

**2014 Road Safety Advisory Committee
REPORT AND RECOMMENDATIONS
Graduated Driver's Licensing Program**

ISSUE

The Road Safety Advisory Committee struck a subcommittee to review the current Graduated Driver's License (GDL) program in Nova Scotia, to provide evidence-based advice and recommendations on how to strengthen and modernize Nova Scotia's current GDL program.

Graduated drivers licensing was first introduced in 1994 in Nova Scotia. No significant changes or improvements have been implemented since this time.

BACKGROUND

GDL programs attempt to provide a protective environment for novice drivers by lengthening the learning process and imposing a set of restrictions aimed at reducing their risk of collision. To achieve this, most GDL programs are multi-staged, typically including a learner's stage and a newly licensed stage before graduation to a full license.ⁱ For the sake of clarity, in this paper the term new driver refers to both learner and newly licensed drivers. A learner is a person in the first phase and a newly licensed phase is the second phase. New drivers include people of all ages.

In 2007 the Road Safety Advisory Committee (RSAC) provided a report and recommendation to government with a number of recommendations to improve the current GDL system in Nova Scotia. In 2007 the Province of Nova Scotia passed amendments to the Motor Vehicle Act (MVA) that strengthens the existing legislation. However, for a variety of reasons, primarily related to cost and complexity of implementation and system requirements beyond the current abilities of the Registry of Motor Vehicles (RMV) computer system, this legislation was not proclaimed.

In January 2014 The Atlantic Collaborative on Injury Prevention (ACIP) published the *Injury Prevention Policy Analysis: Graduated Driver Licensing for Passenger Vehicles in Atlantic Canada*ⁱⁱ (for the purposes of this report and recommendations will be referred to as the ACIP Recommendations). Key recommendations were laid out for Nova Scotia's GDL program, both for the learner and newly licensed stages. RSAC used ACIP's Recommendations because of ACIP's mandate and expertise on injury prevention. ACIP is a partnership of injury prevention practitioners from both government and non-government organizations. The goal of ACIP is to reduce the burden of injury in Atlantic Canada.

Following the release of ACIP's Recommendations, Shirley Ann Burdock, RSAC's Community Co-chair, recommended that RSAC strike a Sub-committee in order to review current research and provide recommendations to government on changes needed to the current GDL program to enhance road safety. The ACIP Recommendations provided the majority of the evidence-based direction for the RSAC Sub-committee to make these recommendations.

Despite the well-documented success of GDL across North America, significant numbers of new drivers, particularly youth, who are protected by the program, still crashⁱⁱⁱ. While GDL legislation may exist in a jurisdiction, the components may not follow best GDL practices based on evidence, and therefore may not have the greatest crash reduction. The stronger the components of the GDL program, the greater the reduction in serious and fatal crashes.

The issues addressed by a strong GDL program and the recommended changes to it are very closely aligned with the Road Safety Advisory Committee's identified priority areas of speed, impaired driving, youth, distracted driving and driver fitness, and it was important for RSAC to provide an updated set of recommendations for Nova Scotia's GDL program.

RESEARCH AND ANALYSIS

The Sub-committee members reviewed the current GDL program, RSAC's 2007 Report and Recommendation on GDL program review, the 2007 un-proclaimed amendments to the MVA, and the ACIP Recommendations. Staff from the department of Transportation and Infrastructure Renewal, Service Nova Scotia, and Health and Wellness also conducted a review of other peer-reviewed research literature and provided analysis to the committee on components of the GDL.

Representatives from the Nova Scotia Youth Road Safety Committee provided input to Sub-committee members on feedback from the May 2014 road safety youth camp held in Cape Breton. The camp engaged youth (aged 15-17) on road safety issues, one of which was feedback on GDL components and the potential impact different aspects have or could have on their lives.

Nova Scotia's GDL program applies to all new drivers, regardless of their age. Considering that all new drivers are at an increased crash risk, this is something that RSAC is not recommending change, especially since evaluations have shown that the collision reductions from these GDL programs extend to new drivers of all ages. For the same reasons, New Zealand, whose GDL program originally applied only to drivers under the age of 25, has extended its program to new drivers of any age^{iv}.

RECOMMENDATIONS

RSAC recommends the following improvements to the province's GDL program. With the understanding that the Government would like to be able to proclaim and implement any changes to legislation quickly at a relatively low cost, RSAC is recommending a two phase approach to implementation. Phase one recommendations could be implemented first. These recommendations are not only expected to have a significant impact on reducing fatal and serious crashes; they are also expected to be feasible to implement within a reasonable time frame at minimal cost. Phase two recommendations would be more complex to implement and may require greater RMV systems changes or program development and could be included in additional legislation at a future date.

Phase One Recommendations

1. Extend the learner phase from 3 – 6 months to 12 months.

Under the current program, Nova Scotia has the shortest learner phase in Canada and allows drivers to finish at 3 months instead of 6 months if an approved driver trainer course is completed. Research has documented that teen driver safety is improved with longer time spent in the learner phase.^v The literature recommends that the learner phase be a minimum of 12 months so that new drivers can gain important experience and exposure to road conditions and driving in all seasons, in a more protective environment.

2. Eliminate the time discount for individuals in the learner's phase who take a driver education course.

Nova Scotia law currently allows new drivers to exit the learner phase early if they complete a driver education course. As mentioned in recommendation one, research supports a longer learner phase, so that new drivers are able to experience driving for a longer period of time in a supervised environment. There is a substantive body of literature arguing that driver education and driver training programs are ineffective in their ability to decrease the risk of car crashes and fatalities among newly licensed drivers.^{vi} When looking specifically at Nova Scotia's GDL program, researchers concluded that the 3-month "time discount" for driver education provided no safety benefit. The study compared the collision rates of the GDL drivers who took driver education and received the time discount and GDL drivers without the time discount. In the first six months licensed, collision rates for 16 and 17 year olds with graduated license driving who had received driver education had a 27% higher crash rate than those who had not received driver education^{vii}.

3. Extend the night time driving restrictions for Newly Licensed Driver's phase from the current restriction of midnight to 5:00 a.m., to 11:00 p.m. to 6:00 a.m.

Night driving is more difficult and more dangerous than driving during daylight hours for drivers of all ages^{viii}. Research has established that night driving is especially risky for young drivers and there is substantial evidence that night time curfews are effective in reducing crashes^{ix}. In a study conducted by McCartt et al. for the Insurance Institute of Highway Safety, researchers found that fatal crash

rates among 15 – 17 year olds were substantially lower for jurisdictions with laws that had nighttime and passenger restrictions, and the magnitudes of the reductions were reflected by the strengths of the restrictions (longer night time driving restrictions and increased passenger restrictions)^x. The study found that each additional hour that new teenage drivers were restricted from driving at night reduced the fatal crash rate. For example, nighttime restrictions beginning at 9 p.m. were associated with an estimated 18 percent reduction compared with no restriction; the reduction was 9 percent when driving was limited after 1 a.m.^{xi}

4. Increase passenger restrictions for Newly Licensed Driver Phase.

Newly licensed drivers should be limited to a maximum of two additional passengers, one of whom is a supervisory driver (if there is only one passenger in the vehicle, they do not have to be a supervisory driver). In the case of two additional passengers in the vehicle, the supervisory driver must be in the front passenger seat, and the other passenger must be in the back seat. Fatal crash risk has been found to increase with every additional teenage passenger in the vehicle; the presence of three or more passengers increases the risk of fatal crash for young drivers four times what their risk is when driving alone^{xii}.

5. Increased supervisory driver requirements.

In order to qualify as a supervisory driver, the person must have been fully licensed for a full 24 months. Supervisory drivers must maintain a zero blood alcohol content (BAC) and may not be impaired by any other drug. This is to highlight the importance of having zero BAC while driving, and to demonstrate the importance that is associated with supervising a novice driver. In Traffic Injury Research Foundation' (TIRF) extensive study of GDL programs and the safety impact of each component, researchers concluded that a zero BAC for supervisory driver's makes sense because they are in the vehicle not only to monitor and influence the learner's practice driving, but also to take over the driving, if necessary.^{xiii}

6. Zero BAC for two years after drivers exit the GDL program.

This is designed to reduce the risk of drinking and driving amongst novice drivers, and to reduce the culture and peer pressure to drink drive. With regards to BAC, MADD Canada reports that alcohol consumption increases young people's relative risk of crash exponentially. In addition to their lack of driving experience, young drivers also tend to be inexperienced with alcohol. Mayhew et al. have suggested that this dual lack of experience leads to a far greater inability to drive after drinking. Even with a relatively low BAC (0.015% to 0.049%), drivers aged 16 – 19 showed a marked increase in relative risk of fatal crash compared to non-drinking drivers of the same age. When the BAC range was increased to 0.05% to 0.079%, drivers in this age group were nine times more likely to have a fatal crash than their sober counterparts^{xiv}. Both ACIP and TIRF list zero BAC as a best practice for GDL programs.

Phase Two Recommendations

1. **Mandatory decals (special identification signage) for all Learner (“L”) and Newly Licensed (“N”) Drivers.**

Research completed for the Nova Scotia Department of Health and Wellness found that among young Nova Scotia males, aged 17 – 18 and 21 – 22, unsafe behaviours are evaluated not on risk, but what you can “get away with”. The goal of the decals is to encourage newly licensed young drivers to take fewer risks on the road, knowing that they are more likely to be identified by police because of the decals. Decals identifying novice drivers will assist police with enforcement of the GDL restrictions, potentially increasing the effectiveness of the GDL program, as well as signaling to other drivers when new drivers are present. Research from the Children’s Hospital of Philadelphia found that police reported crashes for new drivers decreased 9%, and there was an estimated 1624 young probationary drivers for whom a crash was prevented in the first year after the decal law was amended in New Jersey^{xv}. Findings suggest that the law is positively affecting probationary drivers’ safety.

2. **Introduction of a Hazard Perception tests as a requirement to exit the Graduated Driver’s License program.**

An exit Hazard Perception Test (HPT) should be implemented to ensure that drivers leaving the GDL program have achieved the competencies required to drive with a full license. Research shows that more than 40% of crashes involving young drivers are connected to failure to detect hazards.^{xvi} Recent findings show that HPT effectively discriminate between inexperienced and experienced drivers^{xvii}. This shows that it is possible to determine who is at a greater risk of collision via HPT.

ⁱ Traffic Injury Research Program. (2014) *About GDL*. <http://yndrc.tirf.ca/gdl/>

ⁱⁱ See: <http://www.acip.ca/Document-Library/ACIP%20Policy%20Analysis%20Series/ACIP%20Graduated%20driver%20licensing.pdf>

ⁱⁱⁱ Traffic Injury Research Foundation. (2005). *TIRF Best Practices for Graduated Drivers Licensing in Canada*. vi.

^{iv} Traffic Injury Research Foundation. (2005). *TIRF Best Practices for Graduated Drivers Licensing in Canada*. 58.

^v J Safety Res. 2007;38(2):177-84. *Contribution of the components of graduated licensing to crash reductions*. Epub 2007 Mar 26

^{vi} Mayhew, D.R. & Simpson, H.M.(2002). The safety value of driver education and training. *Injury Prevention BMJ*, 8 (2).

-
- ^{vii} Mayhew, D.R. , Simpson, H.M. , Desmond, K., Williams F. (2003) Specific and Long-Term Effects of Nova Scotia's Graduated Licensing Program, *Traffic Injury Prevention*, 4:2, 91-97, DOI:10.1080/15389580309866
- ^{viii} Traffic Injury Research Foundation. (2005). *TIRF Best Practices for Graduated Drivers Licensing in Canada*.
- ^{ix} Traffic Injury Research Foundation. (2005). *TIRF Best Practices for Graduated Drivers Licensing in Canada*.
- ^x McCartt , A. T, Teoh, E. R. , Fields, M. , Braitman K.A., & Hellinga, L.A (2010) Graduated Licensing Laws and Fatal Crashes of Teenage Drivers: A National Study, *Traffic Injury Prevention*, 11:3, 240-248, DOI: 10.1080/15389580903578854
- ^{xi} McCartt , A. T, Teoh, E. R. , Fields, M. , Braitman K.A., & Hellinga, L.A (2010) Graduated Licensing Laws and Fatal Crashes of Teenage Drivers: A National Study, *Traffic Injury Prevention*, 11:3, 240-248, DOI: 10.1080/15389580903578854
- ^{xii} Traffic Injury Research Foundation. (2005). *TIRF Best Practices for Graduated Drivers Licensing in Canada*.
- ^{xiii} Traffic Injury Research Foundation. (2005). *TIRF Best Practices for Graduated Drivers Licensing in Canada*.
- ^{xiv} MADD Canada. (2001). *The Case for a Provincial 0.00% BAC Limit for All Drivers Under the Age of 21*. <http://www.madd.ca/english/research/zerounder21.pdf>
- ^{xv} Curry, A., Pfeiffer, M., Localio, R., Durbin, D. (2013). Graduated Driver Licensing Decal Law: Effect on Young Probationary Drivers. *American Journal of Preventative Medicine*. 44 (1), 1-7.
- ^{xvi} McKnight, J.A., McKnight, S.A. (2003). Young Novice Drivers: Careless or Clueless. *Accident Analysis and Prevention*. 35, 921-925
- ^{xvii} Scialfa, C.T., Deschênes, M.C., Ference, J., Boone, J., Horswill, M.S., Wetton, M. (2011). A hazard perception test for novice drivers. *Accident Analysis & Prevention*. 43,(1), 204-208