

Teenage Driver Fatalities by State

2011 PRELIMINARY DATA

Prepared for **Governors Highway Safety Association**

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Summary

The numbers of 16- and 17-year-old driver deaths in passenger vehicles in the United States were slightly higher for the first six months of 2011 than in the first six months of 2010, based on preliminary data supplied by all 50 states and the District of Columbia. Deaths of 16-year-olds increased from 80 to 93 (16 percent). Deaths of 17-year-olds increased from 110 to 118 (7 percent). Overall, 16-and-17-year-old drivers deaths increased from 190 to 211 (11 percent). Twenty-three states had increases in deaths of 16- and 17-year-olds, 19 had decreases, and there was no change in 8 states plus the District of Columbia. Most of the changes were small.

If this trend continued in the second half of 2011, it will mark a reversal of long-standing yearly declines in teen driver deaths, especially among 16-year-olds. Graduated driver licensing (GDL) systems, which began to be introduced in the mid-1990s, and adverse economic trends in recent years leading to fewer miles behind the wheel, are thought to be primarily responsible for the declines. Deaths reached historic lows in 2010: 158 deaths of 16-year-old drivers compared with 508 in pre-GDL 1995; and 250 17-year-old driver deaths compared with 507 in 1995. These are much larger decreases than occurred in other age groups.

Deaths of 16- and 17-year-old drivers in 2011 are still relatively low, and it is not a surprise that the numbers may be stabilizing or increasing slightly. Positive effects based on GDL laws and law upgrades that went into effect between 1996 and 2010 are leveling off. In addition, economic conditions have improved. The economic downturn in 2008 and 2009 is thought to have contributed strongly to crash reductions by reducing travel, especially among teenagers and others with limited income. However, widespread further strengthening of state GDLs is still possible, and compliance with the rules can be improved. Increasing GDL effects in these ways, and finding effective ways outside of GDL to reduce young driver crashes are important goals.

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Introduction

Since graduated driver licensing (GDL) began to be introduced in the mid-1990s, teenage driver fatalities have dropped precipitously, more so than in the case of older drivers. This is so particularly for 16- and 17-year-olds, the primary age groups targeted by GDL. In the first half of 2011, there is preliminary evidence that this decline has halted.

In late 2011 the Governors Highway Safety Association (GHSA) asked states to provide information on the numbers of fatally injured teenage drivers of passenger vehicles (cars, light trucks, SUVs, vans) for the first half of 2011. All 50 states and the District of Columbia furnished data. States also provided information about teen driver programs they were now running or that were planned for the future. They were also asked about their sense of recent trends in teen fatalities and why they thought these trends were occurring.

This report summarizes the information received. In reviewing the data, several cautions should be observed:

- All data are preliminary.
- Data are reported by states from their traffic records systems, and counts may differ slightly from those recorded in NHTSA's Fatality Analysis Reporting System (FARS).
- States were requested to exclude from their counts drivers of motorcycles, ATVs, and other non-passenger vehicles, and there is no independent check on how well these exclusions were accomplished.

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Teenage Driver Fatalities in 2010 and 2011

In the first six months of 2011, compared with the first six months of 2010, driver deaths for 16-year-olds in passenger vehicles increased from 80 to 93. Driver deaths for 17-year-olds increased from 110 to 118. Table 1 summarizes the results for 16- and 17-year-olds combined.

Table 1 Passenger Vehicle Driver Deaths of 16- and 17-year-olds, January-June, 2010 and 2011*

	January - June
2010	190
2011	211
change from 2010	+ 21
percent change	+ 11 %
States with increase	23
States with decrease	19
States unchanged	8 plus D.C.
States with increase of 5 or more	4
States with decrease of 5 or more	1

*2011 based on preliminary data reported by states and D.C.; 2010 data based on FARS

Although the number of states with increased numbers of deaths was not much higher than those with decreases, overall there was an 11 percent increase in deaths. Most states had small fluctuations; in only five did death counts change by five or more.

For 16-year-olds the increase was 16 percent; for 17-year-olds it was 7 percent. Notably, the number of 16- and 17-year-old passenger vehicle driver deaths for the first six months of 2009 was 254, considerably more than the 211 in 2011. Thus, despite the small increases, 16- and 17-year-old driver deaths remain at a low level historically.

For 18-year-olds, driver deaths in the first six months of 2011 and 2010 were essentially the same: 210 in 2011; 209 in 2010.

Data for individual states are displayed in Table 2.

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Table 2
State-by-State 16- and 17-Year-Old Driver Deaths, January-June, 2010 vs. 2011*

* Source: 2010 FARS; 2011 preliminary data reported by states and the District of Columbia.

Numbers of 16- and 17-year-old driver deaths in states vary greatly, depending largely on population size and overall driver death rates for the state, which reflect urban-rural mix and other factors. In most cases, the numbers are quite small. There are 13 states in which the numbers were zero or one for both periods, and in another 18 states they were less than five. In 2011, the highest numbers for the first six months were in Texas (26), North Carolina (17), Florida (15), Illinois (12), Missouri (10), and Pennsylvania (10), all of these states showing increases compared with the first six months of 2010.

FARS data indicate that numbers of 16-year-old passenger vehicle driver deaths in the first half of 2010 (80) and the second half (78) were about the same, whereas there were more 17-year-old driver deaths in the second half of the year (140) than in the first half (110). When complete 2011 data are available from FARS, it will be known with certainty how the years 2010 and 2011 compare.

State	2010 6 months	2011 6 months	change 6 months
AK	0	0	0
AL	10	3	-7
AR	3	4	+1
AZ	1	2	+1
CA	7	7	0
CO	3	3	0
CT	0	1	+1
DC	0	0	0
DE	0	0	0
FL	9	15	+6
GA	9	5	-4
HI	1	1	0
IA	1	3	+2
ID	1	3	+2
IL	4	12	+8
IN	4	3	-1
KS	5	3	-2
KY	4	8	+4
LA	5	8	+3
MA	1	0	-1
MD	0	1	+1
ME	3	1	-2
MI	4	6	+2
MN	5	2	-3
MO	3	10	+7
MS	7	5	-2
MT	2	1	-1
NC	11	17	+6
ND	0	1	+1
NE	4	1	-3
NH	1	1	0
NJ	3	2	-1
NM	3	2	-1
NV	0	0	0
NY	4	1	-3
OH	8	6	-2
OK	6	8	+2
OR	1	0	-1
PA	8	10	+2
RI	1	0	-1
SC	3	4	+1
SD	0	0	0
TN	9	6	-3
TX	22	26	+4
UT	3	1	-2
VA	4	2	-2
VT	0	1	+1
WA	3	6	+3
WI	3	4	+1
WV	1	2	+1
WY	0	3	+3
total	190	211	+21

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Teenage Driver Fatality Trends and Patterns

Unless data from the second six months of 2011 reverse the trend of the first six, the downward decline in teen driver deaths will have halted. Teen crashes have been a focus in the United States for the past 15 years, and many programs have been introduced to try to reduce the crashes and their consequences. The reasons for the drop in teen crashes over these years are not fully known, but changes in licensing laws in the form of graduated driver licensing (GDL) are thought to have played a major role.

GDL is designed to allow young beginning drivers to obtain on-road driving experience in a manner that protects them while they are learning, keeping them out of higher risk situations until they are ready. There are three stages that feature the basic GDL components: an extended learner period allowing for the accumulation of low-risk supervised driving practice; an intermediate stage with restrictions on high risk driving (late at night or with passengers); and a full privilege license. This is a sensible and humane approach to integrating novices into the driving population. Although GDL was debated extensively in the 1970s and 1980s, it did not begin to catch on until the mid-1990s. Florida, in 1996, became the first state to enact a three-stage graduated system. From that point on, the GDL movement accelerated rapidly. Thirty more states introduced one or more of the basic elements of GDL prior to 2000, and the other 19 states plus the District of Columbia did so between 2000 and 2006. (Insurance Institute for Highway Safety, 2012)

Most of the early GDL programs were incomplete. For example, many had only an extended learner phase. However, all but nine states have amended their original legislation one or more times, in almost all cases making their laws more comprehensive. Upgrades began to be introduced in 1998, and this process has continued through early 2011, with the bulk of changes going into effect 2005 to 2010 (Insurance Institute for Highway Safety, 2012). In total, 82 law changes were made. Twenty-three states added passenger restrictions, 15 states added nighttime restrictions, and 16 either added an extended learner period requirement or lengthened it. In 18 instances, existing passenger restrictions were strengthened, as were 10 nighttime restrictions.

Twenty-seven states have also supplemented their original legislation by requiring that parents supervise their learner son or daughter a minimum number of hours, or the number of required supervisory hours was increased. In addition, since GDL began to be introduced, hand-held cell phone use has been banned for all drivers in nine states and D.C. use of all cell phones (hand-held and hands-free) by novice drivers has been banned in 30 states and D.C. Texting has been prohibited for all drivers in 35 states and D.C., and for novices in seven additional states (Governors Highway Safety Association, 2012).

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Presently, all but two states have minimum learner periods of at least six months, although in two states the time period is reduced for driver education graduates. All but two states had night driving restrictions in effect during the time period studied, and all but seven had passenger restrictions. Despite this substantial progress, in many cases the requirements are not optimal, such as night driving restrictions that do not begin until midnight or 1 a.m.

Many studies indicate that GDL has strong positive effects. Evaluations of state GDL programs have reported crash reductions ranging from 20 to 40 percent, unusually high for a highway safety countermeasure (Shope, 2007). The results pertain primarily to 16-year-olds, the age group directly affected in most states. Seventeen-year-olds are also subject to GDL policies in many states, at least for part of the year, and when that is the case, there is evidence for positive effects in this age group. This is reflected in national data. Table 3 shows the changes in driver deaths that occurred between 1995 and 2010, for 16- and 17-year-olds. For comparison, deaths of drivers ages 20 and older are also displayed.

Table 3 Fatally Injured Drivers of Passenger Vehicles, Ages 16, 17, and 20+, 1995-2010

Year	Age 16	Age 17	Age 20+
1995	508	507	19,006
1996	548	559	19,107
1997	484	608	19,241
1998	461	599	19,127
1999	445	649	19,244
2000	435	564	19,241
2001	434	558	19,316
2002	488	639	19,736
2003	413	581	19,589
2004	400	569	19,413
2005	356	525	19,583
2006	326	535	19,201
2007	296	479	18,296
2008	231	349	16,402
2009	195	307	15,195
2010	158	250	14,597

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There are fluctuations over the years in driver deaths of 16-year-olds, but the trend is definitely downward, with decreases accelerating sharply after 2007. The data for 17-year-olds are less clear, although there is a declining trend after 2002, and an acceleration of this trend after 2007. Driver deaths of those 20 and older showed mostly minor changes from 1995-2006, with a dip in 2007, and substantial declines after 2007.

Table 4 indicates percentage reductions in driver deaths in different age groups for 1995-2010, separated into 1995-2007 and 2007-2010 periods. Decreases in deaths in all age groups in recent years are thought to be in part attributable to the economic downturn, which began in 2008, with rising gas prices and adverse economic conditions expected to depress travel more for teenagers and others with limited funds. GDL effects are mainly apparent for 16-year-olds; less so at age 17. Both 16- and 17-year-olds had greater 1995-2010 reductions than in other age groups

Table 4 Percentage Reductions in Driver Deaths by Age, 1995-2010

Age	1995-2007	2007-2010	1995-2010
16	-42%	-47%	-69%
17	-6%	-48%	-51%
18-19	-1%	-35%	-35%
20+	-4%	-20%	-23%

It should be noted that the statistic commonly used in tracking the fatal crashes of 16- and 17-year-olds is the total number of drivers in fatal crashes, which includes both dead and surviving drivers (Williams, 2005 ; Ferguson, Teoh, & McCartt, 2007; Shults & Ali, 2010). These numbers are substantially higher than driver deaths alone, since only about 45 percent of 16- and 17-year-old drivers in fatal crashes die. The majority of deaths involve passengers in the driver's vehicle, occupants of other vehicles, and pedestrians/bicyclists. The two series run in parallel and show similar reductions for the 1995-2010 period: 65 percent for 16-year-olds in fatal crashes (compared with 69 percent for driver deaths), and 50 percent (vs. 51 percent) for 17-year-olds.

The National Highway Traffic Safety Administration (2011) has released a statistical projection suggesting that total motor vehicle deaths for the first six months of 2011 would be 0.9 percent lower than in the first six months of 2010. It is a concern if teen driver deaths are running counter to trends in other motor vehicle deaths. However, it is not necessarily surprising that the decline in 16- and 17-year-old driver deaths may be halting. The declines have been steep, much greater than in the case of older drivers, and the number of deaths in the first half of 2011, although higher than in 2010, is still substantially lower than in the first half of 2009. GDL enhancements have gone into effect in four states in 2011 or 2012 (a passenger restriction in Pennsylvania,

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a nighttime restriction in North Dakota, and new hours of parent certification in North Carolina and North Dakota). However, without further major law changes, the positive GDL effect is basically built in, and should not be expected to produce further reductions. Moreover, economic conditions have improved somewhat, perhaps leading to more teen drivers on the road. Economic growth as measured by GDP (gross domestic product) was better in 2010 and 2011 than in 2008 and 2009, although it is not clear that 2011 was improved over 2010 (US Bureau of Economic Analysis, 2011).

Given the present situation, it is of interest to see what state officials have to say about teen crash trends and attempts to reduce young driver crashes. Across the country, programs with the goal of reducing crashes and injuries among young drivers are many and varied. Many are awareness or educational programs of unknown efficacy, involving school officials, police, health educators, victims, peer-led groups, and including brochures, pamphlets, posters, PowerPoint presentations, simulators, school assembly sessions, advanced driving clinics, role playing, games, contests, conferences, mock deaths and mock funerals. Given the importance of GDL, emphasis is placed on programs that attempt to promote GDL compliance, with new developments in other areas covered as well.

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Comments from the States

Not unexpectedly, most states noted the reductions in teen driver crashes that had occurred in recent years, and the key role of GDL as the driving force for these decreases. A comment from Alabama:

“While there is no way to isolate those lives saved by the GDL, it is vital to our continuing youth driver program. Its effects are not just the short-term gains that we may have obtained from it per se. It establishes a precedent that we can build on by strengthening the law itself and making its enforcement a primary offense.”

A few comments were made about the likely role of the economic downturn in reducing teen crashes. Again, from Alabama:

“The economy (lack of jobs for teenagers) coupled with the increase in gas prices has caused a reduction in discretionary driving by all ages, so its significance cannot be minimized...it seems intuitively obvious that young drivers would be affected more than drivers of other ages.”

From Nebraska:

“...the increasing cost of fuel has likely restricted the amount of ‘recreational’ driving by teens, especially during the high risk times.”

Several states discussed the importance of GDL enhancements as making a difference in furthering teen crash reductions. An example from Minnesota:

“We believe the addition of passenger limitations and nighttime restrictions to Minnesota’s GDL laws in 2008, and the resulting enhanced awareness of teen driving issues, have contributed to fewer teen driver involved fatal crashes, especially nighttime crashes.”

A relatively new development is the introduction of orientation programs for parents, informing them about the rules and their rationale and the parental role in the licensing process. Parent orientation programs have been introduced in several states. These programs are voluntary in most cases, but Massachusetts has joined Connecticut and counties in Northern Virginia in requiring them as a condition of licensure. Initial research in Connecticut indicates that the programs are well received and parents report them to be useful (Chaudhary, Williams, & Casanova, 2010).

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According to officials from Massachusetts:

“Progress in protecting the safety of teen drivers in Massachusetts was made on January 3, 2007 when the enhancements to the Junior Operator’s Bill were signed into law. As a result, the Registry of Motor Vehicles developed a standardized driver education program throughout the state. The law requires that a parent/guardian attend a 2-hour driver education class that must be included within the driver education program.”

Examples of voluntary parent programs:

“One of the cornerstones of Delaware’s teen driving programming is its Graduated Driver Licensing Parent Orientation Program. Participation in this program is voluntary and is done at the school level through the driver education programs. Participating Driver Education teachers require their students to bring at least one parent to this after hours program as a condition of their classroom grade.”

“The Minnesota Office of Traffic Safety is working with the Minnesota Safety Council to implement parent classes in conjunction with driver education programs across the state. The objectives are to increase parental awareness of teen driving risks and laws; increase awareness of the important role parents play in influencing their children to drive safely; provide resources for parents to fulfill their role.”

New Jersey, which had a bill under consideration to require a teen to attend an orientation with a parent or guardian as a prerequisite for obtaining a learner permit, also has been offering a program called “Share the Keys,” a research-based, data driven orientation designed to reduce teen driver crash risks by increasing parental involvement. More than 150 facilitators across the state have been trained to deliver this program.

In some cases, education of all the stakeholders in supporting GDL has been undertaken. An example from Tennessee:

“There is a plan to continue to raise awareness of the GDL laws and requirements. The goal of the coalition is to educate not only teens but also parents, educators, law enforcement and the general public. GDL brochures are being distributed to high schools across the state and are passed out at every driving center; teens in the coalition have created a PowerPoint presentation specifically targeting teens that helps to bring understanding to students about what is required of them. A roll call video is being prepared that will be used to educate law enforcement across the state on the GDL laws.”

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A few states have programs that facilitate GDL enforcement. One example is in New Jersey.

“The Division has funded GDL checkpoints within two counties near high schools and other locations frequented by young drivers, to ensure that teens are driving safely and in compliance with the State’s GDL law. New Jersey has also produced a training video and distributed it to all law enforcement agencies in the state. The video includes enforcement scenarios, information on the current GDL law, as well as teen driving statistics that reinforce the importance of enforcing the law for the safety of teens and everyone that shares the road with them.”

From Rhode Island:

“We plan to implement a three-week program of education of GDL laws followed by enforcement of these laws in and around high school parking lots.”

New developments in driver education were noted in several states. The development of a new standardized statewide driver education program in Massachusetts was described earlier.

In North Dakota, a new driver education curriculum was rolled out for use by school-based driver education programs in 2009.

“The curriculum goes beyond skills-based driver education to include behavioral safety topics and parent education.”

Other State Efforts

Many other state programs address seat belt use, distracted driving, and alcohol-impaired driving. These are important topics, although there is still an effort to determine effective ways to further reduce these risk behaviors, whether through laws and their enforcement, educational programs, or other means.

Alcohol-impaired driving among 16- and 17-year-olds is not the problem it once was, but it is still a factor in about 15 percent of their fatal crashes, and this percentage has not changed in recent years. A recent study indicated that almost 90 percent of the fatal crashes of 16- and 17-year-olds involving alcohol take place at night and/or with passengers, and thus more comprehensive night and passenger restrictions and greater compliance with the provisions would address the alcohol problem (Williams, West, & Shults, 2012).

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Distracted driving is a particular problem for teenagers given their high use of electronic equipment and frequent travel with peer passengers, which escalate crash risk. Laws prohibiting in-vehicle use of cell phones is one approach, although the only novice driver law to be evaluated did not find a change in phone use (Foss, et al., 2009). Strong, well-enforced teen passenger restrictions are another option. There are various other programs in use to try to reduce distraction-related crashes, ranging from peer-led modeling and influence efforts to reduce the use of electronics in vehicles, to having teens drive golf carts in demonstrating the dangers of texting while driving (Vermont).

Seat belt use is targeted in driver education and other educational programs. Belt use is covered in many GDL laws. For example, North Carolina has a provision that belts be used by all occupants in cars with GDL drivers, and penalties include delays in advancement to the next licensing level. Programs attempting to increase belt use through GDL enforcement have had minimal success (Goodwin et al., 2006). However, some promising techniques are being used in states to address seat belt use.

Belt use at high schools is easily observable, and the short-term effects of belt encouragement programs in this driving context can readily be measured via pre-post surveys. Peer-to-peer safety education approaches, which have become popular, often focus on seat belts. Sometimes these programs are in the form of competitions, for example, the "Battle of the Belts" in Missouri, a statewide contest at high schools with prizes awarded.

In Washington, a teen-led project begins with an observational survey of students, parents, and teachers who drive onto high school property. This is followed with an intervention that includes 'tickets' to students who drive to school buckled up, which can be exchanged for candy and a chance to win a \$124 debit card, the price of a real seat belt ticket. The school principal and local law enforcement are also involved. The ticketing is followed by another seat belt observational survey, and these follow-ups have consistently shown increases in belt use.

In Montana, a peer-to-peer safety campaign based on the Teens in the Driver Seat program developed by the Texas Transportation Institute is being formally evaluated at schools with and without the program, which will help to determine what programs of this type can accomplish.

States have also actively partnered with the private sector in teen driving efforts. Too often, federal and state funding for these programs is scarce, so private sector support is critical. GHSA Members have combined with a host of companies including the Allstate Foundation, State Farm and Ford Motor Company.

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One of the most successful examples of this collaboration has been in Illinois. The state developed Operation Teen Safe Driving with support from the Allstate Foundation and the Ford Driving Skills for Life program. Operation Teen Safe Driving addresses the major reasons teens are killed in crashes, including speeding, distracted driving and lack of seat belt use. The program provides materials and seed funding to schools across the state to develop peer-led activities that are thought to have contributed to the subsequent reductions in teen fatalities in Illinois.

Approximately 40 other states have also utilized the Ford Driving Skills for Life program to complement existing state programs and to promote GDL laws. Efforts have included major “ride and drive” trainings, community programs, and forums involving parents and educators.

Many states provided reports about recent teen crashes that had captured public attention. Some examples:

- **Minnesota:** A teenager who had earned her driver's license three weeks prior hit another vehicle head-on while driving on a wet road early Sunday morning. The 16-year-old driver was hospitalized in serious condition. Her four passengers and two people in the other vehicle were killed.
- **Wyoming:** A 17-year-old young man died in a pickup truck rollover crash. He was well known locally as a football star, had a full scholarship to a college in Nebraska, and was within days of reporting for football practice and his freshman year.
- **Missouri:** A high school student was killed and three other teenagers injured in a one-car crash that may have been caused by “hill hopping.” The 17-year-old driver was seriously injured. A 16-year-old passenger was ejected from the car and died.
- **Ohio:** At about 3:30 p.m. on the way home from school, a 17-year-old female driver lost control, ran off the road and hit a tree, killing herself, her younger brother and a friend.

A recent trend has been to memorialize teens killed in crashes in laws that carry their name. These include Paul's law (Arkansas) and Caleb's law (Georgia).

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Concluding Comments

All states are highly aware of the young driver crash problem and its consequences. Great progress has been made in reducing these crashes, but tragic events such as those described still occur, and the problem remains. Efforts need to continue, particularly since preliminary evidence from 2011 indicates that the long decline in teen driver crashes may have stopped.

In dealing with the young driver problem, we have one solidly evidence-based building block in graduated driver licensing, and it makes policy sense to build on it. This can be done through legislation making the rules more comprehensive, and finding effective techniques for increasing compliance with them. Attention also needs to be given to developing evidence-based methods outside of GDL for dealing with young driver risk factors and incorporating them in state programs.

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