

Florida Occupant Protection Coalition

Occupant Protection Proven Strategies

State Primary Enforcement Seat Belt Use Laws

Primary enforcement belt use laws permit law enforcement officers to stop and cite a seat belt use law violator independent of any other traffic behavior. Secondary enforcement laws allow law enforcement officers to cite violators only after they first have been stopped for some other traffic violation.

Expected Effectiveness

In 2012, belt use averaged 90 percent in the 31 States and District of Columbia with primary belt laws and 78 percent in States with weaker enforcement laws (NHTSA, 2012a). Nichols, Tippetts, et al. (2010) examined the relationship between the type of seat belt law enforcement and seat belt use between 1997 and 2008. Compared with secondary laws, primary laws were associated with a higher observed seat belt use (10 to 12 percent higher) and higher seat belt use among front-seat occupants killed in crashes (9 percent higher).

Increased Belt Use Law Penalties: Fines and Driver's License Points

Penalties for most belt use law violations are low. As of July 2012, a violation resulted in a typical fine of \$25 or less in all but 13 States (IIHS, 2012). Low fines may not convince nonusers to buckle up and may also send a message that belt use laws are not taken seriously.

Expected Effectiveness

Houston and Richardson (2006) studied the effects of belt law type (primary or secondary), fine level, and coverage (front seat only or front and rear seats) using belt use data from 1991 to 2001. They found that primary belt laws and higher fines increase belt use. Effectiveness has not been demonstrated for driver's license points.

Short-Term High-Visibility Seat Belt Law Enforcement

The most common high-visibility belt law enforcement method consists of short (typically lasting for two weeks), intense, highly publicized periods of increased belt law enforcement, frequently using checkpoints (in States where checkpoints are permitted), saturation patrols, or enforcement zones. These periods sometimes are called STEP waves (Selective Traffic Enforcement Programs) or blitzes.

Expected Effectiveness

CDC's systematic review of 15 high-quality studies (Dinh-Zarr et al., 2001; Shults et al., 2004) found that short-term, high-visibility enforcement programs increased belt use by about 16 percentage points, with greater gains when pre-program belt use was lower. Because many of the studies were conducted when belt use rates were considerably lower than at present, new programs likely will not have as large an effect.

Combined Seat Belt and Alcohol Enforcement, Nighttime

Available data and program evaluations suggest that more emphasis on seat belt enforcement during the late-night hours and in conjunction with alcohol laws can provide additional gains in seat belt use and injury reduction (Nichols & Ledingham, 2008). Retaining the short-term, high-intensity enforcement model but including other traffic safety issues such as impaired driving (DWI) and excessive speed, can be effective since the same drivers tend to drink, speed, and not buckle up. In particular, combined DWI and belt law checkpoints, saturation patrols, or enforcement zone operations can be conducted at night, when belt use is lower, DWI higher, and crash risk greater than during the day.

Expected Effectiveness

A 2004 nighttime high-visibility belt enforcement program in Reading, Pennsylvania, increased nighttime front-seat-occupant belt use by 6 percentage points, from 50 percent to 56 percent. Daytime belt use increased by 3 percentage points, from 56 percent to 59 percent (Chaudhary et al., 2005). A 2007 evaluation of three high-visibility enforcement demonstration programs designed to improve nighttime seat belt use in three communities – two in North Carolina with a primary seat belt law and one in West Virginia with a secondary law concluded that nighttime high-visibility seat belt law enforcement programs can be effective for increasing nighttime belt use.

Sustained Enforcement

The extent of vigorous enforcement of belt use laws, with or without extensive publicity, as part of traffic enforcement activities is mostly unknown. Known states conducting sustained enforcement include California, Oregon, and Washington.

Expected Effectiveness

States that reported use of sustained enforcement have recorded statewide belt use above the national average since 2002 (California 91 to 97 percent, Oregon 88 to 98 percent, and Washington 93 to 98 percent).

Communications and Outreach Supporting Enforcement

Effective, high-visibility communications and outreach are an essential part of successful seat belt law high-visibility enforcement programs (Solomon et al., 2003). Paid advertising can be a critical part of the media strategy. Paid advertising brings with it the ability to control message content, timing, placement, and repetition (Milano et al., 2004).

Expected Effectiveness

The May 2002 Click It or Ticket campaign evaluation demonstrated the effect of different media strategies. Belt use increased by 8.6 percentage points across 10 States that used paid advertising extensively in their campaigns. Belt use increased by 2.7 percentage points across four States that used limited paid advertising and increased by only 0.5 percentage points across four States that used no paid advertising (Solomon et al., 2002). Milano et al. (2004) summarize an extensive amount of information from national telephone surveys conducted in conjunction with each national campaign from 1997 through 2003.

Communications and Outreach Strategies for Low-Belt-Use Groups

With belt use at 86 percent nationally and 75 percent or higher in 46 States and the District of Columbia, it is clear that the large majority of drivers and passengers are wearing their seat belts. However, there remains a group of people who still do not buckle up regularly. Information on this group of non-users can be gathered from observations and telephone surveys. Belt use rates for male occupants are generally lower than rates for female occupants.

Expected Effectiveness

Communications and outreach campaigns directed at low-belt-use groups have been demonstrated to be effective for targeted programs that support, and are supported by, enforcement. The effectiveness of stand-alone programs not supported by enforcement is unclear, though North Dakota has demonstrated success with its 2003 "Pick Up the Habit for Someone You Love" campaign.

Strengthening Child/Youth Occupant Restraint Laws

Beginning with Tennessee, every State between 1978 and 1985 passed laws requiring children traveling in motor vehicles to be restrained in child restraints appropriate for the child's age and size. Today, State child restraint laws vary in terms of who is covered by the law, the types of restraints required, and where in the vehicle the restraints can be positioned. In some States, children as young as 5 may be restrained using the adult seat belt, while other State laws require children up to age nine or 80 pounds or 57 inches tall to be restrained in a child safety seat or booster seat.

Expected Effectiveness

Research conducted by Arbogast et al. (2009) found that transitioning children from child restraints with harness to belt-positioning booster seats instead of vehicle seat belts provides significant safety benefits for children at least through 8, and that belt-positioning booster seats lower the risk of injury to children in crashes by 45 percent compared to the use of vehicle seat belts alone. Observational surveys conducted in Washington State before their booster seat law was expanded found that only 21 percent of children between 4 and 8 were using booster seats (Ebel, Koepsell, Benner & Rivara, 2003).

Short-Term, High-Visibility Child Restraint/Booster Law Enforcement

High-visibility short-duration belt law enforcement programs, such as *Click It or Ticket*, have proven to be the most effective countermeasure to date for increasing seat belt use. NHTSA typically includes child restraint and booster seat use and enforcement as a part of their *Click It or Ticket* campaigns. As with high visibility enforcement aimed at adult occupants (Section 3.1), enforcement of child restraint/booster laws should be coupled with high visibility communications and outreach (Solomon et al., 2003).

Expected Effectiveness

In their systematic review of evidence of effectiveness for child restraint interventions, Zaza et al. (2001) determined that community-wide information plus enhanced enforcement campaigns were effective in increasing child restraint use.

Communications and Outreach Strategies for Older Children

There is not a great deal of information on the factors influencing restraint use for children 8 to 15 years old. The few available studies have focused on changing nonuse behaviors without investigating attitudinal or motivational factors useful in developing additional strategies.

Expected Effectiveness

The few studies conducted produced encouraging results. Pennsylvania's Avoiding Tween Tragedy Project was a comprehensive program aimed at increasing restraint use among 8 to 15 years old children. The program included education at elementary, middle, and high schools, law enforcement participation, earned and paid media, and participation in community events. Restraint use increased following the program (13 percent at elementary schools, 17 percent at middle schools, and 20 percent at high schools). (Alonge et al., 2012) A teen demonstration project in Colorado and Nevada consisting of publicity and enforcement reported belt use increase 5 percent and 8 percent respectively (Nichols, Haire, Solomon, Ellison-Potter, & Cosgrove, 2011).

Communications and Outreach Strategies for Child Restrain and Booster Seat Use

Both the American Academy of Pediatrics and NHTSA recommend children stay rear-facing as long as possible until they outgrow the height and weight limits of the seat, and then use a forward-facing harness for as long as possible. Communications and outreach campaigns directed at booster seat age children are likely common, but no summary is available.

Expected Effectiveness

The effectiveness of communication and outreach strategies aimed at increasing booster seat use is unclear. A Virginia study at two large daycare/after school programs used a threat-based message to increase booster seat use. The study found significant increases in overall restraint use and booster seat use following exposure to the intervention and concluded applying messages of high-threat consequences (without gore) is a promising approach (Will, Sabo, & Porter, 2009). Other studies have also used a different threat-based message with some success (Bryant-Stephens, Garcia-Espana, & Winston, 2013; Winston, Erkoboni, & Xie, 2007).

School Programs

Schools provide well-defined and controlled audiences for seat belt use programs and enable education and communication strategies to be tailored to a specific audience. While these programs are often well received in the community, there is limited information on their effectiveness.

Expected Effectiveness

School programs have been shown to increase belt use in the few evaluations of the programs that have been conducted. Williams, Wells, and Ferguson (1997) conducted a pilot program to increase restraint use and rear seating position among elementary schools and day care centers. Pamphlets and letters to parents, proper restraint use demonstrations, school assemblies emphasizing proper restraint use and enforcement checkpoints, in conjunction with the Click It or Ticket campaign, resulted in substantial increases in elementary schools (36 to 64 percent and 49 to 71 percent) with smaller increases at the daycare centers (71 to 76 percent and 60 to 75 percent).

Inspection Stations

A number of programs have been implemented to provide parents and other caregivers with “hands-on” assistance with the installation and use of child restraints. Child passenger safety (CPS) inspection stations, or “fitting stations”, are places or events where parents and caregivers receive this assistance from certified CPS technicians.

Expected Effectiveness

One study found that Safe Kids restrain inspection events held at car dealerships, hospitals, retail outlets and other community locations positively changed parents' behavior and increase their knowledge over a 6-week follow up period. Children arriving at a second event were restrained more safely and more appropriately than they were at the first event (Dukehart, Walker, Lococo, Decina, & Staplin, 2007). Another study evaluated whether "hands-on" educational intervention makes a difference in whether or not parents correctly use child restraints. The study found parents who received a demonstration and demonstrated that they could correctly install the restraint were four times more likely to correctly use their child restraints that a control group who did not receive the demonstration. (Tessier, 2010).