

Examination of the Victorian Graduated Licensing System's Effect on Young Novice Driver Safety

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Abstract

Against a background of strong community support, the Victorian Government introduced an enhanced Graduated Licensing System (GLS) during 2007 and 2008. Key enhancements included the requirement for learner drivers aged less than 21 years to complete a minimum of 120 hours of supervised driving practice and a requirement for first year probationary drivers to carry no more than one peer passenger. Our evaluation examined the effect of the enhanced GLS on novice driver crash involvement and other measures. The results show that the enhanced GLS is an effective countermeasure.

Background

In the early 2000s, inexperienced drivers aged 18 to 25 years continued to be greatly over-represented in road crashes in comparison with older and more experienced drivers. Therefore an enhanced GLS was introduced progressively during 2007 and 2008. Some key components include:

- minimum 120 hours supervised driving practice – if aged under 21 years at time of licensing
- no more than one peer aged passenger for P1 (first year) drivers unless accompanied by a fully licensed driver
- duration of the probationary period increased from three to four years.

Method

The evaluation was guided by a series of questions clustered into eight topic areas:

- crashes
- offences
- learner permit and licensing trends
- learner driver supervised practice
- carriage of peer passengers
- drink-driving
- speeding
- compliance with other requirements (e.g., mobile phone use).

To address the evaluation questions, five data sets were used to examine changes from a pre-GLS period to a post-GLS period:

1. Crash involvement counts and rates - Generalised Linear Modelling was used to determine statistical significance of the changes in crash rates of novice groups compared with experienced driver groups.
2. Offence rates: offence rates - offence rate odds ratios and Z-scores were used to determine statistical significance of the changes in offence rates of novice groups compared with experienced driver groups.

3. Learner driver self-reported experience: a series of cross-sectional surveys concerning learner driver experience, with statistical testing of changes.
4. Probationary self-reported driver behaviour: a series of cross-sectional surveys and longitudinal surveys concerning probationary driver behaviour, with statistical testing of changes.
5. Learner permit and licensing trends: patterns in learner permit and licence issue and tenure.

Results

The enhanced GLS was successful in reducing young driver crash involvement rates for drivers aged 18 to 20 at crash involvement and in their first year of holding a licence, but there was no reduction for older young driver (21 to 23 years) crashes. For drivers first licensed at 18 to 23 years and in their first four years of driving, crashes were estimated to reduce in the longer term.

Typical learner permit tenure was longer post-GLS and there was an increase in the numbers of drivers getting their licence when older than 18 years.

The impact of the enhanced GLS on young driver offence rates was mixed, with no clear patterns emerging.

Findings from all topic areas with statistical results answering the evaluation questions will be presented in the full paper.

Discussion and Conclusions

The enhanced GLS has improved the safety of young drivers on Victoria's roads and is an effective countermeasure. However, the benefit appears limited to those aged 18 to 20 and in their first year of driving. Further interventions will be required to address the crash rates of those aged 21 to 23 years, who are not subject to the 120 hour learner supervision requirement or the P1 licence.

More detailed results of the evaluation will be published in a forthcoming report (VicRoads 2017).

References

VicRoads. (2017). Examination of the Graduated Licensing System's effectiveness on young novice driver safety – Summary Report. Victoria, Melbourne: VicRoads (awaiting publication).