The Structure of the Learner Licence Affects the Type of Experiences Novices Gain During this Phase – Examples from Queensland and New South Wales

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Newly licensed drivers have a higher crash risk when compared with any other group of drivers. Graduated driver licensing, with learner, provisional and open licence stages, is one countermeasure demonstrated to reduce this crash risk. The objective of this study was to examine the self-reported behaviours and experiences of learner drivers in two Australian states with different learner licensing requirements: Queensland and New South Wales. Telephone interviews were conducted with 392 participants who were recruited from driver licensing centres immediately after they passed their practical driving test and obtained their driver's licence under the former driver licensing systems in Queensland and New South Wales. This research identified that the behaviour of learner drivers in both states was very similar, although it did differ on measures that the driver licensing system was likely to influence including the frequency with which L plates were displayed and completion of a log book. The paper also provides information on how learners organised their practice with learners in Queensland appearing less likely to deliberately structure their practice when compared with learners in New South Wales. This research suggests that much of the driving of learners in Queensland occurs on an ad-hoc, unplanned basis. As a result, licensing authorities need to carefully consider how they structure their licensing system in order to positively influence learners' driving experiences.

Keywords

Young drivers, graduated driver licensing, learner licence, learner drivers, driver licensing system

Introduction and literature review

Young drivers have a higher crash risk than drivers in any other age category. This risk is at its peak immediately after they obtain a provisional licence, which allows them to drive without supervision (Williams, 2003). This risk falls rapidly during the new few months and then falls more slowly for the next 18 months (Williams, 2003). In contrast, the learner driver period prior to licensing is relatively safe. Research that examined the fatal crashes of 15 year olds in North America, found that those learners who drove under supervision and in accordance with the conditions of their licence had comparatively few crashes (Jonah, 1986; Williams, Preusser, Ferguson, & Ulmer, 1997). Crash data from Queensland and Victoria confirms that the learner licence stage is the safest for new drivers (Cavallo, 2006; Queensland Transport, 2005).

The learner phase, within a graduated driver licensing system, allows new drivers to develop their skills while under the supervision of a more experienced driver (Mayhew, 2003). This phase is designed to allow new drivers the opportunity to gain practical driving experience with vehicle handling, the road environment and with the behaviour of other drivers (Foss, 2007).

Supervised learning is an integral part of the learner's licence. Basic vehicle control skills can be taught to new drivers within a few hours (Lund, Williams, & Zador, 1986) but the higher order skills such as perception, attention and judgement develop over several years. The amount of practice required for driving to become a more automated task is not known (Simons-Morton, 2007). Although new drivers' ability improves over time, it does not equate to that of more experienced drivers in more complex driving situations.

A number of factors may affect the amount of practice undertaken by learner drivers. These factors include increasing self-confidence as vehicle control skills improve, time issues as participation in competing activities such as part-time work and social events increases and pressures resulting from completing secondary school at the same time as holding a learner's licence (Harrison, 2004). The level of supervised driving in Australia appears very low with a sample of Victorian learners accruing an average of 20.8 hours over 24 months (Harrison, 2004).

Some jurisdictions mandate the number of hours that learners are required to complete and require recording of driving practice in a logbook. In the United States these requirements vary from 20 to 50 hours in different States, and there appears to be limited evidence for the selection of these time limits (Foss, 2007). There is some research support for learners obtaining close to 120 hours of practice. Evidence from Swedish research suggests that supervised learning reduced post-licence crash rates for learners who had 118 hours practice. There was a benefit for the group that obtained greater levels of practice compared with a second group that had the same length of learner period but did not use this time to engage in more practice and a third group consisting of learners prior to the introduction of a longer learner period (Gregersen et al., 2000). Unfortunately, the study was not designed to test for the

benefits of a range of hours of supervised learning, so it is not known whether there is a certain number of hours of practice that is optimum.

Every state and territory within Australia has a learner phase, although differences exist in how it is applied (Senserrick, 2007). This study examines the learner phase in two of the six states, Queensland and New South Wales. These states were chosen as they represented, at the time, a more traditional learner phase (Queensland) and a more progressive learner phase (New South Wales). In Queensland, at the time this study was conducted, individuals were able to obtain their learner licence once they turned 16 ½ years of age by passing a theoretical road law knowledge test.[1] Individuals held their learner licence for a minimum of six months, displayed L-plates and drove under supervision. If the learner was under the age of 25 years they had to have a zero blood alcohol limit. If they obtained four demerit points in twelve months for offences, their learner licence was suspended or cancelled. Drivers were eligible to obtain their provisional licence once they reached their 17th birthday (Senserrick, 2007).

The New South Wales system had several elements that were not present in the Queensland system at the time of the data collection. At the time the research was conducted, individuals in New South Wales were able to obtain their learner licence from 16 years.[2] Similar to the Queensland system, the learner licence was obtained by passing a road law knowledge test and held for a minimum of six months. Learner drivers in New South Wales had to display L-plates and drive under supervision with a zero blood alcohol limit. They were restricted to a maximum speed of 80 kilometres per hour and also had a towing restriction. Drivers were eligible to progress to the next stage in the graduated licensing system once they turned 17 years of age (Senserrick, 2007). The major difference between the Queensland and the New South Wales licensing systems at the time this study was conducted was the requirement for learner drivers in New South Wales to record a minimum 50 hours of driving experience in a logbook.

The objective of this study was to examine the self-reported behaviours and experiences of learner drivers in two Australian states with different learner licensing requirements, that is Queensland and New South Wales, and provide information on how learners structured their practice in these states. It is expected that learner driver behaviour will differ based on the differing components of the learner licensing system.

Method

Participants in this study comprised 392 learner drivers who had recently passed their practical driving test in selected licensing centres in Queensland and New South Wales. In order to gain a representative sample, participants were recruited from both metropolitan and regional driver licensing centres, although only large licensing centres were used to ensure that there were sufficient individuals attempting their practical driving test. The actual driver licensing centres were selected after consulting with Queensland Transport and the New South Wales Roads and Traffic Authority. The Queensland data was collected in Brisbane and Townsville, while the New South Wales data was collected in Sydney, Newcastle, Ballina and Lismore during 2006 and 2007.

Learner drivers were approached outside the centre buildings and asked to participate in the research. The recruiter outlined the study, its purpose and provided information regarding the voluntary nature of the study. Each person was offered a movie ticket as an incentive. After agreeing to participate in the study, the recruiter recorded their name, phone number and a list of times that they were unable to be contacted by telephone. By recording unavailability rather than availability, there was a greater width of time that the interviewers were able to contact the participants.

Within a few weeks of the initial contact, the participants were contacted by telephone and the survey was administered via interview. The interview was designed to collect information on the personal, social, environmental and socio-demographic factors that affect learner drivers. If the interviewers were unable to contact the learner driver initially, they continued to call up to three times. If the learner driver was unable to complete the interview at that time, they made an alternative time. The interview took approximately 35 minutes to administer. At the conclusion of the interview, the researcher collected a postal address which was kept separate from the questionnaire. The movie ticket incentive was then posted to participants.

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1.It should be noted that a number of changes were made to the Queensland Graduated Driver Licensing system in July 2007 including lowering the minimum learner age from 16 ½ years to 16 years, introducing two provisional licence phases (P1and P2), introduction of a hazard perception test, restricting P1 drivers to one passenger aged under 21 years from 11.00pm to 5.00am and restricting provisional drivers from driving high powered vehicles (Senserrick, 2007).

2.The Graduated Driver Licensing system was amended from 1 July 2007 in New South Wales with changes including the learner period being extended to 12 months and requiring 120 hours of practice. Drivers on a P1 licence are now limited to one passenger aged less than 21 years from 11.00pm to 5.00am and there is a zero tolerance on speeding. Any provisional driver caught speeding will have their licence suspended for three months (Senserrick, 2007).

interview at that time, they made an alternative time.The interview took approximately 35 minutes to administer. At the conclusion of the interview, the researcher collected a postal address which was kept separate from the questionnaire. The movie ticket incentive was then posted to participants.

Results

Sample characteristics

Of the 687 individuals approached at driver licensing centres that were eligible to participate, 392 completed the interview leading to an overall response rate of 57.1%. Of the 392 participants in the sample, 176 (44.9%) were male and 207 (52.8%) were female. The age of participants ranged from 17 years to 44 years with a mean of 19.8 years (sd = 4.7 years). The most frequent age was 17 years. Most of the sample was single (N = 333, 84.9%), although some were married (N = 24, 6.1%) or had a partner (N = 33, 8.4%) while a small percentage had been married previously (N = 2, 0.5%).

Most of the sample had completed at least some form of secondary schooling with 41.9% (N = 164) having completed their junior certificate (grade 10) and 37.3% (N = 146) having completed their senior certificate (grade 12). A small number (N = 4, 1%) had completed primary schooling only. Several participants had completed more advanced study with 7.7% (N = 30) finishing a TAFE or apprenticeship qualification and 12% (N = 47) holding a university qualification. Most participants were still studying (N = 261, 67.4%).

Most of the sample (N = 323, 82.4%) worked in paid employment with 122 participants (38.1%) indicating that they worked full time. The remaining 198 participants (61.9%) worked part time. It is therefore not surprising that the income level of most participants was low. Over half of the sample earned less than $10,000 per annum before tax (N = 177, 52.4%). A further 20.7% (N = 70) earned between $11,000 and $20,000 with the other income categories remaining small. Most participants were not aware of the income level of their parents (N = 205, 54.4%).

Table 1: Self-reported behaviours of drivers on a learner licence

Behaviour	Number	Significance
Displayed L plates QLD NSW	*M* = 6.42 (*sd* = 1.37, *N* = 392) *M* = 6.10 (*sd* = 1.71, *n* = 219) *M* = 6.83 (*sd* = 0.49, *n* = 173)	*t* (390) = -5.44, *p* = <.001
Did not drive over speed limit in 60km/hr zones QLD NSW	*M* = 6.24 (*sd* = 1.14, *N* = 392) *M* = 6.32 (*sd* = 1.11, *n* = 219) *M* = 6.15 (*sd* = 1.18, *n*= 173)	*t* (390) = -1.46, *p* = .15
Did not drive over speed limit in 100km/hr zones QLD NSW	*M* = 6.53 (*sd* = 1.10, *N* = 389) *M* = 6.58 (*sd* = 1.07, *n* = 217) *M* = 6.48 (*sd* = 1.13, *n* = 172)	*t* (387) = 0.89, *p* = .38
Wore seat belt QLD NSW	*M* = 6.99 (*sd* = 0.16, *N* = 389) *M* = 6.99 (*sd* = 0.20, *n* = 218) *M* = 6.99 (*sd* = 0.08, *n* = 171)	*t* (387) = -.48, *p* = .63
Did not drive under the influence of illegal drugs QLD NSW	*M* = 6.84 (*sd* = 0.90, *N* = 389) *M* = 6.83 (*sd* = 0.89, *n* = 218) *M* = 6.84 (*sd* = 0.92, *n* = 171)	*t* (387) = -.08, *p* = .94
Did not drive under the influence of legal drugs QLD NSW	*M* = 6.83 (*sd* = 0.89, *N* = 389) *M* = 6.87 (*sd* = 0.83, *n* = 218) *M* = 6.78 (*sd* = 0.96, *n* = 171)	*t* (387) = .92, *p* = .36
Allowed two seconds between my car and car in front on highways QLD NSW	*M* = 6.29 (*sd* = 1.12, *N* = 384) *M* = 6.34 (*sd* = 1.18, *n* = 213) *M* = 6.23 (*sd* = 1.03, *n* = 171)	*t* (382) = .96, *p* = .34
Did not drink alcohol before driving QLD NSW	*M* = 6.83 (*sd* = 0.88, *N* = 389) *M* = 6.86 (*sd* = 0.83, *n* = 218) *M* = 6.80 (*sd* = 0.95, *n* = 171)	*t* (387) = -.63, *p* = .53
Completed a log book each time I drove QLD NSW	*M* = 3.21 (*sd* = 2.49, *N* = 390) *M* = 1.57 (*sd* = 1.63, *n* = 218) *M* = 5.28 (*sd* = 1.74, *n* = 172)	*t* (388) = -21.71, *p* = <.001

Amount of supervised practice

There was a significant difference in the amount of practice, in both planned and unplanned driving situations, undertaken by learners (t (389) = -2.14, p = .04). Learners in Queensland reported completing an average of 64.1 hours (sd = 51.1) while on their learners licence, as compared to those learners in New South Wales who reported completing an average of 73.3 hours (sd = 24.1).

Behaviour while on a learner licence

Independent group t-tests were conducted to compare the frequency with which learner drivers reported engaging in particular behaviours while on their learner licence and if there was any difference in these behaviours based on state of residence (see Table 1). Learners were asked to rate whether or not they engaged in these behaviours on a scale frSeveral of the results in Table 1 appear to demonstrate a ceiling effect (Mitchell & Jolley, 1996), in particular for the questions relating to speeding, wearing a seat belt, driving under the influence of both illegal and legal drugs and drinking alcohol before driving. In these cases, the mean response was particularly high. As shown, statistically significant differences were found between learners in Queensland and those in New South Wales on the frequency with which L plates were displayed (t (390) = -5.44, p = <.001) and the frequency with which learners completed a log book (t (388) = -21.71, p = <.001). Learners in New South Wales (M = 6.8, sd = 0.49) displayed their L plates more frequently than those in Queensland (M = 6.1, sd = 1.71).

Similarly, learner drivers in New South Wales (M = 5.28, sd = 1.74) completed their logbook with far greater frequency than those in Queensland (M = 1.57, sd = 1.63). The lack of completion of the logbooks by learner drivers in Queensland may probably be explained by its voluntary nature. Over two-thirds of the Queensland drivers (n = 147, 67.7%) stated that they were unaware that Queensland Transport provided a logbook for use, on a voluntary basis, by learner drivers and their supervisors.

Table 2: Self-reported behaviours of drivers on a learner licence

Experience	QLD	NSW	Total	Significance
Deliberately practised driving in suburban areas	*n* = 219	*n* = 171	*N* = 390 (100%)	$X^2(2) = 1.11$, $p = .575$
2 or fewer times per month	*n* = 13 (5.9%)	*n* = 11 (6.4%)	*n* = 24 (6.2%)	
3-8 times per month	*n* = 75 (34.3%)	*n* = 50 (29.2%)	*n* = 125 (32.1%)	$\varphi = .53$
9 or more times per month	*n* = 131 (59.8%)	*n* = 110 (64.3%)	*n* = 241 (61.8%)	
Deliberately practised driving in the central business district of a major town or city	*n* = 219	*n* = 173	*N* = 392 (100%)	$X^2(2) = 13.05$, $p = .001$ $\varphi = .182$
2 or fewer times per month	*n* = 84 (38.4%)	*n* = 37 (21.4%)	*n* = 121 (30.9%)	
3-8 times per month	*n* = 74 (33.8%)	*n* = 74 (42.8%)	*n* = 148 (37.8%)	
9 or more times per month	*n* = 61 (27.9%)	*n* = 62 (35.8%)	*n* = 123 (31.4%)	
Deliberately practised driving in rural areas	*n* = 219	*n* = 171	*N* = 390 (100%)	$X^2(2) = 8.18$, $p = .017$
2 or fewer times per month	*n* = 144 (65.8%)	*n* = 88 (51.5%)	*n* = 232 (59.5%)	
3-8 times per month	*n* = 41 (18.7%)	*n* = 44 (25.7%)	*n* = 85 (21.8%)	$\varphi = .145$
9 or more times per month	*n* = 34 (15.5%)	*n* = 39 (22.8%)	*n* = 73 (18.7%)	
Deliberately practised driving with passengers other than my supervisor in the car	*n* = 219	*n* = 172	*N* = 391 (100%)	$X^2(2) = 9.11$, $p = .011$ $\varphi = .153$
2 or fewer times per month	*n* = 112 (51.1%)	*n* = 63 (36.6%)	*n* = 175 (44.8%)	
3-8 times per month	*n* = 60 (27.4%)	*n* = 68 (39.5%)	*n* = 128 (32.7%)	
9 or more times per month	*n* = 47 (21.5%)	*n* = 41 (23.8%)	*n* = 88 (22.5%)	
Deliberately practised driving at night	*n* = 219	*n* = 172	*N* = 391 (100%)	$X^2(2) = 19.96$, $p = <.001$
2 or fewer times per month	*n* = 75 (34.2%)	*n* = 25 (14.5%)	*n* = 100 (25.6%)	
3-8 times per month	*n* = 79 (36.1%)	*n* = 76 (44.2%)	*n* = 155 (39.6%)	$\varphi = .226$
9 or more times per month	*n* = 65 (29.7%)	*n* = 71 (41.3%)	*n* = 136 (34.8%)	
Deliberately practised driving on the weekends	*n* = 219	*n* = 172	*N* = 391 (100%)	$X^2(2) = 16.34$, $p = <.001$
2 or fewer times per month	*n* = 49 (22.4%)	*n* = 13 (7.6%)	*n* = 62 (15.9%)	
3-8 times per month	*n* = 91 (41.6%)	*n* = 79 (45.9%)	*n* = 170 (43.5%)	$\varphi = .204$
9 or more times per month	*n* = 79 (36.1%)	*n* = 80 (46.5%)	*n* = 159 (40.7%)	
Deliberately practised driving on weekdays	*n* = 219	*n* = 172	*N* = 391 (100%)	$X^2(2) = 1.60$, $p = .448$
2 or fewer times per month	*n* = 24 (11.0%)	*n* = 26 (15.1%)	*n* = 50 (12.8%)	
3-8 times per month	*n* = 85 (38.8%)	*n* = 61 (35.5%)	*n* = 146 (37.3%)	$\varphi = .064$
9 or more times per month	*n* = 110 (50.2%)	*n* = 85 (48.3%)	*n* = 195 (49.9%)	

Experiences while on a learner licence

A series of chi-square tests were conducted to compare how often learner drivers in each state reported experiencing various situations while learning to drive. Participants were able to respond by answering in the following categories: 'not at all', '1-2 times a month', '3-4 times a month', '5-6 times a month', '7-8 times a month', '9-10 times a month' or 'over 10 times a month'. In order to ensure the chi-square analysis assumptions were met, these categories were collapsed to '2 or fewer times a month', 'between 3 and 8 times a month' and 'more than 9 times a month'.

The results provide a limited picture of the types of practice that learners reported undertaking while driving with a learner licence. Across the sample, 61.8% of learners reported that they deliberately practised driving in suburban areas nine or more times per month. In contrast, 59.5% of the sample reported that they deliberately practised driving in rural areas two or fewer times per month. The sample was comparatively evenly split between those who deliberately practised driving in the central business district of a major town or city two or fewer times per month (30.9%), three to eight times per month (37.8%) and nine or more times per month (31.4%).

The participants reported deliberately practising their driving with passengers other than their supervisor in the car two or fewer times per month (44.8%). They also reported deliberately practising their driving at night three to eight times per month (39.6%), and on weekdays more frequently than on weekends. Of the sample, 43.5% of the participants reported deliberately practising their driving on the weekend three to eight times per month, compared with 49.9% who deliberately practised driving on weekdays nine or more times per month.

All of the chi-squares tests, with the exception of two, were significant indicating that the experiences of learner drivers differed by state. Learners in New South Wales were more likely to practise deliberately driving in the central business district of a major town or city compared with those in Queensland as the results show that 35.8% of participants from New South Wales deliberately practised driving in this situation nine or more times per month. In contrast, only 27.9% of participants from Queensland deliberately practised their driving in a central business district with this frequency. Participants from New South Wales were also more likely to practise deliberately their driving in rural areas (22.8% did this nine or more times per month) than those living in Queensland (15.5% did this type of practice nine or more times per month).

Learners from New South Wales reported deliberately practising with passengers other than their supervisor in the vehicle with greater frequency than learners from Queensland. In New South Wales learners reported that this occurred nine or more times per month (23.8%) or three to eight times per month (39.5%) compared with 21.5% of participants from Queensland reporting that this behaviour occurred nine or more times per month and 18.7% of learners from Queensland reporting that this occurred three to eight times per month.

Participants from New South Wales reported that the deliberately practised driving at night while on a learner licence with greater frequency than participants from Queensland. Of the learners from New South Wales, 41.3% stated that they deliberately engaged in this type of practice nine or more times per month compared with 29.7% of the learners from Queensland.

This also occurred for the experience of deliberately practising their driving on weekends. More participants from New South Wales reported deliberately practising their driving on weekends nine or more times per month (46.5%) than participants from Queensland (36.1%). There was no difference between the two states in the frequency with which learners deliberately practised driving in suburban areas or the frequency with which they deliberately practised driving on weekdays.

Discussion

Participants from New South Wales reported completing more hours of practice, both planned and unplanned, on average whilst driving in the learner licence phase than those in Queensland. However, the average amount of practice completed is above 50 hours (the minimum mandated amount of practice for learner drivers in New South Wales at the time of the study) for both states. These results contrast with the findings of Harrison's (2004) research which found that a sample of learner drivers in Victoria completed an average of 20.8 hours over 24 months. This may reflect a number of factors. Harrison's research featured a different design involving learner drivers completing a log book of their practice as they proceeded, while this study involved learner drivers recalling the total amount of practice they obtained. This may result in inaccurate reporting by some learners. It may also reflect the fact that there were no mandated hours of practice required by the Victorian authorities at the time of Harrison's study.

A log book is used in New South Wales to record the number of hours that learners complete. It is a compulsory part of the licensing system and used to ensure that drivers meet the required 50 hours of supervised practice. As expected, drivers in New South Wales completed their logbook on a more regular basis than those in Queensland. This can be explained by the compulsory nature of the log book in New South Wales and its voluntary nature in Queensland. The voluntary nature also means that many learners (67.7%) in Queensland appear unaware that there is a logbook available. Therefore, a log book is likely to reach its maximum potential as a tool to manage a learner's practice when it is a required part of the driver licensing system. If it is offered as a voluntary tool, it needs to be supported with a program that encourages learners and their parents to use the log book.

The experiences of learner drivers differed across the states in a number of respects. The results suggest that learners in Queensland are less likely to deliberately structure their learning experiences with many respondents stating that they deliberately gained practice in various scenarios such as night,

with passengers or in rural areas two or fewer times per month. This suggests that much of their driving occurs on an ad-hoc, unplanned basis. This may be the result of not using a log book. A log book may encourage learner drivers and their instructors to better structure their learning experiences. It may also facilitate communication between professional and private instructors. The differences between the learner drivers in the different states may also reflect other social, economic or geographic factors that prevent Queensland learner drivers from being able to deliberately practise their learning. Alternatively, the differences may be a reflection of any differences between the Queensland and New South Wales log books.

Licensing authorities could consider introducing compulsory logbooks to help learners and their supervisors' structure their supervised practice. This may be a useful tool even without a set number of hours of practice being mandated. It would appear that completion of the log book would need to be compulsory as this research has shown that many learners are unaware of the log book with voluntary completion.

Although this study has provided good descriptive data regarding learner driver behaviours and experiences while on a learner licence, there is a need for further research in this area. Some graduated driver licensing systems explicitly encourage the involvement of parents during the learner phase (Simons-Morton & Ouimet, 2006) through the use of requirements such as mandating a set number of hours of supervised practice. Therefore, further research is needed to identify what facilitates and inhibits parental involvement in this licensing phase.

Additionally, graduated driver licensing systems are constantly evolving and developing. It is important to evaluate the changes that are occurring within the licensing system in order to assess whether these changes are enhancing the existing system. As mentioned earlier, both states within this study have made changes to their learner phase. Further research that examines the impact of these changes will help to identify if these countermeasures are effective in helping to reduce the crash risk of novice drivers.

One of the major strengths of this study was the participation rate with 57.1% of individuals approached agreeing to participate. However, there are several limitations in regard to this study. Participants were only recruited from larger driver licensing centres in both Queensland and New South Wales. The use of these larger centres may have biased the results. As such, caution should be exercised when generalising the results to the broader community. There may be inherent differences in learners who obtain their licences in locations with smaller licensing centres.

The self-report nature of the interview is another limitation. Participants may have difficulty remembering the details of their learner driver experiences such as the amount of driving that they undertook at night. However, self-report data on a number of behaviours, including drink driving and collisions, is considered to have an acceptable level of validity when it is collected anonymously and there are no consequences associated with providing their responses (Zhao et al., 2006). This was the case with these interviews.

While the self-report data was useful in gaining an understanding of the factors that influence learner driver behaviour, additional research is needed to compare the self-report nature of the data collected in this study with data collected using alternative techniques. As an example, a study that uses crash data from the relevant road authorities will provide further information regarding the types of crashes that learners' experience. Alternatively, focus group research will enable the exploration of the factors that impact on their experiences such as accumulation of supervised experience or participation in formal driver education and training more thoroughly. A third option is to use technology to accurately augment self-report data regarding learner drivers. This technology includes tracking large numbers of individual drivers with GPS and mobile phones or using video data associated with traffic incidents.

Conclusion

This research has shown that the behaviour of learner drivers varies across two licensing systems based on the way the licensing system is structured. As a result, licensing authorities need to carefully consider how they structure their licensing system in order to positively influence learner drivers. For example, the Queensland participants in the study completed a log book less frequently than those in New South Wales. This appears to be the case because, at the time the data was collected, it was not compulsory to complete a log book in Queensland. This research has shown that the experiences of learner drivers differs between the states with drivers in Queensland less likely to engage in deliberate practice of a number of types including with passengers and at night (Foss, 2007).

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Speed Enforcement – Effects, mechanisms, intensity and economic benefits of each mode of operation

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Abstract

Significant programs of speed enforcement have been in operation in a number of State and international jurisdictions for some time and many have been the subject of rigorous evaluation. Such programs aim to reduce crash frequency and/or injury severity through reductions in mean speed and/or changes to the speed distribution. In broad terms, the speed enforcement programs evaluated have been demonstrated to be beneficial in reducing road trauma. However, it is only in examining the individual characteristics of such programs that the mechanisms of effect become evident and information useful for the development of new speed enforcement programs can be obtained. This paper describes the speed enforcement program evaluations and the information concerning the relationship between enforcement intensity and program outcomes that they contain. Such analysis was conducted for all major speed enforcement modes, including mobile and fixed speed cameras operated overtly or covertly (including point-to-point average speed cameras), moving mode radar and hand-held laser speed detectors. An economic analysis of program outcomes was also conducted for each of these modes. This analysis was used to inform the development of a new speed enforcement strategy for Western Australia (WA) that can be expected to reduce road fatalities by 25 percent in a cost efficient way.

Keywords

Traffic enforcement, speeding, effectiveness, economic analysis

Introduction

The research described in this paper was carried out to develop a speed enforcement strategy for WA reflecting best practice nationally and internationally, with the mix of enforcement options, number and intensity tailored to the WA road environment and their strategic targets. However the range of options considered and the analysis methods have universal applicability and can be used to define speed enforcement