

FRA Grade Crossing Safety Research



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Where We Are Today

July 14-16, 2009: The Volpe Center hosted FRA's 3rd Research Needs Workshop on Highway-Rail Grade Crossing Safety and Trespass Prevention Workshop.

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



U.S. Department of Transportation

Federal Railroad Administration



U.S. Department of Transportation
Federal Highway Administration



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



OPERATION LIFESAVER
Rail Safety Education

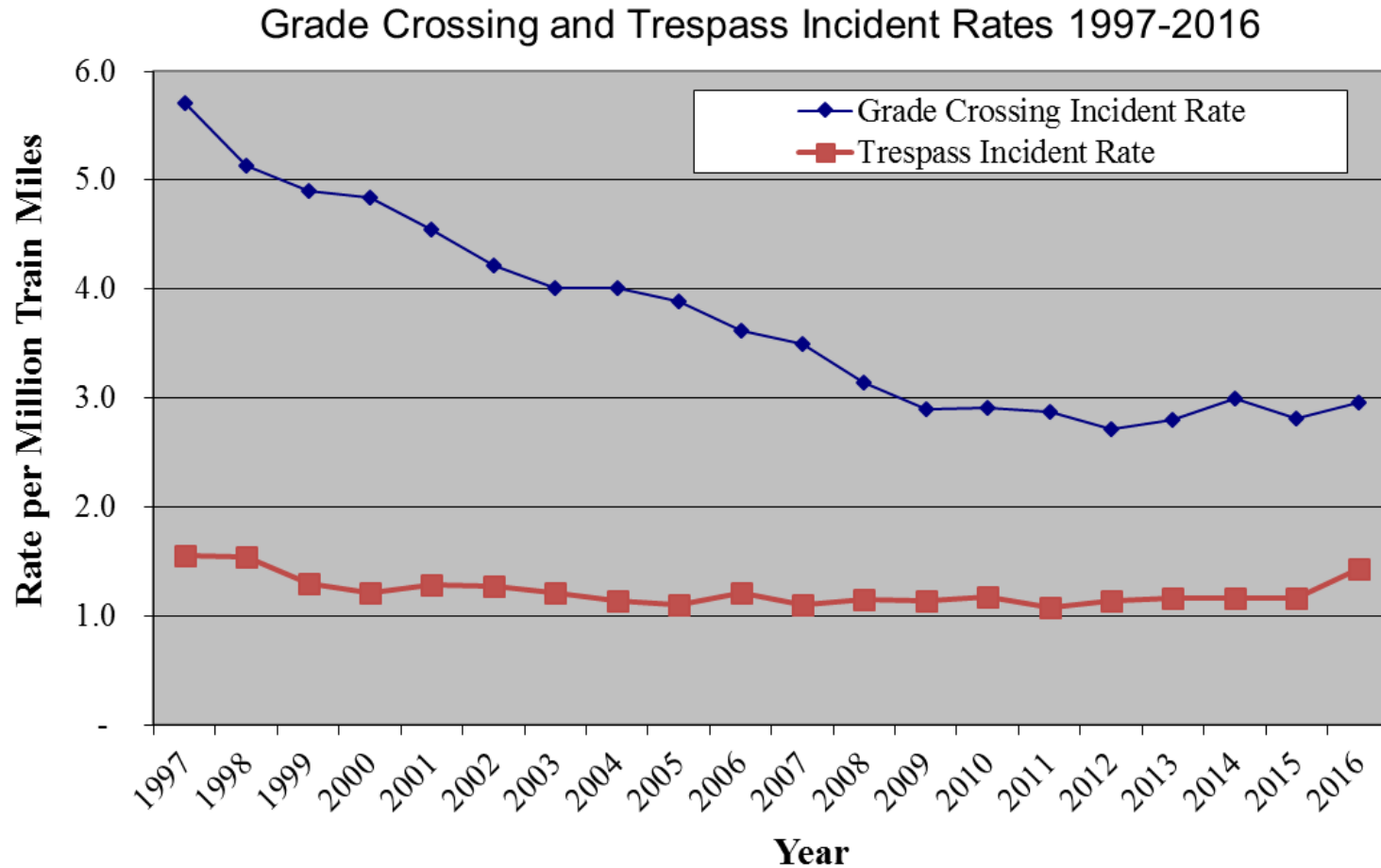


Moving America Forward



U.S. Department of Transportation
Federal Railroad Administration

20-Year Trends



Research Needs Focus Areas

Engineering/
Technologies

Human
Factors

Community
Outreach/
Education

Enforcement

Hazard
Management

Engineering / Technologies

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

The screenshot shows a website page with a navigation bar at the top containing links for 'About FRA', 'Railroad Safety', 'Rail Network Development', 'Research & Development', 'Legislation & Regulations', 'Grants & Loans', 'Communication & Government Affairs', and 'FRA Library'. The main content area is titled 'Highway-Rail Grade Crossing Safety & Trespass Prevention'. It includes a sidebar with a 'Railroad Safety' menu and a 'Highway-Rail Grade Crossing & Trespass Prevention' section. The main text states that combined highway-rail crossing and trespassing deaths account for 96% of all rail-related deaths, and that trespassing along railroad rights-of-way is the leading cause of rail-related deaths in America. A video player is featured with the title 'RAIL SAFETY for LAW ENFORCEMENT' and a play button. Below the video are three icons with arrows: 'PEDESTRIAN & MOTORIST', 'STATE & LOCAL GOVERNMENT', and 'LAW ENFORCEMENT & FIRST RESPONDER'. A 'Contact Us' box on the right provides the address, phone numbers, and email for the Federal Railroad Administration.

Enforcement

Objective: *Develop enforcement strategies for improving grade crossing safety through enhanced law enforcement and regulatory compliance.*

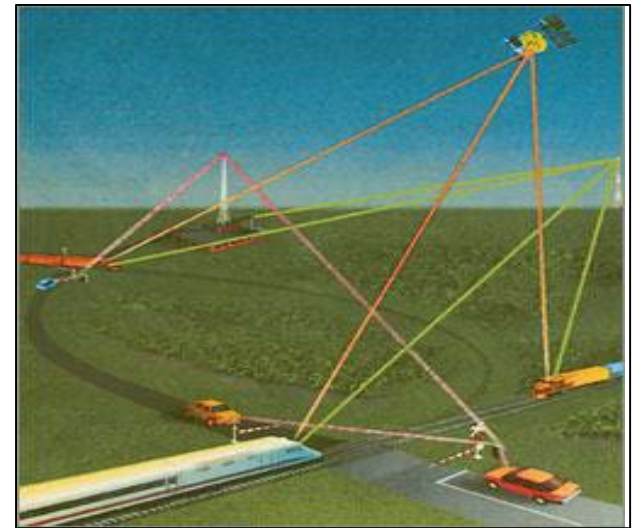
- National Working Group
- Photo Enforcement at Crossings
- LE Strategies
- First Responder Videos



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)



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