

## Recommendations to Reduce Speeding-Related Crashes in the United States

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### Abstract

The National Transportation Safety Board (NTSB) is a United States government agency charged with investigating transportation accidents, studying transportation safety issues, and issuing recommendations to prevent future accidents. The NTSB recently completed a study of countermeasures to reduce speeding-related crashes, focusing on five areas: (1) speed limits, (2) data-driven enforcement, (3) automated speed enforcement (ASE), (4) intelligent speed adaptation (ISA), and (5) national leadership. This paper summarizes the study findings, details how the NTSB leveraged research and countermeasures from the Australasian region to develop safety recommendations, and highlights differences in speed management approaches between the United States and other countries.

### Background

Speeding—exceeding a speed limit or driving too fast for conditions—is one of the most common crash factors in the United States. From 2007 through 2016, speeding-related crashes resulted in 105,222 fatalities, representing 30% of all road fatalities (National Center for Statistics and Analysis, 2018). Speeding is likewise a prevalent crash factor in Australasia; for example, from 2012 through 2016, 30% of road user fatalities in New Zealand involved speeding (Ministry of Transport, 2017). In 2017, the NTSB completed a study of countermeasures to reduce speeding-related crashes in the United States. Several of the study's recommendations were informed by research from Australasian countries.

### Method

To summarize the risks of speeding, describe the scope of the speeding problem, and promote the use of proven and emerging countermeasures, the NTSB: (1) reviewed literature from the United States and other countries; (2) analyzed speeding-related fatal and non-fatal crash data; and (3) conducted interviews with approximately 50 national, state, and local traffic safety stakeholders, including representatives from highway safety agencies, law enforcement agencies, automobile manufacturers, research institutions, advocacy groups, equipment vendors, insurance providers, and professional associations.

### Results

In the United States, speed limit adjustments are generally based on the 85th percentile speed of free-flowing traffic. However, the NTSB did not find strong evidence that this equates to the speed with the lowest crash rate. Overemphasizing the 85th percentile can result in unintended consequences, including higher operating speeds.

Inconsistent crash reporting hinders the effective implementation of data-driven speed enforcement programs. Although voluntary federal guidelines exist for crash reporting, police crash forms are developed at the state and local levels. This results in significant crash data discrepancies among the 50 states.

The NTSB found that ASE is an effective speeding countermeasure. However, many jurisdictions prohibit or place operational restrictions on ASE, and federal guidelines for ASE are outdated and

not well known. Based on its success in other countries, including Australia, point to point (or average) automated speed enforcement is a promising technology.

ISA, a vehicle technology using a global positioning system database or sign-detecting camera to help drivers comply with speed limits, is an effective speeding countermeasure. However, most ISA systems available in the United States are only advisory. Unlike Australia and Europe, ISA is not included in the United States' New Car Assessment Program.

Finally, the NTSB found that the level of emphasis on speeding as a national safety issue is lower than warranted. Although the federal government coordinates several road safety campaigns each year, none of these focus on speeding. Some cities have adopted Vision Zero goals and the Safe System approach, but these initiatives are not widespread.

### **Conclusions**

As a result of the study, the NTSB issued 19 safety recommendations to federal government agencies, the 50 states, and road safety and law enforcement associations. The NTSB requests that recommendation recipients provide an initial written response within 90 days. These responses are beginning to arrive, and the final paper will include a discussion of the safety recommendation responses.

### **References**

- Ministry of Transport. (2017). Motor Vehicle Crashes in New Zealand 2016. Retrieved from <http://www.transport.govt.nz/research/roadcrashstatistics/motorvehiclecrashesinnewzealand/>
- National Center for Statistics and Analysis. (2018). Speeding: 2016 data. (DOT HS 812 480). Washington, DC: National Highway Traffic Safety Administration.