Reducing deaths, injuries, and loss from motor vehicle crashes

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Motor vehicle crash deaths have declined significantly in the U.S. during the past 50+ years, but have increased in recent years.

U.S. motor vehicle crash deaths and deaths per billion vehicle miles traveled

1950-2016

Motor vehicle crash deaths

Crash deaths per billion vehicle miles traveled

2016
37,461 deaths
11.8 deaths per billion miles
Speed
Maximum speed limits
January 1993

[Map showing maximum speed limits across the United States, with states colored to indicate speed limits: 55 mph, 60 mph, 65 mph, 70 mph, 75 mph, 80 mph, 85 mph.]
Maximum speed limits
January 2013

70 mph
75 mph
80 mph
85 mph
65 mph
60 mph
55 mph (DC only)
Deaths and expected deaths if maximum speed limits had not increased
1993-2013

33,000 deaths
1,900 deaths
Maximum speed limits
October 2017
Speeding as factor in vehicle crash deaths in 2005-15, by percent
U.S. communities with speed cameras
1995-2016
Reductions in proportion of vehicles exceeding speed limit by more than 10 mph
6 to 8 months after camera enforcement
Long-term reductions in vehicle speeds and serious crashes associated with speed camera enforcement
Montgomery County, Maryland

- Likelihood of exceeding speed limit by more than 10 mph at camera sites
- Likelihood that crash involved incapacitating or fatal injury on camera-eligible roads
Intersections
On U.S. roads in 2015, about 181,000 red light running crashes caused about 137,000 injuries and 771 deaths.
Intersection crash reenactment
Almost one-quarter of crash deaths occur at intersections.

Conversion of stop sign and traffic signal intersections to roundabouts leads to:

- 40% reduction in all crashes
- 80% reduction in injury crashes
- 90% reduction in fatal and incapacitating injury crashes
U.S. communities with red light cameras
1992-2016
Estimated effects of red light cameras in large cities
1992-2014

- In the 79 cities with cameras, 1,296 lives were saved.
Estimated effects of red light cameras in large cities
1992-2014

- In the 79 cities with cameras, \textit{1,296 lives were saved.}
- In 14 cities that ended camera programs in 2010-14, \textit{63 lives were lost as a result.}
Rear belt use
Safety belt use by seating position
Occupants 8 and older, 2006-15
Why is belt use lower in the rear seat?

- National telephone survey of adults 18 and older
  - 2,416 total respondents
  - 1,172 respondents who have ridden in the back seat in the past 6 months
- 91% reported always using belt in the front seat
- 72% reported always using belt in the rear seat
Why is belt use lower in the rear seat?

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- 72% reported always using belt in the rear seat
  - 74% always use belt in rear of a personal vehicle
  - 57% always use belt in rear of a hired vehicle
Sometimes I do not wear my safety belt in the back because…

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percent of Part-time Belt Users and Nonusers (n=316)</th>
</tr>
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<tbody>
<tr>
<td>Not needed because of the type of trip (e.g., in a taxi, driving slow or short distances)</td>
<td>80</td>
</tr>
<tr>
<td>Forget or don’t see the need</td>
<td>68</td>
</tr>
<tr>
<td>Design, comfort or usability issues</td>
<td>68</td>
</tr>
<tr>
<td>Law doesn’t require it</td>
<td>38</td>
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</tbody>
</table>
Misperception about need and knowledge of the law are big factors

- Most common reason for part-time or nonuse is ambivalence or the perception it is unnecessary
  - Many forget or not in the habit of buckling up
  - Perception it is safer in the back seat
- Many report they are less likely to buckle up in a hired vehicle
  - Most common reasons are “I forget” and “I don’t know why”
- 60 to 73 percent report belt use laws and enforcement would encourage them to buckle up
  - Knowledge of the law is limited
More information and links to our YouTube channel and Twitter feed at iihs.org

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