Where We Are Today


FRA conducted research in 10 of the 33 research topics identified in the 2009 workshop. Examples of topics include:

- FRA/Volpe research on LED-enhanced signs
- FRA/Volpe research on photo enforcement practices
- FRA/Volpe research on gate skirts and other pedestrian safety treatments at crossings
- FRA/AAR/Volpe research on law enforcement strategies and suicide media reporting
- FRA/ENSCO/Volpe research on identifying and classifying humped crossings
Current FRA Research Partners
20-Year Trends

Grade Crossing and Trespass Incident Rates 1997-2016

http://safetydata.fra.dot.gov
Research Needs Focus Areas

- Engineering/Technologies
- Human Factors
- Community Outreach/Education
- Enforcement
- Hazard Management
Objective: Provide up-to-date engineering standards and best practices for safety improvements at grade crossings.

- Gate Skirts
- Dynamic Envelope Zone
- In-Pavement Lights
- Low Ground Clearance
- Vehicle Detection
Human Factors

Objective: Better understand grade crossing accidents, fatalities, and injuries to develop countermeasures and focus future research.

- FRA Internal Data Analysis
- Correlation & Causal Analysis
- Predictive Modeling
- Highway-Rail Grade Crossing Driver Behavior
Community Outreach / Education

**Objective:** Educate partners, stakeholders, and the public about grade crossing safety to improve awareness, understanding, and safe behavior.

- Motorist Outreach
- Grade Crossing Training Aid
- Website Improvements
- Continued Support of Operation Lifesaver
Objective: Develop enforcement strategies for improving grade crossing safety through enhanced law enforcement and regulatory compliance.

- National Working Group
- Photo Enforcement at Crossings
- LE Strategies
- First Responder Videos
Hazard Management

**Objective:** Develop mitigating strategies and/or programs related to hazard identification, risk assessment, and risk control.

- Pedestrian Overpass Evaluation
- Blocked Crossing Driver Awareness (MBTA)
- GradeDec
- Connected Vehicle Standards & Protocols (FRA/FHWA/JPO)