



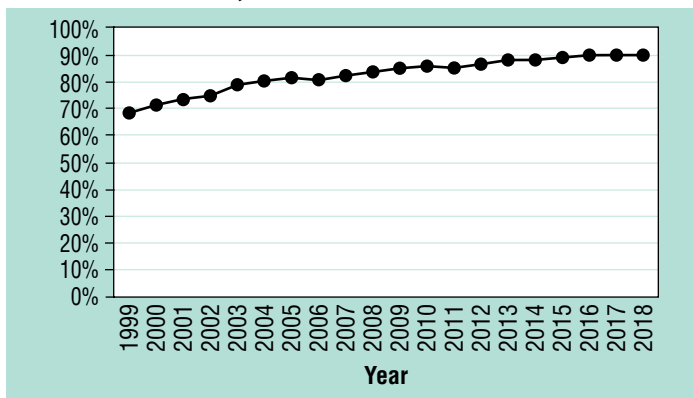
# Countermeasures That Work – Seat Belts

The National Highway Traffic Safety Administration has published its 10th edition of *Countermeasures That Work*, a basic reference to assist State Highway Safety Offices and other highway safety professionals in selecting effective, evidence-based countermeasures for traffic safety problems. This *Traffic Tech* highlights the effective countermeasures for increasing adult seat belt use from Chapter 2, “Seat Belts and Child Restraints.”

## Background

Seat belts are highly effective in reducing injuries and fatalities from motor vehicle crashes. Since the implementation of state-wide seat belt use laws in the 1980s, use rates have continued to increase nationally. (See Figure 1). In 2019 the national observed seat belt use rate for adult drivers and front seat passengers was 90.7%, a small but not statistically significant increase from 89.6% in 2018 (NCSA, 2019). Observed seat belt use also varies by many factors including State laws, region, and vehicle type.

**Figure 1: U.S. Driver and Front Seat Passenger Seat Belt Use Rates, 1999–2018**



Source: National Occupant Protection Use Survey (NOPUS)

However, even with high observed use rates, a large portion of fatalities in crashes each year are unbelted. Of passenger vehicle occupants killed with known restraint use in 2018, there were 9,778 (47% of all killed) unbelted at the time of the crashes. Among passenger vehicle occupants 5 and older, seat belts saved an estimated 14,955 lives in 2017. If all passenger vehicle occupants 5 and older had worn seat belts, an additional 2,549 could have been saved in 2017 (NCSA, 2020).

Enacting and publicizing State seat belt laws have been widely used to increase seat belt use. All States except New Hampshire have laws requiring front seat occupants to buckle up. In addition, 31 States and the District of Columbia have laws

requiring rear seat passengers to buckle up. Generally, high-visibility enforcement (HVE) of these laws has been shown to be the most effective strategy for improving seat belt use. Successful HVE programs include focus on current laws, enforcement of laws, and publicity of enforcement efforts. While each countermeasure below has demonstrated effectiveness, it should be noted that the most effective efforts such as HVE use combinations of all three types of countermeasures.

## Effective Seat Belt Countermeasures

This section discusses the eight behavioral countermeasures for adult seat belt use supported by research as consistently effective across situations (★★★★★), effective in certain situations (★★★★), or promising/likely effective (★★★). For more information on these countermeasures, their effectiveness, cost, use, and time to implement, see the full *Countermeasures* report (Venkatraman et al., 2021).

Countermeasure	Effectiveness
1.1 State Primary Enforcement Seat Belt Use Laws	★★★★★

**State primary enforcement seat belt use laws** permit officers to stop and issue citations independent of other traffic violations. As of June 2020, there were 34 States and the District of Columbia that had primary enforcement laws for adult front seat occupants. In addition, 16 States have primary seat belt laws for rear seats. Seat belt laws that are all inclusive and include all ages and seating positions produce the largest increases in seat belt use.

Countermeasure	Effectiveness
1.2 Local Primary Enforcement Seat Belt Use Laws	★★★★

**Local primary enforcement seat belt use laws** are enacted, publicized, and enforced locally, and they are implemented to allow enforcement of community-wide primary laws or ordinances to increase seat belt use. Enforcement of local primary laws is commonly used in individual communities in States with secondary enforcement.

Countermeasure	Effectiveness
1.3 Increased Seat Belt Use Law Penalties	★★★★

**Increased seat belt use law penalties** have been used and evaluated widely for changing behaviors. States with higher fines for offenders coupled with primary belt laws have higher seat belt use rates. Increasing fine violations can produce rises in observed seat belt use and seat belt use among front seat occu-

pants involved in crashes, but the amount of change depends on the degree of the fine increase. And while effectiveness has been demonstrated for increased fines, it has not yet been demonstrated for issuing driver's license points.

Countermeasure	Effectiveness
2.1 Short-Term, High-Visibility Seat Belt Law Enforcement	★★★★★

**Short-term, high-visibility seat belt law enforcement** consists of a short period of intense and highly visible enforcement to increase seat belt use. These efforts often include checkpoints (where possible), enforcement zones, and saturation patrols coupled with communication and outreach from both earned and paid media. A well-known example of this approach is the *Click It or Ticket* model used nationwide to increase or maintain seat belt use in States.

Countermeasure	Effectiveness
2.2 Integrated Nighttime Seat Belt Enforcement	★★★★

**Integrated nighttime seat belt enforcement** has been used to increase nighttime seat belt use across the United States. Enforcement of seat belt laws has mainly focused on daytime use but could be expanded to include nighttime programs. Implementation of nighttime-specific enforcement programs can stand alone or be coupled with other traffic safety efforts such as impaired driving and speed campaigns. These efforts include enforcement zones, checkpoints (where possible) and saturation patrols.

Countermeasure	Effectiveness
2.3 Sustained Enforcement	★★★

**Sustained enforcement** of seat belt laws has been adopted by several jurisdictions as a part of routine activities. States with sustained enforcement programs, some of which do not include routine publicity, have had seat belt use rates above the national use rate since 2002. Sustained enforcement includes development and implementation of sustained seat belt enforcement plans by law enforcement officers and often begin with extensive periods of publicity.

Countermeasure	Effectiveness
3.1 Supporting Enforcement	★★★★★

**Communication and outreach supporting enforcement** efforts are important to effective seat belt use campaigns. Earned media and paid advertising at the local, State, regional, or national level are essential to creating effective HVE programs. Earned media used to support HVE typically includes social media and news outlets.



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Countermeasure	Effectiveness
3.2 Strategies for Low-Belt-Use Groups	★★★★

**Communication strategies for low-belt-use groups** for programs supporting enforcement are essential to improving national seat belt use. Lower seat belt use rates are found at night, in rural areas, among certain demographic groups, and among rear seat adult passengers. The most effective programs include target audience research and creative message development and placement as well as enforcement. The effectiveness of stand-alone programs not supported by enforcement is unclear.

## Conclusion

Several existing countermeasures can be applied at the local, State, and national levels to improve seat belt use rates. However, as these measures all relate to enforcement, the traffic safety community may need to expand the seat belt program strategies toolbox to reach non-users. One possibility is adapting into this area behavior change strategies proven effective in other domains such as high school service-learning, hospital discharge programs, online advertising, online/e-learning, and product/message placement (Thomas et al., 2016).

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