Graduated Licensing: A Blueprint for North America

August 2004

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Many jurisdictions in the United States and Canada have adopted graduated licensing, an increasingly popular approach to reducing new drivers' risk of collisions, and many more are considering it. Such an approach is needed because of the extremely high crash rates among new drivers, especially young ones. In the United States, 16 year-olds have almost 10 times the crash risk of drivers ages 30-59 and almost 3 times the risk of older teenagers.¹

Jurisdictions traditionally have allowed quick and easy paths to full-privilege licensure at an early age, which contributes to the high crash rate of young drivers. Graduated licensing offers a more sensible and less risky way for new drivers to begin. Although many North American systems are too new for formal evaluation, impressive crash and injury reductions have been reported thus far in California, Florida, Kentucky, Michigan, North Carolina, Nova Scotia, Ontario, and Quebec. Fifty-eight jurisdictions (District of Columbia, 47 U.S. states, 9 Canadian provinces, and 1 Canadian territory) have enacted one or more elements of graduated licensing, all but a few of which were enacted since 1994. There is tremendous variation in the programs that have been introduced. To assist other jurisdictions where graduated licensing is being contemplated or where further changes are being considered, this document provides recommendations for the structure and characteristics of such systems. Recommendations are based on scientific research where available and on what graduated systems are intended to accomplish.

WHAT IS GRADUATED LICENSING?

Graduated licensing is a system for phasing in on-road driving, allowing beginners to get their initial experience under conditions that involve lower risk and introducing them in stages to more complex driving situations. Essentially an apprentice system, graduated licensing involves three stages. The first is a supervised learner's period, lasting a minimum of 6 months in optimal systems, then an intermediate licensing phase that permits unsupervised driving only in less risky situations, and finally a full-privilege license becomes available when conditions of the first two stages have been met.

Within this framework, substantial variation is possible in terms of the provisions of the stages and their duration. This variation often has created difficulty for jurisdictions that are constructing a graduated system. Policymakers need to know what features their system should include and what the characteristics should be.

GENERAL FEATURES

Who should be covered? A graduated system is designed to address driving inexperience, so there is some justification for applying it to beginners of all ages. This is the approach taken in Canada, where a significant number of new drivers are not young.¹⁰ In contrast, the graduated systems in all U.S.

states except Maryland and New Jersey apply only to young drivers — specifically those younger than 18, the legal age of adulthood in the United States. If a driver is 18 or older when first licensed, graduated licensing does not apply; if 18 is reached while in the system, graduation is automatic.

Young drivers have been the focus of U.S. systems primarily because they constitute the largest group of beginners and have the highest crash risk. Regardless of driver age, inexperience increases crash risk, and inexperience combined with immaturity magnifies this risk. It is possible that some states have significant numbers of older beginners, although this has not been adequately determined.

Recommendation: Consider the age distribution of the beginning driver population in deciding whether to apply graduated licensing to all beginners or only young beginners, who are the primary targets.

How many stages? A complete graduated licensing system includes all three stages — the supervised learner's period, the intermediate license that permits some unsupervised driving, and full-privilege licensure. It is important to include both of the first two stages, but 20 of the 58 jurisdictions with elements of graduated licensing have not done so. Nine programs include only the learner's stage, and three include only a night driving prohibition in the intermediate licensing stage; sacrificing either of these elements likely limits program effectiveness.

Recommendation: Implement three-stage licensing systems.

LEARNER'S PHASE: KEY FEATURES

Under traditional licensing systems, most jurisdictions allow for a learning period prior to full licensure. However, in many cases a learner's permit is optional; when it is required, its minimum holding period either is not specified or is short, typically 30 days. In a graduated system, an extended learner's period is essential to provide the opportunity for extensive supervised on-road practice in a variety of conditions. Research shows that supervised driving is a relatively safe activity.¹¹

When should the licensing process start? Jurisdictions that recently have adopted graduated licensing or components of it generally have maintained the starting ages in effect under their prior licensing systems, which range from 14 to 16 years. There are six exceptions. Colorado's minimum permit age went from 15, 3 months to 15; Idaho's from 15 to 14, 6 months; Newfoundland from 17 to 16; Ohio lowered the permit age from 16 to 15, 6 months but allows driving only while supervised by a parent or driving instructor before age 16. Virginia initially lowered the permit age from 15, 8 months to 15 and has subsequently raised it to 15, 6 months. Michigan's permit age was moved back from 15 to 14,

9 months. Hawaii raised the permit age from 15 to 15, 6 months. The rationale for lowering the starting age is to allow more time for supervised driving before continuing to the intermediate license. However, because this allows driving at an even younger age, it may encourage younger people to drive unsupervised as well as supervised, and may also result in more 16 year-olds being licensed at an earlier age. A study of fatal crashes of 15 year-olds in states where permits are allowed at this age found that three of four beginners were driving illegally. The effect of a younger permit age has not been established yet, but policymakers should consider that lowering the permit age might increase rather than decrease risk. Raising the starting age to 16 would have safety benefits. In a few systems the starting age is 16, but no jurisdiction has raised the minimum permit age as graduated licensing has been introduced.

Recommendation: Maintain the starting age at 16, or raise it to 16.

What driving restrictions should be imposed? A critical aspect of the learner's phase is to require adult supervision of all driving — i.e., supervision by a fully licensed driver at least age 21. Some jurisdictions leave the kind of driving to the discretion of the supervisor, some impose restrictions such as barring nighttime driving, and other jurisdictions require some practice driving at night. North Carolina phases in driving during the 12-month learner's stage, disallowing nighttime driving during the first 6 months.

Recommendation: Require adult supervision and restrict driving at the discretion of the supervisor. It is acceptable to phase in more difficult driving, as in North Carolina.

Should a minimum amount of practice driving be required? Requiring parents to certify that a certain number of hours have been driven under supervision facilitates the goal of the learner's stage. It also protects against the possibility that beginners will stay off the roads to avoid crashes or traffic violations that may delay graduation to the next stage. Thirty-four of the 58 jurisdictions with elements of graduated licensing impose this requirement; 15 require driving 50 hours, and the others require 12-40 hours. In some of these, a portion of the driving hours has to be accumulated at night.

Recommendation: Require 30-50 hours of certified driving, some of which should be allocated to nighttime driving.

At a minimum, how long should permits be held? Under the licensing systems that preceded graduated licensing, a few jurisdictions specified a minimum stay in the learner's phase. In other

jurisdictions, required holding periods did not exist, or they were determined by the age at which a permit was obtained if the jurisdiction allowed a permit at a younger age (e.g., 15, 6 months) than the minimum age for licensure (e.g., 16). No research has addressed the appropriate amount of time for a learner's phase. The range among the 58 jurisdictions with elements of graduated licensing is broad, from 30 days to a year. The developing consensus is that a minimum of 6 months is reasonable (33 jurisdictions require 6 months, and 8 require 1 year).

Recommendation: Establish a minimum 6-month learner's phase.

INTERMEDIATE STAGE: KEY FEATURES

The highest risk for beginning drivers is when they first get their licenses and can drive unsupervised, with the first few months being particularly risky. Thus key features of graduated licensing include establishing an appropriate minimum age for unsupervised driving and initially restricting some kinds of unsupervised driving. Some jurisdictions do impose a stage after the learner's period during which beginners are subject to tougher penalties on an accelerated schedule; but this is not the same as the intermediate stage under graduated licensing, which restricts when and where beginners are allowed to drive. The goal is to keep initial license holders out of high-risk situations as they continue to accumulate driving experience.

What should the starting age be? If the learner's phase starts at the recommended age of 16 and lasts for at least 6 months, the earliest age at which the intermediate stage would begin is 16, 6 months. However, in most jurisdictions the starting ages for learners and/or the minimum holding periods allow advancement at an earlier age.

Recommendation: Do not permit any unsupervised driving before age 16, 6 months.

How should nighttime driving be limited? For drivers of all ages, crash risk is higher at night than during the day. Night driving is especially risky for young beginners, which is why unsupervised nighttime driving has been restricted in a few states for many years. Research has established that such restrictions are effective in reducing crashes and strongly endorsed by parents. Young people also adapt to night driving restrictions. ¹³⁻¹⁸

Licensure laws in 39 jurisdictions include night driving restrictions, but starting times vary widely. One jurisdiction specifies a 6 p.m. start, one at sunset, one at 8 p.m., three at 9 p.m., one at 10 p.m., eight at 11 p.m., eighteen at midnight, one at 12:30 a.m., and five at 1 a.m. Among the states with 11 p.m. starting times, three start later on weekend nights, and one has a later starting time for 17

year-olds. In the United States, about three-quarters of the nighttime crashes of 16 and 17 year-olds occur before midnight (9-11:59 p.m.). Night driving restrictions that begin both early and late effectively reduce crashes during the restricted hours, but those restrictions that start earlier reduce a greater number of crashes because more drivers are affected.¹⁴ Also, parents prefer an early start.¹⁵

Night driving is allowed under adult supervision, and jurisdictions typically allow some unsupervised driving during restricted hours. Work-related driving generally is allowed, and many jurisdictions allow driving to and from school-related activities. A variety of other exemptions also may apply — e.g., for religious events or volunteer fireman duties. The intention is not to deny essential driving at night but to limit high-risk recreational driving.

Recommendation: Restrict unsupervised night driving by newly licensed drivers. Examine the pattern of nighttime crashes in the age group to which graduated licensing will apply to decide when this restriction should begin; optimal starting times are 9 or 10 p.m. Exempt appropriate activities from the night driving restriction.

Should teenage passengers be restricted? Research shows that unsupervised driving with teenage passengers increases crash risk compared with driving alone; the more passengers the greater the risk. ¹⁹⁻²¹ The presence of teenage passengers increases crash risk both day and night, ¹⁹ so night driving restrictions alone do not adequately address this problem.

California was the first North American jurisdiction to ban teenage passengers. The ban applies during the first 6 months of a 12-month intermediate licensing phase unless an adult is present in the car. Early research indicates that this measure has reduced the number of teenage passengers injured when riding with 16-year-old drivers.² Twenty-five other jurisdictions also limit passengers. Requirements vary as to whether this restriction applies to all passengers or to teenagers only, how many passengers are allowed, and whether family members are exempt. A few jurisdictions specify no more passengers than there are seat belts, but this is not effective because it allows four or more teenage passengers.

Research indicates that New Zealand's passenger restriction is effective, although more young people were found to violate this rule than the one that restricts driving at night.^{22, 23} Many parents support teenage passenger restrictions, but the support is less than for nighttime restrictions.¹⁵

Recommendation: Limit teenage passengers to none or just one during some or all of the intermediate phase, absent adult supervision.

How long should the intermediate phase last? When should full privileges be allowed? The specified minimum length of time is 1 year in Newfoundland; 1 year, 3 months in Manitoba; 1 year, 6 months in the Yukon; and 2 years in Nova Scotia. In Canada, the age of graduation from the system is not an issue because this is not linked to driver age.

In the United States, 42 systems allow full-privilege driving before age 18. Only 9 states hold young people in the system until age 18; this can be accomplished by raising the starting age, setting the duration of the stages so it is impossible to graduate before age 18, or requiring beginners to remain in the intermediate stage until age 18 even though they may have completed the time requirements at a younger age.

The actual time spent in the intermediate stage can vary widely from state to state, depending on the age a young driver enters the system. For those who obtain an intermediate license at the earliest possible age, the time ranges from 6 months to 2 years. But teenagers who start the process later and reach age 18 before or soon after they start the intermediate phase spend less time in this stage. Such situations could be avoided by applying graduated licensing to all beginners regardless of age, but then policymakers would have to revisit the wisdom of night driving and passenger restrictions. Maryland, for example, drops the night driving restriction for beginners who are older than 18. New Jersey waives night and passenger restrictions for all new drivers 21 and older.

Recommendation: Hold beginning drivers in the intermediate stage until at least age 18. Both inexperience and immaturity contribute to the high crash rate of young drivers, and graduated systems can address both by delaying the age of full-privilege driving until 18.

Should a test be required before full-privilege licensure? Requiring drivers to pass an exit test that is more difficult than the initial on-road licensing test in order to graduate to full-privilege driving could motivate beginners to develop their skills and weed out drivers who have not practiced enough to become proficient. Such tests have been introduced in Ontario and British Columbia but are not part of any U.S. system.

Recommendation: Consider an exit test to ensure competence prior to full-privilege licensure.

OTHER ISSUES

Should driver education be required? Traditional driver education has not reduced crashes,²⁴ although it can be a superior way to learn basic driving skills. The on-road training it involves also can

contribute to a beginner's driving experience. How to integrate driver education with a graduated licensing system has been the subject of much general discussion and extensive consideration in a recent report.²⁵ With a few exceptions, jurisdictions merely have carried over the driver education requirements of prior licensing systems. The driver education requirement in Maine now applies to drivers younger than age 18, rather than 17. New Jersey and South Carolina added a driver education requirement. Michigan changed its driver education format to a two-phase system, as recommended by the National Highway Traffic Safety Administration, to correspond to the phases of graduated licensing.²⁴ In Canada, six provinces grant a "time discount" to beginners who take driver education, allowing them to graduate sooner. This has been found to be counterproductive.⁸

Recommendation: Graduated licensing works with or without driver education. In jurisdictions that do not already require driver education, the graduated system need not include any such provisions. In jurisdictions that do require driver education, the training should be integrated to complement graduated licensing. Ways should be explored to harmonize the delivery of driver education lessons with multistage graduated licensing requirements.²⁵ However, there is no justification for time discounts.

What about penalty provisions? In practice, graduated systems are largely self-enforcing, with parents playing a major role. All jurisdictions penalize drivers in graduated systems who do not comply with driving restrictions or who are involved in traffic violations or at-fault crashes. Almost all jurisdictions delay or prohibit graduation from the system if there is evidence of a poor driving record. In Nova Scotia, for example, sufficient violations incurred during the two-year intermediate stage start the clock over so that drivers with such records who entered the system at age 16 could remain under a midnight driving restriction until well beyond age 18. The threat of such a penalty can provide strong motivation for safe driving.

Recommendation: Include penalty provisions that delay graduation for beginners with poor driving records.

OVERALL ASSESSMENT

In the 58 North American jurisdictions where versions of graduated licensing have been enacted, significant reductions in collisions and injuries are anticipated. However, even more substantial reductions would be possible if jurisdictions met all the recommendations for a graduated system. In an optimal

system, young beginners would not start until age 16, spend at least 6 months in a learner's stage with parents having to certify at least 30-50 hours of practice, enter an initial license stage with restrictions on unsupervised nighttime driving starting at 9 or 10 p.m. and transporting teenage passengers, both lasting for at least 6 months, and graduation to an unrestricted license should not be permitted until at least age 18.

To assist jurisdictions that are considering changes in their licensing systems, all novice driver licensing programs in North America are rated according to the degree to which they meet these optimal requirements. No jurisdiction approaches this ideal although some have elements of it. The jurisdictions are rated below as good, fair, marginal, or poor. These ratings are intended to reflect the strength and likely effectiveness of the systems in reducing injuries. The most important component of a graduated system is restricting high-risk driving once an initial license is obtained. This is when crash rates are the highest and when the biggest effects can be seen. The tougher the restrictions and the longer they last beyond the 16th birthday, the higher the rating. A lengthy learner's period of supervised driving is also important and is taken into account in the ratings. The criteria are indicated below, and in the rating of jurisdictions, the licensing system elements that produced the rating are indicated. Full details of the licensing system components for North American jurisdictions can be found at the Institute's website, www.highwaysafety.org.

Good: minimum 6-month learner's phase for young beginners; once licensed, beginners are subject to nighttime restrictions beginning at 10 p.m. or earlier and extending to 5 a.m. and/or a restriction that allows no more than one passenger when driving unsupervised; and beginners must wait until age 17 for their unrestricted licenses

Fair: law includes the late evening/night driving or passenger restriction listed above, and beginners must wait until 17 for their unrestricted licenses; or law includes a minimum learner's phase (any length) plus some restrictions on driving hours and/or passengers, and beginners must wait until age 16, 6 months for their unrestricted licenses

Marginal: law includes a minimum learner's phase (any length) plus some restrictions on driving hours and/or passengers when initially licensed, or law includes only a learner's phase lasting a minimum of 6 months; or law includes only restrictions on driving hours and/or passengers once a beginner is licensed

Poor: no minimum learner's phase and no nighttime or passenger restrictions; or minimum learner's phase shorter than 6 months

REFERENCES

- 1. Williams, A.F. 1996. Magnitude and characteristics of the young driver crash problem in the United States. *New to the Road: Reducing the Risks for Young Motorists. Proceedings of the First Annual International Symposium of the Youth Enhancement Service* (ed. H.M. Simpson), 19-25. Los Angeles, CA: University of California.
- 2. Automobile Club of Southern California. 2000. California teen passenger deaths and injuries drop as graduated driver license law marks second anniversary. Los Angeles, CA.
- 3. Ulmer, R.G.; Preusser, D.F.; Williams, A.F.; Ferguson, S.A.; and Farmer, C.M. 2000. Effect of Florida's graduated licensing program on the crashes of teenage drivers. *Accident Analysis and Prevention* 32:527-532.
- 4. Kidd, P. and Pigman, J. 1999. Policy brief: graduated drivers' license for youth program. Lexington, KY: Kentucky Injury Prevention and Research Center and the Kentucky Transportation Center.
- 5. Shope, J.T.; Molnar, L.J.; Elliott, M.R.; and Waller, P.F. 2001. Graduated driver licensing in Michigan. *Journal of the American Medical Association* 286:1593-98.
- 6. Foss, R.D.; Feaganes, J.R.; and Rodgman, E.A. 2001. Initial effects of graduated driver licensing on 16-year-old driver crashes in North Carolina. *Journal of the American Medical Association* 286:1588-92.
- 7. Mayhew, D.R.; Simpson, H.M.; des Groseilliers, M.; and Williams, A.F. 2001. Impact of the graduated licensing program in Nova Scotia. *Journal of Crash Prevention and Injury Control* 2:179-92.
- 8. Boase, P. and Tasca, L. 1998. Graduated licensing system evaluation: interim report '98. Toronto, Ontario: Safety Policy Branch, Ministry of Transportation of Ontario.
- 9. Bouchard, J.; Dussault, C.; Simard, R.; Gendreau, M.; and Lemire, A.M. 2000. The Quebec graduated licensing system for novice drivers: a two-year evaluation of the 1997 reform. *Proceedings of the 15th International Conference on Alcohol, Drugs, and Traffic Safety (CD ROM). Borlänge, Sweden: Swedish National Road Administration.*
- 10. Mayhew, D.R. and Simpson, H.M. 1990. New to the road: young drivers and novice drivers, similar problems and solutions? Ottawa, Ontario: Traffic Injury Research Foundation.
- 11. Williams, A.F.; Preusser, D.F.; Ferguson, S.A.; and Ulmer, R.G. 1997. Analysis of the fatal crash involvements of 15-year-old drivers. *Journal of Safety Research* 28:49-54.
- 12. Mayhew, D.R.; Simpson, H.M.; Pak, A. 2000. Changes in collision rates among novice drivers during the first months of driving. Arlington, VA: Insurance Institute for Highway Safety.
- 13. Williams, A.F. and Preusser, D.F. 1997. Night driving restrictions for youthful drivers: a literature review and commentary. *Journal of Public Health Policy* 18:334-45.
- 14. Preusser, D.F.; Williams, A.F.; Zador, P.L.; and Blomberg, R.D. 1984. The effect of curfew laws on motor vehicle crashes. *Law and Policy* 6:115-28.

- 15. Williams, A.F.; Ferguson, S.A.; Leaf, W.A.; and Preusser, D.F. 1998. Views of parents of teenagers about graduated licensing systems. *Journal of Safety Research* 29:1-7.
- 16. Begg, D.J.; Langley, J.D.; Reeder, A.I.; and Chalmers, D.J. 1995. The New Zealand graduated driver licensing system: teenagers' attitudes towards and experiences with this car driver licensing system. *Injury Prevention* 1:177-81.
- 17. Mayhew, D.R.; Simpson, H.M.; Ferguson, S.A.; and Williams, A.F. 1999. Graduated licensing in Ontario: a survey of parents. *Journal of Traffic Medicine* 27:71-80.
- 18. Mayhew, D.R.; Simpson, H.M.; Ferguson, S.A.; and Williams, A.F. 1998. Graduated licensing in Nova Scotia: a survey of teenagers and parents. *Journal of Traffic Medicine* 26:37-44.
- 19. Preusser, D.F.; Ferguson, S.A.; and Williams, A.F. 1998. The effect of teenage passengers on the fatal crash risk of teenage drivers. *Accident Analysis and Prevention* 30:217-22.
- 20. Doherty, S.T.; Andrey, J.C.; and MacGregor, C. 1998. The situational risks of young drivers: the influence of passengers, time of day, and day of week on accident rates. *Accident Analysis and Prevention* 30:45-54.
- 21. Chen, L.; Baker, S.P.; Braver, E.R.; and Li, G. 2000. Carrying passengers as a risk factor for crashes fatal to 16- and 17-year-old drivers. *Journal of American Medical Association* 283:1578-82.
- 22. Frith, W.J. and Perkins, W.A. 1992. The New Zealand graduated licensing system. *National Road Safety Seminar* 2:256-78. Wellington, New Zealand: Land Transport.
- 23. Harre, N.; Field, J.; and Kirkwood, B. 1996. Gender differences and areas of common concern in the driving behaviors and attitudes of adolescents. *Journal of Safety Research* 27:163-73.
- 24. National Highway Traffic Safety Administration. 1994. Research agenda for an improved novice driver education program. Report to Congress. Washington, DC: U.S. Department of Transportation.
- 25. Mayhew, D.R.; Simpson, H.M.; Williams, A.F.; and Ferguson, S.A. 1998. Effectiveness and role of driver education and training in a graduated licensing system. *Journal of Public Health Policy* 19:51-67.