

# SAFETY

## IN NUMBERS

### Preventing Two-Wheeled Tragedies: The Mistakes We All Make

**88%** of the bicyclists  
killed and 80% of those  
injured were male



**48%** of bicyclist deaths occurred  
between 4 p.m. and midnight

**24%** of those killed while riding  
bicycles were 45 to 54 years old

**9%** of bicyclist fatalities and  
20% of injuries occurred among  
children under 16

**24%** of bicyclists killed had  
BACs of .08 g/dL or higher

**37%** of fatal crashes involved a  
driver or bicyclist who had been drinking

In the warmer summer months, more people are out bicycling—for exercise, recreation, or to run errands, commute to work, or conserve energy. From 2000 to 2012, the number of Americans traveling to work by bicycle increased from 488,000 to about 786,000 (U.S. Census Bureau, May 2014). While a bicycle can offer many health, financial, and environmental benefits, it can also bring the dangers associated with any vehicle.

Cyclists and drivers make mistakes that contribute to crashes, but when a crash happens involving a cyclist and a car, SUV, pickup truck, or bus, it is the cyclist who is likely to be injured or killed.

Bicyclists accounted for 2 percent of all traffic fatalities and 2 percent of all crash-related injuries in 2012. Most bicyclist fatalities occurred between 4 p.m. and midnight (48%) and in urban areas (69%). Almost 9 in 10 (88%) of those killed while riding bicycles were male. One in four bicyclists (24%) who died in crashes had blood alcohol concentrations (BACs) of .08 grams per deciliter (g/dL) or higher, the illegal alcohol level in all States.

Many crashes could be avoided if all bicyclists and motorists followed the rules of the road.

For more information, visit:

[www.NHTSA.gov/Bicycles](http://www.NHTSA.gov/Bicycles)



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

★★★★★  
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www.nhtsa.gov

# THE PROBLEM



## What Data Tells Us

- Overall, while passenger vehicle deaths decreased in 2012, bicyclist fatalities (682 to 726) and injuries (48,000 to 49,000) increased in 2012 from the year before. Of those injuries, 6,000 were incapacitating, meaning the bicyclist could not leave the crash scene without assistance (skull, chest, or abdominal injuries, broken limbs, severe lacerations, or unconsciousness). *2012 Bicyclists and Other Cyclists Traffic Safety Fact Sheet* ([www-nrd.nhtsa.dot.gov/Pubs/812018.pdf](http://www-nrd.nhtsa.dot.gov/Pubs/812018.pdf))
- More bicyclist fatalities occur during the summer months of July through September, but in 2012 the biggest increases in bicyclist fatalities occurred from January through June, compared to the year before.

## What People Tell Us

- According to NHTSA's 2012 nationally representative telephone survey, on a typical day the average duration of a bicycle ride was 45 minutes. The most common ride length was 30 minutes or less (42%), followed by 31 to 60 minutes (36%), 61 to 120 minutes (15%) and 121 minutes or longer (7%). *2012 National Survey of Bicyclist and Pedestrian Attitudes and Behavior (Vols 1, 2, 3)* (<http://www.nhtsa.gov/nti/811841>)
- Recreation (33%) and exercise (28%) were the most commonly cited purposes for bicycle trips, followed by personal errands (17%), visiting a friend (8%), commuting to work (7%) or going to school (4%).

### Riding after dark

- Three in four (72%) bicyclists who rode after dark said they tried to do something to make themselves

more visible. More than 4 in 10 of these bicyclists said they used bike headlights (44%) or wore fluorescent/reflective clothing or shoes (42%); about one-third said they had bike taillights (34%) or reflectors (29%). Fewer bicyclists said they wore other lights on themselves or their belongings (12%), or wore light-colored clothing (5%).

### Very few felt personally threatened on most recent ride

Very few (12%) of those who rode bicycles said they felt threatened for their personal safety during some point on their most recent ride. The reasons these riders gave were:

- motorists (83%);
- uneven walkways or roadway surfaces (43%);
- dogs or other animals (12%); and
- potential for crime (12%).

## TOP MISTAKES that Bicyclists Make



- **Bicyclist rides out** into the street from a driveway, alley, or from between parked cars without stopping or looking for traffic. Drivers do not expect bicyclists to enter the road in the middle of a block. The driver has the right-of-way and expects ALL entering traffic to yield. **Look left-right-left before entering a road.**
- **Bicyclist turns or swerves suddenly** into the path of a motorist. Unfortunately, these crashes often involve children. **Ride in straight, predictable lines; look over your shoulder for traffic; and use hand signals before changing lane position.**
- **Bicyclist rides through a stop sign or red light** without stopping. **Follow the same rules of the road as motorists. Be prepared to stop quickly.**
- **Bicyclist rides in the wrong direction**, approaching cars head-on. This type of crash is often deadly. Drivers do not expect traffic to come from the wrong direction. These crashes can occur at driveways, intersections, or when drivers turn right and hit an oncoming bicyclist. **Ride with the flow of traffic, never against it.**
- **Bicyclist rides while impaired**, which affects the balance, coordination, focus, and quick reactions necessary for safe biking. **Remember that a bicycle is a vehicle. If you plan to drink, get a safe ride home.**

## TOP MISTAKES that Drivers Make



- **Driver turns in front of a bicyclist** traveling on the road or sidewalk, often at an intersection or driveway. **Yield to bicyclists as you would motorists and do not underestimate their speed.**
- **Driver fails to search** surroundings for other vehicles, including bicycles. These crashes can occur in parking lots, at stop signs, when backing up, or when parking on the street. **Before accelerating your vehicle, look around for all road users, including bicyclists and pedestrians.**
- **Driver turns right on red** without looking to the right and behind, hitting a bicyclist approaching from the right rear. **Stop completely and look left-right-left and behind before turning right on red.**
- **Driver is going too fast for conditions** and hits a bicyclist who comes into the road unexpectedly. **Obey the speed limit, drive defensively, watch for others, and be prepared to stop.**
- **Driver overtakes a bicyclist but doesn't see them** until it is too late. Factors may include speeding, inattention, and alcohol on the part of the driver, and poor visibility or alcohol on the part of the bicyclist. **Always do visual scans of the roadway for other traffic, especially at night.**
- **Driver passes a bicycle** too closely. These crashes tend to occur to riders 15 and older. **Pass bicyclists as you would any other vehicle—when it's safe to move over into an adjacent lane.**

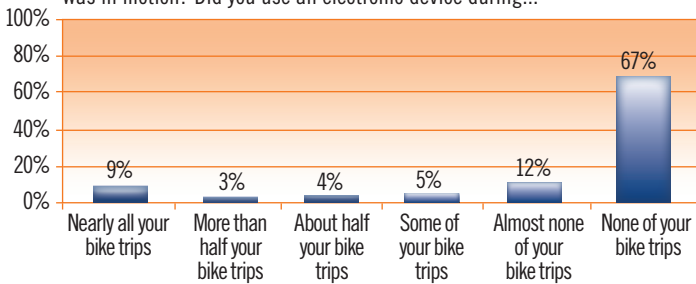
# THE FACTS



## Frequency of Using an Electronic Device While Bicycling

Two-thirds of respondents who rode a bicycle within the past year reported that they never used electronic devices during their bicycling trips over that time period. However, one-fifth used electronic devices during at least some of their bicycling trips.

**Question:** During the past year, how often did you use an electronic device like a cell phone or mp3 player *while you were riding your bike* and the bike was in motion? Did you use an electronic device during...

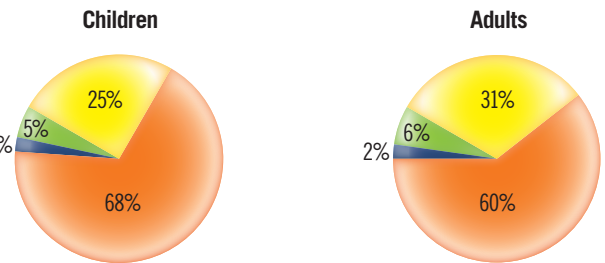


Base: Rode a bicycle within the past year. Unweighted N=2,580.

## Opinion on Bike Helmets Protecting Against Head Injuries

All respondents were asked to give their opinions on whether they thought bike helmets provided protection against head injuries. They were more inclined to think that bike helmets provide a high level of protection to children, than to think they provide a high level of protection to adults. More than 9 in 10 respondents thought that bike helmets provide at least some protection for children, and for adults.

Legend: Very little protection (green), Some protection (yellow), A lot of protection (orange), Don't know (blue)

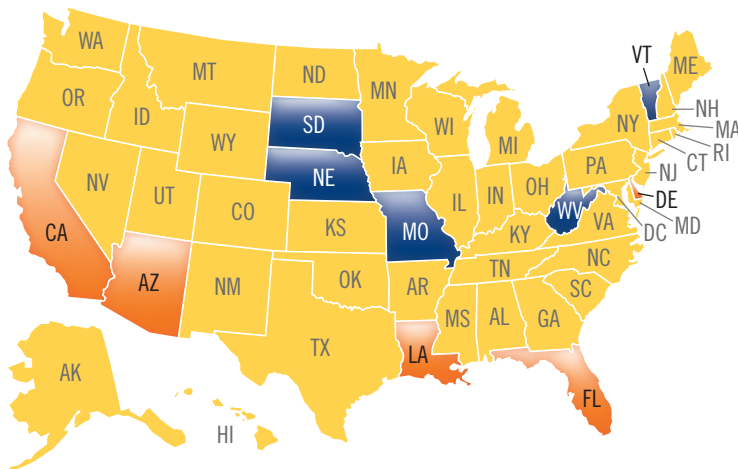


**Question:** In your opinion, how much protection against head injuries do bike helmets provide children?

**Question:** In your opinion, how much protection against head injuries do bike helmets provide adults?

Base: All respondents. Unweighted N=7,509.

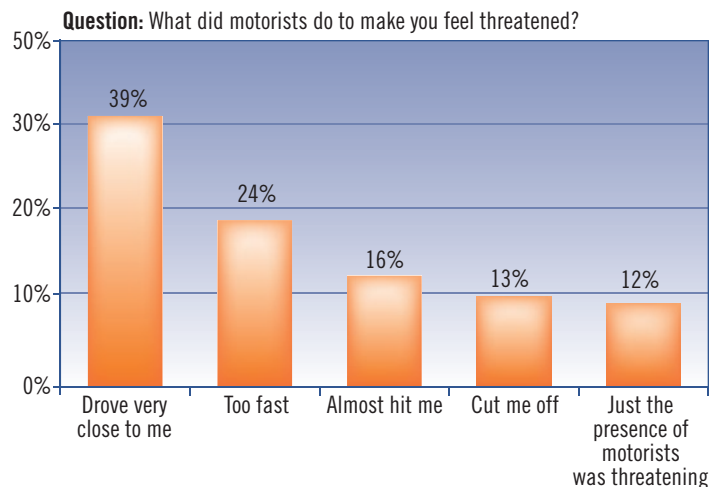
## States With the Highest and Lowest 5-Year Average Bicycle Fatality Rates per Million Population, 2008–2012



Highest Bicyclist Fatality Rates		Lowest Bicyclist Fatality Rates	
Florida	6.0	Vermont	0.3
Delaware	4.3	Missouri	0.6
Louisiana	3.4	West Virginia	0.7
Arizona	3.3	South Dakota	0.7
California	2.9	Nebraska	0.8

Source: Bicyclists and Other Cyclists, April 2014

## Motorist Actions That Made Bicyclists Feel Threatened



Base: Felt threatened for personal safety while riding a bike due to motorists. Unweighted N=160.

# WHAT YOU CAN DO

## We know what works

NHTSA's *Countermeasures That Work* recommends effective actions that communities can take to improve bicycle safety for adults and children ([www.nhtsa.gov/staticfiles/nti/pdf/811727.pdf](http://www.nhtsa.gov/staticfiles/nti/pdf/811727.pdf)).

## Everyone can

- Follow the rules of the road. In all 50 States, bicycles are considered vehicles or bicyclists are considered operators of vehicles.
- Use turn signals, yield to pedestrians, keep right when traveling slower than other traffic, obey their State's traffic laws, and patiently share the road with each other.

## Bicyclists can

- Be predictable. Signal your intentions to others (use hand signals, look over your shoulder before changing lanes, ride in a straight line on the right side of the road). Expect that other vehicles do not see you.
- Go with the flow of traffic, not against it. Drivers are not expecting to see bicyclists approaching them from the front, to make sudden turns across several lanes, or to come out from between parked cars or behind shrubbery.
- Be ready to stop at driveways and intersections. This is easier to do if you are not distracted by electronic

devices. We need to be alert to pick up information about traffic around us, so do not put yourself at a disadvantage by texting or by using ear buds or headphones while you're riding.

- Watch for uneven pavement, potholes, wet leaves, storm grates or other roadway changes that could cause you to lose balance. Ride on bike paths and bike trails if they are available in your community and give parked cars about a 3-foot berth in case someone opens a door in your path. If you are riding on a sidewalk, you must yield to pedestrians and it is a good idea to let them know you are about to pass them. Riding on a sidewalk may not be a safe or legal place to ride.
- Make yourself and your bicycle visible at all times, especially at night and in dim light by wearing bright, reflective clothing, and using white lights in

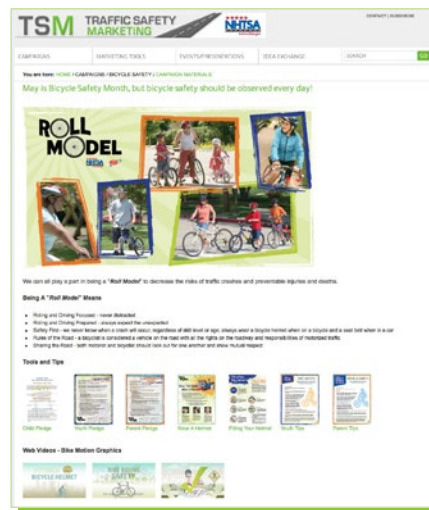
front and red reflectors or lights in the rear as required by all States. Drivers cannot see you if you are dressed in dark colors at night.

- Regardless of your age or skill, wear a properly fitted, certified helmet on every ride. Check the Consumer Product Safety Commission's Web site, [www.cpsc.gov](http://www.cpsc.gov), for recalls of defective helmets.
- Ride sober. Alcohol affects balance, judgment, and reaction time, among other things, so don't let your friends ride drunk which increases the risk of a crash.

## Drivers can

- Be predictable. Signal your intentions to others and anticipate what other road users may do.
- Turn off cell phones.
- Allow enough room when passing bicyclists, as you would when passing another vehicle. A single lane does not allow enough room for both a bicycle and your vehicle. Give extra room around children on bicycles because they can be unpredictable.
- Stop and give assistance if you strike a bicyclist, call 911 as necessary. Driving away from the crash constitutes a hit-and-run which is a serious crime in all States.

Visit [www.nhtsa.gov/Bicycles](http://www.nhtsa.gov/Bicycles) for information about fitting helmets, safety tips, activities for children, Safe Routes to School, and how to be a "Roll Model."



For more information, visit:  
[www.NHTSA.gov/Bicycles](http://www.NHTSA.gov/Bicycles)

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