



# FHWA Report

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SCOTE Meeting – June 6, 2016



# Operations Program Priorities

## Office of Transportation Operations Programs

- MUTCD Update Progress/Status
- Traffic Incident Management Progress
- Road Weather Management Goals
- Smarter Work Zones (EDC3)

## Other Office of Operations Programs

- Implementation of SHRP2 Reliability Products
- Performance Management Rulemaking
- Connected Vehicles
- FAST Act – Freight Provisions



# Office of Transportation Operations

## Program Team Leaders

**MUTCD**  
*Kevin Sylvester*

**Work Zones &  
Road Weather**  
*Paul Pisano*

**Traffic Incident &  
Emergency Management**  
*Kim Vasconez*



# Next Edition of the MUTCD

## Current Status

- **Pavement Marking Retro Rulemaking**
  - OMB has given go-ahead for Supplemental NPA
- **Things appear to be moving**
- **Exploring feasibility of revision(s) as alternative to full edition**
- **Additional Interim Approvals also**



## Request for Comments (RFC) on Future Direction for the MUTCD

- Published in *Federal Register* Dec. 22, 2015
- Solicited input on specific aspects over which FHWA has control and would most affect the usability of the MUTCD:
  - ☐ Target audience/intended user
  - ☐ Relationship between National MUTCD and State MUTCDs or Supplements
  - ☐ Organization and structure of MUTCD content
  - ☐ Frequency of new editions
- Analyzing comments to determine next steps



# Interim Approvals

- FHWA will continue to pursue new IAs that have potential to address demonstrated needs
- 1 IA has been terminated without being adopted
  - Based on empirical data, field experience, and lack of demonstrated benefits. (see Tech Brief)
  - Termination did not affect any existing IA devices.
  - Was about the concept, not the process.
- No reason to be concerned about implementing IA concepts



# National TIM Responder Training Program Implementation Progress As of May 31, 2016



## Train-the-Trainer Sessions

- 233 sessions with 8,042 participants



## In-Person Responder Training

- 6,905 sessions with 168,248 participants



## Web-Based Training (WBT)

- 9,057 participants



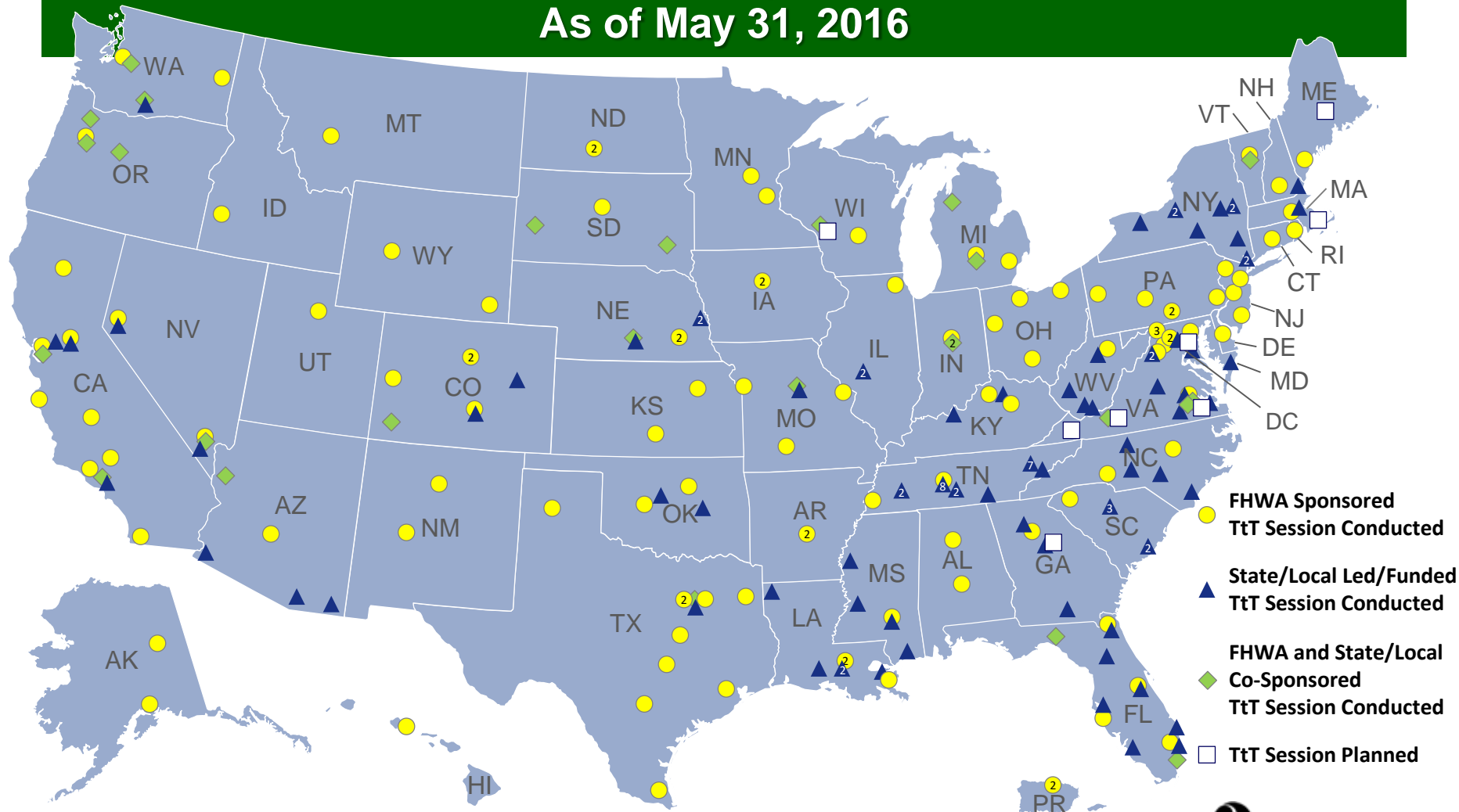
# Total Trained: 185,347



# TIM Training Program Implementation Progress

## Train-the-Trainer (TtT) Sessions

As of May 31, 2016

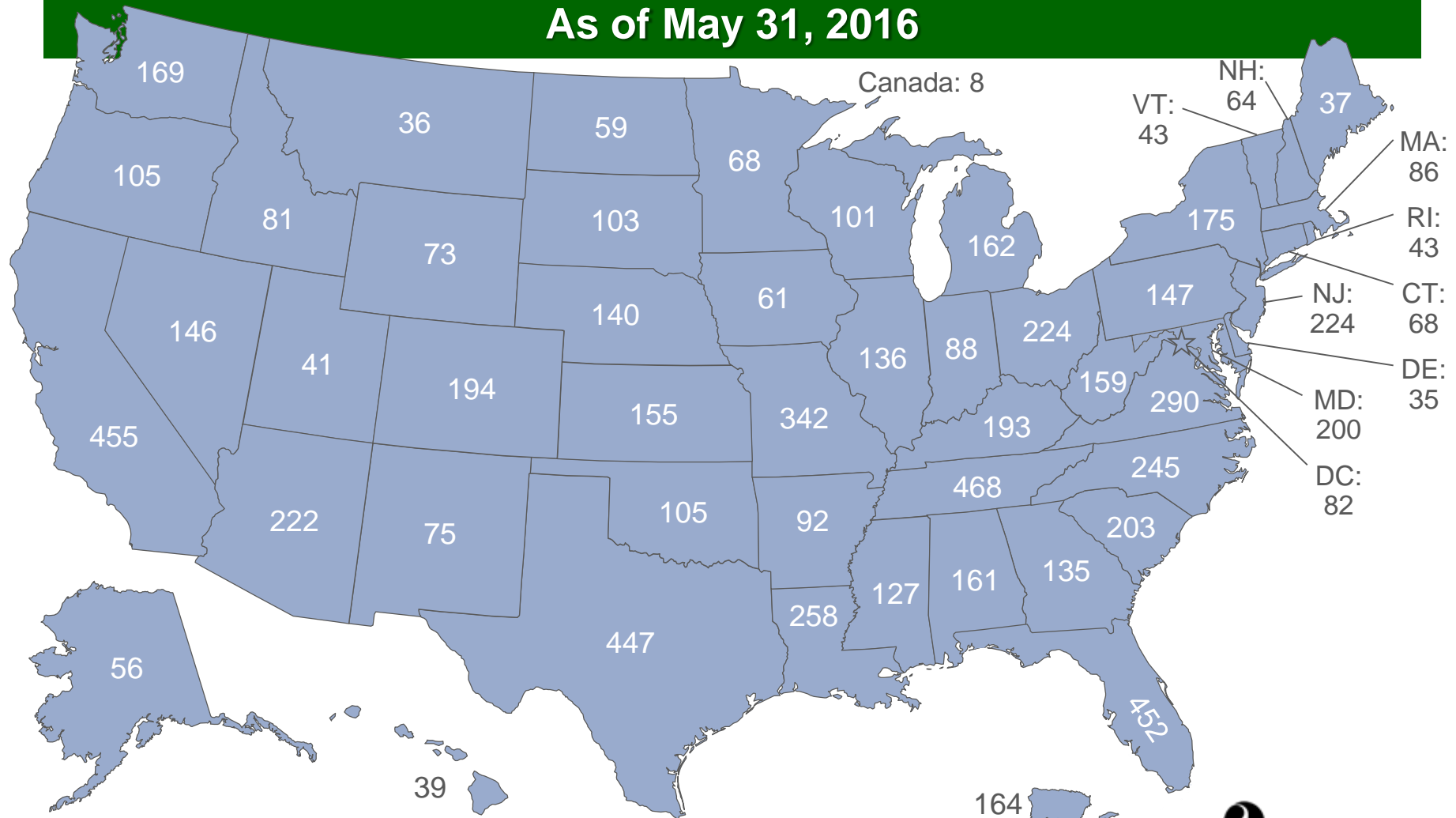




# TIM Training Program Implementation Progress

## Total Trainers Trained

As of May 31, 2016

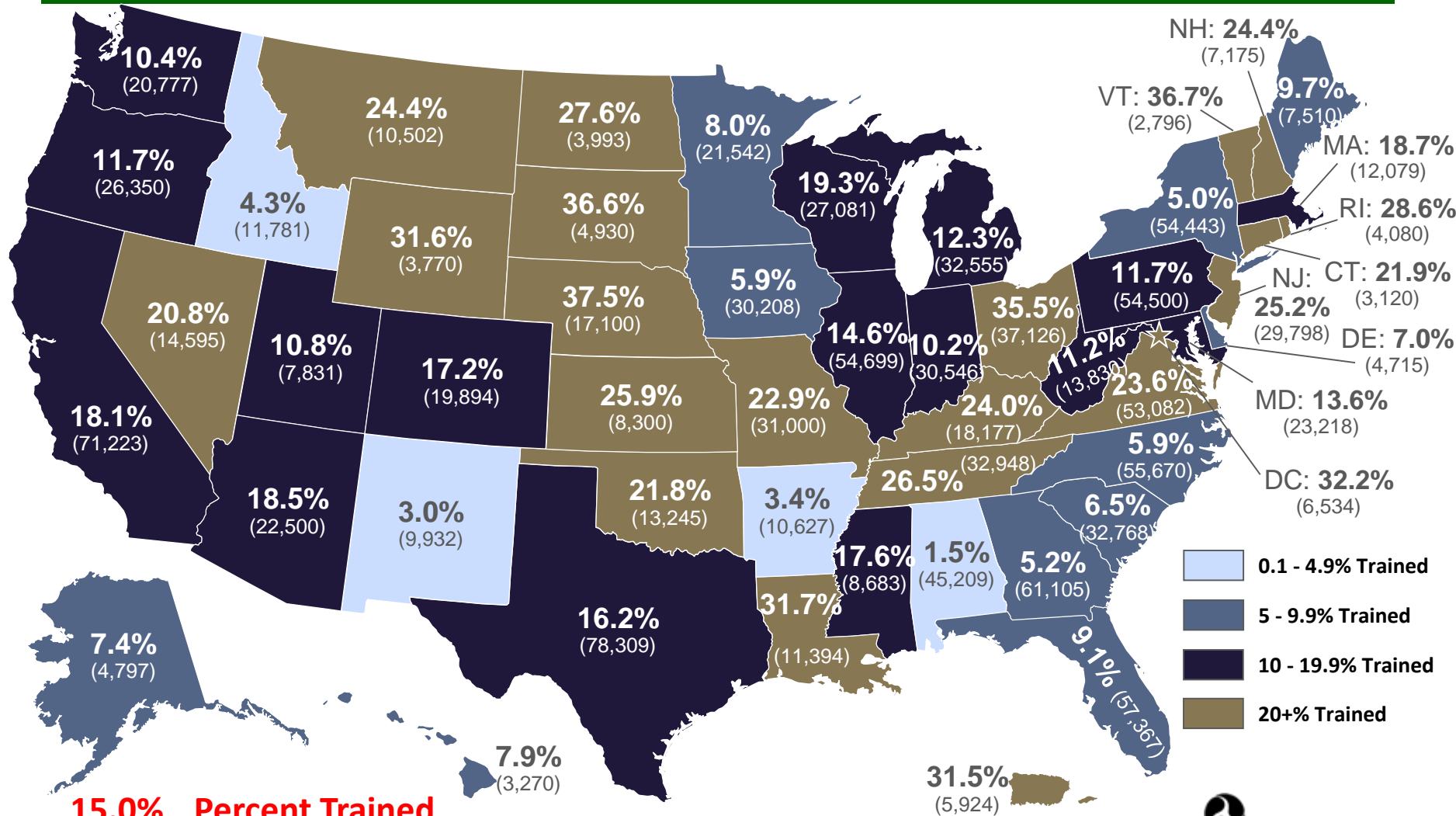


**8,042** Number of Trainers Trained



## Total Percent Trained

SIP16 Goal: 20% as of May 31, 2016

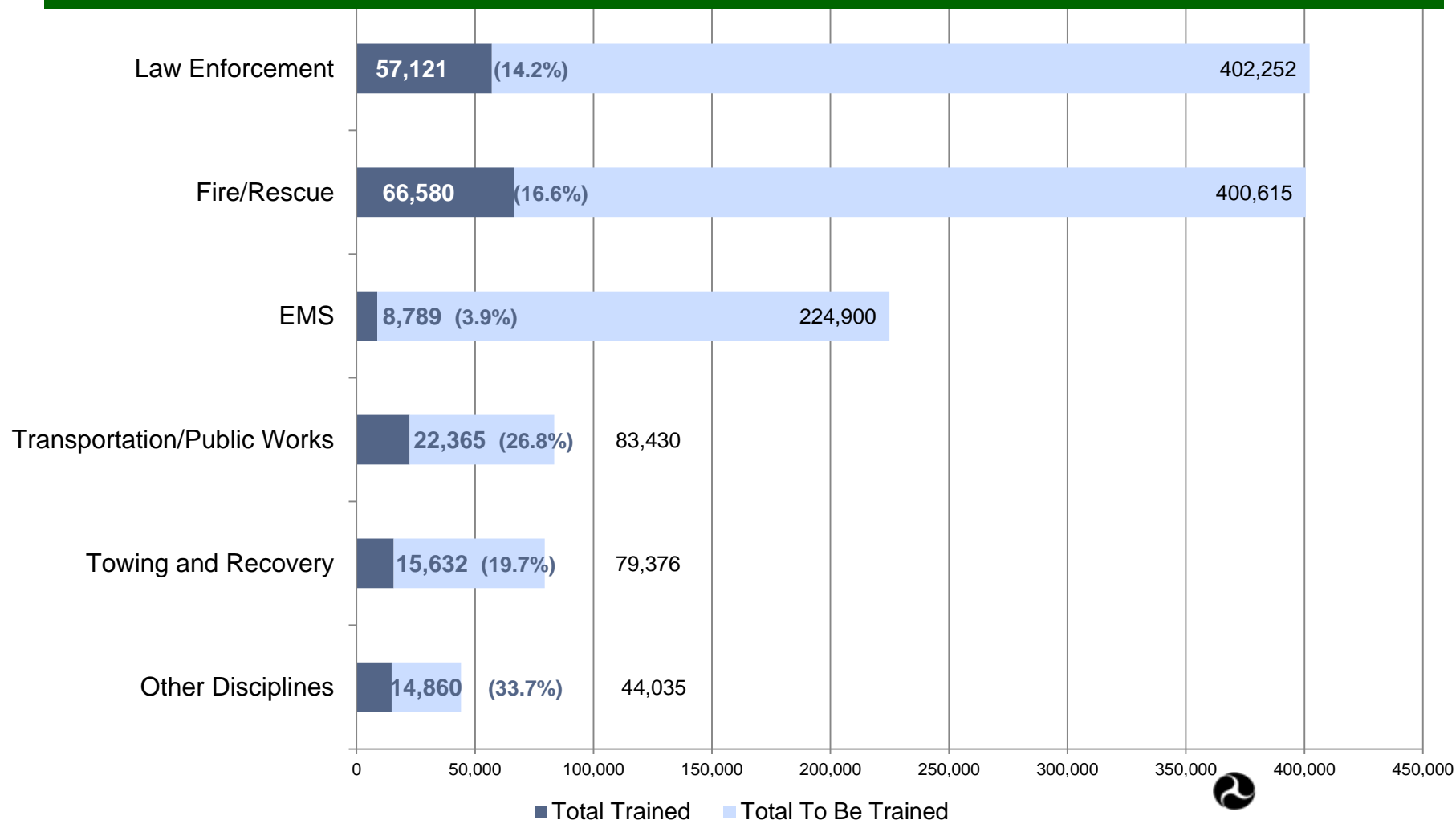


**15.0% Percent Trained**

**(1,234,608) Total Responders To Be Trained**



## TIM Training Program Implementation Progress Total To Be Trained By Discipline As of May 31, 2016



\* NHI Web-Based Training totals are included in "Other Disciplines"



# Pathfinder Initiative

- **Pathfinder Mission**

Strengthen the working relationships across State DOTs and the Weather Enterprise (National Weather Service and Private Weather Service Providers) to promote the dissemination of information to travelers that is clear, concise, impact-oriented, and most importantly consistent so that drivers are well informed and making the best (safest, most efficient) travel decisions.



# Deployment of Strategies

- FHWA, the National Weather Service and several State DOTs are working together to document the necessary steps to achieve the Pathfinder mission
- FHWA is working with several State DOTs to demonstrate the benefits of deploying technologies on State vehicles to better manage the system under adverse weather conditions
- We are developing implementation plans for both of these efforts and will be devoting resources to promote their deployment



# EDC-3: Smarter Work Zones

Promoting the deployment of two innovative strategies designed to optimize work zone safety and mobility

## ■ Project Coordination

Strategies:	Target: 25 (by 12/31/2016)	Number of States Implementing: 34	Goal Met? Exceeded by 9
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WISE tool:	Target: 5 (by 12/31/2016)	Number of States Implementing: 4	Goal Met? No
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## ■ Technology Application

1a: Planning:	Target: 35 (by 12/31/2016)	Number of States Implementing 1a: 9	Goal Met? Exceeded by 6
1b: Demonstrating		Number of States Implementing 1b: 32	



# EDC-3: Smarter Work Zones

## SWZ Interactive Toolkit

### Resources:

- 13 Webinars
- 3 Fact Sheets
- 6 Case Studies
- 14 Marketing Products
- Specifications and other project related info
- Peer Exchanges and Workshops
- Training
- Demonstration Site Visits
- Other references



The screenshot displays the website [www.workzonesafety.org](http://www.workzonesafety.org), titled "National Work Zone Safety Information Clearinghouse". The site features a navigation bar with links: ABOUT, CONTACT, LISTSERV, LOGIN/REGISTER, and a search bar. Below the header, a secondary navigation bar lists categories: Crash Information, Flagger Information, Training, Events and Conferences, Data Resources, and Hot Topics. The main content area is titled "Smarter Work Zones" and includes a graphic with the FHWA logo and the text "SMARTER WORK ZONES". A paragraph explains that Smarter Work Zones (SWZ) are promoted by the FHWA Every Day Counts Program to minimize safety and mobility impacts through innovative strategies. To the left, a sidebar lists resources under "Main Page", "Project Coordination", and "Technology Applications". To the right, another sidebar lists "FAQs", "Funding Opportunities", "Calendar of Events", "Regulation", "For More Info/Points of Contact", "Other Helpful Links", and "ADDITIONAL LINKS" including "FHWA Every Day Counts (EDC-3) Smarter Work Zones" and "FHWA Work Zone Mobility and Safety Program".

<https://www.workzonesafety.org/swz/>



# Work Zone (WZ) Management

## Smarter Work Zones:

- Part of the FHWA Every Day Counts initiative
- Promoting the deployment of two WZ solutions:
  - Project Coordination
  - Technology Application
- Goals – by December, 2016:
  - **20 State DOTs** have incorporated work zone project coordination strategies into agency documentation and business processes
  - **5 State DOTs** have volunteered to pilot the WISE (Work Zone Impact & Strategy Estimator) software application.
  - **35 State DOTs** have either implemented business processes for planning, design, procurement, operation, and evaluation of Work Zone ITS technologies, and/or deployed at least one technology application such as speed or queue management





# SHRP2 Reliability Implementation Status

Product	Implementation
Traffic Incident Management Training (L12/32)	Nationwide deployment
Organizational TSMO Capability Assessments (L01/06)	IAP Round 1
CEO Outreach on Operations & Reliability (L31)	Available nationwide
Enhanced Knowledge Transfer System (L17)	Nationwide deployment
Reliability Data Archive (L13A)	Available nationwide
Reliability Data & Analysis Tools (L02/05/07/08/C11)	IAP Round 4 IAP Round 7
Reliability in Simulation & Planning Models (L04)	Limited pilots, IAP Round 7
Communicating Reliability Traveler Info (L14)	Limited pilots, guidance
Business processes/e-Tool to improve reliability (L01/34)	Available nationwide
Regional Operations Forums (L36)	Nationwide deployment IAP Round 7
Work Zone Impact Estimation/Coordination Tool (R11)	IAP Round 6
Freight Data and Modeling (C20)	IAP Round 3

## ***Why Are We Doing Performance Management?***

- To transform the Federal-aid Highway Program and to provide a means to the **most efficient investment** of Federal transportation funds
- To refocus on **national transportation goals**
- To increase the **accountability and transparency** of the Federal-aid Highway Program
- To **improve decision-making** through performance-based planning and programming



# MAP-21 FHWA TPM Rulemaking Schedule

Performance Areas	NPRM	Comments Due	Anticipated Final Rule
Safety Performance Measures	March 11, 2014	<u>Closed</u> June 30, 2014	<b>Published</b> <b>March 15 2016</b>
Highway Safety Improvement Program	March 28, 2014	<u>Closed</u> June 30, 2014	<b>Published</b> <b>March 15 2016</b>
Statewide and Metro Planning; Non-Metro Planning	June 2, 2014	<u>Closed</u> October 2, 2014	<b>Published</b> <b>May 27 2016</b>
Pavement and Bridge Performance Measures	January 5, 2015	<u>Closed</u> May 8, 2015	<b>Anticipated</b> <b>November 2016</b>
Highway Asset Management Plan	February 20, 2015	<u>Closed</u> May 29 2015	<b>Anticipated</b> <b>November 2016</b>
System Performance Measures	April 22, 2016	<u>Open</u> until <b>August 20 2016</b> <b>(120 days)</b>	TBD

## *Final Measures: Safety*

Measure Area	Proposed Performance Measures
<b>Highway Safety Improvement Program Performance Measures (Subpart B)</b>	<ul style="list-style-type: none"> <li>• Number of Fatalities</li> <li>• Number of Serious Injuries</li> <li>• Rate of Fatalities per 100 million VMT</li> <li>• Rate of Serious Injuries per 100 million VMT</li> <li>• Number of non-motorized fatalities and non-motorized serious injuries</li> </ul>

Note: These measures apply to all public roads, regardless of ownership/classification.



## *Proposed Pavement/Bridge Performance Measures*

Measure Area	Proposed Performance Measures
<b>Pavement Condition Performance Measures</b> (Subpart C)	<ul style="list-style-type: none"> <li>• Percentage of pavements of the Interstate System in Good condition*</li> <li>• Percentage of pavements of the non-Interstate NHS in Good condition*</li> <li>• Percentage of pavements of the Interstate System in Poor condition*</li> <li>• Percentage of pavements of the non-Interstate NHS in Poor condition*</li> </ul>
<b>NHS Bridge Condition Performance Measures</b> (Subpart D)	<ul style="list-style-type: none"> <li>• Percentage of NHS Bridges Classified as in “Good” Condition*</li> <li>• Percentage of NHS Bridges Classified as in “Poor” Condition*</li> </ul>

\*These measures contribute to the National Highway Performance Program (NHPP)



## *Proposed Measures: Performance of the NHS and Freight Movement on the Interstate*

Measure Area	Proposed Performance Measures
<b>Performance of the National Highway System</b> (Subpart E)	<ul style="list-style-type: none"> <li>Percent of the Interstate System providing for Reliable Travel Times*</li> <li>Percent of the non-Interstate NHS providing for Reliable Travel Times*</li> </ul> <hr/> <ul style="list-style-type: none"> <li>Percent of the Interstate System where Peak Hour Travel Times meet expectations*</li> <li>Percent of the non-Interstate NHS where Peak Hour Travel Times meet expectations*</li> </ul>
<b>Freight Movement on the Interstate System</b> (Subpart F)	<ul style="list-style-type: none"> <li>Percent of the Interstate System Mileage providing for Reliable Truck Travel Times**</li> <li>Percent of the Interstate System Mileage Uncongested**</li> </ul>

\*These measures contribute to the National Highway Performance Program (NHPP)

\*\*These measures contribute to the National Highway Freight Program (NHFP)



## *Proposed Measures: CMAQ Program*

### Measure Area

### Proposed Performance Measures

**Measures for Assessing the  
CMAQ Program – Traffic  
Congestion**  
(Subpart G)

- Annual Hours of Excessive Delay Per Capita

**Measures for Assessing the  
CMAQ Program – On-Road  
Mobile Source Emissions**  
(Subpart H)

- Total Emission Reductions



# Connected Vehicles

- Connected vehicle efforts within USDOT, transportation agencies, and vehicle manufacturers continue to grow toward implementing a connected vehicle environment with secure, reliable communications as its core.
- Three main things to highlight:
  - Vehicle-to-Infrastructure (V2I) Deployment Guidance
    - V2I Deployment Coalition
  - Connected Vehicle Pilot Deployments
  - 5.9 GHz Spectrum Sharing





# V2I Deployment Guidance

- FHWA issued draft V2I Deployment Guidance last September.
  - Will be updated over time as more is learned
- Go to <http://www.its.dot.gov/>...
  - Search “**deployment guidance**”



# V2I Deployment Coalition

- V2I Deployment Coalition led by AASHTO, along with ITS America and the Institute of Transportation Engineers
- The V2I Deployment Coalition helps inform the transportation community of the V2I Guidance and its related training and tools.
- Established Technical Working Groups:
  - TWG 1: Deployment Initiatives;
  - TWG 2: Deployment Research;
  - TWG 3: Infrastructure Operator, OEM and Supplier Partnerships;
  - TWG 4: Deployment Guidance;
  - TWG 5: Deployment Standards



# CV Pilot Deployments

- Three CV Pilot Deployment locations selected:
  - New York City DOT
  - Tampa-Hillsborough Expressway Authority
  - ICF / Wyoming DOT
- Connected vehicle pilot deployments to serve as initial implementations of CV technology installed & operating in real world settings to deliver near-term safety, mobility & environmental benefits.
  - CV Pilots will remain in operation beyond the conclusion of the pilots evaluation.
- CV Pilots nearing completion of phase 1 (concept development)
  - NOFO issued for phases 2 (design, installation) & 3 (operations)
  - Expected awards in September



# 5.9 GHz Spectrum Sharing

- FCC is assessing the ability to share 5.9 GHz spectrum (DSRC) with unlicensed devices.
  - Due to a very small footprint of active DSRC device deployment and a growing consumer demand for spectrum for other uses, e.g., WiFi.
  - FCC published notice for comment (**FCC 16-68**) on June 1: **“Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band.”** (30-day comment period)
- USDOT is supportive of sharing, as long as there is no interference with the connected vehicle safety-critical messages.
- Highlights a critical aspect of the CV pilot deployments, i.e., the early deployment of connected vehicle strategies using DSRC.



# FAST Act Implementation

## Completed Activities

- Released summary materials and Notice of Funding Opportunity for 1105 program (Nationally Significant Freight and Highway program or “FASTLANE”)
  - Currently reviewing the first round of FASTLANE grant applications
- Released guidance on the formula program (National Highway Freight Program funding)
- Released guidance on various changes to Size and Weight provisions from FAST
- Released guidance on the Critical Urban and Rural Freight Corridor designation provision of FAST



# FAST Act Implementation

## Pending Activities

- Guidance on State Freight Plans and State Freight Advisory Committees
- Interim designation of the **National Multimodal Freight Network**. Release of *Federal Register* notice is imminent; currently available for preview at:  
[www.transportation.gov/freight/InterimNMFN](http://www.transportation.gov/freight/InterimNMFN)
- **National Strategic Freight Plan** – draft was released last fall and US DOT is working on completing a final Plan this year
- **Emergency Route Designation** Working Group formation -- *Federal Register* Notice coming soon





# Thank You!

