



Adventures in Crowdsourcing Webinar Series: Crowdsourcing for Traffic Signals

Thursday, February 27, 2020
FHWA Every Day Counts Round 5 -
Crowdsourcing for Operations Program

Today's Agenda



Welcome and Introductions

Greg Jones, EDC-5 Crowdsourcing for Operations National Team, FHWA Office of Operations



Crowdsourcing Applications in Austin Signal Operations

W. Jared Wall, P.E., Austin Transportation Department



Measuring Road Performance in Washington DC

Rahul Jain, P.E., District of Columbia DOT
Tom Knofczynski, Mead and Hunt



Integrating Crowdsourced Data into Automated Traffic Signal Performance Measures (ATSPM)

Justin R. Effinger, P.E., Lake County Division of Transportation

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.

Initiative Resources

- **Webinar series: Adventures in Crowdsourcing**
 - Traffic Signal Management and Planning.
 - Crowdsourced Data for Back of Queue Applications.
 - Crowdsourced Social Media Data.
- **Workshops (see downloadable workshop flier)**
 - Information on applications and readiness activities.
 - Available to State and regional agencies and customizable.
- **Peer exchanges (targeted for March/April)**
 - 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/>

Why Crowdsourcing?

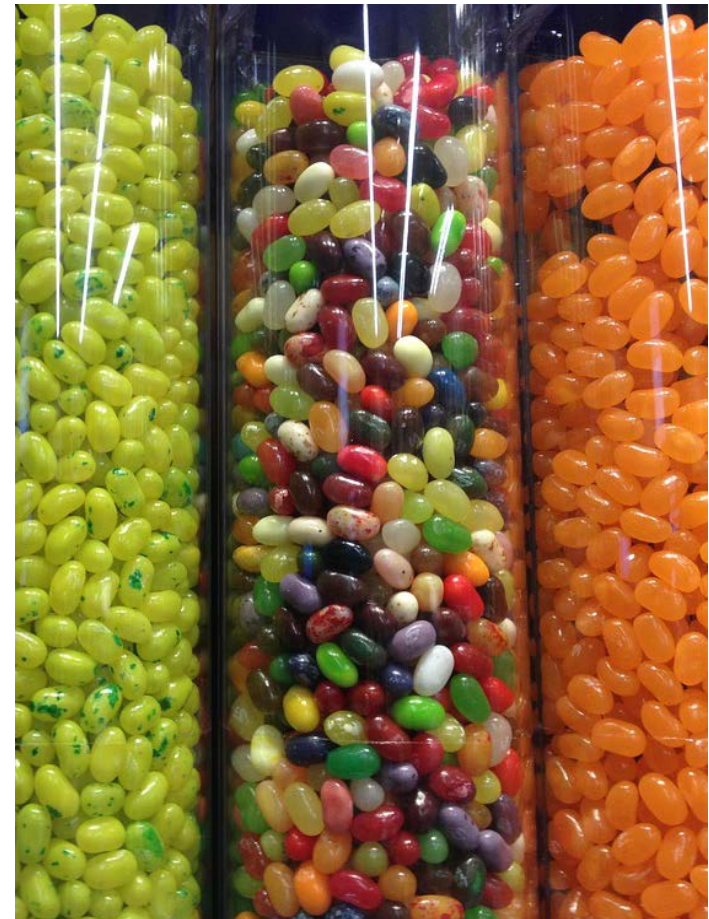
When integrated with an agency's existing efforts, crowdsourcing helps agencies:

- 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.

Types of Crowdsourced Data

- **Probe** – Speed and travel time.
- **Event** – Crashes, stalled vehicles, potholes, snow, rain, etc.
- **Travel Behavior** – Where, when, how (mode used) people travel.
- **Social media** – Capture sentiment on road and agency performance.
- **Vehicular** – Heavy braking, wiper on/off, temperature, and more from connected vehicles.
- **Mobile Infrastructure / Internet of Things** – For example, work zone cones sharing location, surrounding speed.



Source: Pixabay

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

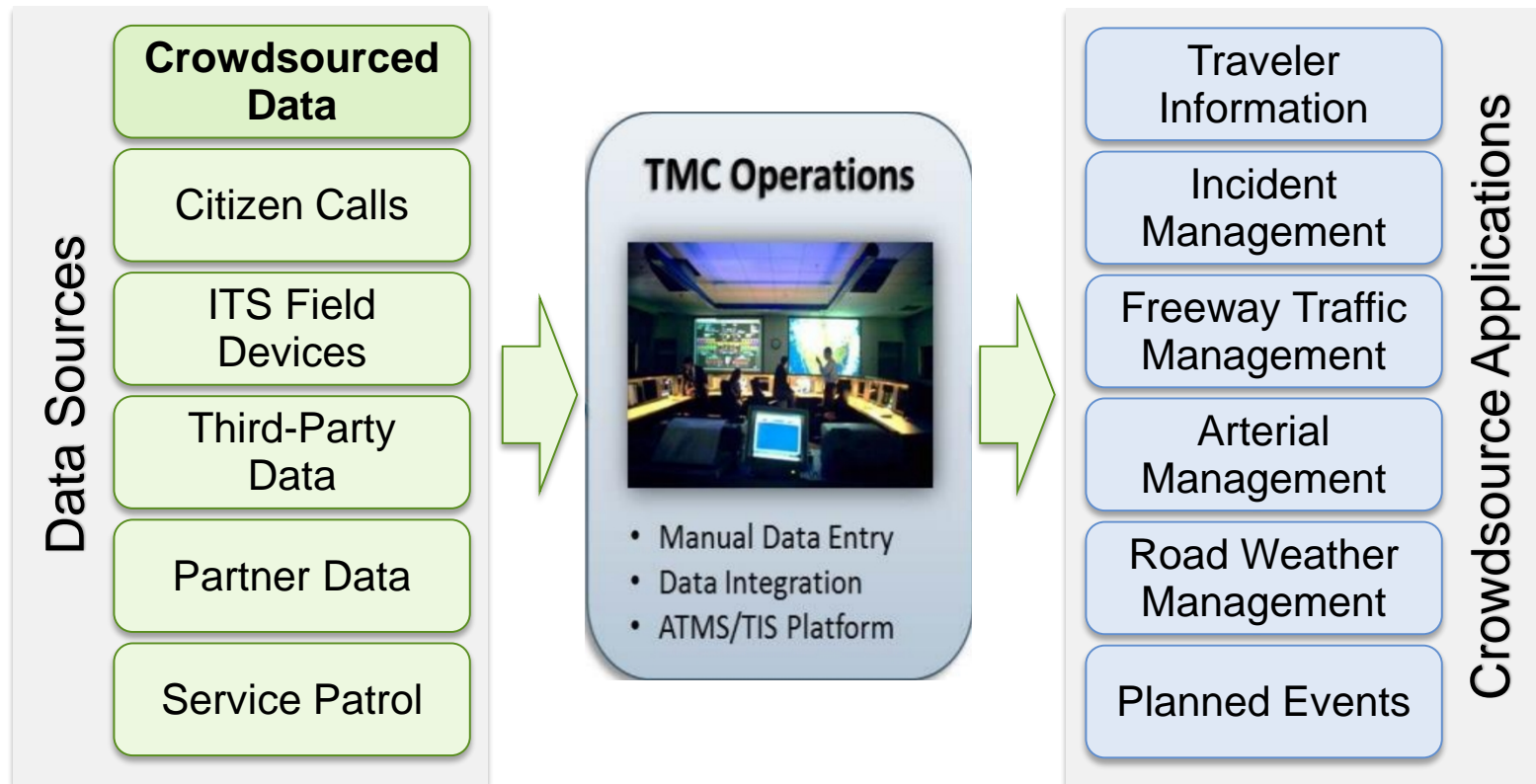


Road Weather Management



Maintenance Management

Existing and Potential Crowdsourcing Applications in Transportation



Other possible applications include freight management, work zone management, and performance assessment and reporting.

Webinar Question #1 (at the end of the three presenters)

What topics would you like to see in future installments of the Adventures in Crowdsourcing Webinar Series?

Previous Webinar Topics:

- Engaging Navigation Providers to Communicate Road Conditions
- Incident Management Tools that leverage Crowdsourced Data
- Data management and governance for Crowdsourced Applications
- Good Practices in Vendor Engagement

Next Webinar Apr 8th:

- *Identifying and Managing the Back of Queues*

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For more information on the EDC Program

www.fhwa.dot.gov/innovation/everydaycounts/



to subscribe to weekly and bimonthly newsletters



Adventures in Crowdsourcing: Identifying and Managing the Back of Queues

April 8, 2020 1:30 pm – 3:00 pm EST

<https://transportationops.org/calendar>