



## Seat Belts

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There were 36,096 motor vehicle crash fatalities on U.S. roads in 2019.<sup>1</sup> Among passenger vehicle occupant fatalities that year, almost half (47 percent) were unrestrained when restraint use was known.<sup>2</sup> For passengers that survived fatal crashes in 2019, just 14 percent were unrestrained.<sup>3</sup> 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 or may ticket the unbelted occupant. 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.<sup>4</sup> 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.<sup>5</sup> Some states have experienced a 10-15 percent increase in seat belt use rates when primary laws were enacted.<sup>6</sup>

### **Seat Belt Facts**

- From 1975 to 2017, seat belts have saved over 374,000 lives<sup>7</sup> and over \$1 trillion in economic costs.<sup>8</sup>
- Nearly 10,000 unrestrained occupants died in passenger vehicle crashes in 2019 alone.<sup>9</sup>
- 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.<sup>10</sup>
- Rear seat passengers are more than twice as likely to die in a crash if they are unbelted.<sup>11</sup>
- In 2019, the most recent year for which this data is available, among front seat passengers killed in crashes where restraint use was known, 41 percent were unrestrained, compared to 53 percent of fatalities lacking restraint use in the rear seat.<sup>12</sup>
- In fatal crashes in 2019, 81 percent of passenger vehicle occupants who were totally ejected from the vehicle were killed, according to National Highway Traffic Safety Administration (NHTSA) data. Further, only one percent of the occupants reported to have been using restraints were totally ejected, compared with 26 percent of the unrestrained occupants.<sup>13</sup>
- 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 according to a study by the Insurance Institute for Highway Safety (IIHS) and The Children's Hospital of Philadelphia. 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.<sup>14</sup>
- 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.<sup>15</sup>
- In 2018, 803 unbelted rear seat passenger vehicle occupants age eight 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.<sup>16</sup>
- The 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.<sup>17</sup> When adjusted solely for inflation, this would equate to more than \$12 billion.<sup>18</sup>

- Non-use of restraints cost employers \$7.4 billion in 2018 (expressed in 2019 dollars), \$5.7 billion of which was attributed to off-the-job non-restraint use.<sup>19</sup>
- The average inpatient costs for crash victims who don't use seat belts are 55 percent higher than for those who use them.<sup>20</sup>
- 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."<sup>21</sup>
- 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.<sup>22</sup> When adjusted solely for inflation, the cost is nearly \$5.5 billion.<sup>23</sup>
- An IIHS 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.<sup>24</sup>

### **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. Advances in safety technology have lagged in the rear seat.<sup>25</sup>
- 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.<sup>26</sup>
- 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 people of color, the potential for harassment is an ongoing concern that is not limited to, nor created by, these laws.

- **Meharry Medical College Study:** 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."<sup>27</sup>
- **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.<sup>28</sup>
- **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.<sup>29</sup>
- **NHTSA Study of the change to primary enforcement laws in Oklahoma, Maryland and the District of Columbia 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."<sup>30</sup>

- **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.<sup>31</sup>

### **Advanced Vehicle Safety Technology**

Proven and available safety technology, including automatic emergency braking, lane departure warning and blind spot detection and other advanced driver assistance systems (ADAS), should be required in all new vehicles, with a minimum performance standard, to prevent and mitigate common crash causes. When a safety feature is mass produced, costs for the systems are reduced and help to ensure they are within the reach of new car buyers. Minimum performance standards ensure that the technology offers at least a certain level of safety regardless of manufacturer.

While proven safety technology will help to prevent crashes, seat belts are the first line of defense against injury for an occupant in a crash. According to NHTSA, airbags are lifesavers as well, but they are supplemental protection and are designed to work best in combination with seat belts. NHTSA estimates that the combination of an airbag plus a lap and shoulder belt reduces the risk of death in frontal crashes by 61 percent, compared with a 50 percent reduction for belts alone and a 34 percent reduction for airbags alone.

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  - <sup>2</sup> Traffic Safety Facts Research Note, Overview of Motor Vehicle Crashes in 2019, NHTSA, Dec. 2020, DOT HS 813 060.
  - <sup>3</sup> Traffic Safety Facts Research Note, Overview of Motor Vehicle Crashes in 2019, NHTSA, Dec. 2020, DOT HS 813 060.
  - <sup>4</sup> The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), NHTSA, May 2015 (Revised), DOT HS 812 013, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812013>.
  - <sup>5</sup> Traffic Safety Facts Research Note, Seat Belt Use in 2018—Overall Results, NHTSA, Jan. 2019, DOT HS 812 662, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812662>.
  - <sup>6</sup> The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), NHTSA, May 2015 (Revised), DOT HS 812 013.
  - <sup>7</sup> Traffic Safety Facts 2018: A Compilation of Motor Vehicle Crash Data, NHTSA, Nov. 2020, DOT HS 812 981, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812981>.
  - <sup>8</sup> The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), NHTSA, May 2015 (Revised), DOT HS 812 013.
  - <sup>9</sup> Traffic Safety Facts Research Note, Overview of Motor Vehicle Crashes in 2019, NHTSA, Dec. 2020, DOT HS 813 060.
  - <sup>10</sup> Traffic Safety Facts 2018: A Compilation of Motor Vehicle Crash Data, NHTSA, Nov. 2020, DOT HS 812 981.
  - <sup>11</sup> Rear Seat Belt Use: Little Change in Four years, Much More To Do, Governors Highway Safety Association, November 2019, available at <https://www.ghsa.org/resources/RearBeltReport19>.
  - <sup>12</sup> Traffic Safety Facts: 2018 Data, Occupant Protection, NHTSA, June 2020, DOT HS 812 967, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812967>.
  - <sup>13</sup> Fatality Analysis Reporting System 2019 Data, NHTSA.
  - <sup>14</sup> Status Report, Safety Gains Ground, Vol. 49, No. 11, “Thinking About Safety in the Back Seat”, IIHS, December 23, 2014, available at <https://www.iihs.org/api/datastore/document/status-report/pdf/49/11>.
  - <sup>15</sup> Unbuckled in Back: An Overlooked Issue in Occupant Protection, Governors Highway Safety Association, November 2015, available at [http://www.ghsa.org/sites/default/files/2016-11/RearBelts\\_FINAL.pdf.pdf](http://www.ghsa.org/sites/default/files/2016-11/RearBelts_FINAL.pdf.pdf).
  - <sup>16</sup> Rear Seat Belt Use: Little Change in Four Years, Much More to Do, Governors Highway Safety Association, November 2019.
  - <sup>17</sup> The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), NHTSA, May 2015 (Revised), DOT HS 812 013.
  - <sup>18</sup> CPI Inflation Calculator, US Bureau of Labor Statistics, [https://www.bls.gov/data/inflation\\_calculator.htm](https://www.bls.gov/data/inflation_calculator.htm)
  - <sup>19</sup> Cost of Motor Vehicle Crashes to Employers 2019; Network of Employers for Traffic Safety, available at <https://trafficsafety.org/road-safety-resources/public-resources/cost-of-motor-vehicle-crashes-to-employers-2019/>.
  - <sup>20</sup> 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.
  - <sup>21</sup> *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.
  - <sup>22</sup> The Nation’s Top Strategies to Stop Impaired Driving: Primary Seat Belt Laws, NHTSA, Feb. 2007, DOT HS 910 712.
  - <sup>23</sup> CPI Inflation Calculator, US Bureau of Labor Statistics, [https://www.bls.gov/data/inflation\\_calculator.htm](https://www.bls.gov/data/inflation_calculator.htm).
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- <sup>31</sup> Determining the Relationship of Primary Seat Belt Laws to Minority Ticketing, NHTSA, Sep. 2011, DOT HS 811535.