Driving FoRRRwD - A Systemic Approach to Reducing Roadway Departures

California Webinar
September, 2019
The Rural RwD Component of Fatalities

FHWA Definition: A crash in which a vehicle crosses an edge line, a center line, or otherwise leaves the traveled way.

U.S. Traffic Fatalities 35,230

Source: NHTSA FARS (2014 – 2016 Annual Average)

Source: Oregon State Police
Percent Rural RwD Fatalities

2014-2016 Annual Average of Rural Roadway Departures

Source: FARS
More than 2 of these will be in California
Where do rural roadway departures occur?

NACE estimates that 40-60% of fatalities occur on roads under local jurisdiction.

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>16%</td>
</tr>
<tr>
<td>Interstate</td>
<td>10%</td>
</tr>
<tr>
<td>Other Principal Arterial</td>
<td>26%</td>
</tr>
<tr>
<td>Major Collector</td>
<td>23%</td>
</tr>
<tr>
<td>Minor Collector</td>
<td>6%</td>
</tr>
<tr>
<td>Minor Arterial</td>
<td>19%</td>
</tr>
</tbody>
</table>

Roads typically maintained by states = 55% of Rural RWD fatalities
Roads typically maintained by locals = 45% of Rural RWD fatalities

2014-2016 Annual Average of Rural Roadway Departures
Source: FARS
Focusing on Reducing Rural Roadway Departures (FoRRRwD)

- **Mission** - Reduce the potential for serious injury and fatal roadway departure crashes on all public rural roads by increasing the systemic deployment of proven countermeasures.
Why do drivers leave the roadway?

- Roadway Condition
- Vehicle Component Failure
- Collision Avoidance
- Driver Error

Photo credit: FHWA
Where would you invest money to improve safety?
“Systemic safety improvement" means an improvement that is widely implemented based on high-risk roadway features that are correlated with particular crash types, rather than crash frequency.


You don’t have to wait until a crash occurs to make improvements!
Rural Roadway Departure Fatalities
by Most Harmful Event

Head-On
3,354
28%

Trees
2,312
19%

Rollover
3,609
30%

Other

Poles/Sign Posts

Barriers

Other Fixed Objects

Rural RwD fatalities where speed limit is ≥ 50 MPH

- Rollover: 78%
- Head-On: 84%
- Tree: 63%

Curve-related Rural RwD Fatalities

- Rollover: 44%
- Head-On: 32%
- Tree: 50%

2014-2016 Annual Average of Rural RwDs by MHE

Source: FARS
Safety Action Plans

State Strategic Highway Safety Plan (SHSP)

SAFETY ACTION PLANS
- Regional Plans
- Tribal Plans
- Local Plans
- Other Plans

HSIP
Other State Highway funds
Local funding sources

HSIP: 23USC 148(c), 23 CFR 924.7
1\textsuperscript{st} - Keep vehicles on the road

2\textsuperscript{nd} - Reduce the potential for crashes

3\textsuperscript{rd} - Minimize the severity
1st - Keep vehicles on the road

Improved curve delineation
Friction treatments in curves and other spot locations
Edge line, shoulder & center line rumble strips.
Shoulder Widening

SafetyEdge™

Maintained clear zones

Traversable roadside slopes

2nd - Reduce the potential for crashes
• Breakaway Features
  • Signs and luminaire supports
  • Utility poles

• Barriers to shield obstacles including:
  • Trees and shrubbery
  • Other fixed objects
  • Slopes

3rd - Minimize the severity
Focusing on Reducing Rural Roadway Departures

- **Mission** - Reduce the potential for serious injury and fatal roadway departure crashes on all public rural roads by increasing the systemic deployment of proven countermeasures.

How can we help you?
Contact

Cate Satterfield
• FHWA Office of Safety
• Cathy.Satterfield@dot.gov

Dick Albin
FHWA Resource Center
Dick.Albin@dot.gov
Questions and Discussion