EMERGENCY NURSES ASSOCIATION
SAFE PRACTICE, SAFE CARE

scorecard







ADVOCACY PROTECTION ENFORCEMENT

2010
ENA National Scorecard on State Roadway Laws:

A BLUEPRINT FOR INJURY PREVENTION

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A Message from 2010 ENA President Diane Gurney

Driving is as American as baseball and apple pie. The American dream itself often is symbolized by the cars that we drive and the roads that we travel. It is the iconic image of the open road ahead that represents the uniquely American experience and almost mythological storyline of hope, possibility and individual success. Unfortunately, as emergency nurses, we don't have the luxury of blindly buying into the archetypal symbolism of the automobile as the vehicle to self-fulfillment and achievement.

According to the Centers for Disease Control and Prevention, a person is taken to an emergency department to be treated for a vehicle crash-related injury every 10 seconds. That translates into approximately 3.8 million emergency department visits a year from vehicle crashes alone. Worse, every 12 minutes, someone in the United States dies from a vehicle crash. In the vast majority of these cases of injury and/or death, an emergency nurse is there, helping to treat the patient, helping to transport the patient, helping the family cope with what might be the most devastating time of their lives.

The most heart wrenching part of this is that many of these injuries and deaths are preventable. Study after study show that the passing and enforcement of the laws identified in this report reduce the incidents of injury and death. Dealing with death is difficult, but dealing with a preventable death is tragic.

That is why the Emergency Nurses Association produced The 2010 ENA National Scorecard on State Roadway Laws, its third scorecard on roadway safety: Because so many of the injuries and deaths that our members see could be prevented if the proper laws were introduced, enacted and enforced. But without a champion, without the efforts of those groups that have a stake in the game, laws like these do not get passed.

It is my hope that this scorecard will help our members and others to lobby on behalf of safer roadways. The laws cited in this scorecard save lives; the data and research referenced prove it. Now, it is our job to take this knowledge and translate it into action on behalf of the communities we serve.

People climb into cars every day in pursuit of their dreams. They drive to work, to see a loved one, to a new hometown, and, with each mile, they keep their own version of the American Dream alive. It is the calling of the emergency nurse to help keep it that way, one day at a time, one patient at a time, and, if that goal can be achieved through prevention instead of treatment, that is all the better. Preventing vehicle crashes translates into saving lives and that is what being an emergency nurse is all about.



Diane Gurney, RN, MS, CEN

Executive Summary

The members of the Emergency Nurses Association know all too well that injuries become barriers preventing millions of children and adults from leading active, useful, fulfilling lives. Seeking to live in a society that cares for each other, ENA promotes a culture of safety—*Safe Practice, Safe Care*—that includes advocacy for roadway policies and programs to ensure that every person in the nation enjoys the highest possible quality of life, safe from harm. The *2010 ENA National Scorecard on State Roadway Laws: A Blueprint for Injury Prevention* reinforces ENA's goal to reduce the number of preventable injuries and deaths.

The 2010 Scorecard builds on the 2006 and 2008 Scorecards by: (1) reviewing the prior assessments and tracking the progress states made during the past two years; and (2) expanding the scorecard database into other traditional ENA issues of concern, including distracted driving. The 2010 document also updates scorecard references and resources, providing vital evidence to undergird sound, reasonable policymaking.

As with the two previous scorecards, the 2010 report educates each state's lawmakers and the public about their state's strengths and weaknesses relative to key roadway laws. The report is a tool to empower ENA members, public health and highway safety professionals and the public at large to engage in collaborative efforts that encourage lawmakers to pass research-based laws protecting people from roadway-related injuries.

The 2010 ENA National Scorecard compares the status of roadway laws and regulations across the 50 states and the District of Columbia. It also identifies states that have enabling legislation providing appropriate officials with the authority to develop, maintain and evaluate a statewide trauma system.

All 50 states and DC are assessed one (1) point for each ENA criterion that is present in their respective state or district laws, with 14 points the maximum attainable. States are evaluated only on whether they have laws that fit the 2010 ENA National Scorecard criteria, not on how well the states implement or enforce the laws. All evaluated data come from state and federal government sources and research journals as of October 11, 2010.

The following are among the 2010 ENA National Scorecard observations:

- The states of Oregon and Washington are the only jurisdictions to receive the best possible score of 14 points on the 2010 ENA National Scorecard. Washington also holds that high distinction in the 2006 and 2008 scorecards. Tennessee meets 13 of the 14 criteria.

- Alaska, California, Delaware, District of Columbia, Louisiana, New Jersey, New York, North Carolina and Wisconsin meet 12 of the 14 ENA roadway and injury prevention criteria.

- The states meeting less than half of the ENA criteria for traffic safety and injury prevention laws are Arizona, Idaho, Iowa, North Dakota and South Dakota.

- Three states—Idaho, Rhode Island and Vermont—currently do not have the legislative capacity to establish a statewide trauma system.

- Of the 50 states and DC, one-quarter of the states showed no progress from 2008 to 2010 in meeting ENA criteria: Alabama, Arizona, Idaho, Iowa, Maine, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Pennsylvania and Virginia.

- Minnesota shows the largest gain from the previous scorecard with the addition of six points, moving it from a state in 2008 with one of the weakest scores to among the 16 states and DC composing the top third of the 2010 rankings. Arkansas also made a greater commitment to providing safer roadways, increasing its score by five points more than its 2008 score. By passing or by already having in their respective statutes additional laws consistent with ENA criteria, Louisiana and Wisconsin both added four points to its 2008 score. The next tier of most-improved scores from 2008 to 2010 includes Alaska, Indiana, Kansas, New York, North Carolina and Texas. These states increased their scores by passing three more laws that meet ENA criteria.

Overview

During the health reform debate this past year we all became familiar with the health care record of our nation: The United States has significantly higher health care costs but lower health outcomes as compared to other developed countries. Chief among those soaring costs are high per capita traffic fatalities and injuries. While motor vehicle travel has grown safer in recent years, injuries and fatalities from motor vehicle crashes remain unacceptably high.

Studies by the Centers for Disease Control and Prevention reveal that motor vehicle-related injuries remain a leading cause of death from unintentional injury for persons across all age groups. According to the CDC, every 12 minutes someone dies in a car crash on U.S. roads. Every 10 seconds, someone is injured, taken to, and treated in an emergency department for motor vehicle crash-related injuries – amounting to nearly 3.84 million injury-related emergency department visits in 2007. Research indicates that the United States lagged behind roadway safety gains of other countries that had similar MVC fatality rates to the United States in the 1980s. Many peer countries reduced the number of deaths in traffic accidents by more than 60 percent since the early 1980s; whereas, in that same time period, the United States only made a 35 percent reduction in lives lost.

When MVC morbidity and mortality are examined from an economic perspective, the burden to U.S. society is astounding. A CDC study released in 2010 highlights the magnitude of the problem of crash-related injuries from purely a cost-perspective. Examining only 2005 data, the research shows the total medical and lost-productivity costs of MVC–related fatal and nonfatal injuries totaling $99 billion, of which $58 billion are attributable to fatalities. In addition, costs “associated with nonfatal hospitalized injuries totaled $28 billion, and $14 billion was associated with injured persons that were treated in the ED and released.”

The 2010 study result of nearly $100 billion in costs is a conservative estimate of the economic liability of MVCs to society in one year. Injuries treated in outpatient settings are not included in the study. Moreover, property damage, police and fire services, insurance costs, insurance premiums, lost taxes, employer costs, legal costs, decreased quality of life, caregiver time and pain and suffering are other factors that were excluded from the cost calculations. Even though this study does not show the full range of consequences that road traffic crashes place on society, its estimates "translate to every person in the United States in 2005 paying $336, or each U.S. licensed driver paying almost $500, for the medical costs and productivity losses associated with these preventable injuries and deaths."

While the results of MVCs are a large portion of our health care costs, ENA recognizes that traffic safety laws offer a robust health policy arena for meaningful change. Underused, evidence-based motor vehicle-related interventions, such as seat belts, child safety restraints and motorcycle headgear, offer large life-saving and cost-saving potential. By focusing on specific high-yield interventions, the *2010 ENA National Scorecard on State Roadway Laws: A Blueprint for Injury Prevention* provides a rationale for advocating transformative transportation public policy initiatives.

The ENA scorecard is a tool to support individuals and collaborations at the local, state and national levels. The analysis can be used to raise awareness and promote safe behaviors. The data also can enhance legislative and regulatory advocacy efforts to encourage adoption and implementation of effective injury prevention programs and policies.

The 2010 Scorecard focuses on seven general issues that come under the jurisdiction of the states. Six of the issues involve roadway traffic safety laws that promote efficacious, easy-to-implement injury prevention: child passenger safety, graduated driver licensing, universal/all-rider motorcycle helmet laws, primary enforcement for seat belt use, distracted driving restrictions for texting and ignition interlock device usage for hard-core drinking drivers.

The seventh issue addresses the capacity within a state to establish a statewide trauma system for appropriately responding to injuries. The capacity to establish statewide trauma systems is included in the 2010 Scorecard to ensure access to trauma care for victims of MVCs in order to improve survival outcomes after a crash. Most people operate under the assumption that everyone in the country has access to an emergency care system that provides appropriate patient care in a timely manner to produce better patient outcomes. These expectations assume linked local, state, regional and national resources with 9-1-1 and dispatch, ambulances, emergency medical services personnel, hospital emergency departments and trauma centers and specialists working in a coordinated manner.

However, as stated in the Institute of Medicine's June 2006 report, *The Future of Emergency Care in the United States Health System*, "Few systems around the country coordinate the regional flow of emergency patients to hospitals and trauma centers effectively . . . As a result, the regional flow of patients is managed poorly and individual patients may have to be taken to facilities that are not optimal given their medical needs." The 2010 Scorecard focuses only on the statutory infrastructure as an initiation point from which to launch political change to improve the nation's extremely fragmented trauma system.

Scorecard Criteria

The criteria for the 2010 ENA National Scorecard are derived from federal definitions and are as follows:

1. Does the state have a primary enforcement seat belt law?
2. Does the state's primary enforcement seat belt law apply to all seating positions?
3. Does the state have a booster seat law?
4. Does the booster seat law cover children up to age 8 years old?
5. Does the state have a child passenger safety law covering all children up to age 16 years old in all seating positions?
6. Does the state have a graduated driver licensing (GDL) law with a six-month holding period provision at the learner's stage?
7. Does the state have a GDL law with a provision requiring 30-50 hours of supervised driving at the learner's stage?
8. Does the state have a GDL law with a nighttime restriction provision at the intermediate stage?
9. Does the state have a GDL law limiting drivers in the intermediate stage from carrying more than one passenger under age 20 years?
10. Does the state have a universal motorcycle helmet law requiring all riders to wear a helmet?
11. Does the state's universal motorcycle helmet law require that all riders' helmets meet federal protection standards?
12. Does the state mandate installation of an ignition interlock device as a vehicle sanction to restrict or separate hard-core drinking drivers from their vehicles?
13. Does the state have a primary enforcement law that applies to entering, sending, reading or otherwise retrieving data, except in the case of an emergency, for all drivers using interactive wireless communication devices?
14. Does the state have enabling legislation that provides appropriate officials the authority to develop, maintain and evaluate a state trauma system and its components?

Additional information about each criterion, as defined by ENA for purposes of the 2010 ENA National Scorecard, is included in the respective "Policy Issue Profile."

Scorecard Research Method

DATA COLLECTION: Data used in the 2010 ENA National Scorecard are from the most recently published state and federal government sources, as well as from various national organizations' sources and research journals. The state legislative information in the scorecard is current to October 11, 2010.

Data Interpretation: ENA criteria that serve as definitions for the policy issues examined in the scorecard are derived from relevant research-based federal definitions. State scores are based only on whether a state has a law or the presence of a provision meeting the ENA criteria as defined in the scorecard. The scoring does not examine how well the states implement or enforce their laws. It is important to note that state laws display considerable variation within a definition. The scorecard limits the scoring only to state laws that fulfill the *exact ENA criteria* for the respective law or provision to the extent that no count was assigned to a state even if the state law or provision may have approximated or partially complied with a specific ENA criterion.

Data Scoring: Each state received one (1) point for each ENA criterion that is present in the respective state or district law or was signed into law but pending promulgation at the time of publication. The 14 ENA criteria listed above were examined for each state. Each state's overall score is a compilation of its plusses and minuses in the seven policy issue areas, with the attendant criteria examined.

How to Use This Scorecard

Studies show that participation in the democratic process is meaningful. To effect a difference, ENA urges everyone to make their voices heard. Public involvement— particularly in partnership with emergency nurses—is vital to the success of grassroots efforts aimed at ensuring the betterment and safety of this nation's families and communities.

Effective engagement in the process need not take an exorbitant amount of time, but must draw on passion, as well as special insights and expertise. Research shows that the quality of intervention is likely to have an important affect on lawmakers and their staffs. Individual, personalized constituent messages to elected officials generally pique attention. Quality communications are those that are relevant and to the point, conveying facts, such as those in the 2010 ENA National Scorecard, and knowledge of specific legislation, as well as the impact legislation will have on the lawmakers' constituents, the district and/or the state.

Scorecard Results

The **State Summary Chart** follows on pages 9 and 10 and the **State Ranking Chart** on page 11.

2010 ENA National Scorecard on State Roadway Laws:

A BLUEPRINT FOR INJURY PREVENTION

State Summary Chart Page 1 of 2 – Data as of October 11, 2010

STATE	STATE TRAUMA SYSTEM*	PRIMARY SEAT-BELT LAW	ALL POSITIONS	UNIVERSAL MOTORCYCLE HELMET LAW	HELMET MEETS FED SPECS	BOOSTER SEAT (BS)	BS TO AGE 8	CHILD PASSENGER SAFETY TO AGE 16	GDL** MONTH HOLDING PERIOD	GDL 30-50 HRS SUPERVISED DRIVING	GDL NIGHTTIME RESTRICTION	GDL PASSENGER RESTRICTION	INTERLOCK DEVICES	DISTRACTED DRIVING TEXTING	SCORE
ALABAMA	X	X		X		X			X	X	X				7
ALASKA	X	X	X			X	X	X	X	X	X	X	X	X	12
ARIZONA	X							X	X	X	X		X		6
ARKANSAS	X	X				X			X		X	X	X	X	8
CALIFORNIA	X	X	X	X	X	X		X	X	X	X	X		X	12
COLORADO	X					X	X	X	X (12)	X	X	X	X	X	10
CONNECTICUT	X	X				X		X	X	X	X	X		X	9
DELAWARE	X	X	X			X	X	X	X	X	X	X	X	X (1/11)	12
DISTRICT OF COLUMBIA	X	X	X	X		X	X	X	X	X	X	X		X	12
FLORIDA	X	X						X	X (12)	X	X		X		7
GEORGIA	X	X		X	X	X		X	X (12)	X	X	X		X	11
HAWAII	X	X				X	X	X	X	X	X		X		9
IDAHO						X		X	X	X	X				5
ILLINOIS	X	X				X	X	X	X (9)	X	X	X	X	X	11
INDIANA	X	X	X			X	X	X	X	X	X	X			10
IOWA	X	X				X			X		X				5
KANSAS	X	X				X	X	X	X	X	X		X	X	10
KENTUCKY	X	X	X			X		X	X	X	X	X		X	10
LOUISIANA	X	X	X	X	X	X		X	X	X	X		X	X	12
MAINE	X	X	X			X	X	X	X	X	X	X			10
MARYLAND	X	X		X		X	X	X	X	X	X		X	X	11
MASSACHUSETTS	X			X	X	X	X	X	X	X	X		X	X	11
MICHIGAN	X	X		X		X	X	X	X	X	X			X	10
MINNESOTA	X	X	X			X	X	X	X	X	X	X		X	11
MISSISSIPPI	X	X		X		X			X		X		X		7

* Assumes passage of enabling legislation that provides appropriate officials the authority to develop, maintain and evaluate a state trauma system and its components.
** Graduated Drivers Licensing
X Change from 2008 ENA National Scorecard

2010 ENA National Scorecard on State Roadway Laws:

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State Summary Chart Page 2 of 2 – Data as of October 11, 2010

STATE	STATE TRAUMA SYSTEM*	PRIMARY SEAT-BELT LAW	ALL POSITIONS	UNIVERSAL MOTORCYCLE HELMET LAW	HELMET MEETS FED SPECS	BOOSTER SEAT (BS)	BS TO AGE 8	CHILD PASSENGER SAFETY TO AGE 16	GDL** MONTH HOLDING PERIOD	GDL 30-50 HRS SUPERVISED DRIVING	GDL NIGHTTIME RESTRICTION	GDL PASSENGER RESTRICTION	INTERLOCK DEVICES	DISTRACTED DRIVING TEXTING	SCORE
MISSOURI	X			X	X	X	X	X	X	X	X		X		10
MONTANA	X					X		X	X	X	X		X		7
NEBRASKA	X			X	X	X		X	X	X	X		X		9
NEVADA	X			X		X		X	X	X	X				7
NEW HAMPSHIRE	X					X		X		X	X	X	X	X	8
NEW JERSEY	X	X		X	X	X	X	X	X		X	X	X	X	12
NEW MEXICO	X	X	X			X		X	X	X	X	X	X		10
NEW YORK	X	X		X	X	X	X	X	X	X	X	X	X		12
NORTH CAROLINA	X	X		X	X	X	X	X	X (12)		X	X	X	X	12
NORTH DAKOTA	X					X		X	X						4
OHIO	X					X	X		X	X	X	X			7
OKLAHOMA	X	X				X			X	X	X	X	X		8
OREGON	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14
PENNSYLVANIA	X					X	X	X	X	X	X		X		8
RHODE ISLAND						X	X	X	X	X	X	X		X	8
SOUTH CAROLINA	X	X	X			X		X	X	X	X		X		9
SOUTH DAKOTA	X					X		X	X		X				5
TENNESSEE	X	X		X	X	X	X	X	X	X	X	X	X (1/11)	X	13
TEXAS	X	X	X			X	X	X	X		X	X	X		10
UTAH	X					X	X	X	X	X	X	X	X	X	10
VERMONT				X	X	X	X	X	X (12)	X		X		X	9
VIRGINIA	X			X		X	X	X	X (9)	X	X		X		9
WASHINGTON	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14
WEST VIRGINIA	X			X		X	X	X	X	X	X	X	X		10
WISCONSIN	X	X	X			X	X	X	X	X	X	X	X	X (12/10)	12
WYOMING	X					X	X	X		X	X		X	X	8

* Assumes passage of enabling legislation that provides appropriate officials the authority to develop, maintain and evaluate a state trauma system and its components.
** Graduated Drivers Licensing
X Change from 2008 ENA National Scorecard

State Ranking Chart –Data as of October 11, 2010

STATE	SCORE 2010
OREGON	14
WASHINGTON	14
TENNESSEE	13
ALASKA	12
CALIFORNIA	12
DELAWARE	12
DISTRICT OF COLUMBIA	12
LOUISIANA	12
NEW JERSEY	12
NEW YORK	12
NORTH CAROLINA	12
WISCONSIN	12
GEORGIA	11
ILLINOIS	11
MARYLAND	11
MASSACHUSETTS	11
MINNESOTA	11
COLORADO	10
INDIANA	10
KANSAS	10
KENTUCKY	10
MAINE	10
MICHIGAN	10
MISSOURI	10
NEW MEXICO	10
TEXAS	10
UTAH	10
WEST VIRGINIA	10
CONNECTICUT	9
HAWAII	9
NEBRASKA	9
SOUTH CAROLINA	9
VERMONT	9
VIRGINIA	9
ARKANSAS	8
NEW HAMPSHIRE	8
OKLAHOMA	8
PENNSYLVANIA	8
RHODE ISLAND	8
WYOMING	8
ALABAMA	7
FLORIDA	7
MISSISSIPPI	7
MONTANA	7
NEVADA	7
OHIO	7
ARIZONA	6
IDAHO	5
IOWA	5
SOUTH DAKOTA	5
NORTH DAKOTA	4

POLICY ISSUE PROFILE

Child Passenger Safety Laws

Issues

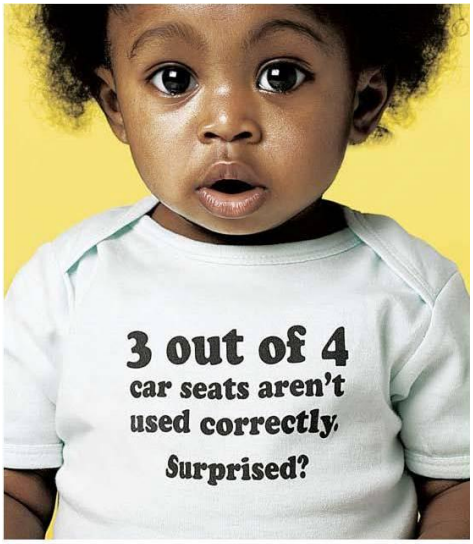
In 2008, the 14-year-old and younger age groups – one of the most vulnerable of populations in the United States—accounted for 4 percent (1,347) of the total 37,261 traffic fatalities. While as a proportion this number of lives lost may seem small, injuries from motor vehicle crashes continue to be the leading cause of death among children and youth. MVC casualties—saving lower average ages than victims of other major health risks, such as cancers and cardiovascular diseases–cause a relatively large number of years of life lost. According to CDC's National Center for Injury Prevention and Control, measures of premature mortality (i.e., Potential Years of Life Lost, PYLL), which take into account the age at which people die, give greater weight to risks to younger people, translating into a greater overall burden to society. A 2010 study of the 2005 costs of motor vehicle-related injuries in the United States estimates that children's (birth to 14 years old) fatal and nonfatal injuries are associated with $7 billion in medical care and productivity-loss costs.

Also consider that in 2008, the 14-and-younger cohort accounted for 8 percent (193,000) of the estimated 2.346 million people injured in MVCs. Exacerbating injury-severity measures is the fact that head injuries are the most common injuries sustained by children in MVCs. Studies show that the injury outcome in children—some neurological deficits after head trauma present lasting or late-appearing neuropsychological problems—can be worse than similar injuries sustained by adults.

Many child MVC deaths and injuries are preventable. Research reveals that children in age- and size-appropriate restraint devices/systems (i.e., child safety seats, booster seats and seat belts) are at a significantly lower risk of sustaining serious or fatal injuries. Science also shows that complicating efforts to deliver education and prevention services about child motor vehicle restraint systems is the need to identify and overcome complex barriers, such as deficient cultural competence for education outreach to populations and communities that traditionally suffer health inequities. CPS laws require children and youth traveling in motor vehicles to be restrained in safety systems appropriate for the child's age and size. Integrating these safety systems into a culture of safety offsets the profound impact to individuals, families, communities and society of child morbidity and mortality in MVCs. Likewise the policy initiatives promoting use of motor vehicle restraint systems are key tools toward ensuring that every child enjoys a healthy and safe passage into adulthood.

Rationale for Law

While the 14-year-old and younger age group's fatalities in 2008 decreased 20 percent from the 1,680 fatalities in 2007, the public still tolerated on average four children killed and 529 injured in MVCs every day in the United States. According to NHTSA's National Center for Statistics and Analysis, 5,366 passenger-vehicle occupants' ages 14 years old and younger were involved in fatal crashes during 2008. For those children where restraint use was acknowledged in police reports, 23 percent were unrestrained, whereas among those who were fatally injured, 46 percent were unrestrained.



Source: NHTSA (2010) *Lower Anchors and Tethers for Children (LATCH) Restraint System: LATCH Press-Ready Ads*. www.nhtsa.gov/Safety/LATCH

An analysis of the 2008 data shows that among passenger-vehicle MVCs, the occupant fatalities for children under age 4 years totals 297. Among the 282 fatalities for which restraint use is known in this age group, 32 percent (94) were totally unrestrained. In the age group 4 to 7 years old, a total of 214 passenger-vehicle occupant fatalities occurred. Among the 197 fatalities in this age cohort for which restraint use was known, 40 percent (78) were unrestrained. The numbers worsen with increasing age: Seventy percent (238) of the total passenger-vehicle occupant fatalities (342) for ages 13 to 15 years old were unrestrained, accounting for the highest percentage of unrestrained occupants in 2008.

Research on the effectiveness of child safety seats demonstrates that these devices are highly effective when correctly installed and used in passenger vehicles. These systems reduce the risk of death by 71 percent for infants and by 54 percent for toddlers ages 1 year to 4 years, shrinking the need for hospitalization by 69 percent for children ages 4 years and younger. For children 4 through 7 years old, belt-positioning booster seats reduce injury risk 59 percent, compared to the use of safety belts alone.

Applying the efficacy research to restraint use suggests that among children under age 5 years old, an estimated 244 lives were saved in 2008 by restraint use. Of the 244 lives saved, 219 were associated with the use of child safety seats and 25 with the use of adult seat belts. If child safety seat use for children under age 5 years were at 100 percent, an estimated 323 lives (i.e., an additional 79 lives) could have been saved in 2008.

ENA urges drivers to secure every child in a child safety seat, booster seat or with a lap/shoulder belt appropriate for her/his age and body size. Children need to be in child safety seats until they are 4 years old or weigh less than 40 pounds, and then in belt-positioning booster seats from about age 4 years and 40 pounds in weight to at least age 8 years, unless they have attained a height of 4 feet 9 inches tall. Despite the proven efficacy of child restraint devices in preventing motor vehicle occupant injuries, a significant proportion of 4- through 7-year-olds are unbuckled or in restraint systems too advanced for their ages and sizes or are not properly restrained. In 2008, only 43 percent of children in this age group were using booster seats, 12 percent were restrained in child safety seats, 34 percent were in seat belts and 11 percent were unrestrained. These results indicate that as many as 45 percent of children 4 to 7 years old in the United States were not being properly protected.

Inappropriately restrained children are nearly three-and-one-half times more likely to be seriously injured in a crash than their appropriately restrained counterparts. Although 96 percent of parents who use child safety seats and safety belts to protect their children believe that they are properly using these technologies, checkups continually show that parents unintentionally make mistakes that raise the risk of a child being injured or killed in a crash. A seminal study funded by NHTSA and conducted by The Children's Hospital of Philadelphia explored reasons for booster seat use and non-use and found that parents were unaware of the purpose of booster seats. Parents looked to state laws for guidance on

restraining their children appropriately and safely, reinforcing the finding that children ages 4 years through 7 years in states with booster seat laws are 39 percent more likely to be appropriately restrained in a booster seat or child safety seat than children in states without such laws.

To optimize implementation of effective CPS intervention strategies and policies for reducing risk, preventing injury and saving lives of children and youth, the National Transportation Safety Board recommends enactment of research-based CPS. NHTSA also supports a National Committee on Uniform Traffic Laws and Ordinances' "model law" advocating motor vehicle occupant protection for children. The model law and the ENA criteria for a strong CPS law recommend that all occupants up to age 16 years in all seating positions be covered by child passenger laws. Although some child passenger laws cover babies and young children, most do not protect children up to16 years old in all seating positions. For example, in nearly half of the states, exemptions for overcrowded vehicles allow children to ride unsecured if all seat belts are in use.

In recent years, NTSB, NHTSA and ENA have been among a growing number of organizations calling attention to statistics suggesting that health inequities exist when delivering effective prevention outreach efforts to historically underserved ethnic and racial minorities. While MVCs do not discriminate, roadway fatalities have been more prevalent among African-American and Latino children. NHTSA's NCSA conducts the National Survey of the Use of Booster Seats, which is the only probability-based nationwide child restraint survey that observes restraint use and collects race and ethnicity.

The 2008 NSUBS survey found that "although the pattern of use rates by race and ethnicity varied somewhat among the survey's age groups (from birth to 12 months, 1-3 years, 4-7 years and 8-12 years), use rates tended to be highest among White and Asian non-Hispanic children and lowest among African-American non-Hispanic children." However, the use for African-American children ages 4 to 7 years increased from 73 percent in 2007 to 84 percent in 2008, a statistically significant increase. The survey also found that compared to non-Hispanic children as a group, Hispanic children 1 to 12 years old have significantly lower restraint use rates (use of front-facing child safety seats, booster seats and seat belts). Reducing health disparities by assuring equal access to preventive services for families whose children are at higher risk for injury (e.g., eliminating the financial barriers to attaining child safety seats and increasing educational efforts of correctly installed and fitted child safety seats) could help reduce the $3.6 billion annual bill for injuries to children.

Although all 50 states and DC have CPS laws, many statutes have significant gaps and exemptions in coverage that seriously confine the extent of legally enforceable protection for children and youth. ENA found that since the 2008 Scorecard examination, three states—Louisiana, Minnesota and South Carolina—improved their CPS laws, making a total of 44 states and DC covering all children younger than 16 years in all positions. Also during the same two-year period, five states—Alaska, Minnesota, Ohio, South Dakota and Texas—joined 43 other states and DC to require use of booster seats. However, only 29 states and DC meet the NTSB and ENA recommendation requiring booster seat use to age 8 years. The total reached 29 when between 2008 and 2010 eight states—Alaska, Colorado, Delaware, Minnesota, New York, Ohio, Rhode Island and Texas—stepped up their booster seat laws to cover children up to age 8 years. Child passenger safety laws change the safety culture in our communities and on our highways. The future of and the quality of life for our nation's children—who cannot vote, lobby or speak for themselves—are riding on the lifesaving difference that emergency nursing advocacy can make.

U.S. Roadway Laws Facts and Figures

Child Passenger Safety Laws

Relevant Facts and Statistics

- Since 1975, motor vehicle crashes are the leading cause of death for children in the United States. Every day in 2008, an average of 4 children 0 to 14 years of age were killed in MVCs, 529 were injured and males accounted for 60 percent of the fatalities and 48 percent of those injured.

- NHTSA studies show that optimal CPS laws should apply for children riding in all types of motor vehicles —no exemptions—and include age- and size-appropriate child restraint use to at least age 8 years, seat belt use for all other passengers in all positions and rear seating for children to age 13 years.

- According to NHTSA, over the period 1975 through 2008, an estimated 8,959 lives were saved by the proper use of age- and size-appropriate restraint systems (child safety seats or adults seat belts). In 2008, among children younger than 5 years riding in passenger vehicles, an estimated 244 lives were saved by child restraints. Of these 244 lives saved, 219 were associated with the use of child safety seats and 25 with the use of adult seat belts.

- In some states, laws concerning the use of child restraint devices cover children only up to age 4 years, leaving some children vulnerable to injury or death because they are not covered by any occupant protection law.

- Child safety seats are 71 percent effective in reducing fatalities among infants (younger than 1year old) and 54 percent effective for toddlers (1 to 4 years old) in passenger cars. According to NHTSA's *2008 National Survey of the Use of Booster Seats*, 99 percent of infants and 92 percent of children ages 1 to 3 years were regularly restrained.

- Data from child seat checkup stations consistently show that four out of five participants unintentionally made potentially hazardous installation mistakes, because child restraint systems are known to be complicated to install due to factors such as confusing child seat design, vehicle design and instructions.

- Children in rear-facing child seats should not be placed in the front seat of vehicles equipped with passenger-side air bags. For the best possible protection, keep infants in the back seat, in rear-facing child safety seats, as long as possible up to the height or weight limit of the particular seat. At a minimum, keep infants rear-facing until at least age 1 year and at least 20 lbs.

- When children outgrow their rear-facing seats (at least age 1 year and at least 20 lbs) they should ride in forward-facing child safety seats in the back seat until they reach the upper weight or height limit of the particular seat (usually around age 4 years and 40 lbs).

- NHTSA recommends that children who have outgrown their child safety seats (i.e., are between 40 and

80 pounds and less than 4 feet 9 inches tall) should use a belt-positioning booster seat in the back seat of the car. The booster seat recommendation is for children up to age 8 years, yet in NHTSA's *2008 National Survey of the Use of Booster Seats* only 43 percent of children ages 4 to 7 years were riding in booster seats, which was a gain of 6 percentage points compared to the prior year's rate of 37 percent.

- For children 4 to 8 years old, belt-positioning booster seats reduce injury risk by 59 percent, compared to safety belts alone; however, safety belts designed for adults currently restrain most children in this age group. Booster seat technology is designed to allow children a comfortable ride while ensuring that the adult lap/shoulder belt fits appropriately across the child's shoulders and thighs.

- When a child is tall enough (usually about 4 feet 9 inches) to sit against the back of the car's seat with legs bent at the knees and feet hanging down, an adult lap-and-shoulder belt can be used. The shoulder belt should lie across the chest between the neck and shoulder, and the lap belt must be across the upper thighs, not the soft stomach. Never tuck the shoulder belt under the child's arm or behind the back. This placement can cause serious injury.

- Never allow children or anyone else to share seat belts. All passengers must have their own child safety seats or seat belts.

- Seat belt adjusters should be avoided as they may interfere with the proper lap- and shoulder-belt fit by causing the lap belt to ride too high on the stomach and making the shoulder strap too loose. Until federal standards exist for the effective and safe use of these products in the field, avoid using these devices.

- State legislative status of Child Passenger Safety laws:

  - 48 states and DC have CPS laws requiring booster seats.
  - 29 states and DC have CPS laws requiring booster seats for children up to 8 years old.
  - 44 states and DC have CPS laws covering children up to 16 years old in all positions.

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POLICY ISSUE PROFILE

Graduated Driver Licensing Laws

Issues

American society is built around the motor vehicle, making our nation an auto-dominated landscape, often described as "the car culture." For decades, the societal value of a presumed right to drive anywhere we want, anytime we want, without having to consider the risks or costs, has reinforced obtaining a driver's license as a rite of passage for American youth, a prerequisite to adulthood in our culture. An unintended result of our transportation expectations is seen in statistics such as that in 2008 when 4,497 persons 16- to 20 years old died as a result of motor vehicle crashes.

According to the CDC, MVCs are the leading cause of death for teenagers in the United States, accounting for more than one-in-three deaths in this age group. NTSB provides a contextual view of teen drivers, reporting that in 2008 young drivers made up about 6.4 percent of the driving population, but composed more than 12 percent of the drivers involved in fatal crashes. On a per-population basis, young drivers have the highest rate of involvement in fatal crashes of any age group.

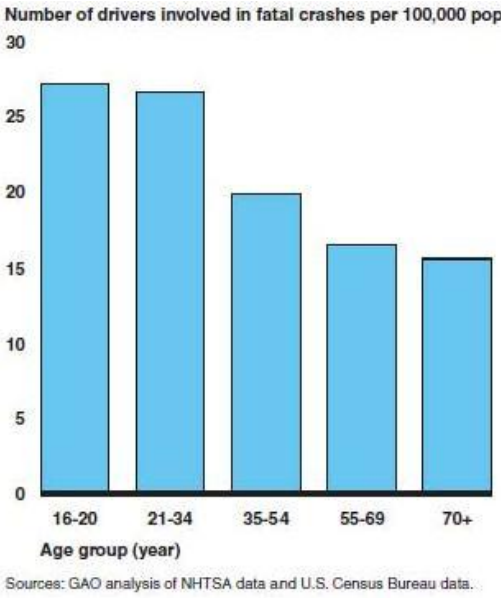
The impact of teen driver MVCs extends beyond teen drivers and their teen passengers. The AAA Foundation for Traffic Safety analyzed data on fatal MVCs from 1998 through 2007, identifying all fatal crashes involving a 15-, 16-, or 17-year-old driver of a passenger vehicle. Over the 10 years studied, 24,655 drivers' ages 15 through 17 years old involved in fatal crashes that killed 28,138 people. Almost 37 percent (10,388) who lost their lives were the teen drivers themselves. Alarmingly still, the majority of fatalities in those crashes (63 percent) were people other than those drivers, including 8,829 of the teen drivers' passengers, 6,858 occupants of vehicles operated by drivers ages 18 years or older, and 2,063 non-motorists and others.

Persons 16 to 20 years old involved in MVCs in 2008 also had the highest injury rate, with around 359,000 injuries, of which 42,000 were measured as incapacitating, 111,000 injuries were non-incapacitating and 205,000 were listed as "other injury severity." After taking into account the length of licensure, teenage driver rates of both fatal and nonfatal crashes are dramatically higher, compared to adult driver rates, particularly drivers older than 25 years. Except for the oldest cohort of drivers, young drivers drive less than all others, yet they are over-represented in collisions and their numbers of crash deaths are disproportionately high.

Teen motor vehicle crashes can be prevented. A licensing system that prolongs the learning process for young, novice drivers, easing these drivers onto roadways by controlling their exposure to progressively more difficult driving experiences is a proven strategy that improves the safety of young drivers, their passengers and others on the roadways The graduated driver licensing system is a comprehensive provisional system for novice drivers, consisting of an initial learner's stage/permit, an intermediate stage/license and a full license. Passing GDL laws is an effective safety approach for reducing needless deaths and injuries among young, novice drivers and for nurturing a culture of safety where everyone in the community benefits.

Rationale for Law

Analyses of fatal crash data consistently indicate that teenage drivers are likely to be at fault in their crashes. A contributing factor to the high teen crash rate suggests a lack of experience in recognizing hazards, exacerbating inappropriate responses to inherently dangerous situations on the road. Normal neurological development also may contribute to a young, novice driver's ability as the area of the brain that weighs consequences, suppresses impulses and organizes thoughts does not fully mature until about age 25 years. This maturing process may frame inexperience and regulate dispositional factors, such as risk-taking behavior.



2008 Source: United States Government Accountability Office, (2010, May). *Report to the Committee on Transportation and Infrastructure and its Subcommittee on Highways and Transit, House of Representatives: Teen Driver Safety – Additional Research Could Help States Strengthen Graduated Driver Licensing Systems.* Document #GAO-10-544. www.gao.gov/newitems/d10544.pdf

Two other factors that extensive studies have revealed as contributing to higher crash rates of young, novice drivers are excessive driving during higher risk hours and distractions from teenage passengers. For example, almost two-thirds of all fatal nighttime crashes involving 16-year-olds occur before midnight; whereas, studies show that nighttime driving restrictions typically are associated with crash reductions of 40 percent to 60 percent during restricted hours. In the case of passengers, research demonstrates that the risk of crashes involving a teen driver increases with each additional teen passenger in the vehicle, in part because teenage passengers can distract young drivers and encourage them to take risks.

The three-stage graduated driver licensing system addresses both the inexperience and immaturity of young drivers by reducing risk and exposure, thus providing a framework in which beginning drivers gain substantial driving experience in less-risky situations. The learner stage needs to be long enough for beginners to obtain a thorough introduction to the complex skills required to operate a vehicle:

- A **learner's** permit stage, which allows driving only while supervised by a fully licensed driver, that **lasts at least six months**; and during which, parents, legal guardians and/or driving instructors must **certify at least 30-50 hours of supervised driving**.

  The second or intermediate stage comes with restrictions effectively limiting exposure to known high-risk conditions as novices adapt to being fully in charge of the vehicle:

- An **intermediate** stage **limiting unsupervised** driving in high-risk situations, under certain restrictions including a **nighttime driving restriction** and a strict **passenger restriction**. The passenger restriction is defined as limiting for at least six months young, novice drivers with intermediate licenses from carrying more than one passenger under the age of 20 years.

In effect, GDL raises the age of full-privilege driving, since the third stage license only is available after completion of the first two stages. NHTSA's 2007 Motor Vehicle Occupant Safety Survey found that 73 percent of the general public believes teenagers should not be allowed to drive unsupervised after 9 p.m. and 86 percent of the general public believes that teenagers should have a restriction on the number of teenage passengers they can carry. The most rigorous and comprehensive state GDL systems are associated with reductions of 38 percent in fatal and 40 percent in non-fatal injury crashes of 16-year-old drivers. Research also shows that between 1996 and 2005, the most progress has been made in reducing crashes among the youngest drivers, suggesting that GDL systems are effective.

With the only addition of Indiana since 2008, 48 states and DC have adopted a graduated driver licensing system that includes a mandatory holding period of at least six months. Between 2008 and 2010, five states—Hawaii, Indiana, Louisiana, New Hampshire and New York—included in their GDL system a 30- to 50-hour supervised driving provision, making a total of 42 states and DC meeting the ENA learner's stage criterion. Forty-eight states and DC currently meet the intermediate stage criterion of a nighttime driving restriction. Arkansas and Kansas are the only two states since 2008 to add the nighttime restriction to their GDL systems. With the addition since 2008 of Arkansas, Indiana, New York and West Virginia, 28 states and DC now prohibit intermediate driver's license holders from carrying more than one passenger under age 20 years.

U.S. Roadway Laws Facts and Figures

Graduated Driver Licensing Laws

Relevant Facts and Statistics

- Motor vehicle crashes remain the leading cause of death for 15- through 20-year-olds.
- On a per population basis, drivers under the age of 25 had the highest rate of involvement in fatal crashes of any age group in 2008, with teenage drivers accounting for 6.4 percent of the driving population, but representing more than 12 percent of the drivers involved in all deadly crashes.
- The crash rate per mile driven for 16- to 19-year-olds is four times the risk for drivers 20 years and older. Risk is highest at age 16 years. The crash rate per mile driven is nearly twice as high for 16-year-olds as it is for 18- to19-year-olds.
- In 2008, 14 percent (1,429,000) of all drivers involved in police-reported crashes (10,081,000) were young drivers age 15- to 20-years old.
- The significant declines in younger driver (16- to 24-year olds) traffic fatalities (7 percent decline in injury crashes—57,000—from 2007 to 2008 and a 17.4 percent decline—2,205—in fatalities during the same time period) may be a reflection of the continued effect of safety countermeasures (e.g., GDL behavioral and vehicle safety programs) and the current economic downturn. With the unemployment rate for this cohort about double the national average, not only is the MVC-exposure risk reduced in a context of traveling to a workplace but it also is likely that this age group has significantly curtailed much of its discretionary leisure travel.
- The states have substantially changed their driver licensing practices since the NTSB issued its first graduated driver licensing recommendations in 1993. The changes represent the most significant alteration of young driver licensing practices in more than 50 years.
- GDL programs have shown to reduce teen crashes by approximately 20 percent, and studies from nearly a dozen states show that deaths and serious injuries from traffic crashes involving young drivers declined by as much as 58 percent following enactment of GDL provisions.
- The most rigorous and comprehensive state GDL systems have been associated with reductions of 38 percent in fatal and 40 percent in non-fatal injury crashes of 16-year-old drivers. Studies showed similar crash reductions for both male and female teen drivers, with no increase in crash risk for 17- or 18-year-old drivers once fully licensed.
- As the number of teenage passengers increase, fatal crashes among 16- and 17-year-old drivers are more likely to involve a single vehicle, speeding and driver error. With three or more teenage passengers, 85 percent of crashes involved driver error, almost 50 percent involved speeding and almost 70 percent involved a single vehicle.

- Several studies found that passenger restrictions reduce crashes. For example, in North Carolina multiple passenger crashes declined by 32 percent among 16-year-old drivers, and by 15 percent among 17-year-old drivers since a passenger restriction was enacted. In addition, a NHTSA study evaluated passenger restriction laws in California, Massachusetts and Virginia. Results demonstrated that, on average, there were 740 fewer 16-year-old drivers in California involved in crashes per year because of the passenger restriction law; 173 fewer in Massachusetts; and 454 fewer in Virginia, all because of their passenger restriction laws.

- Almost two-thirds of all fatal nighttime crashes involving 16-year-olds occur before midnight. The likelihood of 16- and 17-year-old drivers being involved in fatal crashes is three times higher from 10 p.m. to 12 a.m. than from 6 a.m. to 10 p.m.

- Other studies indicate that nighttime driving restrictions typically are associated with crash reductions of 40 percent to 60 percent during GDL restricted hours. Nighttime fatal crashes per population among 16-year-old drivers fell 48 percent between 1996 and 2005. This compares with a 40 percent decline in daytime fatal crashes.

- States with GDL systems report that the benefits of the systems outweigh any costs. In Oregon, the administrative costs were estimated at $150,000, while the benefits were estimated at nearly $11 million. This extrapolates to a benefit-to-cost ratio of better than 74 to one.

- State legislative status of GDL laws:

  - 48 states and DC have GDL laws requiring at least a six-month holding period.
  - 42 states and DC have GDL laws requiring a minimum of 30-50 hours of supervised driving.
  - 48 states and DC have GDL laws with a nighttime restriction.
  - 28 states and DC have GDL laws with a passenger restriction allowing only one passenger under the age of 20 years.

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POLICY ISSUE PROFILE

Universal/All-Rider Motorcycle Helmet Laws

Issues

Motorcyclists are vulnerable road users and their safety is a health and economic liability concern for communities and the nation. In a 10-year period in the United States, motorcyclists experienced a dramatic rise in fatality rates. NHTSA data reveal that, between 1998 and 2007, the number of passenger vehicle occupant and non-occupant fatalities decreased, but motorcycle fatalities increased each year for 10 years in a row, amounting to a 144 percent gain. In 1998, 2,294 motorcyclists died, amounting to 5.5 percent of all motor vehicle crash fatalities. By 2008, motorcyclist fatalities had risen to 5,290, more than 14 percent of all MVC fatalities.

Even though only 0.1 of all motor vehicle trips occurred on a motorcycle and motorcycle trips accounted for only 0.4 percent of all vehicle miles traveled, per vehicle mile traveled in 2007, motorcyclists were about 37 times more likely than passenger car occupants to die in a MVC. While there has been a steady step-up in motorcycle registrations over the years, the rate of increase in fatalities outpaced that of registrations. One NHTSA data point indicates that per registered vehicle—where motorcycles made up nearly 3 percent of all registered vehicles in the United States—the fatality rate for motorcyclists in 2007 was six times the fatality rate for passenger car occupants.

The trends for injuries are similar to that of fatalities of motorcyclists. Injuries in motorcyclist crashes increased at a greater rate than the increase in motorcycle registrations (110 percent versus 84 percent). Per registered vehicle, the injury rate for motorcyclists was 0.7 times the injury rate for passenger car occupants; per vehicle mile traveled in 2007, motorcyclists were about 9 times more likely to be injured than passenger car occupants. Moreover, even though the 20-to-29-year-old age group still continues to have the highest number of motorcyclists injured, there is an overall shift occurring with older motorcyclists (40 years and older) increasingly suffering more injuries in crashes.

Motorcycle safety research unequivocally identifies technologies and safety countermeasures that reduce the probability of motorcycle casualties and fatalities (e.g., rider training and licensing, public education of motorists and motorcyclists, vehicle design and rider protective equipment). Helmets and personal protective equipment worn by motorcyclists provide the primary defenses against injury in a crash. Research consistently demonstrates that helmets are the most effective piece of safety gear for motorcycle riders.

In accordance with the research, NHTSA established standards for motorcycle helmets in the Federal Motor Vehicle Safety Standards, Standard No. 218 (i.e., Code of Federal Register, Title 49, Volume 5, Part 571, Section 218, October 2003). All motorcycle helmets sold in the United States are required to meet FMVSS Standard 218, the minimum level of protection a helmet must afford each helmet user. However, not all motorcycle riders wear federally approved helmets, nor do all states—even those with partial helmet laws—mandate use of the FMVSS Standard 218-compliant helmet.

Lives Saved by Motorcycle Helmet Use Laws, and Additional Lives That Would Have Been Saved at 100% Motorcycle Helmet Use, 2005-2009

Year	Lives Saved All Ages by Use of Motorcycle Helmets	Additional Lives that Would Have Been Saved at 100% Use of Motorcycle Helmets
2005	1,554	731
2006	1,667	756
2007	1,788	805
2008	1,836	827
2009	1,483	732

Source: NHTSA (2010, September). *Traffic Safety Facts – Crash•Stats: Lives Saved in 2009 by Restraint Use and Minimum-Drinking-Age Laws.* www-nrd.nhtsa.dot.gov/Pubs/811383.pdf

Rationale for Law

A motorcycle's design offers few occupant safety protections. The head, arms and legs t are injured most often in a crash, and head injury is a leading cause of death in motorcycle crashes. A NHTSA Crash Outcome Data Evaluation System study established that motorcycle helmets are 67 percent effective in preventing brain injuries and that motorcyclists involved in crashes who were not wearing helmets were three times more likely to suffer brain injuries than those wearing helmets.

Helmets are estimated to be 37 percent effective in preventing fatal injuries to motorcycle riders and 41 percent for motorcycle passengers; thus, for every 100 motorcycle riders killed in crashes while not wearing a helmet, 37 of them could have been saved had all 100 worn helmets. NHTSA estimates that, in 2008, helmets saved the lives of 1,829 motorcyclists and that if all motorcyclists had worn helmets, an additional 823 lives could have been saved.

A CODES study released in 2009 explores the relationship between helmet use and hospital outcomes associated with head, facial and traumatic brain injuries, which motorcycle helmets potentially could prevent. The research found that, as the severity of the head/facial injury increases, the median of hospital charges increases 32-fold. The median of hospital charges for motorcyclists without a head or facial injury is $2,285, while a motorcyclist with an Abbreviated Injury Scale head injury score of 5 or 6 has median hospital charges of $73,179.

Similarly, median hospital charges increase with TBI severity. Motorcyclists without TBI have a median hospital charge of $2,461, while motorcyclists with severe TBI have a median hospital charge of $31,979. The majority of hospital-treated motorcyclists are discharged home. While more than 85 percent of motorcyclists without TBI are discharged home, the percentage dropped to 56 percent for motorcyclists with severe TBI. Motorcyclists with TBI are less likely to be discharged home and more likely to require rehab or to be discharged to long-term care facilities, often resulting in additional costs and burdens for the injured motorcyclists and impacting families, communities and society as a whole. Additionally, while only 17 percent of all motorcyclists have TBI, motorcyclists with TBIs accounted for 54 percent of all riders discharged dead.

Another evidence-based intervention strategy for optimizing protective measures is the universal/all-rider motorcycle helmet law. Universal helmet laws provide the greatest impact on saving lives and reducing serious injuries, for these laws cover every person regardless of age and position on the motorcycle. A universal standard also presents better enforcement due to ease of detecting whether each person on a moving motorcycle is fitted with a helmet.

ENA's 2010 Scorecard assesses state statutes for motorcycle helmet laws covering all riders and meeting the Federal Motor Vehicle Safety Standard 218. Only 20 states and DC have a universal helmet law, and, of these 21 jurisdictions, only 13 states require all motorcycle riders to wear helmets that comply with FMVSS Standard 218. Since the first ENA Scorecard in 2006, no additional states passed a universal motorcycle helmet law.

In 1995, Congress lifted federal sanctions against states without helmet laws. Despite the burden of injury associated with motorcycle crashes, since 1995 at least six states repealed or weakened laws that require the use of motorcycle helmets. During the past two years, nearly 20 different state legislatures were lobbied by motorcycle rights advocates attempting to pass legislation repealing mandatory motorcycle helmet laws. Owing to coalitions opposing the repeal, no repeal succeeded. In addition, most of the recent legal challenges to enacted helmet laws failed with the courts holding motorcycle helmet usage laws to be constitutional, although a California case found that use of FMVSS Standard No. 218-compliant helmets could not be enforced absent such specification in the law.

Ample evidence exists that motorcycle helmet laws applied to all riders and passengers save lives and protect people from injury. Institutionalizing universal/all-rider DOT-compliant motorcycle helmet laws holds the promise of fostering a high quality of life for all people in our nation. Such policy measures save lives, protect people from injury, lessen medical care costs and conserve tax dollars by reducing the greater costs to society from productivity losses of individuals needlessly injured, disabled or killed in motorcycle crashes.

U.S. Roadway Laws Facts and Figures

Universal/All-Rider Motorcycle Helmet Laws

Relevant Facts and Statistics

- Universal/all-rider helmet laws apply to every person regardless of age and position on the motorcycle. They significantly increase helmet use and are easily enforced due to its visibility. In states with helmet laws governing all motorcycle riders, helmet use ranges from 92 percent to 100 percent, while without a law or under a partial law (requiring only some riders to wear helmets), helmet use generally ranges from 42 percent to 59 percent.

- Data released in 2008 from NHTSA's National Center for Statistics and Analysis reveal that, as of 2007, motorcycle fatalities increased for the 10th year in a row. Compared to 1997 statistics, the increase amounts to 144 percent, an increase exceeding that of any other form of transportation.

- The number of motorcycle fatalities in any recent year is more than double the number of deaths that same year from accidents in aviation, rail, marine and pipeline combined. Although rising motorcycle use may partly explain this trend, increases in fatalities outpaced increases in activity measures such as motorcycle registrations (3 percent of all registered vehicles) and vehicle miles traveled (only 0.4 percent of all vehicle miles traveled), which are used to determine accident and injury rates.

- Head injury is a leading cause of death in motorcycle crashes. NHTSA found that helmets are estimated to be 37 percent effective in preventing fatal injuries to motorcyclists and 67 percent effective in preventing brain injuries to motorcyclists.

- All motorcycle helmets sold in the United States are required to meet Federal Motor Vehicle Safety Standard Standard 218, which establishes the minimum level of protection a helmet must afford each user. The *National Occupant Protection Use Survey*, a national probability-based sample survey, estimated that 67 percent of motorcyclists in 2009 wore a DOT-compliant helmet (i.e., FMVSS Standard 218), a gain from 63 percent in 2008.

- In the past five years, motorcycle helmet use increased slowly but steadily, moving from 48 percent usage in 2005 to 67 percent in 2009.

- Impact analyses of safety helmets or helmet laws consistently find that helmet use reduces the "fatality rate, the probability and severity of head injuries, the cost of medical treatment, the length of hospital stay, the necessity for special medical treatments and the probability of long-term disability."

- 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.

- Congress' lifting in 1995 of federal sanctions against states without helmet laws generated repeals or weakening of a number of primary motorcycle helmet laws, resulting in fewer riders wearing helmets and substantially increased fatalities and head injuries. Specifically, as states repealed their helmet laws, helmet use declined from 71 percent to 58 percent nationally, with deaths and traumatic brain injuries on the rise.

- Florida repealed its universal helmet law in 2000. After the repeal, helmet use decreased from 100 percent to 53 percent; motorcycle deaths increased by almost 50 percent; and the number of serious brain injuries doubled. In the 30 months following the repeal, Florida experienced an 82 percent increase in hospital admissions of motorcyclists with head injuries. The average head injury treatment cost rose by $10,000 to $42,602.

- Louisiana saw a drop from 100 percent to 52 percent of riders wearing helmets after it amended its helmet law in 1999 to remove the universal requirement for helmet use. The motorcycle fatality rate increased by more than 25 percent following the repeal, with unhelmeted accident-involved riders experiencing head injuries at twice the rate of helmeted riders. Nearly 60 more motorcyclists died in the two years following the law's repeal than in the two years preceding it. In 2004, in response to the continuing rise in deaths and injuries, Louisiana reenacted the universal helmet law and saw the total number of motorcyclist deaths decline.

- In the two years following the 2003 repeal of its universal motorcycle helmet law, Pennsylvania motorcyclists suffered large increases in head injury deaths and hospitalizations. Study authors analyzing data from Pennsylvania during the years 2001-2002 and 2004-2005 found helmet use by motorcyclists involved in reported crashes decreased from 82 percent to 58 percent, head injury deaths increased 32 percent and head injury-related hospitalizations rose 42 percent. The number of head-injured, hospitalized motorcyclists requiring further care at facilities specializing in rehabilitation and long-term care increased 87 percent after the repeal.

- While younger people are still riding motorcycles, they now are a smaller proportion of fatalities. The largest number of motorcyclists injured in 2007 was in the 20-29-year-old age group, constituting nearly one-third (32,000 or 31 percent) of the 103,000 motorcyclists injured. The increase in motorcycle fatalities was especially marked among riders 40 and older, whose overall share of fatalities grew, now constituting approximately half of all deaths. In 1997, this older group accounted for 33 percent of rider deaths, but by 2007 was at 49 percent. Although fatalities increased in all age groups, the largest increase was in the group of riders older than 49 years.

- Analysis from a Crash Outcome Data Evaluation System study shows helmeted motorcyclists are less likely to experience facial and head injuries compared to unhelmeted motorcyclists. Likewise, helmeted motorcyclists are significantly less likely to experience traumatic brain injuries, which are associated with significantly higher hospital, rehab and, possibly, long-term-care facility charges.

- State legislative status of universal helmet laws:

  - 20 states and the District of Columbia have a universal helmet law for all riders.

- 13 states of the 21 jurisdictions with universal helmet laws covering all riders also require the riders to use a federal FMVSS Standard 218-compliant helmet.

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POLICY ISSUE PROFILE

Primary Enforcement Seat Belt Laws

Issues

Total motor vehicle crashes in 2009 were estimated by NHTSA at 5.505 million, a 5.3 percent decrease from the 5.811 million crashes in 2008. When comparing 2009 to 2008 data, NHTSA reports that the reduction in fatal crashes registered the largest decline at -9.9 percent, followed by injury crashes at -6.9 percent. The estimated declines in non-fatal, injury and property-damage-only crashes also are all statistically significant. According to NHTSA, the declines could be a result of several factors coinciding, such as the economy in recession, unemployment, improvements in vehicle design and in behavioral and vehicle safety programs, as well as in meaningful vehicle and occupant safety regulations.

Digging into the 2009 crash data shows that the overall number of traffic fatalities in MVCs was 33,808, which is the lowest number of deaths since 1950 when the total was 33,186 fatalities. The 2009 number represents a 9.7-percent decline from 2008 when 37,423 people lost their lives in MVCs. In 2009, for the 10th consecutive year, improvement also is evident in the number of people injured in MVCs, which is estimated at 2.22 million people compared to 2.35 million in 2008. This estimate of people injured in crashes is at its lowest point since NHTSA began estimating injury data in 1988.

While the declining trends are headed in the proper direction, the NTSB—charged by Congress to investigate transportation accidents, determine their probable cause and make recommendations to prevent their recurrence—reminds the nation that motor vehicle crashes are responsible for more deaths than fatalities in crashes of all other transportation modes combined. Every year, more than 90 percent of all transportation-related deaths are caused by MVCs.

As a countermeasure to the immoderate annual MVC casualties and injuries, NTSB recommends that using seat belts is the single most effective behavior to protect drivers and passengers in a crash. Seat belts restrain vehicle occupants from the extreme forces experienced during MVCs. Despite scientific studies demonstrating the effectiveness of seat belt usage, seat belt use in the United States is significantly lower than use in other industrialized nations. Peer countries, such as Australia and Canada, have use rates well over 90 percent, while seat belt use in the United States is approximately 83 percent, Our nation's rate of usage is reflected in data showing that among fatally injured passenger vehicle occupants, in 2009, more than half (53 percent) of those killed were unrestrained (i.e., any type of restraint, such as, lap belt, lap/shoulder belt, child safety seat).

Forty-nine states and DC have enacted some form of seat belt law. Of these jurisdictions, 31 states and DC provide primary enforcement, allowing law enforcement officers to ticket a driver for not wearing a seat belt without any other traffic offense taking place. The other 18 states allow only secondary enforcement of their seat belt laws, meaning that police officers cannot issue a citation for a seat belt violation unless the vehicle has been stopped for another reason. In most states with primary enforcement, the laws apply to front-seat occupants only. In 14 states and DC, the primary enforcement safety belt laws also apply to all rear-seat occupants.

Drivers and Passengers Killed, by Passenger Vehicle Type and Restraint Use, 2008

Type of Passenger Vehicle	Restraint Used		Restraint Not Used		Restraint Use Unknown		Total	
	Number	Percent	Number	Percent	Number	Per-cent	Number	Percent
Drivers Killed								
Passenger Cars	5,051	49	4,593	44	764	7		100
Pickup Trucks	1,215	31	2,486	63	274	7	3,975	100
Sport Utility Vehicles	1,048	37	1,639	57	183	6	2,870	100
Vans	417	47	390	44	73	8	880	100
Other Light Trucks	3	25	7	58	2	17	12	100
Total	**7,734**	**43**	**9,115**	**50**	**1,296**	**7**	**18,145**	**100**
Passengers Killed								
Passenger Cars	1,899	45	1,931	46	349	8	4,179	100
Pickup Trucks	315	29	718	65	65	6	1,098	100
Sport Utility Vehicles	456	35	778	59	82	6	1,316	100
Vans	238	39	321	53	52	9	611	100
Other Light Trucks	0	0	2	100	0	0	2	100
Total	**2,908**	**40**	**3,750**	**52**	**548**	**8**	**7,206**	**100**

Source: NHTSA (2009) *Traffic Safety Facts 2008 Data: Occupant Protection.* www-nrd.nhtsa.dot.gov/Pubs/811160.pdf

Rationale for Law

Decades of research document and prove conclusively that seat belt use is the most effective technological countermeasure available in preventing or reducing the severity of injuries to occupants involved in MVCs. Data reveal that proper use of lap/shoulder belts lowers the risk of fatal injury to front-seat passenger car occupants by 45 percent and lessens the risk of moderate-to-severe injury by 50 percent. For light-truck occupants, seat belt use reduces fatality risk by 60 percent and the moderate-to-serious injury risk by 65 percent.

Vehicle occupants who are unbelted frequently injure other occupants, and unbelted drivers are less likely than belted drivers to be able to control their vehicles. Emergency nurses are witnesses to the fact that

ejection from motor vehicles is one of the most injurious events that can happen to a person in a crash. NHTSA data for fatal crashes in 2008, record that 77 percent of passenger vehicle occupants who were ejected from the vehicle were killed. Only one percent of vehicle occupants using seat belts were totally ejected, while 30 percent of unrestrained vehicle occupants were ejected.

NHTSA estimates suggest that from 1975 through 2008, seat belts saved more than 255,000 lives nationwide. For the shorter time period of 2004 to 2008, NHTSA estimates that “seat belts saved over 75,000 lives—enough people to fill a large sports arena.” For one year alone, had all passenger vehicle occupants older than 4 years used seat belts in 2008, 17,402 lives could have been saved (i.e., an additional 4,152 deaths would have been prevented).

The most effective evidence-based strategy for attaining and sustaining high belt use is the three-pronged countermeasure: strong law, enforcement and publicity. A meta-analysis of quality studies found that greater seat belt use increases by about 14 percent, while casualty decreases by about 8 percent in states with primary laws versus states with secondary enforcement laws. Primary enforcement laws also help protect children. Studies show that if adults use seat belts, children riding with them are more likely to be buckled up. A considerable number of crash fatalities could be avoided if states with secondary laws and states with no adult safety belt use were to adopt primary laws.

For purposes of the 2010 Scorecard, ENA examined the states' statutes for the presence of a primary enforcement law and for the seat positions that were covered under primary enforcement. With the addition since 2008 of Arkansas, Florida, Kansas, Minnesota and Wisconsin, 31 states and DC enacted primary enforcement laws. However, of these 32 jurisdictions, a primary enforcement law applying to all seating positions is in effect in only 14 states and DC. Since the 2008 Scorecard, Louisiana, Minnesota, Texas and Wisconsin upgraded their seat belt laws to primary enforcement. In advancing community and individual health, ENA urges a culture of safety where primary seat belt laws apply to all seating positions in motor vehicles.

U.S. Roadway Laws Facts and Figures

Primary Enforcement Seat Belt Laws

Relevant Facts and Statistics

- The Federal Highway Administration's costs studies show that the consequences of MVCs at the current rate of crashes in the United States cannot be sustained by society. According to some studies, including health care costs, lost productivity and wages, property damage, travel delays due to traffic crashes, administrative and legal costs and costs due to pain, suffering and lost quality of life, the cost of MVCs in 2008 dollars reaches about $180 billion annually.

- Of the 23,382 fatalities in 2009 who were passenger vehicle occupants (i.e., in passenger cars, pickup trucks, vans, sport utility vehicles and other/unknown light trucks and vans), 53 percent were not restrained.

- While observational surveys identified an 83 percent seat belt use rate in the United States, use in fatal crashes is significantly lower. From 1999 through 2008, more than 800,000 vehicle occupants were involved in fatal crashes, of which more than 310,000 died. More than 57 percent of the vehicle occupants who died were unrestrained.

- Drivers who choose not to buckle up tend to exhibit multiple high-risk behaviors (e.g., impaired driving, speeding) and are more frequently involved in crashes.

- According to the National Highway Traffic Safety Administration, from 1975 through 2008, seat belts saved more than 255,000 lives nationwide, and, from 2004 to 2008, "seat belts saved over 75,000 lives —enough people to fill a large sports arena." Looking only at 2008 data, NHTSA estimated that seat belts saved 17,402 lives, and, had all passenger vehicle occupants older than 4 years been restrained properly, an additional 4,152 lives could have been saved.

- When lap/shoulder safety belts are used properly, this technology reduces the risk of fatal injury to front-seat occupants riding in passenger cars by 45 percent and the risk of moderate-to-critical injury by 50 percent. The benefit is greater for light-truck occupants where seat belt use reduces fatality risk by 60 percent and the moderate-to-serious injury risk by 65 percent.

- Seat belts prevent occupant ejections. In 2008, 77 percent of passenger vehicle occupants who were totally ejected from a vehicle were killed. Only 1 percent of vehicle occupants using seat belts were ejected, while 30 percent of unrestrained vehicle occupants were ejected.

- Many states rely on secondary enforcement and not primary. In states with secondary enforcement, police are prohibited from pulling over someone for noncompliance with seat belt use. Officers only can cite an offender if the vehicle is stopped by the police for another traffic violation.

- Primary enforcement seat belt laws remain the best way to raise and maintain high seat belt use rates.

In a January 2008 brief, NHTSA reported that police officers consistently state a preference for primary seat-belt-use laws that are more readily enforced than secondary laws. By contrast, they indicate that secondary enforcement laws are a major deterrent to issuing citations.

- According to the National Occupant Protection Usage Survey published in 2009, seat belt use in primary enforcement law states was 88 percent, while the belt use rate in secondary enforcement law states was only 77 percent. States that recently enacted primary enforcement seat belt laws experienced increased seat belt use rates ranging from almost 5 to almost 18 percentage points, especially when combined with education and enforcement.

- NHTSA estimates that every percentage point raised in belt use saves the U.S. economy about $800 million per year.

- Seat belt use nationwide was 83 percent in 2008. Belt use was greater than or equal to 90 percent in 14 states and DC (Michigan, Hawaii, Washington, Oregon, California, Maryland, Iowa, New Jersey, Delaware, Indiana, Texas, Nevada, New Mexico and Illinois); but belt use was less than 70 percent in three states (New Hampshire, Wyoming and Massachusetts).

- In a study of the effects of upgrading Michigan's seat belt law from secondary enforcement to primary enforcement, researchers found that African Americans were over-represented in citation activity prior to primary enforcement, but were not over-represented after primary enforcement was instituted.

- An eight-year study by the *American Journal of Public Health* offers evidence that among the very hard-to-move group of 18-29-year-old African American men, belt use is higher in states with primary laws (58 percent) versus states with secondary laws (46 percent).

- When adults are buckled up, 87 percent of children are buckled up; but when adults are not buckled up, only 50 percent of children are buckled up. With the passage of the primary seat-belt law in Louisiana, child restraint use rose from 45 percent to 82 percent even though the law covering children remained the same.

- State legislative status of primary enforcement seat belt laws:

  - 49 states (all except New Hampshire) and DC have mandatory safety belt laws; of which
  - 31 states and DC have belt laws that allow primary enforcement; but only
  - 14 states and DC have primary enforcement laws covering all occupants, front and back.

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POLICY ISSUE PROFILE

Ignition Interlock Device Laws

Issues

For the 2009 NHTSA assessments, almost one-third (32 percent) of the total roadway fatalities, or 10,839 deaths, were attributed to alcohol-impaired driving fatalities. The promising news is that the nearly 11,000 alcohol-impaired driving fatalities in 2009 is a 7.4 percent decline from the 2008 total. However, according to the Federal Bureau of Investigation's report on *Crime in the United States*, there were more than 1.48 million arrests of alcohol-impaired drivers in 2008, which is an approximate arrest rate of one driving-under-the-influence arrest for every 144 licensed drivers in the United States. According to a CDC study, this number of arrests is alarmingly small, as 1.48 million is only eight-tenths of 1 percent of the 190 million self-reported episodes of alcohol-impaired driving among U.S. adults each year. Such self-report studies reinforce contentions that someone who gets caught driving drunk almost certainly has escaped prior detection many times. Thus, even though the decrease in fatalities is a positive sign, the prevalence of such driving threatens the health and safety of millions of people daily.

By the NHTSA definition, drivers are considered to be alcohol-impaired when their blood alcohol concentrations are .08 grams per deciliter (g/dL) or higher. Any fatality occurring in a crash involving a driver with a BAC of .08 or higher is considered to be an alcohol-impaired driving fatality. The term *driver* refers to the operator of any motor vehicle, including a motorcycle.

NHTSA places special emphasis on reaching high-risk populations, such as repeat offenders and offenders who are "hard-core drinking drivers," the latter being those with a BAC of 0.15 percent or greater. Repeat offenders are people with prior convictions of driving under the influence (i.e., DUI or referred to in some jurisdictions as driving while intoxicated). Repeat offenders are high-risk drivers who are 4.1 times more likely than the average driver to be the drinking driver in an alcohol-related fatal crash. One thousand fatalities each year involve drivers who were convicted of impaired driving within the prior three years. In the case of hard-core drinking drivers, research indicates that while these drivers are only 1 percent of drivers on a typical weekend night, more than half of alcohol-impaired fatalities involve these hard-core drinking drivers.

In the last two decades, efforts have been made to build a culture of safety through laws and programs to deter impaired driving. In 1998, the federal government enacted the Transportation Equity Act for the 21st Century (TEA-21), Public Law 105-178, which established under Section 164 a program to encourage states to adopt laws that provide enhanced sanctions for repeat offenders of impaired driving laws.

Responding to TEA-21's repeat offender provisions, the NTSB published a series of safety recommendations focusing on hard-core drinking drivers who pose an increased risk of crashes, injuries and fatalities. NTSB defined hard-core drinking drivers as repeat offender-drinking drivers with a prior DWI arrest or conviction within the past 10 years or offenders with a BAC of 0.15 percent or higher. Among a wide range of sentencing options for hard-core drinking drivers, NTSB recommended that state laws for those vehicle sanctions that separate the driver from the vehicle include a provision mandating installation of an ignition interlock device.

About 15 studies of interlock effectiveness now are in the literature. Evidence from most demonstrates 35- to 75-percent effectiveness while installed on the vehicle. A major limitation on the safety impact of interlocks has been the weakness of interlock laws. Some states mandate IID use. In other states, judges, state administrators or even the offenders themselves have the discretion to choose whether to apply this promising strategy. ENA's impaired driving metric for the 2010 National Scorecard focuses on mandatory IID installation and accepts the NTSB definition of hard-core drinking driver as a driver who either is a repeat offender-drinking driver with a prior driving-while-intoxicated arrest or conviction within the past 10 years or is a first-offender driver with a BAC of 0.15 g/dL or higher.



Source: NHTSA (2010) *The National Stop Impaired Driving Campaign – Logo Campaign Tool.* Washington, D.C.: U.S. Department of Transportation. www.stopimpaireddriving.org/index.htm

Rationale for Law

While research indicates that no single solution exists to remedy the complex problem of driving while intoxicated, a comprehensive combination of sanctions and treatments permits more options to work effectively with a diverse population of offenders, including hard-core recidivists. For example, when only 1 to 2 percent of drunk drivers on the road are caught each year, retaining drunk-driving records to allow at least a 10-year look-back period increases the likelihood of identifying repeat offenders and those who might have a chronic health problem with alcohol. Complementing the look-back period with increasing the use of the ignition interlock technology can significantly boost impaired-driving prevention.

An IID necessitates that prior to each vehicle engine start a low-BAC or alcohol-free breath sample must be taken. A 2004 meta-analysis found that, while installed, the IID reduced the relative risk of DWI recidivism by 64 percent, and the reductions in recidivism are apparent among both repeat offenders and first offenders. NTSB finds that ignition interlocks for high-BAC first offenders and repeat offenders offer a promising approach by substantially decreasing the opportunity for these drivers to commit the crime of operating vehicles illegally.

Evidence indicates that recidivism rates remain high within traditional sanctions of punishment via incarceration that is focused only on the actions of the convicted alcohol-impaired drivers, with little attention on the offender's denial and lack of motivation to seek recovery. The IID offers a new vision based on studies showing that this technology supports offender's performance and addresses the whole person's needs Alcohol interlocks help offenders learn to control their drinking problem without placing the

public at risk. The device allows offenders to drive legally and contribute to society as they continue to work and support their families, thus maintaining deterrence from driving while intoxicated and reinforcing that behavior directly affects a right to drive. Integrating the IID into the overall sanction program helps motivate compliance within a behavioral triage system that seeks rehabilitation for long-term risk reduction.

Interlocks alone represent a promising yet incomplete solution to eliminating drunk driving. Research indicates that relying on the interlock technology without treating the health dimensions of the DWI behavior may not be the optimum for long-term health outcomes. Treatment and helping to change the underlying behavior are strategies that ENA believes are optimal to any successful system addressing alcohol abuse and addiction combined with driving.

In the 2010 ENA National Scorecard, ENA reviewed state laws for provisions mandating installation of an ignition interlock device as a vehicle sanction to restrict or separate hard-core drinking drivers from their vehicles. While 47 states and DC have some form of ignition interlock law, 33 states passed legislation for interlock programs that, at a minimum, mandate installation of IIDs for hard-core drinking drivers. Thirteen of the 33 states require IIDs for all offenders, including first-time offenders. California has mandatory IID installation for all offenders, but it is applied via a pilot program for only its four largest counties. Since 2008, the nine states of Arkansas, Mississippi, Missouri, Montana, New Jersey, North Carolina, Tennessee, Wisconsin and Wyoming adopted statutes that are consistent with the ENA metric. Two states —Alabama and South Dakota—have no interlock laws, and the remaining states and DC only have discretionary installation of IIDs.

U.S. Roadway Laws Facts and Figures

Ignition Interlock Device Laws

Relevant Facts and Statistics

- There is one death every 45 minutes, or 32 people in the United States dying every day in motor vehicle crashes that involve an alcohol-impaired driver.
- A recently estimated economic cost to society from alcohol abuse and addiction is calculated at $185 billion/year.
- The downward slope in fatalities is promising. However, the extent of alcohol-impaired driving remains alarming. The *FBI Crime in the United States* reported more than 1.48 million arrests of alcohol-impaired drivers in 2008. This number of arrests represents, in a survey conducted for the CDC, less than 1 percent of 190 million interviewed drivers who reported that they had driven while alcohol-impaired. An estimated 10.5 million passengers reported 290 million annual episodes of having ridden with an intoxicated driver.
- NHTSA defines an alcohol-impaired driving fatality as any fatality occurring in a crash involving an operator of any motor vehicle, including a motorcycle, who is alcohol-impaired. A driver is alcohol-impaired when her/his blood alcohol concentration is 0.08 grams per deciliter (g/dL) or higher.
- In 2009, 32 percent of the total roadway fatalities, or 10,839 deaths, were attributed to alcohol-impaired driving fatalities. The overall 2009 number is a 7.4 percent decline in impaired driving fatalities from 2008.
- The *FBI Crime in the United States* showed a 28.8-percent increase in the number of women arrested for driving under the influence during a 10-year period from 1998 to 2007.
- In 2008, the number of alcohol-impaired female drivers remained flat or increased in 15 states, comprising about 20 percent of the number of female alcohol-impaired drivers involved in fatal crashes nationwide. In comparison, the corresponding percentage for males was about 17 percent in the 13 states where the number of alcohol-impaired drivers remained flat or increased.
- Also in 2008, about 35 percent of the alcohol-impaired female drivers had one or more passengers riding with them, of which about 3 percent of these drivers had passengers who were children. This compares to 31 percent of all alcohol-impaired male drivers who had one or more passengers riding with them and 1 percent of all alcohol-impaired male drivers who had child passengers with them.
- According to the 2008 census, 23 percent of the U.S. population lived in rural areas. Of the 11,773 people killed in alcohol-impaired driving crashes in 2008, rural areas accounted for 57 percent (6,678) of these fatalities as compared to 43 percent (4,984) in urban areas.

- In 2008, 50,186 drivers were involved in fatal motor vehicle traffic crashes. Of those drivers, 22 percent (10,946) were found to be driving with a BAC of .08 g/dL or higher. In 2008, 11,773 people were killed in alcohol-impaired driving crashes.
- Alcohol-impaired motorcycle fatalities in 2008 numbered 1,564, amounting to 29 percent of all driver-types involved in fatal crashes with a BAC level of .08 or higher in 2008; whereas passenger cars and light trucks drivers each composed 23 percent of the alcohol-impaired fatalities.
- In fatal crashes in 2008, the highest percentages of drivers with BAC levels of .08 g/dL or higher were recorded for drivers 21- to 24 years old (34 percent), followed by ages 25 to 34 years- old (31 percent) and 35 to 44 years old (25 percent).
- In 2008, as in prior years where the gender was recorded, males comprised a majority of all alcohol-impaired drivers involved in fatal crashes—numbering 9,175—compared to females totaling 1,650.
- In 2008, 6,316 passenger-vehicle drivers killed had a BAC of .08 or higher. Out of those 6,316 driver fatalities, for which restraint use was known, 73 percent were unrestrained.
- People with previous drunk driving convictions (i.e., convicted of driving while intoxicated, driving under the influence or operating while intoxicated) account for one-third of the impaired driving arrests in the United States. They also are over-represented in fatal crashes.
- Hard-core drinking drivers are those with a BAC of 0.15 percent or greater.
- Only 1 percent of drivers on a typical weekend night will have a BAC of .15 or higher, but 57 percent (or 7,378 drivers) of all alcohol-impaired fatalities in 2008 involved these hard-core drinking drivers.
- Drivers with a BAC of .08 or higher involved in 2008 fatal crashes were eight times more likely to be a repeat offender than were drivers who tested having an alcohol-free breath samples. Also in 2008 where drivers were repeat offenders, data show that in rural areas 61 percent of drivers involved in fatal crashes were discovered to be alcohol-impaired as compared to 57 percent in urban areas.
- The purpose of an ignition interlock device is to prevent a person who has consumed alcohol from operating a vehicle. The IID measures alcohol concentration in the breath and is attached to a vehicle's ignition system. Before the vehicle can be started, the driver must blow a sample of his/her breath into the interlock device. If the driver's breath contains alcohol above a specified concentration, the vehicle is unable to start
- IIDs currently are used in about 146,000 DWI cases, which is between 10 and 20 percent of the cases for which they could be used.
- A study of IIDs in Maryland found that participation in an ignition interlock program decreased the risk of DWI recidivism by 65 percent.

- IIDs substantially reduce DWI while installed, but after their removal, recidivism rates creep up. The promising practice of recognizing the health causes of behaviors and partnering with an appropriate treatment intervention based on offender needs reinforces the appropriateness of implementing a broad program of interventions to attain long-term risk reduction among drunk-driving offenders.

- Mandatory installation of IIDs for even first-time offenders is an emerging issue, with numerous barriers to overcome. Arizona and New Mexico—two states that required interlocks for *all* drunk driving offenders—had overall decreases in MVC fatalities of 18 percent and 15 percent, respectively, in 2007.

- State legislative status of mandatory installation of IIDs for hard core drinking drivers:

    - 33 states have a law; although
    - 17 other states have some interlock program or enabling legislation that allows IID installation as an option.

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POLICY ISSUE PROFILE

Distracted Driving Laws – Texting

Issues

According to NHTSA research, distraction-related MVC fatalities claimed 5,474 lives, representing 16 percent of overall traffic fatalities in 2009. Cell phones as a distraction amounted to 18 percent of fatalities in the 2009 distraction-related crashes. That is, of those killed in distracted driving-related crashes in 2009, according to police accident reports and investigations conducted after the crash occurred, 995 involved reports of a cell phone as a distraction.

The age group with the greatest proportion of distracted drivers involved in fatal crashes in 2009 (16 percent) was the under the 20-year-old age group. However, it was the 30- to 39-year-olds who had the highest proportion of cell phone involvement among the drivers involved in fatal crashes who were reportedly distracted.

The driver distraction numbers also show up in the 2009 NHTSA injury data where an estimated 448,000 people were injured in MVCs owing to distracted driving; this number amounts to 20 percent of the reported injuries. Of those injured in distracted-driving-related crashes, 24,000 involved reports of a cell phone as a distraction, which represents 5 percent of the injured people in distraction-related crashes.

While distracted driving is significant, it also is a perplexing problem to address. NHTSA defines distracted driving generally as any “non-driving activity a person engages in while operating a motor vehicle. Such activities have the potential to distract the person from the primary task of driving and increase the risk of crashing.” Distractions might be from electronic distractions, such as cell phones, navigation systems or adjusting the radio, cassette or CD in the vehicle. Distractions also might be traditionally understood distractions, such as interacting with passengers, eating, gawking at a crash or daydreaming. While the science of distraction continues to develop, distractions are categorized into the following types:

- Visual distraction: Tasks that require the driver to look away from the roadway to visually obtain information
- Mechanical distraction: Tasks that require the driver to take a hand off of the steering wheel to manipulate a device
- Cognitive distraction: Tasks involved with the mental workload associated with a task requiring thinking about something other than the driving task.

All distractions can endanger drivers’ safety, but texting has raised the most concerns because it involves all three types of distraction. As a consequence, considerable state and national safety agendas recently focused on the use of electronic communication devices while operating motor vehicles. October 1, 2009, following a U.S. Department of Transportation two-day summit on distracted driving, President Barak Obama signed an executive order directing federal employees not to engage in text messaging while driving on government business or with government equipment. In 2010 alone, legislatures in 43 states considered more than 270 distracted driving bills.

This degree of focused effort for a behavioral highway safety issue is uncommon, since the research surrounding this matter is not yet considered settled science. And too, texting and cell phone laws present law enforcement challenges, as identifying distractions and their role in crashes can be very difficult. However, a law written without loopholes, such as making distracting cell phone or texting use a primary offense, can enhance enforceability so that, over time, optimal positive change in driver behavior and highway safety will result.

Drivers Involved in Fatal Crashes by Age and Vehicle Type, 2009

	Total Drivers	Distracted Drivers	Drivers With Cell Phone* (% of Distracted Drivers)
Total	**45,230**	**5,084 (11%)**	**1,006 (20%)**
Drivers by Age Group			
Under 20	3,967	619 (16%)	138 (22%)
20-29	10,719	1,378 (13%)	293 (21%)
30-39	7,633	832 (11%)	196 (24%)
40-49	7,930	811 (10%)	161 (20%)
50-59	6,559	631 (10%)	124 (20%)
60-69	3,968	367 (9%)	56 (15%)
70+	3,778	408 (11%)	37 (9%)
Drivers by Vehicle Type			
Passenger Car	18,279	2,044 (11%)	386 (19%)
Light Truck	17,822	2,117 (12%)	475 (22%)
Motorcycle	4,593	562 (12%)	63 (11%)
Large Truck	3,187	257 (8%)	75 (29%)
Bus	221	14 (6%)	3 (21%)

*Police indicated that the driver was using a cell phone or a cell phone was in the presence of the driver at the time of the crash.

Source: NHTSA (2010, September). *Traffic Safety Facts Research Note – Distracted Driving 2009*. www-nrd.nhtsa.dot.gov/Pubs/811379.pdf

Rationale for Law

The research on texting and driving is still developing, but there is no doubt that looking at a phone and handling it does not make driving safer. A naturalistic study from the Virginia Tech Transportation Institute reports a 23-fold increase in the risk of crashing, nearly crashing, conflicting with traffic or drifting from the driving lane among truckers who texted while they drove. This study also found a six-fold increase in risk from dialing a handheld cell phone. It is unknown whether the findings can be generalized to drivers of passenger vehicles.

One study that used a camera to track eye movements showed that texting drivers regularly focus on their screens for stretches of more than five seconds. This study suggests that multitasking drivers are four

times as likely to be involved in MVCs as people who are focused on driving. NHTSA estimates that drivers using a handheld device are at 1.3 times greater risk of a crash or near crash and at three times the risk when dialing as compared with others who only are driving.

NHTSA observational studies found that the proportion of drivers visibly manipulating handheld devices was 1 percent, while handheld cell phone use by drivers stood at 6 percent in 2008. A review of the epidemiologic studies, lab studies, test-track studies and naturalistic research studies addressing distracted driving points to cell phone use as a risk factor for crashes and impaired driving performance. While discrepancies among studies exist regarding the magnitude of the increased risk, there remains little doubt that cell phone use while driving, whether hands-free or handheld, is a traffic safety problem.

As previously mentioned, states are addressing distracted driving in various ways. In 2010 alone, 12 states outlawed texting behind the wheel for all drivers; two states adopted this restriction for teen drivers only; and two states banned handheld cell phone use. A nationwide total shows 30 states and DC banned texting for all drivers, and an additional eight prohibited text messaging by novice drivers. Nine states and DC banned all handheld cell phone use behind the wheel for all drivers.

Evidence about the effects of these prohibitions is mixed. Observations can be readily interpreted and reported by law enforcement officers when they see whether a driver is holding a phone to her/his ear or whether the vehicle is staying in the driving lane, drifting or overcorrecting; but it is difficult to determine if a driver is sending a text message or is chatting on a hands-free phone. Some research findings indicate that banning handheld phone use can have large and lasting effects over time, while other studies show that “in the absence of vigorous and visible enforcement,” age-focused laws may be much less effective.

There are legal provisions that legislators can include to aid enforcement. Seat belt laws have provided promising practices that might be applied to distracted driving. One important lesson learned has been to combine a law with public education information and with active enforcement. Compliance rates will be negatively impacted by a “secondary offense” law versus a “primary offense” law, as witnessed in the seat belt compliance rate in states with a primary law versus those with a secondary law. The public tends to perceive secondary laws as stating that a violation is somewhat acceptable, provided another law is not violated at the same time.

For purposes of the 2010 National Scorecard, ENA examined the 30 states and DC statutes for the presence of a primary enforcement law that applies to entering, sending, reading or otherwise retrieving data, except in the case of an emergency, for all drivers using interactive wireless communication devices. Twenty-six states and DC enacted primary enforcement laws for this version of distracted driving prohibitions.

U.S. Roadway Laws Facts and Figures

Distracted Driving Laws – Texting

Relevant Facts and Statistics

- NHTSA defines distracted driving as “any non-driving activity a person engages in that has the potential to distract him or her from the primary task of driving and increase the risk of crashing.”
- The science of distraction/attention has identified three main types of distraction: Visual — taking your eyes off of the road; Mechanical — taking your hands off of the wheel; and Cognitive — taking your mind off of what you’re doing.
- Distracted driving comes in various forms, such as daydreaming, dealing with strong emotions, cell phone use, texting while driving, eating, drinking and talking with passengers, as well as using in-vehicle technologies and portable electronic devices. Texting while driving is receiving considerable attention because texting involves all three types of distractions noted above.
- According to CTIA-The Wireless Association, in 2009, about 285 million Americans (91percent) now own cell phones, as compared to only 1 million in 1987. Federal estimates of drivers using phones increased during 2004-08, from 8 to 11 percent. Observational data from NHTSA indicate that 6 percent of drivers in 2008 were using handheld phones at any moment during the day, which translates into about 812,000 passenger vehicles on the road at any moment during the day driven by people talking on handheld phones.
- Sixteen percent of fatal crashes in 2009 involved reports of distracted driving, and 20 percent of injury crashes in 2009 involved reports of distracted driving.
- In 2009, 5,474 people were killed on U.S. roadways and an estimated additional 448,000 were injured in motor vehicle crashes that involved distracted driving. Of those killed in distracted-driving-related crashes, 995 (18 percent) involved reports of a cell phone as a distraction; and of those injured in distracted-driving-related crashes, 24,000 (five percent) involved reports of a cell phone as a distraction.
- The age group with the greatest proportion of distracted drivers in 2009 is the under-20-year-old age group, with 16 percent of all drivers younger than 20 years involved in fatal crashes reported to have been distracted while driving. Of those drivers involved in the 2009 fatal crashes who were reportedly distracted, the 30- to 39-year-olds had the highest proportion of cell phone involvement.
- Adults are just as likely as teens to text while driving and are substantially more likely to talk on the phone while driving. In addition, 49 percent of adults say they have been passengers in a car when the driver was sending or reading text messages on their cell phone. Overall, 44 percent of adults say they have been passengers of drivers who used the cell phone in a way that put themselves or others in danger.

- In a September 2009 Pew Research Center survey, 47 percent of all adults who use text messaging say they sent or read messages while behind the wheel, while 34 percent of teenagers ages 16-17 years said they "texted while driving." At 59 percent of their age group, those interviewed by Pew who are in the Millennial generation (ages 18-33 years) are more likely than any other age group to report texting while driving. While 50 percent of text-using Gen Xers (ages 34-45 years) say they have sent or read messages at the wheel, 29 percent of texting Baby Boomers (ages 46-64 years) report similarly. Reliability is a limitation to self-reporting surveys, as people often do not want to admit they were on the phone.

- According to NHTSA, about 5.8 million police-reported motor vehicle crashes occurred during 2008. This count is similar to the approximately 6 million crashes recorded annually during the early 1990s, when cell phone use began to grow. Nor is the MVC number much different from the 6.4 million crashes in 2000, when federal researchers began documenting the increase in phone use while driving.

- The available research indicates that whether it is a hands-free or a handheld device, the cognitive distraction is significant enough to degrade a driver's performance. The driver is more likely to miss key visual and audio cues needed to avoid a crash. Cell-phone drivers have slower reaction times, with some studies suggesting that cell-phone drivers were more likely to get in a crash than drunk drivers with a BAC of .08.

- States have improved data collection efforts with 43 states and DC reporting that generally on the crash reports they collect information about distraction. However, only 34 states collect specific information on cell phone use when driving that meet Model Minimum Uniform Crash Criteria. In seven years, the number of states collecting information about distraction as a factor in crashes has more than doubled from 17 in 2003 to 43 in 2010.

- Research has documented that all-driver bans on handheld phoning can have large and lasting effects on phone use.

- State legislative status of distracted driving laws that ban texting while driving include:

  - 30 states and DC have banned texting for all drivers; of which
  - 26 states and DC meet the ENA metric of enforcing a primary offense law for all drivers who while driving are entering, sending, reading or otherwise retrieving data, except in the case of an emergency, via interactive wireless communication devices.
  - Nine of the 26 states and DC (i.e., 10 jurisdictions) have banned all handheld cell phone use behind the wheel for all drivers.
  - An additional eight states prohibit text messaging by novice drivers.

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POLICY ISSUE PROFILE

Existence of Statewide Trauma Systems

Issues

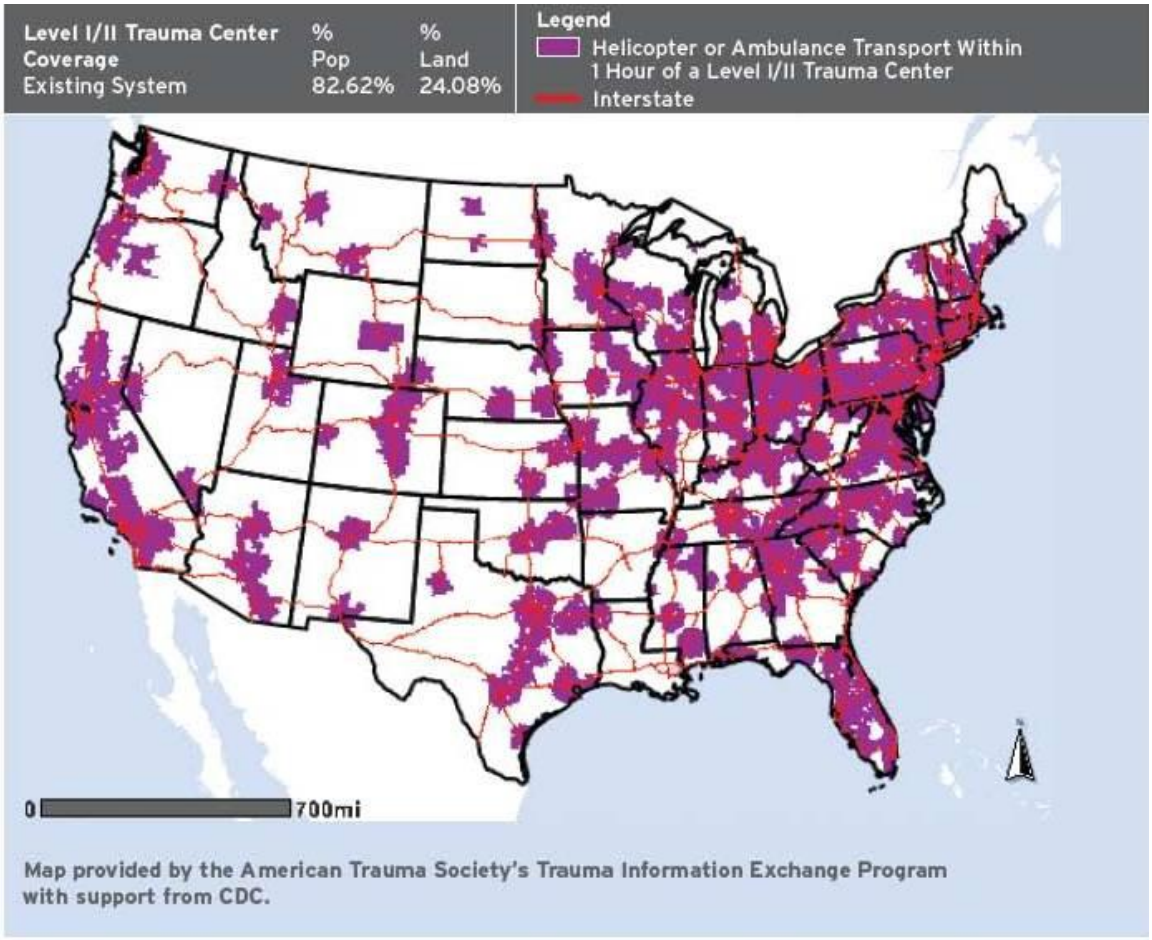
The morbidity and mortality resulting from MVCs are unacceptably high, and in large part preventable. Nonetheless, evidence of the growing culture of safety exists in the trends tracked over the past half century. For example, there has been a 43 percent decrease in the rate of deaths per 100,000 population in motor vehicle fatalities since the 1960s, and a 72 percent reduction in deaths per vehicle miles traveled. The gains derive in part from changes in our culture that nurture injury prevention strategies, such as the traffic-related driver behaviours, technologies and laws previously covered in the 2010 Scorecard. Another significant function that has served the goals of motor vehicle injury and death prevention are the advances in medical care and in developing, implementing and assessing comprehensive trauma care systems. By increasing the survivability of victims of crashes while minimizing the consequences of an injury, trauma systems characterize a culture of safety, helping people continue to live to their fullest potential.

However, while people can select a health care system for elective procedures, people in a motor vehicle crash may have no alternative to accessing the health care system most proximate or to discovering the lack thereof. Most people in the United States are under the impression that if they contact 9-1-1 for assistance in an emergency, all will be taken care of appropriately, efficiently and effectively. But for that scenario to occur, a trauma system must exist to ensure that the patient is transported to a trauma center capable of providing the level of care matching the type and severity of injury.

As described by NHTSA and by the Health Resources and Services Administration, a trauma care delivery system refers to an organized approach to facilitate and coordinate a multidisciplinary system response to care for those who experience severe injury. Central to the system is a continuum of care aimed at providing injured persons with the greatest likelihood of returning to their prior level of function and interaction within society. The continuum of care begins with injury prevention and progresses seamlessly through EMS 9-1-1/dispatch and medical oversight of pre-hospital care, appropriate triage and transport, emergency-department trauma care, trauma center team activation, surgical intervention, intensive and general in-hospital care, rehabilitative services, mental and behavioural health, social services, community reintegration plans and medical care follow-up.

Yet, more than 50 million people living in the United States do not have access to high-level trauma care within the traditional golden hour after injury. Helicopter or ambulance transport to high-level trauma care within one hour is not available in three-fourths of the geographic area of the continental United States. Regions across the nation, particularly in rural and frontier areas where 20 percent of the population resides but nearly 60 percent of trauma deaths occur, lack consistent access to quality services. Similarly, in more densely populated areas, access to health and emergency care is poorly coordinated, and, in general, many states remain underprepared. According to the American College of Surgeons, a professional organization that conducts assessments and verifies expertise of trauma care systems, only one in four people in the United States lives in an area served by an integrated, coordinated trauma

system. In those regions where trauma systems exist, at least 20 trauma center closures and additional downgrades of trauma center levels have occurred since 2000.



Source: CDC. (2010). *Getting the Right Care, at the Right Place, at the Right Time – Access to Trauma Centers in the United States.* www.cdc.gov/traumacare/pdfs/CDC_BlastInjury_TraumaCenter_FactSheetV5-a.pdf

Rationale

Trauma systems save lives and help to ensure that the millions of people injured each year receive specialty-system care focused on identifying the right patient to the appropriate facility and in the right amount of time. Trauma patients' survival rates improve dramatically when they are evaluated, treated and transported to the correct hospital within the first hour after being injured. CDC-supported research shows a 25 percent reduction in deaths for severely injured patients who have fast access to the specialized resources of a trauma system rather than at a non-trauma center.

While the literature demonstrates that the development of a trauma system results in improved outcomes and decreased costs, quick access to high-level trauma care is not a reality for many counties across the nation. Recognizing the importance of trauma systems, in its 2010 *Recommendations for Improving Health through Transportation Policy*, the CDC calls for ensuring "access to trauma care for victims of motor vehicle crashes in order to improve survival outcomes after a crash." The existence of statewide trauma systems is a health equity issue, pivoting on access to quality health services.

Various state and national studies support the discrepancy between the public's perception of their risk vis-à-vis trauma system availability and the reality of a system's presence. A 2005 survey conducted by the Harris Poll and commissioned by the Coalition for American Trauma Care found that 75 percent of respondents believe that trauma systems exist in their states, and 69 percent stated they would be "extremely" or "very concerned" to learn that the trauma system in their states did not meet recognized standards. In October 2007, the results of a survey by ACS found that while 71 percent of respondents were not surprised to hear that a nationwide trauma system did not exist, 75 percent strongly supported establishment of a nationally organized trauma system.

The call for effective injury response via trauma care systems development is clear. Since the 2001 terrorist attacks, followed by the 2005 hurricanes in the Gulf of Mexico, the effort to be adequately and appropriately prepared for all types of incidents has gained greater national awareness. Most states acknowledge a need to initiate, further develop or augment the jurisdiction's ability to care for trauma patients through system development. But a comprehensive, inclusive, efficacious and cost-effectively functioning statewide trauma system is a complex process to establish and maintain, as well as difficult to study.

The research on this multifaceted system continues to develop, and substantive caveats underlie discussions of available studies. Within this context, ENA reviewed, as it did in 2006 and in 2008, the first facet of a trauma system's services: injury prevention strategies seeded by policy development and the presence of a statute enabling the existence of a statewide trauma system.

Enabling legislation is defined by HRSA (which previously administered the now defunct federal Trauma-Emergency Medical Services Systems Program) as:

"Legislation that provides appropriate officials the authority . . . to develop, maintain and evaluate a state trauma system and its components. The legislation also should support the collaboration and integration of EMS, emergency preparedness and public health systems with trauma so that a statewide comprehensive coordinated system of injury and disease prevention, and health promotion can be implemented."

The 2010 ENA Scorecard's acknowledgement of an enabling authority's presence does not measure the effectiveness of a state's trauma system, nor does it measure the degree to which the authority is executed, mindful also that in times of budget crisis, trauma-system funding may be eliminated. Rather, meeting this ENA scorecard metric only identifies states with enabling statutes that formally grant administering organizations the legal authority to develop and enforce trauma-system policy.

The 2010 Scorecard shows that currently 47 states and the District of Columbia passed legislation granting the legal authority to develop and maintain a system of trauma care throughout the respective state or federal district.

Studies of trauma systems find that the success of a system is determined fundamentally by the degree to which it is buttressed by public policy. Progress toward the organization of trauma care in this country is advancing on many fronts. Although compared to the widespread needs, improvement appears sporadic, with government funding allocated to development and refinement of trauma systems also waxing and waning during the previous two decades. Movements to organize trauma systems within states were best initiated through civic engagement at the local level.

U.S. Roadway Laws Facts and Figures

Existence of Statewide Trauma Systems

Relevant Facts and Statistics

- Injury is one of the most important public health problems facing the United States today. It is the leading cause of death for people ages 1 year through age 44 years.
- According to the CDC, 182,479 people died in 2007 from injury, of which 123,706 died from unintentional injury, such as car crashes, fires and falls, and 53,371 from violence-related causes, such as 34,598 deaths from suicide.
- More than 85 children and young adults die of injuries in the United States every day translating to 30,000 deaths annually.
- Millions of Americans are non-fatally injured each year—29,953,395 nonfatal injuries in 2008—leaving many temporarily disabled and some permanently disabled with severe head, spinal cord and extremity injuries.
- According to the National Safety Council, the economic impact of these fatal and nonfatal unintentional injuries amounted to $701.9 billion in 2008, equivalent to about $2,300 per capita.
- Because injury so often strikes the young, injury also is the leading cause of years of lost work productivity and, at an estimated $224 billion in lifetime costs each year, trauma is our nation's most costly disease.
- The existence of statewide trauma systems as a health-equity access issue was addressed in the 2010 health reform law, Public Law No: 111-148, the *Patient Protection and Affordable Care Act.* Section 3504 of PPACA reauthorized the *Trauma Care Systems Planning and Development Act*, which is the original legislation that established within HRSA the Trauma-Emergency Medical Services Systems Program of state grants to further trauma system development. PPACA updated the *Trauma Care Systems Planning and Development Act* by transferring the Trauma-EMS Program from HRSA to the Office of the Assistant Secretary for Preparedness and Response at the Department of Health and Human Services. While the Trauma-EMS Program exists in writing to assist states in implementing statewide trauma system development, since 2006, no federal funds have been appropriated to support states' activities. Notwithstanding the evidence that the Trauma-EMS Program had been making steady progress toward the goal of extending and strengthening organized systems of trauma care across the nation, the federal Trauma-EMS Program remains defunct.
- Trauma systems are comprehensive, seeking to:
  - Decrease the incidence and severity of trauma.
  - Ensure optimal, equitable and accessible care for all persons sustaining trauma.

- Prevent unnecessary deaths and disabilities from trauma.
- Contain costs while enhancing efficiency.
- Implement quality and performance improvement of trauma care throughout the system.
- Ensure certain designated facilities have appropriate resources to meet the needs of the injured.

- Studies show that 50 million people in the United States have no Level I/II trauma center access within the “golden hour” of care.

- The majority of those individuals with limited access to trauma systems live in rural and frontier areas—20 percent of the population resides in these areas where trauma deaths occur, but suffer nearly 60 percent of the trauma deaths.

- In more densely populated areas, access to health and emergency care is poorly coordinated and, generally, many states remain underprepared.

- A Harris Poll, commissioned in November 2004 to learn about the American public's views of and support for trauma systems, found that:

  - Almost everyone recognizes the importance of having a trauma system in his or her state.
  - Large majorities feel that having a trauma system in place is as important as, or more important than, having state police or HAZMAT teams.
  - About two out of three Americans would be extremely or very concerned if they learned that the trauma system in their state did not meet recognized standards.
  - Americans are willing to spend their own money to have trauma centers and trauma systems in place in their states.
  - Generally, Americans have high expectations of their states' trauma centers and systems when it comes to handling natural disasters or terrorist attacks.

- Legislative status of laws granting the legal authority to develop and maintain a system of trauma care throughout the respective state:

  - 47 states and DC have enabling legislation; although
  - Many states have been unable to develop their systems due to funding limitations.

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Media Contacts

Anthony Phipps
847-460-4054

Gretchen Wright
202-371-1999

About the Emergency Nurses Association

The Emergency Nurses Association is the only professional nursing association dedicated to defining the future of emergency nursing and emergency care through advocacy, expertise, innovation and leadership. Founded in 1970 and currently celebrating its 40th anniversary, ENA serves as the voice of more than 37,000 members and their patients through research, publications, professional development, injury prevention and patient education. Additional information is available at www.ena.org.