

Graduated Driver Licensing for Passenger Vehicles in Atlantic Canada

Introduction

Motor vehicle collisions (MVC) are a leading cause of death for young Atlantic Canadians. Young drivers are at higher risk of MVC as a result of inexperience driving combined with a development phase that increases propensity for risk taking. Although education and training has been a primary focus for reducing MVCs among young drivers, there is little evidence that this has been effective. A policy measure that has proven to be highly effective is Graduated Driver Licensing (GDL). GDL allows young and new drivers to gain experience in operating a motor vehicle over time with a graduated state of risk conditions. As the driver gains experience, they are granted permission to drive in conditions that pose a greater risk such as late at night or with additional passengers in the vehicle. This involves a phased approach to licensing which typically includes a beginner or learner phase followed by an intermediate or novice stage. After completing these two stages, the driver progresses to holding a full license. These measures have proven to be highly effective at reducing youth injury and death by motor vehicle collision. Evaluations conducted in Nova Scotia and Ontario found significant reductions in crashes among teen drivers after GDL was implemented provincially. Crashes among 16 year olds in Nova Scotia decreased by 29% and 15-19 year old drivers in Ontario had a 31% reduction.

GDL has been described as a critical opportunity for public health law based on the opportunity to address a significant public health problem with an effective and plausible policy solution. GDL exists in many jurisdictions, but the components of the law vary and may not always be fully in line with the evidence. It is not enough to have GDL legislation in place. The components of that legislation and the extent to which they align with best practice are what will determine the effectiveness of the law at reducing MVCs among youth and new drivers. All four Atlantic Provinces have implemented Graduated Driver Licensing. The purpose of this analysis is to identify the components of GDL legislation in the four Atlantic Provinces and assess the extent to which they are in line with the research literature. The first section briefly overviews the evidence for some important GDL components. A discussion section will identify aspects of GDL legislation that are not in line with best practices and make recommendations for strengthening. This information is current to that which was available online as of January 2014.

Components of Graduated Driver Licensing

This section of the analysis will provide a brief overview of the evidence regarding GDL and some of the essential components that enhance its effectiveness.

GDL Feature The Evidence

Minimum Age

Setting a minimum age at which an individual can apply for a beginner license is an important component of GDL and licensing programs in general. Age limits allow jurisdictions to set a standard at which individuals are likely to have developed physically and cognitively to a point that they are capable of safely operating a motor vehicle. The lowest recommended age for acquiring a beginners' license is 16 years. To move from the beginner phase into the novice or intermediate phase it is recommended that a driver be a minimum of 17 years.⁶

Stages & Length of Time

As noted in the introduction, GDL involves a phased approach to licensing that includes a beginner or learner stage followed by an intermediate or novice stage before a full license can be obtained. As the driver progresses to each stage, they experience fewer restrictions on where, when, and how they can drive. Research has documented that teen driver safety is improved with longer time spent in the learner phase. It is recommended that the Learner Stage be a minimum of 12 months with no exceptions. It is recommended that the Intermediate stage be a minimum of 12 months but ideally 24 months in length.

Supervision & Practice Time

Beginner drivers should only be permitted to drive with a fully licensed supervisor in the passenger seat. It is recommended that beginners log a minimum of 50 hours of supervised driving with at least 10 of those hours at night and another 10 during winter driving conditions.⁹

Passenger Limits

Research has demonstrated that young drivers are more vulnerable to motor vehicle collisions when other youth are present in the vehicle as passengers. As a result, many GDL programs require that new drivers have no passengers in the vehicle other than a supervisor who meets specific requirements. Some GDL programs allow for immediate family to be passengers. The effect of passenger restrictions on fatality risk is substantial: A meta-analysis found that jurisdictions with passenger restrictions in the intermediate stage had a relative fatality risk among 16 year olds that was 88.5% lower than jurisdictions without passenger restrictions. Furthermore, relative fatality risk also increased when restrictions were lifted for immediate family members in the intermediate stage. The Insurance Institute for Highway Safety in the US found that allowing a driver age 15-17 years to have only one teen passenger reduced fatal crashes by 7%. When no teen passengers were allowed, fatal crashes were reduced by 21%. TIRF recommends that Learner drivers have no passengers other than a supervisor and that Intermediate drivers only be allowed to have other teen passengers in the presence of a supervisor in the first 6-12 months.

GDL Feature The Evidence

Driving at Night

Operating a motor vehicle at nighttime poses greater risk for collision than doing so during daylight hours. Restrictions on nighttime driving are thus common components of GDL programs although they vary substantially by jurisdiction. Although many jurisdictions use midnight as the start point for their restriction, some US states have enacted 8 pm and 9 pm start times. 11 This restriction often includes exemptions for employment and education purposes. In their meta-analysis, TIRF found that the number of hours which the restriction is in place in the Learner Stage along with the presence of exemptions in the Intermediate Stage impact the relative fatality risk among 19 year olds. For every 1 hour increase in the length of time, relative fatality risk decreased by 11%. The presence of exemptions (e.g. for work) was found to increase relative fatality risk. The Insurance Institute for Highway Safety in the US found an 18% decrease in fatal teen driver crashes in states with a 9 pm start time restricting nighttime driving. TIRF recommends that the full restriction extend from midnight to 6 am in the Learner Phase. In the Intermediate Phase where drivers can drive unsupervised, it is recommended that they not drive unsupervised between the hours of 9 pm and 6 am.

Driver Education & Removal of Time Discounts

Driver education programs are common in North America, growing in popularity as insurance companies offer discounts for their completion and GDL programs allow for discounts on the length of time spent in the learner phase. Evaluations of the effectiveness of driver education at reducing fatal crashes have produced mixed results. Some studies have found that youth who participate in driver education programs have a higher risk of crash due to the fact that they are able to progress through the GDL stages more quickly as a result of taking the course. This incentive allows for youth who voluntarily complete a driver education program to move from the Learner phase to the Intermediate phase in a shorter time period than their peers who did not take a course. These time discounts are common in Canadian GDL programs and have been found to be detrimental to young and new drivers. Four provinces (Nova Scotia, Quebec, Ontario, and British Columbia) have all reported higher crash rates among drivers who received the time discount because of driver education.¹² Driver education and training does provide an opportunity for new drivers to gain supervised experience and learn about the rules of the road. Experts strongly recommend that driver education be maintained as voluntary and not result in a time discount.13

Zero Blood Alcohol

Requiring that new drivers have 0.0 blood alcohol content (BAC) is a best practice component for GDL programs. Although the legal limit set in the Criminal Code is 0.08 BAC and many provinces have set administrative sanctions for 0.05-0.08 BAC, crash risk has been found to increase at even lower levels. This combined with less experience driving places new drivers at additional risk. It is also recommended that the supervising passenger also maintain a 0.0 BAC.¹⁴

"L" or "N" Sign

Although the display of Learner or Novice sign on a motor vehicle does not prevent collisions in itself, it does enable law enforcement agencies to more easily identify drivers who are licensed under GDL.

GDL Comparison – Atlantic Provinces

All Atlantic Canadian provinces have GDL for new drivers. In this section, the components described in the previous section will be examined for each Atlantic Province for both the Learner and Intermediate/Novice stages. Prince Edward Island is the only province with a third phase. It is important to note that in 2007 Nova Scotia passed amendments to the Motor Vehicle Act that strengthens the existing legislation. However, this legislation has never been proclaimed. The information below reflects what is currently in practice.

Learner/Beginner Stage

Minimum Age

All four Atlantic Provinces require that new drivers be at minimum 16 years of age.

Stages & Length of Time

All provinces have a beginner/learner phase with entry and exit requirements along with numerous restrictions. The length of time in New Brunswick (NB), Newfoundland & Labrador (NL), and Prince Edward Island (PEI) for the learner stage is 12 months which is the minimum length recommended by TIRF. Nova Scotia's (NS) is the shortest at only 6 months and is under the recommended minimum. All offer time discounts for completed driver education courses which is inconsistent with best practice.

Supervision & Practice Time

All four provinces require that Learner/Beginner drivers be accompanied by a fully licensed supervisor in the front passenger seat at all times. NL requires that the supervisor have a BAC of 0.0 which is consistent with best practice. NB and NS set BAC limits of 0.08 and PEI's limit is 0.05. None of the Atlantic Provinces require that Learners log a specified number of supervised hours of driving time.

Passenger Limit

During the Learner phase, NB, NS, and NL restrict passengers to only the supervisory passenger who must meet certain requirements including holding a full drivers' license. PEI allows for the immediate family of the supervisory passenger to also be in the car which is not recommended. There are also exemptions for a driver instructor.

Driving at Night

Nighttime driving is restricted in some provinces. NB and NL prohibit Learner/Beginner drivers from driving between midnight and 5 am. PEI has the shortest nighttime restriction (1 am - 5 am) and only applies it to drivers under the age of 21. NS has no restrictions on nighttime driving other than the presence of a supervisory driver.

Driver Education & Time Discount

Driver education is voluntary in the four Atlantic Provinces in the Learner Phase. However, NS requires a course to move from the Novice/Intermediate phase to full license. For those that complete a driver education course, time discounts are offered on the time spent in the Learner Phase. In NB and NL Learners may move into the Novice/Intermediate phase at 8 months instead of 12 months with course completion. In PEI, the driver may finish the Learner phase in 275 days (approximately 9 months instead of 12). NS has the shortest Learner phase and allows drivers to finish at 3 months instead of 6 months if a course is completed.

Zero Blood Alcohol Content

All provinces require that drivers in the Learner phase maintain a 0.0 BAC while operating a motor vehicle which is consistent with best practice. However in NB this only applies to drivers under the age of 21. In NL 0.0 BAC is also required of the supervisory passenger during the Learner phase. PEI requires that the supervisor have a BAC that does not exceed 0.05 while in NB and NS it is 0.08.

Sign on Vehicle

NL and PEI require that Learner drivers place a specific decal or sticker on any motor vehicle they are driving. NB and NS have no such requirements.

Recommended Improvements to the Learner/Beginner Stage by Province

The following recommendations are proposed for each province to strengthen the Learner/Beginner stage of their existing GDL legislation in order to remain consistent with the research literature and reduce motor vehicle collisions among new drivers. NL's GDL legislation and requirements for the Learner Stage were most in line with the evidence with some important exceptions. NB, NS, and PEI each have numerous steps they can take to strengthen their GDL requirements in the Learner stage.

Province	Recommendations
New Brunswick	 Eliminate the option to reduce the time spent in the Learner phase with a driver education course so that the time spent in this phase is one full year. Extend the 0.0 BAC requirement to all new drivers - not just those under 21. Require that supervisory passengers for Learner drivers maintain a 0.0 BAC while in the supervisory role. Require a minimum number of supervised driving hours as specified in the literature. Extend the nighttime driving restriction to 6 am. Require new drivers to display a decal on any vehicle they are operating.
Newfoundland & Labrador	 Eliminate the option to reduce the time spent in the Learner phase with a driver education course so that the time spent in this phase is one full year. Require a minimum number of supervised driving hours as specified in the literature. Extend the nighttime driving restriction to 6 am.
Nova Scotia	 Extend the length of time required for a driver to spend in the Learner phase from 6 months to a minimum of 1 year. Eliminate the option to reduce the time spent in the Learner phase with a driver education course so that the time spent in this phase is one full year. Require a minimum number of supervised driving hours as specified in the literature. Require that supervisory passengers for Learner drivers maintain a 0.0 BAC while in the supervisory role. Extend the nighttime driving restriction to 6 am. Require new drivers to display a decal on any vehicle they are operating.
Prince Edward Island	 Eliminate the option to reduce the time spent in the Learner phase with a driver education course so that the time spent in this phase is one full year. Require that supervisory passengers for Learner drivers maintain a 0.0 BAC while in the supervisory role. Restrict the permitted passengers to one supervisor only and remove the allowance for immediate family. Strengthen the nighttime driving restriction by changing the restricted period to midnight-6 am and applying it to all beginner drivers regardless of age. Require a minimum number of supervised driving hours as specified in the literature.

Intermediate/Novice Stage

Minimum Age

The minimum age at which a driver can enter the Intermediate/Novice stage is set by the required length of time spent in the Learner stage. See information and recommendations in the Learner section.

Stages & Length of Time

All provinces have an Intermediate/Novice stage with entry and exit requirements along with restrictions on drivers. NL, NB, and PEI require the driver to remain in this stage for 12 months which is the minimum recommended length. If a Learner driver in NB takes driver education and moves into the Novice stage early they will be required to spend 16 months in Novice instead of 12 months. In NS the stage is 24 months in length. PEI does have a third stage that the other provinces do not have which requires an additional year of GDL related restrictions.

Passenger Limit

Other than the nighttime restrictions (see below), passengers are only limited by the number of seatbelts in NL, NB, and NS in the Intermediate/Novice Stage. PEI allows for one non-family member passenger and requires that all other members be immediate family of the driver.

Driving at Night

During the Intermediate/Novice stage, NL and NS do not allow driving between midnight and 5 am although it is allowed if the driver is accompanied by a supervisor that meets specific requirements. Both provinces will provide exemptions for work purposes. PEI and NB have similar nighttime restrictions requiring a supervisor but only apply them to those under the age of 21. As in the Learner stage, PEI's restriction is shorter than the other provinces and starts at 1 am instead of midnight.

Driver Education & Time Discounts

NS is the only Atlantic Province that requires a driver education course to complete the Intermediate/Novice stage and move to a full license. NL, NB, and PEI cite driver education as voluntary which is what is recommended in the literature given the lack of evidence for its effectiveness.

Zero Blood Alcohol Content

All provinces require that drivers in the Intermediate/Novice phase maintain a 0.0 BAC while operating a motor vehicle which is consistent with best practice. However in NB this only applies to drivers under the age of 21. For supervising passengers who accompany drivers which are required for night driving in NL, PE, and NB a 0.0 BAC is required in NL only.

Sign on Vehicle

PEI is the only Atlantic Province that requires a decal on the vehicle of a driver in the Intermediate/Novice stage.

Recommended Improvements to the Intermediate/Novice Stage by Province

The following recommendations are proposed for each province to strengthen the Intermediate/Driver stage of their existing GDL legislation in order to remain consistent with the research literature and reduce motor vehicle collisions among new and young drivers.

Province	Recommendations
New Brunswick	 Extend the amount of time that new drivers spend in the Intermediate/Novice stage to 24 months. Restrict teenage passengers for unsupervised teen drivers in this stage. Extend the nighttime driving restriction so that supervision is required between the hours of 9 pm and 6 am with specific exemptions allowed. Require the supervisor passenger for night driving to have a 0.0 BAC. Require novice drivers to display a decal on any vehicle they are operating.
Newfoundland & Labrador	 Extend the amount of time that new drivers spend in the Intermediate/Novice stage to 24 months. Restrict teen passengers for unsupervised teen drivers in this stage. Extend the nighttime driving restriction so that supervision is required between the hours of 9 pm and 6 am with specific exemptions allowed. Require novice drivers to display a decal on any vehicle they are operating.
Nova Scotia	 Restrict teenage passengers for unsupervised teen drivers in this stage. Extend the nighttime driving restriction so that supervision is required between the hours of 9 pm and 6 am with specific exemptions allowed. Require the supervisor passenger for night driving to have a 0.0 BAC. Require novice drivers to display a decal on any vehicle they are operating.
Prince Edward Island	 Extend the nighttime driving restriction so that supervision is required between the hours of 9 pm and 6 am with specific exemptions allowed. Restrict teenage passengers for unsupervised teen drivers in this stage. Require the supervisor passenger for night driving to have a 0.0 BAC.

Conclusion

The four Atlantic Provinces have taken important steps to reducing motor vehicle collisions (MVCs) by implementing Graduated Driver Licensing (GDL) legislation. Despite this success, current GDL legislation does not fully align with best practice. While each province varies in terms of its alignment, it is noteworthy that all four provinces offer a discount on the time spent in the Learner stage if the new driver has completed a driver education course. This has been widely disproven as a safe and effective strategy for reducing MVC fatalities and has been shown to result in increased MVCs. Addressing this discrepancy along with others would significantly strengthen GDL legislation in each of the provinces and contribute to safer roads for all Atlantic Canadians.

¹ Mayhew, D. (2007). Driver education and graduated licensing in North America: Past, present and future. *Journal of Safety Research*, 38(2), 229-235.

² Traffic Injury Research Foundation. (2009). An evaluation of graduated driver licensing programs in North America: An analysis of relative fatality risks of 16, 17, 18 and 19 year old drivers using a meta-analytic approach.

³ Mayhew, D., Simpson, H., & Williams, A. (2003). Specific and long-term effects of Nova Scotia's graduated licensing program. *Traffic Injury Prevention*, *4*(2), 91-97.

⁴ Mayhew, D., Simpson, H., & Park, A. (2002). *Ontario graduated licensing system evaluation – 2002.* Ontario Ministry of Transportation.

⁵ Mellow, M., Wood, J., Burris, S., Wagenaar, A., Ibrahim, J., & Swanson, J. (2013). Critical opportunities for public health law: A call to action. *American Journal of Public Health*, 103(11), 1979-88.

⁶ Traffic Injury Research Foundation. (2005). Best practices for graduated driver licensing in Canada. Ottawa, ON: TIRF.

⁷ Williams, A. (2007). Contribution of the components of graduated licensing to crash reductions. *Journal of Safety Research*, 38(2), 177-184.

⁸ Traffic Injury Research Foundation. (2005). Best practices for graduated driver licensing in Canada. Ottawa, ON: TIRF.

⁹ Traffic Injury Research Foundation. (2005). Best practices for graduated driver licensing in Canada. Ottawa, ON: TIRF.

¹⁰ Insurance Institute for Highway Safety. (2014). *Best GDL provisions by state as of January 2014*. Retrieved from http://www.iihs.org/iihs/topics/laws/gdl_calculator

¹¹ Insurance Institute for Highway Safety. (2014). *Best GDL provisions by state as of January 2014*. Retrieved from http://www.iihs.org/iihs/topics/laws/gdl_calculator

¹² Mayhew, D. (2007). Driver education and graduated licensing in North America: Past, present and future. *Journal of Safety Research*, 38(2), 229-235.

¹³ Traffic Injury Research Foundation. (2005). Best practices for graduated driver licensing in Canada. Ottawa, ON: TIRF.

¹⁴ Traffic Injury Research Foundation. (2005). Best practices for graduated driver licensing in Canada. Ottawa, ON: TIRF.