

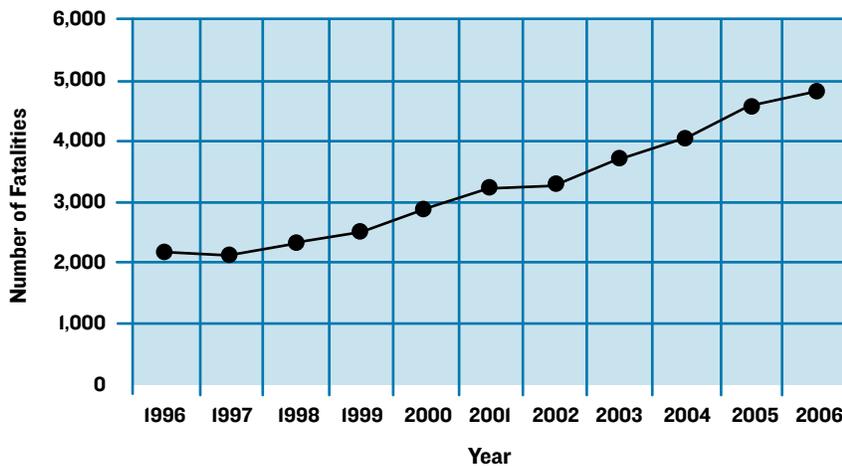
# MOTORCYCLE SAFETY

## A Survey of State Programs

### EXECUTIVE SUMMARY

In 2006, the most recent year data is available, 4,810 motorcyclists were killed in crashes. This is 5 percent more motorcyclists than were killed in 2005.<sup>1</sup> In fact, as Figure One below shows, motorcycle crashes have increased every year for the past nine years.

Figure One – Motorcycle Fatalities by Year



Source: National Highway Traffic Safety Administration

In 2006, motorcycle fatalities represented 11 percent of highway fatalities in the United States, but motorcycles represented only 3 percent of all registered vehicles in the United States.<sup>2</sup> Motorcyclists were also 35 times more likely to die in a crash than the occupant of a passenger car and eight times more likely to be injured.

An analysis of FARS data shows motorcycle fatalities also increased in 27 states and Puerto Rico between 2005 and 2006. Also noteworthy is the fact that in 2004, 2005 and 2006 more than half of all motorcycle fatalities in the United States occurred in a minority of states.<sup>3</sup> (see national map – Figure Two, page 2) In 2004, 55 percent of all motorcycle fatalities occurred in the following 11 states: Arizona, California, Florida, Georgia, Illinois, Indiana, New York, North Carolina, Ohio, Pennsylvania and Texas. In 2005, 63 percent of all motorcycle fatalities occurred in the following 14 states: Arizona, California, Florida, Georgia, Illinois, Indiana, Michigan, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee and Texas. In 2006, 67 percent of all motorcycle fatalities occurred in the following 15 states: Alabama, Arizona, California, Florida, Georgia, Illinois, Indiana, Michigan, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee and Texas. In 2004, 2005 and 2006, nearly one third of all motorcycle fatalities occurred in California, Florida and Texas alone.

<sup>1</sup> National Highway Traffic Safety Administration, *Traffic Safety Facts 2006 Data, Motorcycles*.

<sup>2</sup> National Highway Traffic Safety Administration. 2007. *Traffic Safety Facts: 2006 Traffic Safety Annual Assessment – a Preview*. Washington, DC: US Department of Transportation.

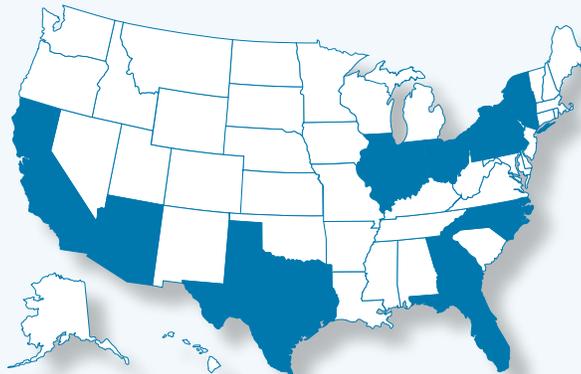
<sup>3</sup> Analysis of the National Highway Traffic Safety Administration's *Traffic Safety Facts 2004, 2005 and 2006 Data, Motorcycles*.

**Figure Two – Motorcycle Fatalities in the United States**

**55%**

percent of all motorcycle fatalities occurred in the following 11 states in 2004

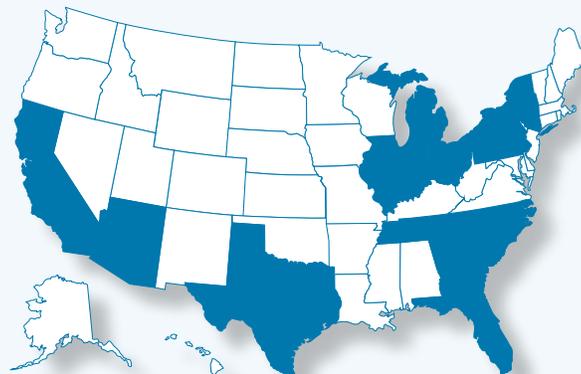
- Arizona
- California
- Florida
- Georgia
- Illinois
- Indiana
- New York
- North Carolina
- Ohio
- Pennsylvania
- Texas



**63%**

percent of all motorcycle fatalities occurred in the following 14 states in 2005

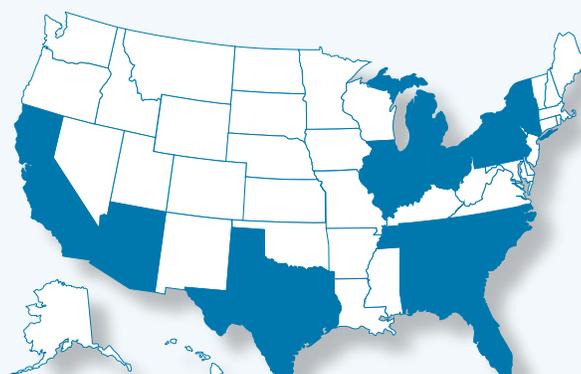
- Arizona
- California
- Florida
- Georgia
- Illinois
- Indiana
- Michigan
- New York
- North Carolina
- Ohio
- Pennsylvania
- South Carolina
- Tennessee
- Texas



**67%**

percent of all motorcycle fatalities occurred in the following 15 states in 2006

- Alabama
- Arizona
- California
- Florida
- Georgia
- Illinois
- Indiana
- Michigan
- New York
- North Carolina
- Ohio
- Pennsylvania
- South Carolina
- Tennessee
- Texas



# MOTORCYCLE SAFETY: A Survey of State Programs

In 2007, the Governors Highway Safety Association (GHSA) asked state highway safety agencies to complete a survey detailing motorcycle safety activities in 2004, 2005 and 2006 designed to mitigate or reverse the annual increase in motorcycle crashes. Fifty states plus the District of Columbia, Guam and Puerto Rico submitted completed surveys.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Pub. L., 109-59, enacted on August 10, 2005, authorized a new \$25 million state motorcyclist safety grant program to support rider training and motorist awareness. States received the first year of federal 2010 Motorcyclist Safety Grants at the end of the 2006 fiscal year (see <http://www.ghsa.org/html/stateinfo/grants/2010lu.html>). Most of the money was rolled over to fiscal year 2007, and as a result, this survey may not capture all of a state's current motorcycle safety activities. Additional information on organizations with motorcycle safety programs may be found at <http://www.ghsa.org/html/links/trafficsafetywebsites.html#motorcycle>.

This report focuses on state programmatic efforts to improve motorcyclist safety. Specifically, how are state agencies addressing motorcycle crashes and what are their plans for the future?

## GHSA'S SURVEY OF THE STATES FOUND:

- **Responsibility for motorcycle safety varies widely.** State Highway Safety Offices are responsible for motorcycle safety in 28 states and Puerto Rico. State Highway Safety Offices share responsibility for motorcycle safety with other agencies in five other states and the District of Columbia. In 15 states, responsibility falls to a variety of different agencies including State Police and State Departments of: Education, Motor Vehicles, Transportation and State.
- **Training and education continue to be an issue.** The explosion in motorcycle ownership has left most states with training and education shortfalls. Twenty-nine states and the District of Columbia indicated they have capacity problems, and riders face delays ranging from one day to 12 weeks for training classes during peak seasons. Only 16 states require training and education for novice motorcycle operators. Florida, Maine and Rhode Island are the only states that require rider education for all riders regardless of age. Three states (Alaska, Arkansas and Mississippi) have privately-operated rider training programs.
- **Motorcycle licensing requirements vary widely.** The minimum age for a motorcycle license/endorsement ranges from 14 to 18. In an effort to increase proper licensure, many states offer testing waivers for successful completion of rider training courses. So, unlike automobile operators, motorcyclists in at least 33 states may have tests waived if they pass an approved education course.
- **Anti-impaired riding campaigns are somewhat widespread.** Twenty-seven states and Puerto Rico have anti-impaired riding education efforts for motorcyclists, and 17 states and Puerto Rico have motorcycle mobilization and/or law enforcement education efforts to detect impaired motorcycle riders.
- **A patchwork of helmet laws.** Twenty states, the District of Columbia and Puerto Rico have universal motorcycle helmet laws. Twenty-seven states and Guam have laws that cover certain riders, and three states have no motorcycle helmet laws. Proper helmet use varies widely across the country. In states with partial laws or without helmet laws, the preponderance of fatalities were helmetless.
- **Road construction issues are addressed in only a few states.** Although motorcycle riders and their passengers are more vulnerable to hazardous road conditions than drivers of other vehicles, only 21 states and Puerto Rico indicated they consider motorcycle issues in road construction projects.

## MOTORCYCLE SAFETY: A Survey of State Programs

- **Funding continues to be an issue.** Only 24 states indicated that user fees support their respective motorcycle safety/education efforts. Eighteen states indicated that the programs are funded by a combination of one or more of the following: user fees, dedicated state funding and federal grants. Three states indicated that only federal resources were used. In 2006, \$5,940,000 in federal 2010 Motorcyclist Safety Grants was distributed to 44 states and Puerto Rico. In FY 2007, \$6,000,000 in federal 2010 Motorcyclist Safety Grants was distributed to 47 states and Puerto Rico. The average grant was \$122,000 in 2006 and \$125,000 in 2007. However, the 2006 funds were awarded very late in the fiscal year and were rolled over to FY 2007. As a result, most State Highway Safety Offices did not begin actively working to address motorcycle safety issues until FY 2007. Many states also use federal 402 and 410 grants to supplement motorcycle safety activities.
- **Data issues are a problem.** Data collection and compatibility of data at the state and federal level continue to be an issue. Several states noted significant differences in the numbers of registered vehicles they reported versus the number of registered vehicles the federal government reported. Similar data issues existed between the number of fatalities reported by state and federal agencies.
- **Noteworthy practices.** Motorcycle safety issues and concerns are similar in many states. The GHSA survey found that states are working to address these issues in various ways. This section of the report summarizes practices from one state that are applicable to many states. One of the most notable examples is a public service announcement developed by the State of Idaho on sharing the road that has been shared with and implemented by at least three other states.

Individual state responses to the survey are provided in Appendix I. An overview of the problem is provided in the background section of the report, and a summary of key federal programs follows in the federal program section of the report.

### BACKGROUND

Motorcycles have become part of the popular culture in the United States. Commercials and movies featuring positive images of motorcycles and motorcyclists are commonplace. According to the Motorcycle Industry Council (MIC), motorcycle sales have been on the rise since 1993. The MIC cites several reasons for the increase in sales: rising fuel prices, an expanding sales demographic (women, older and wealthier riders) and motorcycles that are better than ever in style, performance and price.

Motorcycle crashes reached a historic low of 2,110 in 1997 but have increased every year since. In fact, fatalities have more than doubled since 1996, from 2,161 to 4,810 in 2006. In 2006, 30,521 occupants of passenger vehicles in the United States - cars, sport utility vehicles, vans and pickup trucks - were killed in crashes. According to the federal government, this is the lowest annual total since 1992.<sup>4</sup>

At a time when passenger car fatalities are at a 15-year low, motorcycle fatalities are at a nine-year high.<sup>5</sup> There are a variety of reasons for the increases in motorcycle crashes and fatalities, including: an increase in motorcycle sales and registrations; the repeal of mandatory helmet laws, a decrease in overall helmet use and an increase in novelty helmet use; the popularity of supersport bikes and an increase in speeding-related crashes; and a steady percentage of unlicensed, untrained and impaired motorcycle operators.

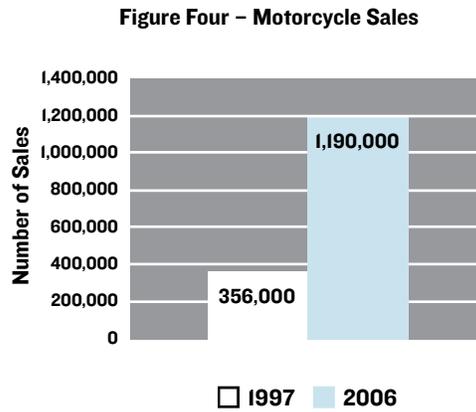
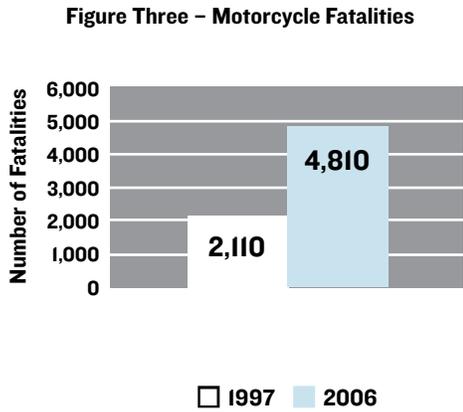
Not surprisingly, the motorcycle sales increase is one factor that has led to increased rider injuries and fatalities. Fatalities among motorcycle drivers and passengers have more than doubled since 1997<sup>6</sup>; however, motorcycle sales have almost quadrupled in the same time period (356,000 in 1997 to over 1.1 million in 2006<sup>7</sup>) – see **Figures Three** and **Four**. Nevertheless, the increase in motorcycle sales is not the only reason for the increase in motorcycle crashes and fatalities.

<sup>4</sup> National Highway Traffic Safety Administration, July 23, 2007. "Declining Traffic Deaths Lead to Lowest Highway Fatality Rate Ever Recorded U.S. Transportation Secretary Mary E. Peters Announces."

<sup>5</sup> National Highway Traffic Safety Administration, June 2006. *Recent Trends in Motorcycle Crashes: An Update*.

<sup>6</sup> National Highway Traffic Safety Administration, March 2008. *Traffic Safety Facts – 2006 Data*.

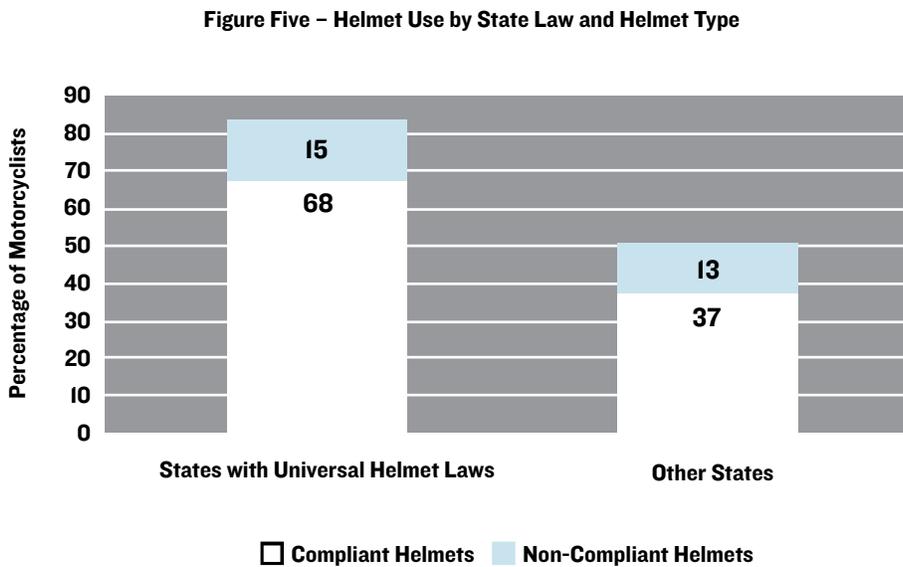
<sup>7</sup> Motorcycle Industry Council, Feb. 15, 2008. "Two-Wheel Sales Soften, Four-Wheel Sales Strong in 2007."



Source: Motorcycle Industry Council

Head injury is a leading cause of death in motorcycle crashes, and proper helmets are the principal measure for reducing crash-related head injuries. In 2006, 83 percent of motorcyclists observed in states with universal helmet laws were wearing helmets, compared with 90 percent in 2002. In states without universal laws, helmet use was 53 percent in 2002 and 50 percent in 2006.<sup>8</sup> So, with more motorcyclists on the road and fewer of them wearing helmets, it isn't surprising that the repeal of mandatory helmet laws is one of the factors that led to an increase in injuries and fatalities in motorcycle crashes.

<sup>8</sup> Glassbrenner, D. 2006. *Motorcycle helmet use in 2006 – overall results*. Report no. DOT HS-810-678. Washington, DC: National Highway Traffic Safety Administration.



Source: National Occupant Protection Use Survey, NHTSA's National Center for Statistics and Analysis, 2006.

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<sup>9</sup> National Highway Traffic Safety Administration. *Motorcycle Helmet Use Laws*. January 2008.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

In 2006, helmet use rates for all fatally injured motorcyclists were 59 percent for operators and 45 percent for passengers.<sup>9</sup> According to NHTSA, 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.<sup>10</sup> NHTSA also estimates that motorcycle helmets reduce the likelihood of a crash fatality by 37 percent.<sup>11</sup> So, even with the explosion in motorcycle sales there would be fewer fatalities if more riders wore proper helmets.

The 2006 National Occupant Protection Use Survey (NOPUS) survey also found that 14 percent of motorcycle riders use helmets that do not comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 218, *Motorcycle Helmets*. NHTSA tested seven popular novelty helmets to determine how they compare to certified helmets. Researchers found that the novelty helmets all performed significantly worse, based on their lack of ability to absorb impact energy during a motorcycle crash. These helmets, in general, had very little, if any, impact-absorbing capability. Computer simulations of head impact attenuation tests showed a 100-percent probability of brain injuries and/or skull fracture for the person involved in a crash while wearing a novelty helmet.<sup>12</sup>

<sup>12</sup> National Highway Traffic Safety Administration, April 2007. *Summary of Novelty Helmet Performance Testing*.

Another factor is the growing popularity of supersport bikes. Supersport motorcycles are built on racing platforms but modified for the highway and sold to consumers. They are especially popular with riders under 30. These motorcycles typically have more horsepower per pound than anything else on the road. Motorcyclists who rode supersport bikes had driver death rates per 10,000 registered motorcycles in 2005 nearly four times higher than rates for motorcyclists on cruiser and standard bikes.<sup>13</sup> Additionally, in 2006, 37 percent of all motorcyclists involved in fatal crashes were speeding compared to 23 percent of passenger car drivers, 19 percent of light-truck drivers and 8 percent of large-truck drivers.<sup>14</sup>

<sup>13</sup> Insurance Institute for Highway Safety, September 2007. *Q&As Motorcycles – General*.

<sup>14</sup> National Highway Traffic Safety Administration, *Traffic Safety Facts 2006 Data, Motorcycles*.

<sup>15</sup> Ibid.

One other factor is unlicensed or improperly licensed riders. All 50 States and the District of Columbia require motorcyclists to obtain a motorcycle operator license or endorsement before they ride on public highways. However, many motorcyclists are not properly licensed. In 2006, 25 percent of motorcycle operators involved in fatal crashes did not have a valid motorcycle license, compared to 13 percent of drivers of passenger vehicles who were not properly licensed.<sup>15</sup> This means that one out of four motorcyclists in fatal crashes may not have had the knowledge and skills needed to operate a motorcycle safely.

Still another factor in the lagging motorcycle safety record is the nature of the vehicle. Motorcycles, with their lighter weight and exposed riders, are inherently less crashworthy than automobiles. In addition, while passenger vehicles and motorcycles have benefitted from design advances, motorcycles lack several key safety advances, such as airbags and electronic stability control, that help reduce passenger vehicle fatalities. The design limitations of motorcycles create an increased need for helmets and other protective safety gear, rider training/education programs that emphasize things like the dangers of impaired riding, road improvements and passenger vehicle awareness programs as a means to further promote motorcycle safety.

## FEDERAL PROGRAMS

### FEDERAL LEGISLATION

SAFETEA-LU, enacted on August 10, 2005, authorized \$286.4 billion in funding for highways, traffic safety and transit. Section 2010 of SAFETEA-LU authorized a new \$25 million state motorcyclist safety grant program to support rider training and motorist awareness (\$6 million a year in FY 2006 – 2008 and \$7 million in FY 2009).

In addition, Section 2010 of SAFETEA-LU directed the Secretary of Transportation to develop and provide states with model language for use in traffic safety education courses, driver's manuals and other driver's training materials instructing drivers on the importance of sharing the road safely with

In 2005, motorcycle enthusiast and California Governor Arnold Schwarzenegger was in a low-speed motorcycle crash. The crash highlighted the need for proper licensure when the Governor acknowledged that he had ridden a motorcycle for years without the proper license. When asked about it Governor Schwarzenegger said he never bothered to obtain a motorcycle license because he "never thought about it."

motorcyclists. Section 2003 of SAFETEA-LU directed the Secretary of Transportation to “conduct a study on educational, public information, and other activities targeted at reducing motorcycle crashes and resulting fatalities and injuries, where the operator of the motorcycle was impaired.”

Section 5511 of SAFETEA-LU authorized grants to the Oklahoma Transportation Center to conduct a comprehensive motorcycle crash causation study using the Organization for Economic Cooperation and Development methodology. The Federal Highway Administration (FHWA) is overseeing this effort. Last, Section 1914 of SAFETEA-LU authorized a Motorcyclist Advisory Council (MAC) to coordinate with and advise the FHWA administrator on infrastructure issues concerning motorcyclists.

#### **NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**

NHTSA has many motorcycle safety programs. In 2000, NHTSA and the Motorcycle Safety Foundation (MSF) released a comprehensive plan to improve motorcycle safety in the United States called, The National Agenda for Motorcycle Safety (NAMS). The NAMS was developed by a technical working group of experts representing all constituencies involved in motorcycle safety. Its recommendations address the full range of topics and strategies relevant to motorcycle safety: human, vehicle, environmental and social factors to prevent crashes, reduce injuries in crashes and care for persons injured in crashes. The NAMS is available at [www.nhtsa.gov](http://www.nhtsa.gov) or [www.msf-usa.org](http://www.msf-usa.org). Approximately half the NAMS recommendations are directed to states and communities. These NAMS recommendations provide overall goals and general methods for achieving these goals but do not suggest specific action steps. NHTSA and MSF developed an implementation guide for the NAMS that provides specific ideas and resources for implementation of recommendations to states and communities. NHTSA and MSF also developed a website called <http://www.implementnams.org> to provide one Internet location to talk about motorcycle safety, learn about NAMS, share ideas and talk about ideas that show promise in reducing motorcycle crashes and fatalities.

In 2006, NHTSA and the American Association of Motor Vehicle Administrators formed a Motorcycle Technical Working Group to revise the Motorcycle Operator Licensing System and Integrating Motorcycle Rider Education and Licensing (IMREL) “Guideline Documents” designed to assist motor vehicle administrators in the licensing of motorcycle operators. The IMREL “Guideline Documents” are currently under review at NHTSA.

In November of 2007, NHTSA announced a new action plan to improve motorcycle safety. The plan includes a broad public information campaign through fiscal year 2009 and:

- A *Motorcycle Crash Causes and Outcomes Study*, a comprehensive examination of the factors that causes crashes, designed to help NHTSA develop stronger programs and strategies to combat the rising trends in motorcycle crashes.
- The development of national standards for entry level motorcycle rider training that will set the baseline for novice motorcycle rider training programs conducted in the United States.
- An effort to amend FMVSS No. 218, *Motorcycle Helmets*, to address the falsification of helmet certifications facilitated by the current labeling requirements of the motorcycle helmet standard.
- The distribution of *Roadway Safety for Motorcycles*, a brochure containing official guidance on designing, constructing and maintaining roadways for increased motorcycle safety to road planners, designers and engineers.
- The development of a training program designed to educate police on motorcycle safety and the specific enforcement efforts they can undertake to reduce motorcycle crashes.
- The distribution of a *Share the Road* campaign kit for use by states, local communities, and motorcycle organizations.

Since 1995, NHTSA has sponsored motorcycle assessments in the following 18 states: Arizona, Colorado, Delaware, Florida, Hawaii, Illinois, Indiana, Maryland, Michigan, Minnesota, Missouri, New York, Ohio, Oklahoma, South Carolina, Washington, West Virginia and Wisconsin. Assessments are also scheduled

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in California and Indiana (a second assessment) this year. The Motorcycle Safety Program Assessment is a technical assistance tool that allows NHTSA and other experts to review the motorcycle safety program, note the program's strengths and accomplishments and note where improvements can be made. Recommendations from several states are provided in Appendix II.

## NATIONAL TRANSPORTATION SAFETY BOARD

In September 2007, the National Transportation Safety Board (NTSB) issued a Safety Alert on motorcycle safety. The alert included safety recommendations to NHTSA, the FHWA and the 50 states. Major recommendations included: (1) that the three states without motorcycle helmet laws pass legislation requiring that all motorcyclists and passengers wear federal safety standard compliant helmets, (2) that the 27 states that have helmet laws for only some riders amend their statutes to include all riders, and (3) that all states provide information to NHTSA on the effectiveness of their motorcycle safety efforts to help NHTSA develop better safety programs and campaigns.

## SUMMARY OF KEY RESULTS

**Responsibility for motorcycle safety varies widely.** As **Figure Six** to the left indicates, the Highway Safety Office is the lead agency for motorcycle safety in 28 states and Puerto Rico. In Vermont, the Department of Motor Vehicles is responsible for motorcycle safety. Arkansas and Mississippi indicated that no state agency is responsible for motorcycle safety.

**States have mechanisms in place to address motorcycle crashes.** Thirty-three states and Puerto Rico indicated they have active statewide motorcycle advisory committees. Florida plans to form a committee in 2008. Forty states and Puerto Rico identify motorcycle crashes as a priority crash problem. Thirty-six states and Puerto Rico have motorcycle safety plans and five states indicated efforts to develop plans in 2008. Forty-one states and the District of Columbia include motorcycle safety in their strategic highway safety plans, and two states indicated plans to include motorcycle safety in its strategic highway safety plan in 2008.

**Training and education continue to be an issue.** Although the agency responsible for rider education and training varies from state to state (see **Figure Seven**) there are several similarities across the country, including the following.

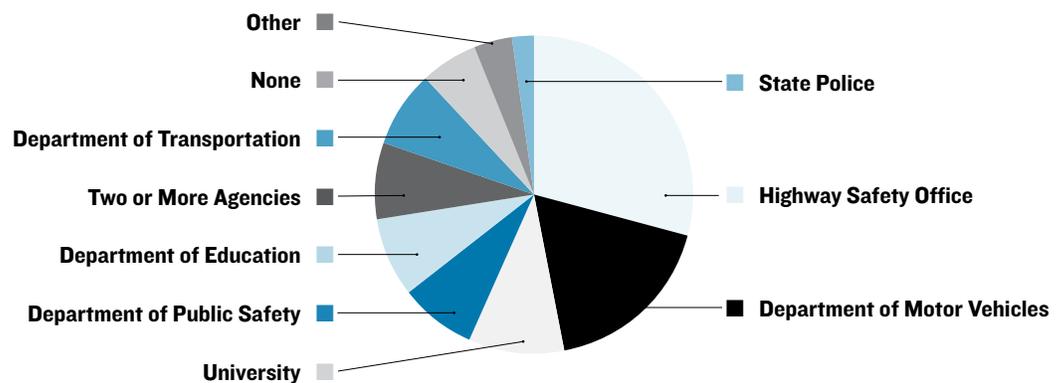
- Forty-seven states have state-sponsored rider education programs. The following three states and the District of Columbia do not have state-sponsored rider training programs: Alaska, Arkansas and Mississippi.

## Figure Six States

in which the Highway Safety Office has sole responsibility for motorcycle safety

- Alabama
- Alaska
- Arizona
- Connecticut
- Florida
- Hawaii
- Kansas
- Minnesota
- Missouri
- Nebraska
- Nevada
- New Hampshire
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oregon
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Virginia
- West Virginia
- Wisconsin
- Wyoming

Figure Seven – State Agencies Responsible for Rider Education and Training



- Most states offer classes that use a curriculum developed by the Motorcycle Safety Foundation. However, state-sponsored rider education programs are administered differently. In some instances, the state administers the program through a government entity. In other cases, the state contracts the program to a private provider which delivers the rider training.
- Twenty-nine states and the District of Columbia indicated they have training shortfalls. In these states, riders face delays that range from one day to 12 weeks for training classes during peak seasons. States are trying to solve capacity issues in a variety of ways, including: offering night time training courses; buying portable training trailers that can be moved to various locations across the state; investing in new training locations, and developing walk in, wait lists for training courses.
- Seventeen states don't have training capacity problems. Several states without capacity problems noted they were using or had purchased mobile training units to address spikes in demand. It is important to note that the definition of capacity problem also varies by state. Some states indicated capacity problems with waits as short as one to two days, while another state noted they didn't have a capacity problem because it met training demands within a 90 day state imposed limit.
- Nineteen states require rider training. Rhode Island, Maine and Florida<sup>16</sup> are the only states that require training for all riders regardless of age. The following 12 states require training and education for operators under 18: Colorado, Connecticut, Delaware, Iowa, Maryland, Michigan, Minnesota, Missouri, New Hampshire, Ohio, Texas and Wisconsin. California, Idaho and Oregon require riders under 21 to take a rider education course, and in North Dakota the requirement applies to riders 14 to 15 years old.
- Most states have websites for their rider education programs. Several states also have specific websites dedicated to rider education issues - **Figure Eight** to the right.

NHTSA estimates that operators of other vehicles were a significant factor in 40 percent of all fatal motorcycle crashes,<sup>17</sup> and the GHSA survey found that most states have programs in place to educate motorists about sharing the road with motorcyclists.

Forty-three states and Puerto Rico indicated they have *Sharing the Road* education programs. Forty-eight states, the District of Columbia and Guam include information about sharing the road with motorcycles in their driver license manuals, and 33 states include sharing the road information in the mandatory curriculum for novice automobile drivers. The GHSA survey also found that while most states include conspicuity information in their respective rider training programs and motorcycle manuals, only a handful of states have special conspicuity education efforts.

Safety experts suggest extra precautions for older riders due to the need for above-average balance, coordination and reflexes that motorcycles demand and the subtle erosion of these skills that happens with age. Although almost half of all riders killed in crashes were 40 and over, only Massachusetts indicated a special training program for drivers in this age group.

**Licensing and testing requirements vary state by state.** The minimum age for a motorcycle license/endorsement ranges from 14 to 18 years old. Unlike automobile operators, motorcyclists in at least 33 states may waive one or more of the states testing requirements by completing a rider education course – See **Figure Nine** (page 10). In several states the waivers also apply to novice riders. Alabama and Rhode Island are the only states that noted that they don't offer education waivers.

Testing requirements for motorcycle licenses/endorsements also vary by state. Most states require a combination of vision, knowledge and road tests. A couple of states also require a special written motorcycle test.

## GHSA POLICY

GHSA urges all states to require motorcycle operator training for minors, novice, and re-entry riders by qualified instructors.

<sup>16</sup> Florida's law becomes effective in July 2008.

<sup>17</sup> National Highway Traffic Safety Administration. 2007. *Traffic Safety Facts: 2006 Traffic Safety Annual Assessment – a Preview*. Washington, DC: US Department of Transportation.

Figure Eight

## State Motorcycle Safety Websites

Connecticut  
[www.ride4ever.org](http://www.ride4ever.org)

Louisiana  
[www.lamcsafety.org](http://www.lamcsafety.org)

Minnesota  
[www.highviz.org](http://www.highviz.org)

New Jersey  
[www.njridesafe.org](http://www.njridesafe.org)

Texas  
[www.looklearnlive.org](http://www.looklearnlive.org)

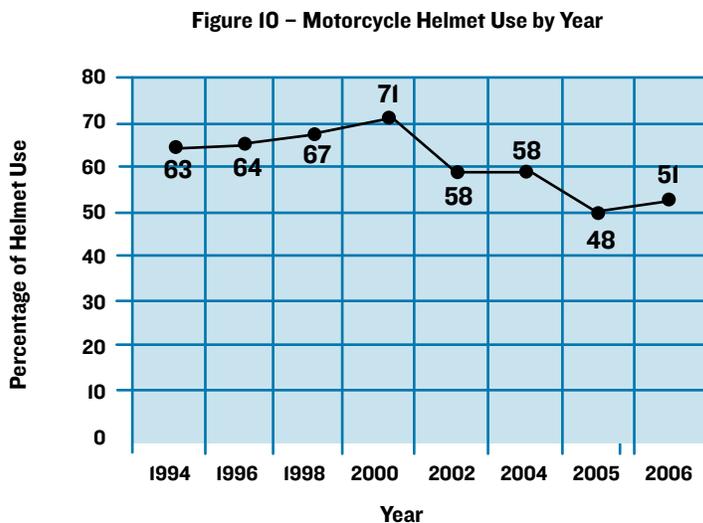


**There is a patchwork of helmet laws across the country.** In an effort to promote motorcycle safety, the Intermodal Surface Transportation Act of 1992 sanctioned states without helmet laws and transferred federal funds from highway construction accounts to highway safety accounts in states that did not have all-rider helmet laws. The National Highway System Designation Act of 1995 repealed these sanctions, and in 1997, Arkansas and Texas became the first states since 1983 to repeal laws requiring all motorcyclists to wear helmets. Florida, Louisiana,<sup>18</sup> Pennsylvania and Kentucky followed suit.

Motorcycle rights advocates view helmets as an accessory of personal apparel and believe that helmet use is a choice that adults should make for themselves.<sup>19</sup> GHSA and other traffic safety advocates argue that helmets provide the best protection from head injury for motorcyclists involved in traffic crashes and that mandatory helmet use laws are the most effective way to increase helmet use. Motorcycle helmet legislation is one of the most consistently introduced types of traffic safety legislation in the states and most debated related to motorcycle safety.

As **Figure II** (on page 14) indicates, only 20 states, the District of Columbia and Puerto Rico have universal helmet laws. Twenty seven states and Guam have laws that apply to certain riders, and three states (Illinois, Iowa and New Hampshire<sup>20</sup>) don't have any motorcycle helmet use laws.

**Figure 10** below highlights observed overall helmet use across the country. The difference in helmet use in states with and without universal helmet laws is striking.



Source: National Occupant Protection Use Survey, NHTSA's National Center for Statistics and Analysis.

According to NHTSA, in 2006, 83 percent of motorcyclists observed in states with universal helmet laws were wearing helmets, compared with 90 percent in 2002. In states without universal laws, helmet use was 53 percent in 2002 and 50 percent in 2006.<sup>21</sup> NHTSA also found that in states with laws that cover only minors, fewer than 40 percent of the fatally-injured minors wear helmets even though the law requires them to do so.<sup>22</sup>

<sup>18</sup> In 2004, Louisiana reenacted a universal helmet law.

**GHSA POLICY**

**GHSA urges states to support the use of DOT-approved helmets by motorcycle riders of all ages, oppose efforts to repeal their universal motorcycle helmet laws and adopt motorcycle helmet laws for all riders.**

<sup>19</sup> American Motorcyclist Association. AMA position in support of voluntary helmet use. 2008.

<sup>20</sup> The law requiring riders under 18 to wear helmets became ineffective in 1995 per state statute when a federal law tying helmet use to federal highway funding was repealed.

<sup>21</sup> Glassbrenner, D. 2006. *Motorcycle helmet use in 2006 – overall results*. Report no. DOT HS-810-678. Washington, DC: National Highway Traffic Safety Administration.

<sup>22</sup> National Highway Traffic Safety Administration. *Motorcycle Helmet Use Laws*. January 2008.

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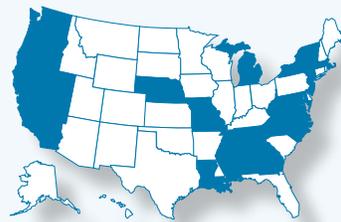
Almost all states include information on the benefits of helmet use and other protective equipment in their motorcycle training manual and training courses. However, only 17 states indicated special efforts in this area and only nine states and Puerto Rico indicated special efforts/programs to help law enforcement identify non-compliant helmets. The special education efforts include public service announcements, brochures, public awareness campaigns, presentations to rider groups, websites, regular press releases and articles in state publications. The law enforcement efforts include brochures, NHTSA videos, special sections in law enforcement training classes and websites.

Fatality Analysis Reporting System data from states with universal helmet laws shows that in 2006, the percentage of fatally-injured riders that weren't wearing helmets ranged from zero (the District of Columbia) to 40 percent (Vermont).<sup>23</sup> The GHSA survey found that only 10 states with universal helmet laws indicated they have special education efforts to encourage helmet use and nine states and Puerto Rico indicated special training to help law enforcement identify non-compliant helmets.

<sup>23</sup> National Highway Traffic Safety Administration, *Traffic Safety Facts 2006 Data, Motorcycles*.

Figure II

## United States Helmet Laws

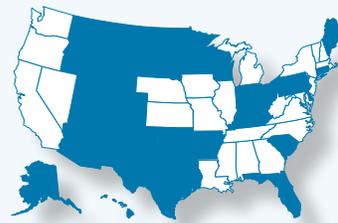


### States with No Laws

Illinois  
Iowa  
New Hampshire

### States with Universal Laws

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



### States with Laws for Some Riders

Alaska	New Mexico
Arizona	North Dakota
Arkansas	Ohio
Colorado	Oklahoma
Connecticut	Pennsylvania
Delaware	Rhode Island
Florida	South Carolina
Guam	South Dakota
Hawaii	Texas
Idaho	Utah
Indiana	Wisconsin
Kansas	Wyoming
Kentucky	
Maine	
Minnesota	
Montana	

**Road construction issues are addressed in only a few states.** Although motorcycle riders and their passengers are more vulnerable to hazardous road conditions than drivers of other vehicles, only 21 states and Puerto Rico indicated they currently consider motorcycle issues in road construction projects. The table below summarizes state efforts in this area. Several states noted that the lack of specific guidance at the national level continues to be a barrier to implementing policies that accommodate motorcycles. The purpose of the MAC <sup>24</sup> is to provide FHWA with recommendations so that national guidelines can be issued.

<sup>24</sup> Section 1914 of SAFETEA-LU authorizes a Motorcyclist Advisory Council to coordinate with and advise the FHWA administrator on infrastructure issues concerning motorcyclists.

State	Description
Colorado	Warning signs for roto-milled or barren sections of road and wheel traps such as uneven lanes.
Florida	Requirement for a grooved pavement ahead sign 500 feet in advanced of a milled or grooved surface.
Hawaii	The Hawaii Department of Transportation (DOT) considers motorcycle safety issues in its construction projects. The Testing Laboratory is developing a list of products that would decrease skidding or increase traction on the construction steel plates for motorcycles, motor scooters, mopeds as well as bicycles and pedestrians. Hawaii plans to include motorcycle safety in their work zone safety workshops.
Kansas	Signs are required in works zones for milled and uneven pavement.
Kentucky	Signs are used to warn motorcyclists of rumble strips and dips in the road.
Maine	The Maine Department of Transportation (DOT) is meeting with various motorcycle groups on roadway design and hazards such as rumble strips and how those affect motorcycle riders. They are also working to address concerns such as hard to see signs and sign placement.
Massachusetts	Uses highway message boards to warn motorcyclists of issues in construction zones.
Michigan	Signs are placed on roads to warn motorcyclists of construction hazards.
Minnesota	Motorcycle safety issues are addressed in traffic control training for construction and design engineers. Certain construction projects have expedited timelines to reduce motorcyclist exposure to milled surfaces, uneven lanes and drop offs. The Minnesota DOT is currently studying the effects of center line rumble strips on motorcycles.
Montana	Construction reports for projects with unpaved sections must contain an advisory for motorcyclists and suggest that they take an alternate route. The Montana DOT is developing a motorcycle advisory sign for work zones and unpaved roads.
Nebraska	Warning signs for rumble strips are used in work zones.
New Hampshire	Signs are used to warn motorcyclists of dangerous road conditions.
New York	Signs are required to warn motorcyclists where the pavement is grooved or uneven. New York's Highway Design Manual requires that changes in road condition be communicated to motorcyclists by signs, far enough in advance of the change to give the operator time to make the necessary adjustments. The Design Manual also states that extra precaution should be taken to ensure that no construction materials, steel plates, or debris reaches the traffic lanes, especially at night, because the reactions of motorcyclists to objects on the road tend to produce a more severe corrective maneuver, irrespective of the nature of the object.
North Carolina	Surface design (markings, warning strips, etc.), edge transformation, side road barriers and signs are used to warn motorcyclists of dangerous road conditions.

## MOTORCYCLE SAFETY: A Survey of State Programs

Puerto Rico	The Puerto Rico Traffic Safety Commission contracted with the University of Puerto Rico, Mayaguez Engineering Campus to conduct a study to research and analyze motorcycling trends in Puerto Rico. The study recommended road signing and hazard elimination projects to improve motorcycle safety.
Rhode Island	Work zone signs are used to warn motorcyclists of impending grade changes that wouldn't impact other motor vehicles.
South Carolina	The state DOT considers motorcycle issues in its construction projects.
South Dakota	Motorcycle safety is considered in the engineering and construction of roads in the Black Hills area. Every year, 500,000 motorcyclists travel to South Dakota for the Sturgis Motorcycle Rally. The South Dakota DOT works to provide road design that accommodates a large number of motorcycles and provides signs with drawings of exits and roads to ease navigation. The South Dakota Office of Highway Safety also operates a year long road hazard hotline with assistance from South Dakota's chapter of American Bikers Aimed Towards Education (ABATE). Motorcyclists can call a toll free line to report a road hazard. An ABATE member confirms the hazard and the information is relayed to the South Dakota Department of Transportation.
Vermont	State construction standards require motorcycles use a caution sign in the advanced warning sign package for cold planning.
Virginia	The Virginia DOT works with the motorcycle community to make work zones and roads more motorcycle friendly. For example, when steel plates are used to cover holes in roadways they must be secured to the pavement and marked with reflective materials on the four corners.
Washington	State law requires that all construction sites be marked as hazardous road conditions for motorcycles.
Wyoming	Warning signs and updates on the Wyoming DOT website are used to note where grades and road surfaces would be difficult for motorcyclists.

**Funding continues to be an issue.** Funding for motorcycle safety programs varies significantly across the country – see **Figure I2** (right sidebar). Only 24 states indicated their motorcycle programs were self supporting. Eighteen states noted that user fees and/or state and federal resources were used to fund program activities. Three states indicated that only federal resources were used to support their programs.

In 2006, \$5,940,000 in federal 2010 Motorcyclist Safety Grants was distributed to 44 states and Puerto Rico received. In FY 2007, \$6,000,000 in federal 2010 Motorcyclist Safety Grants was distributed to 47 states and Puerto Rico. The average grant was \$122,000 in 2006 and \$125,000 in 2007. However, the 2006 funds were awarded very late in the fiscal year (FY) and were rolled over to FY 2007. As a result, most State Highway Safety Offices did not begin actively working to address motorcycle safety issues until FY 2007. Many states also use federal 402 and 410 grants to supplement motorcycle safety activities. During the last two years, almost every state has received a 2010 Motorcyclist Safety Grant from the federal government. Yet, states continue to face serious budget and programmatic shortfalls in this area.

**Noteworthy practices.** Despite a number of motorcycle administrative challenges, many states have been able to implement noteworthy practices that are applicable to many states. The practices are organized alphabetically by state.

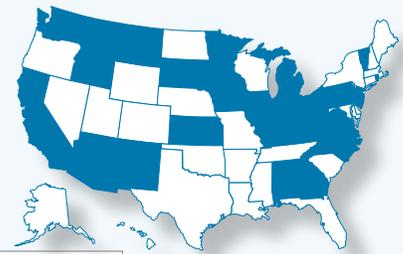


Figure 12

## States with Self-Funding Motorcycle Programs

Alabama  
Arizona  
California  
Georgia  
Idaho  
Illinois  
Indiana  
Iowa  
Kansas  
Kentucky  
Michigan  
Minnesota  
Montana  
New Jersey  
New Mexico  
North Carolina  
Ohio  
Pennsylvania  
Rhode Island  
South Dakota  
Vermont  
Virginia  
Washington  
West Virginia

### ARIZONA

Arizona recently created a safety campaign to educate motorcyclists and motorists on safe riding and driving habits. Two different 30-second advertisements, a 60-second advertisement and ten-second radio advertisements were purchased across the state in the spring and summer of 2007. Multiple messages were rotated including the following message that aired immediately after rush hour traffic reports: *Motorcycle riders always wear the proper protective gear, make sure that you are licensed and properly trained and never ride impaired. Ride Safe, Drive Aware.*

### FLORIDA

Florida's *Ride Legal. Ride Smart* is a multi-issue safety campaign. The campaign includes activities designed to increase motorist awareness of motorcycles, decrease impaired riding, increase helmet and protective equipment use, increase proper licensure and promote rider education and awareness. The campaign utilizes public service announcements, outdoor advertising as well as promotional materials that can be distributed at motorcycle rallies, community fairs and conventions. All of the outreach materials are produced in English and Spanish.

The Florida Highway Patrol's (FHP) *Enjoy the Ride Safe and Sober* is a state wide billboard campaign. The campaign is designed to encourage motorcycle riders of all ages to make sure they don't drink and ride and ride as safely as possible. The motorcycle billboards were developed by FHP in cooperation with the Florida Outdoor Advertising Association and made possible through grant funding by the Florida Department of Transportation. Two separate billboards, representing two distinct age groups (under 21 and 30-45 year olds) were created in direct response to growing concerns expressed by the public regarding the increase of motorcycle operators on the roadways. The billboards serve as a reminder to motorcyclists to ride sober and use safe driving practices as they share the road with other motorists. The Florida Highway Patrol also developed a short anti-impaired riding video that targets riders 16 to 26 that mixes footage of actual motorcycle crashes with interviews of crash victims. The video was distributed to schools, driver training classes and television stations and made available on the Florida Highway Patrol's website.

### GEORGIA

The Georgia Office of Highway Safety utilizes the *Riders Helping Riders* program and a mix of communication mechanisms to draw attention to the dangers of impaired riding (e.g. newspapers, community meetings, e-mail, posters, fliers, mini-planners and law enforcement mobilizations). *Riders Helping Riders* is a rider training program based on findings that riders look out for each other but, for various reasons, are hesitant to intervene in the drinking and riding behavior of their peers. The program communicates the drinking and riding problem, the need for rider intervention in the drinking and riding behavior of their peers and tools that riders can use to help prevent the drinking and riding of their peers.

### IDAHO

Idaho developed an award winning 30-second sharing the road public service announcement in 2007 that has been used by Maine, New Mexico and Wisconsin. Idaho plans to use the public service announcement in 2008 as well.

### LOUISIANA

In 2007, Louisiana held an informational motorcycle safety summit. It was the first opportunity for motorcyclists and safety advocates to sit together and discuss current state safety efforts and identify ways for the rider population to be more involved in the state safety programs.

### KENTUCKY

The Kentucky Motorcycle program trains a representative from each State Police Post using the *Riding Straight* module from the American Motorcyclists Association and NHTSA. In turn, the troopers provide similar training to local law enforcement officers in their respective posts. Kentucky's 16 State Police

## MOTORCYCLE SAFETY: A Survey of State Programs

Public Affairs officers (PAOs) were trained in the *Riding Straight* program. Using Motorcycle Safety Foundation funding, the KSP purchased the curriculum for each post location, which included CDs, training information and manuals, classroom handouts and literature that the PAOs can utilize.

The Kentucky Motorcycle program trains a representative from each State Police Post using the *Common Road* module from the MSF. In turn, the troopers provide similar training to local law enforcement officers in their respective posts. These modules help law enforcement officers better understand motorcyclists and their behavior and help prepare them to conduct awareness programs for the general public and school groups.

### **MARYLAND**

The University of Maryland at Baltimore's National Study Center for Trauma and Emergency Medical Services and the Motor Vehicle Administration (MVA) completed a study (with assistance from a NHTSA grant) to test an intervention designed to increase licensure. MVA motorcycle registrations were cross-referenced with motorcycle licensure. Those individuals who had motorcycles registered in their name, but did not have motorcycle license endorsements received a letter outlining Maryland's licensure requirements and options to obtain a motorcycle license endorsement. Results show that there was a 33% increase in license rates in the intervention group compared with the control group.

### **MICHIGAN**

Michigan recently conducted a survey to determine why certain riders aren't properly licensed. The survey found that training capacity problems contributed to the problem and that many respondents were either unfamiliar with the licensing requirements or were unaware the state required special training and licensing to ride a motorcycle.

### **MINNESOTA**

One of Minnesota's 2008-2009 safety campaigns is a rider conspicuity program called *Go Hi-Viz!* The goals of the campaign are to: (1) educate motorcycle riders about conspicuity products, techniques and strategies; (2) increase motorcyclists' use of high-visibility clothing and conspicuity products; and (3) reduce multi-vehicle motorcycle crashes, injuries and fatalities. The primary audience is motorcycle riders, male and female, aged 35-54. Key messages for both groups are posted in a web-based tool called *Be a Perfect 10* at [HighViz.org](http://HighViz.org).

The campaign strategy allows visitors to choose from up to 20 recommendations to increase their conspicuity, each with a point value. Visitors are encouraged to choose techniques that best fit into their riding systems and add up points to become a *Perfect 10*. An optional computer quiz gives visitors a baseline conspicuity rating between 1 and 10, offering recommendations to reach ten points. The campaign will reach its target audiences through rider training courses, print advertisements, flyers, special events and word of mouth, both in-person and on-line. Word-of-mouth efforts will be given special consideration, as motorcycle riders are more likely to adopt behaviors presented by their peers and role models.

### **NEVADA**

Nevada developed two 30-second radio spots for airing during motorcycle rallies. One spot describes a distracted driver who makes a left turn into the path of an oncoming motorcyclist to show how easily a crash can happen. The other spot emphasizes the human cost associated with motorcycle accidents to show the emotional stories behind the crashes.

**OHIO**

In Ohio, the average wait for a training class once classes are filled is 60 days in the spring and about 45 days in the fall. To help address capacity issues, the state encourages individuals to become walk-in students. Often, registered students do not show up for class. Walk-ins, selected through a lottery, may register and pay on-site during the first day of class.

**WISCONSIN**

Wisconsin funded the first year of the Green Yellow Red (GYR) program and continues to administratively support the project. GYR is a motorcycle safety project that works directly with motorcycle dealers and taverns that cater to motorcyclists and provides alternatives to riding impaired. In 2007, the GYR program provided additional motorcycle shelters, an expanded server intervention program and new promotions at taverns and dealerships that cater to motorcyclists.

Wisconsin added a 50-minute unit on impaired riding to the beginning rider training course that includes two videos. The unit outlines the affects of alcohol use on a person's riding ability, reviews the drunk driving laws in Wisconsin and provides information on the consequences of a drunk riding conviction in Wisconsin.

Wisconsin also funds overtime enforcement efforts at three large annual motorcycle events. In 2001, the base year, at the Tomahawk Fall Color Rally there were 15 motorcycle crashes that resulted in four fatalities and 20 injuries (six serious). Since Wisconsin started the enforcement programs there has been an average of five motorcycle crashes with six injuries (two serious) but no fatalities every year.

# Acronym List

<b>ABATE</b>	<b>American Bikers Aimed Towards Education</b>
<b>AMA</b>	<b>American Motorcyclist Association</b>
<b>BRC</b>	<b>The Motorcycle Safety Foundation's Basic RiderCourse<sup>SM</sup></b>
<b>DEC</b>	<b>Drug Evaluation and Classification</b>
<b>DOE</b>	<b>Department of Education</b>
<b>DOL</b>	<b>Department of Licensing</b>
<b>DOT</b>	<b>Department of Transportation</b>
<b>DMV</b>	<b>Department of Motor Vehicles</b>
<b>DPS</b>	<b>Department of Public Safety</b>
<b>DUI</b>	<b>Driving under the Influence</b>
<b>DWI</b>	<b>Driving while Intoxicated</b>
<b>ERC</b>	<b>The Motorcycle Safety Foundation's Experienced RiderCourse<sup>SM</sup></b>
<b>FHWA</b>	<b>Federal Highway Administration</b>
<b>FMVSS</b>	<b>Federal Motor Vehicle Safety Standard</b>
<b>FY</b>	<b>Fiscal Year</b>
<b>GDL</b>	<b>Graduated Drivers Licensing</b>
<b>GHSA</b>	<b>Governors Highway Safety Association</b>
<b>HSO</b>	<b>Highway Safety Office</b>
<b>IMREL</b>	<b>Integrating Motorcycle Rider Education and Licensing Guideline documents</b>
<b>MAC</b>	<b>Motorcyclist Advisory Council</b>
<b>MIC</b>	<b>Motorcycle Industry Council</b>
<b>MSF</b>	<b>Motorcycle Safety Foundation<sup>®</sup></b>
<b>MSP</b>	<b>Motorcycle Safety Program</b>
<b>NAMS</b>	<b>National Agenda for Motorcycle Safety</b>
<b>NHTSA</b>	<b>National Highway Traffic Safety Administration</b>
<b>NOPUS</b>	<b>National Occupant Protection Use Survey</b>
<b>NTSB</b>	<b>National Transportation Safety Board</b>
<b>REP</b>	<b>Rider Education Program</b>
<b>SAFETEA-LU</b>	<b>The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Pub. L., 109-59</b>
<b>SFST</b>	<b>Standard Field Sobriety Testing</b>
<b>STEP</b>	<b>Selective Traffic Enforcement Program</b>

References to State Highway Safety Offices refer to offices in the United States, the District of Columbia and the United State's territories.