

FMCSA R&T: Today and Tomorrow

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

TRB



FMCSA Research and Technology 5-Year Strategic Plan Overview

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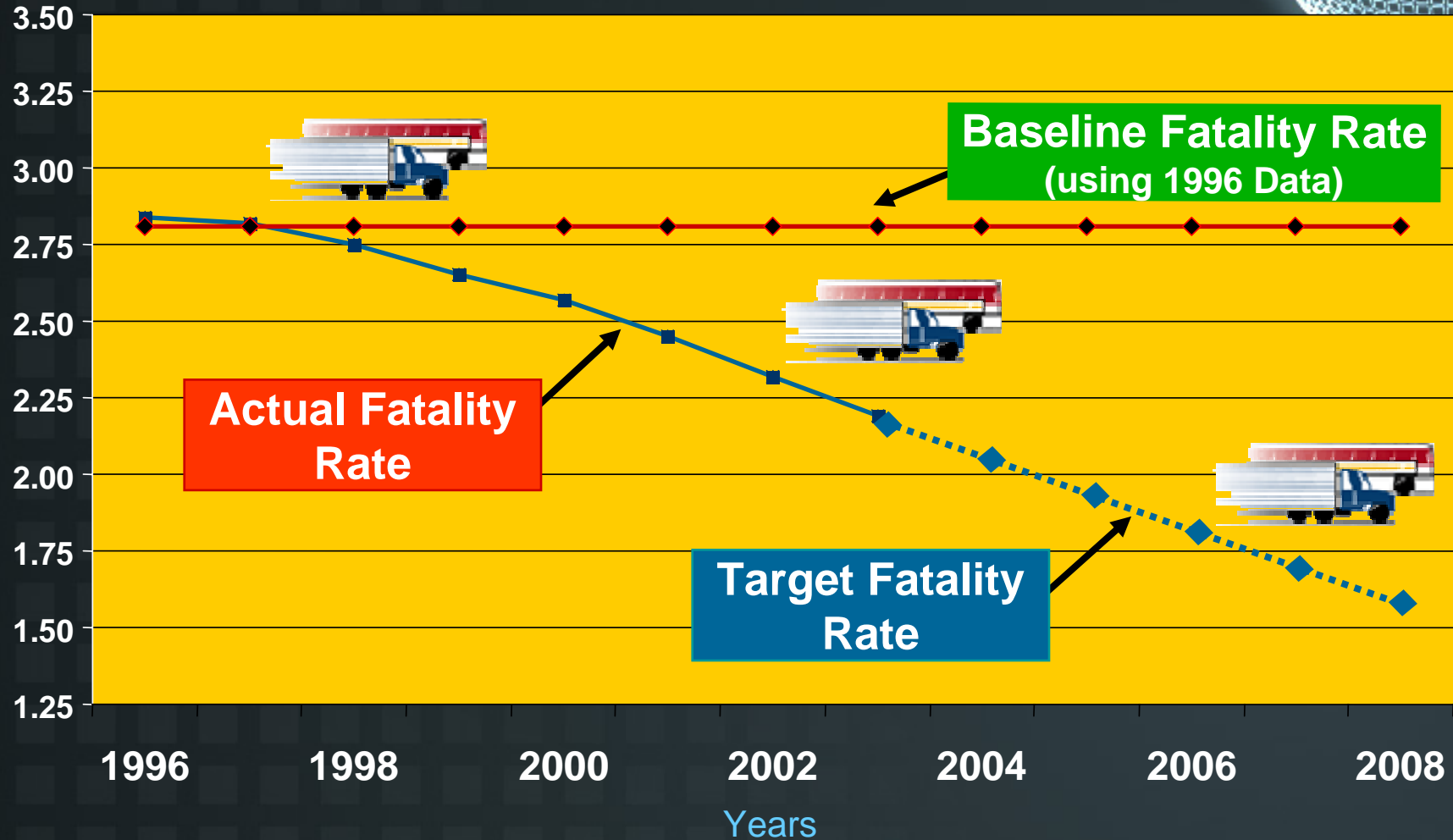
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Strategic Plan Supports FMCSA Safety Goal



Fatality Rate



Vision

A research and technology program that leads to the reduction of commercial motor vehicle-related crashes, fatalities, injuries, and losses, and enhances operational efficiency.



Our Mission



In support of our vision, we

- ◆ Conduct systematic studies directed toward fuller scientific discovery, knowledge, or understanding
- ◆ Adopt, test, and deploy innovative driver, carrier, vehicle, and roadside best practices and technologies

Guiding Principles



- ◆ We support FMCSA and DOT goals
- ◆ We are customer focused
- ◆ We conduct applied research and evaluate technologies
- ◆ We research, customers implement results
- ◆ We establish partnerships
- ◆ We support long-term research

Strategic Objectives



- ◆ Produce Safer Drivers
- ◆ Improve Safety of Commercial Motor Vehicles
- ◆ Produce Safer Carriers
- ◆ Advance Safety Through Information-Based Initiatives
- ◆ Improve Security through Safety Initiatives
- ◆ Enable and Motivate Internal Excellence

Produce Safer Drivers



Goal

Ensure that commercial drivers are physically qualified, trained to perform safely, and mentally alert

Key Areas

- ◆ CMV and non-CMV driver behavior
- ◆ Alertness and attentiveness
- ◆ Health and wellness
- ◆ Training and qualification
- ◆ CDL enforcement
- ◆ Assess state practices regarding commercial drivers' information

Improve Safety of Commercial Motor Vehicles



Goal

Improve truck and motorcoach performance through vehicle-based safety technologies

Key Areas

- ◆ Vehicle design
 - Safety belt design and use
 - Improve tires, conspicuity
 - Better car/truck compatibility
- ◆ Impact of new technologies
- ◆ Impact of physical road configuration



Produce Safer Carriers

Goal

Support efforts to improve carrier safety by communicating best practices, and supporting the agency's enforcement activities

Key Areas

- ◆ Improve carrier compliance reviews and truck inspections
- ◆ Evaluate better information and practices for carriers and shippers
- ◆ Expand CVISN
- ◆ Support carrier enforcement

Advance Safety through Information-based Initiatives



Goal

Conduct data-driven R&T initiatives to gain a greater understanding of rulemaking effectiveness, impact of enforcement activities, and crash causation

Key Areas

- ◆ Support regulatory and enforcement excellence
- ◆ Build on crash causation study
- ◆ Study industry trends
- ◆ Alternate approaches to measurement

Improve Security Through Safety Initiatives



Goal

Develop and implement safety initiatives that also have security benefits for truck and motorcoach operations

Key Areas

- ◆ Mitigate security risks through safety measures
- ◆ Improve the management of hazardous materials
- ◆ Prevent misuse of CMVs

Enable and Motivate Internal Excellence



Goal

Improve performance to serve the customers of the Office of Research and Technology more effectively and economically

Key Areas

- ◆ Ensure performance of the research and technology program
- ◆ Ensure quality of the research and technology program
- ◆ Ensure relevance of the research and technology program

Performance Metrics



Used to evaluate program and measure achievement

- ◆ Output metrics
- ◆ Outcome metrics
- ◆ Impact metrics
 - Amount of industry and societal change

Applies President's Management Agenda Criterion

- ◆ Integration of budget and performance

Performance Metrics

Output Metrics

- ◆ Number of R&T projects completed on-time, on-budget
- ◆ Number of reports and studies completed
- ◆ Number of prototypes developed and tested
- ◆ Number of awards received
- ◆ Number of rules, policies, and outreach programs initiated

Outcome Metrics

- ◆ Number of CMVs equipped with advanced safety technologies
- ◆ Number of carriers, drivers, states, etc. participating in R&T safety projects
- ◆ Results of customer and stakeholder feedback
- ◆ Results of peer reviews

Impact Metrics

- ◆ Number of CMV-related fatalities per 100 million VMT
- ◆ Number of injuries
- ◆ Number of crashes

Conclusion



- ◆ The Strategic Plan is intended to be a living document that provides a roadmap for future program development
- ◆ It will adapt to evolving circumstances and priorities and will be periodically updated
- ◆ It is constructed to be wide-ranging and thought-provoking
- ◆ The specific projects in which the Agency will engage are subject to budget availability and priorities
- ◆ FMCSA intends to share resources and ideas by partnering with other organizations

FMCSA R&T 5-Year Strategic Plan



R&T Forum attendees will be notified by email when the FMCSA R&T Strategic Plan is available.