



Seat Belts

There were 36,560 motor vehicle crash fatalities on U.S. roads in 2018.¹ Among passenger vehicle occupant fatalities that year, almost half, (47 percent) were unrestrained when restraint use was known.² For passengers that survived fatal crashes in 2018, just 13 percent were unrestrained.³ Seat belt use, reinforced by effective safety belt laws, is a proven lifesaver.

In states with primary enforcement all-occupant seat belt laws, police officers may ticket the driver if any occupant is unbelted. In states with secondary enforcement laws, police officers may issue a citation for a seat belt violation only if the vehicle has been stopped for another (non-seat belt) traffic infraction.

Primary enforcement laws are much more effective in getting people to buckle up.⁴ Seat belt use is higher in states with primary enforcement laws compared to those with secondary enforcement laws or with no seat belt use law.⁵ Some states have experienced a 10-15 percent increase in seat belt use rates when primary laws were enacted.⁶

Seat Belt Facts

- From 1975 to 2017, seat belts have saved over 374,000 lives⁷ and over \$1 trillion in economic costs.⁸
- Nearly 10,000 unrestrained occupants died in passenger vehicle crashes in 2018 alone.⁹
- The use of seat belts in passenger vehicles saved an estimated 14,955 lives of occupants age five and older nationwide in 2017, the latest year for which this data is available. An additional 2,549 lives would have been saved in 2017 if all unrestrained passenger vehicle occupants age five and older involved in fatal crashes had worn their seat belts.¹⁰
- Rear seat passengers are three times more likely to die in a crash if they are unbelted.¹¹
- In 2017, the most recent year for which this data is available, among front seat passengers killed in crashes where restraint use was known, 46 percent were unrestrained, compared to 56 percent of unrestrained fatalities in the back seat.¹²
- In fatal crashes in 2018, 83% of passenger vehicle occupants who were totally ejected from the vehicle were killed, according to NHTSA data. Further, only 1% of the occupants reported to have been using restraints were totally ejected, compared with 27% of the unrestrained occupants.¹³
- Adults are not buckling up in the rear seat as much as they are in the front seat, with rear seat belt use ten to 15 percent lower than in the front seat. While 99 percent of infants, 96 percent of four-to-eight year-olds and 93 percent of nine to 12 year-olds were restrained in the rear seat, only 70 percent of 20 to 54 year-olds were buckled.¹⁴
- In 2013, 883 unbelted rear seat passenger vehicle occupants age 8 and older died in traffic crashes in the United States. More than 400 of these occupants would have survived if they had worn their seat belts.¹⁵
- Rear seat belt use by passengers in fatal crashes was lower than front seat belt use in almost every state and was substantially lower in many states.¹⁶
- In 2018, the proportion of unrestrained passenger vehicle occupants killed that were seated in the front seat was 46%, compared to 55% of unrestrained passenger vehicle occupants killed that were seated in the rear seat, according to NHTSA.¹⁷
- The National Highway Traffic Safety Administration (NHTSA) estimated that needless deaths and injuries resulting from non-use of seat belts cost society more than \$10 billion annually in medical care, lost productivity, and other injury related costs based on 2010 data.¹⁸

- The average inpatient costs for crash victims who don't use seat belts are 55 percent higher than for those who use them.¹⁹
- Regarding personal choice and individual rights in relation to highway safety laws, the U.S. District Court for Massachusetts held in a decision affirmed by the U.S. Supreme Court that , "...from the moment of injury, society picks the person up off the highway; delivers him to a municipal hospital and municipal doctors; provides him with unemployment compensation if, after recovery, he cannot replace his lost job; and, if the injury causes disability, may assume the responsibility for his and his family's continued subsistence."²⁰
- If every state with a secondary seat belt law upgraded to primary enforcement, about 1,000 lives and \$4 billion (2005 US\$) in crash costs could be saved every year.²¹
- An Insurance Institute for Highway Safety poll found that nearly 40 percent of people surveyed said they sometimes don't buckle up in the rear seat because there is no law requiring it. If such a law existed, 60 percent of poll respondents said it would convince them to use seat belts in the back seat.²²

Rear Seat Safety Improvements Lagging Behind Front Seat

- Front seat safety improvements in recent model vehicles have closed the gap that formerly made rear seats safer than the front, while advances in safety technology have lagged in the rear seat.²³
- Current regulation does not require an evaluation of injuries to rear seat occupants in frontal crashes. In terms of frontal crashes, only the strength of seatbelts is evaluated in the rear seat, unlike regulations for the front seat which ensure that occupants do not suffer bodily harm by evaluating injuries of the head, neck, chest, pelvis and legs.
- To ensure rear seat safety improvements and testing are consistent with the front seat, the creation of a rear seat crashworthiness rating is needed as well as safety technology upgrades such as inflatable seat belts, rear seat belt reminders, seat belt pre-tensioners and load limiters.

Primary Enforcement of Seat Belt Laws: Reports Addressing Racial Profiling Concerns

While numerous studies report that primary enforcement seat belt laws do not result in increased ticketing of minority groups, the potential for harassment is an ongoing concern that is not limited to, nor created by, these laws.

- **Meharry Medical College:** Found that overall rates of seat belt compliance improved in states with primary laws compared to those with secondary laws, an 18 percent and 15 percent increase among black and white motorists, respectively. The study concluded that "black-white disparities in seat belt use were mitigated in states with primary seat belt laws", and that "enacting primary laws in other states might reduce or eliminate racial disparities in seat belt use."²⁴
- **Meharry Medical College Study:** In secondary law states, black motorists were only 67 percent as likely to wear seat belts in urban areas as white motorists.²⁵
- **American Journal of Preventive Medicine:** studies of states that changed from a secondary to a primary law found either no difference in the rate of white versus non-white drivers ticketed or they found a greater increase in the proportion of white drivers ticketed after the enactment of a primary law.²⁶
- **NHTSA Study of Maryland's change to primary enforcement laws made the following determinations:**
 - "...citation data that identified race confirmed there was either no difference in non-white versus white ticketing, comparing secondary to primary enforcement, or a greater increase in ticketing went to whites following the change to a primary enforcement law."
 - "Non-whites more than whites reported feeling the threat of receiving a ticket for not wearing a safety belt, even though there was no significant relationship between race and those who actually received a safety belt ticket."²⁷
- **NHTSA Study:** the relationship between primary enforcement belt laws and minority ticketing, the share of citations for Hispanics and African Americans changed very little after states adopted primary enforcement

belt laws. In fact, there were significant gains in seat belt use among all ethnic groups, none of which were proportionately greater in any minority group.²⁸

-
- ¹ Traffic Safety Facts Research Note, 2018 Fatal Motor Vehicle Crashes: Overview, NHTSA, Oct. 2019, DOT HS 812 826.
 - ² Traffic Safety Facts Research Note, 2018 Fatal Motor Vehicle Crashes: Overview, NHTSA, Oct. 2019, DOT HS 812 826.
 - ³ Traffic Safety Facts Research Note, 2018 Fatal Motor Vehicle Crashes: Overview, NHTSA, Oct. 2019, DOT HS 812 826.
 - ⁴ The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), NHTSA, May 2015 (Revised), DOT HS 812 013.
 - ⁵ Traffic Safety Facts Research Note, Seat Belt Use in 2018—Overall Results, NHTSA, Jan. 2019, DOT HS 812 662.
 - ⁶ The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), NHTSA, May 2015 (Revised), DOT HS 812 013.
 - ⁷ Traffic Safety Facts 2017: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System, NHTSA, Sep. 2019, DOT HS 812 806.
 - ⁸ The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), NHTSA, May 2015 (Revised), DOT HS 812 013.
 - ⁹ Traffic Safety Facts Research Note, 2018 Fatal Motor Vehicle Crashes: Overview, NHTSA, Oct. 2019, DOT HS 812 826.
 - ¹⁰ Traffic Safety Facts Research Note, 2018 Fatal Motor Vehicle Crashes: Overview, NHTSA, Oct. 2019, DOT HS 812 826.
 - ¹¹ Unbuckled in Back: An Overlooked Issue in Occupant Protection., Governor’s Highway Safety Association, November, 2015.
 - ¹² Traffic Safety Facts: 2017 Data, Occupant Protection in Passenger Vehicles, NHTSA, Apr. 2019, DOT HS 812 691.
 - ¹³ 2018 NHTSA data provide to Advocates for Highway and Auto Safety (Advocates) per request
 - ¹⁴ Status Report, Safety Gains Ground, Vol. 49, No. 11, “Thinking About Safety in the Back Seat”, IIHS, December 23, 2014.
 - ¹⁵ Unbuckled in Back: An Overlooked Issue in Occupant Protection., Governor’s Highway Safety Association, November, 2015.
 - ¹⁶ Unbuckled in Back: An Overlooked Issue in Occupant Protection., Governor’s Highway Safety Association, November, 2015.
 - ¹⁷ 2018 NHTSA data provide to Advocates for Highway and Auto Safety (Advocates) per request
 - ¹⁸ The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), NHTSA, May 2015 (Revised), DOT HS 812 013.
 - ¹⁹ 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..
 - ²⁰ *Simon v. Sargent*, D.C.Mass.1972, 346 F.Supp. 277, affirmed 93 S.Ct. 463, 409 U.S. 1020, 34 L.Ed.2d 312.
 - ²¹ The Nation’s Top Strategies to Stop Impaired Driving: Primary Seat Belt Laws, NHTSA, Feb 2007, DOT HS 910 712.
 - ²² Status Report, Unbelted, Vol. 52 No. 5, “Adults admit they often skip belts in rear seats”, IIHS. August 3, 2017.
 - ²³ Sahraei at al. Reduced Protection for Belted Occupants in Rear Seats Relative to Front Seats of New Model Year Vehicles, Proc AAAM, 2010.
 - ²⁴ Briggs, N.C., Schlundt, D. G., Levine, R.S., Goldzweig, I.A., Stinson, N., Warren, R.C., Seat Belt Law Enforcement and Racial Disparities in Seat Belt Use, American Journal of Preventive Medicine, 2006; 31(2).
 - ²⁵ Briggs, N.C., Schlundt, D. G., Levine, R.S., Goldzweig, I.A., Stinson, N., Warren, R.C., Seat Belt Law Enforcement and Racial Disparities in Seat Belt Use, American Journal of Preventive Medicine, 2006; 31(2).
 - ²⁶ Dinh-Zarr, T. Bella, PhD, MPH, Sleet, David A., PhD, *Reviews of Evidence Regarding Interventions to Increase the Use of Safety Belts*, American Journal of Preventive Medicine, Volume 21, Number 4S, 2001.
 - ²⁷ Evaluation of Maryland, Oklahoma, and the District of Columbia’s Seat Belt Law Change to Primary Enforcement, Final Report, National Highway Traffic Safety Administration, DOT HS 809 213, March 2001.
 - ²⁸ Determining the Relationship of Primary Seat Bet Laws to Minority Ticketing, NHTSA, Sep. 2011, DOT HS 811535/