

# NTSB calls for action to curb spike in bicycle fatalities

November 14, 2019



**The National Transportation Safety Board is calling for a major policy overhaul to combat the rise in bicyclists killed in crashes with motor vehicles.**

The NTSB sounded the alarm this month after completing its first study of bicyclist safety since 1972. The board called for safer roadway designs, new standards for rider visibility, and measures to speed the rollout of crash avoidance systems capable of detecting bicyclists.

The agency also urged state governments to pass laws requiring bicyclists of all ages to wear helmets.



“If we do not improve roadway infrastructure for bicyclists, more preventable crashes will happen and more cyclists will die in those preventable crashes,” NTSB Chairman Robert Sumwalt (picture left) said in his opening address to the NTSB’s November board meeting. “If we do not enhance bicyclist conspicuity, more bicyclists will die in preventable

crashes. If we do not act to mitigate head injury for more bicyclists, additional bicyclists will die.”

According to the National Highway Traffic Safety Administration’s most recent census of fatal motor vehicle crashes, 854 bicyclists were killed in collisions with motor vehicles in 2018. That’s a 38 percent increase since the low point in 2010 and the highest number of fatalities in 30 years. Including pedestrian fatalities, which are up 46 percent over the same period, people outside of motor vehicles now account for a fifth of all traffic deaths.

NTSB researchers looked for ways to reverse that trend. They reviewed the latest scientific literature and analyzed data from motor vehicle crashes involving more than 5,000 bicyclists. They also interviewed road designers, law enforcement personnel, bicycle safety advocates and other stakeholders.

Based on their findings, the board called on various federal agencies to update their standards and undertake new initiatives issuing 11 new recommendations and reiterating 10 others.

Most motor vehicle collisions with bicycles occur at intersections. However, crashes are more often fatal at

midblock locations where vehicles are generally traveling faster, the board noted. It called on the Federal Highway Administration (FHWA) to include protected bike lanes and safer intersection designs in its list of proven safety countermeasures.

IIHS research suggests that protected bike lanes vary in terms of injury risk (see [“Some protected bike lanes leave cyclists vulnerable to injury.”](#) Aug. 15, 2019). Researchers found that protected bike lanes that are raised from the roadway are safer than those on the same level as the street, for example.

The board also recommended implementing road diets — reducing the number of vehicle travel lanes often to make room for bike lanes. Road diets help slow vehicles in high speed, high volume areas. They were added to the FHWA’s list of proven safety countermeasures in 2012.

Apart from infrastructure changes, the NTSB noted that the requirements for reflectors and other features to make it easier for drivers to see bicycles have not been updated since 1980. It called on the U.S. Consumer Product Safety Commission to look into revising its standards to make use of advances in materials and technologies.

The board said delays in updating NHTSA’s New Car Assessment Program have likely slowed the development of safety features designed to protect pedestrians and bicyclists. It called on the agency to incorporate a test of crash avoidance technology capable of detecting bicyclists in its updated ratings.

Twenty automakers have committed to installing automatic emergency braking systems in the vehicles they produce for the U.S. market with gross vehicle weights of 8,500 pounds or less by 2022. Many of these systems are capable of detecting and avoiding pedestrians as well.

IIHS began rating pedestrian detection systems in February 2019 and issued its latest ratings for 16 midsize cars this October (<https://www.iihs.org/news/detail/performance-of-pedestrian-crash-prevention-varies-among-midsize-cars>). Some manufacturers say their pedestrian crash prevention systems are also capable of avoiding bicycles. However, IIHS has not evaluated these claims.

The NTSB reiterated an earlier recommendation that NHTSA tighten requirements for headlight performance. More than half of the bicyclist fatalities in 2018 occurred in the dark or during dawn or dusk.

Automakers have made broad improvements since IIHS began rating the headlights of passenger vehicles in 2016. However, poor or marginal headlights still prevent many vehicles from receiving the Institute’s *TOP SAFETY PICK* and *TOP SAFETY PICK+* awards. On others, good rated headlights are only available as expensive options (<https://www.iihs.org/news/detail/headlights-improve-but-base-models-leave-drivers-in-the-dark>).

The board also recommended that NHTSA work with stakeholders to promote helmet use and called on states to pass universal bicycle helmet laws. Currently, most states have no bike helmet requirements, and no state requires bicycle helmets for adult riders.

The National Association of City Transportation Officials and several bicycle advocacy groups pushed back against that recommendation because of concerns that it would discourage people from riding.

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**Pedestrian deaths have increased 45 percent since reaching their low point in 2009 and account for 16 percent of crash fatalities.** Two percent of people killed in motor vehicle crashes are bicyclists.



**Traffic engineering improvements can reduce pedestrian and bicyclist crashes.** Separating vehicles and pedestrians by installing sidewalks, overpasses and underpasses can help reduce conflicts. Other solutions include building median islands and adjusting traffic signals to create an exclusive pedestrian or bicyclist phase or to give them a head start before vehicles get a green light. Lowering vehicle speeds can also reduce injury severity for pedestrians and bicyclists involved in crashes.

**Crash avoidance features and other vehicle improvements may also make pedestrians and bicyclists safer.** Forward collision avoidance systems are increasingly designed to detect pedestrians in a vehicle’s path, and rear cameras may prevent backer crashes.

Modifying the front structures of vehicles may reduce the severity of pedestrian injuries. Regulators in Europe and elsewhere have been encouraging pedestrian protection in vehicle design through their vehicle testing programs.

**Helmets provide critical protection for bicyclists.** Among a majority of bicyclists killed in crashes, head injuries are the most serious injuries. Helmet use has been estimated to reduce the odds of head injury by 50 percent.

