Each year roadway departure (RwD) crashes account for more than half of the highway fatalities in the United States. FHWA defines a RwD crash as: A crash in which a vehicle crosses an edge line, a center line, or otherwise leaves the traveled way.

**Three Emphasis Areas** account for more than 70 percent* of all RwD fatal crashes: overturns, opposing direction, and trees/shrubs.

Agencies must reduce the number and severity of RwD crashes, specifically those associated with the 3 major Emphasis Areas, to achieve the vision of Toward Zero Deaths. Each State’s Strategic Highway Safety Plan (SHSP) can provide direction for reducing RwD related crashes in order to meet their goals.

Turn the page to see FHWA’s recommended strategies and actions associated with reducing the 3 most common RwD fatal and serious injury crashes.

*Source: FARS 2010-2012 (most harmful event)
**Overtum Crashes**
30% of fatal RwD crashes include an overturn.

**Risk Factors for Overtum Crashes**

- Rural Areas: 76%
- Posted Speed ≥ 50mph: 72%
- Curves: 43%

43% of overtum fatalities occur in curves.

**Opposite Direction Crashes**
23% of fatal RwD crashes involve crossing a center line or median. These crashes are over represented by the risk factors shown below.

**Risk Factors for Opposite Direction Crashes**

- Undivided Roads: 83%
- Rural Areas: 68%
- Posted Speed ≥ 50mph: 68%
- Curves: 32%

**Roadside Trees and Shrub Crashes**
19% of fatal RwD crashes involve trees or shrubs on the roadside with the leading risk factors shown in the figure below.

**Risk Factors for Tree and Shrub Crashes**

- Rural Areas: 68%
- Posted Speed ≥ 50mph: 52%
- Posted Speed ≤ 45mph: 48%
- Curves: 46%

48% of tree-related fatalities occur where the posted speed is 45 mph or less.

**Overtum Crash Strategies:**
1. Curve delineation
2. Friction treatments in curves
3. Edge line and shoulder rumble strips
4. Safety Edge<sub>SM</sub>
5. Clear zones
6. Traversable roadside slopes
7. Barriers to shield fixed objects and slopes

**Opposite Direction Crash Strategies:**
1. Center line rumble stripes
2. Friction treatments in curves
3. Increased separation between opposing lanes, particularly in curves
4. Median barriers
5. Barriers to shield trees and shrubs

*Only 4% of head-on crashes involve a passing vehicle.*

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