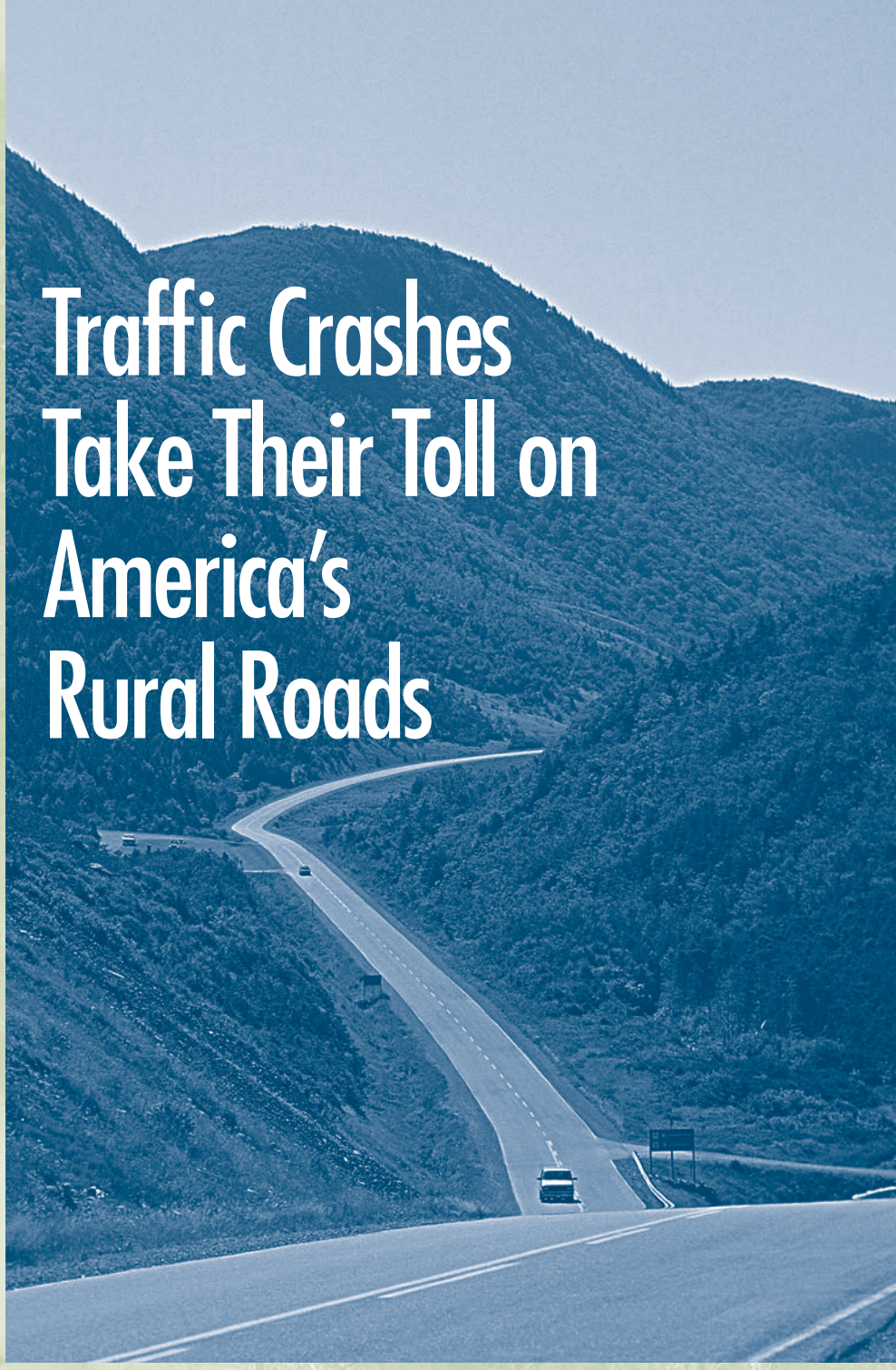

Traffic Crashes Take Their Toll on America's Rural Roads

The Need to Establish Rural Safety Belt Programs

NHTSA

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December 2006

INTRODUCTION

Highway fatalities are a major epidemic in this country; and most occur on rural roads involving rural residents. Only one-fifth of the Nation's population lives in rural areas, yet two-fifths of the vehicle miles traveled and three-fifths of all fatal crashes occur there. In 2004, 59 percent (24,975) of the 42,636 people who died in motor vehicle crashes were traveling on rural roads. This includes drivers, occupants, pedestrians, motorcyclists, and pedalcyclists. The percentage rises to 65 percent when looking only at rural passenger vehicle fatalities: 20,302 occupants killed in passenger cars, pickup trucks, and sport utility vehicles (SUVs) on rural roads. Of these, 54 percent (11,043) were unrestrained – not using a seat belt or child safety seat at the time of the crash.

As these statistics point out, motorists in America are at high risk. Studies show that people have crashes where they live, and by implication, where they drive: rural residents crash on rural roads and urban residents crash on urban roads.[1] More than half of those killed are unrestrained, signifying the overwhelming need for traffic safety programs in rural areas. Progress is being made, as noted in the examples of rural seat belt programs highlighted in this document. Whether you are a local official, service provider, or concerned community representative, consider the toll traffic crashes are having on your community and please take the initiative to do something about it.

THE CRITICAL NEED FOR ACTIVE, ONGOING SEAT BELT USE PROGRAMS IN RURAL AREAS

A number of factors contribute to disproportionately high numbers of deaths and injuries in rural areas, all of which are reasons why programs addressing the importance of seat belt use are so important. The first group of factors that speak to the need for seat belt use programs are environmental, reflecting conditions that are more likely to occur in rural areas. The second group relates to the types of crashes that are most likely to occur in rural areas. The lifesaving benefits of seat belts are real. Increasing use in rural areas, particularly among those less likely to buckle up, can make a difference.

Environmental Factors and Conditions

Although traffic and road congestion are minimal in rural communities, data from the National Highway Traffic Safety Administration show that the fatality rate per million vehicle miles traveled for rural crashes is more than twice the fatality rate of urban crashes. One factor contributing to this risk is the significantly higher number of vehicle miles traveled

1 Blatt, J., and Furman, S.M. Residence Location of Drivers Involved in Fatal Crashes. *Accident Analysis and Prevention*, 1998, *30 (6)*, 705-711. www.nhtsa.dot.gov/people/injury/research/ruralz.htm

by people who live in rural communities. The relative scarcity of public transportation and the greater distances between destinations both contribute to this risk factor. Two other factors affecting crash risk are: (1) the greater likelihood that rural residents will be traveling on a roadway that has a speed limit of 55 mph or higher, and (2) that they will be traveling on a roadway that is not straight (rural communities have more curved roads than urban communities).

In addition, straight roads usually provide less of a challenge to a driver than ones that bend and curve. This is particularly true when a driver is going fast, is distracted, is drowsy, or is impaired by alcohol or drugs. When combined with speed limits 55 mph and higher, it is not surprising to find that 28 percent of rural fatal crashes occurred on curved roads in 2004, as compared to 18 percent of urban fatal crashes.

Timely emergency response and treatment are crucial environmental challenges in rural areas contributing to the high fatality rate. The longer it takes for EMS personnel to arrive at a crash scene, the more likely it is that crash victims will die before they can reach a hospital.

- It takes more than twice as long for EMS personnel to arrive at a crash scene in a rural community, as compared to an urban community—19 minutes versus 7 minutes.
- Overall, the total time from the occurrence of a crash to delivery of the victim to a hospital averages almost an hour in rural areas (53 minutes) in contrast to about one-half hour in urban areas (36 minutes).
- In 2004, only 35 percent of rural passenger vehicle occupant fatalities were taken to a hospital. In comparison, 50 percent of urban victims reached a hospital and its potentially life-saving facilities.

Crash Factors and Unrestrained Occupants

Ejection from the vehicle is one of the most injurious events that can happen to a person in a crash. In fatal crashes in 2004, 74 percent of passenger vehicle occupants who were totally ejected from the vehicle were killed. In the same year, 72 percent of the people killed (5,959) who were partially or totally ejected from a passenger vehicle, were riding in a rural area. Of this number, 92 percent were not wearing seat belts or not properly restrained in a child safety seat. Seat belts are effective in preventing ejections: overall, 44 percent of unrestrained passenger vehicle occupants killed are ejected, partially or totally, from the vehicle, as compared to only 5 percent of restrained occupants.

In addition to the high incidence of ejections in rural crashes, people killed in pickup truck, rollover, alcohol-related, and high-speed crashes are also overrepresented in rural areas, both in number killed and percent unrestrained. For example, of the 20,302 passenger vehicle occupants killed in rural area crashes in 2004:

- 11,043 (54 percent) were unrestrained.

- 4,428 were pickup truck occupants, accounting for 77 percent of all pickup truck occupant fatalities. Sixty-seven percent of the rural pickup truck occupants killed were unrestrained (based on known restraint use).
- 7,757 were in crashes where the vehicle rolled over, accounting for 74 percent of all fatalities resulting from such crashes. Seventy-two percent of the people killed in rural crashes where the vehicle rolled over were unrestrained (based on known restraint use).
- 7,666 died in alcohol-related crashes, accounting for 62 percent of the total passenger vehicle alcohol-related fatalities. Sixty-eight percent of those killed in rural alcohol-related crashes were unrestrained.
- 14,856 died in crashes on roads with speed limits of 55 mph and above, accounting for 79 percent of all passenger vehicle fatalities on high-speed roads. Fifty-two percent of those killed on rural high-speed roads were unrestrained.

This data demonstrates, once again, that failure to wear a seat belt significantly increases the risk of death and serious injury.

The Benefits of Seat Belt Use

In the event of a crash, there are three basic ways to limit injuries and death to vehicle occupants.

1. Vehicles can be modified to provide better protection for drivers and passengers.
2. Emergency medical services (EMS) can be improved to reach victims more quickly and to provide more extensive medical care.
3. People can buckle the seat belts already in their vehicles.

NHTSA data shows that when lap/shoulder seat belts are used properly, they reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck front-seat occupants, seat belts reduce the risk of fatal injury by 60 percent and the risk of moderate-to-critical injury by 65 percent. (Light trucks, weighing less than 10,000 lbs., also include truck-based station wagons.)

Increasing seat belt use is the simplest and least expensive way to reduce deaths and serious injuries on our roads. During 2005, the Nation's seat belt usage increased to a record 82 percent. This means that over 15,000 lives are now being saved through the use of seat belts. Every percentage point increase in seat belt usage yields an additional 270 lives saved each year, and $800 million in costs saved. Seat belt use saves society an estimated $50 billion annually in medical care, lost productivity, and other injury-related costs.[2] Furthermore, the average inpatient costs

2 *FY2006 Budget Request Statement,* Dr. Jeff W. Runge, NHTSA Administrator, www.nhtsa.dot.gov/nhtsa/whatis/BB/2006/pages/AdminStmt.htm

for crash victims who don't use seat belts are 55 percent higher than for those who use them.[3]

Low Ranking Belt Users

Rural areas tend to have varying degrees of lower seat belt use compared to national, State, and urban/suburban rates. Generally, pickup truck occupants, teens and young adults, and males in all age groups have low use rates; and use rates among these groups are even lower in rural areas. In looking at the 18 percent of the Nation's population who still are not buckling up, among the most evident are: teens/young males age 16 to 24; rural populations/pickup truck occupants; children 8 to 15 years old; and booster-age children 4 to 8 years old.

Use rates can also range dramatically from one location and State to the next. Use rates vary depending on a number of factors including whether a State has a primary or secondary seat belt law, how aggressively the law is enforced locally, and social norms of the demographic group or area.

INCREASING SEAT BELT USE RATES IN RURAL COMMUNITIES

Seat belt use rates in rural areas can be increased using well-documented approaches that have proved successful nationwide, starting with NHTSA's *Buckle Up America* Campaign. The underpinnings of successful *Buckle Up America* campaigns include the enactment of a strong seat belt law; development of public/private partnerships at the local, State and Federal level; conduct of high-visibility enforcement; and promotion of public information and education about the benefits of buckling up and the consequences of not doing so. The most effective programs are those comprised of strong leadership, community support, activities addressing local issues and concerns, and community involvement in the planning process and activities.

Seat Belt Use Data

Identifying the belt use rate in your area and determining where to focus your program efforts are important basic steps in planning a program and measuring success.

There are several methods for collecting data on seat belt use in your community or State, including observational surveys, telephone surveys, and in-person surveys. Keep in mind that, when using Federal funds, there are strict guidelines to be followed regarding data collection. Consult your NHTSA regional office for details on the guidelines that apply to your survey methods and sample instruments available to use.

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3 *Crash Outcome Data Evaluation System (CODES) Project Seat Belt and Helmet Analysis,* Research Note (Revised), National Center for Statistics and Analysis, NHTSA, February 15, 1996. www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/CODES/codes_rn.pdf

Observational surveys are the most accurate, and therefore credible, method of determining seat belt use rates, as they collect information on what people actually do, rather than what people say they do. Observational surveys should be conducted before and after program activity and enforcement efforts, in exactly the same way each time, using the same locations, directions of travel, days of the week, and times of day. (See Appendix A for a sample seat belt observation form.)

Telephone and in-person surveys can collect self-reported seat belt use rates, which can reveal characteristics of groups with low use and their reasons for not using seat belts. This knowledge can be useful in defining and shaping educational and enforcement efforts.[4] (See Appendix B for a sample in-person survey form.)

The Importance of Primary Seat Belt Laws

Seat belt laws in many States are secondary enforcement laws. This means that police officers cannot stop drivers for the sole purpose of enforcing the use of occupant restraints. Rather, police officers can write tickets for not using occupant restraints only if they stop the vehicle for another driving infraction. As of September 2006, 24 States still have secondary laws, while 25 States, the District of Columbia, and Puerto Rico have primary laws. Only one State, New Hampshire, does not have any adult seat belt use law.

States with stronger belt enforcement laws continue to exhibit generally higher use rates than those with weaker laws. South Carolina strengthened its belt law to a "primary" enforcement law, effective December 2005. This State saw a jump in use from 65.7 percent in 2004 to 69.7 percent in 2005. Because the 2005 survey was conducted before the primary law took effect, greater gains may be realized in 2006.

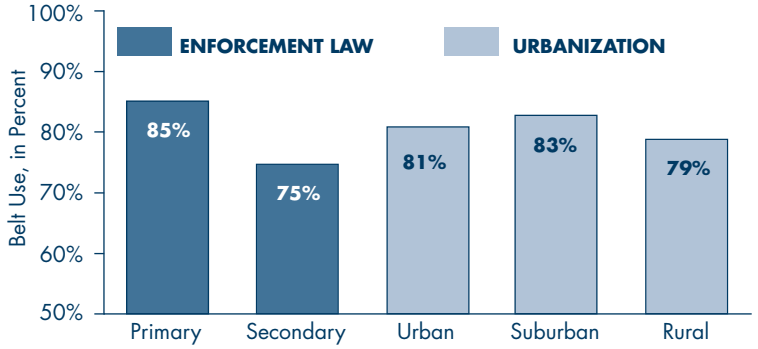
The greatest success in increasing seat belt use occurs in States with primary belt laws that are enforced. In 2005, the national seat belt use rate reported by NHTSA was 82 percent. The national use rate is based on the National Occupant Protection Use Survey (NOPUS) conducted by NHTSA, separate from the State Belt Use Surveys tallied above.

The 2005 State surveys show the average use rate for primary law States was 85.5 percent and 75 percent for secondary law States. Similarly, the NOPUS Survey showed an average of 85 percent for primary law States and 75 percent for secondary law States. The difference in seat belt laws may also contribute to lower use rates in rural areas because there are more secondary laws in States with large rural populations. See the following chart.

In tracking national belt use rates since 1984, the following chart further shows the effect of seat belt use laws and adoption of primary laws on national use rates through 2005.

4 Excerpt from Implementing a Standard Seat Belt Law in Your State: A How-To Guide. DOT-HS-809-291, June 2001. www.nhtsa.dot.gov/people/injury/airbags/buckleplan/enforceseatbeltlaws/page3.html#sub1

Seat Belt Use by Ambient Enforcement Law and Urbanization

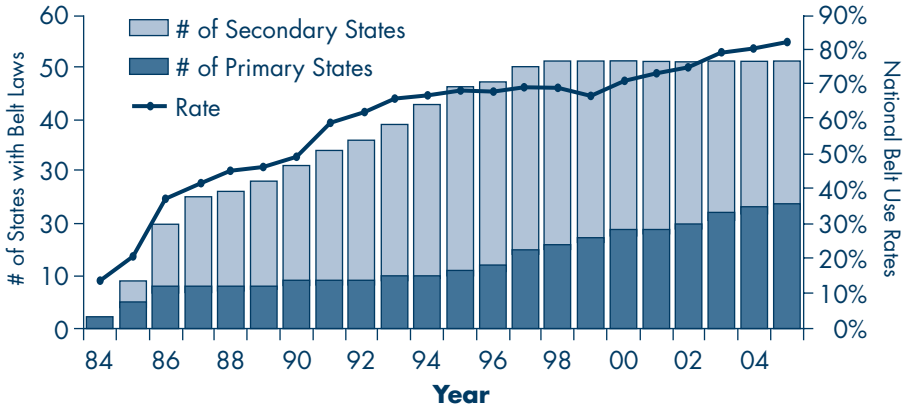


Source: National Occupant Protection Use Survey, NHTSA's National Center for Statistics and Analysis, 2005

Improving Secondary Seat Belt Laws

Competing political and legislative priorities, concerns about personal liberties, and misinformation about the effectiveness of seat belts continue to

State* Belt Laws & National Belt Use Rates



Source: State Surveys and NOPUS
*Includes Puerto Rico and District of Columbia

interfere with efforts to upgrade secondary laws. However, this does not mean that a secondary law cannot be improved so that some or all of the benefits of a primary law – enforceability and deterrence – are achieved. The following case study provides an excellent example of how a coalition of health and traffic safety professionals persuaded their legislature to improve the Idaho secondary seat belt law.

Idaho had conducted significant enforcement and education efforts to improve seat belt use rates, but belt use had increased only about 5 percentage points (from 58% in 1999 to 63% in 2002). Dedicated health and traffic safety specialists realized that there were problems with the

law. The cost of a ticket was only $5 – the lowest fine in the country – and the law applied only to front-seat passengers. However, the biggest stumbling block was that the law required an officer to write a ticket for the primary offense before a ticket for not using a seat belt could be issued. For example, an officer who pulled over an unbelted driver for going 5 mph over the speed limit had to issue tickets for ***both*** speeding and failure to use seat belts in order to give the seat belt ticket at all. When the primary violation wasn't too extreme, the officer knew that it was unlikely that the ticket would be upheld in court.

To address this problem with enforceability, highway safety partners (especially public health) worked together on a media advocacy program to modify the law. They sent documentation to the legislature and developed multi-media material that focused on the costs to society of motor vehicle crashes. The main message was positioned as a question, "Can Idaho afford the cost of not buckling up?" Answers to the question addressed the percentage of crash costs that were passed on to the public and the annual medical costs of crashes per resident. Messages typically ended with the slogan, "Seat belts . . . a matter of dollars and sense."

The program worked. As of July 1, 2003, the law was changed. The new law pertains to all seating positions in the vehicle. A citation for the primary stop is no longer required – an officer can issue a seat belt ticket alone, as long as another violation was observed to warrant the stop. The fine was changed to $10 for adults, $5 of which goes to the State's catastrophic health care fund to cover crash costs. If there is an unrestrained passenger under 18, the driver gets the ticket. For drivers under 18, the cost is $42.50 ($10 plus court costs).

Prior to the enactment of the changes to the law, the State initiated an intensive public information campaign. Using the slogan "Click It, Don't Risk It," billboards portrayed young (18- to 34-year-old) males in pickup trucks. The campaign also included radio and television advertising followed by increased enforcement. As a result, seat belt use rose to 72 percent – an increase of nearly 10 percentage points. The success of the new law and the fact that Idaho is still well behind the nationwide use rate of 82 percent has prompted renewed efforts for a further upgrade to a primary law.

Forming Private-Public Sector Partnerships

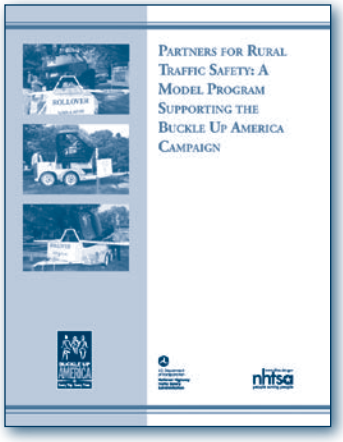
There are many benefits to forming partnerships, coalitions, and advisory groups. Public and private sector individuals and organizations can directly and indirectly support a rural seat belt program and expand its reach. In some instances coalitions and advisory groups are used to lend credibility and access to various populations within a community. In other instances, partnerships are formed with groups that have direct contact with a particular sub-group that is known to have a low seat belt use rate. Still other

groups can demonstrate support by distributing information about seat belt use to clients, customers, and employees.

When forming partnerships in rural areas it is important to join with other organizations that promote health and safety, these include local highway offices that are responsible for making roads safer for driving. The following information on multi-sector traffic safety teams and injury prevention organizations demonstrate the benefits of working with these other types of organizations and individuals.

Multi-Sector Traffic Safety Teams

Safe Community Coalitions. Through the Safe Communities Program, advocates from the fields of prevention, acute care, and rehabilitation form local coalitions to address injury prevention and control, with a special emphasis on motor vehicle-related injuries. The program provides a model for reviewing multiple sources of injury and cost data to clearly identify local problems. It allows citizens to accurately predict when and where motor vehicle-related injuries are most likely to occur and to take the best course of action to keep them from happening. To find out more about the Safe Communities program go to www.nhtsa.dot.gov/safecommunities.



Partners for Rural Traffic Safety. Another successful model for building a multi-sector team at the State and local level was developed through the NRHA's Partnership for Rural Traffic Safety Project. The Association, working with State Offices of Rural Health in Arizona, Colorado, Michigan, and North Dakota, identified 16 rural communities in which to implement traffic safety campaigns. An integral part of the project was the formation of State teams to provide technical assistance to the local communities. State team members were drawn from health care organizations, traffic safety offices, State police agencies, cooperative extension units, and other pertinent organizations.

The project was designed so that the local campaigns would coincide with the seat belt mobilizations conducted by the national *Buckle Up America, Click It or Ticket* program. The State Offices of Rural Health administered $5,000 grants to each community to cover the costs associated with campaign implementation and the community development process. Community team leaders, who were representatives of the health sector, were responsible for getting commitments from five other sector representatives, e.g., law enforcement, business, education, faith community, and the community at large, to participate on the local team. All team members were responsible for organizing activities and getting their sectors involved in the campaign.

In 15 of the 16 communities, seat belt use increased significantly. Seven sites reported an increase of more than 30 percentage points, and

two sites reported an increase of more than 20 percentage points. In addition to increasing seat belt use, the project demonstrated the important role that rural health and safety professionals can play in promoting traffic safety, specifically occupant protection, in rural communities. Many of the project team members expressed the likelihood of continuing the effort—fruitful seeds for future Safe Communities Coalitions.

Highway Department Corridor Programs. Local highway departments that are responsible for roadway safety are willing partners for the promotion of all traffic safety issues, especially seat belt use. Department engineers use the corridor program model to reduce crashes, injuries, and fatalities on specific stretches of a roadway that have high motor vehicle crash and fatality rates. These programs look for ways to combine low-cost engineering improvements, PI&E, and enforcement.

The State of Washington developed a corridor program for one of its rural two-lane roads in the eastern part of the State. On this road, there were several over-the-centerline crashes caused by passing vehicles. To address the problem, centerline rumble strips were installed, enforcement was increased, and *Click It or Ticket* signs were mounted on the roadway. This initiative was so successful that it received the 2002 Governor's Award for Public Benefit.

Another example of how advocates came together to address several traffic safety issues occurred in Pennsylvania. Along a stretch of rural roadway, the Pennsylvania Department of Transportation posted signs that encouraged drivers to wear their seat belts, to avoid aggressive driving, and not to drink and drive. It also lowered the speed limit on a portion of the corridor that went through a township.

The Federal Highway Administration and several State Departments of Transportation also have successfully incorporated seat belt education and enforcement into their engineering programs. For more information about these programs contact your State Department of Transportation or district Federal Highway Office.

Injury Prevention Organizations

Public and private sector injury prevention organizations make excellent partners for promoting seat belt use. Health care, emergency medical services, public health, and other safety organizations all have a stake in increasing seat belt use rates. The follow examples highlight two very different approaches that support seat belt use.

Oregon's Injury Prevention Program. The State of Oregon's injury prevention program addresses all ages and causes of injury, death, and disability. It also includes a seat belt alternative sentencing class that a judge can assign as the penalty for a first-time seat belt offense. The class, *Trauma Nurses*

Talk Tough, is taught by nurses and paramedics and addresses the facts concerning the need for and benefits of seat belt use.

Joanne Fairchild, a trauma nurse coordinator for the program, has reported that the most common remark she receives from people who attend the class is, "I wish I had known this information before … why is this class not a requirement for getting a driver's license?" One woman called her to say that she didn't know what was covered in the class, but her husband, who attended the class, came home afterwards, ordered the whole family into the dining room, and apologized for not listening to them about seat belts. Fairchild commented that, "I have had people say it not only changed their attitude and behavior about seat belts, but changed how they are raising their children."

Emergency Nurses Association (ENA). The ENA and its Injury Prevention Institute, Emergency Nurses CARE (ENCARE), actively promote traffic safety and injury prevention at the national, State, and local levels. Association members deliver alcohol awareness programs to educate the public about the dangers of alcohol, drinking and driving, and seat belt non-compliance. They also deliver programs on bicycle safety and proper helmet use, along with other injury prevention education. ENCARE volunteers present programs to over 300,000 people a year. Many ENCARE nurses also are certified Child Passenger Safety (CPS) Technicians and Instructors. They participate in CPS educational programs and volunteer at safety seat checks in their communities. For more information: E-mail encare@aol.com or write ENA/EN CARE 915 Lee Street Des Plaines, IL 60016-6569, or telephone at: 847-460-4000.

Conducting High-Visibility Enforcement

To address the reality of limited police patrol hours, especially in rural communities, law enforcement agencies use a general deterrence model to create the belief that law enforcement officers are positioned in the community to enforce traffic safety laws. This model combines intermittent enforcement waves with carefully designed communications strategies to convince large numbers of people that they are at risk of being ticketed.

Reports from NHTSA demonstration projects and other rural traffic safety programs, point to the benefits of having law enforcement officers conduct highly visible community outreach prior to enforcement waves. In many of these projects (see below), law enforcement officers participated in communication activities in the schools, at community fairs, and at other venues in which community members gathered. Their participation let community members know that they cared about the health and welfare of the community and also increased their (the officers) comfort level with enforcement activities.

Click It or Ticket Campaigns

In recent years, *Click It or Ticket* campaigns, which are based on the general deterrence model, have emerged as a major means of increasing seat belt use. *Click It or Ticket's* proven success has been demonstrated at the community level, statewide, regionally, and nationally. In May 2005, 50 States, the District of Columbia, and Puerto Rico participated in the national annual *Click It or Ticket* Mobilization that raised the national seat belt use rate from 80 to 82 percent (this means that approximately 2.8 million more people are buckling up).

Click It or Ticket campaigns involve a 2-week period of intensive enforcement of seat belt laws, coupled with extensive media and outreach communications including paid advertising. These nationwide mobilizations are conducted each May in conjunction with Memorial Day Weekend/ *Buckle Up America* Week. In 2005, more than 10,000 law enforcement agencies across the Nation participated. Some areas also conduct additional mobilizations at other times during the year. *Click It or Ticket* planners and program information are available on the *Buckle Up America* Web site at www.buckleupamerica.org and NHTSA's Web site at www.nhtsa.gov.

Dispelling Concerns about Enforcing Seat Belt Laws in Rural Areas

In the past, low seat belt use and law enforcement rates raised concerns about the viability of high-visibility enforcement and communications strategies for increasing seat belt use in rural communities. Concerns stemmed from perceptions that (1) law enforcement officers in rural communities were reluctant to give citations to friends or acquaintances, (2) elected law enforcement leaders felt that their political careers would suffer if they cracked down on voters who did not buckle up, and (3) rural communities did not believe that seat belt use was necessary in rural areas. Related to these perceptions was the question of whether a rural seat belt program could target a sub-group, such as pickup truck drivers, who are known to have lower seat belt use rates.

To address these concerns, NHTSA and State Highway Safety Offices have funded local demonstration projects to identify effective strategies for developing rural seat belt programs. Since 1996, NHTSA also has worked with the National Rural Health Association (NRHA) to demonstrate the effectiveness of a community development/action program to promote rural traffic safety by implementing local traffic safety campaigns. The program is set forth in a NHTSA publication titled *Partners for Rural Traffic Safety Action Kit*. It embraces the basic tenets of community organizing and direct citizen involvement in addressing concerns that affect the entire community.

Other Special Seat Belt Enforcement Programs

In rural communities, law enforcement personnel have undertaken variations on the *Click It or Ticket* campaign, along with other approaches and activities that support general deterrence. The following summaries and case studies of special seat belt enforcement programs describe a variety of projects, approaches, and activities that have been effective in increasing seat belt use.

Special seat belt enforcement programs are often initiated with the availability of grant funds or when local safety advocates lobby for enforcement of occupant protection laws. Although these programs can achieve dramatic increases in seat belt use in a relatively short period of time, if the program stops, belt use rates tend to decline. However, research has shown that use rates usually do not completely decline to where they were before the program started. Moreover, if the programs are re-instated periodically, the residual seat belt use rate increases after each successive enforcement effort. The following case studies illustrate how the State of West Virginia, eight counties in Pennsylvania, and a Sheriff's Office in Oklahoma are working to maintain special seat belt enforcement programs in their jurisdictions.

West Virginia's Incentives for Law Enforcement Participation. For the past six years, West Virginia has had a seat belt incentive program to encourage all West Virginia law enforcement agencies to enforce occupant protection laws and promote the benefits of seat belts and child safety seats. Incentives for participation include additional funding for local agencies and all-expenses paid training trips for individual officers.

Many of the participants in the program come from small departments, and the program is set up so that small and large departments have an equal chance of winning. There are 11 categories of activities that officers can engage in to receive credits ranging from ticket writing to community presentations. The seat belt use rate in West Virginia increased from 52.3 percent in 2001 to 84.9 percent in 2005.

Pennsylvania's Regional Comprehensive Highway Safety Program. The North Central Highway Safety Network conducts a year-round seat belt program in eight counties, seven of which are rural, that includes enforcement and outreach. Since Pennsylvania has a secondary enforcement law, law enforcement agencies use traffic safety checkpoints as an opportunity to write seat belt citations, as appropriate. In four scheduled mobilizations each year, vehicles are stopped for license, registration, and insurance information checks. To encourage seat belt use year-round, law enforcement officers hang plastic "Seat Belt ✓" signs on the side of their vehicles and turn on their flashing lights when they stop to do paperwork. As a result, motorists are never quite sure when checkpoints are taking place.

In addition, officers make presentations to community groups and at schools. They also lend an educational program, *Survival 101,* to middle schools and high schools (the presentation is available in slide, video, and DVD formats). It first addresses the benefits of seat belt use and then describes a crash from the police perspective.

Using this approach, the North Central Highway Safety Network found it could increase seat belt use by 20 percentage points in a 1-week period. One month later, half of that increase was typically lost, but the overall State seat belt use level in the eight counties increased approximately 20 percentage points in 2 years.

Oklahoma's Oklahoma County Traffic Unit. Oklahoma County is the largest county in the State with an area of 775 square miles. The Sheriff's office is responsible for unincorporated areas of the county (175 square miles). There had never been a traffic unit in Oklahoma County before John Whetsel took office as sheriff. In the words of Sgt. Darrell Sorrells: "The major concern was politics – the sheriffs were concerned that they would not be reelected if residents were cited for traffic violations."

Sheriff Whetsel, an advocate for traffic safety, received a grant from the Oklahoma State Highway Safety Office to fund the acquisition of staff and equipment to start a traffic unit. The grant required officers to give warnings or citations for any traffic safety violation. Under Sheriff Whetsel's leadership, the department adopted a zero-tolerance policy for people not wearing seat belts. The program has been firmly established and continues to grow on its own without additional funding by the State.

As Sgt. Sorrels put it, "The safety unit had no effect on politics." In fact, Sheriff Whetsel is now in his second 4-year term." In addition, residents come up to them now and say they are glad that traffic safety laws are being enforced in the county. Seat belt use has gone from 46.6 percent to 76.2 percent. As a side benefit, collisions are down by 67 percent and reported crimes by 88 percent.

COMMUNICATIONS STRATEGIES

Communications strategies work hand in hand with public/private partnerships, strong legislation, and high visibility enforcement. It is a broad category that encompasses all types of activities.

Of special note for rural communities is an observation made by the two project directors of NHTSA's Pickup Truck Demonstration projects in Florida and South Dakota. They both indicated that a single-message seat belt campaign, based on an increased chance of getting a ticket (enforcement), does not carry the same weight in rural communities as it does in urban and suburban ones. They felt that the more personal relationship between enforcement personnel and community members, and

the larger areas that officers must cover, made it important to include other messages to which rural residents respond. The messages they used were based on themes regarding making the right choice, personal responsibility, and serving as a family role model for safe behavior.

Another approach that has been successful in rural communities is the use of seat belt incentive programs. Several years before the enactment of Montana's seat belt law, 1-year driver incentive programs to increase seat belt use were implemented in 13 communities. Local businesspeople donated prizes and volunteers served as spotters for people who were wearing seat belts. They gave out coupons for hot dogs/hamburgers and an entry blank to participate in drawings for larger prizes. Drawings were held once a month and a final drawing was held at the end of the year. At the drawings, success in increasing seat belt use was reported and sometimes survivors spoke of their crash experiences.

One year after Montana's seat belt law was enacted, a petition was circulated to rescind it. Petitioners spent approximately $400,000 on a public information campaign to oppose the buckle up requirement. The petition failed. In analyzing the pattern of returns, it was noted that most of the votes to keep the law came from the communities that participated in the driver incentive program.

As noted earlier, rural communities have identified the benefits of working with law enforcement agencies to create and conduct communications strategies. The following case studies illustrate three programs for youth, followed by two special campaigns that combine communications, education, outreach, and enforcement to reach pickup truck drivers.

Programs for Youth

Buckle Up or Eat Glass. This program was designed to teach young people to plan and carry out seat belt campaigns in rural areas. Developed by Farm Safety 4 Just Kids, it focuses on drivers and occupants in pickup trucks and adolescents in grades 7 through 10. The program includes five components: an educational presentation by an expert on rural roadway safety, media promotion, a roadway check of seat belt use in pickup trucks, follow-up recognition of teenagers "caught" wearing their seat belts while riding in pickup trucks, and an evaluation of program success.

The project manual contains instructions and materials so that youth groups can plan and carry out their own programs. The program was pilot tested at 78 rural sites in 18 States where data showed positive changes in attitudes and behaviors in relation to seat belt use. When this document went to press, the program was being implemented in 17 rural areas in Iowa.

High School Seat Belt Policy. Personnel from the New Kent County, Virginia, Sheriff's Office observed a seat belt use rate of about 50 percent among high school students, both drivers and passengers. To encourage seat belt

use, they worked with the high school administration and the superintendent of schools to institute a mandatory seat belt policy for teen drivers who had parking privileges on school grounds. The Sheriff's Office, high school administration, and the superintendent of schools brought the matter before the county school board, and the board voted unanimously to approve the proposed seat belt policy.

The policy requires drivers and passengers to wear seat belts when arriving and departing from the high school grounds. Penalties for not buckling up are:

- First Offense: The student receives a written or verbal warning that is documented in the student's discipline file.
- Second Offense: A letter is sent to the student's home and a copy is placed in the student's discipline file.
- Third Offense: The student loses one week of parking privileges on school grounds.
- Fourth Offense: The student loses parking privileges for the remainder of the school year.

After the policy was instituted, the seat belt compliance rate at the high school rose to 98 percent.

Special Student Coalitions. Law enforcement officers in Soda Springs, Idaho, knew that seat belt use was not popular among high school students in their community, as evidenced by a 27.5-percent seat belt use rate among this group. However, instead of forming a student coalition from the general high school population, they identified students who were minor violators and repeat offenders from the juvenile justice system. Working with juvenile probation officers they gave student offenders the option to earn community service time by becoming coalition members.

The coalition established a goal to raise the seat belt use rate to 85 percent. It implemented a variety of educational activities, starting with an assembly at which four people told of tragic experiences resulting from seat belt nonuse. In one instance, a woman told how she lost her 3-year-old child as a result of injuries sustained in a crash that occurred the first time the child rode unrestrained. In another, a quadriplegic spoke about cervical spine injuries resulting from a crash. An observational survey taken the next day reported seat belt use at 49 percent, almost double the baseline rate.

Another activity was designed to communicate the fact that someone dies in a motor vehicle crash approximately every 13 minutes. To make this point, coalition members painted a student's face white every 13 minutes. Once the student's face was painted the student was not allowed to talk for the remainder of the day. In addition, the local Subway sandwich shop offered to sponsor a "Subway Challenge Party" for the entire school

if it raised seat belt use to 85 percent. Although they did not meet the Subway challenge, they did raise the seat belt use rate to 70.6 percent – more than two and one-half times the starting rate.

Programs to Reach Pickup Truck Drivers

Increasing the Seat Belt Usage Rate Among Rural Pickup Truck Drivers. Pickup truck occupants have the lowest seat belt use rates of all passenger vehicle occupants, especially in rural areas. In September 2001, NHTSA awarded two demonstration projects to increase seat belt use among pickup truck occupants in rural communities. One project took place in Santa Rosa County, Florida; the other took place in 12 contiguous counties in South Dakota. These 15-month Cooperative Agreements were designed to measure the effectiveness of communications strategies, supported by highly visible enforcement, in achieving this increase.

In spite of the differing characteristics of the two sites, project staff at both sites identified a strong need to address how rural pickup truck occupants relate to the law enforcement community (in addition to other attitudinal and behavioral characteristics). When it came to project implementation, both projects:

- worked to enhance the image of law enforcement personnel as caring community members who are concerned about the personal safety of community members;
- used law enforcement personnel as "educators" as well as "enforcers"; and
- implemented campaigns that "worked towards" enforcement by involving law enforcement personnel in positive reinforcement activities designed to reward seat belt use (rather than starting with a strong enforcement message and citations for nonuse).

In the end, both project recipients acknowledged that participation and buy-in from their respective law enforcement agencies were the overriding factors contributing to increased seat belt use.

A Local *Click It or Ticket* Program Targeting Rural Pickup Truck Drivers. Twenty-eight percent of registered vehicles in Pottsville, Pennsylvania, located in rural Schuylkill County, are trucks, primarily pickups. Many of the drivers of these trucks are less than 35 years old and, based on State observational data and crash and fatality data are known to have low seat belt use rates. Pottsville and four neighboring small towns took on the challenge of addressing this subgroup of drivers.

The Pottsville police established a task force to plan and implement a *Click It or Ticket* seat belt education and enforcement program that focused on pickup truck drivers. This was accomplished by using visuals

of pickup trucks and pickup truck drivers in the multi-media and educational material the task force created. The task force also sponsored child safety seat checks at pickup truck dealerships.

In addition to paid and public service print and broadcast advertising, the task force delivered its enforcement message using low-cost media and outreach activities. These included road signs, posters in public businesses, presentations to community organizations, pamphlets distributed at local banks, presentations at schools, and live radio broadcasts featuring belted drivers.

Law enforcement agencies conducted seven enforcement waves during seven successive months. Based on observational surveys conducted before the first enforcement wave and after the last one, all jurisdictions showed increases in belt use, ranging from 4 to 39 percentage points. A survey conducted as part of the program's evaluation showed that the program also was very successful in creating awareness among local residents. Almost everyone surveyed (93%) was aware of the program, and 90 percent of those who did not use a belt before the program said they would wear one after being exposed to the campaign.

MAKING THE CASE FOR YOUR RURAL SEAT BELT PROGRAM

National and State injury and fatality data leave no doubt of the need for rural seat belt programs. Therefore, it remains the responsibility of each rural community to make the case for establishing a program that meets the needs of its residents. As presented in this booklet, there are numerous models for successful programs and activities.

Gather the Facts

Gathering motor vehicle injury and fatality data, along with information on roadways on which large numbers of crashes occur, will provide the documentation needed to make your case to people and organizations in your community. In addition to the data collected by NHTSA, law enforcement agencies, hospitals, highway departments, and State Highway Safety Offices all have access to the most recently available information on specific localities. Once you have the facts, talk to others who are involved in injury prevention and control about the best approach for increasing seat belt use in your community.

Tailor the *Buckle Up America* Approach

As previously described, strong seat belt laws, public/private partnerships, highly visible enforcement, and PI&E are the keys to a successful seat belt program. Make sure to include strategies for each as you plan your program and gather support for its implementation.

Don't Wait

Realistically, the risk of death and serious injuries will always be higher in rural than in urban areas. Speeds are higher and the distances traveled – both for drivers and for lifesaving emergency services when a crash occurs – will always be greater. Whether you are a private citizen, an elected official, a law enforcement officer, a health official, or someone responsible for safety programs, it is essential that you make increasing seat belt use a community safety priority.

Contacts and Resources

Each State's Highway Safety Office is responsible for coordinating the State's Highway Safety Program. It is your primary contact for program information and available resources. In addition, NHTSA has ten Regional Offices that oversee State programs and provide technical assistance and training. Contact information is available on the NHTSA Web site at www.nhtsa.dot.gov.

The *Partners for Rural Traffic Safety Action Kit* and the *Building a Safe Community Buckle Up Action Plan* are available online at www.nhtsa.dot.gov.

You can also visit NHTSA's Web site at www.nhtsa.dot.gov to find other resources to augment your program efforts. Another valuable online resource is the *Buckle Up America* Web site at: www.buckleupamerica.org.

NHTSA is currently sponsoring three region-wide demonstration projects (2005-2006) focusing on increasing seat belt use in rural areas and among pickup truck occupants. Details on these projects and how you can become involved can be found on the following Web sites:

- Great Lakes Region-wide Rural Seat Belt Initiative: www.greatlakesproject.org/. Covering the States of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
- South Central Region-wide Buckle Up in Your Truck Campaign: www.buckleupinyourtruck.com/. Covering the States of Arkansas, Louisiana, New Mexico, Oklahoma, Texas, and Indian Nations
- Southeast Region-wide Buckle Up in Your Truck Campaign: www.pickupsafetybelt.com/. Covering the States of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee

APPENDIX A: SEAT BELT OBSERVATION DATA COLLECTION FORM

SITE NUMBER: _____ SITE: _____

DATE: _____ DAY OR WEEK: _____

START TIME: _____ DURATION: ____1-HOUR OR ____100 VEHICLES

DIRECTION OF TRAFFIC FLOW (Circle one or two): N S E W

WEATHER:

___ 1 Clear / Sunny ___ 4 Fog

___ 2 Light Rain ___ 5 Wet But Not Raining

___ 3 Cloudy

NOTES: _____

		Driver		Passenger				Driver		Passenger				Driver		Passenger	
Veh. #	Vehicle C = car T = truck S = suv V = van	Sex M = male F = female U = unsure	Use Y = yes N = no U = unsure	Sex M = male F = female U = unsure	Use Y = yes N = no U = unsure	Veh. #	Vehicle C = car T = truck S = suv V = van	Sex M = male F = female U = unsure	Use Y = yes N = no U = unsure	Sex M = male F = female U = unsure	Use Y = yes N = no U = unsure	Veh. #	Vehicle C = car T = truck S = SUV V = van	Sex M = male F = female U = unsure	Use Y = yes N = no U = unsure	Sex M = male F = female U = unsure	Use Y = yes N = no U = unsure
1						36						71					
2						37						72					
3						38						73					
4						39						74					
5						40						75					
6						41						76					
7						42						77					
8						43						78					
9						44						79					
10						45						80					
11						46						81					
12						47						82					
13						48						83					
14						49						84					
15						50						85					
16						51						86					
17						52						87					
18						53						88					
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21						56						91					
22						57						92					
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24						59						94					
25						60						95					
26						61						96					
27						62						97					
28						63						98					
29						64						64					
30						65						99					
31						66						100					
32						67						T	O	T	A	L	S
33						68						# Veh	C =	M =	Y =	M =	Y =
34						69							T =	F =	N =	F =	N =
35						70							SUV =	U =	U =	U =	U =

Supplementary vehicle counts: 10 minutes prior: _____ 10 minutes after: _____

Vehicle count based on _____ lanes out of _____ in { one both } direction(s).

Page: ____ of ____

APPENDIX B: SAMPLE IN-PERSON/PUBLIC OPINION SURVEY

The Division of Motor Vehicles is assisting in a study about seat belts. Your answers to the following questions are voluntary and anonymous. Please complete the survey and then put it in the drop box.

1. Your sex ☐ Male ☐ Female

2. Your age ☐ Under 21 ☐ 21–25 ☐ 26–39 ☐ 40–49 ☐ 45–59 ☐ 60+

3. Your race ☐ White ☐ Black ☐ Asian ☐ Native American ☐ Other

4. Are you of Spanish/Hispanic origin? ☐ Yes ☐ No

5. Your zip code: _____

6. About how many miles did you drive last year?
   ☐ Less than 5,000 ☐ 5,000–10,000 ☐ 10,001–15,000 ☐ More than 15,000

7. What type of vehicle do you drive most often?
   ☐ Passenger car ☐ Pickup truck ☐ Sport utility vehicle
   ☐ Mini-van ☐ Full van ☐ Other

8. How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle or pickup truck?
   ☐ Always ☐ Nearly always ☐ Sometimes ☐ Seldom ☐ Never

9. What do you think the chances are of getting a ticket if you don't wear your seat belt?
   ☐ Always ☐ Nearly always ☐ Sometimes ☐ Seldom ☐ Never

10. Do you think the Highway Patrol enforces the seat belt law?
    ☐ Very strictly ☐ Somewhat strictly ☐ Not very strictly ☐ Rarely ☐ Never

11. Do you think local police enforce the seat belt law?
    ☐ Very strictly ☐ Somewhat strictly ☐ Not very strictly ☐ Rarely ☐ Never

12. Have you ever received a ticket for not wearing your seat belt?
    ☐ Yes ☐ No

13. In the past month, have you seen or heard about a checkpoint where police were looking at seat belt use?
    ☐ Yes ☐ No

14. In the past month, have you gone through a checkpoint where police were looking at seat belt use?
    ☐ Yes ☐ No

15. Have you recently read, seen or heard anything about seat belts in your state?
    ☐ Yes ☐ No

    If yes, where did you see or hear about it? (check all that apply)
    ☐ Newspaper ☐ Radio ☐ TV ☐ Poster
    ☐ Brochure ☐ Police checkpoint ☐ Other

    If yes, what did it say?_____

16. Do you know the name of any seat belt enforcement program(s) in your state? (check all that apply)
    ☐ No Excuses, Buckle Up
    ☐ Buckle Up America
    ☐ Click It or Ticket
    ☐ Operation 35, Buckle Up Stay Alive

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