

# Safety Impacts of States' Roadside Technology Deployments

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U.S. Department of Transportation  
Federal Motor Carrier Safety Administration

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SAFETY  
RESEARCH  
FORUM

VIRTUAL EVENT



# Safety Impact of State Roadside Technology Deployments



ITD empowers States to apply cutting-edge technology to the challenge of improving highway safety and efficiency.

**FY23 Grant Allotment  
\$40 Million Dollars**

**Electronic-Screening  
\$25 Million Dollars**

**Safety Message Boards  
\$4.5 Million Dollars**



# Safety Innovation at Work



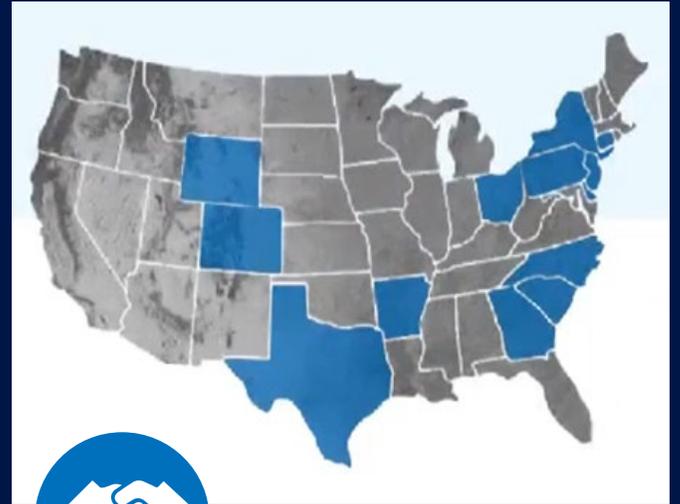
Practical and current favorite with State DOTs and incident management professional.

VS

Safety Notification



New Advanced Real-Time In-Cab Hands Free Safety Notifications.



Sponsorship built on state platforms.

# Valuable In-Cab Safety Notification in Real-Time



Safety Message sent to the truck.

Sudden Slowdown



Unexpected Slowdown



Public Service Alerts



Service Vehicles



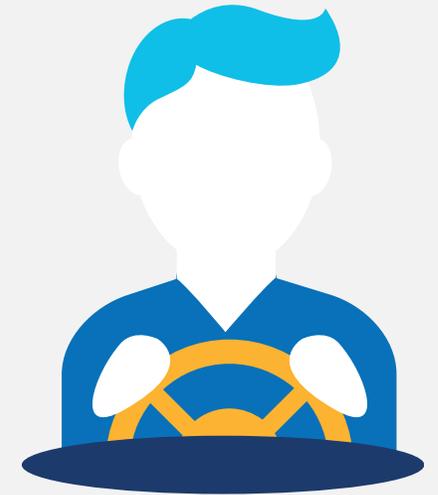
Active Work Zones



Public Service Advisories



The on-board alert is received 2-3 miles ahead of the incident.



The truck driver receives the hands-free notification and take the appropriate action.

# Effectiveness and Benefits



## In-Cab Alerts Benefits

Crash Reduction

Work Zone Safety

Driver Satisfaction

States

Carriers

Drivers

**70%** of  
drivers slow down  
**8-11mph**  
after receiving in-  
cab alerts

One State noted “every month, trucks regularly end up in undesirable locations due to map errors or shorter travel times.”

Since July 2022, they issued **16,000 alerts** at 16 locations for 6 trouble spots. **100% of alerted trucks** have avoided these restricted roads.

# Available Safety Alerts for Truck Crash Reduction Strategy

In-cab safety alerts while traveling at highway speeds.



# Fatal Crashes by Work Zone, 2017 – 2021

Work Zone	2017	2018	2019	2020	2021
<b>Crashes Involving Large Trucks</b>					
Fatal Crashes in Work Zones	221	207	153	136	151
Fatalities in Crashes in Work Zones	270	233	270	233	289
<b>All Crashes</b>					
Fatal Crashes in Work Zones	720	672	433	432	428
Fatalities in Crashes in Work Zones	809	756	809	756	843
Percentage of Fatal Work Zone Crashes that Involved at Least One Large Truck	30.7%	30.8%	35.3%	31.5%	35.3%
Percentage of All Fatal Crashes that Involved at Least One Large Truck	12.6%	13.2%	13.4%	12.5%	13.3%

National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS)

# Want to Learn More?

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## ITD Program Website

<https://www.fmcsa.dot.gov/itd>

## HP-ITD Grant Information

<https://ai.fmcsa.dot.gov/Grants/HighPriority.aspx>

# Contact Information

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