
SPEED
MANAGEMENT
ENGINEERING
ENFORCEMENT
EDUCATION

Speed Sells or Speed Kills

Speed Management Realities

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Federal Highway Administration
RESOURCE CENTER

Speed is the most important factor in most crashes

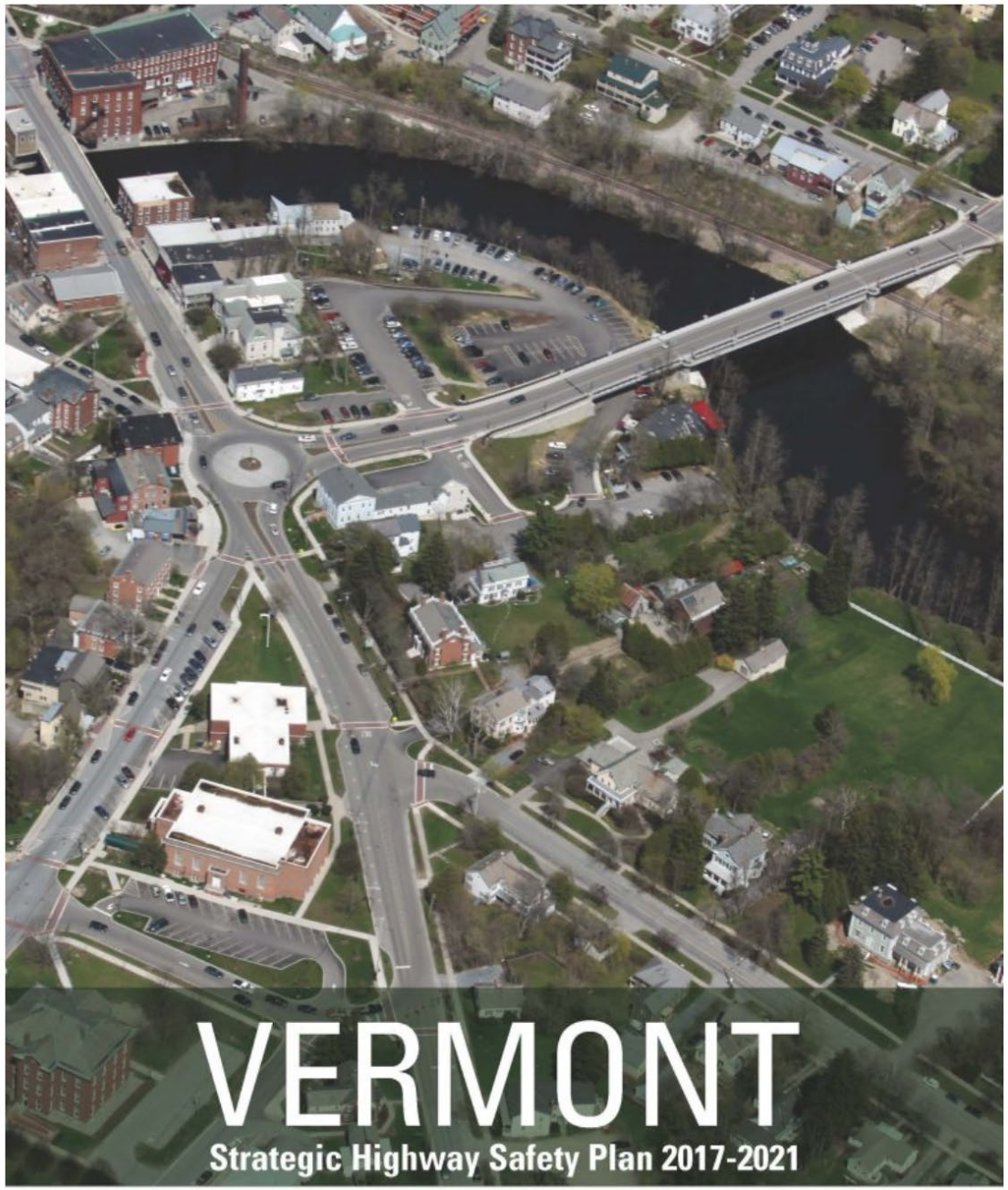
A. True

B. False

Speed is a factor in most crashes

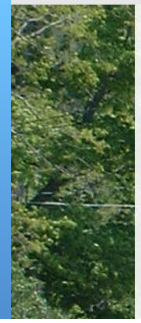
A. True

B. False



Crtical Emphasis Area		SHS Goal	Results	Goal Met?
CEA 1	1A-Minimize Lane Departure	10%	▼8%	No
	1B-Design and Operation of Intersection Safety	10%	▼11%	
CEA 2	2A-Younger Driver Safety (21 and Under)	20%	▼29%	Yes
	2B-Older Driver Safety (65 and Over)	5%	▼7%	
CEA 3	Curb Speeding and Aggressive Driving	20%	▼21%	Yes
CEA 4	Use of Occupant Protection	10%	▼10%	Yes
CEA 5	Impaired Driving	10%	▼23%	Yes
CEA 6	Distracted and Inattentive Driving	10%	▼35%	Yes

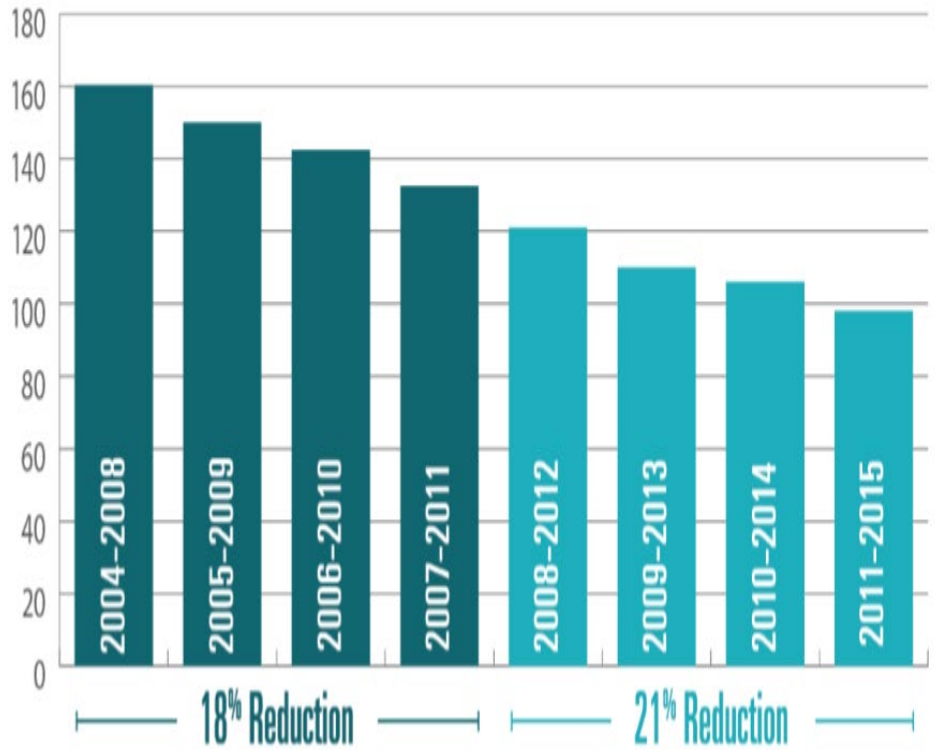
Speed Related VT



Speeding/Aggressive Major Crashes Trend

5 Year Rolling Average 2004-2015

39% Reduction



CRITICAL EMPHASIS AREA 2

CURB SPEEDING AND AGGRESSIVE DRIVING

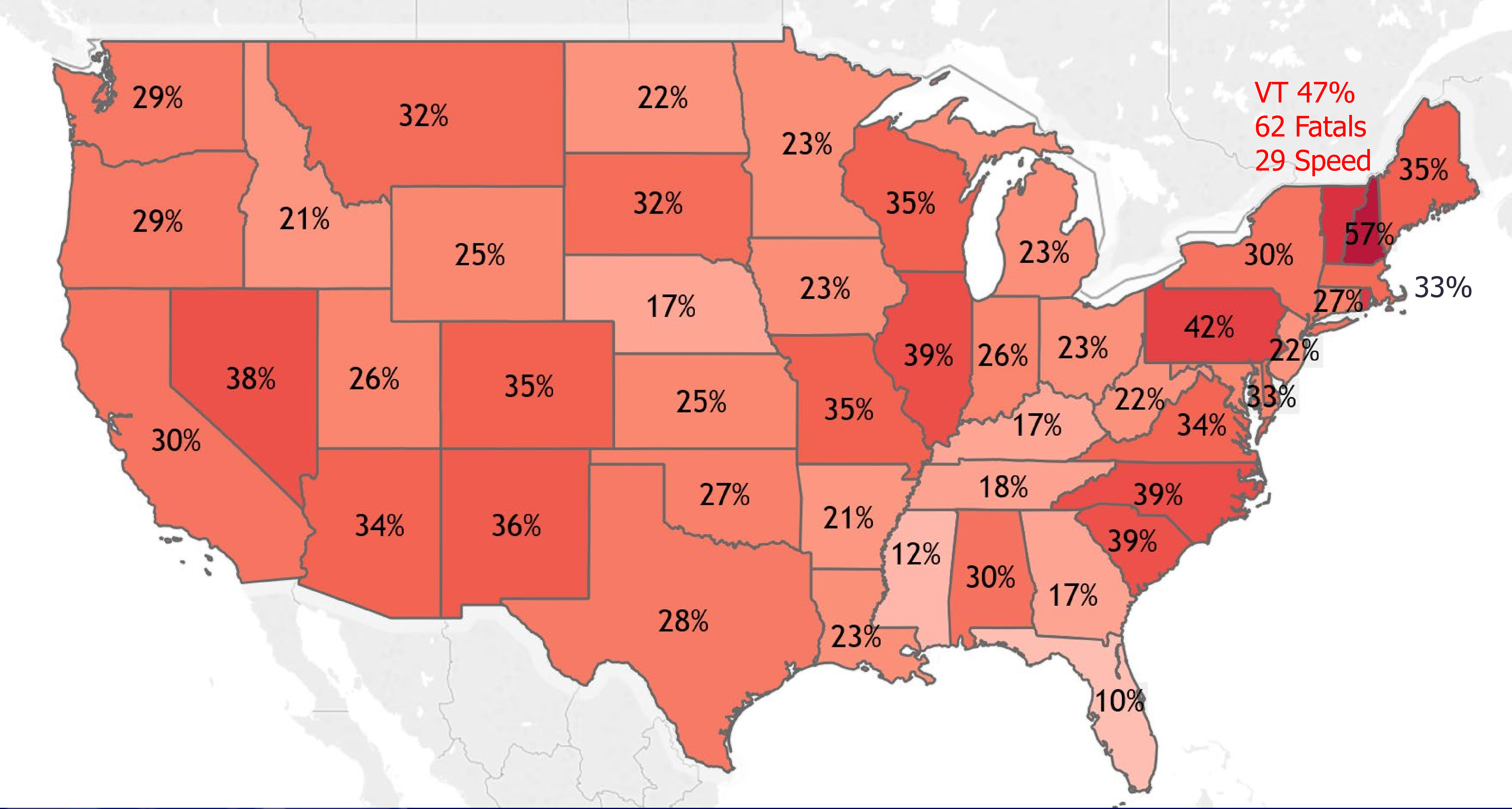
Speeding is defined as operating a vehicle at a speed that has exceeded the authorized speed limit or too fast for conditions. Aggressive driving is defined as operating a vehicle in an erratic, reckless, careless, negligent, or aggressive manner. Historical trends show a 39% reduction in major crashes related to speeding and aggressive driving between 2004 and 2015, with 21% of that reduction occurring in the last five years. Crashes attributable to speeding and aggressive driving make up 30% of all major crashes in Vermont and 37% of the fatal crashes. Crashes due to speeding and aggressive driving result in a higher percentage of more severe injury crashes. Collaborative opportunities exist across engineering, education, and enforcement to continue to reduce crashes resulting from speeding and aggressive driving.

Goal

Reduce major crashes by **20%** between 2017-2021

Strategies

1. Improve the education of drivers as it relates to the impacts and consequences of speeding and aggressive driving
2. Improve public understanding of what aggressive driving is and how it relates to public safety
3. Increase public awareness of and adherence to speed limits and other roadway regulations regarding aggressive driving
4. Advance the use of infrastructure techniques and technology to manage and enforce speeds
5. Enhance existing high-visibility enforcement programs and techniques that relate to speeding and aggressive driving



VT 47%
62 Fatals
29 Speed
29%
32%
22%
23%
35%
29%
21%
32%
35%
57%
25%
23%
30%
33%
17%
23%
27%
42%
38%
26%
35%
39%
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17%
22%
33%
30%
34%
18%
27%
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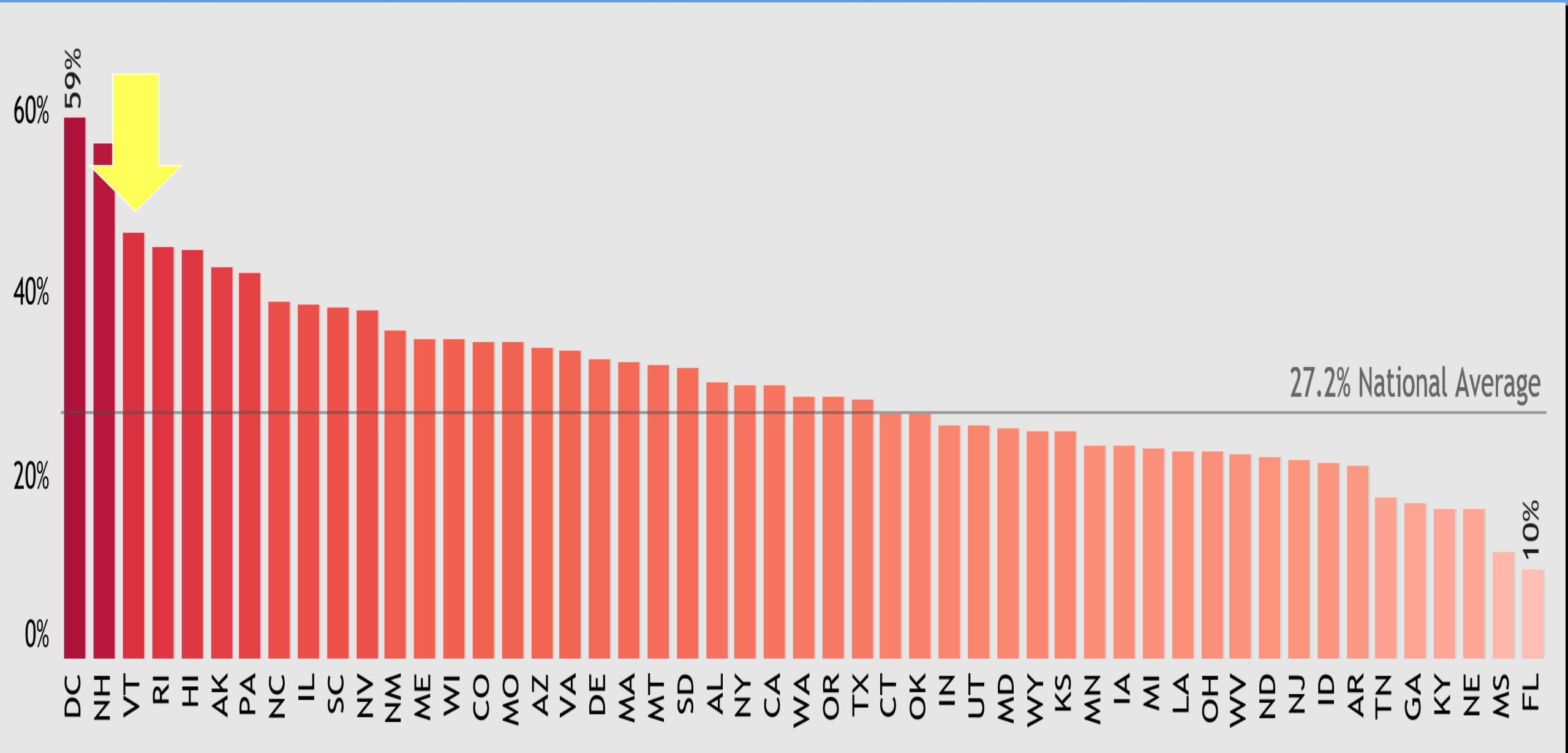
36%
39%
12%
30%
17%
28%
23%
10%

How does VT compare to other states?



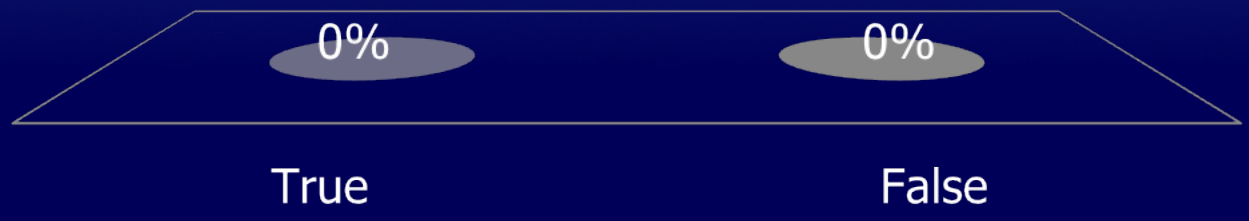
More aggressive Speed Enforcement would solve the crash problem

A. True

B. False

Speed management is the single most effective way to increase safety for all modes

A. True
B. False



Officer Training

I have exceeded the posted limit this past week?

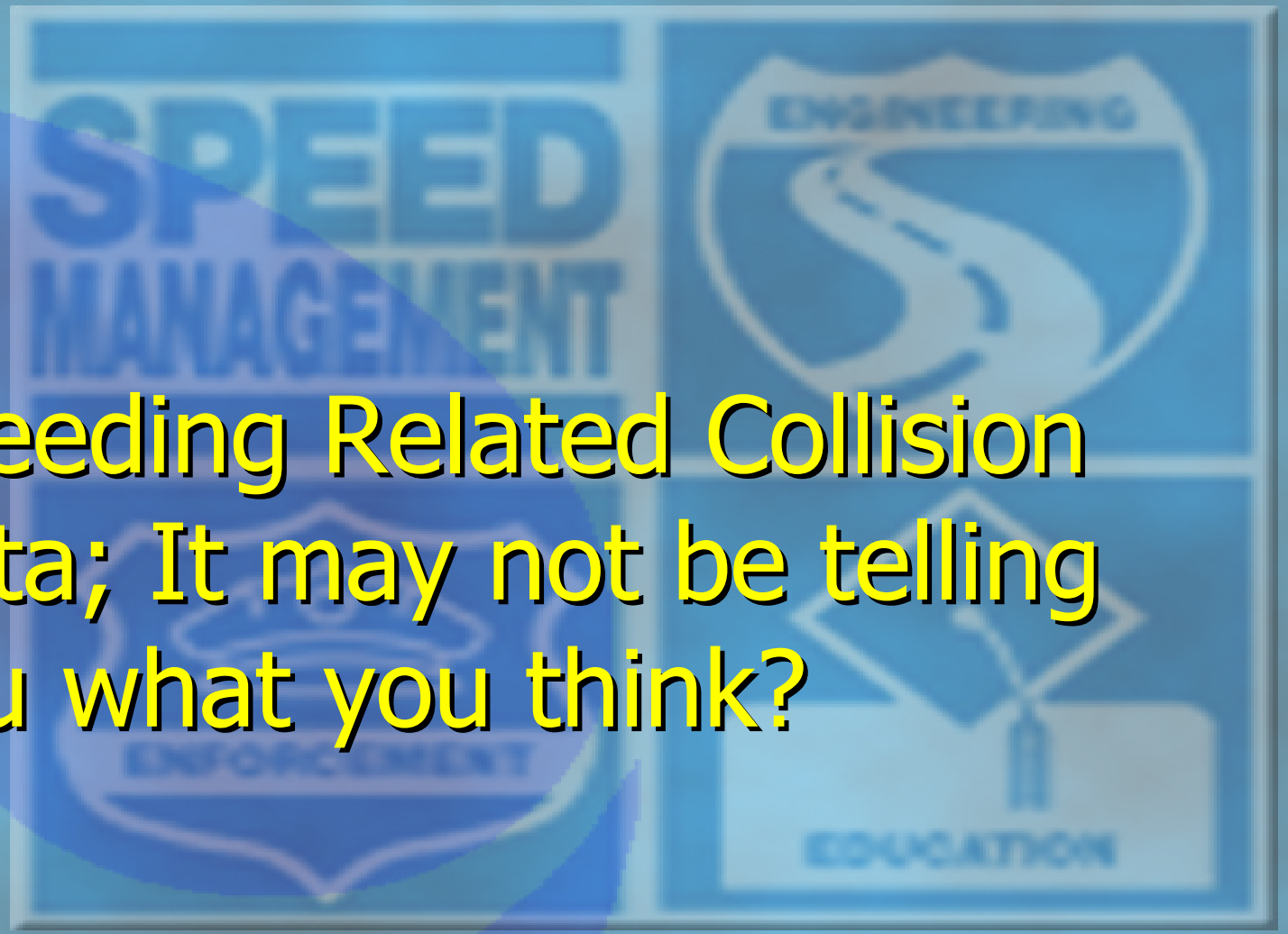
A. Yes

B. No

More aggressive Speed Enforcement would solve the crash problem

A. True

B. False

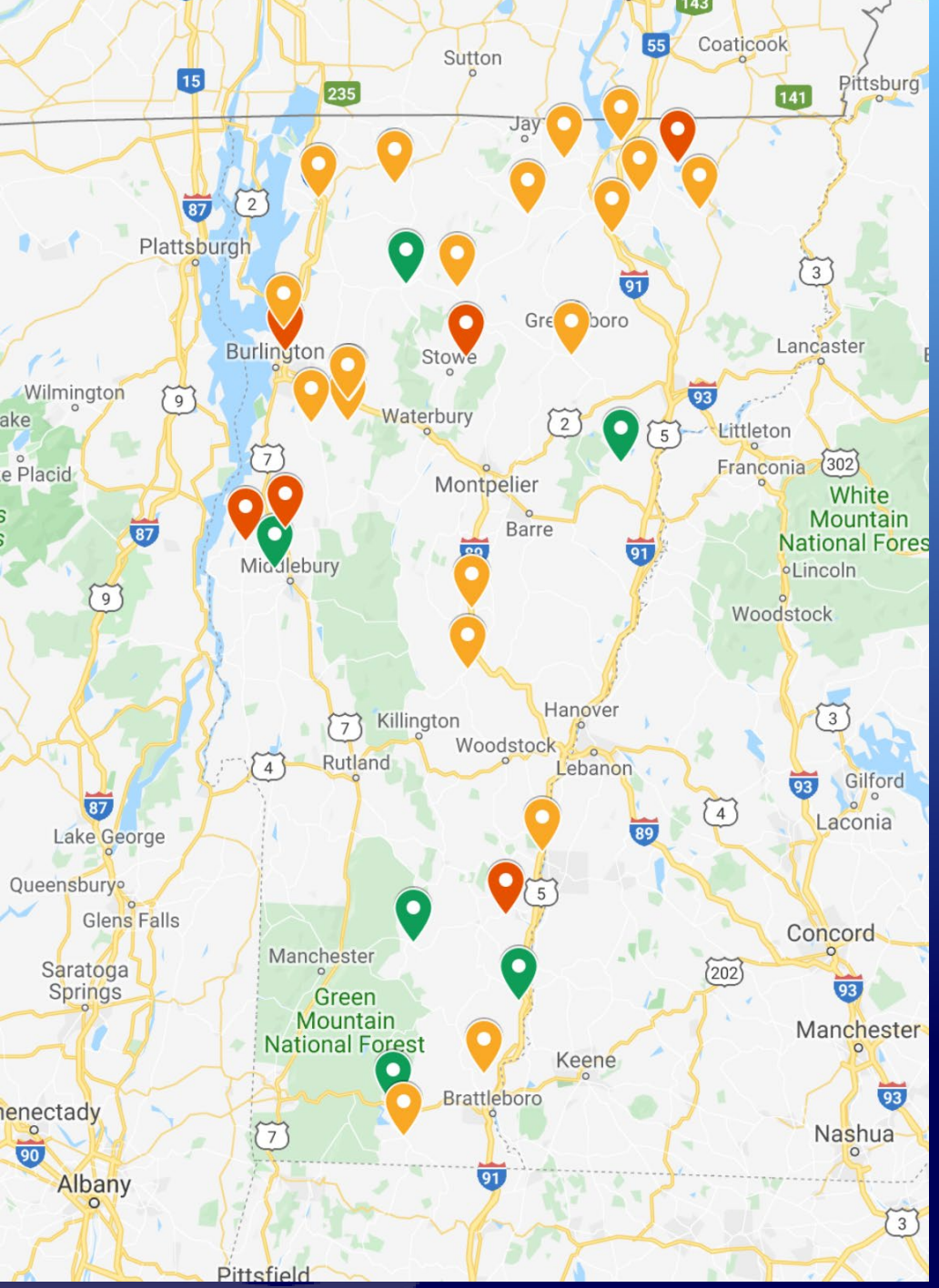


Speeding Related Collision Data; It may not be telling you what you think?

What fields on the crash report call out "**Speeding Related**" crashes?

- Depending on your state's specific crash report, usually when one of the following are indicated on the crash report.
  - Exceeded Speed Limit
  - Too Fast for Conditions

"**Too Fast for Conditions**: Traveling at a speed that was unsafe for the road, weather, traffic or other environmental conditions at the time." (2017 MMUCC/NHTSA)



Red Markers - DUI / Alcohol related

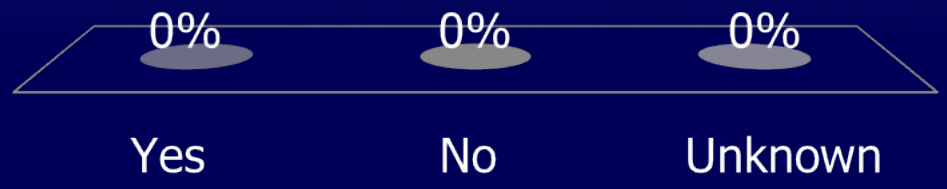
Orange Markers - Unknown drug / Alcohol

Green Markers - no suspected drug / alcohol

Black dot on markers - multiple fatalities

When deploying speeding countermeasures, does you state use "speeding related" crash data to identify hotspots?

A. Yes
B. No
C. Unknown



Do you believe your "speeding related" crash data over-reports the actual speeding problem?

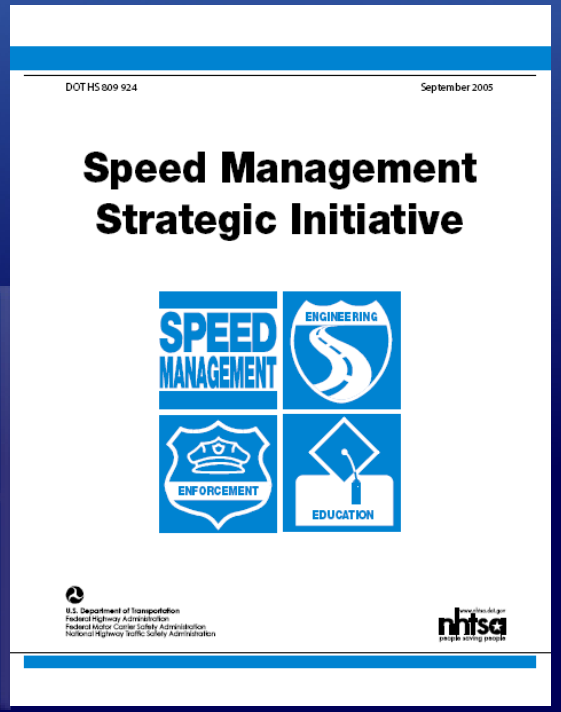
A. Yes

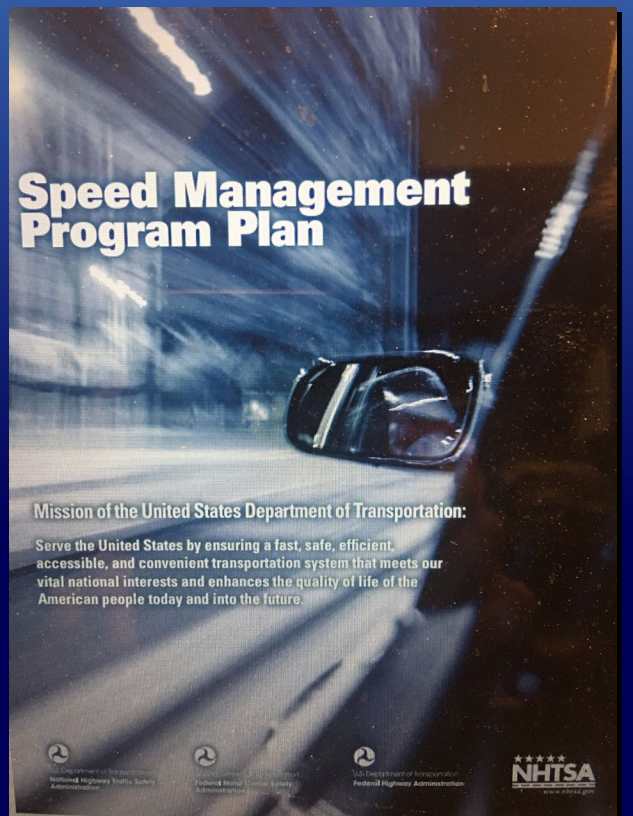
B. No

Working Together to Manage Speed

USDOT Speed Management Program Plan

https://safety.fhwa.dot.gov/speedmgt/ref_mats/docs/speedmgtprogplan812028.pdf





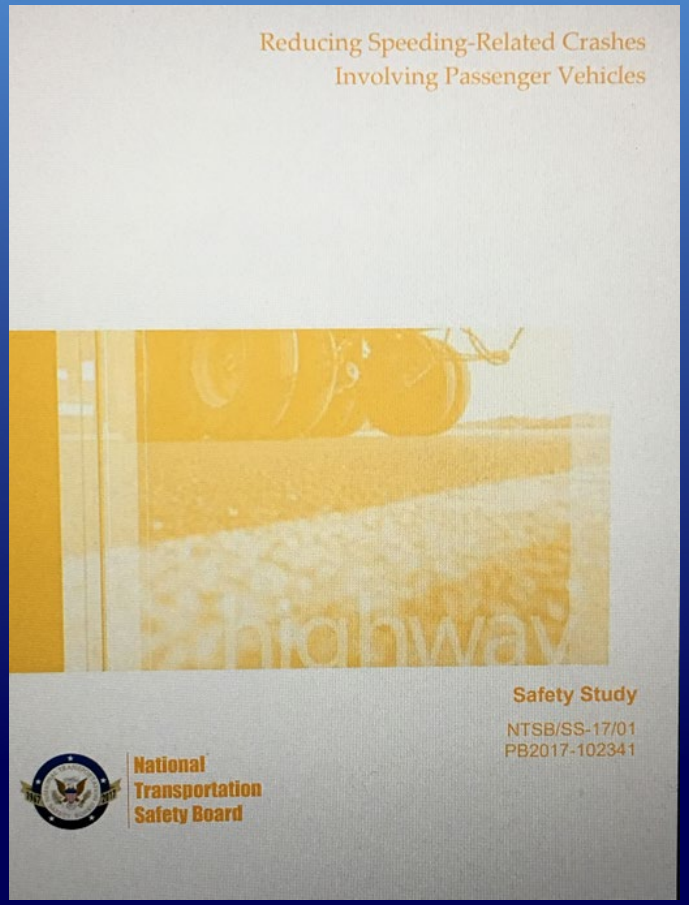
NTSB Speeding-Related Safety Studies

- 49 major investigations related Speeding/Speed
- Speeding safety issue:
  - heavy vehicles (NTSB 2012)
  - work zones (NTSB 2015)
  - site specific hazards (NTSB 2006; NTSB 2005a; NYSB 2005b)

Reducing Speeding-Related Crashes Involving Passenger Vehicles NTSB 2017

19 Recommendations focusing on:

- Speed limit
- Data-driven approach for speed Enforcement
- Automated Speed Enforcement
- Intelligent speed adaptation
- National leadership



NTSB Speeding-Related Crashes Study Recommendations

- One to USDOT Team – Update USDOT plan
- Four to FHWA
  - Revise MUTCD Section 2B.13 to require an expert system such as USLIMITS2 be used and remove 85th percentile speed
  - Revised MUTCD to incorporate the safe system approach for urban roads
  - update the Speed Enforcement Camera Systems Operational Guidelines
  - assess the effectiveness of point-to-point speed enforcement in the United States and update the ASE guidelines accordingly

NTSB Speeding-Related Crashes Study Recommendations

- Seven to NHTSA
  - establish a consistent method for evaluating data-driven, high-visibility enforcement programs
  - communicate with law enforcement officers and the public about the effectiveness of data-driven, high-visibility enforcement programs
  - develop and implement Model Minimum Uniform Crash Criteria Guideline
  - increase public awareness of speeding as a national traffic safety issue.
  - Establish a program to incentivize state and local speed management activities

NTSB Speeding-Related Crashes Study Recommendations

NTSB recommendations: States

- To seven states prohibiting ASE: Amend current laws to authorize use of ASE
- To 28 states without ASE laws: Authorize state and local agencies to use ASE
- To 15 states with ASE restrictions: Amend current laws to remove operational and location restrictions

Working Together to Manage Speed

NTSB Recommendations:

- To GHSA, IACP, NSA:
  - to develop and implement a program to increase the adoption of speeding-related Model Minimum Uniform Crash Criteria Guideline data elements and improve consistency in law enforcement reporting of speeding-related crashes.

FHWA Speed Management

- FHWA SM program focuses
  - Setting appropriate speed limits
  - Providing technical assistance to States and locals
  - Promoting SM countermeasures
  - Integrating SM into the three Safety Focus Areas

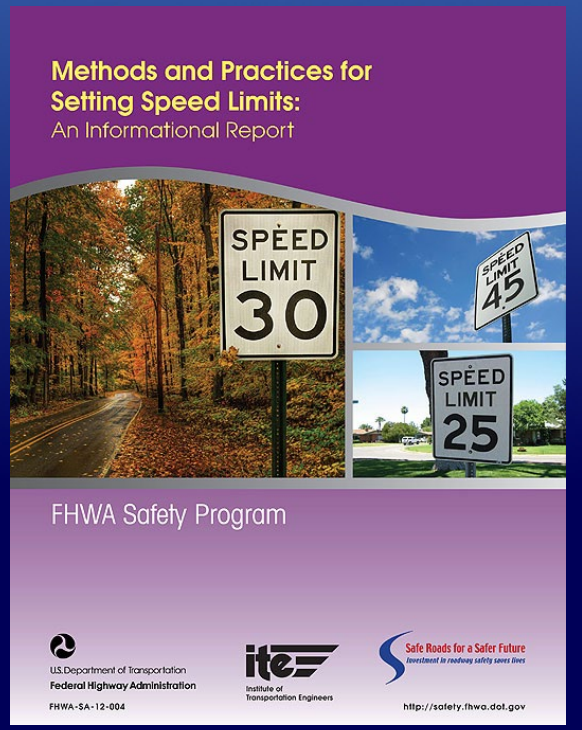
Setting Appropriate Speed Limits

- USLIMITS2
  - a web based tool for recommended speed limits safety.fhwa.dot.gov/uslimits
  - NTSB speeding crash study recommendation H-17-27)
  - FHWA Proven Safety Countermeasures

- Type of surrounding development
- Access points
- Road function/area type;
- Road characteristics
- Freeway characteristics
- Existing vehicle operating speeds
- Pedestrian activity
- Crash history
- Special conditions

Setting Appropriate Speed Limits

- Methods and Practices for Setting Speed Limits: An Informational Report: safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa12004/
  - *Engineering approach*
  - *Expert system approach*
  - *Optimization approach*
  - *Injury minimization or safe system approach*
  - *Case studies*



Setting Appropriate Speed Limits

- Speed Concepts: Informational Guide: https://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa10001/#
- FHWA Office of Infrastructure memo – Relationship Between Design Speed and Posted Speed (October 5, 2015)
- NCHRP project 17-76 -- Guidance for the Setting of Speed Limits
- NCHRP project 17-79 -- Safety Effects of Raising Speed Limits to 75 mph and Higher

Assistance to States & Locals

- 44 states included speeding safety issue in their SHSP
- Technical assistance to State and locals for developing and implementing speed management plans
- FHWA Speed Management Training Course
  - course number: FHWA-NHI-380116
- Joint FHWA and NHTSA speed management training course

Promoting SM countermeasures

- **Traffic Calming ePrimer**: an updated version of the 1999 FHWA/ITE traffic calming guide

https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm

- **Speed Management ePrimer for Rural Transition Zones and Town Centers**: a guide on the application of techniques/countermeasures to achieve safe and reasonable traffic speed on main roads transitioning to and through towns

https://safety.fhwa.dot.gov/speedmgt/ref_mats/rural_transition_speed_zones.cfm

Promoting SM countermeasures

- Engineering Speed Management Countermeasures Desktop Reference of Potential Effectiveness in Reducing Crashes http://safety.fhwa.dot.gov/speedmgt/ref_mats/eng_count/2014/reducing_crashes.cfm
- Engineering Speed Management Countermeasures Desktop Reference of Potential Effectiveness in Reducing Speed http://safety.fhwa.dot.gov/speedmgt/ref_mats/eng_count/2014/reducing_speed.cfm

Others

- **SHRP II projects**:
  - The Interrelationships between Speed Limits, Geometry and Driver Behavior - Michigan
  - Examination of Episodic Speeding on Washington State Roads - Washington
  - Speed Behavior and Drivers Performance in Adverse Weather Conditions Using NDS Data: Application of VSL System - Wyoming

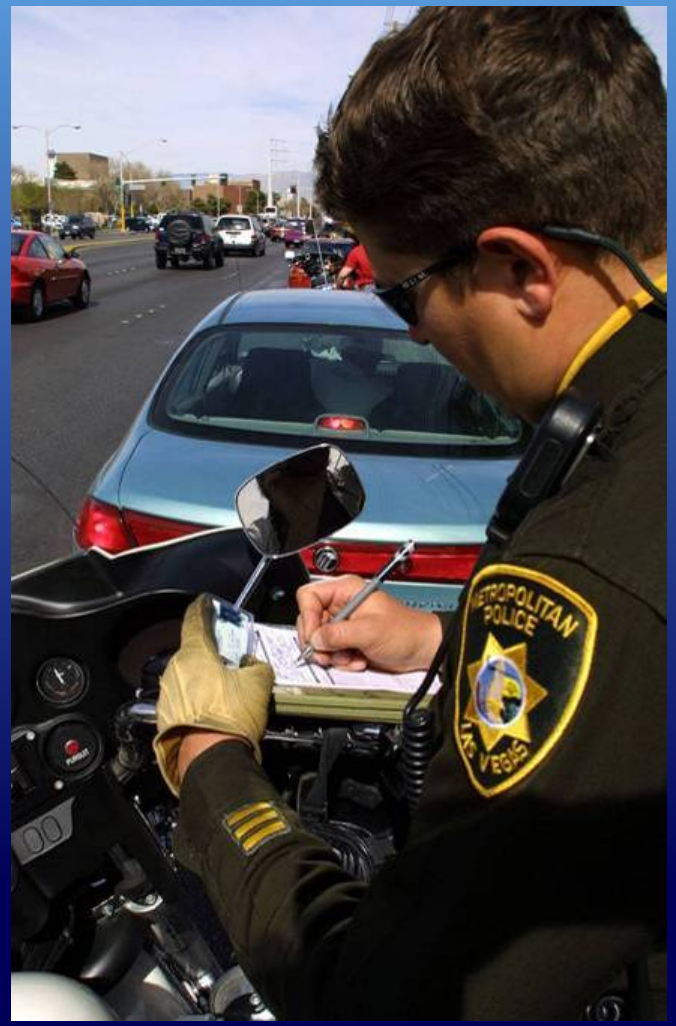
For additional information

http://www.safety.fhwa.dot.gov/speedmgt/

Speed Management
Speed Limits

Speed Management

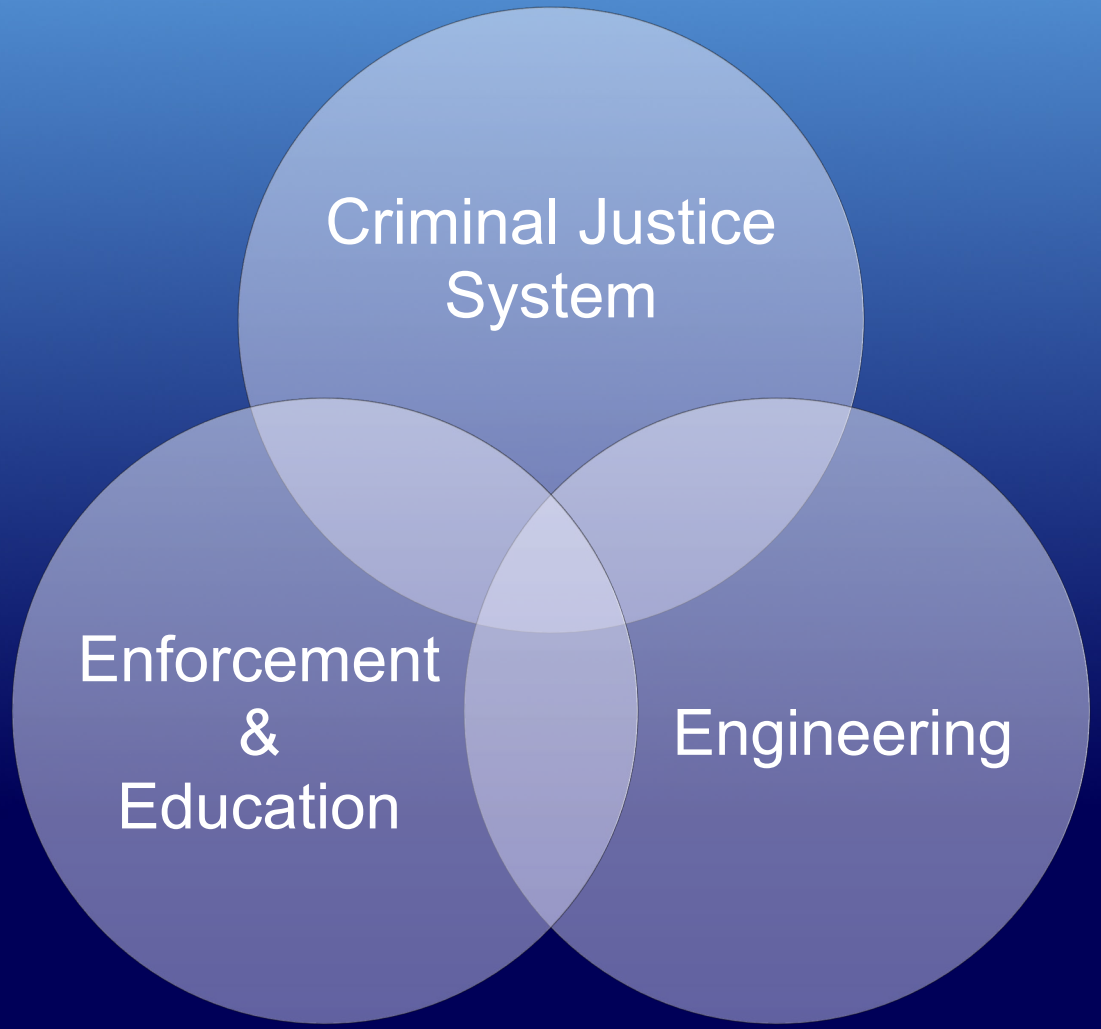
- Speed management is the single most effective way to increase safety for all modes
- Speed limits must be realistic, consistent, and enforceable and able to be adjudicated.



Speed Management

- Engineering: Rational and reasonable speed limits, other techniques
- Education: Public policy and information
- Enforcement: Strict enforcement
- Adjudication: Swiftness, Certainty, Severity

Speed Management



The 85% Concept

- If 85% of motorists are doing the wrong thing, then enforcement will do little
- If 85% of motorists are doing the right thing, then enforcement can effectively manage the other 15%

Enforcement

- Marked
- Unmarked

Proper Design Promotes Proper Use!

Speed Management

A Manual for Local Rural Road Owners

U.S. Department of Transportation
Federal Highway Administration

http://safety.fhwa.dot.gov
FHWA-SA-12-027

If You See Something, Say Something:

First Responders Critical Role in Making Our Roadways Safer.

With increasing crashes nationwide, now is the time for law enforcement and first responders to gain further knowledge they need to make a difference. Get started on the road to safety by registering for this free two-day workshop from the Federal Highway Administration (FHWA) where you'll learn basic traffic engineering principals, how to partner and communicate with transportation agencies, echoing the official DHS National public awareness campaign, "*See Something Say Something*" but for road safety… and much more!

Tips and Tricks, You Need to Know

Reoccurring crashes in the same location? Our road ways need a solution

At the end of this two-day workshop participants will be able to increase the safety of their communities while:

- Enhancing crash investigating skills.
- Looking beyond the “Stupid” factors in crashes.
- Learning how crash data is or may often be misinterpreted.
- Discussing how Enforcement, EMS, Education, and Engineering opportunities to eliminate or mitigate safety concerns.
- Breaking down engineering basics:
  - Traffic Signal Operation and Detection
  - Design and Operational Sight Requirements
  - Sight Triangles
  - Roadside Safety Hardware and Function
  - Speed Management and Limits
- Previewing new interchanges and intersections coming our way!

A must for all traffic, law enforcement officers and first responders, this workshop drives home your vital role road safety!

Questions?