Future Interstate System Safety Considerations

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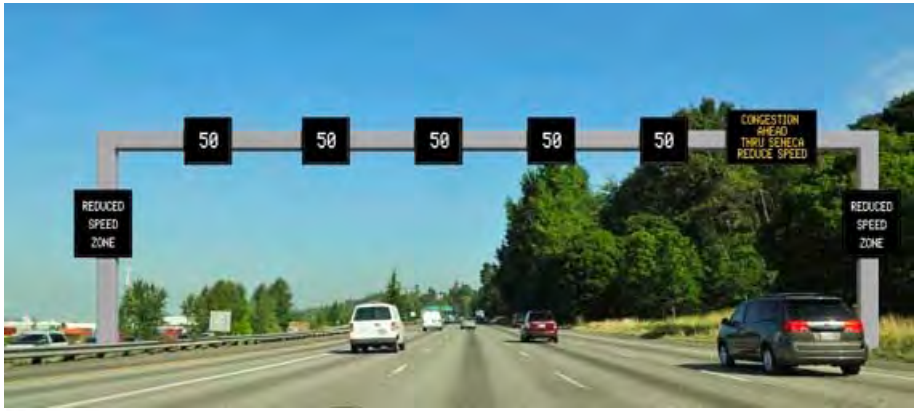
Outline

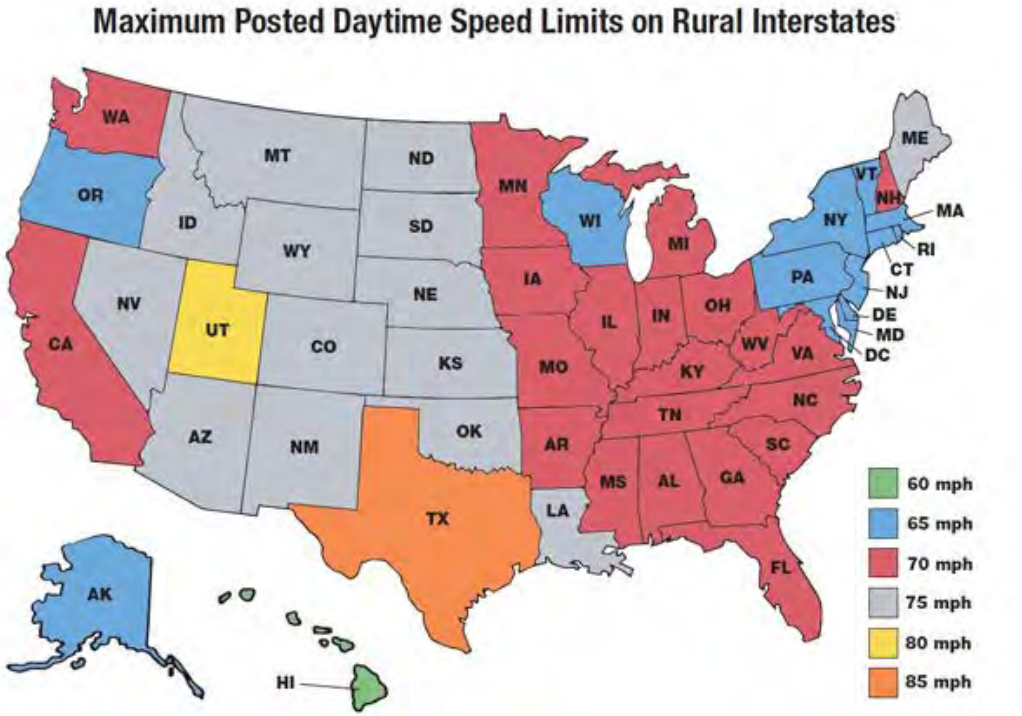
- Speed
- Vulnerable Road Users
- Large Trucks
- Incident Management
- Guiding Principles

Speed – Driver Expectations

- Uniformity
- Condition-responsive



Source: WS DOT



Source: IIHS

Speed – Automated Enforcement

- Cannot ignore the success of these programs on freeways in other countries

Source: The Press and Journal

Speed – Transition Zones

- Enhanced systems to reduce speeds in transition zones

Source: MO DOT

Vulnerable Road Users

- 20% of pedestrian and bicyclist intersection/intersection-related fatalities involve motorists at entrance/exit ramps

Source: Caltrans

Vulnerable Road Users

- Divided communities – poorly planned interstate corridors can create mobility and safety challenges for peds/bikes

Source: Colorado DOT

Large Trucks

- Dedicated Facilities (separated modes)

Source: The Press Enterprise

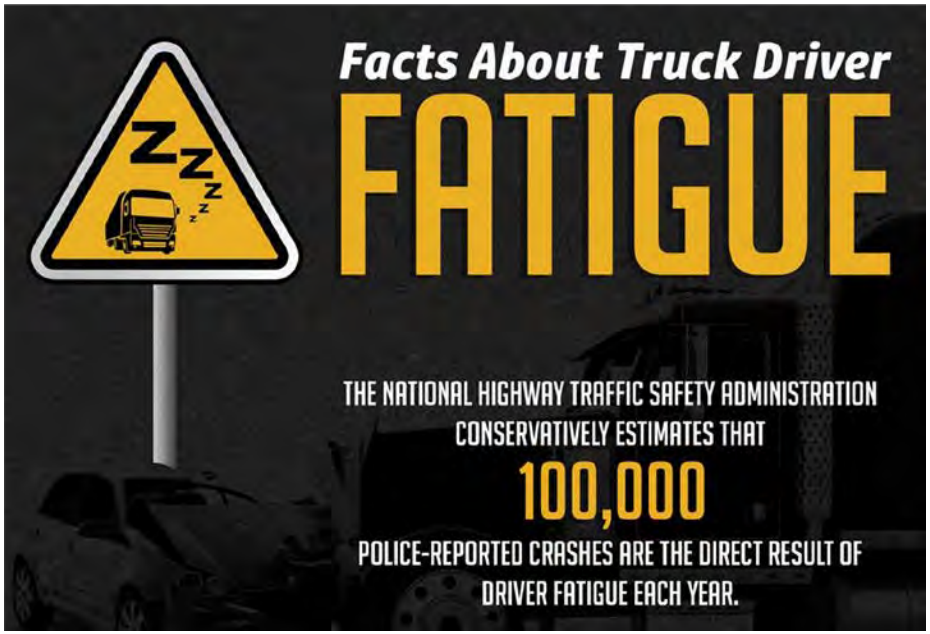
Large Trucks

- Size, weight, configuration
- Enhanced inspection data

Source: Hank's Truck Forum

Large Trucks

- Driver Performance
  - Fatigue
  - Hours of service
  - Electronic logging devices



Source: NHTSA

Large Trucks

- Platooning
  - Passenger car driver decision-making
  - Lengthy passing maneuvers
  - Infrastructure implications

Source: TechNewsWorld

Incident Management

- Emergency response notification
- Automated diversion

Source: The State Journal Register

Guiding Principles

- Technology **alone** will not be the solution
  - Mixed fleet for 50+ years
  - Practitioner and consumer education

- Utilize best practices (national and global)
  - New interchange designs
  - Automated enforcement
  - Safe Systems Approach

- Testbeds for technology
  - Separated facilities for large trucks
  - Dedicated corridors

Thank You

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Four Principles of a Safe System in Road Traffic*

1. People make mistakes that can lead to road crashes.
2. The human body has a limited physical ability to tolerate crash forces before harm occurs.
3. A shared responsibility exists amongst those who design, build, manage and use roads and vehicles and provide post-crash care to prevent crashes resulting in serious injury or death.
4. All parts of the system must be strengthened to multiply their effects; and if one part fails, road users are still protected.

* *Expanding the Reach of a Safe Systems Approach,* "Zero Road Deaths and Serious Injuries," Organisation for Economic Co-operation and Development

Did You Know?

6 Countries Have Already Adopted a Safe Systems Approach to Road Safety

Australia

Luxembourg

Netherlands

New Zealand

Sweden

United Kingdom

Adapted from *ITF (2016), Zero Road Deaths and Serious Injuries; Leading a Paradigm Shift to a Safe System*, OECD Publishing, Paris.
http://dx.doi.org/10.1787/9789282198955-en