

Teen Driving on a National Level (Continued)

In a national assessment, approximately 52 percent of fatal crashes involving 16-year-old drivers were single vehicle crashes in 2004, compared to 45 and 39 percent, respectively, of 17-19 and 20- to 49-year-old drivers. The role of experience in driver judgment is evident as driver error is reported in 78 percent of fatal crashes with 16 year old drivers compared to 55 percent for the more experienced 20- to 49-year-old driver group.

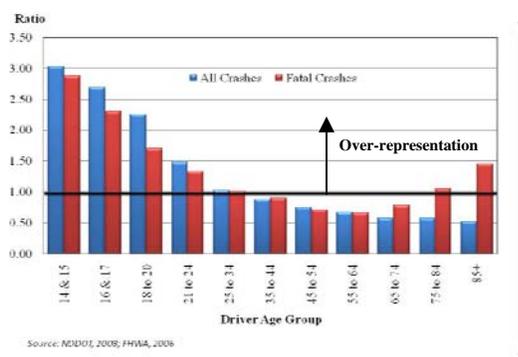
Percentage of Fatal Crashes by Characteristics, 2004

| Driver Age: | 16 | 17-19 | 20-49 |
|----------------|----|-------|-------|
| Driver error | 78 | 69 | 55 |
| Speeding | 39 | 33 | 23 |
| Single vehicle | 52 | 45 | 39 |
| 3+ occupants | 29 | 24 | 18 |
| BAC .08+ | 13 | 25 | 44 |

Source: NHTSA, 2006

Teen Driving on a State Level

ND Crash Ratios by Driver Age Group, 2001-2007



Source: NDDOT, 2008; FHWA, 2006

North Dakota teen drivers were involved in an average of 2,360 crashes annually between 2001 and 2007. The crashes resulted in 70 driver deaths and 3,616 injuries. The higher risk posed by these young teen drivers, age 14 to 17, are reflected in crash incidence rates illustrated to the left. Young drivers are highly over represented in the crash driver population. Drivers age 14 to 17 account for about 4 percent of the North Dakota driver population and 10 percent of the crashes. Drivers in the youngest age group, considering the share of licensed drivers in each group, are three times more likely to crash than drivers age 25 to 34.

Contributing Factors to Young Driver Crashes

According to the law enforcement reporting agency, the majority of crashes for all drivers do not have contributing factors. A significant difference does exist between the younger and experienced driver groups in contributing factor incidence. Contributing factors are reported in about 22.5 percent of young driver crashes, compared to 15.5 percent of the older driver group. The weather is a greater contributor in experienced driver crashes, while improper evasive action is more common among younger drivers. For young drivers speed is also a factor in a much greater share of crashes. Speeding is a factor in 6.1 and 4.1 percent of crashes for 14- and 17-year-old drivers, respectively, compared to 0.8 percent for the experienced drivers. While inexperienced drivers may not drive faster than the prescribed speed limit, they may not make the adjustments an experienced driver would for condi-

tions such as inclement weather or icy roadways. The role of inexperience can be seen in the decreasing percentage of crashes among drivers from age 14 to 17 caused by driving too fast for conditions.

Contributing Factors, 2001 to 2007

| | 14 | 15 | 16 | 17 | 25-54 |
|-------------------------------|-------------------------|--------------|--------------|--------------|--------------|
| | <i>Share of Crashes</i> | | | | |
| None reported | 68.9% | 69.3% | 71.4% | 73.1% | 84.6% |
| Attention distracted | 3.4% | 3.6% | 3.9% | 3.3% | 1.6% |
| Vision obstructed | 1.4% | 1.0% | 1.8% | 1.3% | 1.1% |
| Speed/too fast for conditions | 6.1% | 5.6% | 5.0% | 4.1% | 0.8% |
| Failed to yield | 3.4% | 3.8% | 3.2% | 3.3% | 1.9% |
| Following too close | 0.7% | 1.7% | 2.6% | 2.0% | 1.2% |
| Weather | 0.0% | 1.7% | 2.1% | 2.4% | 2.5% |
| Improper evasive action | 8.8% | 7.2% | 5.4% | 4.5% | 1.6% |
| Share of total | 92.6% | 93.9% | 95.3% | 93.9% | 95.2% |

Source: ND Department of Transportation, 2008

Crash Types and Events

A starting point for understanding driving behavior for young teens is to compare them to experienced drivers, those age 25 to 54. Crash characteristics and statistical analysis highlights many distinctions between two comparison groups based on crash reports between 2001 and 2007.

The most common event for all age groups is the single vehicle crash. Inexperienced drivers, however, have an increasingly greater share attributed to multi car and other crash types. Single car crashes account for 77.7 percent of experienced driver crashes compared to 46 percent for 14-year-old drivers.

Rollover crashes occur much more frequently among 14- and 15-year-old drivers. Rollover is the most harmful event in 27.7 and 18.7 percent of crashes involving these youngest teen drivers, respectively, compared to 8.4 percent for the 25- to 54-year-old driver group. Although 16- and 17-year-old drivers still have a high number of rollover crashes, they show a marked improvement when compared to 14- and 15-year-old drivers. The 14- and 15-year-old drivers lack judgment and operator skills increasing likelihood that a driver will overcorrect or take dangerous evasive action that result in a rollover.

Other harmful events, such as hitting a parked car or tree, also become less likely with experience. Hitting a parked car is the most harmful event in 8.1 percent of crashes involving 14-year olds compared to 2.6 for experienced drivers.

Crashes involving another moving vehicle is the most harmful event for 2 percent of incidents for the youngest drivers. This share moderates quickly to account for less than 1 percent of the crashes for

other age groups. This may be related to young drivers' inexperience in scanning for other vehicles or in reacting to other drivers' actions.

In addition to the most harmful event, identifying differences in the initial crash event may also be useful. The initial events in the crashes differs significantly between the experienced drivers and young teen drivers. While the most common initial event is a single vehicle crash, which accounts for 60.3 percent in experienced driver crashes and 65.9 percent of young teen drivers, the occurrence of other events is often different. For instance, teen drivers run off the road as the initial event in 50 percent more of their crashes at 12.8 percent, compared to the older group. Crashes involving parked vehicles are the initial incident in 3.5 percent of experienced driver crashes, compared to 5.8 percent for the young driver group. All other initial events individually account for less than 1 percent of the total so distinctions are not made between the driver groups. The initial event, as with the most harmful event, suggests that teen drivers lack the experience that reduces traffic crash incidence for older drivers.

ND Most Harmful Event in Crash, 2001 to 2007

| Event | Young Driver Age Group | | | | | 25-54 |
|------------------------|------------------------|------------------|-------|-------|-------|--------|
| | Age= | 14 | 15 | 16 | 17 | |
| | N= | 148 | 771 | 1,262 | 1,426 | 11,008 |
| | | Share of Crashes | | | | |
| Single Vehicle Crash | | 46.0% | 61.0% | 68.0% | 69.0% | 77.7% |
| Multiple Vehicle Crash | | 2.0% | 0.4% | 0.6% | 0.8% | 0.6% |
| Parked vehicle | | 8.1% | 4.0% | 4.0% | 4.0% | 2.6% |
| Overturn/rollover | | 27.7% | 18.7% | 11.9% | 11.6% | 8.4% |
| Ran off roadway | | 2.0% | 1.6% | 1.7% | 1.8% | 1.1% |
| Curb | | 2.3% | 0.8% | 1.0% | 1.2% | 0.4% |
| Ditch | | 2.7% | 2.5% | 1.9% | 2.2% | 1.1% |
| Tree | | 1.4% | 2.3% | 1.7% | 1.3% | 0.6% |
| Other | | 7.7% | 8.8% | 9.3% | 8.1% | 7.5% |

Source: ND Department of Transportation, 2008

North Dakota Licensing Procedures

North Dakota offers driving privileges to residents 14 years of age and older. Licensing for those under age 16 requires a minimum six hours of behind-the-wheel supervised driving with a certified instructor. Teens may apply for a driving permit at age 14 and will be issued the permit after successfully completing the written driving examination administered by the North Dakota Department of Transportation (NDDOT). A permit allows the teen to operate a vehicle if a licensed driver, age 18 or older with at least 3 years of driving experience, is

riding in the front seat as a supervisor. Teens older than age 16 are still required to complete the written permit examination but are not required to complete the behind-the-wheel supervised instruction.

The licensing process in North Dakota may begin and can be fully completed at age 14. This age is relatively young considering 14 year olds are permitted to drive with supervision in only six other states.

North Dakota Licensing Procedures (Continued)

Only North Dakota and Arkansas allow 14 year olds to drive unsupervised. In fact, no other states allow teen drivers under age 16 to operate a vehicle unsupervised. Thus, little research exists regarding 14- and 15-year-old drivers. Driver maturity (often measured by age) and experience (best measured by hours behind the wheel) are both considered important contributors to drivers' ability to make dynamic driving decisions. Information is available about driver age requirements for licensing. Unfortunately information is not available regarding driver behind-the-wheel experience. Although age measures both experience and maturity, special effort is given to distinguishing the differences between 14-, 15-, and 16-year-old drivers.

New Driver Minimum Ages

| Supervised Driving | | Number of States |
|------------------------|----------|------------------|
| | 14 years | 7 |
| | 15 years | 33 |
| | 16 years | 10 |
| Fully Licensed Driving | | |
| | 14 years | 2 |
| | 15 years | 0 |
| | 16 years | 16 |
| | 17 years | 21 |
| | 18 years | 11 |

Source: Insurance Institute for Highway Safety, 2008

Graduated Licensing

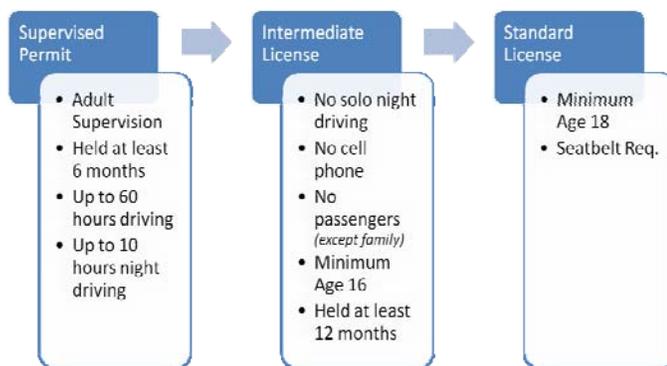
Graduated licensing has become a popular program for addressing young driver road safety. The GDL allows states to formulate policies that provide the highest level of risk limits in the initial months of driving. Risk factors are gradually introduced as the teen gains the baseline experience needed to make dynamic driving decisions. The guidelines developed for states seeking to improve or implement graduated drivers licensing suggest a phased system that includes measures to address typical risk factors. The GDL is designed in three phases that include the supervised permit, intermediate license, and standard license.

The **supervised permit** is the most limited phase, typically providing the driver with six months of supervised driving. During this time, the new driver gains expertise by relying on a fully-licensed mentor passenger to provide guidance in behind-the-wheel driving situations. The experienced passenger may also be required to introduce the novice to less optimal driving conditions such as nighttime or inclement weather based on specified driving-hours requirements.

The **intermediate license** allows unsupervised driving within certain limits. Limitations vary widely by state, but include provisions related to risk factors such as roadway conditions, vehicle control, and driver distractions. The intermediate license phase may last up to one year or a specified age.

In the **standard license**, or final phase, the driver moves into the general driving population although certain provisions, such as seatbelt requirement or passenger limitations, may remain in place until age 17 or 18. Recent research has also considered the enforcement and education activities needed to make GDL implantation successful. This success involves support from parents, law enforcement and judicial partners.

Graduated Licensing Phases



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