



Novice driver licensing in New Zealand

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Abstract

Licensing systems play an important role in developing safe drivers and are a crucial part of keeping novice drivers safe while they learn to drive. This project benchmarked the New Zealand graduated licensing system (GLS) against those in other comparable high performing jurisdictions to identify any gaps between the New Zealand approach and best practice. A small number of targeted consultations were undertaken with driver licensing stakeholders in other international jurisdictions across Australia, Europe, and the United States to explore their experiences with licensing system components that have not been implemented in New Zealand. This analysis combined with a brief review of relevant research literature identified a number of evidence-based licensing measures that could improve the New Zealand novice driver licensing system.

Keywords

Graduated licensing system, graduated driver licensing, novice driver

Summary

International research indicates that a Graduated Licensing System (GLS) is an effective safety measure that reliably results in reductions in young driver crashes. It is important to review such licensing systems over time to investigate whether they may be enhanced to improve novice driver safety. This project aimed to benchmark the New Zealand GLS against those in other comparable jurisdictions which have a good road safety record to identify any gaps between the New Zealand approach and best practice. A small number of targeted consultations were also undertaken with different driver licensing stakeholders in other jurisdictions to explore components of the licensing system that have not been implemented in New Zealand and investigate whether they were viewed as being beneficial. Importantly, any components of these licensing system that were seen as not working in practice, or that could potentially be improved, were also explored, as well as any social impacts resulting from measures.

The review and consultations revealed several differences between the New Zealand GLS and the licensing process for novices in other jurisdictions including Australia, Europe, Japan and the United States. This analysis combined with a brief review of relevant research literature identified licensing components that are not currently implemented in New Zealand (or may be enhanced) and have evidence-based road safety benefits (to varying extents):

- A minimum learner period of 12 months
- Mandatory supervised driving hours for learners (logged)
- A hazard perception test (from learner to restricted licence)
- Zero BAC for all drivers on a learner or restricted licence
- Harsher sanctions for traffic offences
- Minimum restricted licensing age of 18
- Hands-free mobile phone restriction
- High-powered vehicle restriction
- Extend restricted licence phase

The display of plates during the restricted phase may be useful for the enforcement of restrictions but there are no clear links to crash outcomes. There is no evidence that competency-based driver training and assessment is more beneficial for road safety outcomes than a practical driving test but it may provide an alternative licensing assessment process that is preferred by some drivers with different learning styles.

While speed increases the risk of crashing and the severity of crash outcomes, there is inconsistent research supporting maximum speed limits during the learner/restricted phase. There is also limited research to support exit tests at the end of the restricted phase.

European countries are trending towards mandatory feedback processes with driving instructors during key times within the learner phase (which may include the supervising driver). There is limited evidence in terms of road safety outcomes at present, but it is a potentially beneficial area to monitor, especially if there are no other processes whereby a learner receives feedback or formal instruction.

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1. Introduction

1.1. Background: Graduated licensing systems

Licensing systems play an important role in developing safe drivers and are a critical part of keeping novice drivers safe while they learn to drive. Young drivers (aged 16 to 25 years) are consistently over-represented in road crashes and fatalities, with the greatest risk of crashing occurring in the period following progression from a Learner's licence to a Restricted licence (e.g., Kloeden, 2008). To address this issue many jurisdictions throughout Australia and the world have introduced Graduated Licensing Systems (GLS) that are designed to reduce the crash risk for novice drivers. A GLS for novice drivers involves a staged approach to obtaining a full driver's licence. As a new driver proceeds through these stages (learner, restricted) a variety of restrictions are implemented to limit exposure to situations known to be high risk. This enables new drivers to gain experience under low risk driving conditions before getting a full licence. The restrictions are gradually lifted as a driver advances through the stages.

There is strong international research evidence that fully implemented GLS reduce the crash risk of young novice drivers (Curry et al., 2014; Kinnear et al., 2013; McCartt et al., 2010; Senserrick & Williams, 2015; Williams, 2017). The impact of GLS systems mainly stems from the fact that these systems postpone independent driving. However, there is some evidence that GLS also improve driving skills (Foss, Masten & Martell, 2014).

GLS measures that have been found to be effective in reducing crash risk for novice drivers include high levels of supervised driving hours under a range of driving conditions, extended learner periods, and risk reduction measures including peer-aged passenger restrictions, night-time driving restrictions, and a BAC limit of zero (e.g., Chen, Wilson & Debnath, 2016; Hirschberg & Lye, 2020; Scott-Parker et al., 2013; Williams, Tefft & Grabowski, 2010). However, there is less evidence that vehicle power restrictions, longer driving tests and mobile phone restrictions have an impact on crash risk (Hirschberg & Lye, 2020). Other elements of a successful GLS include behavioural control measures that deter novice drivers from high risk and illegal behaviours (e.g., lower tolerances, harsher penalties) and access to licensing support services (Transport for NSW, 2014).

It is timely to review the current New Zealand licensing system to investigate whether there are any ways in which it may be enhanced to improve novice driver safety. A useful method for such a review is benchmarking against other jurisdictions.

1.2. The current research

The aim of this project was to benchmark the New Zealand GLS against those in other jurisdictions which have a good road safety record and are comparable to New Zealand. By comparing New Zealand's licensing system with those operating in other high performing jurisdictions and considering relevant research literature, any gaps between the New Zealand approach and best practice were identified. Potential evidence-based improvements to the New Zealand novice driver licensing system are proposed that can then be considered for implementation.

1.3. Method

The first part of this project involved benchmarking the driver licensing system in New Zealand against other comparable jurisdictions. Due to New Zealand's proximity to Australia and the similar socio-cultural context, the various GLS in all states and territories in Australia were examined with any difference between these jurisdictions and New Zealand noted. Any GLS measures that are not currently implemented in New Zealand, and have evidence of road safety benefits or potential benefits are discussed with reference to relevant research. Following this, similar comparisons were made between New Zealand and eight OECD (Organisation for Economic Co-operation and Development) countries that have a good road safety record (fatality rate) that is better than the OECD average and have recognised innovation in novice driver training or licensing.

Having benchmarked the New Zealand approach, a small number of targeted consultations were undertaken with different driver licensing stakeholders in other jurisdictions. Consultations are a useful approach for exploration of road safety policies as there are often limited publications on policy changes or evaluations of such changes. Efforts were made to select jurisdictions that were comparable to New Zealand in terms of size and geography and that had innovative elements in their licensing process. The choice of jurisdictions and stakeholders was undertaken in consultation with the New Zealand AA Research Foundation manager. Interviews were conducted with participants in Ireland (Learner Driver Support Program Ireland CLG), Sweden (Swedish Transport Agency), Tasmania, Australia (Department of State Growth) and Kentucky, United States (AAA Club Alliance).

The consultations were designed to explore aspects of the novice driver licensing system occurring in these jurisdictions that do not take place in New Zealand, and to examine whether they are viewed as being beneficial. The interviews explored why particular licensing or training requirements were implemented, levels of acceptance or resistance to the requirements, and what enabled the requirements to be introduced into the licensing process. Importantly, any components of the licensing system that are not working or could be improved were explored as well as any social impacts. Any supporting objective evidence or evaluations (unpublished) of the licensing system were also sought from the jurisdictions.

Consultations were undertaken via cloud based online meeting software Microsoft Teams in March 2024. Each interview took approximately 45-60 minutes and followed a semi-structured format. A series of guiding questions were developed for the interviews, in consultation with the AA.

2. Comparison of New Zealand GLS measures with other jurisdictions

The driver licensing process for novices in New Zealand is described in this section followed by a comparison with GLS measures in Australia and other overseas jurisdictions. Differences are discussed for measures that are known to be beneficial to novice driver safety outcomes.

2.1. Driver licensing in New Zealand

New Zealand, consistent with many other developed nations, uses a GLS to structure the training of its novice drivers. The current system involves a learner phase, a restricted licence phase and then a full licence.

2.1.1. Learner licence

In New Zealand, prospective drivers can apply for a learner licence from the age of 16. To obtain the licence, they must successfully complete a theory test, covering road rules and safe driving practices, obtaining a score of at least 32 out of 35. There are official online resources to assist with preparation for the test.

The learner licence comes with a number of restrictions. Learner drivers are required to always have a supervisor with them when driving, need to display learner plates, and can only carry passengers if the supervisor agrees. The supervisor must have held a full driver's licence for at least two years. Those aged under 20 must have a zero blood alcohol concentration (BAC), while those aged over 20 need to have a BAC < 0.05g/100ml. The learner licence is valid for 10 years and must be held for a minimum of six months before the driver can apply for a restricted licence.

The learner driver is not required to complete any mandatory supervised driving hours or driver training. There are official online resources available for those who wish to coach a learner driver, providing information on road rules and tips for coaching.

2.1.2. Restricted licence

A prospective driver may apply for a restricted licence from the age of 16 and a half (six months after obtaining a learner licence). A restricted licence is granted when the novice driver successfully passes a practical on-road test. These tests usually last for approximately 45 minutes.

A driver with a restricted licence can legally drive on their own between 5am and 10pm. Between 10pm and 5am they can only drive if a supervising driver is in the vehicle. There are restrictions on the types of people who can be carried as a passenger, if driving without a qualified supervising driver. If the driver passes the practical test using a vehicle with an automatic transmission, then they can only drive a vehicle with a manual transmission if they are accompanied by a supervisor. Similarly to the learner licence, those aged under 20 must have a zero BAC, while those aged over 20 need to have a BAC < 0.05g/100ml.

The restricted licence is valid for 10 years. The minimum period for which a novice driver must hold a restricted licence before being eligible to apply for a full licence is dependent on the driver's age and whether they have completed an advanced driving course. Those aged under 25 need to hold their restricted licence for a minimum of 18 months, which reduces to 12 months if they complete an

approved advanced driving course. Those aged over 25 must hold their restricted licence for a minimum of six months, which reduces to three months if they complete the course.

2.1.3. Full licence

The minimum age at which someone can obtain a full licence in New Zealand is 17 and a half (a restricted licence at 16 and a half and a completed advanced driving test). Without an advanced driving course, the minimum age is 18. A full licence is granted when the driver successfully passes a practical on-road test. The test usually takes 30 minutes. All previous restrictions are removed for a full licence.

2.2. GLS measures in Australian jurisdictions

GLS measures during the learner phase and the restricted/probationary phase in New Zealand are compared to those in Australian states and territories in Table 2.1 and Table 2.2, respectively. One of the major structural points of differentiation is that the restricted period in Australian jurisdictions is divided into two phases, P1 and P2, while New Zealand has a single phase. The two-phase system allows for some restrictions to be lifted during the P2 period (generally after one year of driving unsupervised) such as peer passenger or night driving restrictions. While many differences are evident, significant GLS components that do not currently exist in New Zealand or which may be enhanced are now discussed with reference to any supporting evidence of their road safety benefits.

2.2.1. Minimum learner's licence holding period

New Zealand requires a learner licence to be held for a minimum period of 6 months, whereas most Australian jurisdictions stipulate 12 months (although some jurisdictions reduce this to 6 months if the driver is aged 25 or over). The value of an extended learner period to enable a novice driver to obtain as much supervised driving experience as possible has been known for some time. Gregersen et al. (2000), for example, evaluated Sweden's lowering of its learner licence minimum age from 17½ to 16, while the minimum licensing age (solo driving) remained unchanged (18 years). This allowed the youngest novice drivers to obtain up to two years of supervised experience. The researchers found an approximate 40% reduction in subsequent crash risk among novice drivers who utilised the new minimum age (between 45% and 50% of the population for that age), whereas those who did not make use of the prolonged training period did not benefit at all. Moreover, the crash benefits were similar over three years for novice drivers during their first two years with a licence.

More recently, Senserrick and Williams (2015) looked largely at US literature on the effectiveness of specific GLS components such as minimum learner driver periods and supervised hours requirements. They reported that evaluation studies have consistently shown (i) crash-reduction benefits in the restricted/probationary licence phase with minimum learner periods of 6 months compared to no required time to be served, and (ii) crash reduction benefits for 12 month required learner periods when compared with 6 months (e.g., McCartt et al., 2010; Masten et al., 2013; Helman & Hitchings, 2023). For 12-month learner periods, as opposed to 6 months, the benefits found, as summarised by Senserrick and Williams (2015), were: a 13% reduction in fatal crashes of 15 to 17 year olds; a 9% reduction in collision claims of 16 year-olds; a minimum 26% reduction in fatal crashes of 16 year olds and 17% for 17 year olds. Importantly, however, the benefits were only found if the learner drivers used the extended period to increase their supervised driving hours. Thus, Senserrick and Williams (2015) considered the optimal learner driver period (in terms of crash reduction benefits) to be one year, provided that the time is used to obtain substantial amounts of

supervised driving. Similar conclusions were reached by the US-based National Highway Traffic Safety Administration (NHTSA, 2020).

2.2.2. Supervised driving hour requirements

No minimum supervised driving hours are required in New Zealand, whereas Australian jurisdictions require from 75 to 120 hours to be recorded in a logbook by an authorised driving instructor or a fully licensed driver accompanying the learner. Some jurisdictions require portions of the required hours to be obtained in times of darkness (e.g., 15 hours). The use of logbooks has been found to help learners to structure their practice with three quarters of learners surveyed in New South Wales and Queensland reporting that the logbook entries were either accurate or very accurate (Bates, 2012).

Research indicates that varied driving experiences with increasing degrees of complexity are needed to effectively reduce crash risk as a novice driver. Many supervised driving hours requirements in Australia and the US began with stipulations to obtain fifty hours. Early US evaluations of these provisions yielded some indication that requiring 50 hours of supervision, compared with none, increased the amount of practice driving obtained (including *beyond* 50 hours) (Waller, Olk & Shope 2000; Williams, Nelson & Leaf 2002). Subsequent research has tended to evaluate the effects of increasing 50 hours requirements to 80 or 100 hours, rather than just 50 hours *per se*.

Senserrick and Williams (2015) reviewed several studies that examined supervised driving hours requirements for learner drivers. The review concluded that low quantities of supervised hours result in less varied and less complex driving experiences but particularly if the hours are accumulated solely via professional lessons.

The optimal number of hours was inconclusive, although the typical average of 50 hours (at this time) was thought to impede acquiring more complex driving experiences. At a minimum, a high number of hours can increase time spent as a learner and potentially increase the age a restricted licence is gained, having protective effects from these aspects. From the studies they reviewed, Senserrick and Williams (2015) indicated the likely crash reduction benefits for those aged 16 was an 18% reduction in fatal crashes for 30 or more supervised hours when compared to fewer or no required hours. For ages 18 and older, a 17% to 22% reduction in probationary/restricted driver crashes was found for around 80 supervised hours compared to hours of professional instruction only. Earlier research from Sweden reported that learners with 120 hours of supervised driving experience had 35% fewer crashes than learners who had 40 to 50 hours (Gregersen, 1997).

The optimal amount of supervised driving experience in terms of distance covered has been estimated at 5,000 to 7,000 km, which is likely to be between 80 to 100 hours minimum to about 120 to 140 hours maximum, during which the increased supervised driving experience gained outweighs the increased risk of crash due to increased exposure (Sagberg, 2002; cited in Senserrick & Williams, 2015).

To summarise, while 50 hours of supervised driving has been associated with crash reductions, it is unlikely to allow for more complex driving experiences. Research indicates the optimal level of supervised hours to be between a minimum 80 and 100 hours to a maximum of around 120 hours, during which the increased experience gained outweighs increased crash risk due to increased exposure. If considerable supervised driving hours are required (i.e., 80-120 hours), the learner phase should be at least 12 months to allow as much time as possible to gain varied experience.

Table 2.1
Learner licence requirements for New Zealand and each Australian jurisdiction

Requirement	NZ	NSW	VIC	SA	QLD	ACT	TAS	WA	NT
Minimum age	16	16	16	16	16	15 and 9 months	16	16	16
Minimum holding period	6 months	1 year, unless age > 25 can pass HPT early to get P1	if < 21 = 12 months; if 21-25 = 6 months; if >25 = 3 months	1 year, if >25 = 6 months	1 year	1 year, if >25 = 6 months	1 year	6 months	6 months
BAC	<20yrs=0, 20yrs+ 0.05	0	0	0	0	0	0	0	0
Demerit point threshold*	100% in 2 years	33% (Any speed offence=licence suspension)	41% in 1 year or 100% in 3 years	33%	33% in 1 year	33%	33% in 1 year	33% from L to end P1	41% in 1 year or 100% in 3 years
Supervised driving hours	-	if < 25 = 120 hours (incl. 20 hours night) if > 25 = no logbook required	if <21 = 120 hours (incl. 20 hours night)	75 (incl. 15 at night)	if < 25 = 100 hours (incl. 10 hours night) if > 25 = no logbook required	if < 25 = 100 hours (incl. 10 hours night) if > 25 = 50 (incl 5 hours night)	80 hours (incl. 15 hours night)	if <25 = 50 (incl. 5 at night) if >25 = no logbook required	Recommendation: 20+ hours to learn vehicle operation, 80 hours to be low-risk driver
Mobile phone use	No use of hand-held mobile phone, hands-free permitted	Not allowed	No use allowed except for navigation and music (only if set up before driving)	Not allowed	No use allowed, cannot touch your body, even if off	No use allowed except for navigation and music (only if set up before driving)	No use allowed except for navigation and music (only if set up before driving)	No use of hand-held mobile phone, hands-free permitted	No use of mobile phone incl. hands free
Max speed limit (km/h)	-	90	-	100	-	-	90	100	80
Hazard Perception Test	-	To get P1, allowed to test after 10 months	To get to P1	To get to P1	To get to P1	To get to P1	To get to P1 (3 months before practical test)	After 6 months on L, before practical test	-
Exit test	Practical driving test (45mins)	Practical driving test (around 45 mins, depending on traffic)	Vehicle control knowledge test, & practical driving test (10 mins low complexity traffic, 20 mins complex)	Either competency-based training & assessment (CBT&A) or practical driving test (45 min)	Practical driving test (25 – 35 mins)	Either competency-based training & assessment (CBT&A) or practical driving test (55 min)	Practical driving test (6 content sections)	Practical driving test (45 – 50 mins)	Practical driving test (around 40 mins)

* Demerit point threshold indicates the proportion of learner demerit points that can be accrued compared to the number of demerit points for full licence holders.

Table 2.2
Restricted/Probationary licence requirements for New Zealand, New South Wales, Victoria, South Australia, and Queensland

Requirement	NZ (Restricted)	NSW-P1	NSW-P2	VIC-P1	VIC-P2	SA-P1	SA-P2	QLD-P1	QLD-P2
Minimum age	16½	17	18	18	19	17	18	17	18
Minimum holding period	18 months (12 if approved defensive driving course) 25yrs+ 6 months, (3 if course taken)	1 year	2 years	If <21 1 year, if >21 straight to P2	3 years	1 year	2 years	1 year	P1<23 = 2 yrs, if 23 on P1 = 1 yr, if 24 no P2 needed
Display plates	-	Red P	Green P	Red P	Green P	Red P	-	Red P	Green P
BAC	<20yrs=0, 20yrs+ 0.05	0	0	0	0	0	0	0	0
Demerit point threshold*	100% in 2 years	33% (Any speed offence=licence suspension)	58%	41% in 1 year or 100% in 3 years	41% in 1 year or 100% in 3 years	33% for duration Ps (Exceed speed limit 10+ km/h or drink driving = licence disqualification)	33% for duration Ps (Exceed speed limit 10+ km/h or drink driving = licence disqualification)	41% in 1 year leads to suspension or 1 year good behaviour bond	41% in 1 year leads to suspension or 1 year good behaviour bond
Mobile phone use	No use of hand-held mobile phone, hands-free permitted	No use allowed including hands-free devices	No use allowed including hands-free devices	No use allowed except for navigation and music (must set up before driving)	No use allowed except for navigation and music (must set up before driving)	No use allowed including hands-free devices	Regular mobile phone use rules apply	If <25= no use allowed, passenger not to use loudspeaker If >25 = hands-free allowed	Regular mobile phone use rules apply
Peer passenger restriction	Without supervisor, only have passenger if: partner, child, parent/guardian, relatives in house	If <25 = 1 peer passenger 11 pm - 5 am	-	1 peer passenger (16 – 22 years)	-	If <25 = 1 peer passenger (16-20 years)	-	If <25 = 1 peer passenger 11 pm - 5 am	-
Night restriction	Only drive 10pm-5am if supervising driver	-	-	-	-	No driving 12 am – 5 am	-	-	-
High-powered vehicle restriction	-	Yes	Yes	Yes	Yes	Yes, if under 25yrs	Yes, if under 25yrs	Yes, if under 25yrs	Yes, if under 25yrs
Max speed limit (km/h)	-	90	100	-	-	100	100	-	-
Exit test	Practical test (30 mins)	-	-	-	-	-	-	-	-

* Demerit point threshold indicates the proportion of learner demerit points that can be accrued compared to the number of demerit points for full licence holders.

Table 2.2 (continued)
Restricted/Probationary licence requirements for the Australian Capital Territory, Tasmania, Western Australia and Northern Territory

Requirement	ACT-P1	ACT-P2	TAS-P1	TAS-P2	WA-P1	WA-P2	NT-P
Minimum age	17	18	17	18	17	17½	16½
Minimum holding period	1 year If >25 = straight to P2	2 years	1 year	If <23= 2 years, if >23 and <25= 12 months or until 25 ; if >25= 12 months	6 months	18 months or until 19 years of age (whichever is longer)	If <25 = 2 year; if >25 1 year
Display plates	Red P	Green P	Red P	Green P	Red P	Green P	Yes
BAC	0	0	0	0	0	0	0
Demerit point threshold*	33% for duration of Ps	33% for duration of Ps	33% in 1 year	33% in 1 year	33% from L to end P1 (~1 year)	67% from L to end P2 (~2 years)	41% in 1 year or 100% in 3 years
Mobile phone use	No use allowed, exception for using a mobile device for GPS	No use allowed, exception for using a mobile device for GPS	No use allowed, exception for using a mobile device for music or GPS	Hands-free mobile phone use permitted	Hands-free mobile phone use permitted	Hands-free mobile phone use permitted	No use of mobile phone including hands-free
Peer passenger restriction	If <25 = 1 peer passenger 11pm-5am	-	If <25 = 1 peer passenger any time	-	-	-	-
Night restriction	-	-	-	-	No driving first 6 months 12am - 5am, Exemptions: driving to/from work, during employment, studying or voluntary work	-	-
High-powered vehicle restriction	-	-	-	-	-	-	-
Max speed limit (km/h)	-	-	100	-	-	-	100
Exit test	-	-	-	-	-	-	-

* Demerit point threshold indicates the proportion of learner demerit points that can be accrued compared to the number of demerit points for full licence holders.

Support programs

Obtaining a high number of supervised driving hours that must be recorded in a logbook can pose a significant challenge for novice drivers who have limited or no access to an available supervising driver, or a vehicle in which they can practise driving. Recognising this, Learner Driver Access Programs and Learner Driver Mentor Programs are available in most Australian jurisdictions to assist disadvantaged learner drivers who do not have access to a supervisory driver or vehicle and who are not able to afford professional driving lessons to gain their supervised driving hours. For example, in NSW the Driver Licensing Access Program (DLAP) supports Aboriginal communities and other disadvantaged communities to enter or re-enter the driver licensing system by helping manage outstanding fines, literacy support, understanding the road rules, preparing for the licensing tests, or gaining on-road driving experience (i.e., providing access to Learner Driver Mentoring programs) (NSW Government, 2024). In Victoria, the Transport Accident Commission (TAC) fund the L2P Program, a community-based initiative developed to assist eligible young Victorian learner drivers (aged 16-23 years), who do not have access to a supervising driver or an appropriate vehicle, to fulfil driving experience requirements. They are matched with a fully licensed volunteer mentor and have access to a program car to obtain supervised driving experience (VicRoads, 2024). There are also similar programs that are community run where eligible young people are matched with fully licensed volunteer mentors (who have access to a sponsored vehicle) and contribute A\$15 per hour for mentoring (i.e., L2P Murraylands in South Australia). There is some evidence that such programs effectively help learners achieve the minimum hours required and to gain probationary licensure (Freethy, 2012).

In South Australia, the Aboriginal Road Safety and Driver Licensing service currently delivers On the Right Track (OTRT) to assist Aboriginal people living in remote and isolated traditional lands as well as urban areas to obtain and retain their driver's licences. For such communities, there are many systemic barriers that prevent equitable access to road safety education and services. For example, OTRT provides study assistance and practice for learner's tests, driving lessons, driving tests, vehicle on road tests, liaison with service providers in relation to existing traffic fines, child restraints, tow straps, general road safety education, and have recently expanded to include truck lessons/licence testing. As of September 2023, the OTRT service has assisted more than 2,900 Aboriginal people, issued more than 1,111 learner permits and issued over 360 probationary licences (Department for Transport and Infrastructure, 2024). This recent evaluation reported that the program was a model for service delivery to Aboriginal people, achieving positive medium-term outcomes and overcoming barriers for clients. Longer term road safety outcomes were more challenging to assess due to limited data.

Some Australian jurisdictions requiring high levels of mandatory hours also offer discounts towards supervised driving practice for completion of professional driver instructor lessons (e.g., '3 for 1' structured lesson scheme) or courses (e.g., NSW Safer Drivers Course). However, there have been no road safety outcome-based evaluations that support the effectiveness of these approaches.

While the number of logged supervised driving hours may be specified, the type and quality of driving experience is very important. Varied driving experience in a range of situations and environmental conditions is paramount to developing safe driving skills and this should be emphasised throughout the learner phase in support programs for learner drivers.

2.2.3. Competency-based driver training and assessment for learner drivers

New Zealand learner drivers must successfully pass a practical driving test to obtain a restricted licence. Open data from Waka Kotahi (2024) indicate that over the last five years, the pass rate for the restricted test was only 0.54. It is possible that these pass rates are low because drivers are unprepared and have not had enough practice driving, or it may be that they do not perform well in this type of testing environment. Note also that young novice drivers (16-24 years) had a slightly higher pass rate than older novice drivers. As can be seen in Table 2.1 both the Australian Capital Territory (ACT) and South Australia specify two alternative approaches to assessing learner driver skills prior to solo driving (this is in addition to the supervised driving requirements discussed above). The options in those two jurisdictions are either: (i) a single practical on-road driving test with a licensed examiner (which is the sole pathway in the other Australian jurisdictions); or (ii) a competency-based training and assessment (CBT&A) approach with an authorised examiner and conducted over a period of weeks or months as desired by the learner.

The CBT&A approach takes a long-term assessment of the developing driver in which a defined list of driving competencies is assessed by the examiner, who may also be the driver's trainer. An added attraction of CBT&A is that it is a common approach used in various vocational education and training contexts such as colleges and workplaces. The competencies are listed in a Driving Companion booklet, sometimes popularly referred to as the logbook approach, even though the term 'logbook' more accurately refers to the booklet in which supervised driving hours are recorded and certified. Additionally, the South Australian CBT&A scheme advocates the following advantages, which apply equally to the ACT:

- CBT&A is a progressive assessment system; learner drivers are assessed as each task is completed.
- The training is designed to cover all aspects of good driving behaviour and the development of good driving attitudes.
- The training allows drivers to learn at their own pace without a 'test' deadline.
- There is no 'pass' or 'fail' when each task is assessed; if a learner is unsuccessful in any assessment of a task, the Authorised Examiner can re-train the driver and then re-assess their performance again in that task within the same or a later driving lesson.
- The CBT&A course affords efficient, structured training in a wide variety of driving experiences including country driving.
- Drivers graduating from CBT&A will be able to demonstrate the confidence and competency needed for road and traffic conditions.

The ACT's CBT&A scheme specifies 23 driving competencies¹ and South Australia's CBT&A scheme consists of 30 competencies².

An evaluation of South Australia's CBT&A scheme, as opposed to the single practical Vehicle-On-Road-Test (VORT), found females were more likely to choose CBT&A than were males but older

¹ https://www.accesscanberra.act.gov.au/data/assets/pdf_file/0011/2297432/Road-ready-towards-your-Ps-in-the-ACT-a-learner-driver-guide.pdf

² <https://mylicence.sa.gov.au/the-driving-companion/competency-based-training-assessment-task>

novice drivers were more likely to choose VORT (Kloeden & McLean, 2001). Overall, there was no meaningful difference in crash involvement in the first year of driving between drivers who had obtained a probationary licence by CBT&A and those who took the VORT. A small difference was apparent among male drivers, whereby those who had taken CBT&A had a higher rate of crashes than those who took the VORT. This difference disappeared after age was controlled for, suggesting that there is little difference between the crash experience of comparable groups of CBT&A and VORT drivers.

Overall, drivers who took CBT&A had fewer first offences during their first year of driving than those who did so by the VORT. On further examination it was found that this difference was probably due to an artefact based on sex and age biases in the choice of licensing method and offence rates. Moreover, there may have been confounding factors related to both CBT&A selection and crash and traffic offence rates other than sex and age that masked an underlying difference between CBT&A and VORT. For example, some rural drivers did not have access to CBT&A and may have had different exposures to driving and to traffic offence detection. Socio-economic factors may also have played a role. However, these effects were probably minimal and any large difference between CBT&A and VORT should still be apparent after controlling for the sex and age of drivers. Therefore, the general conclusion was that CBT&A appeared to have little effect on the rate of crash involvement or traffic offences in the first 12 months of driving on a probationary licence, compared with drivers who took the VORT.

It is important to note that the CBT&A system requires a considerable level of quality assurance and consistency across driving instructors.

2.2.4. Minimum holding period for a restricted licence (including minimum age for restricted and full licence)

The minimum age for a full licence in New Zealand is 18 years, but this can be reduced to 17½ if an approved defensive driving course is undertaken. By contrast, in Australia, the minimum full licence age ranges from 18½ to 22, with 20 years being the most common age. The later full licence age in Australian jurisdictions is primarily due to the longer restricted/probationary licence phase, ranging from 2 to 4 years as opposed to New Zealand's 12 to 18 months (as well as the longer learner period). Another contributor is the minimum restricted licensing age of 16.5 years in New Zealand which is considerably younger than the minimum age of 17 years in most Australian jurisdictions and 18 years in Victoria.

A fundamental consideration in relation to later restricted and full licence ages is that research evidence indicates that the frontal areas of the human brain, which are essential for safe driving (e.g. impulse control, decision making, planning, executive functioning), are not fully developed until around the age of 25 and in some cases up to age 30 (e.g., Foy, Runham & Chapman, 2016; Glendon, 2011; Koolschijn & Crone, 2013; O'Rourke et al., 2020). This developmental delay is particularly pronounced for males (Koolschijn & Crone, 2013).

In its proposed framework for an ideal Australian GLS, Transport for NSW (2014) recognised that the older a young person is when they are licensed, the safer they are, going as far to say that measures to encourage older age licensing should be implemented (either by increasing the minimum age for restricted/probationary phases, or other measures which serve to delay licensing until substantial supervised driving experience is gained). Importantly, the research literature demonstrates that a higher minimum restricted/probationary age is associated with reduced crashes

and fatalities. For example, Waller and colleagues (2001) followed the crash and traffic offence records of a large cohort of young Michigan drivers for seven years from first licensure. They found that the odds of crashing decreased by about 5% for each additional year of age at the time of commencing unsupervised driving (restricted licence). Kloeden (2008) also showed that older novice drivers in South Australia (aged 18-19 years) were less likely to be involved in a crash than younger drivers (aged 16-17 years) in the first few years after obtaining a probationary licence.

Recently in Australia, Siskind (2023) analysed official crash data for New South Wales novice drivers ($n=73,886$) aged under 25 when first licensed (learner stage) and who had transitioned to unsupervised driving between 2007 and 2014. Overall, the results indicated that the drivers who were older when they were first licensed and older when they obtained their probationary licence had fewer crashes. It can be inferred that such drivers, who would subsequently be relatively older when fully licensed, would have had fewer crashes up to that point than if they had begun their licensing pathway at younger ages. However, it is acknowledged that these studies do not account for unknown differences contributing to the delayed licence age, such as individual differences/environment or longer period on a learner licence.

The optimal length of time for a restricted licence is currently unknown, as no quantifiable benefits for a minimum period have been identified. Drink drive research suggests even small amounts of alcohol increase the crash involvement of novice drivers up to age 30 (e.g., Keall, Frith & Patterson, 2004; Peck et al., 2008) and therefore any extension of the restricted licensing period increases the benefits of a zero BAC requirement (Senserrick & Williams, 2015) or other relevant restrictions.

2.2.5. Harsher sanctions/lower demerit point threshold

In New Zealand, both novice and experienced drivers must reach the same level of demerit points before losing their licence. However, in Australia novice drivers face a lower demerit point threshold than experienced drivers for losing their licence. For example, in most Australian jurisdictions (except Victoria and ACT) a learner driver can only accrue one third (33%) of the demerit points compared to a full licence holder (see Table 2.1) before licence suspension. Demerit points also accumulate against a driver's record for two years in New Zealand compared to three years in Australia. A relatively longer period extends the time in which demerit points are 'active'.

The demerit point accumulation difference between the two countries is heightened by differences in the relative severity of penalties for driving offences. Table 2.3 compares the demerit points allocated to some common driving offences when committed in New Zealand and in two Australian states, South Australia, and New South Wales. It is evident that the severity of the demerit points for some common offences is much lower in New Zealand relative to the disqualification threshold, compared to South Australia and New South Wales. For example, in New Zealand, a failure to give way offence attracts only one fifth of the demerit point maximum, whereas in South Australia and P1 in New South Wales the penalty is three-quarters of the maximum. Moreover, in South Australia (P1 and P2) and New South Wales (P1), probationary drivers committing a speeding offence incur demerit point allocations that bring automatic disqualification whereas, in New Zealand, two serious offences (speeding and/or drink driving) are required for disqualification. In both Australian jurisdictions a disqualification equates to serving an extra three to six months on a restricted/probationary licence. An evaluation of the sanction in New South Wales (Job, 2011) found a reduction in speeding-related fatal crashes involving novice drivers of 35%.

There are few other evaluations about the effectiveness of such disqualification provisions; however, both Senserrick and Williams (2015) and NHTSA (2020) noted that there is a substantial amount of evidence attesting to the risks of speeding among novice drivers. Kinnear et al. (2013) and Meirambayeva et al. (2014) reported that such increased sanctions for offending being applied to UK and Canadian young drivers reduced their subsequent offending and high risk behaviours respectively, though, as the Transport for NSW (2014) notes, this may have an unintended side effect of greater levels of unlicensed driving.

Table 2.3
Demerit point allocations for novice driver offences in New Zealand, South Australia and New South Wales

Offence	New Zealand demerit points (decimal fraction of 100 upper limit)	South Australia demerit points (decimal fraction of 4 upper limit)	New South Wales demerit points (decimal fraction of 4 upper limit in P1, 7 in P2)
Exceed speed limit by up to 10 km/h	10 (0.1)	2 (0.5)	1 (0.25, 0.14)
Exceed speed limit by 20 to 30 km/h	35 (0.35)	5 (and consequently disqualification)	4 (P1 disqualification, P2 0.57)
Exceed speed limit by 35+ km/h	50 (0.5)	7-9 (and consequently disqualification)	5+ (with 7+ bringing disqualification)
Use mobile phone while driving	20 (0.2)	3 (0.75)	5 (and consequently disqualification)
Failure to give way	20 (0.2)	3 (0.75)	3 (P1 0.75, P2 0.42)
Breach of GLS conditions	35 (0.35)	disqualification	disqualification
Drink driving: 2 offences in 2 years	disqualification	disqualification for 1 offence	disqualification for 1 offence
1 drink drive offence & 1 speeding at 35+ km/h offence	disqualification	disqualification for 1 offence	disqualification for 1 offence
Two speeding offences (35+ km/h)	disqualification	disqualification for 1 offence	disqualification for 1 offence

2.2.6. Hazard perception training and testing

New Zealand has no computerised hazard perception test (HPT) to transition from a learner to restricted licence; most Australian jurisdictions have such a requirement. However, it is acknowledged that the practical driving exit test from the restricted licence to a full licence requires a hazard detection element (see Section 2.2.10). Hazard perception is the only driving specific skill found to correlate with crash risk (Wetton, Hill & Horswill, 2011). Studies have found that HPTs are useful for predicting subsequent crash risk, with research indicating that drivers in New South Wales who failed the HPT at least twice were more likely to be involved in a crash compared to those who passed on their first attempt (Boufous et al, 2011). Recognising this, some jurisdictions have introduced hazard perception testing into their driver licensing process (Moran, Bennett & Prabhakaran, 2019). Australian HPTs typically feature a computer-based test that measures ability to recognise and respond to potentially dangerous situations and react appropriately. The tests use clips of traffic situations from a driver's perspective, which include an indication of travel speed and when the turn indicators are operating. Participants must respond when they think an action is required to maximise safety, such as slowing down, or when a desired action is safe, such as overtaking or crossing an intersection. Participants are usually given two questions to practise before the actual test starts. A demonstration HPT can be viewed at this weblink:

<https://www.qld.gov.au/transport/licensing/getting/hazard/hazard-perception-tests>

It is broadly accepted that experienced drivers perform better at hazard perception tasks than do novices due to having acquired a greater level of mastery. A potential way to raise novice driver hazard perception to the level of experienced drivers is through training. Hazard perception training is undertaken via a number of ways, including using simulators, virtual reality and video clips. The training usually involves observing or listening to commentary from expert drivers who identify the areas to scan and clues to look for to identify hazards, or performing some kind of driving task (e.g., simulator, real-world driving) with feedback on behaviour from an instructor. It is delivered either by trained instructors or can be undertaken independently through technological applications. Several studies examining the benefits of hazard perception training via simulators have found improvements in drivers' abilities in identifying hazards, faster response times to hazards, increased following distances, and greater time spent looking in areas where hazards may appear (e.g., Castro et al., 2016; Horswill et al., 2021a, 2021b; Krishnan et al., 2019).

2.2.7. Alcohol restrictions

In New Zealand only novice drivers under age 20 must have a zero blood alcohol concentration (BAC) but in every Australian jurisdiction novice drivers of any age are banned from having alcohol in their blood during the learner and restricted/probationary licence phase. The importance of extending zero BAC restrictions to novice drivers of all ages was suggested by Catchpole (2020) who found that the proportions of crash involvements that occurred during high alcohol consumption times were statistically significantly higher (43.8% to 47.2%) for novice drivers (18 to 24 years) than for an experienced driver comparison group (35.3%). Senserrick and Williams (2015) noted there is considerable research evidence demonstrating that even very low BACs impact negatively on driving, including vision, psychomotor skills, information processing, dividing attention, vigilance and drowsiness.

An analysis of six studies conducted in Australia and the US among drivers aged between 15 and 21 revealed that, in states with zero alcohol policy laws enacted, there was an average reduction in night-time single vehicle fatalities of 22% compared to a reduction of 17% in jurisdictions where a 0.02 BAC limit was implemented (and a 7% reduction when the BAC limit varied between 0.04 and 0.06) (Zwerling & Jones, 1999).

2.2.8. Mobile phone use restrictions

While New Zealand's laws permit hands-free mobile use by both novice and experienced drivers, in Australian jurisdictions any form of mobile phone use, including hands-free, is banned in the learner and P1 phases (except Western Australia). Some states permit hands-free use in the P2 stage while others continue the outright ban until full licensure.

Senserrick and Williams (2015) concluded that mobile phone use, and even hands-free phone use, substantially increases crash risk for all drivers (e.g., McEvoy et al., 2005), a risk which is exacerbated by driver inexperience and young age. Recent research, predominantly on driving simulators, shows young drivers exhibit considerable deficits in attention and driving performance when using a phone. For example, significant differences in vehicle control (i.e., lateral distance and hard shoulder line violations) between distracted and non-distracted young drivers were found with an overall workload score increasing when using a mobile phone while driving (Ortega, et al., 2021). In another simulator-based study, novice drivers drove faster during phone talking tasks on small-radius curves than more experienced drivers (Yan et al., 2022).

While there is clear evidence of increased crash risk for young drivers from mobile phone use (both handheld and hands-free), with evidence also emerging for other in-car technologies, there is limited research on the effectiveness of mobile phone use bans for young drivers (Senserrick & Williams, 2015). This may be due, at least in part, to enforcement of mobile phone bans being largely dependent on general enforcement activity rather than such enforcement specifically targeted at novice drivers.

2.2.9. High-power vehicle restrictions

Whereas the New Zealand GLS does not impose restrictions on high-powered vehicles, four Australian states specify vehicle power to weight ratio GLS restrictions. Each of these states restricts probationary drivers from operating vehicles with a power to tare mass ratio greater than 130 KW/tonne or vehicles that have significant engine modification (with some minor variations by state).

Senserrick and Williams (2015) found that modelling studies (with assumptions of 100% compliance with such restrictions) estimated modest injury reductions but the prevalence of ownership of such vehicles tends to be low. Estimated injury reductions reported in a study using Australian and New Zealand data relating to such restrictions ranged from 0.4% to 1.8% in Australia to 2.2 to 2.5% in New Zealand (Keall & Newstead, 2013). Similarly, in evaluating the effectiveness of Queensland's GLS, Scully et al. (2014) estimated that, for the vehicle power restriction component, in the 2.5 years following the restriction's introduction, only about 1.6% of drivers aged under 25 with a probationary licence were driving restricted vehicles when they crashed. Further, a 0.3% reduction in crashes and a 0.4% reduction in injuries for drivers aged under 25 with a probationary licence were estimated. Scully et al. (2014) concluded that, as such restricted vehicles are relatively rare in the crash fleet, even 100% compliance with the regulation would only have yielded reductions of 1.4% and 2.0% for the crash involvement and injury rates respectively.

2.2.10. Exit test for restricted phase drivers to gain a full licence

New Zealand has an exit test that drivers must pass during the restricted phase to obtain a full licence. No Australian jurisdictions currently have such a requirement and there are few overseas jurisdictions that have exit tests to gain a full licence: Ontario, British Columbia and Alberta in Canada (Senserrick & Williams, 2015) and Luxembourg in Europe (Austroads, 2020). New Zealand's exit test consists of an advanced level practical driving assessment which included requirements for drivers to verbalise aloud to the examiner the hazards they anticipate and/or perceive as well as how they are responding to them (Haire et al., 2011). There have been no published evaluations of the effectiveness of the New Zealand exit test, or those in the other jurisdictions, in terms of subsequent crash involvement (Senserrick & Williams, 2015). Recent data from 2019 to 2023 show a pass rate of 0.66 for the New Zealand exit test to the full licence, indicating that one third of candidates fail after passing through the licensing system (Waka Kotahi, 2024).

New South Wales once had an exit test to gain a full licence (Driver Qualification Test) consisting of a combined advanced safe driving knowledge test with an advanced level HPT. The exit test, first introduced in 2003, was removed in 2017 because there was no evidence to support it and the HPT was reorganised so that learners now had to pass the HPT before attempting the driving test in the learner phase. The only known evaluation of an exit test demonstrated that P2 (secondary probationary stage) drivers in New South Wales who passed the test on their first attempt had fewer crashes, with overall performance on the test a significant predictor of subsequent crash involvement (Roads and Traffic Authority NSW, 2008; cited in Senserrick & Williams, 2015). After controlling for age, gender, education/occupation and licence tenure, those who failed on the first attempt were

16% more likely to have a crash in the following year. Those who scored 100% on the test had the lowest subsequent crash involvement. Those who failed at their first attempt of the knowledge test component were nearly four times more likely to crash (19%) than those who failed the hazard perception component (5%).

Senserrick and Williams (2015) considered that accumulating an offence-free driving record over a two-year restricted/probationary period (sometimes called a good behaviour requirement, and/or covering serious offences only) was a stronger predictor of subsequent crash involvement than an exit test. However, both better test performance and having an offence-free driving record for progression to a full licence constituted the stronger combined predictor.

2.2.11. Display of plates during restricted phase

New Zealand does not require restricted phase drivers to display any specific plates while driving in contrast to all Australian jurisdictions which require the display of red P-plates during the P1 phase and green P-plates during the P2 phase (except for the P2 phase in South Australia). P-plates indicate that the driver is in the process of learning to drive and can assist with the enforcement of restricted/probationary licence requirements (i.e., peer passenger and night restrictions) (Bates, Rodwell & Matthews, 2019) and also assist the public in acknowledging novice drivers.

2.2.12. Maximum speed limit

New Zealand does not apply any maximum speed restrictions to novice riders as part of the GLS. However, several Australian jurisdictions set a maximum speed at which a driver can travel, regardless of the posted speed limit of the road. Such restrictions are imposed because of the well-known relationship that speed increases the risk of crashing as well as the severity of crash outcomes. Speed is also known to be a significant contributor to young driver crashes (Breen et al., 2020). These restrictions are implemented during both the learner phase (80km/h in Northern Territory, 90km/h in New South Wales and Tasmania, 100km/h in South Australia and Western Australia) and during the restricted phase (New South Wales, Northern Territory, South Australia, and Tasmania – P1 only). In Tasmania, these limits were set in 2020 following a review of the GLS.

Despite the reduced risk of crashes and injury outcomes when travelling at a lower speed, there is little research on this measure. Senserrick and Williams (2015) questioned whether such a restriction creates speed differentials between different vehicles on the road and that this introduces risk. The risk concerns vehicles that can travel faster engaging in aggressive driving or unsafe overtaking when encountering a slower vehicle on a highway.

2.3. Driver licensing in Europe

Comparisons have also been made between the licensing process in New Zealand and eight other international jurisdictions for both the learner phase (see Table 2.4) and the restricted/probationary phase (see Table 2.5).

Table 2.4
Learner licence requirements for New Zealand and selected OECD countries

Requirement	NZ	Austria	Finland	Germany	Republic of Ireland	Japan	Norway	Sweden	United Kingdom
Minimum age	16	17 (L17 driving school training can begin from age 15½)	16	17	17	18	15	16	15¾
Minimum holding period	6 months	No minimum L period specified, but must be at least age 17	2 years	Only until all tests are passed, must be within 1 year	6 months	6 months from learners to full licence, otherwise re-do learner process	No minimum tenure depends on training progress	Until at least age 18 and all tests passed	Until at least age 17 and all tests passed
BAC	<20yrs=0, 20yrs+ 0.05	0.01 (regular limit 0.05)	0.01 for all drivers	0 (regular limit is 0.05)	0.02 (regular limit 0.05)	0 (alcohol banned < 20yrs)	0.02 for all drivers	0.02 for all drivers	0.02 (regular limit 0.08)
Demerit point threshold	100 over 2 years	Serious offences (speed/alcohol etc) result in mandatory retraining and extension of probationary period	No demerit scheme, but 2+ offences in 1 year or 3 offences in 2 years result in disqualification and mandatory retraining	Penalty point scheme with lower threshold	7 (instead of 12)	Same demerit scheme applies to all drivers; 6+ points in 3 years results in suspension	First 2 years offences result in double demerits; 8+ points result in disqualification	-	6 (instead of 12) for first 2 years. If exceed, revert to learner stage
Mobile phone use	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted
Supervised driving hours and driver training requirements	None	Driving school – 32 theory lessons, 12 practical lessons before theory test. L17 requires a min of 3000km recorded in a logbook with 3 sessions of driving school training	Min. 18 hours driving instruction (incl. 8 hours on risk management)	Compulsory first aid, driving theory (14 hours) & practical training with tests (no fixed number of hours, but must include autobahn, rural & night driving)	Essential Driving Training – 12 x 1-hr training sessions with driving instructor (each 2 weeks apart)	A. Driving school. Theory & practical lessons & tests on closed course then more theory & practical on-road B. No school. Theory & practical test then at least 5 practical	A. If <25 yrs Basic Traffic Course (17-hr theory)+ night driving course before get L B Basic training (practical, off-road) C. On-road training (no min time) with 4-hr practical crash avoidance course.	Compulsory Risk training P1 (Theory 3hrs): Risks, driver impairment P2 (Practical 3-4hrs): Drive to conditions, skid pan	None. Sufficient driving practice (instructor and/or lay supervisor) to pass tests

Requirement	NZ	Austria	Finland	Germany	Republic of Ireland	Japan	Norway	Sweden	United Kingdom
						sessions within 3 months before test.	D 13-hr on-road safety course		
Hazard perception test	-	-	-	-	-	-	-	-	Yes
Exit test	Practical driving test (45mins)	Two on road driving assessments	Practical driving test	Practical driving test	Practical driving test	A. Driving school: written test B. No school: written & practical tests & one day course	Computerised theory test & 1 hour practical test, including safety check of vehicle	Theory & practical driving tests (safety inspection, drive in different conditions)	Theory, HPT and practical driving tests

Table 2.5
Restricted/Probationary licence requirements for New Zealand and selected OECD countries

Requirement	NZ (Restricted)	Austria	Finland	Germany	Ireland	Japan	Norway	Sweden	United Kingdom
Minimum age	16½	18 (L17 – 17 but only in Austria)	18 (from 17 if training as an occupational driver)	18	17½	No probationary period. When pass previous assessment – go to full licence	18	18	17
Minimum holding period	18 months (12 if approved defensive driving course taken) 25yrs+ 6 months, (3 if course taken)	Probationary for 3 years (L17 to 21 years)	Probationary for 2 years	Probationary for 2 years	Probationary for 2 years	-	Probationary for 2 years	Probationary for 2 years	Probationary for 2 years
Display plates	-	-	-	-	N(novice) plates	-	-	-	P-plates optional
BAC	<20yrs=0, 20yrs+ 0.05	0.01	0.01 for all drivers	0 probationary licence & <21 years	0.02 (regular limit is 0.05)	0 (alcohol banned <20); age >20 – 0.03	0.02 for all drivers	0.02 for all drivers	0.02 during first 2 years (regular limit 0.08)
Demerit point threshold	100 over 2 years	Serious offences (speed/alcohol etc) result in mandatory retraining and 1 year extension of probationary period	No demerit scheme, but 2+ offences in first year, or 3 offences in first 2 years result in disqualification and mandatory retraining	1 serious offence or 2 less serious offences = driver behaviour course & extension of probationary period by 2 yrs	7 (instead of 12) for first 2 years	Same demerit scheme applies to all drivers; 6+ points in 3 years results in suspension.	First 2 years offences result in double demerits; 8+ points result in disqualification	No demerit scheme. If disqualified during first 2 years of licence, must re-apply for learner's licence	6 (instead of 12) for first 2 years. If exceed, revert to learner stage
Mobile phone use	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted	No use of hand-held mobile phone, hands-free permitted
Peer passenger restriction	Without supervisor only have passenger if: partner, child, parent/guardian, relatives in house	-	-	-	-	-	-	-	-
Night restriction	Only drive 10pm-5am if supervising driver	-	-	-	-	-	-	-	-
Exit test	Practical test (30mins)	-	-	-	-	-	-	-	-

The eight OECD countries were selected because they have a road crash fatality rate (per 100,000 population) lower than the OECD median (BITRE, 2023) and are somewhat comparable to New Zealand in terms of size/geography and, in some cases, population.

2.3.1. Overview: Single and multi-phase licensing

It can be seen in Table 2.5 that the selected OECD countries that are also in the European Union (EU) all allow restricted (unsupervised) driving from age 18. This uniformity is predominantly due to the implementation of the EU driving licence in 2013 in which there was a single-phase licence acquisition process (learner to full), rather than the multi-phase GLS in New Zealand, Australia and the US. Some EU countries struggled to adopt the new policy, continuing to issue their own country licence at an earlier age than the EU's 18 in which the driver could only drive within that country, but could transfer to an EU licence at age 18. Finland originally had a two-phase GLS prior to 2013 but had switched to a single phase by 2018 when its exit test to gain a full licence was abolished in favour of a compulsory risk management course during the learner phase.

While it may be considered a single-phase licence, many countries impart restrictive conditions during a probationary period which is usually the first two to three years after obtaining the full licence. This probationary period can be equated to the New Zealand restricted licence phase. The main difference is that EU licence holders do not need to obtain another licence after the probationary period or complete any further testing. The latest available data from 32 EU and non-EU countries that participate in the European Transport Safety Council (ETSC) Road Safety Performance Index (PIN) program indicate that in 2021, only six countries had multi-phase or graduated licensing, as seen in Table 2.6 (Adminaité-Fodor, Carson & Jost, 2021). However, most countries (n=22) have a probationary licensing period of 2 to 3 years (up to 5 years in Slovenia).

Table 2.6
European countries with multi-phase or probationary licensing (Source: (Adminaité-Fodor, Carson & Jost, 2021))

Driver licensing	European countries
Multi-phase or graduated licensing	Austria, Belgium, Denmark, Estonia, Ireland, Israel,
Probationary period	Austria, Belgium, Bulgaria, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Latvia, Netherlands, Portugal, Romania, Serbia, Sweden, Slovenia, Slovakia, Spain, Switzerland, United Kingdom

Further transitional challenges lay ahead as the European Commission has proposed a change to driver licensing rules as well as the introduction of a new digital driving licence valid throughout the EU and new provisions to assist the enforcement of traffic offences across countries³. The proposal on driving licences amends existing EU law and is reported to be inspired by best practices already applied in several EU countries. For novice drivers, this will involve the introduction of an accompanied driving scheme (cars and trucks) from the age of 17, to gain driving experience after passing the learner test. Those who pass at 17 will be able to drive alone when they turn 18. Other proposed measures include:

- A probation period of at least two years for novice drivers after passing the test.
- Zero-tolerance rule for drink-driving.

³ Road safety: Commission proposes updated requirements for driving licences and better cross-border enforcement of road traffic rules (Press release). Brussels: European Commission. 1 March 2023.

- Adapting driver training and testing to better prepare drivers for the presence of vulnerable users on the road.
- A more targeted assessment of medical fitness.

There is no indication that this has progressed past a proposal at this stage.

2.3.2. Learner driving training requirements

In the selected OECD countries, and many European countries generally, there are no supervised driving hour requirements in the learner phase. This is in stark contrast to graduated licensing systems in the United States and Australia. Austria is the only country within Table 2.4 that requires logged supervised driving which is based on distance, that is, 3000 kilometres driven, rather than hours of driving (France also requires 3000 km of logged supervised driving).

European systems have traditionally focussed on learning through professional instruction and the concept of graduated licensing has only recently been adopted. This is largely due to increasing recognition in Europe that learning to drive safely in traffic requires a long learning time and much practice but also is commensurate with insights on higher order driver educational goals (allowing time for automation of acquired driving skills before a full licence). The ETSC noted in its report aimed to reduce road deaths among young drivers that “The fundamental goal of pre-licence training and the licensing process should be to create drivers who are safe, and not just technically competent, by the time they are permitted to drive unsupervised.” (Adminaité-Fodor, Carson & Jost, 2021, p32.) Driver training needs to assist novice drivers in developing appropriate cognitive skills and a safety-orientation rather than having the primary goal of passing a driving test. Learner drivers in New Zealand are not required to undertake supervised driving hours or any professional instruction, potentially missing out on their benefits.

The number of hours of mandatory professional instruction in terms of both theory and practical lessons vary considerably between OECD countries. Fewer hours of professional instruction are required while learning compared to mandatory hours of supervised driving in Australia and the United States. The main reason is that professional instruction is provided mainly by non-subsidised private driving schools and so a higher number of required lessons would be more costly for the novice driver. Hours accumulated solely by professional instruction are likely to result in low quantities of supervised hours and in less varied and less complex driving experiences (Senserrick & Williams, 2015).

Despite the clear benefits of non-certified supervising drivers, some have questioned whether they have sufficient skills to teach a novice to drive. This concern has been addressed in some countries through the provision of programs that provide information and practical advice for supervisors. Programs for supervising drivers who are not professional driving instructors are required in some countries while others are optional. In Sweden, supervising drivers (and students) must attend a three-hour introductory course before commencing supervision. The supervisor learns about their role and responsibilities during practice as well as how students might interpret the traffic situation differently.

In some countries the roles of professional driving instructors and supervising drivers are linked, with driving instructors providing feedback sessions to both the learner and supervising driver (e.g., Norway, Austria - L17).

Austria has one of the more complex systems for obtaining a licence and is somewhat unique in that it provides a pathway for drivers to obtain a licence to drive unsupervised by age 17 (in Austria and four other countries only). The L17 licence begins with drivers able to attend driving school for basic training from 15.5 years where they must complete 32 theory lessons (50 mins each) and then 12 practical lessons (50 mins each) after which they can take a theory test. Once they pass the theory test, they must then undertake supervised on-road training for a maximum of 18 months. The on-road training component involves nominating two supervising drivers and completing a minimum of 3000 km in any driving conditions which must be recorded in a logbook. During this period, the learner and supervisor must also attend a supplementary training session at a driving school on completion of 1000km and 2000km of on-road training. These sessions consist of a practical part (on-road training drive) and a discussion of the results from this drive with the instructor. Skill refinement training is then undertaken after 3000km at a driving school where three mock tests are undertaken (3 sessions) with an instructor. After completion of the training, and a driver is at least 17 years of age, they may undertake a practical driving test. Drivers successfully passing the driving test receive a full licence.

The regular pathway for licensing consists of the same theory and practical lessons during the learner phase. In addition, there are unique mandatory sessions in the first year the novice is driving solo, within specific timeframes, to provide additional training and feedback. There are two on-road skill refinement sessions with feedback (observation skills, defensive driving, economic and environmental driving) and one day of road safety risk management training with a traffic psychologist (theory, practical and group discussion) (Adminaité-Fodor, Carson & Jost, 2021). An evaluation indicated that young driver crashes decreased by 12% following the introduction of the course (Mynttinen et al., 2010). However, programs or training that involve teaching skills that are only applied occasionally, such as skid training, have been shown to have either no effect or an adverse effect on crash risk (e.g., Katila et al., 2004). The learner driver system in Norway provides a staged approach relying heavily on formal instruction with several mandatory courses during the process including a basic traffic course (17 hours of theory), practical off-road safety course (4 hours – securing loads, control of vehicle) and on-road safety course (13 hours includes country roads, overtaking, understanding of risks) as well as some personal assessment of progression by the instructor. Due to the large number of courses, obtaining a driver's licence is quite expensive.

Given the need for longer periods of practice in different conditions to acquire driving experience and automate the driving task, balanced with accessible and equitable driver training, it is no surprise that longer learner periods with non-certified supervisors have been proven to be effective for learner drivers in European countries. For example, in Sweden this practice led to an increase in the number of learner practice hours (from an average of 38 to 117 hours) and a 40% decrease in crashes after obtaining a licence (Gregersen et al, 2000). Evidence from evaluations of GLS in Australia also lend support to the value of longer learning periods (at least 12 months) combined with mandatory logged supervised driving hours (see Sections 2.2.1-2.2.2).

2.3.3. Hazard perception test

The United Kingdom is the only country in Table 2.4 to require a computer-based hazard perception test as part of the process to progress to a restricted (probationary) licence in addition to an on-road driving test (also required in the Netherlands in Europe). This test has a different format to the Australian one such that the learner must spot developing hazards in a scene. Including a hazard perception test resulted in a statistically significant 11.3% reduction in reported non-low-speed public road crashes for drivers during their first year of driving in the United Kingdom (very low-speed and

off-road crashes were not included in the analysis as the hazard perception tests were not focused on these crash types) (Wells et al, 2008).

2.3.4. Probationary licence phase

Restrictions applied during the probationary phase are typically harsher consequences for traffic offences (lower demerit point thresholds) and lower or zero BAC conditions, although a small number of European countries also report lower speed limits, passenger restrictions and restrictions on high-power vehicles driven by novices. A summary of these restrictions, as of 2021, are presented in Table 2.7. Despite significant evidence of novice driver crash reductions associated with night and passenger restrictions, few countries have adopted these restrictions. This is likely due to the adult age of drivers during the probationary phase in Europe (usually around 18 years compared to 16.5 years in New Zealand) (Boets, Meunier & Kluppels, 2016).

Table 2.7
European countries with the five most common restrictions during the probationary phase (Source: Adminaité-Fodor, Carson & Jost, 2021)

Restrictions during probationary period	European countries
Lower or zero BAC limit	Austria, Croatia, Germany, France, Ireland, Israel, Italy, Latvia, Netherlands, Portugal, Slovenia, Serbia, Switzerland
Lower demerit point threshold/harsher sanctions	Austria, Belgium, Bulgaria, Croatia, Denmark, Estonia, Finland, Ireland, Italy, Latvia, Netherlands, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom
Lower speed limits	France, Italy, Romania, Serbia
Passenger restrictions	Israel, Serbia
High-power vehicle restrictions	Italy, Serbia

As mentioned previously, a significant feature of European licensing is a minimum age of 18 for the probationary (restricted period) (apart from Ireland and United Kingdom). This contrasts with the minimum age of 16.5 years in New Zealand. Delaying licensure until age 18 permits young drivers to have two years to gain varied driving experience with a supervising driver and is also valuable in allowing extra time for neurobiological development. The research literature demonstrates that a higher minimum restricted/probationary age is associated with reduced crashes and fatalities. For example, a cohort study of drivers in the United Kingdom found that drivers licensed at 18 self-reported 9% fewer crashes in their first year of driving than those licensed at 17 years (Forsyth, Maycock & Sexton, 1995).

Also noteworthy is that the probationary period is generally applied to all novice drivers, regardless of age (i.e., no reduction in time if over 25 years as is the case in New Zealand and in some Australian jurisdictions).

2.4. Driver licensing in Japan

Japan takes a somewhat different approach to European countries in that drivers progress from a learner's licence to a full licence without a probationary period (noting that there is little information available in English, assistance provided by personal communication with Prof. Tetsuya Nishimoto, Nihon University, Japan). Novice drivers must initially pass a theory and practical test before obtaining a learner licence. While not mandatory, most Japanese drivers attend driving school to obtain practice on closed circuits to pass this test. Driving schools take novice drivers through the whole process of obtaining a learners licence to a full driver licence which is complex and relatively

rigid. This is an expensive exercise costing approximately 300,000 yen (NZ\$3070) but the preferred method for gaining appropriate driving experience. The process involves:

Stage 1: Initial theory (10) and practical driving (12-15) classes on a closed circuit and theory and practical test to obtain a learner's licence.

Stage 2: More theory (16) and practical (19) lessons (on road) focussed on emergency braking experience, driving experience under adverse conditions, risk prediction in dangerous situations followed by a graduation theory test.

Stage 3: Theory examination at a licensing centre to obtain a full licence.

Timelines are imposed with novice drivers allowed 9 months to undertake stage 1 and 2 (6 months for stage 2) and they have an additional 3 months to complete stage 3.

Alternatively, novice drivers can take tests at driver licensing centres without completing driving school but pass rates can be much lower without professional instruction. This process also includes a theory and practical test to obtain a learner licence. To obtain a full driver's licence, novice drivers must have logged 5 practice sessions with an accompanying driver over the last 3 months, pass a theory test, practical driving test and complete a new full day (8 hour) driver's course (practice and theory) covering driving on expressways, first aid and danger prediction. This option can cost around 35,000 yen (NZ\$360) at a minimum (depending how many times a test must be taken to pass). It is understood that the driver training focuses on manual driving skill development.

While the older minimum driving age of 18 is consistent with allowing greater time for brain development, the short time-restricted period for learning and practising driving is inconsistent with best practice. In addition, the driver training appears to be very test driven in that it concentrates on developing manual skills rather than higher-order safety skills and decision making.

2.5. Graduated driver licensing in the United States

Graduated driver licensing (GDL) programs in the United States comprise of three stages:

1. Learner stage: Supervised driving culminating with a driving test
2. Intermediate stage: Unsupervised driving in lower risk situations
3. Full licence stage: Standard driver's licence (no restrictions)

However, the programs and types of restrictions vary by state. The Governor's Highway Safety Association (GHSA) website⁴ lists minimum ages and stages for GDL in each US state individually, as well as any restrictions during each stage.

As of September 2019, there were 46 states and the District of Columbia (DC) that require a minimum number of supervised driving hours, with about half of them requiring 50 hours and five states requiring more than 50 hours (Kentucky, Maine, Maryland, North Carolina, Pennsylvania) (NHTSA, 2020). Forty-one states (plus DC) require that at least some of these hours be obtained at

⁴ <https://www.ghsa.org/state-laws/issues/teen%20and%20novice%20drivers>

night. In addition, a few states require additional supervised hours to be completed during the intermediate (restricted) licence phase (e.g., North Carolina). Some states reduce or eliminate supervised driving requirements for driver education graduates (e.g., Oklahoma). However, evidence suggests this practice results in higher crash rates among young drivers (Mayhew, 2007 in NHTSA, 2020).

An overall summary of probationary GLS restrictions in the US related to mobile phone use, passenger restrictions, night time restrictions and display of plates is provided by the GHSA website (as of March 2023):

- Mobile phones/texting: 37 states and DC ban all mobile phone use by novice drivers.
- Night time driving restriction: all states except Vermont restrict night time driving during the intermediate/restricted stage.
- Passenger restriction: 47 states and DC restrict the number of passengers during the intermediate/restricted stage (in 33 states they are specified as peer-aged passengers).
- Novice driver decal (plates): New Jersey is the only state requiring new drivers under 21 years to display plates on their vehicle before getting a full licence.

In the United States, a large majority of people get a full driver licence (intermediate/restricted period already completed) by the time they are 18, partly because they allow an earlier age by law and partly because they have different societal values. It is important to remember that in the United States, graduated licensing was designed to be an adolescent health intervention, rather than a driving intervention, with the goal to reduce road deaths and injuries among people aged 16 and 17 years. It was targeted at younger novices to avoid objections that the measure was interfering with the freedom of adults.

2.6. Summary

When benchmarking New Zealand's licensing process against those in other international jurisdictions, several observations can be made:

- Most US states require around 50 supervised hours during the learner period with five US states having a supervised hours requirements of more than 50 hours. Australian jurisdictions require 50-120 hours of logged supervised driving.
- Most European countries, together with the United Kingdom and Japan, have no supervised driving hours requirement. Professional instruction during the learner phase is favoured in preference to supervised driving hours; however, this can be costly.
- Learner licences must be held for a minimum of 12 months in most Australian jurisdictions (n=6). In Europe there is some variation but most countries allow a learning period of 1 to 2 years.
- In Europe, solo driving is generally permitted from age 18 with a probationary period of 2 to 3 years.
- US states tend to apply the probationary period to ages 16-17, with passenger restrictions and night restrictions a prominent feature.
- Most Australian jurisdictions and the United Kingdom have a hazard perception test to progress from a learner to the probationary licence.

- US states tend to focus on the youngest novices with stringent GLS restrictions, whereas European countries tend to focus on novice drivers generally but with fewer or less stringent GLS conditions than in the US.
- A strength of the New Zealand GLS is the inclusion of peer passenger restrictions and night time driving restrictions, which are present in some Australian and US jurisdictions.

The novice driver licensing components that have potential safety benefits, to varying degrees, that are not currently implemented in New Zealand (or may be enhanced) are:

- A minimum learner period of 12 months
- Mandatory supervised driving hours for learners
- A competency-based driver training and assessment option
- A hazard perception test (from learner to restricted licence)
- Zero BAC for all drivers on a learner and a restricted licence
- Hands-free mobile phone restriction
- High-powered vehicle restriction
- Harsher penalties/lower demerit point threshold
- Minimum holding period for a restricted licence
- Minimum restricted licensing age of 18 years
- Feedback/check in with a professional driving instructor at key points during the learning period (possibly including supervising driver)
- Maximum speed limits during the learner and restricted phase
- Display of plates to identify restricted licence drivers.

3. Consultations

Direct consultation was undertaken with road authorities and experienced novice driver road safety experts in Australian and European jurisdictions to learn about their experiences in implementing licensing measures for novice drivers, particularly those that do not currently exist in New Zealand. Issues explored included the effectiveness of the measures, any challenges encountered in their implementation/operation and any improvements that might be made to the system.

3.1. Ireland

Ireland is one of the few countries in Europe with a graduated or multi-phase driver licensing system. It begins with a learner phase (accompanied driving) followed by a two-year probationary period (solo driving) in which drivers are mandated to display N (novice) plates. After the probationary period, drivers receive a full licence.

People in Ireland can obtain a learner's licence at age 17 and must hold it for a minimum of six months. Learner drivers are required to complete the Essential Driver Training (EDT) program over a minimum of 12 one-hour sessions with a driving instructor. It is recommended that each session is completed at least two weeks apart with three hours of practical driving in between with an accompanying driver (36 hours in total). The EDT program is designed to help prepare learner drivers for the practical driving test by covering important foundation skills and behaviours (habits), guiding progress and highlighting the contribution of accompanying drivers. A book designates what each of these sessions should cover but does not provide any structure as to how it is achieved in practice. The 12 sessions consist of:

- Car controls and safety checks
- Correct positioning x2
- Changing direction x2
- Progression management
- Anticipation and reaction (to hazards)
- Sharing the road, driving safely through traffic
- Speed management, driving calmly (decision making)
- Night driving.

Driving instructors sign off when each session is completed to an acceptable standard. Accompanied driving practice hours are not mandatory or required to be recorded and not promoted. It is thought that the standard of driving from students following the EDT is inconsistent due to variation between the standard of driving instruction and an expectation from students that they will be passed after each session, regardless of competency and any practice in between sessions. The EDT program is promoted as a 12 one-hour session program, not 12 hours plus 36 hours of practice (48 hours in total). Those consulted would like to see a formal requirement for the 36 practice hours (in addition to the EDT) to be logged so that students actually undertake the practice. They acknowledge that such a change in policy, while beneficial to road safety, might be challenged by some rural people (who have a considerable voice in Ireland) who consider it difficult to achieve despite the fact it has

worked in other countries. Research also indicates that 62% of accredited driving instructors in Ireland want logged supervised driving hours (Jordan, 2018).

A lack of mandatory supervised driving hours means that drivers accrue little practice prior to attempting the practical driving test. Research undertaken in Ireland indicated that learners, on average, undertook only 18 to 22 hours of driving practice. A low level of practice driving is likely to contribute to the low driving test pass rate of 52%. The driving test itself is viewed as not being very complex and of a low standard.

Despite accompanied driving being mandatory during the learner phase (with unaccompanied driving incurring penalty points and possible vehicle impoundment), Ireland has relatively high levels of unaccompanied driving. A policy paper (Jordan, 2019) states the Gardai (police) found 435 learner drivers were unaccompanied during an enforcement operation in 2012. There is also evidence of a higher number of crashes among unaccompanied learners compared to accompanied learners. From 2013 to 2021, there were 55 fatal crashes and 321 serious crashes involving learners who were unaccompanied compared to 17 fatal and 115 serious crashes for accompanied learners (C Jordan, personal communication with the Road Safety Authority, 2023). This behaviour is attributed to a cultural issue in which people do not view it as illegal and there is a perception of little policing of learner drivers.

A significant challenge to the licensing process in Ireland is the extreme difficulty in obtaining insurance for cars, particularly for young people, due to a risk-averse climate. This results in a lack of accessibility to vehicles for learner drivers. Consequently, a Learner Driver Mentor Program has been set up for learners to obtain access to vehicles and a driving instructor.

Ireland generally has a good road safety record with a fatality rate lower than the OECD average, which is attributed to a young vehicle fleet (greater crashworthiness, newer safety technology), and reasonably good quality roads and infrastructure. However, the crash rate for young drivers aged 16 to 24 is around 24%. The driver licensing system in Ireland is seen as a weakened version of graduated driver licensing in the United States and Australia.

Several suggestions were offered to improve the licensing system in Ireland:

Learner drivers

- Classroom theory lessons while undertaking practical training (e.g., as practised in Denmark) to ensure continuity of driver training. Learners can then better understand the theory in the relevant context and be able to discuss any issues with an instructor - online or in a classroom (as opposed to passing a theory test before even getting on the road).
- Hazard perception testing
- First aid course which would be particularly beneficial in rural areas
- Night driving as part of the practical exit test
- Mandatory supervised driving on motorways to gain skills driving at high speed. This is currently illegal as a learner but some sort of exposure to this in either the learner or probationary phase is needed to acquire the skill.

Novice drivers (probationary phase)

- Night restrictions (with exemptions for work) and passenger restrictions because there is research evidence from the United States that multiple passengers and night driving increase the risk of a crash for young drivers.
- Telematics so that driver behaviour can be monitored and drivers can receive feedback.
- An exit test after the probationary period of two years to determine driving proficiency.

3.2. Sweden

In Sweden, people may apply for a learner's licence from the age of 16 years but may only complete the theory and practical driving tests to obtain a full driver's licence (solo driving with a probationary period) from age 18 years. The two-year period allows learners to obtain as much practice and experience as possible in different conditions with a supervising driver. While many start the learning process at age 16, there has been a trend for later licensing as the car has become less important.

When applying for a learner's licence, information must be supplied about the applicant's eyesight and health status (i.e., any conditions that may impact on driving) to ensure that they are fit to drive. The supervising driver (if not at a professional driving school) must also meet criteria and be approved. Approximately 70% attend driving school at least once but increasing numbers are learning to drive privately because driving schools can be very expensive. On average, students might attend driving lessons approximately 5 to 10 times and there are also 'intensive' packages where learners undertake many driving lessons within two weeks.

Before going on the road, the driver and supervising driver (instructor) must attend a 3-hour introductory course. The course provides them both with information about what needs to be practised with emphasis on the importance of driving as much as possible to gain experience so they can successfully pass the tests.

A mandatory risk awareness training course was first introduced in 2009 and consists of two parts. The first three-hour course focuses on risk awareness in terms of speed, alcohol, drugs, fatigue and how it affects your ability to drive safely. The second course (approx. 3 to 4 hours) is primarily based on the risks posed by external factors such as weather conditions, heavy traffic, other vehicles and slippery roads, and how to adapt driving behaviour accordingly. There is a practical element of this course where the student must try to avoid objects while driving on a slippery road/skidpad (a common scenario in Sweden). An early simple evaluation of this course based on only 14 interviews found that, while participants had good knowledge of the risks involved, this knowledge did not prevent dangerous driving behaviour (Schelin, 1999). Research evidence from other countries indicates this type of driver training (slippery track training) is not effective and may even promote negative results and overconfidence in some drivers (e.g., Katila et al., 2004, Mynttinen et al., 2010).

There are no requirements for the completion of a specific number of supervised driving hours during the learner phase. However, it has been observed that only 60% pass their driving test the first time, potentially indicating that people are trying to rush through the learning process. While there has been some consideration of mandating hours, it is more likely that another mandatory step to the learner phase may be added (perhaps part of the risk training) in which the learner is required to attend a guidance session with a professional trainer, where the prospective driver will demonstrate their practical driving skills, receive feedback, discuss goal fulfilment, their attitude, their learning,

and receive guidance for improvement (e.g., practice in different driving environments, risk awareness). Earlier research indicated that there was a need for improvements to the system for those in private practice (Alger & Eklof, 2012; Forward et al., 2017). This type of 'check-in' with the student is being considered as it is known that parent role modelling is important for young people but it may not always be optimal, and it also provides closer contact with driving schools.

Learners driving without an accompanying driver/supervisor does occur but it is a small problem and there are significant penalties if caught.

Theoretical driver education materials are not provided by the Swedish Transport Agency or Roads Administration so it is the responsibility of driving schools or educational companies to provide them. Materials may also be available in libraries and schools. Access to practice theory tests, books and apps is usually included when purchasing driving lessons. There are some indications that new immigrants or those with language or financial barriers are over-represented in test failures. An area of improvement is making the licensing system more accessible through the provision of educational material for those who cannot afford to attend a driving school or buy an expensive package of instruction. The Swedish Transport Agency is currently attempting to convince the market (driving schools) to provide educational material in other languages.

Another potential area for improvement is feedback following the practical driving test (to gain an unrestricted licence). Students receive feedback from the instructor immediately following the test but it has been observed that those who fail the test are often not in a good state of mind to receive feedback and often blame the instructor rather than working on issues that need improvement.

There is currently no specific hazard perception test within the licensing system although the theory test does have some questions with which the students' situational risk awareness is assessed; they must describe potential hazards or risks in an image of a road environment. Driving schools also emphasize the importance of situational awareness when driving and how to detect hazards. While there are no plans of introducing a test at this point, in the future a simulator may be used for training in different road situations.

Once a learner passes the theory and practical tests, they obtain a full driver's licence which is probationary for the first two years but with few additional restrictions imposed (universal BAC limit of 0.02 for all drivers). The only additional condition is that probationary drivers can lose their licence when detected for a serious traffic offence. With respect to the level of enforcement, there is a real perceived risk of being caught for speeding because there are many stationary speed cameras set up all over Sweden which can be placed anywhere and at any time. If detected committing a traffic offence and the review results in licence disqualification (there is no demerit point system in Sweden), after serving the disqualification period, probationary drivers must reapply for a learner's licence and re-do the licensing process and all driving tests again to get their licence back. This is seen as a major deterrent as it can be a costly process to obtain a licence. For this reason, there is a perception that Swedes are generally careful drivers during their probationary period. The absence of any other restrictions during the probationary period is not viewed as a problem and there are no plans to introduce any changes. There is no exit test on completion of the probationary phase.

Overall, it is believed that the combination of many steps throughout the entire licensing process that creates an efficient system. It is constructed in a way that novice drivers will need to prove that they have learned all the important aspects needed to be a safe and responsible driver and the probationary period emphasizes the need to use the skills learned during the driver training period.

3.3. Tasmania, Australia

Tasmania is the most recent Australian jurisdiction to introduce significant changes to the GLS process. A package of initiatives to enhance the Tasmanian GLS was introduced in December 2020 and included:

- An increase from 50 to 80 mandatory supervised driving hours (logged), including 15 at night
- One learner period (previously two learner periods - L1 and L2)
- No hands-free mobile phone use during the learner and P1 periods
- A hazard perception test before learners can attempt the practical driving assessment to progress to a provisional licence
- Peer passenger restrictions for P1 drivers under 25 years (only one passenger aged 16-21 with exemptions for family members, travel for education, employment, medical purposes)
- Increased maximum speed limit for learners (90 km/h) and P1 licence holders (100 km/h)
- Requirement to display green P plates in the P2 stage
- An automated Safe Driver Reward (free 3 year full licence) when the entire provisional period is offence free.

Introducing the initiatives as a package was useful for branding and conveying that it was a serious commitment to making novice drivers safer drivers rather than just changes to the licensing process. Initially, there was not a lot of buy-in from the community regarding these changes, but the Royal Automobile Club of Tasmania (RACT) and the Australian Automobile Association (AAA) were very supportive and promoted the changes following the announcement. Advocacy was primarily achieved through written communication and other planned communications (e.g., responses to questions). Articles in the RACT magazine 'Journeys', a go-to-source of informed knowledge for parents of novice drivers, were important for engagement with the community and gaining support. The RACT and their communications are influential as they have a large membership base in Tasmania (200,000 members in a population of around 550,000).

The hazard perception test was introduced based on best practice in policy (Austroads national project) and to be consistent with other Australian jurisdictions. There was no pushback from novice drivers or the community as the test can be undertaken through an online portal. As a result, the testing process is not onerous (it simply requires registration to access the online portal) and can be completed at the participant's own pace. The online learner theory test (Plates Plus) is now also offered online through a licensing platform at no cost, in addition to in-person testing. The online option is a key enabler for young people to commence the licensing process as it has taken away the physical barrier of attending a government 'shop front', overcome accessibility issues and is perceived to be a simpler process. Data shows that more people are now undertaking the learner theory test, at a sustained level, with higher pass rates and there are fewer complaints following test fails. People who fail the test do not receive feedback. They may attempt the test again after a 12-hour lock-out between attempts and have unlimited opportunity to repeat the test. Approximately 70% pass the online test within three attempts. Alternative testing arrangements have also been developed for learners so that providers can cater for different languages (in-person). Practical

driving tests can now be undertaken within the private sector (authorised and accredited) in addition to government licence testers.

Best practice indicates that around 100 hours of logged supervised learner driver training is optimal but the increase of supervised hours from 50 to 80 hours was still seen as good progress. The staged or incremental approach is perceived as important for community acceptance, and it also resulted in little resistance to the requirement for 15 hours of night driving. The 80-hour requirement poses a challenge for some people in the community who do not have ready access to a suitable vehicle or supervisory driver. However, a Learner Driver Mentor Program (LDMP) provides support so that disadvantaged learners can access supervising drivers and/or vehicles to obtain practice hours.

The package of initiatives also included a 'good driver reward' incentive in which drivers who are offence free during the GLS phase automatically receive a free 3-year full licence on completion of the GLS licensing process. Any safety benefits resulting from this initiative will not be known for some time.

Overall, there was strong public acceptance of the package of initiatives. The Austroads GLS best practice model framework provided an evidence base for the enhancements and good public communication facilitated community support.

There has been a recent review (unpublished) of young driver and parent perspectives three years after the GLS enhancement package with plans for a full evaluation seven years after its commencement.

3.4. Kentucky, United States

Kentucky introduced a graduated driver licensing (GDL) program in 1996 that applied to drivers aged under 18. It was then enhanced in 2006 by incorporating best practices recommended by safety organisations. Major changes included adding an intermediate (restricted) licensing stage that lasts for six months during which drivers can only transport one non-family passenger under the age of 21, and requiring learner's permit holders to complete 60 hours of supervised driving practice (logged, 10 at night) before they can apply for an intermediate licence. Following Kentucky's program expansion, fatal and severe injury crashes involving novice drivers declined, with improvements most apparent for 16-year-old drivers. Compared to the 2001-2005 average, 2007-2020 data showed a 65% reduction in fatal crashes and 69% reduction in severe injury crashes for 16 year old drivers and a 51% and 61% reduction in fatal and severe injury crashes, respectively, for those aged 17. The three main phases and associated conditions are listed below.

Learner permit phase (applies to drivers aged under 21)

- Minimum age of 16
- Must hold a permit for at least 6 months
- Must be accompanied by a licensed driver at least 21 years old
- Night driving restriction 12:00 am to 6:00 am (exceptions are granted for emergencies, work, and education)
- Conviction for a moving violation restarts the 6-month holding period
- No more than one passenger under the age of 20 years who is unrelated to the driver may ride in a vehicle

- Must complete a minimum of 60 hours of supervised practice driving, including 10 hours at night, logged and signed by a supervisor
- Must pass an on-road practical driving test to progress.

Intermediate licence phase

- Must hold the intermediate licence for at least 6 months
- Night driving restriction 12:00 am to 6:00 am (exceptions are granted for emergencies, work, and education)
- Conviction for a moving violation restarts the 6-month holding period
- No more than one passenger under the age of 20 years who is unrelated to the driver may ride in a vehicle
- Must complete a Driver Education Course (4 hours) to progress.

Full unrestricted licence phase

- Drivers under 21 are subject to the Zero Alcohol Tolerance policy, defined as .02 BAC. (Legal drinking age is 21 with BAC limit of 0.08)
- A driver under 18 who accumulates more than 6 points has their licence suspended
- A driver 18 or over who accumulates 12 points may have their driving privileges suspended
- Drivers under 18 may not use any communication device (i.e., phone) while in motion, including hands-free. They may use a device for navigation if set up prior to driving.

There is no specific hazard perception test. Hazard detection is incorporated in the driver course.

If a driver on a restricted licence is aged less than 18 years, they must complete a driver education course before a full licence can be obtained. The four-hour course is offered in a classroom setting by the state at no cost or through six accredited private driving schools. There is also an online version which costs US\$12 to complete. Costs are intentionally kept low so that the program is accessible for all. Program providers must be accredited by the state to ensure that the same content is covered regardless of where it is delivered. The driver education course discusses traffic laws, hazard perception, and safe driver behaviours (not driving aggressively, distracted or while impaired). Students may be given different scenarios and asked what they would do.

The requirement for 60 supervised driving hours (logged with 10 at night), which is slightly more than the average of 50 hours for most US states, has been implemented in Kentucky since 2006. As this condition has been around for a long period of time, people are very accepting of it with an understanding that it is a requirement of the licensing process. There has not been any resistance from novice drivers or parents. A lack of accessibility to vehicles or supervising drivers is not perceived to be an issue and therefore there is no organised effort to address it. It is acknowledged that those who lack a vehicle are likely to delay licensing until they can afford one. They are aware of a program in Kansas being developed to provide access to vehicles for learner drivers.

Despite some gains in safety, Kentucky still has a high teen driver fatality rate, suggesting that the GDL program could benefit from further modifications. A recent study was undertaken to identify best practices for improving Kentucky's GDL program (Koo, Martin & Walton, 2023). Researchers

completed a literature review, examined long-term GDL program performance at the state and national levels, and conducted a survey of state transportation agencies to better understand how other jurisdictions structure their GDL programs and what changes have been made to improve safety outcomes. Researchers identified eight best practices that could further strengthen the program that are listed below with additional comments from those consulted:

- Mandate or incentivise parents/legal guardians to complete a driver education course. Some resources are already available to educate and assist parents/supervising drivers and there was uncertainty whether this suggestion would be attainable.
- Increase the minimum age for obtaining a full driver's licence to 18 to allow for more practice (the current minimum is 17). Several US institutions do not recommend unrestricted licences before 18 (i.e., American Academy of Pediatrics, IIHS, US Department of Transport). There was acknowledgement that both learner and the intermediate phases could be stretched out longer.
- Begin night time driving restrictions at 10:00 pm (rather than 12:00 am). There is convincing evidence that this works in other states.
- Minimise in-vehicle distractions by adjusting rules on the transport of passengers under the age of 20 (i.e., suggest no carriage of passengers during intermediate phase).
- Update the GDL program so it covers all drivers between the ages of 18 and 21. This change is viewed as having the greatest impact as one third of the US population does not get their first licence until at least 18 years and then do not receive the benefits of the GDL.
- Allow the use of mobile apps to log practice driving hours. Paper records can be subject to falsification while mobile apps conveniently allow drivers to log practice by pressing a button at the start and end of each trip.
- Offer a free decal that can be placed on the rear of a vehicle or on the licence plate to indicate a novice driver is at the wheel. There is some concern that while the intention is good, a decal might identify vulnerable young people (travelling by self).
- Partner with the Kentucky State Police to conduct routine, visible enforcement that might encourage drivers to conform to licence conditions.

Overall, the GDL program is seen to be working well and is a good foundation. It is also believed that, as society changes over time, the GDL should be tweaked to reflect these changes.

4. Synthesis of findings

International research indicates that a GLS is an effective safety measure resulting in reductions in young driver crashes. This study identified differences between the New Zealand GLS and the licensing process for novices in other jurisdictions including Australia, Europe, Japan and the United States. Components of the licensing process that are not currently implemented in New Zealand, or may be enhanced, are summarised in Table 4.1 below, along with any supporting road safety related evidence and a rating of the strength of the evidence. The rating of the evidence is based on crash related outcomes and demonstrated road safety benefits.

Of the GLS components not currently in New Zealand, research evidence indicates that a minimum learner period of 12 months, mandatory hours for supervised driving (logged), zero alcohol restrictions during the learner and restricted phase (regardless of age), harsher sanctions for traffic offences, a hazard perception test and a restricted driver licensing age of 18 are all important aspects of a GLS that can reduce crash risk. While there are notable road safety benefits, there is less published evidence that high-powered vehicle restrictions, mobile phone restrictions, and an extended restricted period have an impact on crash risk.

Only one study was found that supported an exit test at the end of the restricted phase; most jurisdictions have abandoned these tests. While speed increases the risk of crashing and the severity of crash outcomes, there is inconsistent research supporting maximum speed limits during the learner/restricted phase. The display of plates during the restricted phase may be useful for the enforcement of restrictions but there are no clear links to crash outcomes.

While there is no evidence that competency-based driver training and assessment is more beneficial for road safety outcomes than a practical driving test, it may provide an alternative licensing assessment process that is preferred by some drivers with different learning styles.

European countries are trending towards mandatory feedback processes with driving instructors during key times within the learner phase (some also include the supervising driver). There is limited evidence in terms of road safety outcomes at present, but it is a potential area to monitor, particularly if there are no other processes whereby a learner receives feedback or formal training from a professional instructor.

One of the most important aspects of the learner phase in the licensing process is to gain as much experience as possible in different driving conditions. Extending the minimum learner period to 12 months and having mandatory supervised driving hours (logged) are both designed to achieve this. Given that New Zealand does not currently have these measures, it would be valuable to undertake research to determine how much driving experience novice drivers are getting, in what conditions (e.g., types of roads, day/night) and with whom (e.g., parents, driving instructors). Such information would aid future decision making.

Table 4.1
Summary of effective GLS measures currently not present in New Zealand

GLS component	Strength of evidence	Evidence
Extended minimum learner period to 12 months	High	Evaluations have consistently shown crash reductions during the restricted phase with minimum learner periods of 12 months instead of 6 months, provided time is used to increase supervised driving (Helman & Hitchings, 2023; Masten et al., 2013; Senserrick & Williams, 2015).
Mandatory supervised driving hours (logged)	Medium-High	Requiring 50+ hours of supervised driving, compared with none, increased the amount of practice driving obtained (e.g., Williams et al., 2002). 80-120 hours increases experience gained over 50 hours and outweighs increased crash risk related to increased exposure (e.g., Senserrick & Williams, 2015). Also associated with crash reductions. Potential to log through phone apps.
Zero BAC for all drivers during learner and restricted phase	Medium-High	Jurisdictions with zero BAC had a 22% reduction in single vehicle night-time single vehicle fatalities, 0.02 BAC a reduction of 17% for young drivers (Zwerling & Jones, 1999). Crash involvement during high alcohol times is higher among those aged 18-24 than more experienced drivers (Catchpole, 2020).
Hazard perception training and testing	Medium	Studies of hazard perception training in simulators have found improvements in drivers' abilities in identifying hazards, faster responses to hazards, increased following distances, and greater time spent looking for hazards (e.g., Horswill et al., 2021a, 2021b). NSW drivers who failed the HPT at least twice had an increased risk of involvement in a crash (Boufous et al., 2011).
Harsher sanctions for traffic offences	Medium	Increased sanctions for offending novice drivers in the UK and Canada reduced their subsequent offending and high risk behaviours (Kinnear et al., 2013; Meirambayeva et al., 2014).
Minimum restricted licensing age 18	Medium	Delaying restricted licensing provides the benefit of extra time to gain varied supervised driving experience and for neurobiological development. A higher minimum restricted age is associated with reduced crashes and fatalities (e.g., Forsyth et al., 1995).
Extend restricted licence phase	Low	Any extension of the restricted licensing period increases the benefits of a zero BAC requirement (Senserrick & Williams, 2015) and other relevant restrictions for young novices.
Mobile phone restriction (including hands-free)	Low	Clear evidence of increased crash risk for young drivers from mobile phone use (both handheld and hands-free) but there is limited research on the effectiveness of mobile phone use bans for young drivers (Senserrick & Williams, 2015).
High-powered vehicle restriction	Low	Some estimates of modest crash (0.3%-1.4%) and injury reductions (0.4%-2.5%) but the ownership of such vehicles tends to be low (Keall & Newstead, 2013; Scully et al., 2014).
Exit test to full licence	Low-Minimal	One study found 16% reduction in crashes during following year if pass exit test first attempt (Roads and Traffic Authority NSW, 2008). Jurisdictions with exit tests have now abolished them (e.g., NSW, Finland).
Maximum speed limits during learner and/or restricted phase	Minimal	Speed increases risk of crashing and severity of crash but limited research on measure. Concerns over speed differentials in traffic.
Competency-based driving training and assessment	Minimal	CBT&A had little effect on crash involvement or traffic offences in the first year of driving (on full licence), compared with drivers who did a practical on-road driving test (Kloeden & McLean, 2001). Main benefits are providing structured training in a variety of driving contexts and allowing training at drivers own pace.
Display of plates during the restricted phase	Minimal	May assist in identifying drivers during the restricted phase for enforcement.
Feedback/check-in with driving instructor during learning period	Potential	Limited evidence but potential to explore further.

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Appendix A – Source of information: OECD countries

Source of information for international countries (OECD)

Austria

https://www.oesterreich.gv.at/en/themen/persoenliche_dokumente_und_bestaeatigungen/fuehrerschein/1/Seite.040170.html#AllgemeineInformationen

https://www.oesterreich.gv.at/en/themen/persoenliche_dokumente_und_bestaeatigungen/fuehrerschein/1/2/Seite.0401101.html

https://www.oesterreich.gv.at/en/themen/persoenliche_dokumente_und_bestaeatigungen/fuehrerschein/1/4/Seite.040130.html

Finland

<https://ajokortti-info.fi/en/basic-information-about-driving-licence>

<https://ajokortti-info.fi/en/perustietoa-ajokortista/traffic-offences>

Germany

<https://verwaltung.bund.de/leistungsverzeichnis/en/rechte-und-pflichten/102837920>

Long-term effects of the German zero tolerance law for novice drivers

<https://www.sciencedirect.com/science/article/pii/S0022437521001419>

Ireland

<https://www.ndls.ie/licensed-driver/my-first-time-driving-licence.html#n-plates-and-novice-drivers>

Japan

<https://blog.gaijinpot.com/how-to-get-a-drivers-license-in-japan-without-speaking-japanese/>

<https://groups.oist.jp/resource-center/how-get-japanese-license-scratch>

Norway

<https://www.vegvesen.no/en/driving-licences/driver-training/how-to-get-a-driving-licence/passenger-car--b/>

Self-reported deterrence effects of the Norwegian driver's licence penalty point system

<https://www.sciencedirect.com/science/article/pii/S1369847818300123>

Sweden

<https://bransch.trafikverket.se/en/startpage/driving-licence/obtaining-a-swedish-driving-licence/the-road-to-a-swedish-driving-licence/>

<https://polisen.se/en/laws-and-regulations/traffic-violations/>

United Kingdom

<https://www.gov.uk/learn-to-drive-a-car>

Europe

<https://etsc.eu/issues/drink-driving/blood-alcohol-content-bac-drink-driving-limits-across-europe/>

https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1145