



Evaluating State Safety Corridor Programs

tech transfer summary

July 2008

RESEARCH PROJECT TITLE

Synthesis Study: Effectiveness of Safety Corridor Programs, Report on Tasks 1–3

SPONSORS

Kansas Department of Transportation
(Project 106KA-0856-01)
Missouri Department of Transportation
(Project RI07-014)
Iowa Department of Transportation
(CTRE Project 07-297)
Midwest Transportation Consortium
(Project 2007-08)
University of Missouri-Columbia

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The Midwest Transportation Consortium (MTC) is part of the Center for Transportation Research and Education (CTRE) at Iowa State University. The MTC is the University Transportation Centers Program regional center for Iowa, Kansas, Missouri, and Nebraska.

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Successful safety corridor programs use multidisciplinary measures to reduce crash frequencies and improve driver performance.

Objectives

- Synthesize 13 safety corridor programs across the United States and identify the characteristics common to successful programs
- Recommend ways for Federal Highway Administration (FHWA) Region 7 states (Missouri, Nebraska, Kansas, and Iowa) to establish successful safety corridor programs and select pilot corridors

Background

Safety corridor programs aim to improve particularly unsafe roadway segments within a state. These segments can vary considerably, extending anywhere from a few hundred feet to 50 miles, and programs have been established on both rural two-lane highways and in urban areas. Most safety corridors, however, tend to be homogenous, with reasonably uniform characteristics throughout. With the roadway segments selected, safety corridor programs identify and implement treatments—such as low-cost engineering solutions, enhanced enforcement, or public information campaigns—to help improve safety.

At the time of the study, the four FHWA Region 7 states (Missouri, Nebraska, Kansas, and Iowa) lacked state-level safety corridor programs. A comprehensive synthesis of established safety corridor programs throughout the United States can determine the features of successful programs and help the Region 7 states effectively implement programs and select pilot corridors.

Surveys and Field Visits

To identify the features of successful safety corridor programs, survey information was gathered from 13 state programs: Alaska, California, Florida, Kentucky, Minnesota, New Jersey, New Mexico, New York, Ohio, Oregon, Pennsylvania, Virginia, and Washington. Additionally, five individual corridors from among these state programs were visited.

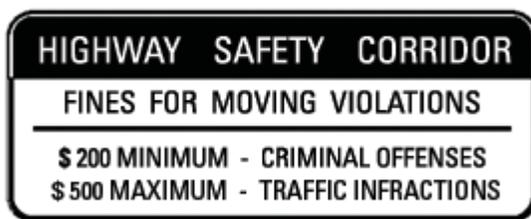


SR 14 Safety Corridor in Washington State

Key Findings

Several characteristics of successful safety corridor programs were identified:

- Corridors are relatively homogenous throughout.
- Multidisciplinary safety improvement efforts combine engineering, education, and enforcement (3E) measures. Some states also consult emergency medical services (4E approach).
- Only 3 to 12 safety corridors per state are active at one time.
- Consistent, statistically rigorous measures of crash and fatal/injury data and measures of effectiveness (MOEs) help select, evaluate, and decommission corridors. A crash rate 10% greater than the statewide average for similar roadways is a common measure.
- A statewide champion can help select corridors and secure funding.
- A task force develops and monitors a corridor safety action plan, the steps needed to successfully implement and manage the corridor.
- Safety corridor legislation helps establish the corridor program and imposes enhanced fines for traffic-related offenses.
- Special signing in safety corridors advises drivers of the safety emphasis in the roadway section. “Enhanced Speed Limits” and “Lights on for Safety” are typical messages.
- An initial road safety audit or a detailed multidisciplinary safety review helps improve the safety-related practices, procedures, and standards.
- Low-cost engineering improvements, such as signing upgrades or rumble stripes/strips, help reduce common crash causes.
- Safety corridors are decommissioned after safety data have improved, according to the same criteria employed in selection and evaluation. Two to three consecutive years of safety improvements is a reasonable goal.



Enhanced enforcement sign, Virginia safety corridor

Characteristics of successful safety corridors, by state

	1. Multidisciplinary	2. Limited Number	3. Crash Data	4. Champion	5. Safety Action Plan	6. Legislation	7. Special Signage	8. Road Safety Audits	9. Minimal Engineering	10. Length	11. Decommissioning	12. Selection Criteria/MOEs	13. "After" Data
Alaska	•	•	•	•	•	•	•	•			•	•	•
California	•	•	•		•	•	•	•	•	•	•	•	•
Florida	•		•	•					•	•		•	•
Kentucky	•	•	•				•	•	•			•	•
Minnesota	•						•	•	•	•			
New Jersey	•	•	•	•		•	•	•			•	•	•
New Mexico	•	•	•	•		•	•		•	•	•	•	•
New York	•	•	•	•	•					•		•	
Ohio	•	•	•				•		•	•	•	•	•
Oregon	•		•	•	•	•	•	•	•	•	•	•	•
Pennsylvania	•		•			•	•		•	•		•	•
Virginia	•	•	•			•	•		•	•		•	•
Washington	•	•	•	•	•		•	•	•	•	•	•	•

Implementation Benefits

- Safety and driver performance typically improve in selected roadway sections, particularly when coordinated with local safety professionals and when public awareness is emphasized.
- Responsiveness to public safety concerns can be demonstrated at a relatively low investment cost.
- Selected countermeasures can be implemented relatively quickly, while longer term, more costly solutions are developed and funded.

Implementation Readiness

Most safety corridor programs are similar, but no individual program can fit every state's needs. States differ in terms of roadway and crash characteristics and the safety funds available.