

FHWA'S ROADWAY DEPARTURE PROGRAM

- **Focus: Improve safety through more effective program delivery, technical assistance and support, data analysis, research, and training for State DOT's and local agencies in order to keep vehicles on the roadway, alert drivers to conditions, and reduce crashes, the severity of crashes, fatalities and injuries.**

The largest U.S. highway safety problem, roadway departure (RD) crashes, account for 58% of all roadway fatalities and 2 million serious injuries per year. Reducing crashes must be held as a high priority for Federal, state and local transportation agencies. Single vehicle RD crashes include: Run-off-the-road (ROR) crashes, opposite direction front-to-side crashes, head-on crashes, and sideswipe crashes.

- 39% of all fatalities are single vehicle, ROR crashes
- 20% of all fatalities involve hitting fixed objects. (Shielding or removing fixed objects compensate for some driver errors.)
- 68% of RD crashes are single vehicle ROR crashes **Most are 2-lane rural !**

The highest priority for **FHWA's Roadway Departure program** for FY 2008 and beyond is an emphasis on and the development of technical and briefing information distributed to all levels of Federal, State DOT and local agency personnel, from top management to maintenance operations. Cross-cutting marketing, outreach & education, including efforts to reach and educate non-Safety audiences, including resource agencies and others who impact transportation decisions, is also planned. The RD Program Team is also FHWA's contact point for the AASHTO Technical Committee on Roadside Safety and its revision of the Roadside Design Guide and for the AASHTO/FHWA Implementation Plan for new crash testing guidance (update to NCHRP 350): the Manual for Assessing Safety Hardware (MASH 08).

FHWA has identified 17 **Roadway Departure Focus States** to receive additional resources in technical assistance and support for accomplishing positive results in reducing crashes due to roadway departure. These 17 RD Focus States are States that each had at least 240 2-lane rural RD fatalities and a rural 2-lane roadway departure fatality rate above the national average of 2.68/100M VMT: Alabama, Arizona, Arkansas, California, Florida, Illinois, Iowa, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, Oregon, Pennsylvania, South Carolina, and Washington State.

This focused program includes multi-level (management and technical) site visits and additional technical assistance to the 17 RD Focus States, as well as quarterly web conferences (next tentatively set for February 14, 2008), increased marketing and outreach, and an increase in technical products distributed in a variety of forms (report summaries, CD's, DVD's, brochures, fact sheets, etc.) on the most critical, high-risk areas (e.g., horizontal curves, pavement safety and roadside hardware). This information will be online and in the form of technical products available to all States and local agencies.

Technical Efforts and Products

Currently Available:

Highway Safety and Trees: The Delicate Balance (DVD and Brochure)

Designed to educate on the hazards of trees adjacent to roadways (and options). Stresses communication with the public and using design solutions for highway projects that fully and objectively consider safety as well as other community concerns. (DVD product # FHWA-SA-06-13. Brochure product # FHWA-SA-06-12.)

Safer Sign Supports: Are Yours Breakaway Yet? (Brochure)

Advocates replacing rigid sign poles with breakaway supports. Signs on highways posted 50 mph or more must be upgraded by 2013. Others can be upgraded when sign sheeting is replaced. (Product # FHWA-SA-06-14.)

Guidelines for the Selection of W-Beam Barrier Terminals (CD)

Shows the crash performance characteristics of the 3 major categories of W-beam terminals. "Must" viewing for those responsible for selecting, locating, installing, or repairing guardrail terminals. (Product # FHWA-SA-06-19.)

Good Practices: Incorporating Safety into Resurfacing and Restoration Projects (Report and CD)

Results of a domestic scan cosponsored by FHWA, AASHTO, and NACE in 6 states. The report identifies common issues, success factors and good institutional practices, including commitment to integrating safety in pavement preservation projects, making selective geometric improvements, identifying targeted safety countermeasures, traffic control devices, and improving roadsides. (Publication # FHWA-SA-07-001.)

Low-Cost Treatments for Horizontal Curve Safety (Report)

This report provides descriptions of treatments, examples, applications, and design features and a section on maintenance activities for practical low-cost treatments for identified or potential safety problems for horizontal curves. Nearly 25% of fatal crashes occur at or near a horizontal curve. (Publication # FHWA-SA-07-002.)

Near Future:

- **Safety Edge.** Revised brochure on the Safety Edge pavement treatment.
- **Visibility and Retroreflectivity:**
 - **Maintaining Traffic Sign Retroreflectivity.** FHWA will issue rulemaking that requires agencies to maintain traffic signs to a minimum level of retroreflectivity.
 - **Maintaining Minimum Pavement Marking Retroreflectivity.** FHWA is currently gathering input and conducting research in advance of proposed rulemaking on pavement marking.
 - **Documents to Support Sign Retroreflectivity Rulemaking** prepared to assist and guide practitioners, including a 4-page Maintaining Sign Retroreflectivity brochure, a research report on Methods for Maintaining Traffic Sign Retroreflectivity, newsletter articles, and updated FHWA and MUTCD websites.
- **Rumble Strips—A Sound Investment (DVD)** Demonstration of the cost-effectiveness of Rumble Strips and Rumble Stripes as countermeasures to reduce drift-off-the-road crashes. Will include evidence on existing installations and on the increasing use of edge, shoulder and centerline Rumble Strips and Rumble Stripes on high speed two-lane roads.
- **Low-Cost Treatments for Horizontal Curve Safety (Brochure)** Summary of content in the “Low-Cost Treatments for Horizontal Curve Safety” report.
- **Landscaping Guidance.** Based in part on a review of State landscaping policies and practices (e.g., for walls, rocks, signs, lighting, and trees), guidance will be issued that supports innovative accommodation of trees and other landscaping features to improve safety and avoid harm to the highway environment.
- **Cross-Median Treatments (DVD)** To reduce cross-median crashes, this DVD will address cable barriers, other barrier treatments, and minimum median width for which a barrier should be considered. Intended for all State DOT’s at the District level and county and city highway engineers and decision-makers.
- **Roadway Safety for Motorcycles: Tips for Designing, Constructing, and Maintaining Roadways for Increased Motorcycle Safety (Brochure)** Designed to raise awareness in State and local agencies and others on actions they can take in design, construction, and maintenance to reduce the increasing number of motorcycle fatalities and injuries. (Publication # FHWA-SA-07-012).
- **Ready-to-use technical training and briefing PowerPoint presentations, information sheets, and brochures** on critical areas (e.g., pavement safety) for FHWA Division, State DOT and local agencies’ use, such as technical presentations on: An Overview of Roadside Safety, A Strategic Approach to Reducing Roadway Departure Crashes, and Low Cost Solutions for Rural Two-Lane Roads. Each will be in 2 formats: a 1-hour technical presentation and a 20 to 30-minute Executive Summary presentation.

Some Publications/CD’s/DVD’s are currently being reprinted. Publications are or will be available at <http://safety.fhwa.dot.gov>. For copies of publications/CD’s/DVD’s (at no charge), contact the FHWA Report Distribution Center at (301) 577-0906, at report.center@fhwa.dot.gov, or via Fax: 301-577-1421, specifying the title and product/publication number.

For more assistance, information, and to make recommendations for future efforts, contact one of the FHWA’s Division Office Safety Specialists or the FHWA Office of Safety Design’s Roadway Departure Team Leader, Mary McDonough, at mary.mcdonough@dot.gov or (202) 366-2175.

