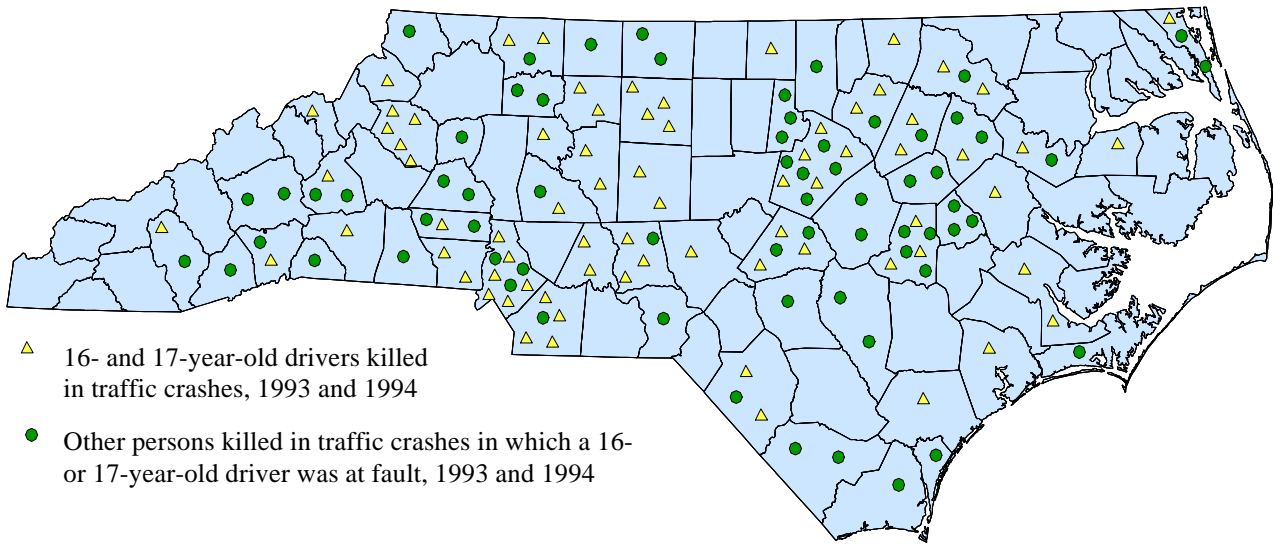


Graduated Driver Licensing: A Proposed Solution for the Novice Driver Problem in North Carolina



In the past two years, seventy-three 16- and 17-year old drivers died on North Carolina highways. More than 1,000 also suffered serious injuries. Young drivers also represent a threat to others on the road. During the same two-year period, 71 persons died in crashes in which a 16- or 17-year-old driver was at fault.

This document addresses the novice driver problem in North Carolina and describes a proposed solution commonly known as Graduated Licensing.

The Problem

One out of four 16-year-old drivers in North Carolina was involved in a car crash during 1993. Not just fender-benders, nearly half of these crashes were serious enough to result in injury or death to an occupant.

Figure 1 shows the high incidence of crashes for novice (16- and 17-year-old) drivers, compared with older drivers. This does not take into account the fact that teens drive less than older drivers. When miles driven are taken into account it is apparent that young drivers are even a greater risk to themselves, their passengers, and other drivers on the road. As Figure 2 shows, nationally 16-year-old drivers are nearly 3 times as likely as 18-year-old drivers to be involved in a crash, per mile driven. As the map on the cover shows, this increased risk has resulted not only in 73 cases in which teenage drivers killed themselves, but also an additional 71 cases in which other drivers or occupants were killed in crashes in which teenagers appeared to be at fault.

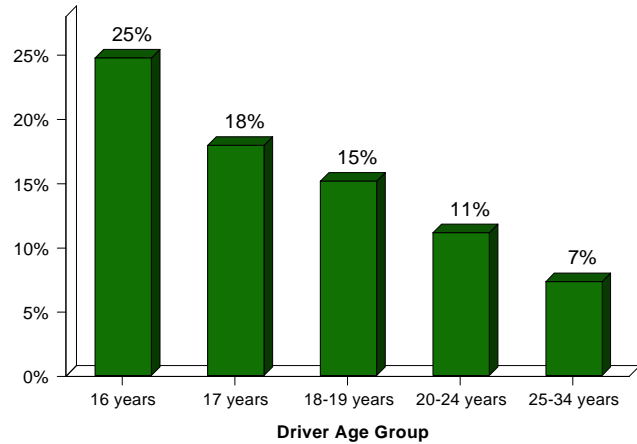
Reason for the Problem

Inexperience

It is widely recognized that most novice drivers do not have sufficient training to handle the complex task of driving when they are first licensed. Standard driver education courses are only able to provide a minimum of driving practice—not nearly enough for novice drivers to become proficient. A substantial amount of actual driving practice, in a variety of situations, is necessary before proficiency can be developed.

Figure 1

Percent of Licensed North Carolina Drivers Involved in a Crash by Age Group, 1993



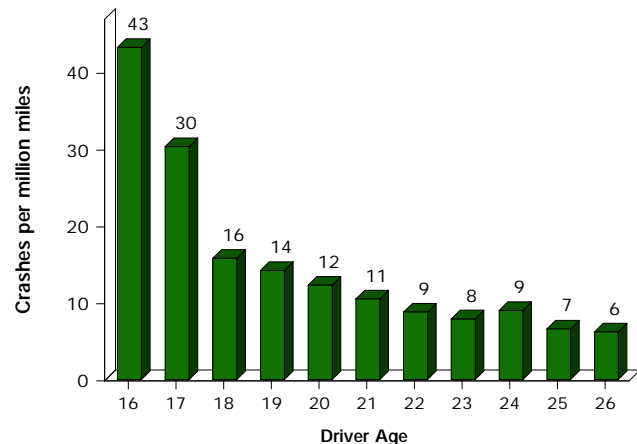
Source: NC Traffic Accident Facts

“When I was 16, I got a car. It took me a month to total my car. I bought another car and wrecked that one in three months. You have to have experience in traumatic situations—and I didn’t have it”

19-year-old Chapel Hill resident

Figure 2

Rate of Involvement in Police-Reported Crashes by Driver Age, U.S., 1990



Source: Insurance Institute for Highway Safety

Exposure

Teenage drivers do a greater proportion of their driving at night and on weekends, when risks of crashing are greater. Accordingly, as Figure 3 indicates, teens are much more likely than older drivers to be killed between the hours of 9 p.m. and midnight.

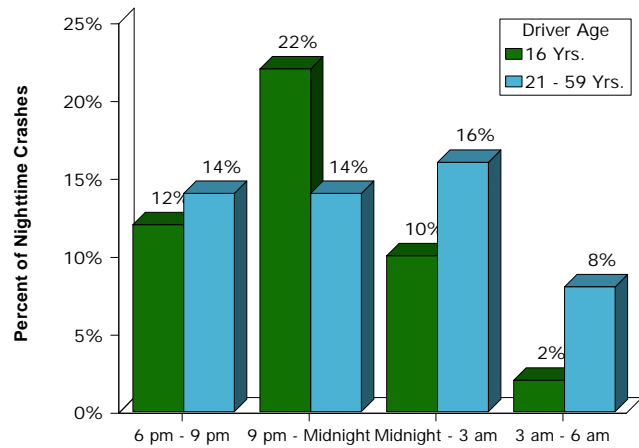
“I usually speed when there are not many other people on the road or when I am in a hurry.”
 16-year-old high school student,
 licensed for six months

Immaturity and risky behaviors

Young drivers—especially 16-year-olds—tend to engage in impulsive, risk-taking behaviors. Young, inexperienced drivers do not fully recognize the risks involved in driving, and make poor decisions (see Figure 4). The influence of age-peers in the vehicle with a young driver compounds the tendency to engage in impulsive behavior. The presence of several passengers also can distract a driver. Research indicates that young drivers are more easily distracted than experienced drivers and they also tend to have more passengers.

Figure 3

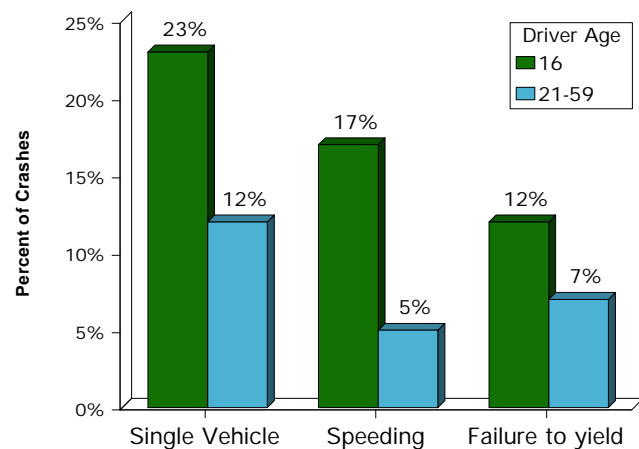
The hours between 9 pm and midnight are most dangerous for 16 year-old drivers.



Source: NC Traffic Crash Files, 1992-94

Figure 4

Characteristics of Crashes by Driver Age, 1993-95
 Indicators of Driver Fault



Source: NC Traffic Crash Files, 1992-94

The Proposed Solution

The problem of excess crash involvement by novice drivers is being addressed in several countries around the world through an approach known as **Graduated Driver Licensing**. The National Highway Traffic Safety Administration of the U.S. Department of Transportation is strongly encouraging states to enact Graduated Driver Licensing systems, which promise to help reduce the extremely high crash rates of novice drivers. The approach is based on what we know about teenage drivers—that they need more experience under safe conditions before being allowed to drive on their own.

A five-year evaluation of a graduated licensing system in New Zealand found a sustained reduction in crashes among young drivers after the system was put in place. Evaluation of some elements of graduated licensing in U.S. states has found similar effects. For example, a nighttime driving restriction in Maryland resulted in a decrease in crashes involving 16-year-old drivers.

A graduated driver licensing system slowly introduces novice drivers to the driving task, first allowing them to drive only under the safest conditions (for example, with an experienced, responsible adult driver in the vehicle). Having obtained this experience, drivers are then allowed to drive unsupervised, but still not during the most dangerous conditions (late at night). Only after a period of successful driving (no traffic violations), during which new drivers prove themselves to be safe drivers, is a full license issued. A graduated licensing system rewards young drivers for safe driving by systematically removing restrictions based on demonstrated safe driving, rather than placing unprepared drivers on the road, with no limits, thereby risking both their well-being and that of other drivers.

A graduated licensing system rewards young drivers for safe driving.

Proposed Structure for Graduated Driver Licensing in North Carolina

Based on a careful consideration of a number of recommended elements for a Graduated Licensing system, research on the effectiveness of these elements, and discussions with teenagers, parents, law enforcement officers, driver instruction and licensing professionals, the following structure for a Graduated Driver Licensing system in North Carolina is recommended by the UNC Highway Safety Research Center:

Level 1 (Limited Learner's Permit)

- Novice driver must be age 15 or older, complete Driver's Education, and obtain Limited Learner's permit.
- For at least 12 months the novice must be supervised whenever driving by an adult, guardian or other approved, licensed adult.
- All persons in a vehicle driven by a novice must wear a seat belt, and only the supervisor may ride in the front seat with the novice driver.
- The novice must complete 12 consecutive months of violation-free driving in order to progress to the next level of licensure.

Level 2 (Limited Provisional License)

- Unsupervised driving is allowed between 5 a.m. and 9 p.m. (Driving to or from work after 9 p.m. is permitted).
- Supervised driving is allowed at any time.
- Driver must complete six consecutive months of violation-free driving in order to progress to the next level of licensure.
- All persons in vehicle must wear seat belts.
- Driver is subject to all other conditions of Provisional License.

Level 3 (Full Provisional License)

- Unsupervised driving is allowed at any time.
- All persons in vehicle must wear seat belts.
- Driver is subject to all other conditions of Provisional License.

Table 1
Comparison of Proposed Graduated Driver Licensing System
with Current Licensing System for Young Drivers

Issue	Proposed System	Current System
Number of Levels	Three	One (plus an <i>optional</i> learner’s permit level)
Learner’s Permit	Mandatory	Optional
Required period of supervised driving	One year	None (Up to one year <i>optional</i>)
New driver required to demonstrate safe driving prior to full licensure?	Yes, for six months	No
Period during which late night recreational driving is prohibited	Six months	None
BAC Limit	0.00% (to age 18)	0.00% (to age 18)
Seat belt Use	All occupants of vehicle	All front seat occupants and rear seat occupants under age 12 required to wear belt

- The essential differences **IN REQUIREMENTS** between GDL and the current system are that:
 - Learner’s permit is mandatory (rather than optional) for one year.
 - After the learner’s permit phase, the new driver must spend a six month period during which no recreational driving from 9 p.m. to 5 a.m. is permitted.
 - To be released from night driving restriction, driver must demonstrate safe driving behaviors by maintaining a clean driving record.

- The essential differences **IN EFFECTS** between GDL and the current system are that:
 - Beginning drivers obtain substantial supervised experience before driving alone.
 - New drivers are protected from the most hazardous driving conditions during their initial period of driving, while they obtain crucial experience. Their risk of crashing is thereby reduced.
 - New drivers have a special incentive to drive carefully during their first six months on their own when crash risk is highest (due to their own impulsive behaviors and poor decision making).
 - All passengers riding with new drivers during the highest risk years are protected by seat belts.

Logic of the present proposal

As is shown in Table 1, the current proposed revision of the driver licensing system differs only in a few ways from the current system. Although the proposed changes will not involve a radical alteration in the licensing process, the modifications promise substantial safety benefits.

Mandatory Practice Period with Supervision

Currently, 15-year-old drivers may obtain practical experience by driving with a parent in the vehicle, but this is optional. At age 16, a person can obtain a license without any driving practice beyond that obtained in a Driver Education course (six hours). The Graduated Driver Licensing system would **require** a period of driving practice. Although the simple skills of steering, turning, stopping and starting may be mastered in six hours, the complex decision-making and information-processing skills at the heart of safe driving are learned through extensive practice and exposure to a variety of driving situations.

Requiring a parent in the car is designed primarily to improve safety of the driving conditions. It will discourage impulsive, irresponsible, dangerous behaviors to which young drivers often fall victim, especially when they are with their peers. Even though parents are not trained instructors and many may not be particularly good drivers, they do provide a key element of safety for their children merely by

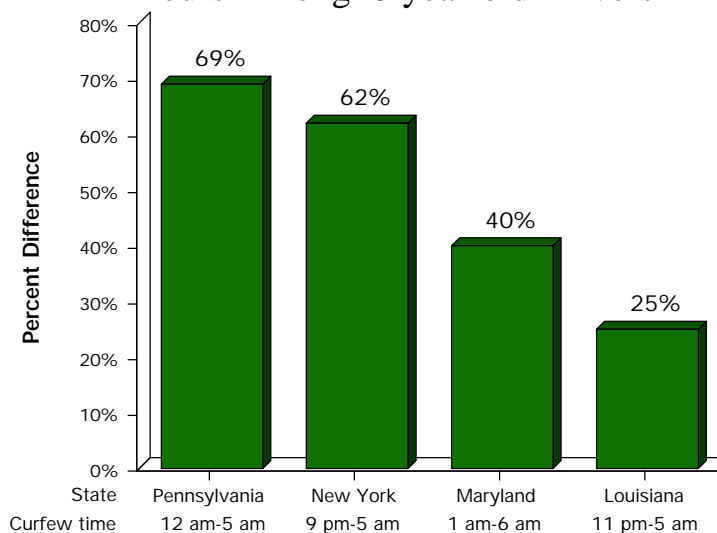
being in the car. It is expected that having acquired a substantial amount of practical, on-the-road experience, young drivers will be more likely to recognize the potential dangers of impulsive, risky actions when behind the wheel of a motor vehicle.

Nighttime Driving Restriction

Currently at least nine states place a nighttime driving restriction on 16-year-old drivers. A study evaluating the effects of this restriction in four states found that every state experienced a substantial decrease in the crash rate among the affected drivers during the covered time periods (see Figure 5).

Figure 5

Percent Decrease in Crash Rates During Restricted Hours Among 16-year-old Drivers

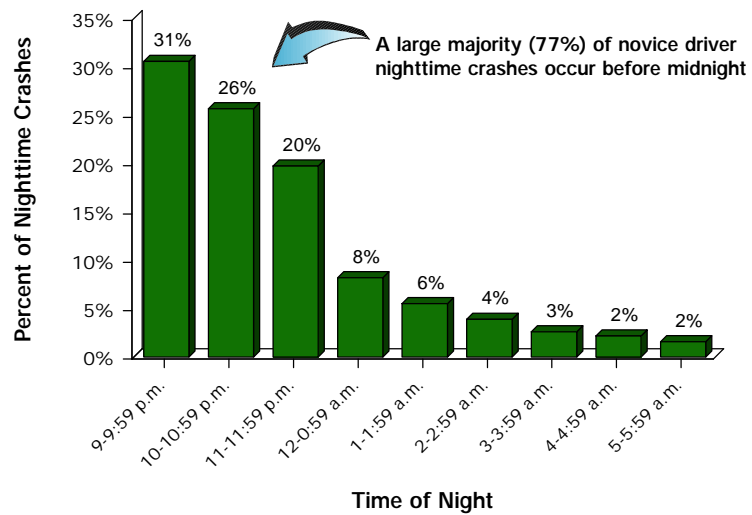


Source: Preusser, Williams, & Lund (1984).

North Carolina crash data indicate that the majority of teen drivers' nighttime crashes occur early in the evening (see Figure 6). Because of the demonstrated effectiveness of such a restriction for new, inexperienced drivers and the timing of young drivers' crashes in North Carolina, a limit on driving between the hours of 9 p.m. and 5 a.m. is justified. A later limit (such as 11 p.m. or midnight) would miss the bulk of the time period when most nighttime crashes occur.

Figure 6

**Distribution of Young Driver Nighttime Crashes
(16- and 17-year-old Drivers)**



Source: NC Traffic Crash Files, 1992-1994

Although this driving restriction will constitute an inconvenience to beginning drivers and perhaps their families, it is important to recognize that it will only last for a six-month period (for safe drivers) and that it does not apply for a teenager driving to or from work. Most importantly, it promises to save a number of lives and prevent thousands of injuries.

The main risk of late-night driving probably results from risky, impulsive behaviors that tend to occur when a group of teens are together, under the more dangerous conditions that characterize nighttime driving (see Figure 4). Because of this, a late night driving restriction is considered to be one of the most beneficial elements of Graduated Licensing.

A late night driving restriction is considered to be one of the most beneficial elements of Graduated Licensing.

Required Demonstration of Safe Driving

A key element of Graduated Licensing is that there are multiple levels (typically three) that progress from more to less restrictive and which entail driving under progressively more risky conditions. An integral part of this sequencing of levels is requiring that a person earn the right to fewer restrictions by demonstrating that they are unlikely to be a risk either to themselves or to others on the road. In the proposed Graduated Licensing system, the new driver must maintain a clean driving record (no moving violations or seat belt violations) continuously for 12 months in order to move to Level 2 and for another six months to move on to Level 3.

Not only does a late night driving restriction reduce young drivers' exposure to risky conditions when they are very inexperienced, as part of a Graduated Licensing system it also

provides a strong motivation for the new driver to be especially cautious. The quest for the freedom that comes with a driver's license is a strong motivating force for teenagers. Coupling the achievement of that goal with the requirement that the new driver demonstrate responsible driving behaviors during the initial months of driving without a parent in the vehicle appears to be the primary factor in the success of the nighttime restriction in Maryland. The demonstration of a mature, responsible driving attitude by maintaining a clean driving record is a key element for a successful Graduated Driver Licensing system.

Demonstration of responsible driving by maintaining a clean driving record is a key element of Graduated Driver Licensing.

Mandatory Safety Belt Use by All Occupants

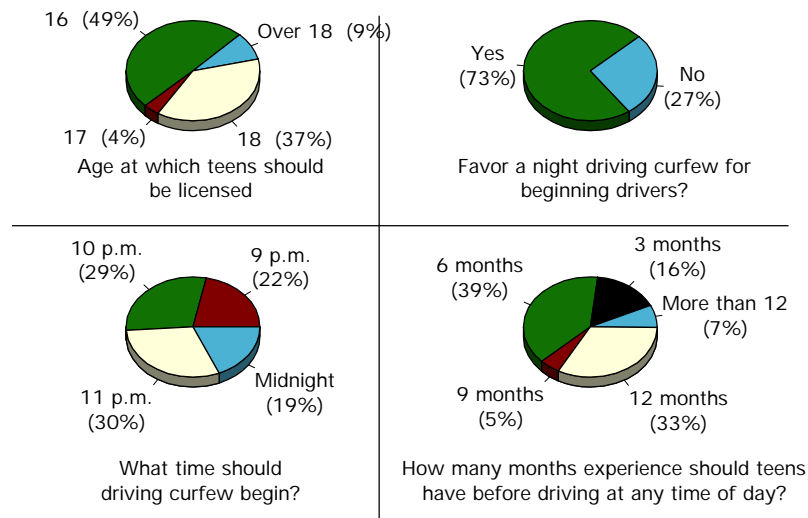
In a state with nearly the highest rate of belt use in the nation, requiring belt use is probably not a controversial provision. Nonetheless, it is important. Currently, in North Carolina, rear seat occupants above the age of 12 are not required to wear safety belts. However, given the very high crash rates of 16-year-old drivers (see Figure 1) in combination with the fact that these young drivers tend to have more passengers in the vehicle when they drive (see Figure 4), and that teens are less likely than persons of any other age to wear their belts, it is prudent to ensure that all occupants are protected when riding with a young, inexperienced driver.

Public Acceptance of Graduated Driver Licensing is Enthusiastic

During December 1994, 500 North Carolina residents were interviewed by telephone concerning a variety of traffic safety issues. Several questions were asked that relate to young drivers and what are perceived to be appropriate training and limitations. In particular, respondents were asked what age they thought a person should reach before being licensed, whether they thought a nighttime driving restriction is desirable (and if so what times should it cover), and how long driving restrictions should be placed on new young drivers. The results of this survey are summarized in Figure 7.

Figure 7

North Carolinians' Views on Young Driver Licensing
Findings from a statewide survey of 500 NC residents (December, 1994)



Opinions similar to those of North Carolina residents were found in a recent, more extensive national survey of *parents of 17-year-old drivers*. A summary of these parents' responses is presented in Table 2. Unlike the information obtained in North Carolina, these responses came only from persons who have recently begun dealing with their children driving. Nonetheless, these 1,000 parents are similarly enthusiastic about the central elements of Graduated Licensing.

Table 2
Parent's Views of Graduated Driver Licensing

Responses of 1,000 parents of 17-year-old drivers interviewed during December, 1994
<ul style="list-style-type: none">■ 41% think licenses should not be allowed until teens are 18½ years old.■ 90% favor a minimum period of supervised driving before teens get their licenses. Most favor a 3- to 6-month period of supervision.■ 74% favor late night driving restrictions for beginning teenage drivers. Nearly all say restriction should begin at or before midnight.■ 43% favor a restriction on teenage passengers riding with a novice driver for the first few months of driving.■ 97% favor a BAC (blood alcohol concentration) limit of Zero for teenage drivers.■ 58% favor a graduated licensing system that would include multiple restrictions on beginning teenage drivers.

Teens Support Graduated Licensing Concepts

Surveys of teenage drivers in other states and countries have found support for critical elements of graduated licensing, such as night driving restrictions. In a survey of New Zealand teens, more than 70 percent agreed with the multiple restrictions in their graduated

licensing system. Interestingly, this group of teens approved both when they were age 15 before beginning to drive, and three years later after they had been through the licensing system. Similarly in the U.S., teens who live in states that have driving curfews tend to support them.

“I think that the graduated license will give teenagers . . . the experience they need to handle situations like mine.”

17-year-old Cary student whose friend died and two others were seriously injured in a crash that occurred when he was distracted by conversation in the car and swerved to make a turn

A survey of teen drivers in four states with nighttime driving restrictions found that large majorities endorsed such restrictions in three states, including New York which has a 9 p.m. to 5 a.m. restriction. Only in Indiana, where 47% endorsed a night driving restriction, was the support somewhat limited. In New Zealand 70% of 18-year-olds, who had been through the Graduated Licensing System, approved of it. No systematic data have yet been obtained from North Carolina teens regarding their opinion of Graduated Driver Licensing. However, evidence gathered from focus group discussions, as well as anecdotal data from call-in radio and TV shows, and individuals interviewed by newspaper reporters indicate that a substantial number of NC teens agree with the logic of graduated licensing, and endorse the importance of its objective. Among those who are already licensed, many report that they would have benefitted from such a licensing system.

Summary

North Carolina is experiencing a very serious problem with the safety of its beginning teenage drivers. Without a huge expenditure of funds for a massive revision of the driver education system, this problem will continue unless addressed through the licensing process.

“If it saves lives, it’s worth it.”

14-year-old Sanderson student

“If they put enough restrictions on, young drivers are not going to be running around getting in wrecks, getting killed.”

14-year-old Chapel Hill student

Graduated Driver Licensing is a system that directly addresses the main causes of young driver crashes without using the drastic approach of raising the licensing age. To accomplish this, Graduated Licensing employs several complementary tools.

Novice drivers are protected as they obtain the crucial practical experience necessary to become a safe driver. Beginning drivers are not placed in situations that require the most skill (nighttime driving), nor in environments that distract them from the driving task (driving with only age peers in the vehicle). In addition, both novice drivers and those with whom they share the road are further protected by the requirement that the inexperienced driver demonstrate a mature, responsible driving attitude (by maintaining a clean driving record) in order to progress through the system to full licensure. This helps to ensure a more cautious approach to driving during the time when impulsive, risky behaviors are most likely and most dangerous.

Finally, Graduated Licensing is enthusiastically embraced by injury prevention experts, the general public, parents, and to a substantial degree by teens themselves. In fact, there stand to be no losers if such a system is enacted.

May 24, 1996