Using Data to Improve Traffic Incident Management

Paul Jodoin
EDC4 Program Manager
FHWA Office of Transportation Operations

every day counts
An Innovation Partnership with States
National TIM Activity
Set the Stage for Bigger Opportunities

• TIM Training
• TIM Committees
  o Relationships
  o Asset Management
  o Operating Procedures/Agreements
• TMCs and ITS Infrastructure
• Institutionalization
TIM Training Program Implementation Progress
Total Trained 319,266

27.8% Trained, 1.15M To be Trained as of March 2018
Formal TIM Programs and Committees

Established multidisciplinary TIM program (TIM SA Score 3)

Established and formalized multidisciplinary TIM program (TIM SA Score 4)
Every Day Counts (EDC4) Helps States Move Toward TIM Data Collection and Analysis

• **EDC is an FHWA state-based model to**
  o Identify and rapidly deploy proven innovations
  o Shorten the project delivery process
  o Enhance roadway safety, reduce congestion and improve environmental sustainability

• **Using Data to Improve TIM is 1 of 11 Innovations chosen from numerous proposals for EDC Round 4**

• **36 States engaged in Using Data to Improve TIM**

• **The Crash Form can be a key source for TIM Data**
TIM Data Goals:

- **Expand** collection of uniform TIM data.
- **Improve** the quality of the data collected.
- **Analyze** data to track performance and identify areas for improvement in TIM.

**Fourth Quarter Event Clearance**

- At 30 minutes, 76% of total events or 14,002 events were cleared in the fourth quarter of 2012.
- At 10 minutes, 44% of total events or 8,107 events were cleared in the fourth quarter of 2012.
Why Collect TIM Data?

Drive improvements and outcomes
• Understand current performance
• Identify improvement opportunities
• Measure effects from program and process changes

If you don’t measure it, you can’t PROVE it!

Increase transparency and accountability
• Demonstrate program effectiveness – TIM Benefits
• Target and justify future funding and planning
• Support reporting requirements

If you don’t measure it, you can’t IMPROVE it either!
How Can the Data be Used?

• After-action reviews
• Monthly/Quarterly trends analysis & reporting
• External/Internal reporting
  o Scorecards
  o Dashboards
• Decision support systems
• Real-time coordination
What Data Should be Collected?

3 Key Performance Measures:

1. **Roadway Clearance Time** – From the time an agency becomes aware of an incident and records it, to all lanes open for traffic flow.

2. **Incident Clearance Time** – From the time an agency becomes aware of an incident and records it, to time the last responder leaves the scene.

3. **Secondary Crashes** – The number of unplanned crashes recorded after the original incident either within the incident scene or within the queue in either direction.
How to Collect TIM Data

Crash Reports

TMC Software

Public Safety CAD

Service Patrol APs
Today’s Focus
The CRASH REPORT