



National Highway Traffic Safety Administration  
Traffic Safety Countermeasures  
That Work in **Rural Communities**

## Why Rural?

Rural America makes up 97% of the Nation's land mass and—at the time of the 2020 U.S. Census—was home to more than 66 million people or 20% of the U.S. population (U.S. Census Bureau, 2023). While the U.S. Census Bureau defines rural as “all population, housing, and territory not included within an urban area,” rural definitions vary across the Federal Government and even within the U.S. Department of Transportation. The USDOT typically defines a rural area based on the community's location in relation to a U.S. Census-designated urban area of certain populations (e.g., the community is located outside of a U.S. Census-designated urban area with a population of 50,000 or more).<sup>1</sup> Regardless of the definition used, the communities that comprise rural America are distinctive and may vary by geography and population. The distinct characteristics of Tribal Nations in rural areas must be noted as well. Still, rural communities have a few things in common—they are critical to our nation's economic competitiveness and well-being, and they face challenges that impede their safety.

Rural roads are disproportionately affected by the ongoing crisis on our Nation's roadways. While only 20% of the U.S. population live in rural areas, the fatality rate per 100 million vehicle miles traveled (VMT) in 2021 was 1.5 times higher in rural areas than in urban areas (NCSA, 2023). Behavioral (e.g., speeding and higher speed limits), infrastructural (e.g., poor roadway conditions), and other factors (e.g., longer emergency response times) affect rural communities more adversely than urban communities, causing this gap to persist over time.

One reason for the higher fatality rates in rural areas concerns EMS. Emergency response times can be much greater in rural America due in part to the limited number of EMS personnel, large coverage areas, and long distances to trauma centers. In 2021 some 69% of drivers killed in rural areas died at the scenes of the crashes, compared to 52% of drivers killed in urban areas. Of all drivers who were transported to hospitals and died en route, 56% were in rural areas compared to 44% in urban areas (NCSA, 2023). The availability of emergency responders and access to trauma centers are essential to survival in rural crashes.

When a serious injury or fatal crash occurs, it can affect the entire community and have a devastating ripple effect on the community's social and economic fabric. The impact can be even more apparent in the smallest and most remote communities. Therefore, it is important that people living in and serving rural communities are knowledgeable about traffic safety countermeasures that can save lives.

## What is a Countermeasure?

The countermeasures presented in this guide provide an overview for traffic safety stakeholders to familiarize themselves with behavioral strategies and identify opportunities to implement programs in their communities. Countermeasures are the basis for effective programs that save lives, prevent crashes, and make our roads safer for everyone.

The effectiveness of any countermeasure varies immensely across States and communities. What is done is often less important than how it is done. The best countermeasure may have little effect if it is not implemented vigorously, publicized extensively, and funded appropriately. The countermeasure effectiveness data presented in this guide shows the maximum effect that has been realized with high-quality implementation. Effectiveness ratings are based primarily on demonstrated reductions in crashes; however, changes in behavior and knowledge are factored into the ratings when crash information is not available. Countermeasure effectiveness is shown using a 5-star rating system:

**5 Stars (★★★★★)** — Demonstrated to be effective by several high-quality evaluations with consistent results.

**4 Stars (★★★★)** — Demonstrated to be effective by several high-quality evaluations in certain situations.

**3 Stars (★★★)** — Likely to be effective based on balance of evidence from high-quality evaluations.

**2 Stars (★★)** — Limited evaluation evidence but adheres to principles of human behavior and may be effective if implemented well.

**1 Star (★)** — No evaluation evidence but adheres to principles of human behavior and may be effective if implemented well.

## NHTSA Countermeasures

### SPEED

Lower Speed Limits

Dynamic Speed Display/Feedback Signs

### ALCOHOL-IMPAIRED DRIVING

Alcohol Ignition Interlocks

Publicized Sobriety Checkpoints

DWI Courts

DWI Offender Monitoring

Alcohol Vendor Compliance Checks

Alternative Transportation

Alcohol-Impaired Driving Mass Media Campaigns

### SEAT BELTS AND CHILD RESTRAINTS

Short-Term, High-Visibility Seat Belt Law Enforcement

Nighttime, High-Visibility Seat Belt Law Enforcement

Communication Strategies for Low-Belt-Use Groups as Part of High-Visibility Enforcement (HVE)

Programs for Increasing Child Restraint and Booster Seat Use

<sup>1</sup> See the Bureau of Transportation Statistics Rural Funding Eligibility Tool for additional information on USDOT's rural definitions, [www.transportation.gov/rural/eligibility](https://www.transportation.gov/rural/eligibility).

## How Can I Get Started?

Community engagement across interdisciplinary partners is key to successfully implementing traffic safety countermeasures and is a common theme in [Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices](#) 11th edition (Kirley et al., 2023), commonly abbreviated as CMTW. A traffic safety coalition, community action group, or task force is a great place to begin exploring ways to implement safety countermeasures for rural areas. Initial steps to support meaningful public involvement and traffic safety improvements in rural communities might include:

- Convening health educators, child passenger safety technicians, county/city engineers, law enforcement (e.g., highway patrol, county sheriff, and city officers), emergency medical services (e.g., local volunteers and paramedics), and trauma hospital specialists (e.g., managers and emergency room doctors), as well as people working in the judicial system (e.g., lawyers and advocates) to discuss common and unique traffic safety challenges.
- Requesting local crash, injury, fatality, observation, and self-report survey data from your highway safety office or local law enforcement.
- Reviewing the data and working together as a team to see what your communities' trends are and how to address them.
- Meeting your local traffic safety stakeholders to determine community goals and next steps.

Resources exist to support practitioners and researchers interested in evaluating or establishing traffic safety programs. For example, NHTSA developed [A Primer for Evaluating Underage Drinking and Driving Programs](#) as a practical guide that explains program evaluation and provides information that is specific to underage drinking and driving (Ankem et al., 2021).

While this resource does not address funding, the USDOT has other resources on grant opportunities. For information on USDOT-wide grant opportunities, the [DOT Navigator](#) website can help you apply for grants, identify existing resources, and answer questions on how to connect with funding opportunities. For information on NHTSA's State Highway Safety Grants Program, please visit [Highway Safety Grants Programs](#) or [NHTSA Resources Guide](#) pages.

## About This Guide

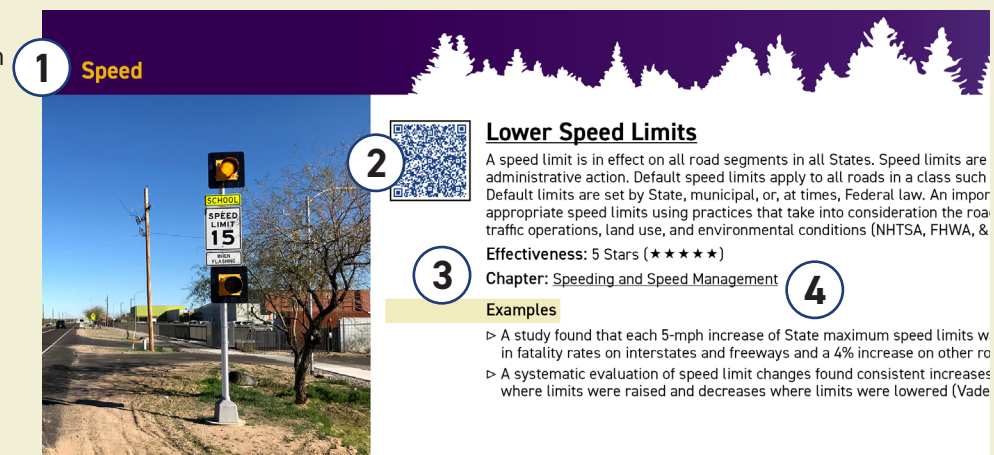
The National Highway Traffic Safety Administration has identified behavioral countermeasures that have been determined to be effective in the full [CMTW](#) guide. The guide is designed to be a basic reference to assist traffic safety stakeholders seeking effective countermeasures. The guide describes major strategies and countermeasures; summarizes their use, effectiveness, costs, and implementation time; and provides references to research summaries and studies. CMTW is designed as a tool and is not intended to be a comprehensive list of countermeasures available for State use or a list of expectations for State Highway Safety Office (SHSO) implementation.

While many of the safety countermeasures included in this resource are proven to be effective regardless of geography or rural/urban designation, this supplement seeks to highlight select behavioral roadway safety countermeasures of relevance to rural communities related to speed, alcohol-impaired driving, seat belts, and child restraints. CMTW is a non-exhaustive compilation of safety countermeasures that create starting places for those looking to address challenges in rural traffic safety.

Unless otherwise specified, all content contained in this rural supplement is derived from the 11th edition of the Countermeasures That Work (Kirley et al., 2023). For more information on safety countermeasures not included in this resource, please see the full [CMTW](#) guide.

### Reference Areas

- 1 Topic Area
- 2 QR Code to NHTSA Countermeasure Webpage
- 3 Countermeasure Effectiveness
- 4 Chapter link in NHTSA's Countermeasures that Work Guide



The image shows a page from the guide with a purple header. On the left, there is a photograph of a 'SCHOOL SPEED LIMIT 15' sign with a yellow diamond warning sign above it. The page is divided into four numbered sections: 1. Speed (with a yellow background), 2. A QR code, 3. Lower Speed Limits (with a yellow background), and 4. Examples (with a yellow background). The text in section 3 describes speed limits as administrative actions and mentions a 5-star effectiveness rating. The text in section 4 provides examples of studies on speed limit changes.

**1 Speed**

**2**

**3 Lower Speed Limits**

A speed limit is in effect on all road segments in all States. Speed limits are administrative action. Default speed limits apply to all roads in a class such as Default limits are set by State, municipal, or, at times, Federal law. An important practice that takes into consideration the road traffic operations, land use, and environmental conditions (NHTSA, FHWA, & Effectiveness: 5 Stars (★★★★★)

**Chapter: Speeding and Speed Management**

**4 Examples**

- ▷ A study found that each 5-mph increase of State maximum speed limits was associated with a 4% increase in fatality rates on interstates and freeways and a 4% increase on other roads.
- ▷ A systematic evaluation of speed limit changes found consistent increases in fatality rates where limits were raised and decreases where limits were lowered (Vadeboon et al., 2018).

Figure 1. Example page of a countermeasure within this guide.





Figure 2. Flashing beacons alerting drivers to decrease speeds in a school zone. Source: FHWA



Figure 3. Speed feedback sign cautioning drivers to slow down. Source: FHWA



## Lower Speed Limits

A speed limit is in effect on all road segments in all States. Speed limits are set both by legislation and by administrative action. Default speed limits apply to all roads in a class such as rural interstates or local streets. Default limits are set by State, municipal, or, at times, Federal law. An important safety strategy involves setting appropriate speed limits using practices that take into consideration the road segment's design, vulnerable users, traffic operations, land use, and environmental conditions (NHTSA, FHWA, & FMCSA, 2014).

**Effectiveness:** 5 Stars (★★★★★)

**Chapter:** Speeding and Speed Management

### Examples

- ▷ A study found that each 5-mph increase of State maximum speed limits was associated with an 8% increase in fatality rates on interstates and freeways and a 4% increase on other roads (Farmer, 2017).
- ▷ A systematic evaluation of speed limit changes found consistent increases in travel speeds on rural roads where limits were raised and decreases where limits were lowered (Vadeby & Forsman, 2018).



## Dynamic Speed Display/Feedback Signs

Unstaffed speed display devices, also known as speed feedback signs, which can be portable (on trailers) or permanently installed, can show drivers that they are speeding and may encourage some drivers to slow down. These feedback signs (with radar to detect speeds) may also suggest to drivers that speeds are being monitored or enforcement is nearby.

**Effectiveness:** 5 Stars (★★★★★)

**Chapter:** Speeding and Speed Management

### Examples

- ▷ Signs that provided either an implication that speeds were being monitored or a social norms message ("Average Speed" at the site; "Your Speed") were effective at reducing speeds in a 50 km/h (31 mph) zone (Wrapson et al., 2006).
- ▷ Several U.S. studies have found promising reductions of speeds in school zones in response to permanent installations of speed display or changeable message signs (Lee et al., 2006; O'Brien & Simpson, 2012; Rose & Ullman, 2003).
- ▷ Permanently installed dynamic speed display signs decreased speeds and crashes at rural, two-lane curves (speed limits 50 to 60 mph). A high-quality evaluation of dynamic speed display or curve warning signs installed at 22 rural, two-lane sites in 7 States estimated that crashes were decreased by 5 to 7% (Hallmark et al., 2015).



Figure 4. Driver blowing into an alcohol Ignition Interlock device. Source: Getty Image

Figure 5. Temporary signage alerting drivers of a checkpoint ahead. Source: Getty Image



### Alcohol Ignition Interlocks

An alcohol ignition interlock prevents a vehicle from starting or being operated unless the driver provides a breath sample with a BrAC lower than a pre-set level, usually .02. Interlocks typically are used as a condition of probation for DWI offenders, to prevent them from driving while impaired by alcohol after their driver's licenses have been reinstated.

**Effectiveness:** 5 Stars (★★★★★)

**Chapter:** [Alcohol-Impaired Driving](#)

#### Examples

- ▷ A review of 15 studies of interlock effectiveness found that offenders who had interlocks installed in their vehicles had arrest recidivism rates that were 75% lower than drivers who did not have interlocks installed (Elder et al., 2011; see also Government Accountability Office [GAO], 2014).
- ▷ Studies have also demonstrated that interlocks reduce alcohol-related crashes and fatalities while they are installed in vehicles (Elder et al., 2011; Kaufman & Wiebe, 2016; McGinty et al., 2017; Teoh et al., 2021; Vanlaar et al., 2017). For example, Teoh et al. (2021) found that States that require interlocks for all DWI offenders had 26% fewer alcohol-involved fatal crashes than States with no interlock laws.



### Publicized Sobriety Checkpoints

At sobriety checkpoints, law enforcement officers stop vehicles at predetermined locations to investigate whether drivers are impaired. Although sobriety checkpoints remove impaired drivers from the road, the primary purpose of checkpoints is to deter driving after drinking among the general population by increasing the perceived risk of being caught and arrested. To do this, checkpoints must be highly visible, publicized extensively, and conducted regularly, as part of an ongoing sobriety checkpoint program.

**Effectiveness:** 5 Stars (★★★★★)

**Chapter:** [Alcohol-Impaired Driving](#)

#### Examples

- ▷ Thirty-eight States and the District of Columbia permit sobriety checkpoints as part of their impaired-driving enforcement, but they vary how regularly they are conducted (Foundation for Advancing Alcohol Responsibility, 2022).
- ▷ The public generally supports sobriety checkpoints. In a representative survey of 2,000 U.S. drivers, two-thirds (65%) were in favor of conducting sobriety checkpoints at least monthly (Fell, 2019).
- ▷ Checkpoints reduce alcohol-related fatal crashes by 9% (Bergen et al., 2014). Publicized sobriety checkpoint programs were proven effective in reducing alcohol-related crashes among high-risk populations including males and drivers 21 to 34 years old.





Figure 6. Lawyer and client meeting.  
Source: Getty Image



Figure 7. DWI offender with ankle monitoring device.  
Source: Getty Image



### DWI Courts

Driving While Intoxicated or Impaired (DWI) courts are specialized courts dedicated to changing the behavior of DWI offenders through intensive supervision and treatment. DWI courts have greater success in changing driver behaviors compared to traditional court processes and sanctions and can be a particularly useful countermeasure for high-risk offenders. The cost of DWI courts is also lower than standard probation (Mitchell et al., 2012).

**Effectiveness:** 4 Stars (★★★★)

**Chapter:** Alcohol-Impaired Driving

#### Examples

- A study in Michigan found that DWI court participants were 19 times less likely to be rearrested for DWI within 2 years than a comparison group of offenders who were on traditional probation (Michigan Supreme Court & NPC Research, 2008).
- A study of three DWI courts in Georgia found that offenders who graduated from the court program had a 9% recidivism rate within the next 4 years, compared to a 24% recidivism rate for a comparison group of offenders processed in traditional courts (Fell, Tippetts & Langston, 2011).



### DWI Offender Monitoring

The most successful methods for managing convicted DWI offenders and reducing recidivism have the common feature that they monitor offenders closely. Note that while these methods monitor sobriety, they do not actually prevent someone from drinking or driving the vehicle. Close monitoring can be accomplished in many ways including formal intensive supervision programs, home confinement with electronic monitoring, and dedicated detention facilities. However, all close monitoring programs are more expensive than the standard high-caseload and low-contact probation, but less expensive than jail. New Mexico estimated that intensive supervision costs \$2,500 per offender per year compared to \$27,500 per offender per year for jail (Century Councils, 2008).

**Effectiveness:** 4 Stars (★★★★)

**Chapter:** Alcohol-Impaired Driving

#### Examples

- South Dakota's 24/7 Sobriety Project is one example of an intensive supervision program. Participants are prohibited from using alcohol or drugs as a condition of remaining in the community and avoiding incarceration. The program includes twice daily alcohol breath testing, transdermal devices that monitor for alcohol consumption, and random drug testing. If an offender tests positive for alcohol or drugs, they are taken into custody and appear before a judge within 24 hours. Studies examining the effectiveness of the 24/7 sobriety program in North and South Dakota have found reductions in recidivism for DWI offenders enrolled in the program. South Dakota's implementation of the 24/7 sobriety program resulted in a 12% decrease in repeat DWI arrests, and a 4% decrease in collisions by participants (Kilmer et al., 2013).



Figure 8. Server checking IDs at an establishment that serves alcohol. Source: Getty Image



Figure 9. Passenger rating their rideshare driver on app. Source: Getty Image



### Alcohol Vendor Compliance Checks

To reduce the likelihood that alcohol vendors sell alcohol to underage people, law enforcement officers can conduct frequent compliance checks. In a compliance check or “sting,” law enforcement officers watch as underage people attempt to buy alcohol and cite the server or vendor for an MLDA-21 violation if a sale is made. An effective compliance check program works primarily through deterrence. The goal is to increase the perception among vendors they will be caught if they sell alcohol to underage people. Compliance checks can be implemented within 3 months if officers are trained in proper compliance check procedures; training typically takes less than a week.

**Effectiveness:** 3 Stars (★★★)

**Chapter:** [Alcohol-Impaired Driving](#)

#### Examples

- Several studies document that well-publicized and vigorous compliance checks reduce alcohol sales to youth. For example, a review of 8 high-quality studies found that compliance checks reduced sales to underage people by an average of 42% (Elder et al., 2007).
- The effects of compliance checks decay over a few months, so an ongoing program is needed to maintain deterrence (Wagenaar et al., 2005).
- Some States employ graduated penalties for vendors who fail compliance checks, where both fines and suspension periods increase with each violation (Goodwin et al., 2005).



### Alternative Transportation

Alternative transportation describes methods people can use to get to and from places where they drink without having to drive. Alternative transportation can include for-profit rideshare services, nonprofit safe ride programs, and public transportation such as subways or buses. While year-round programs need enough steady funding to accommodate demand, short-term ride service programs can be operated largely with donated rides and can be established and operated informally in a few weeks (Neuman et al., 2003). Rural communities have partnered with bars, rideshare services, tow truck companies, and bus companies to provide sober ride services for a nominal fee.

**Effectiveness:** 3 Stars (★★★)

**Chapter:** [Alcohol-Impaired Driving](#)

#### Examples

- Fell et al. (2020) reviewed 125 studies of alternative transportation programs. The review found that well-implemented programs can reduce impaired driving. For example, a safe ride program called “Road Crew” that provided rides to drinkers in rural Wisconsin was successful in reducing alcohol-impaired driving, especially among young adults (Rothschild et al., 2006). The program resulted in a 17% decline in alcohol-related crashes during the first year.





Figure 10. Examples of NHTSA's 'Drive Sober or Get Pulled Over' media campaigns. Source: NHTSA



### Alcohol-Impaired Driving Mass Media Campaigns

Mass media campaigns are a standard part of every State's effort to reduce alcohol-impaired driving. A mass media campaign consists of intensive communication and outreach activities regarding alcohol-impaired driving that use radio, television, print, social, and other mass media, both paid and earned. Effective campaigns identify a specific target audience and communications goal and develop messages and delivery methods that are appropriate to—and effective for—the audience and goal (Williams, 2007). Social networking sites can be used to reach the public with messages concerning alcohol-impaired driving.

Effectiveness: 2 Stars (★★)

Chapter: [Alcohol-Impaired Driving](#)

#### Examples

- ▷ Elder et al. (2004) studied the few available high-quality evaluations of mass media campaigns. The campaigns being evaluated were carefully planned, well-funded, well-executed, achieved high levels of audience exposure (usually by using paid advertising), had high-quality messages that were pre-tested for effectiveness, and were conducted in conjunction with other impaired-driving activities (usually enforcement). These mass media campaigns were associated with a 13% reduction in alcohol-related crashes. In general, mass media outreach works best when it is one part of a multifaceted campaign that includes HVE.







Figure 11. Officers conducting a seat belt checkpoint. Source: Niles Police Department (IL)

Figure 12. Connecticut's Occupant Protection Program Enforcement Campaign. Source: CTDOT



### Short-Term, High-Visibility Seat Belt Law Enforcement

The most common high-visibility seat belt law enforcement method consists of short (typically lasting 2 weeks), intense, highly publicized periods of increased belt law enforcement, frequently using checkpoints (in States where checkpoints are permitted), saturation patrols, or enforcement zones

**Effectiveness:** 5 Stars (★★★★★)

**Chapter:** [Seat Belts and Child Restraints](#)

#### Examples

- It is well established that short-term, HVE programs are effective at increasing seat belt use. CDC's systematic review of 15 high-quality studies (Dinh-Zarr et al., 2001; Shults et al., 2004) found that short-term, HVE programs increased belt use by about 16 percentage points, with greater gains when pre-program belt use was lower. Following the enforcement program, belt use often dropped by about 6 percentage points, demonstrating the ratchet effect typical of these programs. (Belt use increases during the program but decreases somewhat afterwards, though belt use remains at a level higher than prior to the program.)



### Nighttime, High-Visibility Seat Belt Law Enforcement

Resources focused on nighttime seat belt enforcement may provide additional gains in seat belt use and injury reduction. In particular, belt law checkpoints, saturation patrols, or enforcement zone operations could be conducted at night, when belt use is lower, DWI is higher, and crash risk is greater than during the day. Enforcement activities should be conducted in locations with adequate lighting or by using light enhancing technologies.

**Effectiveness:** 5 Stars (★★★★★)

**Chapter:** [Seat Belts and Child Restraints](#)

#### Examples

- A 3-year high-visibility nighttime seat belt enforcement program conducted in Maryland successfully raised nighttime seat belt use (Retting et al., 2018). This program included five waves of HVE coupled with extensive paid and earned media. The primary message of the ad campaign was: "Cops are cracking down on seat belt violations, especially at night." Driver awareness of the seat belt enforcement increased significantly during the HVE period. Furthermore, even though seat belt use rates were already high in this region (90-95%), there was a small but significant increase in observed nighttime seat belt use in three of the five waves when compared to a pre-HVE period.



Figure 13. Driver not wearing seat belt.  
Source: NHTSA



Figure 14. Child buckled in car seat.  
Source: NHTSA



### Communication Strategies for Low-Belt-Use Groups as Part of HVE

Seat belt use rates have increased substantially over the years. However, research shows that seat belt use is not universally high. The 2021 NOPUS found lower seat belt use rates among males and occupants 16 to 24, groups that have consistently been identified as having lower restraint use (Boyle, 2022). NHTSA's 2016 National Motor Vehicle Occupant Safety Survey found similar patterns with young drivers, rural drivers, and pickup truck drivers, all reporting lower seat belt use (Spado et al., 2019). Communications and outreach campaigns directed at low-belt-use groups can support higher seat belt use rates.

**Effectiveness:** 4 Stars (★★★★)

**Chapter:** [Seat Belts and Child Restraints](#)

#### Examples

- “Trauma Nurses Talk Tough,” developed in Oregon in 1988, is a seat belt diversion program implemented by hospital trauma nurses that targets drivers who have been ticketed for not wearing a seat belt. The program was implemented in Robeson County, NC, a diverse county whose seat belt rates were consistently lower than the rest of the State. Following the program, observed seat belt use increased significantly in the county at eight survey locations (from 81% to 86%) and two additional sites (from 69% to 78%) (Thomas et al., 2014).
- An evaluation of Rural Initiatives conducted in Missouri and Kansas showed increased seatbelt use (Thomas & Blomberg, 2016). These States ran multi-wave HVE campaigns focused on rural counties from Spring 2009 to Spring 2010. The evaluations indicated that seat belt use in the rural Missouri counties increased from 66.4% to 69.2%, while seat belt use in the rural Kansas counties increased from 61% to 70%.



### Programs for Increasing Child Restraint and Booster Seat Use

Abundant research has shown that correctly using an appropriate child restraint or seat belt is the single most effective way to save lives and reduce injuries in crashes. However, unrestrained children continue to be overrepresented in child motor vehicle fatalities (Sauber-Schatz et al., 2014). Programs and campaigns aimed at increasing child restraint and booster seat use have the potential to increase vehicle safety for children.

**Effectiveness:** 2 Stars (★★)

**Chapter:** [Seat Belts and Child Restraints](#)

#### Examples

- Will et al. (2009) used a message aimed at increasing caregivers' perception of risk and combating barriers to correct restraint use to increase booster seat use among attendees of two daycare/after-school programs in Eastern Virginia. The intervention included a video made with images to invoke emotions, crash test footage, well-respected experts, and personal stories to convey a message of high-threat consequences without using graphic, gory images. The study found significant increases in overall observed restraint use and booster seat use following exposure to the intervention.
- The “Strike Out Child Passenger Injury” program used community sports programs to promote booster seat use among 4- to 7-year-olds in 20 rural communities across Alabama, Arkansas, Illinois, and Indiana (Aitken et al., 2013). In the intervention communities, information about proper restraint use was shared in conjunction with T-ball season.

# NHTSA Rural Countermeasure Desktop Reference

NHTSA's Countermeasures in Rural Communities desktop reference includes the countermeasures discussed in this guide. The desktop reference includes information on four metrics: the effectiveness of the countermeasure, the cost to implement the countermeasure, the frequency of use of the countermeasure in other States or communities, and the time to implement the countermeasure.

## Effectiveness

- **5 Stars (★★★★★)** — Demonstrated to be effective by several high-quality evaluations with consistent results.
- **4 Stars (★★★★)** — Demonstrated to be effective by several high-quality evaluations in certain situations.
- **3 Stars (★★★)** — Likely to be effective based on balance of evidence from high-quality evaluations.
- **2 Stars (★★)** — Limited evaluation evidence but adheres to principles of human behavior and may be effective if implemented well.
- **1 Star (★)** — No evaluation evidence but adheres to principles of human behavior and may be effective if implemented well.

## Cost To Implement\*

- **\$\$\$ (High Cost)** — Requires extensive new facilities, staff, equipment, or publicity, or makes heavy demands on current resources.
- **\$\$ (Medium Cost)** — Requires some additional staff time, equipment, facilities, and/or publicity.
- **\$ (Low Cost)** — Can be implemented with current staff, perhaps with training; limited costs for equipment or facilities.

## Use

- **High** — More than two-thirds of the States, or a substantial majority of communities
- **Medium** — One-third to two-thirds of the States or communities
- **Low** — Less than one-third of the States or communities
- **Unknown** — Data not available

## Time To Implement\*

- **Long** — More than 1 year
- **Medium** — More than 3 months but less than 1 year
- **Short** — 3 months or less

Focus Area	Countermeasure	Effectiveness	Cost To Implement	Use	Time To Implement
Speed	Lower Speed Limits	★★★★★	\$	High	Varies
	Dynamic Speed Display/Feedback Signs	★★★★★	\$	High	Short
Alcohol-Impaired Driving	Alcohol Ignition Interlocks	★★★★★	\$\$	Medium	Medium
	Publicized Sobriety Checkpoints	★★★★★	\$\$\$	Medium	Short
	DWI Courts	★★★★	\$\$\$	Low	Medium
	DWI Offender Monitoring	★★★★	\$\$\$	Unknown	Varies
	Alcohol Vendor Compliance Checks	★★★	\$\$	Unknown	Short
	Alternative Transportation	★★★	\$	Unknown	Short
	Alcohol-Impaired Driving Mass Media Campaigns	★★	\$\$\$	High	Medium
Seat Belts and Child Restraints	Short-Term, High-Visibility Seat Belt Law Enforcement	★★★★★	\$\$\$	Medium	Medium
	Nighttime, High-Visibility Seat Belt Law Enforcement	★★★★★	\$\$\$	Unknown	Medium
	Communication Strategies for Low-Belt-Use Groups as Part of HVE	★★★★	Varies	Unknown	Varies
	Programs for Increasing Child Restraint and Booster Seat Use	★★	Varies	Unknown	Varies

\*This information does not include the time or costs to enact legislation or establish policies.





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Countermeasures that Work

