Fatalities in the USA
(2013 - 2015 Average)
National Average – 33,576 Fatalities

Data Source: NHTSA FARS
AASHTO Strategic Plan

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%

The map shows the percentage of roadway departure fatalities across different states, with each state color-coded to represent different average percentages:
- Dark red: > 70% average
- Red: 61% - 70% average
- Orange: 54% - 60% average
- Green: 54% - 60% average
- Light blue: < 54% average

States with data include:
- NH: 74
- VT: 82
- MA: 57
- RI: 52
- CT: 57
- NJ: 44
- DE: 42
- MD: 48
- DC: 27
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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**: 4,947 (27%)
- **Head-on**: 4,572 (25%)
- **Trees**: 3,504 (19%)
Overturin Crashes

5,285
28%
Rollover

Rural Areas, 76%

≥ 50 MPH, 72%

Curves, 43%

Source: FARS 2010-2013
Opposite Direction Crashes

4,570
25%
Head-on

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

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, Shrubs: 748
- Signs, Poles, Signals: 876
- Other Fixed Object: 967
- Barriers: 1,180
- Roadside Topography: 3,508

Trees are 48% of Fixed Object Fatalities

Source: FARS 2010-2013
Tree Crashes

- Rural, 67%
- Urban, 33%
- ≥ 50 MPH, 51%
- ≤ 45 MPH, 49%
- Curves, 46%

Trees are 48% of Fixed Object Fatalities

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

- Roadway Condition
- Collision Avoidance
- Vehicle Component Failure
- Driver Error
Crashes Caused by Various Factors: Systems Approach

- Roadway: 34% (3% human error, 27% vehicle, 57% driver)
- Driver: 93%
- Vehicle: 12% (1% human error, 6% roadway, 2% driver)

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

Questions and Discussion