BICYCLIST AND PEDESTRIAN SAFETY

Crashes involving a bicyclist or pedestrian have been **increasing** **SINCE 2009**

In the United States, the number of traffic crashes involving a bicyclist or pedestrian has been increasing since 2009. In 2017, there were 5,977 pedestrians and 783 bicyclists killed in motor vehicle crashes.

There are three categories of issues that contribute to traffic crashes involving bicyclists and pedestrians: motorist behavior, non-motorist behavior, and infrastructure. Some of the issues overlap between categories.

- **Motorist** behaviors include speeding, distraction, lack of traffic law awareness, non-compliance with traffic laws, and alcohol or drug impairment.
- **Non-motorist** (i.e., pedestrian and bicyclist) behaviors include lack of traffic law awareness, non-compliance with traffic laws, poor conspicuity, and alcohol or other impairment.
- **Infrastructure** issues include inadequate separation between motorists and non-motorists, lighting, and signage or crosswalks.

As of **2015** **EVERY** **7.5 minutes** a **pedestrian is injured** in a traffic crash.

The Problems

Poor compliance with traffic laws and improper use of facilities: Drivers, pedestrians, and bicyclists are safer when they comply with traffic laws and correctly use roadway facilities. Common noncompliance includes motorists failing to yield; pedestrians and bicyclists failing to follow traffic signs and signals; and walking or riding in improper locations such as the wrong side of the road. These issues are often due to poorly designed facilities or misunderstanding of traffic laws/devices.

Speeding: When speeding, drivers increase the risk for a collision with a bicyclist or pedestrian. The likelihood of a pedestrian dying from a collision with a motor vehicle increases from 8 percent at 31 mph to 50 percent at 47 mph.

50% 8% MPH
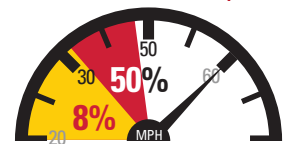
A bicyclist or pedestrian is **more likely to be killed** in a collision with a motor vehicle **if the driver is speeding.**

Inadequate separation: Bicyclists and pedestrians are safer when they are separated from motor vehicles. When facilities are inadequate, there is dense traffic, or visibility is limited, pedestrians might walk in the roadway or cyclists may opt to ride on sidewalks or against the direction of traffic. All of these behaviors increase the chances of a crash.

Bicyclists and pedestrians are safer when separated from motor vehicles.

Crossing locations: The likelihood of a crash increases when pedestrians and bicyclists cross at locations not designed for crossing. Almost one-fifth (18%) of pedestrians killed and 30 percent of bicyclists killed were struck in intersections. Figures are greater in urban settings where crossing density is higher.

Inadequate conspicuity: When drivers can't see bicyclists or pedestrians, whether in light or dark conditions, a crash is more likely. Three-fourths (75%) of pedestrians killed and 45 percent of bicyclists killed in 2016 were struck in dark conditions. Many States have laws that require bicyclists to use lights/reflectors when traveling at night.

Impairment and distraction: Drivers, bicyclists, and pedestrians who are impaired —by alcohol or drugs—or distracted all increase the likelihood of a crash.
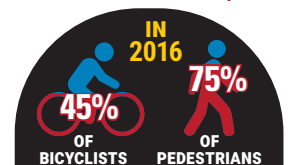
IN 2016 45% OF BICYCLISTS 75% OF PEDESTRIANS **killed** were struck by drivers **in dark conditions**

Who's At Risk

About 70 percent of those killed in traffic crashes are male, and injury rates are higher for males than for females. In 2016, the average age of pedestrians killed in traffic crashes was 47, and the average age of cyclists killed was 46. Both numbers have increased over the last 10 years.

BICYCLIST AND PEDESTRIAN SAFETY

Resources for States and Communities

NHTSA Bicycle Safety page: www.nhtsa.gov/road-safety/bicyclists

NHTSA Pedestrian Safety page: www.nhtsa.gov/road-safety/pedestrian-safety

Traffic Safety Facts, Pedestrians: https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812493

Traffic Safety Facts, Bicyclists: https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812507

The Pedestrian and Bicycle Information Center: www.pedbikeinfo.org

Countermeasures That Work (9th Edition, 2018, Chapters 8 and 9): www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812478_v5_countermeasures-that-work-a-highway-safety-countermeasures-guide-9thedition-2017.pdf

Advancing Pedestrian and Bicycle Safety: A Primer for Highway Safety Professionals: www.nhtsa.gov/sites/nhtsa.dot.gov/files/812258-peds_bike_primer.pdf

Pedestrian and Bicyclist Data Analysis (Research Note): www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812502_pedestrian-and-bicyclist-data-analysis-tsf-research-note.pdf

The Effect of High-Visibility Enforcement on Driver Compliance With Pedestrian Right-of-Way Laws: Four-Year Follow-Up: www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812364_highvisibilityenfdrivercomppeds4yearfollowup.pdf

Effect of Electronic Device Use on Pedestrian Safety — Literature Review (Phase 1): www.nhtsa.gov/sites/nhtsa.dot.gov/files/812256-effectelectronicdeviceusepedestriansafety.pdf

2012 National Survey of Bicyclist and Pedestrian Attitudes and Behaviors Database:
- Volume 1 - Summary Report: www.nhtsa.gov/sites/nhtsa.dot.gov/files/811841a.pdf
- Volume 2 — Findings Reports: www.nhtsa.gov/sites/nhtsa.dot.gov/files/811841b.pdf
- Volume 3 — Methodology Report: www.nhtsa.gov/sites/nhtsa.dot.gov/files/811841c.pdf

Coming Soon

State of the Knowledge on Pedestrian and Bicyclist Safety (awarded September 2017, 36-month effort)

Evaluating Enforcement of Bicycle Safety Laws (awarded September 2016, 48-month effort)

Law Enforcement Training on Bicycle and Pedestrian Safety

Effect of Electronic Device Use on Pedestrian Safety
- Naturalistic Observations (Phase 2)
- Crash Report Analysis (Phase 3)

Determining Impaired Pedestrians Among DWI Offenders (final report anticipated release date: spring 2019)

Impact of Lowering Speed on Pedestrian and Bicyclist Safety (awarded September 2017, 60-month effort)

Safety in Numbers — Literature Review (final report anticipated release date: fall 2019)

New Research: Measuring Pedestrian Exposure Using Personal Electronic Devices (awarded September 2018, 60-month effort)

Community-Based Pedestrian and Bicycle Safety Assessment Tool (anticipated release date: fall 2019)