

Teens have the highest crash rate of any group in the United States.



# Teen Driver Crashes: 1994-2013

*May 2015*



## Title

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## About the Sponsor

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## Introduction

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Previous research by the AAA Foundation for Traffic Safety has shown that teenage drivers have higher rates of crashes per driver and per mile driven than drivers of any other age group (Tefft, 2012). While most past research has focused on teen driver crash involvements and on the deaths of teenage drivers and their passengers, AAA Foundation research has also shown that per licensed driver and per mile driven, teen drivers are also more likely than drivers of any other age group to be involved in crashes that result in injuries to or deaths of other people outside of their vehicle such as occupants of other vehicles, pedestrians, or cyclists. Research by AAA found that between 1998 and 2007, nearly one third of people killed in crashes involving drivers aged 15 – 17 were people outside of the teen driver’s vehicle (AAA, 2009).

This study investigates the changes and trends in the number of teenage drivers aged 15 – 19 involved in police-reported crashes each year for the 20-year period from 1994 through 2013, and also quantifies the number of those drivers, their passengers, occupants of other vehicles, and non-occupants such as pedestrians and bicyclists who were injured and killed in crashes involving teenage drivers over the study period.

## Methods

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Data analyzed in this study were obtained from the National Highway Traffic Safety Administration (NHTSA) General Estimates System (GES, 2014) and Fatality Analysis Reporting System (FARS, 2014) databases. The GES database contains data from a representative sample of all crashes reported to the police nationwide designed to support national-level analysis of police-reported crashes. The FARS database contains data from all motor vehicle crashes that occur on public roadways in the United States and result in a death within 30 days of the crash.

Data from crashes that occurred in years 1994 – 2013 and involved at least one driver aged 15 – 19 driving a passenger vehicle (i.e., car, pickup truck, van, minivan, or sport utility vehicle) were examined. Crashes in which a teenage driver was driving a motorcycle, all-terrain vehicle, large truck, bus, or other type of vehicle were excluded, unless the same crash also involved another driver aged 15 – 19 who was driving a passenger vehicle.

The number of teenage drivers involved in all police-reported crashes, crashes that resulted in at least one injury, and crashes that involved at least one fatality were tabulated for each year of the study period. The role of each person injured or killed in these crashes was classified as:

- Driver aged 15 – 19
- Passenger in vehicle driven by driver aged 15 – 19
- Driver or passenger of other vehicle<sup>1</sup>
- Non-occupant (pedestrian, cyclist, etc.)

Data from non-fatal crashes in GES were combined with data from fatal crashes in the FARS database to estimate total number of teenage drivers involved in crashes and the number of people injured in those crashes. Data from the FARS database alone was used to calculate the number of teenage drivers involved in fatal crashes and number of people killed in those crashes. Data from fatal crashes reported in the GES database were excluded because those same crashes were also reported in the FARS database. Data from the GES database were weighted to yield representative estimates of all police-reported crashes nationwide.

The body of this report presents national statistics on the total number of police-reported crashes in which drivers aged 15 – 19 were involved during the study period, and the number of people injured and killed in those crashes. State-specific statistics on teen drivers involved in fatal crashes and deaths in those crashes are provided in the Appendix. State-specific statistics on injuries and on non-fatal crashes are not presented because the design of the GES sample does not permit state-level analysis.

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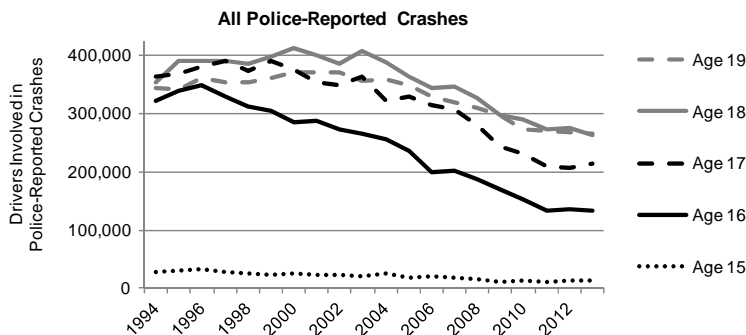
<sup>1</sup> Most crashes involved only one vehicle driven by a driver aged 15 – 19; however, a small number of crashes involved more than one vehicle driven by a driver aged 15 – 19. In these cases, drivers aged 15 – 19 and passengers in vehicles driven by a driver aged 15 – 19 were always classified as such, and not as a driver or passenger of another vehicle.

## Results

Approximately 891,000 drivers aged 15 – 19 were involved in motor vehicle crashes in 2013, including approximately 236,000 involved in crashes that resulted in injuries to one or more people, and 2,614 involved in crashes that resulted in one or more fatalities. Figures 1 and 2, below, show trends in teen driver involvements in all police reported crashes, crashes that resulted in injuries, and fatal crashes over the 20-year study period.

Figure 1 (Table A1) shows the number of drivers aged 15 – 19 involved in police-reported crashes each year, by single year of age. In all years examined, 15-year-old drivers were involved in far fewer crashes than older teenage drivers. This was expected, as few states allowed drivers under the age of 16 to hold a learner’s permit or driver’s license at any time during the study period. In the first few years of the study period, 16-year-old drivers were involved in nearly as many crashes as drivers aged 17, 18, and 19. However, the decline in annual crash involvements of 16-year-old drivers began several years sooner and was much larger overall than the declines in annual crash involvements of older teens. Over the entire 20-year period examined, annual crash involvements of drivers aged 15, 16, 17, 18, and 19 decreased by 52%, 58%, 41%, 26%, and 22%, respectively. Also of note, 16-year-old drivers were involved in nearly as many crashes as 18- or 19-year-old drivers in 1994; however, 16-year-olds were involved in just over half as many crashes as 18- or 19-year-old drivers in 2013.

**Figure 1.** Number of Drivers Aged 15-19 Involved in Police-Reported Crashes Each Year in Relation to Driver Age, United States, 1994 – 2013.

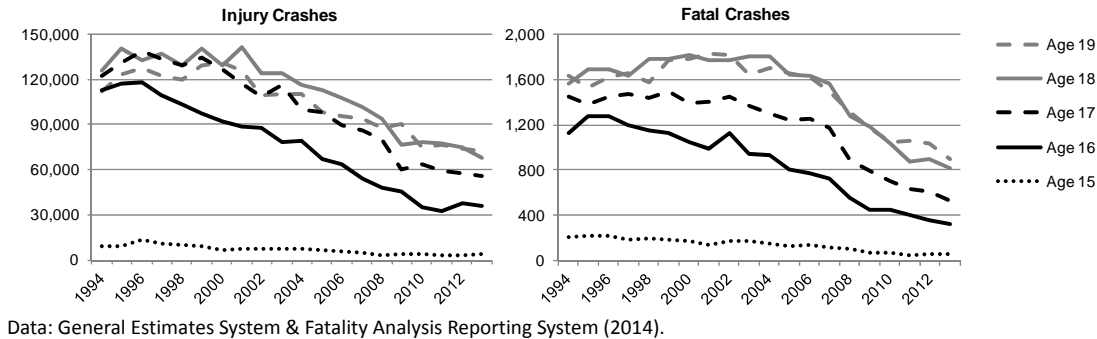


Data: General Estimates System & Fatality Analysis Reporting System (2014).

The total number of drivers aged 15-19 who were involved in injury crashes each year decreased by 51% over the 20 years examined, from approximately 482,000 in 1994 to 236,000 in 2013. Figure 2 (Table A2) shows the number of drivers aged 15 – 19 involved in police-reported crashes that resulted in injuries each year in relation to driver age. In 1994, 16-year-old drivers and 19-year-old drivers were each involved in approximately 112,000 injury crashes; drivers aged 17 and 18 were involved in a slightly greater number. However, the number of 16-year-old drivers involved in injury crashes began decreasing rapidly in 1997 and continued to decrease steadily through 2011, before leveling off and then increasing slightly. The number of 16-year-old drivers involved in injury crashes decreased by 68% over the period examined. The number of 17-, 18-, and 19-year-old drivers involved in injury crashes also decreased substantially (by 55%, 46%, and 35%,

respectively), albeit less so than those of 16-year-olds, and the large declines did not begin until 2001-2002 for these older teenage drivers.

**Figure 2.** Number of Drivers Aged 15-19 Involved in Crashes Resulting in Non-Fatal Injuries (Left) and Fatalities (Right), United States, 1994 – 2013.



The total number of drivers aged 15 – 19 who were involved in fatal crashes each year decreased by 56% over the 20 years examined, from 6,000 in 1994 to 2,614 in 2013. The decrease was not constant over the period, however, as the total number of young drivers involved in fatal crashes fluctuated somewhat and actually reached its maximum in 1999, before beginning a sharp and steady descent in 2003. The Figure 2 (Table A2) shows the number of young drivers involved in fatal crashes each year in relation to driver age. The annual number of fatal crash involvements of 16-year-old drivers decreased every single year from 1996 through 2013 with the exception of one year-over-year increase from 2001 to 2002. There annual number of 17-year-old drivers involved in fatal crashes remained relatively steady from 1994 through 2002 before beginning a sharp decline that continued through 2013. The numbers of 18- and 19-year-old drivers involved in fatal crashes each year actually rose steadily from 1994 through 2001 and then fluctuated somewhat, before beginning a sustained decline in 2005. The number of 15-,16-, 17-, 18-, and 19-year-old drivers involved in fatal crashes decreased by 73%, 72%, 64%, 48%, and 45%, respectively, over the entire 20-year-period, and decreased by 61%, 65%, 60%, 55%, and 47%, respectively, over the 10-year period from 2004 through 2013.

Figure 3 shows the distribution of people injured (left) and killed (right) in crashes involving drivers aged 15 – 19 in 2013. While young drivers and their passengers accounted for the largest shares of people killed in crashes involving drivers aged 15 – 19, occupants of other vehicles accounted for a larger share of people injured in crashes involving teen drivers. This is largely attributable to the fact that 49% of all fatal crashes involving drivers aged 15 – 19, but only 24% of non-fatal injury crashes involving young drivers, are single-vehicle crashes involving no other vehicles besides the young driver’s vehicle. Non-occupants were a much larger share of those killed than of those injured, which is largely attributable to non-occupants’ greater vulnerability to fatal injury in the event of a crash.

























