

teen crashes



—everyone is at risk



People Fatally-Injured In Motor Vehicle Crashes
Involving 15- to 17-Year-Olds



2009 Update

When we consider all crashes involving 15- to 17-year old drivers we find that, on the average, nearly two individuals are killed for every teen driver killed.

Introduction

Government statistics typically quantify the number of teen drivers and their passengers who have died in motor vehicle crashes. This report investigates the number of people, other than the teen driver, who have died in crashes involving young drivers, such as teen drivers' passengers, drivers and passengers of other vehicles, pedestrians, and bicyclists. The report reveals the extent of fatalities among other road users: **nearly two other individuals are killed for every teen driver killed.** As teen driver deaths have declined during recent years, though, there has been a large drop in deaths of other road users. So, although teen crashes put everyone at risk, everyone stands to benefit from safety improvements that reduce teen driver crashes.



Executive Summary

The AAA Foundation for Traffic Safety analyzed data on fatal motor vehicle crashes from 1998 through 2007 and identified all fatal crashes involving a 15-, 16-, or 17-year-old driver of a passenger vehicle. Over the 10 years from 1998 through 2007, there were 24,655 drivers ages 15 through 17 involved in fatal crashes. These crashes killed 28,138 people, of whom 10,388 (36.9%) were the 15-, 16-, and 17-year-old drivers themselves. However, the majority of fatalities in those crashes (63.1%) were people other than those drivers, and included 8,829 of their passengers, 6,858 occupants of vehicles operated by drivers age 18 or older, and 2,063 non-motorists and others.

On a positive note, the number of young drivers involved in fatal crashes each year decreased substantially over the years analyzed, with 776 fewer drivers age 15 to 17 involved in fatal crashes in 2007 than in 1998, resulting in the deaths of 311 fewer young drivers and 540 fewer deaths of other people in 2007 than in 1998. There was also a substantial decrease in the fatal crash involvement of adult drivers over the same period; however, the decrease in the fatal crash involvement of young drivers and people killed in those crashes was significantly larger than what would have been predicted from the decrease in the fatal crash involvement of adults.

Methods and Definitions

The findings reported here are based on analysis of the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS) data on fatal motor vehicle crashes. FARS is an annual census of all crashes that involve a motor vehicle in transport, occur on a public roadway, and result in the death of a person within 30 days of the crash.

FARS data from years 1998 through 2007* were analyzed using SAS 9.1[†]. All crashes involving a 15-, 16-, or 17-year-old driver (hereafter referred to as young drivers) of a passenger vehicle were identified. Passenger vehicles include passenger cars, sport utility vehicles, vans, minivans, and light trucks. Medium trucks, heavy trucks, buses, tractors, motorcycles, mopeds, and other such vehicles are not categorized as passenger vehicles. Crashes involving young drivers of vehicles not classified as a passenger vehicle are not included in the analysis reported here unless a passenger vehicle driven by a young driver was also involved in the same crash.

The majority of fatalities in teen crashes are people other than the teen driver.

*1998–2006 FARS final files, 2007 Annual Report File. Available at <http://www-fars.nhtsa.dot.gov>.

[†]SAS Institute Inc., 2003, SAS for Windows, release 9.1.3. Cary, NC.

36.9% of people killed in young driver crashes were the young drivers themselves. 31.4% were passengers of young drivers. 24.4% were occupants of other vehicles. Another 7.0% were non-motorists.

People fatally injured in crashes involving young drivers were categorized as:

- Young drivers
- Passengers of young drivers
- Occupants of other vehicles
- Non-motorists
- Other

The *young drivers* category includes all fatally-injured young drivers of passenger vehicles. The *passengers of young drivers* category includes all fatally-injured passengers who were riding in passenger vehicles whose drivers were age 15 to 17. *Occupants of other vehicles* includes all fatally-injured occupants (drivers and passengers) of vehicles driven by someone at least 18 years old. *Non-motorists* includes fatally-injured pedestrians, bicyclists, occupants of motor vehicles not in transport (e.g., parked cars), and occupants of other types of transportation devices not classified as motor vehicles (e.g., motorized scooters). The *other* category includes fatally-injured occupants of other types of non-passenger vehicles (e.g., motorcycles) driven by young drivers, occupants of vehicles operated by drivers younger than 15 years of age, and occupants of vehicles operated by drivers of unknown age.

Results

Between 1998 and 2007, 24,655 young drivers were involved in 24,198 fatal crashes that killed 28,138 people. Table 1 shows the number of young drivers, passengers of young drivers, occupants of other vehicles, and non-motorists killed in these crashes each year. Of the 28,138 people who died in crashes involving young drivers, 10,388 (36.9%) were the young drivers themselves, and 8,829 (31.4%) were passengers of young drivers. Another 6,858 (24.4%) were occupants of other vehicles operated by drivers at least 18 years old. Also killed in these crashes were 1,973 (7.0%) non-motorists, and 90 other people (0.3%). (This is also shown in Figure 1.)

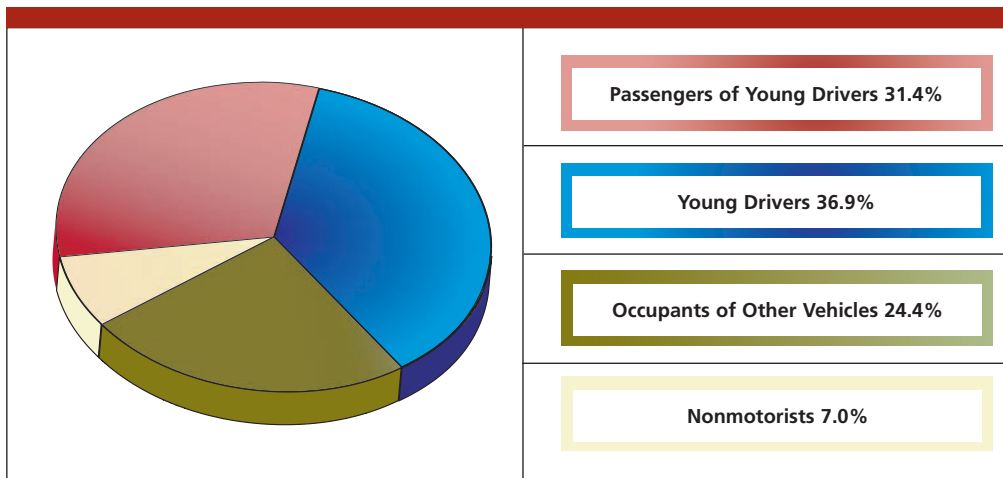




Table 1. People killed in crashes involving young drivers, 1998-2007.

	Young Drivers		Passengers of Young Driver		Occupants of Other Vehicle		Non-motorists		Other		Total
	N	%	N	%	N	%	N	%	N	%	
1998	1,134	36.1	981	31.3	731	23.3	276	8.8	17	0.5	3,139
1999	1,165	36.2	1,012	31.4	824	25.6	218	6.8	4	0.1	3,223
2000	1,063	36.3	886	30.3	738	25.2	227	7.8	13	0.4	2,927
2001	1,045	36.0	936	32.3	710	24.5	201	6.9	9	0.3	2,901
2002	1,206	38.6	945	30.2	746	23.9	220	7.0	8	0.3	3,125
2003	1,066	37.8	880	31.2	671	23.8	196	6.9	10	0.4	2,823
2004	1,036	37.7	887	32.3	653	23.8	162	5.9	12	0.4	2,750
2005	937	37.2	760	30.2	657	26.1	159	6.3	5	0.2	2,518
2006	913	37.4	792	32.4	575	23.5	160	6.6	4	0.2	2,444
2007	823	36.0	750	32.8	553	24.2	154	6.7	8	0.4	2,288
Total	10,388	36.9	8,829	31.4	6,858	24.4	1,973	7.0	90	0.3	28,138

Figure 1. People Killed in Crashes Involving a Young Driver, 1998-2007.*



*90 people categorized as other not displayed

Table 2 shows the number of fatally-injured young drivers by age and year. Over the entire 10-year period, 639 15-year-old drivers, 4,052 16-year-old drivers, and 5,697 17-year-old drivers of passenger vehicles were killed in crashes. The percentage of fatally-injured drivers who were 16 years old decreased from 40.7% in 1998 to 35.7% in 2007, and the percentage who were 17 years old increased similarly.

Table 2. Ages of fatally-injured young drivers, 1998–2007.

	15		16		17		Total
	N	%	N	%	N	%	N
1998	74	6.5	461	40.7	599	52.8	1,134
1999	71	6.1	445	38.2	649	55.7	1,165
2000	64	6.0	435	40.9	564	53.1	1,063
2001	53	5.1	434	41.5	558	53.4	1,045
2002	79	6.6	488	40.5	639	53.0	1,206
2003	72	6.8	413	38.7	581	54.5	1,066
2004	67	6.5	400	38.6	569	54.9	1,036
2005	56	6.0	356	38.0	525	56.0	937
2006	52	5.7	326	35.7	535	58.6	913
2007	51	6.2	294	35.7	478	58.1	823
Total	639	6.2	4,052	39.0	5,697	54.8	10,388

Figure 2. Ages of fatally-injured young drivers, 1998-2007.

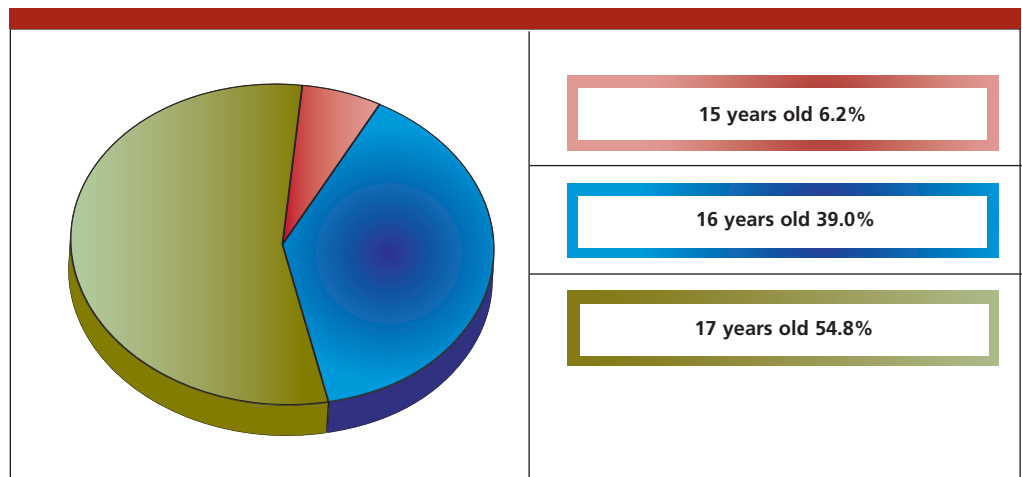




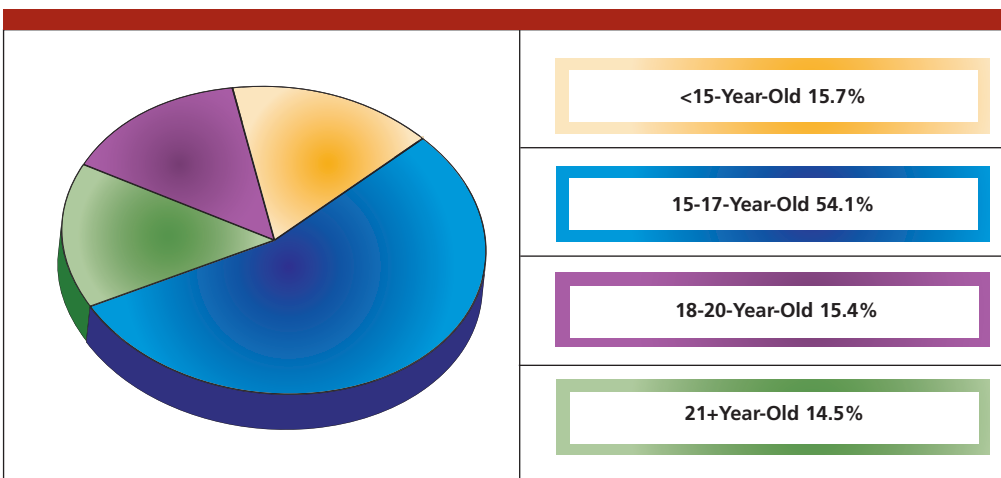
Table 3 shows the number of fatally-injured passengers of young drivers by age and year. Over the entire 10-year period, 1,386 passengers under age 15; 4,777 passengers ages 15 to 17; 1,362 passengers ages 18 to 20; and 1,282 passengers age 21 or older were killed in crashes while riding in a vehicle operated by a young driver.

Table 3. Ages of fatally-injured passengers of young drivers, 1998–2007.

	<15		15-17		18-20		21+		Total*
	N	%	N	%	N	%	N	%	N
1998	150	15.3	516	52.6	165	16.8	148	15.1	981
1999	169	16.7	537	53.1	151	14.9	153	15.1	1,012
2000	156	17.6	470	53.1	134	15.1	121	13.7	886
2001	139	14.9	492	52.6	156	16.7	146	15.6	936
2002	129	13.7	538	56.9	149	15.8	126	13.3	945
2003	148	16.8	465	52.8	124	14.1	141	16.0	880
2004	163	18.4	480	54.1	135	15.2	108	12.2	887
2005	104	13.7	439	57.8	112	14.7	105	13.8	760
2006	119	15.0	432	54.6	114	14.4	126	15.9	792
2007	109	14.5	408	54.4	122	16.3	108	14.4	750
Total	1,386	15.7	4,777	54.1	1,362	15.4	1,282	14.5	8,829

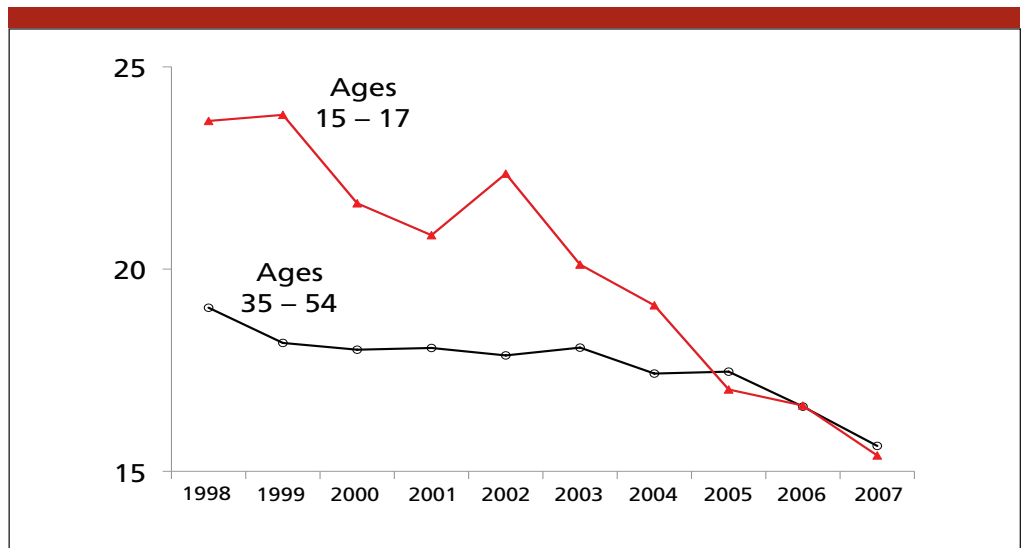
*Includes 22 persons of unknown age.

Figure 3. Fatally-injured passengers of young drivers, by age, 1998-2007.



In Tables 1, 2, and 3, there appears to be a decreasing trend over time in the number of people killed in crashes involving young drivers. To investigate this trend, Figure 4 shows the population-based fatal crash involvement rate of young drivers, as well as the fatal crash involvement rate of adult drivers age 35 to 54 for comparison purposes.

Figure 4. Number of drivers involved in fatal crashes per 100,000 population, 1998–2007.



Population data from U.S. Census Bureau, available at: <http://www.census.gov/popest/estimates.php>.

As Figure 4 shows, the fatal crash involvement rate of adult drivers ages 35 through 54 decreased over the study period, from 19.0 drivers involved in fatal crashes per 100,000 population in 1998 to 15.6 in 2007, a decrease of about 18 percent. However, the decrease in the fatal crash involvement rate of young drivers was clearly much greater. In 1998, the fatal crash involvement rate of drivers ages 15 to 17 was 23.7 per 100,000 population. By 2007, it had decreased to 15.4, representing a 35 percent decrease since 1998.

The Appendix shows the number of young drivers, passengers of young drivers, occupants of other vehicles, non-motorists, and others killed in crashes involving young drivers, by state, from 1998 through 2007.





Next Steps

This analysis shows that the tragedy of teen driver crashes goes well beyond the teen drivers and their teen passengers. For every teen driver killed, almost twice as many other individuals lose their lives. During the last decade we've seen a substantial drop in teen driver deaths. What's more, deaths among other road users involved in young driver crashes – pedestrians, cyclists, adult drivers, occupants of other vehicles – were shown to have declined as well.

To help reduce teen driver crashes, AAA set an ambitious goal in 1997 to establish graduated driver licensing, or GDL, systems in all 50 states and the District of Columbia. When Wyoming and Montana enacted their GDL laws in 2005, that goal was achieved. These legislative efforts have helped save lives by providing teens the opportunity to gain more driving experience under lower risk conditions. Much work remains to be done, though. Many state GDL systems still lack the comprehensive network of effective passenger restrictions, night limits, and mandatory practice requirements shown by research to save lives. That's why in 2009, AAA continues to make teen driver safety one of the Association's top safety priorities. AAA clubs across the country remain focused on strengthening existing GDL systems, educating parents, and creating programs and partnerships to address this issue. Please visit www.aaa.com/publicaffairs and click on Teen Drivers for more information on AAA's teen driver safety efforts.

Many state GDL systems still lack the comprehensive network of effective passenger restrictions, night limits, and mandatory practice requirements shown by research to save lives.

Parents in states with weak passenger restrictions should not allow their teen to ride with other teen drivers, and should not allow them to transport other teens in the first year of driving.



Comprehensive Teen Driver Policies

Since 1997, most states have made improvements to their teen driving laws. However, while all states now have some form of GDL, the policies in most states have significant room for improvement by the adoption or enhancement of important GDL provisions shown by research to save teen lives. AAA recommends that all GDL systems include three core elements:

- Passenger Limits: No more than one peer passenger (under age 20) during the first six months of solo driving;
- Night Restrictions: No driving between 10 p.m. and 5 a.m.;
- Mandatory Practice: At least 50 hours of certified practice driving and a learner's permit stage that lasts at least six months

To access AAA's full guidelines for comprehensive state GDL systems, please visit www.aaa.com/publicaffairs and click on Teen Drivers.

Figure 5 below compares the current status of Learner's Permit Practice Driving Requirements with AAA recommended guidelines. Extending learner's permit holding periods and increasing practice hours allows more practice for teen drivers before they begin driving on their own.

Figure 5. Learner's Permit Practice Driving Requirements (January 2009)

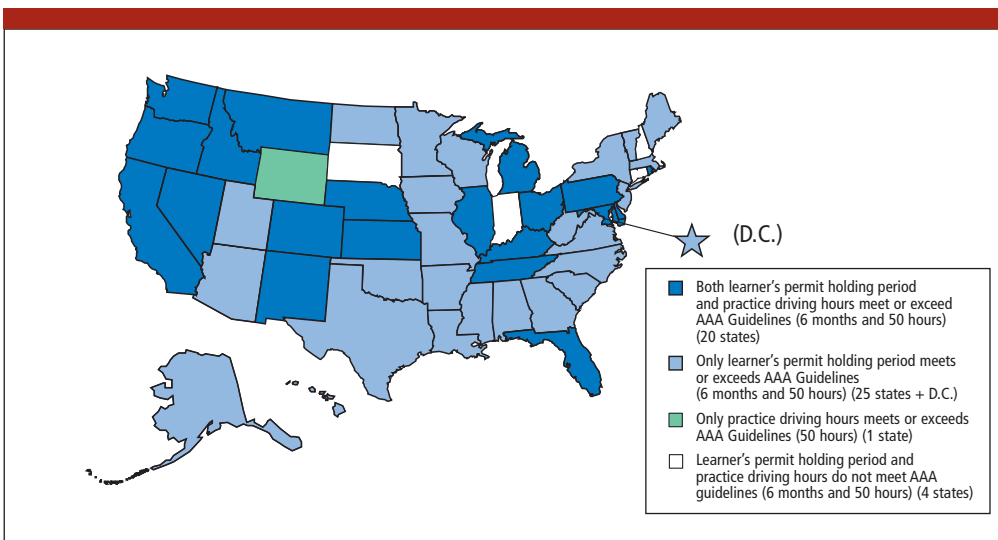


Figure 6 below shows that many state passenger limits for intermediate/probationary stage teen drivers fall short of AAA's recommended guidelines. Strengthening passenger limits removes distracting passengers from the vehicle, helping new solo drivers gain driving experience under less risky conditions.

Figure 6. Passenger Limits for New Teen Drivers (January 2009)

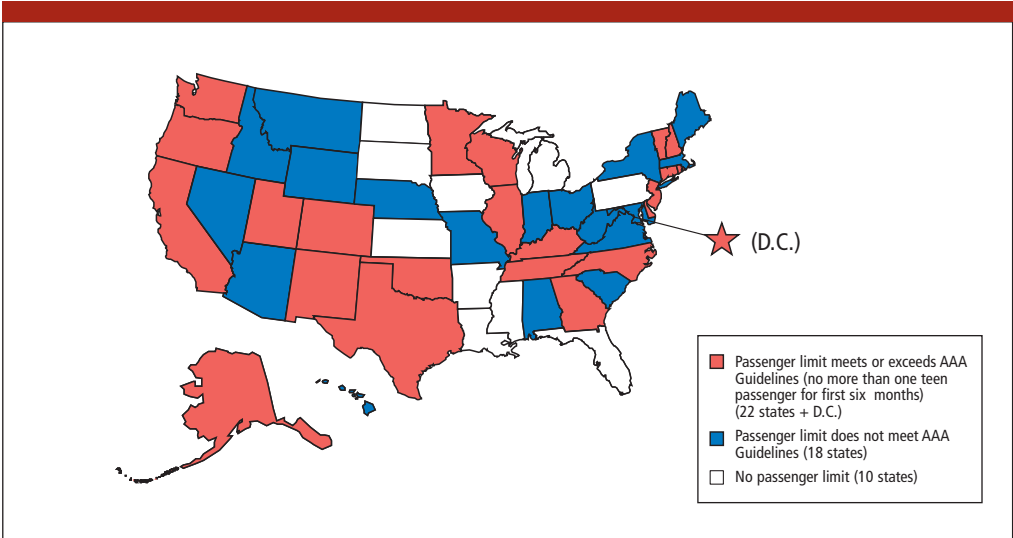
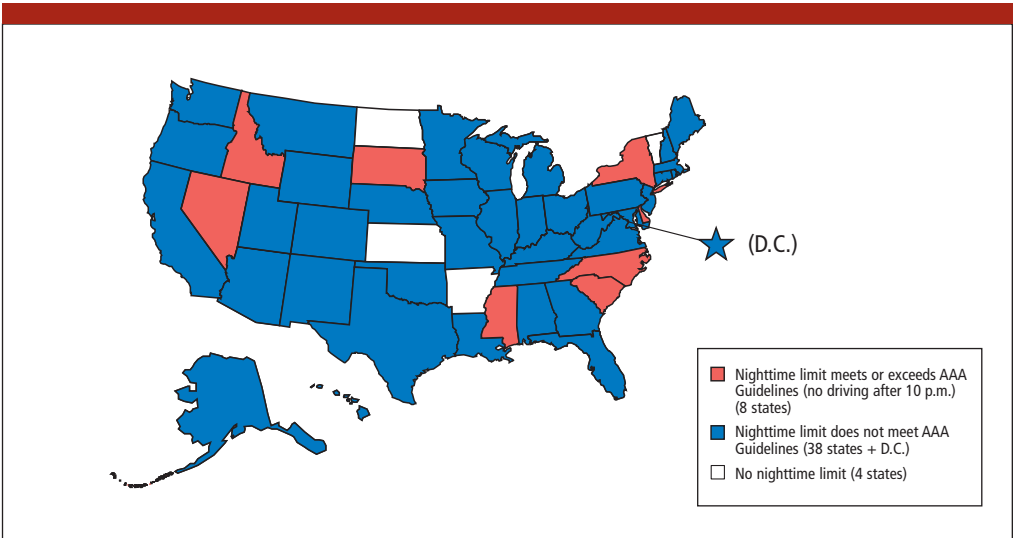


Figure 7 below shows that nearly all states restrict new teen drivers from some night driving, yet most of these limits start later than AAA's recommended guidelines. The earlier night driving limit recommended by AAA removes teens from the road during high-risk, high-crash driving times.

Figure 7. Nighttime Limits for New Teen Drivers (January 2009)





Parental Involvement

Stronger laws play a part in keeping roads safe for everyone, but parents play a critical role in enforcing these laws and serving as good role models for their children. Since many state laws lack key provisions, they should be considered as bare minimums. Parents in states with weak passenger restrictions should not allow their teen to ride with other teen drivers and should not allow them to transport other teens in the first year of driving. It's tempting to be lured by the convenience of having other options for getting kids to and from school and after-school practice and events, but the risks are just too great.

Recognizing that parents may feel awkward about enforcing rules that other parents are not enforcing, AAA has developed a discussion guide to help parents work as a team to ensure teens gain driving experience in the safest environment possible during that first year. It encourages parents to talk with one another about the driving rules in their respective homes and encourages them to develop some common rules. That way, teens who are friends have the same or similar rules, which helps remove some of the peer pressure to break parental imposed rules, like passenger restrictions, mileage/road limits, etc. Many parents find parent-teen driving agreements helpful in establishing and maintaining agreed upon rules for their teen driver. AAA has developed a parent-teen agreement that integrates the principles of graduated driver licensing. For more information on the discussion guide and parent-teen driving agreements, please visit www.aaa.com/publicaffairs and click on Teen Drivers.

Community Partnerships

Advocacy groups, victim advocates, law enforcement, schools, local businesses, parents, and all citizens must band together to address the risks of teen driving and the tragedy of young drivers crashes. AAA clubs across the country are bringing together diverse groups for improving teen driver licensing and educating the public about this issue in order to make the roads safer for everyone.

AAA clubs across the country will be bringing together diverse groups to change laws and educate the public about the dangers of teen driving to make the roads safer for everyone.

Appendix I – State-By-State Data

Table A-1. People killed in crashes involving young drivers, by state, 1998–2007.

	Young Driver		Passengers of Young Driver		Occupants of Other Vehicle		Non-motorists		Other		Total
	N	%	N	%	N	%	N	%	N	%	N
Alabama	335	41.3	261	32.1	190	23.4	21	2.6	5	0.6	812
Alaska	23	33.8	19	27.9	20	29.4	5	7.4	1	1.5	68
Arizona	162	29.1	185	33.3	153	27.5	51	9.2	5	0.9	556
Arkansas	196	44.3	142	32.1	86	19.5	15	3.4	3	0.7	442
California	542	29.2	631	34.0	463	25.0	217	11.7	2	0.1	1,855
Colorado	163	31.7	183	35.5	120	23.3	47	9.1	2	0.4	515
Connecticut	64	36.4	57	32.4	45	25.6	10	5.7	-	-	176
Delaware	47	42.0	38	33.9	18	16.1	9	8.0	-	-	112
District of Columbia	3	18.8	2	12.5	6	37.5	5	31.3	-	-	16
Florida	517	29.4	474	27.0	552	31.4	205	11.7	8	0.5	1,756
Georgia	418	38.1	338	30.8	284	25.9	53	4.8	3	0.3	1,096
Hawaii	21	34.4	22	36.1	17	27.9	1	1.6	-	-	61
Idaho	95	35.9	105	39.6	49	18.5	16	6.0	-	-	265
Illinois	379	35.2	350	32.5	260	24.1	88	8.2	1	0.1	1,078
Indiana	319	40.7	232	29.6	188	24.0	37	4.7	7	0.9	783
Iowa	157	37.8	127	30.6	107	25.8	20	4.8	4	1.0	415
Kansas	175	40.6	129	29.9	104	24.1	18	4.2	5	1.2	431
Kentucky	279	44.8	160	25.7	153	24.6	31	5.0	-	-	623
Louisiana	213	40.0	163	30.6	124	23.3	31	5.8	1	0.2	532
Maine	63	43.5	49	33.8	26	17.9	7	4.8	-	-	145
Maryland	170	39.3	120	27.7	100	23.1	41	9.5	2	0.5	433
Massachusetts	124	43.1	95	33.0	43	14.9	26	9.0	-	-	288
Michigan	346	34.5	312	31.1	265	26.4	79	7.9	2	0.2	1,004
Minnesota	205	37.6	170	31.2	147	27.0	23	4.2	-	-	545

	Young Driver		Passengers of Young Driver		Occupants of Other Vehicle		Non-motorists		Other		Total
	N	%	N	%	N	%	N	%	N	%	N
Mississippi	271	42.3	168	26.2	168	26.2	31	4.8	3	0.5	641
Missouri	398	41.4	291	30.3	220	22.9	52	5.4	1	0.1	962
Montana	64	43.0	57	38.3	22	14.8	6	4.0	-	-	149
Nebraska	125	44.2	86	30.4	58	20.5	13	4.6	1	0.4	283
Nevada	59	27.3	85	39.4	50	23.2	21	9.7	1	0.5	216
New Hampshire	41	41.8	30	30.6	20	20.4	7	7.1	-	-	98
New Jersey	98	29.9	113	34.5	86	26.2	30	9.2	1	0.3	328
New Mexico	91	32.7	99	35.6	55	19.8	30	10.8	3	1.1	278
New York	283	35.6	274	34.5	169	21.3	68	8.6	-	-	794
North Carolina	390	38.6	291	28.8	264	26.1	63	6.2	2	0.2	1,010
North Dakota	52	47.3	33	30.0	20	18.2	5	4.6	-	-	110
Ohio	391	38.6	315	31.1	244	24.1	63	6.2	-	-	1,013
Oklahoma	211	36.3	182	31.3	147	25.3	34	5.8	8	1.4	582
Oregon	96	34.9	114	41.5	53	19.3	12	4.4	-	-	275
Pennsylvania	380	38.6	307	31.2	224	22.8	71	7.2	2	0.2	984
Rhode Island	21	36.8	23	40.4	10	17.5	3	5.3	-	-	57
South Carolina	237	40.2	172	29.2	143	24.3	36	6.1	1	0.2	589
South Dakota	66	40.0	49	29.7	35	21.2	13	7.9	2	1.2	165
Tennessee	354	41.7	244	28.7	216	25.4	33	3.9	3	0.4	850
Texas	822	34.0	760	31.4	650	26.9	181	7.5	7	0.3	2,420
Utah	93	33.5	104	37.4	61	21.9	20	7.2	-	-	278
Vermont	32	50.0	17	26.6	12	18.8	3	4.7	-	-	64
Virginia	279	44.6	204	32.6	105	16.8	38	6.1	-	-	626
Washington	142	35.2	139	34.4	91	22.5	31	7.7	1	0.3	404
West Virginia	86	39.8	69	31.9	44	20.4	15	6.9	2	0.9	216
Wisconsin	250	38.9	197	30.7	162	25.2	32	5.0	1	0.2	642
Wyoming	40	41.2	42	43.3	9	9.3	6	6.2	-	-	97
United States	10,388	36.9	8,829	31.4	6,858	24.4	1,973	7.0	90	0.3	28,138



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