

Traffic Safety Facts

Laws

DOT HS 810 887W

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Motorcycle Helmet Use Laws

Background

The National Highway Traffic Safety Administration encourages each State to have and enforce a law requiring all motorcycle operators and passengers to wear helmets meeting Federal Motor Vehicle Safety Standard (FMVSS) 218. Motorcycle helmets provide the best protection from head injury for motorcyclists involved in traffic crashes. The passage of helmet use laws governing all motorcycle operators and passengers is the most effective method of increasing helmet use. Additionally, NHTSA strongly supports comprehensive motorcycle safety programs that include the use of motorcycle helmets and other safety equipment, rider education, motorcycle operator licensing, and responsible use of alcohol.

Key Facts

- In 2006, 4,810 motorcyclists died and approximately 88,000 were injured in highway crashes in the United States.
- Per mile traveled in 2006, a motorcyclist is approximately 37 times more likely to die in a crash than someone riding in a passenger car.
- Head injury is a leading cause of death in motorcycle crashes.
- An unhelmeted motorcyclist is 40 percent more likely to suffer a fatal head injury and 15 percent more likely to suffer a nonfatal injury than a helmeted motorcyclist when involved in a crash.
- NHTSA estimates that motorcycle helmets reduce the likelihood of a crash fatality by 37 percent.
- A Crash Outcome Data Evaluation System (CODES) study found that motorcycle helmets are 67 percent effective in preventing brain injuries and that unhelmeted motorcyclists involved in crashes were three times more likely to suffer brain injuries than those wearing helmets.
- NHTSA estimates that from 1984 through 2006 helmets saved the lives of 19,230 motorcyclists. If all motorcycle operators and

passengers had worn helmets during that period, NHTSA estimates that 12,320 additional lives would have been saved.

- A study conducted at the University of Southern California, which analyzed 3,600 traffic crash reports covering motorcycle crashes, concluded that wearing helmets was the single most important factor in surviving motorcycle crashes.
- A 1994 study by the National Public Services Research Institute concluded that wearing a motorcycle helmet does not restrict a rider's ability to hear auditory signals or see a vehicle in an adjacent lane.
- All motorcycle helmets sold in the United States are required to meet Federal Motor Vehicle Safety Standard 218, which establishes the minimum level of protection a helmet must afford each helmet user.
- Helmet use laws governing all motorcycle riders (universal helmet laws) significantly increase helmet use and are easily enforced because of riders' high visibility.
- Repeal of State universal helmet use laws has resulted in fewer riders wearing helmets. According to the National Occupant Protection Use Survey, from 2000 to 2006,

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helmet use dropped from 71 percent to 51 percent nationally and remained at 51 percent in 2006.

- Data on crashes in States where only minors are required to wear helmets show that fewer than 40 percent of the fatally-injured minors wear helmets even though the law requires them to do so. Helmet laws that govern only minors are difficult to enforce.
- According to NHTSA's 2000 Motor Vehicle Occupant Safety Survey, public support for motorcycle helmet use laws in the United States is strong, with four out of five people (81%) 16 and older supporting such laws. This support has changed little from earlier occupant protection surveys in 1998 (80%) and in 1994 (82%). Support was more prevalent among women (88%) than men (72%), and among non-motorcyclists (83%) than those who rode motorcycles (51%), with this gap seeming to have widened in the past two years. Support was also higher in States requiring all riders to wear helmets (84%), compared with States with lesser requirements (75%) or no requirement (79%).
- Reported helmet use rates of fatally-injured motorcyclists in 2006 were 59 percent for operators and 45 percent for passengers.

When Florida repealed its universal rider motorcycle helmet law in 2002, there were 40 percent more motorcyclists admitted to hospitals for treatment in the 30 months immediately following the helmet law change compared to the 30 months just before the law change (4,986 versus 3,567).

Deaths increased by 24 percent above what was expected from the increased registrations after repeal of the all-rider motorcycle helmet law, beginning before the law was in effect in July. Fatalities in Florida per 10,000 registered motorcycles increased 21 percent compared to 13 percent nationally for the two years before and after the law change—75 percent higher than the national rate. Unhelmeted deaths of riders under the age of 21 increased 188 percent, even though the law still applied to them. Costs to treat motorcycle injuries with head injury as the primary diagnosis more than doubled to \$44 million (adjusted for inflation). Only one in four of injured motorcyclists who were hospitalized had costs less than \$10,000, the required level of medical insurance to ride without a helmet. The hospital discharge data indicate that in the post-law change period, approximately 63 percent of admitted motorcyclists were covered by commercial insurance (\$31 million), 16 percent self-paid because they were under-insured or uninsured (\$8 million), while the remaining 21 percent had costs (\$10.5 million) billed to charitable and public sources (e.g., Medicaid).

Legislative Status

- To date, 20 States, the District of Columbia, and Puerto Rico require helmet use for all motorcycle operators and passengers. In another 28 States, only those under a certain age, usually 18, are required to wear helmets. Two States do not have laws requiring helmet use.
- On September 11, 2007, the National Transportation Safety Board (NTSB) recommended

that States that do not have universal helmet use laws enact them, and that all States require motorcyclists to use FMVSS 218-compliant motorcycle helmets while riding (operating), or as a passenger on any motorcycle.

- After the first year of the enactment of universal helmet use laws, the following reductions of motorcycle fatalities occurred: Oregon, 33 percent; Nebraska, 32 percent; Texas, 23 percent; Washington State, 15 percent; California, 37 percent; and Maryland, 20 percent.
 - Since 1997, six States (Arkansas, Texas, Kentucky, Louisiana, Florida, and Pennsylvania) have weakened universal helmet laws to limit coverage to those under a specific age. These six States were the first States since 1983 to repeal or weaken a universal helmet law. In August 2004, Louisiana reenacted a universal helmet use law.
 - Helmet use decreased following the changes in helmet laws in Arkansas and Texas. In the first full year following repeal of the law, fatalities in Arkansas increased by 21 percent, compared with the fatality rate in the last full year under the universal use law. In Texas, operator fatalities increased by 31 percent compared with the previous year when the universal helmet law was in place.
 - The 1998 universal helmet law repeal in Kentucky and the 1999 repeal in Louisiana produced similar effects to those experienced by Arkansas and Texas. Observed helmet use dropped from nearly full compliance under the universal
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law to about 50 percent without the law. Motorcyclist fatalities increased by over 50 percent in Kentucky and over 100 percent in Louisiana. Injuries also increased substantially in both States (48 percent in Louisiana and 34 percent in Kentucky). The rates of fatalities and injuries per registered motorcycle increased in both States following the helmet law repeals.

- A survey, conducted in Florida in 2002 following changes in the State's motorcycle helmet law found 47 percent compliant helmet use, 6 percent noncompliant helmet use and 47 percent no helmet use. These results indicate that use of compliant helmets declined from 65 percent in 1998, use of noncompliant helmets has been largely abandoned.

Cost Savings

- Analysis of linked data from CODES in three States with universal helmet laws showed that without the helmet law, the total extra inpatient charges due to brain injury would have almost doubled from \$2,325,000 to \$4,095,000.
- A number of studies have compared hospital costs for helmeted and unhelmeted motorcyclists involved in traffic crashes. These studies have revealed that unhelmeted riders involved in crashes are less likely to have insurance and more likely to have higher hospital costs than helmeted riders involved in similar crashes.

- The CODES study also found that brain injury cases were more than twice as costly as non-brain injury cases for the one-year period studied. Among the unhelmeted motorcycle inpatients, charges for those suffering brain injuries were 2.25 times higher than for those without brain injuries. Long-term costs were not included.
- NHTSA estimates that motorcycle helmet use saved \$1.3 billion in 2002 alone. An additional \$853 million would have been saved if all motorcyclists involved in fatal crashes had worn helmets.
- NHTSA estimates that motorcycle helmet use saved \$19.5 billion in economic costs from 1984 through 2002. An additional \$14.8 billion would have been saved if all motorcyclists had worn helmets during the same period.

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State Motorcycle Helmet Use Requirements

20 States, DC, and P.R. Require Use for All Riders

Alabama	Nevada
California	New Jersey
District of Columbia	New York
Georgia	North Carolina
Louisiana	Oregon
Maryland	Puerto Rico
Massachusetts	Tennessee
Michigan	Vermont
Mississippi	Virginia
Missouri	Washington
Nebraska	West Virginia

Not Required In 3 States

Illinois
Iowa
New Hampshire (10)

27 States Require Use for a Specific Segment of Riders (Usually Under Age 18)

Alaska	New Mexico
Arizona	North Dakota
Arkansas	Ohio (5)
Colorado (9)	Oklahoma
Connecticut	Pennsylvania (8)
Delaware (1)	Rhode Island (6)
Florida (2)	South Carolina
Hawaii	South Dakota
Idaho	Texas (7)
Indiana	Utah
Kansas	Wisconsin
Kentucky (3)	Wyoming
Maine (4)	
Minnesota	
Montana	

1. Required for operators and riders under 19; helmets must be in the possession of other riders, but use is not required.
2. Required for all riders 21 and under, for those over 21 without \$10,000 of medical insurance that will cover injuries resulting from a motorcycle crash.
3. Required for operators and passengers under 21, operators with an instruction permit, and licensed operators with less than one year's experience.
4. Required for operators of off-road motor vehicles under 15 years of age, and operators with a learner's permit or with one year of successfully completing a driving test, and passengers of operators required to wear a helmet.
5. Requested for operators and passengers under 18, and "novice" operators, and all passengers of such operators.
6. Required for operators under 21, first-year operators, all such passengers of such operators.
7. Required for operators and passengers 20 and under and those who have not completed a motorcycle operation training course or who do not have at least \$10,000 medical insurance coverage for injuries incurred as a result of an accident while operating or riding a motorcycle.
8. Required for operators and passengers under 21, people 21 or older licensed for less than two years, and people 21 or older who have not completed an approved motorcycle rider safety course.
9. Required for operators under and their passengers under 18.
10. Previously required for drivers and riders less than 18 years of age but voided when Federal law no longer required helmet use.

This report and additional information are available from your State Highway Safety Office; the NHTSA Regional Office serving your State; or from NHTSA Headquarters, Office of Safety Programs, ATTN: NTI-121, 1200 New Jersey Avenue SE., Washington, DC 20590; 202-366-9588; or NHTSA's Web site, www.nhtsa.gov.