



Roadway Departure Safety Basics

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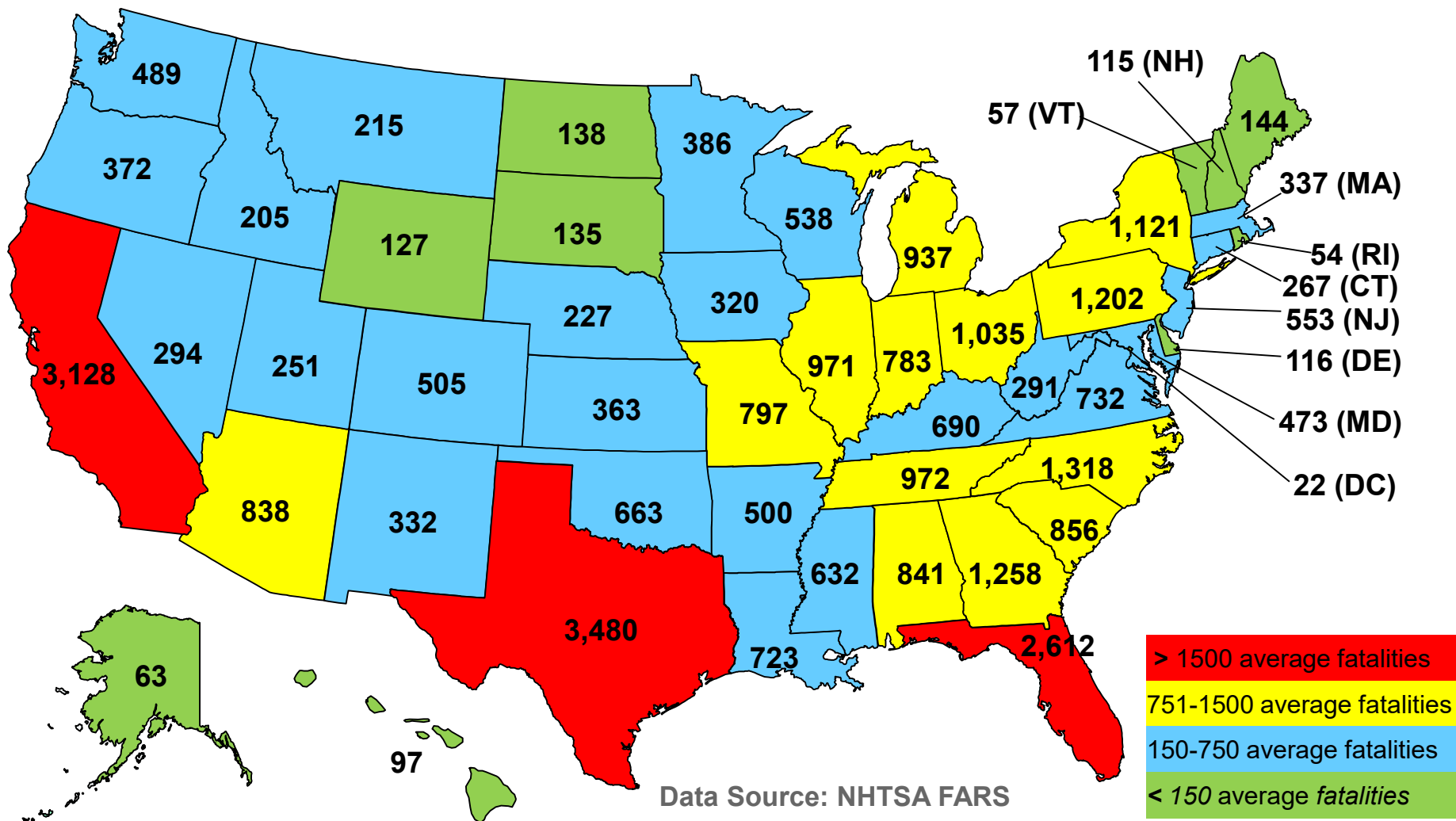
Federal Highway Administration



Fatalities in the USA

(2013 - 2015 Average)

National Average – 33,576 Fatalities



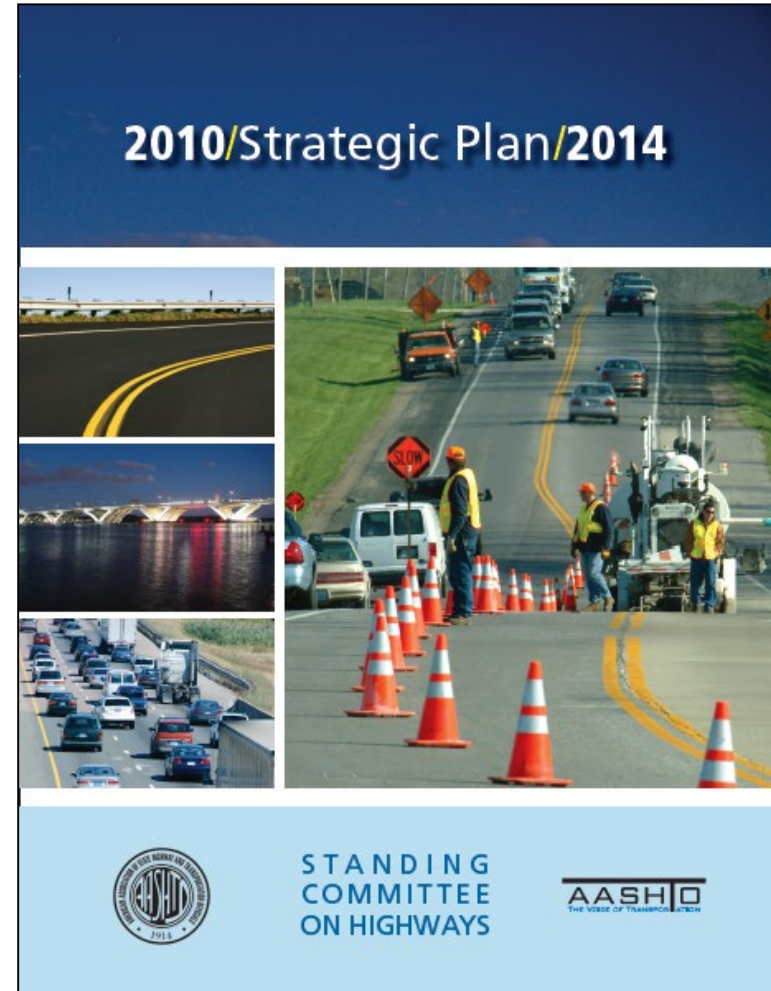
Data Source: NHTSA FARS

- > 1500 average fatalities
- 751-1500 average fatalities
- 150-750 average fatalities
- < 150 average fatalities

AASHTO Strategic Plan

Strategic Objective

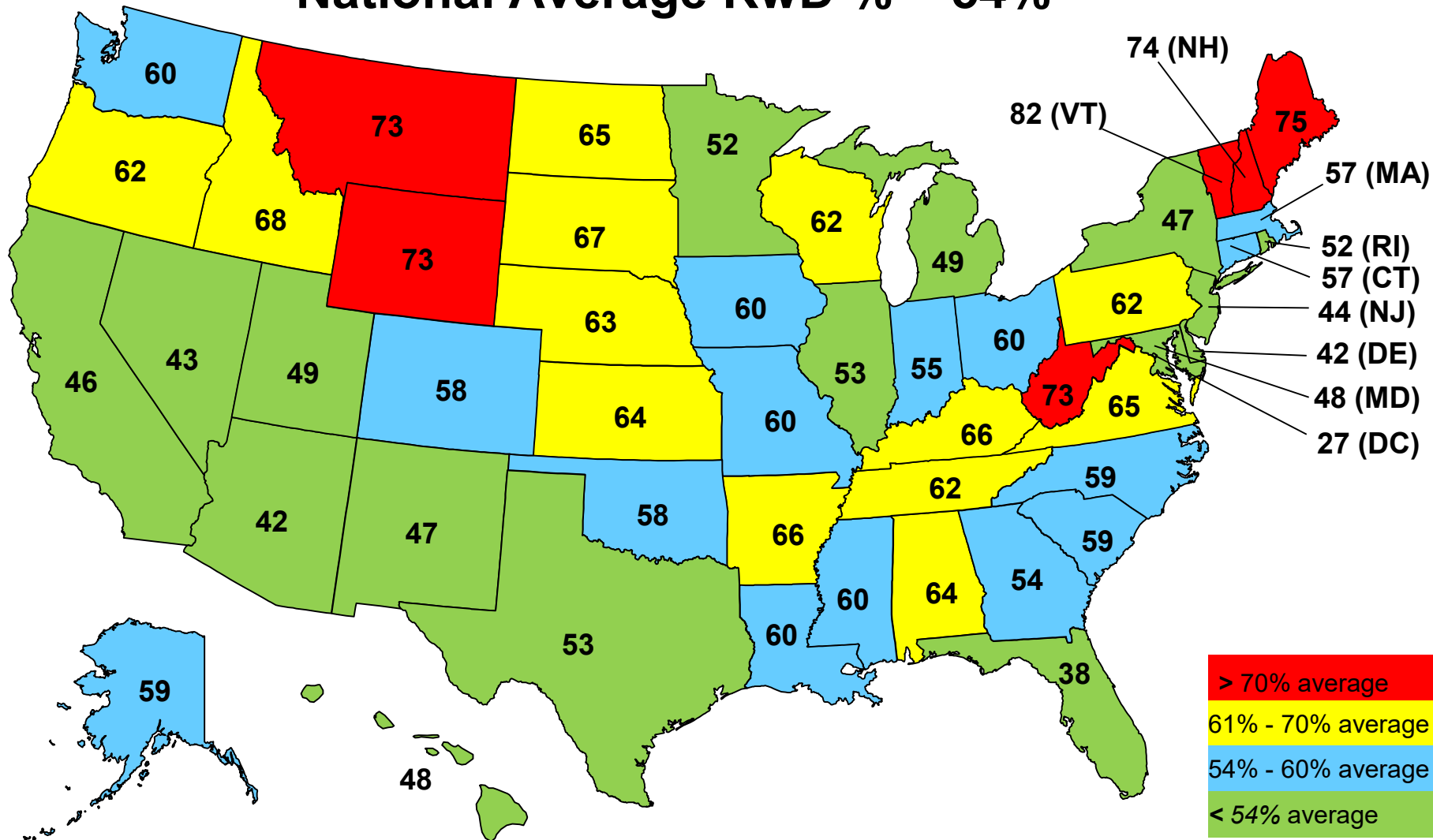
Promote highway-related strategies to assist in cutting fatalities by half by 2030 with a vision towards zero fatalities.



Roadway Departure Fatalities Percent

(2013 - 2015 Average)

National Average Rwd % = 54%

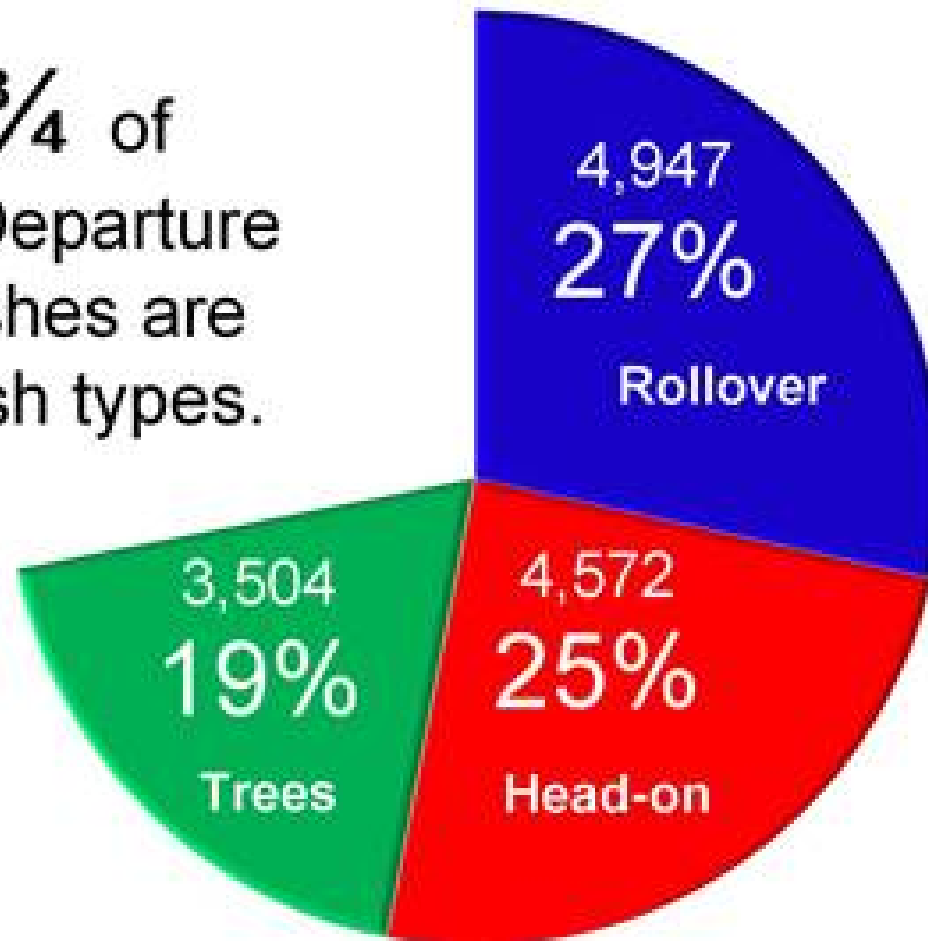




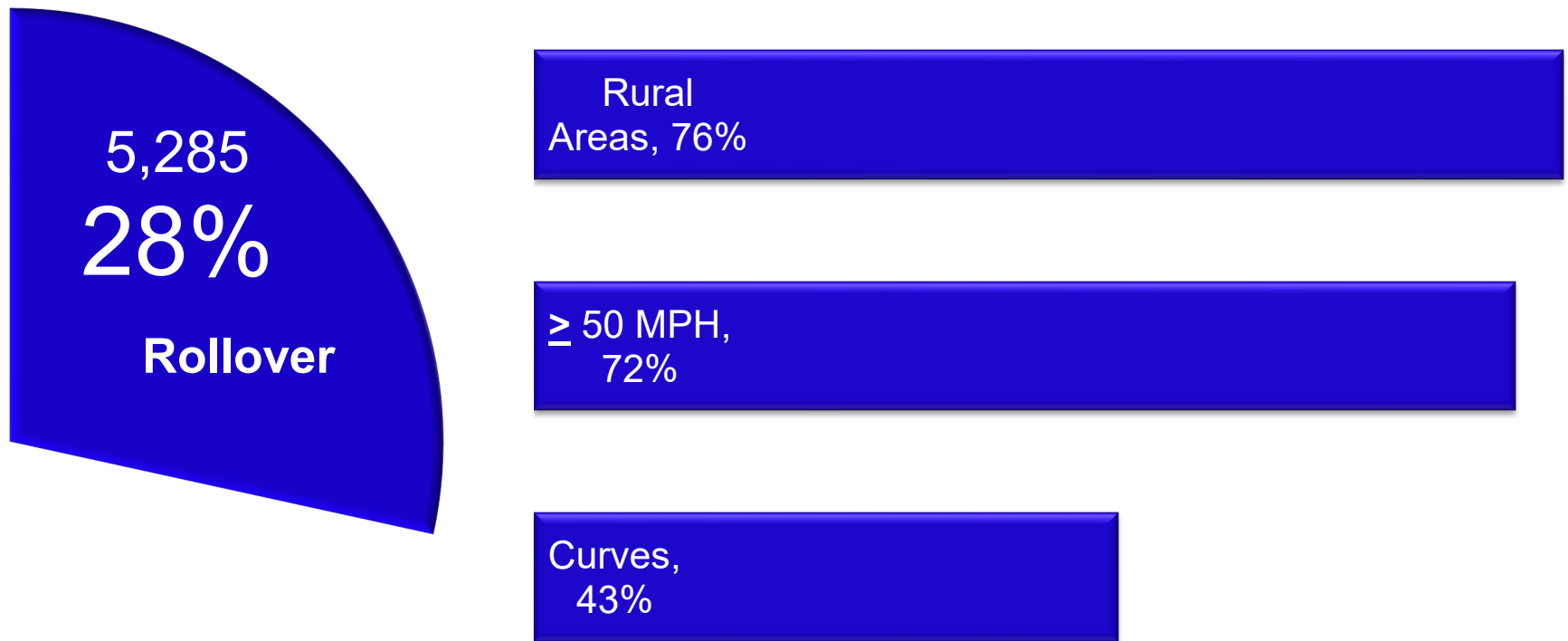
FHWA Roadway Departure Strategic Plan

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

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

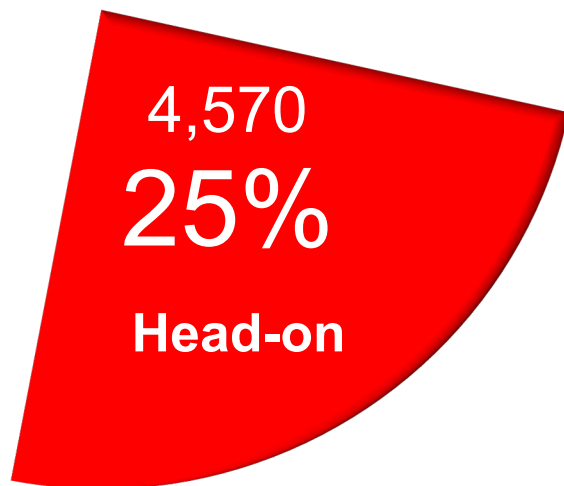


Overturn Crashes



Source: FARS 2010-2013

Opposite Direction Crashes



Undivided,
83%

Rural, 70%

≥ 50 MPH,
70%

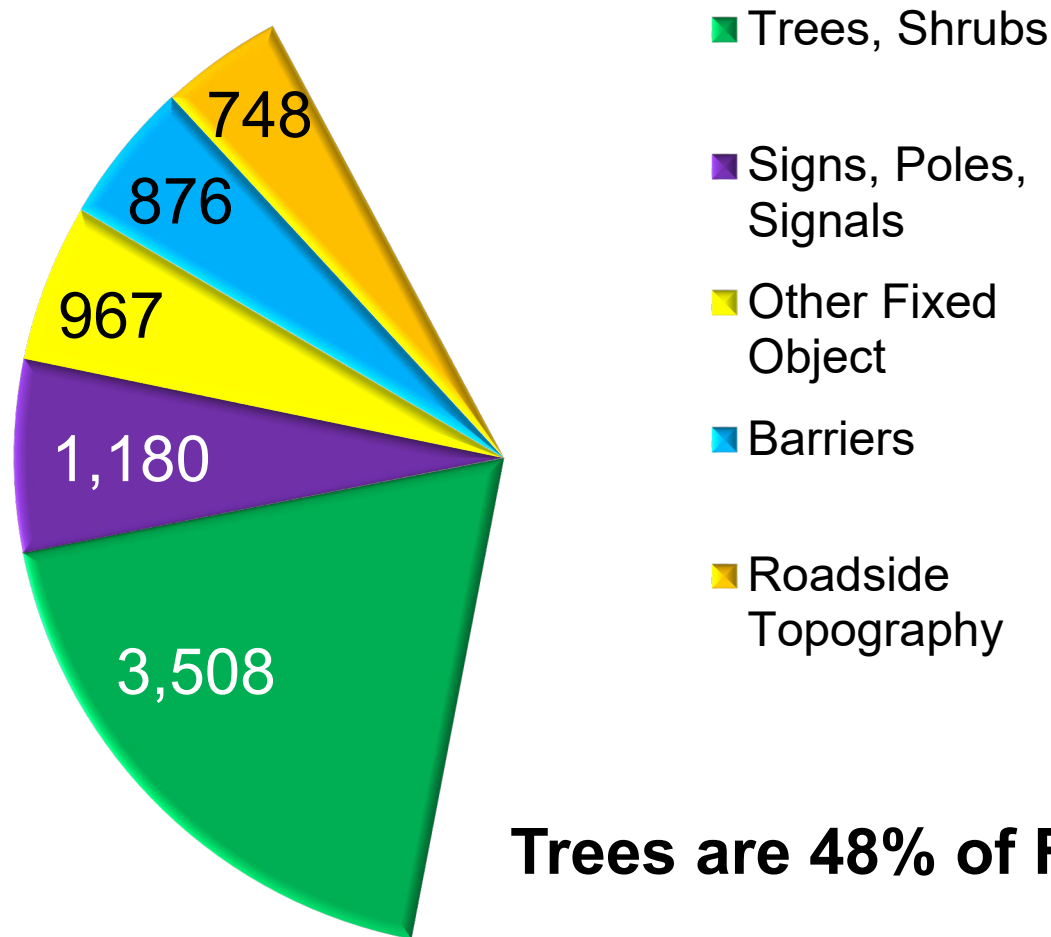
Curves,
31%

Wet/Icy,
23%

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

Source: FARS 2010-2013

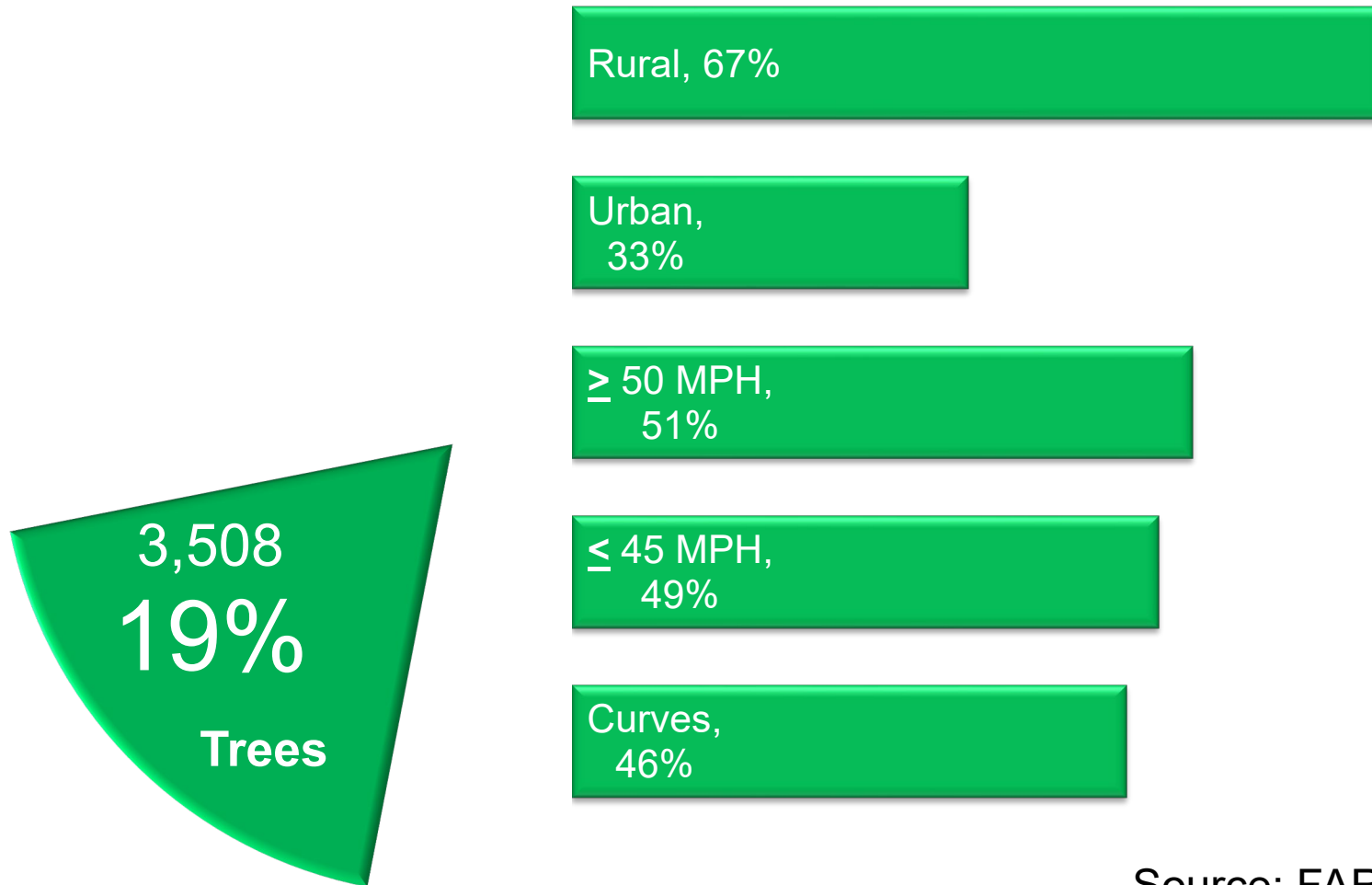
Fixed Object Fatal Crashes



Trees are 48% of Fixed Object Fatalities

Source: FARS 2010-2013

Tree Crashes



Source: FARS 2010-2013

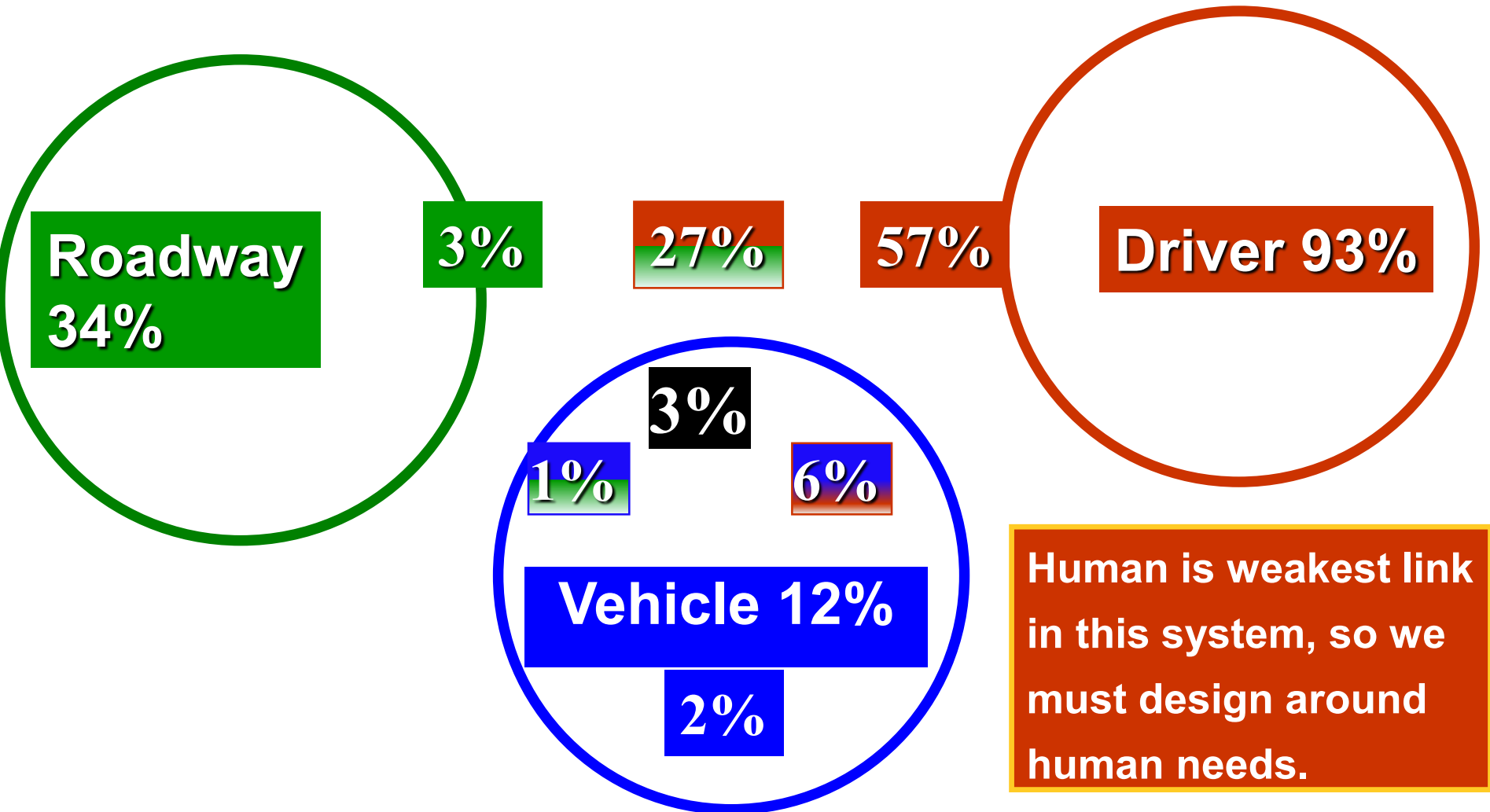
Trees are 48% of Fixed Object Fatalities



So, why do drivers leave the road?

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

Crashes Caused by Various Factors: Systems Approach



FROM: Lum & Reagan, Public Roads Magazine,
Winter 1995, "Interactive Highway Safety Design Module"