the line of a telecommunications company because there will be consequences.
  - And even if it is cut, the line will be repaired quickly.
- Who has an any-donation clause, where any benefit to the private side has to be made available to all public sector companies?
  - New Mexico
  - Utah
- The NCHRP project, [Sharing Operations Data Among Agencies](#), is recommended as a reference.

## MAKING THE BUSINESS CASE FOR TSMO

*It's important to tell a story and show the benefits of TSMO and why it is cost effective.*

- For example, when responding to an accident, a fire department doesn't necessarily realize that keeping a lane closed for another minute extends a queue.
- Tools and software need to be used to show them that information.

*Performance measures can help you tell a story*

- Use a database to track lane closures - Utah DOT has contractors use an app to put their lane closures into their system
  - Once you know where those lane closures are, you can compare that across the databases to see if there are congestions in the work zones.
  - This is also used for incident congestion, bottlenecks, and weather-related congestion.
- Common performance measures:
  - Delay
  - Reliability
  - Mode split
  - Snow removal

- Set realistic targets and devote appropriate resources to ensure success
  - Caltrans is trying to help management understand the implications of performance management goals. The health is 80%, and now they're trying to increase that. However, these goals are unrealistic because there isn't anything placed behind that as to how that would be achieved. States need funding and resources to meet higher goals.
  - Is a 5% increase in system health realistic when no additional resources are made available?
  - Visuals help people "get it"
    - Maps
    - Charts
    - Graphs
    - Colors (e.g. green = good, red = bad)

#### *Universities and private sector are a resource to DOTs.*

- The Texas Transportation Institute (TTI) at Texas A&M University, along with the Center for Advanced Transportation Technology (CATT Lab) at the University of Maryland are both examples of programs which have performance tools available for public agencies to utilize.

#### *CROWDSOURCED DATA CAN BE USED FOR OPERATIONS AND PERFORMANCE MEASURES*

- Crowdsourced data is an excellent source of information. However, DOT's should negotiate carefully when engaging in a data sharing agreement. It is important to receive well-defined data, standardized methodologies, and standardized reporting.
  - WAZE
  - RITIS
- See pg. 28 of the [February 2017 ITE Journal](#)

#### *Use performance measures to convince decision makers why TSMO is important*

- Leverage existing agency reputations. In the case of the Arizona TOC co-locating pilot project, Arizona is a top 3-5 state in TIM, and the leadership embraced that. When you go to 31 mayors and you tell them you need money, you need to make a strong case. Showing the economic and safety benefits helped push this project.
- In New Mexico, it is important for the TSMO folks to show other parts of DOT the utility of TSMO. They do a good job of collecting data, which allows them to explain why they do it. However, there are some instances when they are trying to convince others to do an ITS project, but don't have the data to show why.
- Find a champion
  - Governors
  - Legislatures
- Be a salesman!
  - How do you impress people? For example, what do you tell the governor's staff to impress them enough to latch onto their project? What do you show them over what period of time?



Southwest TSM&O Peer Exchange  
Denver, Colorado: Hilton DoubleTree Denver-Aurora  
October 4<sup>th</sup> & 5<sup>th</sup>, 2016

- Learn the tricks of the trade
- What do we do to sustain the project when a champion leaves?