

Passenger and night-time restrictions for Provisional 1 licence holders in South Australia – A crash database analysis

Noack, A.¹ Norman, P.¹ Holmes, J.¹

¹ Department of Planning, Transport and Infrastructure, South Australia

Abstract

A Bill proposing a number of changes to the current South Australian Graduated Licensing Scheme (GLS) was introduced into the South Australian Parliament in July 2013. One of its goals is to provide greater protection for young drivers in their first year of driving and thereby reduce the number of deaths and serious injuries to young road users on South Australian roads. Proposed initiatives include a passenger restriction and a night-time driving restriction for Provisional (P1) licence holders.

An analysis was undertaken to determine how many crashes and resulting casualties involving young drivers/riders had the potential to be prevented if the two proposed initiatives had been implemented five years ago in 2008. This analysis examined individual casualty crashes of all P1 drivers/riders aged 16-24 that were involved in casualty crashes between 2008 and 2012. All casualty crashes that fell within the scope of the two proposed initiatives were considered. The ages of injured passengers were determined, where possible, and the time of the crash. The estimated casualties that resulted from these crashes were then calculated. From this analysis, it was found that overall the total number of casualties that potentially could have been prevented over the period 2008-2012 was:

22 fatalities (an average of 4 per year)
240 serious injuries (an average of 48 per year)
1397 minor injuries (an average of 279 per year)

This analysis could be used to provide an understanding in terms of real lives that could potentially be affected as a way to communicate to the general community the safety benefits of the proposals.

Keywords

Young drivers, Crash analysis, Graduated Licensing Scheme

Introduction

A Bill proposing a number of changes to the current South Australian GLS was introduced into the South Australian State Parliament in July 2013 in an effort to protect young drivers in their first year of driving and to reduce the over representation of death and serious injuries to young road users on South Australian roads. Proposed initiatives include a passenger restriction and a night-time driving restriction for P1 licence holders.

The proposed passenger restriction prohibits all P1 licence holders under the age of 25 from carrying more than one passenger aged between 16 – 20 years of age. Such a passenger is referred to as a “peer passenger”.

The proposed night-time restriction limits all P1 licence holders from driving between the hours of midnight and 5:00 am.

Neither restriction would apply if a Qualified Supervising Driver (QSD) was present as a passenger in the front seat of the vehicle. Both initiatives allow for an exemption system.

Similar legislated safety restrictions currently apply to provisional licence holders returning from a serious disqualification offence in South Australia.

Methodology

The Department of Planning, Transport and Infrastructure (DPTI) manages the Traffic Accident Reporting System (TARS). TARS is the database of South Australian Police reported road crashes occurring on South Australian roads.

An analysis of the TARS database was undertaken to determine how many crashes and resulting casualties may have been prevented between 2008 and 2012 if the proposed passenger and night-time safety restrictions had been implemented prior to 2008.

This analysis examined individual casualty crashes involving P1 drivers and riders aged between 16-24. All casualty crashes that fell into either of the two proposed safety restrictions were included. Each serious casualty crash was considered individually and ages of injured passengers were taken into account. The P1 drivers and riders considered in this analysis were all licensed at the time of the crash.

The TARS database records data on both the crash and casualty level. The total number of occupants of a vehicle is recorded, however, personal data (i.e age, gender) is only recorded if the occupant of the vehicle was injured. Due to the large number of minor injury crashes involving at least one P1 licence holder it was unrealistic to examine the ages of all the passengers in each individual crash. Therefore all minor injury crashes with 2 or more passengers were included without further analysis.

In addition, crashes that occurred within the hour prior and the hour after the safety restrictions would have been in place were included in the analysis as they too potentially may have been affected.

Results

During 2008 to 2012, 5,307 P1 drivers/riders under 25 years of age were involved in 5,072 casualty crashes on South Australian roads. 1,056 of these crashes were identified as falling within one or both of the proposed safety restrictions.

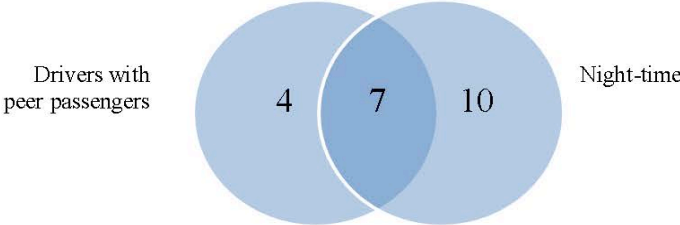
Fatal Crashes

There were 61 P1 licence holders involved in 57 fatal crashes over the 5 year period. 41 drivers/riders were aged 16 – 19 years and 20 were aged 20 – 24 years. Of the 61 P1 licence holders

- 17 drivers/riders crashed between 11 pm - 6 am
- 11 were operating vehicles with 2 or more peer passengers

- 7 of these crashed between 11 pm and 6 am and were carrying 2 or more peer passengers.

Figure 1
Number of P1 licence holders involved in fatal crashes between 11 pm - 6 am and/or were operating vehicles with 2 or more peer passengers



In total there were 21 P1 licence holders involved in 21 fatal crashes over the 5 year period that potentially could have been affected by the proposed restrictions.

These 21 fatal crashes resulted in:

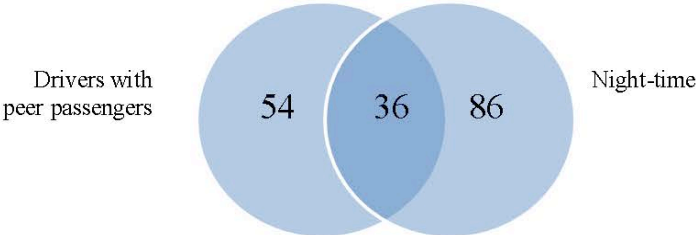
- 22 fatalities;
- 14 serious injuries; and
- 14 minor injuries.

Serious Injury Crashes

There were 563 P1 drivers/riders involved in 553 serious injury crashes over the 5 year period. 392 drivers/riders were aged 16 – 19 years and 171 were aged 20 – 24 years. Of the 563 P1 licence holders

- 122 drivers/riders crashed between 11 pm - 6 am
- 90 were operating vehicles with 2 or more peer passengers
 36 of these crashed between 11 pm and 6 am and were carrying 2 or more peer passengers.

Figure 2
Number of P1 licence holders involved in serious injury crashes between 11 pm - 6 am and/or were operating vehicles with 2 or more peer passengers



In total there were 176 P1 drivers involved in 175 serious injury crashes over the 5 year period that potentially could have been affected by the proposed safety restrictions.

These 175 crashes resulted in:

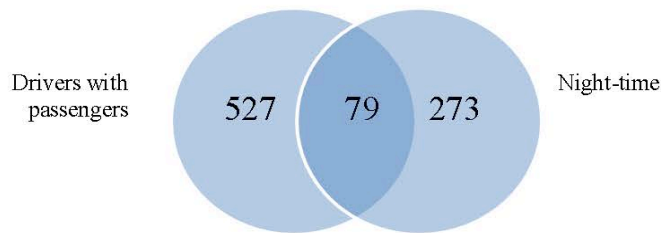
- 226 serious injuries; and
- 95 minor injuries.

Minor Injury Crashes

There were 4,683 P1 drivers/riders involved in 4,450 minor injury crashes over the 5 year period. 3,132 drivers/riders were aged 16 – 19 years and 1,551 were aged 20 – 24 years. Of the 4,683 P1 licence holders:

- 352 drivers/riders crashed between 11 pm - 6 am
- 606 were operating vehicles with 2 or more passengers
- 79 of these crashed between 11 pm and 6 am and were carrying 2 or more passengers.

Figure 3
Number of P1 licence holders involved in minor injury crashes between 11 pm - 6 am and/or were operating vehicles with 2 or more passengers



In total there were 879 P1 licence holders involved in 860 minor injury crashes over the 5 year period that potentially could have been affected by the proposed safety restrictions.

These 860 crashes resulted in 1288 minor injuries.

Table 1 shows the casualty crashes by severity that involved at least one P1 licence holder under 25 years that fell into the scope of one or both of the proposed safety restrictions between 2008 and 2012.

Table 1
Casualty crashes involving at least one P1 licence holder under 25 either between the hours of 11 pm and 6 am AND/OR occurred with 2 or more peer passengers, by severity, South Australia, 2008 – 2012

Fatal		Serious		Minor	
Crashes	Casualties	Crashes	Casualties	Crashes	Casualties
21	22	175	240	860	1397

The proposed safety restrictions, while primarily targeting young drivers and their passengers would also have had consequential impacts on other road users such as pedestrians and cyclists. The user types and age groups of casualties are not restricted to young drivers and their passenger however they constitute the largest groups. Table 2 is a breakdown of the casualties sustained in crashes identified in Table 1 by user type and casualty severity. Table 3 is a breakdown by age group and casualty severity.

Table 2
Casualties by user type and severity, South Australia, 2008 – 2012

User Type	Fatalities	Serious injuries	Minor injuries
Driver	9	103	666
Passenger	8	107	674
Motorcyclist	1	14	22
Pedestrian	4	14	25
Cyclist	0	2	10
Total	22	240	1397

Table 3
Casualties by age group and severity, South Australia, 2008 – 2012

Age Group	Fatalities	Serious injuries	Minor injuries
0-15	0	10	115
16-19	14	129	643
20-24	4	43	228
25-29	1	10	72
30-39	0	11	71
40-49	0	6	59
50-59	2	3	45
60-69	0	3	27
70-79	1	2	10
80+	0	1	4
Unknown	0	22	123
Total	22	240	1397

Discussion

On 14 October 2011, South Australia’s Graduated Licensing Scheme – *Initiatives to Protect Young Drivers* Discussion Paper was released for public consultation. The consultation period lasted eight weeks, concluding on 9 December 2011. The Discussion Paper contained five initiatives for consideration:

- A passenger restriction for P1 drivers allowing no more than one passenger aged 16 to 20 years for the duration of their P1 licence (with an exemption system).
- A restriction on driving between midnight and 5 am for P1 drivers for the duration of their P1 licence (with an exemption system).
- Raising the minimum age for a P1 licence from 17 to 18 years.
- Extending the total minimum provisional licence period from two to three years.

- Removing regression to a previous licence stage following a disqualification period.

Over 1000 submissions were received. Respondents were asked to provide demographic details including their age. Ninety per cent of respondents provided their age and 333 or 31% of submissions received were from people aged 16-25 (214 aged 16 – 19 years and 119 aged 16 – 25 years). 542 people aged 26 and over submitted a response, 93 responses were received from people aged 15 and under and the remaining 111 chose not to provide their age.

The support for the night driving and passenger restrictions between younger and older age groups were varied see Table 4 and 5. Night driving restrictions gained 54% support from the 26 – 40 year age group and 49% support from respondents over the age of 40. In contrast 24% of 16 -19 year olds showed support for night driving restrictions and only 18% in the 20 – 25 year old age group.

Table 4
Percent of respondents support for night driving restrictions by age group

Age Group	Supportive	Non-supportive	Unclear
0-15	31%	53%	16%
16-19	24%	53%	24%
20-25	18%	60%	22%
26-40	54%	20%	27%
41+	49%	31%	20%
All	39%	39%	22%

A similar reaction was received for the passenger restriction initiative gaining 52% and 53% support for the 26 – 40 and 41 and over age groups respectively. 17% of the 16 – 19 year old groups supported the initiative and there was 22% support in the 20 – 25 year old age group. (Department of Planning, Transport and Infrastructure, 2012)

Table 5
Percent of respondents support for passenger restrictions by age group

Age Group	Supportive	Non-supportive	Unclear
0-15	22%	68%	10%
16-19	17%	67%	15%
20-25	22%	51%	25%
26-40	52%	32%	16%
41+	53%	29%	18%
All	38%	44%	17%

As the 16 -25 year old is the age group most affected by the changes to the GLS it is not surprising that the support is low. This analysis estimating the effect on real lives provides a more poignant way to communicate the safety benefits of the two initiatives to the general community.

Limitations

The restrictions as proposed include an exemption system. The TARS database does not record any trip information such as point of commencement or destination, nor does it record any relationship information of vehicle occupants. As such a determination cannot be made as to whether a journey may have fallen into an exemption system.

Currently P1 licence holders must apply to the Registrar of Motor Vehicles and sit a Hazard Perception Test in order to move to a P2 licence and it is therefore possible to hold a P1 licence for longer than 12 months. The Bill before Parliament makes changes to this process so that a P1 licence is only held for 12 months and automatically upgrades to a P2 licence. The proposed night time and passenger restrictions would only apply to a P1 licence holder.

The analysis undertaken included P1 drivers regardless of how long they have been on their P1's and therefore it is possible that some of the drivers included in the analysis may have held a P1 licence longer than 12 months. To ascertain length of licence held would have required individual licence checks of over 5000 licence holders.

This analysis focused on the total number of crashes that could have fallen into to one or both of the restrictions and as such should not be considered an estimated crash savings for the coming five years. For this reason consideration has not been given to compliance with the proposed safety restrictions.

Conclusion

Presenting statistics that communicate to the general community the safety benefits of the proposals, in an interesting, easy to read format that has an impact on both young people and their parents is crucial to obtaining support for the proposed GLS changes. The results of the crash data analysis have been used on an electronic flyer. An infographic was also created to take advantage of social media communication opportunities. The flyer and individual infographics were posted on DPTI's mylicence facebook and web pages and offered to key stakeholders to be used in their communications with young people. (Appendix A)

References

Department of Planning, Transport and Infrastructure (2012) South Australia's Graduated Licensing Scheme - Initiatives to Protect Young Drivers – Outcomes from the Public Consultation, Adelaide

Appendix A - GLS Flyer (attached)

proposed licence changes: saving lives



If the proposed passenger and night-time restrictions were in place over the last 5 years this could have prevented:

22

DEATHS

(an average of 4 per year)



The same as a whole class of students.

240

SERIOUS INJURIES

(an average of 48 per year)



The same as half the average young person's Facebook friends.

(18 to 25 year olds have an average of 510 Facebook friends).

1397

MINOR INJURIES

(an average of 279 per year)



X 28

The same as 28 bus loads of people.

Source: Department of Planning, Transport and Infrastructure analysis of South Australia crash data between 2008–2012

Proposed P1 rule changes will save lives



A passenger restriction for P1 drivers allowing no more than one passenger aged 16 to 20 years (immediate family members are exempt).



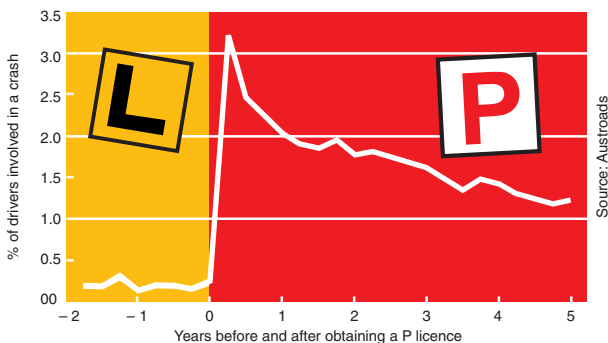
A night-time driving restriction for P1 drivers between midnight and 5 am (with an exemption system).

The proposed passenger and night-time driving restrictions will only apply to P1 drivers. They will not apply to P2 drivers.

For more information go to mylicence.sa.gov.au

young drivers: the facts

Research shows that crashes are most likely to occur during the first 12 months of holding a provisional licence when a driver is least experienced and driving unsupervised.



Saving young South Australian lives

Young people aged 16–19 are dying on South Australian roads at a greater rate than in Victoria, New South Wales, Queensland, Western Australia, Tasmania and Australian Capital Territory. Many of the other states have passenger and night-time driving restrictions.



2½
times more in
rural areas

Young drivers and riders aged 16–24 in rural South Australia are 2½ times more likely to die or be seriously injured in a crash than those who live in the metro area.

■ metro

Source: Department of Planning, Transport and Infrastructure analysis of South Australia crash data between 2008–2012

These proposed changes are supported by:



Government of South Australia

Department of Planning,
Transport and Infrastructure

For more information go to mylicence.sa.gov.au