Roadway Departure Safety Basics

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Fatalities in the USA
(2013 - 2015 Average)

National Average – 33,576 Fatalities

Data Source: NHTSA FARS
Strategic Objective
Promote highway-related strategies to assist in cutting fatalities by half by 2030 with a vision towards zero fatalities.
Roadway Departure Fatalities Percent
(2013 - 2015 Average)

National Average RwD % = 54%

> 70% average
61% - 70% average
54% - 60% average
< 54% average
FHWA Roadway Departure Strategic Plan

Roadway Departure Fatalities by Most Harmful Event (FARS 2012-2014)

Nearly $\frac{3}{4}$ of Roadway Departure Fatal Crashes are from 3 crash types.

- **Rollover**: 27% (4,947)
- **Head-on**: 25% (4,572)
- **Trees**: 19% (3,504)

0%
Overturn Crashes

- 5,285 (28%) Rollover
- Rural Areas, 76%
- ≥ 50 MPH, 72%
- Curves, 43%

Source: FARS 2010-2013
Opposite Direction Crashes

- Undivided, 83%
- Rural, 70%
- ≥ 50 MPH, 70%
- Curves, 31%
- Wet/Icy, 23%

4,570
25%

Head-on

NCHRP Report 500, Volume 6
Reported that only 4.2% of head-ons involved a passing vehicle.

Source: FARS 2010-2013
Fixed Object Fatal Crashes

Trees are 48% of Fixed Object Fatalities

Source: FARS 2010-2013
Trees are 48% of Fixed Object Fatalities

- Rural, 67%
- Urban, 33%
- $\geq 50$ MPH, 51%
- $\leq 45$ MPH, 49%
- Curves, 46%

Source: FARS 2010-2013
So, why **do** drivers leave the road?

- Roadway Condition
- Collision Avoidance
- Vehicle Component Failure
- Driver Error
Vehicle 12%

Roadway 34%

Driver 93%

Human is weakest link in this system, so we must design around human needs.