



# Adventures in Crowdsourcing Webinar Series: Identifying and Managing the Back of Queues

Wednesday, April 8, 2020  
FHWA Every Day Counts Round 5 (EDC-5)  
Crowdsourcing for Operations Innovation

# Today's Agenda



## Welcome and Introductions

Paul Jodoin, EDC-5 Crowdsourcing for Operations  
Innovation Co-Lead, FHWA Office of Operations



## Back of Queue Detection

Ed Cox, P.E., Indiana Department of Transportation (DOT)



## Back of the Queue - Real Time Detection & Prediction

Lee Han, Ph.D., University of Tennessee  
Yuandong Liu, University of Tennessee



## A Responder's Guide to Identifying the Incident Queue

Brian Purvis, P.E., Georgia DOT and AECOM

## Be Ready: Later we will have a Poll Question....

What topics would you like in the future?

### Previous Webinar Topics:

- Traffic Signal Applications
- Engaging Navigation Providers
- Incident Management Tools that leverage Crowdsourced Data
- Data Management and Governance
- Good Practices in Vendor Engagement

### Next Webinar May 2020:

- *Using Social Media to Detect Incidents and Inform Travelers*

## FHWA EDC-5 Crowdsourcing Innovation Goal

To increase the number of agencies that use crowdsourcing to better operate the transportation system through new, cost-effective, and proactive operational strategies and applications.

### **Crowdsourcing for Operations**

*Crowdsourced data allows agencies to more effectively operate the transportation system.*



Source: FHWA

30+ States are pursuing Crowdsourcing for Operations.

# Why Crowdsourcing?

## When integrated with an agency's existing efforts, crowdsourcing helps agencies:

- Expand geographic coverage and resolution.
- Reduce information time lags for improved real-time situational awareness.
- Reduce dependence on and cost associated with roadside sensors and systems.
- Overcome jurisdictional stovepipes.
- Implement proactive operations strategies.

**Crowdsourcing is a proven lower-cost solution to improving safety and operations.**

# Operations Application Area Highlights

- Most common applications of Crowdsourced data are for traveler information and incident management.
- Agencies are now expanding its use across application areas such as maintenance, road weather and work zone management.



Traffic Signal Management



Incident Management



Traveler Information



Work Zone Management



Road Weather Management



Maintenance Management

# Initiative Resources

- **Webinar series: Adventures in Crowdsourcing**
  - Traffic Signal Management and Planning.
  - Engaging Navigation Providers
  - Incident Management Tools using Crowdsourced Data
- **Workshops (see downloadable workshop flier)**
  - Information on applications and readiness activities.
  - Available to State and regional agencies and customizable.
- **Peer exchanges (virtual for the time being)**
  - Making the Most of Real-Time Vehicle Probe Data.
  - Making the Most of Free Crowdsourced Data.
- **On-site technical assistance**
  - To help bridge technical, policy, or process gaps in State or local implementation of crowdsourced data.

# EDC-5 Deployment Funding Opportunities & News

## State Transportation Innovation Councils (STIC) Incentive Program

- ✓ Up to \$100K per STIC per year to standardize an innovation
- ✓ <https://www.fhwa.dot.gov/innovation/stic/>

## Accelerated Innovation Deployment (AID) Demonstration Program

- ✓ Up to \$1 million available per year to deploy an innovation not routinely used
- ✓ <https://www.fhwa.dot.gov/innovation/grants/>



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For more information on the EDC Program

[www.fhwa.dot.gov/innovation/everydaycounts/](http://www.fhwa.dot.gov/innovation/everydaycounts/)



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# Adventures in Crowdsourcing *Using Social Media to Detect Incidents and Inform Travelers*

May 2020