

An examination of the licensing status of drivers involved in fatal road crashes in Western Australia.

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Abstract

Drivers who drive whilst unlicensed are a problematic issue for traffic enforcement authorities. As a group they represent several often conflicting elements within the driver education, road safety, licensing, traffic enforcement and justice frameworks. Unlicensed drivers can simultaneously be seen as evidence of failure within the driver licensing process and as evidence of success for traffic enforcement, but as this examination shows this group represents a high risk group of road users.

This is occurring at the same time as the penalty of licence removal is being applied to an increasing number of drivers via demerit point structures, enforcement of fines payment through licence suspension, and suspension and disqualification of drivers via the courts.

Estimation of the number of drivers who drive whilst unlicensed is difficult. In Western Australia, the number of drivers whose licences are suspended and disqualified can be reasonably accurately estimated. The number of affected drivers who then choose to drive is more difficult to estimate. In the 1990's research in WA suggested 20-40% of drivers would continue to drive. This research occurred prior to the introduction of a fines enforcement process via licence suspension. It has been suggested that this form of licence suspension has higher rates of non adherence.

Outside the suspended and disqualified cohort are the potentially highest risk group, those that reject the entire licensing framework by driving whilst never having held a license. This group is likely to also have avoided the driver training process.

In WA, the number of drivers who are prosecuted for a range of driving without a licence offences is increasing annually. There has been an average annual increase in the various Driving without a Licence charges of 19.6% in the period 2003 to 2007.

The examination focuses on the licensing status of drivers involved in fatal crashes in WA in 2006 and 2007. Several datasets are integrated to provide detail about various characteristics of unlicensed drivers in comparison with licensed drivers. The key high level outcomes of the study include:

- 17.6% of drivers involved in fatal crashes were unlicensed drivers,
- 92.1% of Indigenous drivers involved in fatal crashes were unlicensed,
- 82.3% of unlicensed drivers were considered to be the person believed responsible for the fatal crash
- Unlicensed drivers were twice as likely to have an alcohol related court outcome as licensed drivers and average 4 court outcomes for alcohol related driving offences
- Unlicensed drivers were four times as likely to have a Driving Without a Licence court outcome as licensed drivers and average 2.4 Driving Without a Licence court outcomes
- Unlicensed drivers were almost three times as likely to have a Criminal Court outcome as licensed drivers and average 31 Criminal Court outcomes
- 49.5% of unlicensed drivers were suspected of consuming alcohol prior to the crash, more than twice the rate of licensed drivers.
- Unlicensed drivers were more than twice as likely not to have worn restraints in the fatal crash than licensed drivers.

Clearly this group represents a high risk element within the driver community. They are more likely to be the party responsible for the crash, more likely to have alcohol risk factors and less likely to utilize restraints. They represent a difficult issue for both traffic enforcement authorities and the court system as they are likely to reject the penalties imposed on them. The more detailed analysis indicates that there are a number of disparate sections within the unlicensed driver groups, that due to their characteristics will require distinct enforcement and educational approaches to modify their high risk road user behaviours.

Introduction

The disproportionate involvement of unlicensed drivers in fatal road crashes has long been observed by traffic enforcement agencies, but to a degree has been masked by a lack of understanding about the number of unlicensed drivers on the road. Unlicensed drivers have also been identified in road safety literature as a problematic issue for enforcement authorities. Research has presented conflicting perspectives on whether suspended drivers are safer and drive less or display more high risk behaviours. This paper looks beyond these research issues to the end point of high risk driving behaviours, involvement as a driver in fatal crashes.

Background – the unlicensed driver pool

There is considerable literature on the recidivist nature of some road user subgroups, in particular, repeat drink drivers and repeat speeding drivers. This has been accompanied by the continued detection and punishment of repeat offenders leading to a substantial group of drivers who have suspended, disqualified, cancelled or no drivers licence. There are a number of estimates of the proportion of drivers who are driving without a valid drivers licence, however there is no single reliable source.

Department of Planning and Infrastructure (DPI) data shows that as at 30 June 2007 there were 1.423 million drivers licences¹. In 2004, DPI estimated that on any one day there were 88,000 drivers who had suspended, disqualified, cancelled or expired drivers licences. This figure was quoted in the 2005 Audit General's Third Public Sector Performance Report². Based on these figures it is estimated that 6.2% of drivers have a cancelled, disqualified, suspended or expired licence.

Recent Fines Enforcement Registry reports indicate that there were over 6,900 matters for which licences were suspended in September 2007, although an individual licence may be suspended for multiple matters or have been suspended previously.

As at 14 October 2007, the Fines Enforcement Registry recorded approximately 46,000 matters for which licences were currently suspended. In the 2006-07 financial year, there were 59,189 unique drivers licences that were suspended, there were another 3,915 licences in this time period that were suspended prior to 1 July 2006 and resuspended during the following 12 months.

A WA research study³ has estimated that between 36% and 40% of drivers have driven whilst under suspension. The study was conducted prior to the introduction of the 1995 Fines Enforcement Registry process. It is anticipated that the percentage estimates are an undercount.

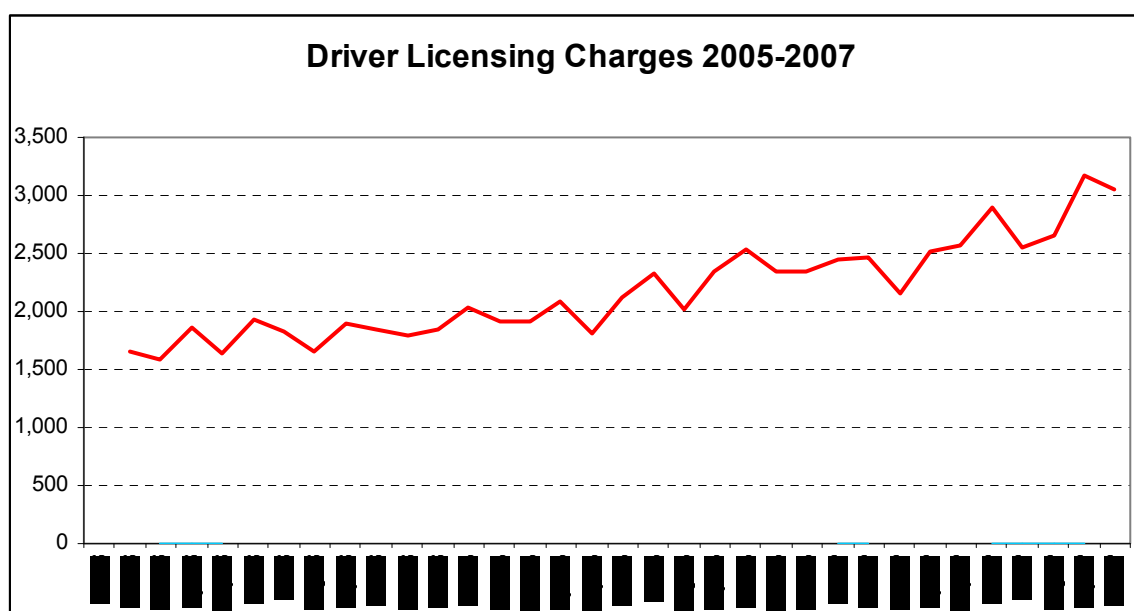
Each of these sources counts licensed drivers who for a variety of reasons have had their licence disqualified, suspended or cancelled. They cannot include drivers who drive having not held a licence. Estimating the size of this population is problematic and is likely only to be identified post crash.

A further guide to the extent of the unlicensed driver problem is the number of charges brought by WA Police for unlicensed driving. The following figure shows the monthly count of charges under Section 49 Subsections (1)&(2) of the *Road Traffic Act (1974)* for various forms of driving without a valid licence.

¹ Department of Planning and Infrastructure MDL Statistics 1992-2007

² Office of Auditor General, Third Public Sector Performance Report 2005,p7

³ Smith and Maisey (1990)

Figure 1: Driver Licensing Charges 2005-2007

The number of charges has doubled from 1,591⁴ in February 2005 to 3,178 in August 2007.

This provides an insight into the size of the potential pool of unlicensed drivers. This paper provides an analysis from a differing perspective. Are suspended/cancelled and non licence holders more or less likely to be involved with fatal road traffic crashes?. What are the characteristics of the driver and the crash?. If higher crash involvement is true, this is the worst case scenario for road safety and traffic enforcement. Where drivers are either opting out of the licensing system or ignoring the sanctions that have been imposed on them by the traffic enforcement or judicial system and then becoming involved in fatal road crashes.

The extent of the problem - recent involvement of unlicensed drivers in fatal crashes

In 2005, there were 163 fatalities in road crashes in Western Australia. There were 221 drivers involved with these crashes, of these drivers 33 (14.93%) were unlicensed drivers. On average there were 1.27 fatally and critically injured persons involved with each of the 33 unlicensed drivers. This is equates to approximately 42 fatally or seriously injured persons.

In 2006, there were 201 fatalities in road crashes in Western Australia. There were 231 drivers involved with these crashes, of these drivers 31 (13.42%) were unlicensed drivers. On average there were 1.51 fatally and critically injured persons involved with each of the 31 unlicensed drivers. This is equates to approximately 47 fatally or seriously injured persons.

In 2007, there were 235 fatalities in road crashes in Western Australia. There were 288 drivers involved with these crashes, of these drivers 59 (20.49%) were unlicensed drivers. On average there were 1.41 fatally and seriously injured persons involved with each of the unlicensed drivers. This is equates to approximately 84 fatally or seriously injured persons.

⁴ WA Police Briefcase data November 2007

Data sources and Data Issues

The data analysed in this study includes all fatal crashes in Western Australia that occurred in calendar years 2006 and 2007. The dataset integrates data from three sources:

- Casualty database⁵ provides the basic data on crash details, time, date, location, road conditions, persons involved and individual roles within the crash. Casualty is based upon the Form 1-18 as completed by the Attending Officer, and may be updated by the Investigating Officer, Major Crash Section, and or the Coroner.
- FrontlineIMS⁶ provides ethnicity, “risk factors”- drink driving outcomes, driving without a licence outcomes and criminal outcomes, IMS also provides more detailed information about the licensing status of drivers as sourced from DPI’s Trellis system
- Form1-18’s⁷ provide the person believed responsible for the crash.

The two calendar year datasets were combined to create a single dataset of 1,741 records. From this dataset, 1,224 records were deleted as they were either serious injury crashes, or non drivers in fatal crashes, leaving 517 drivers who were involved in fatal crashes.

Where the terms licensed driver and unlicensed driver are utilised in this paper it should be interpreted as having two elements, the first being the driver’s licensing status, the second being their status as the driver or one of the drivers in a fatal traffic crash. Hence being a licensed driver or unlicensed driver who was in a passenger, pedestrian or cyclist role in a fatal traffic crash is excluded.

Within IMS and the DPI datasets the classification of unlicensed status was identified as problematic. There appears some variation in classification into categories such as suspended, disqualified and or cancelled. To overcome these inconsistencies drivers have been reclassified into licensed, or unlicensed. Licensed driver includes; full licence, extraordinary licence, provisional/probationary, and learner. Unlicensed driver includes; no licence, expired/inappropriate, disqualified, and suspended/cancelled licence. In 16 instances, the status of the driver’s licence could not be ascertained as they were licensed overseas or in another state. These cases have been assigned licensed status on the basis that an externally licensed driver is permitted to drive in Western Australia for a three month period.

All crashes in this dataset were classified as ‘Statistical’ crashes, that is crashes which satisfy the criteria to be included in the Road Toll. The reasons for excluding crashes can include:

- occurred off road or road related area,
- premeditated act of injury or damage,
- didn’t involve at least one vehicle,
- didn’t involve significant contribution from vehicle movement,
- death occurred more than 30 days after the crash,
- death occurred prior to a crash.

⁵ Casualty database, WA Police database of fatal and serious injury traffic crashes

⁶ FrontlineIMS, WA Police Incident Management System

⁷ Form1-18, WA Police document completed by the attending officer at scene of traffic crash

Analysis

The descriptive tables are grouped by themes, licensing, characteristics of the driver and characteristics of the crash. The comparative analysis within each theme fills out part of the picture of the licensing status of drivers involved in fatal crashes.

Table 1: Licensing Status of drivers in fatal crashes 2006, 2007

Licensing status	Number	Percentage
Full licence	352	68.1%
Suspended/cancelled/disqual	59	11.4%
Provisional/probationary	47	9.1%
No licence	28	5.4
Unknown	17	3.3
Learner	9	1.9%
Expired/inappropriate	3	0.6%
Extraordinary	2	0.4%
Total	517	100%

For the reasons identified previously and to simplify the analysis, table 1 data has been reclassified into either licensed or unlicensed.

Table 2: Reclassified Licensing Status

Licensing status	Number	Percentage
Licensed	426	82.4%
Unlicensed	90	17.6%
Total	517	100%

Of the drivers involved in fatal crashes, 82.4% were licensed appropriately, 17.6% of drivers involved were unlicensed.

Table 3: Gender of drivers in fatal crashes by Licensing Status

Characteristic	Licensed drivers	Unlicensed drivers
Gender - male	82.0%	18.0%
Gender - female	84.0%	16.0%

Female drivers are slightly more likely to be licensed than male drivers, although the difference is very slight and may be a reflection of the relatively small number of women in this sample, being only 18.2% of the drivers involved in fatal crashes.

Table 4: Indigenous status of drivers in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
Indigenous	7.9%	92.1%
Non Indigenous	87.7%	12.3%

Indigenous status was determined for 90.5% of the dataset. Indigenous status in the consolidated dataset was recorded where IMS explicitly identified the driver as Indigenous. Where there was uncertainty over the Indigenous status of the driver 'unknown' was recorded.

92.1% of Indigenous drivers involved in fatal crashes were unlicensed, in absolute terms 35 of the 38 Indigenous drivers involved in fatal crashes were unlicensed. This contrasts with 12.3% (53 of 430) of non Indigenous drivers who were unlicensed.

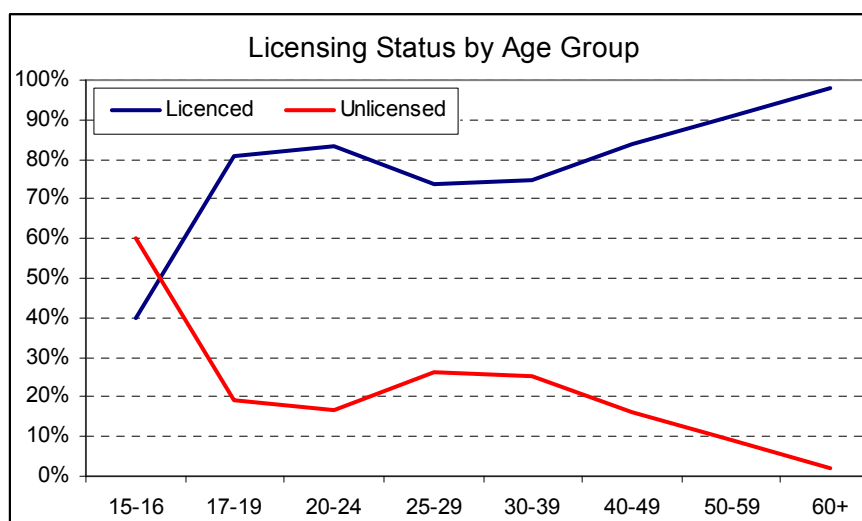
Indigenous drivers form 38.5% of the total unlicensed driver pool. It would be reasonable to estimate that Indigenous drivers form less than 4.0% of persons eligible to obtain a driver's licence in WA.

Table 5: Age of drivers in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
15-16 Years	40.0%	60.0%
17-20 Years	81.0%	19.0%
21-24 Years	83.3%	16.7%
25-29 Years	73.8%	26.2%
30-39 Years	74.8%	25.2%
40-49 Years	83.8%	16.3%
50-59 Years	90.9%	9.1%
60 + Years	98.2%	1.8%

The age groups 25-29 and 30-39 years contain the highest proportion of unlicensed drivers involved with fatal crashes. The highest figure, in the 15-16 years age group, should be discounted as it is based on a sample of 5 drivers.

Figure 2: Age of drivers in fatal crashes by Licensing Status



The Court Outcomes (Traffic and Criminal) for each driver were summarised into three risk factors, Alcohol outcomes, Driving without a licence outcomes and Criminal outcomes. A count of each outcome type was recorded as an indicator of drivers propensity to offend, and the drivers propensity to engage in these high risk behaviours. Court outcomes as a result of the fatal crash were excluded.

Table 6: Risk Factor Alcohol Outcomes of drivers in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
No Alcohol outcomes	79.1%	45.1%
1-2 Alcohol outcomes	17.8%	25.3%
3-4 Alcohol outcomes	2.8%	9.9%
5-6 Alcohol outcomes	0.2%	8.8%
7+ Alcohol outcomes	0.0%	11.0%

The number of alcohol outcomes recorded ranged from 0 to 18, 54.9% of unlicensed drivers had an alcohol outcome, in comparison, 20.9% of licensed drivers had an alcohol outcome. A lower proportion of licensed drivers had alcohol outcomes and the number of outcomes was lower. 89 licensed drivers had

an average of 1.7 alcohol outcomes whereas 50 unlicensed drivers had an average of 4.0 alcohol outcomes.

Alcohol outcomes ranged in severity from probationary driver driving with 0.02% blood alcohol content to driving under the influence of alcohol, each outcome was treated equally for the purposes of this analysis.

Table 7: Risk Factor Driving without a licence Outcomes (DWOL) of drivers in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
No DWOL outcomes	84.7%	30.8%
1-3 DWOL outcomes	12.7%	35.2%
4-6 DWOL outcomes	1.8%	12.1%
7-9 DWOL outcomes	0.0%	6.6%
10+ DWOL outcomes	0.7%	15.4%

The number of DWOL outcomes ranged from 0 to 28, 69.2% of unlicensed drivers had prior DWOL outcomes whereas 15.3% of licensed drivers had DWOL outcomes. 63 unlicensed drivers had an average of 6.0 DWOL outcomes, more than the 65 licensed drivers who averaged 2.4 DWOL outcomes.

Table 8: Risk Factor Criminal Outcomes of drivers in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
No criminal outcomes	84.5%	30.8%
1-5 criminal outcomes	9.6%	20.9%
6-10 criminal outcomes	2.1%	9.9%
11-15 criminal outcomes	0.7%	3.3%
16+ criminal outcomes	2.8%	34.1%

The number of criminal court outcomes range from 0 to 201. 84.5% of licensed drivers had no criminal court outcomes in comparison 30.8% of unlicensed drivers had no criminal court outcomes.

The 66 licensed drivers who had criminal court outcomes averaged of 10.1 criminal court outcomes whilst the 63 unlicensed drivers who had criminal court outcomes averaged 31.2 criminal court outcomes.

Table 9: Alcohol involvement suspected in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
Alcohol not suspected	77.9%	50.5%
Alcohol suspected	22.1%	49.5%

The Attending Officer records whether alcohol consumption is suspected based on the information available at the initial attendance. This is the best available measure of alcohol involvement in crashes as fatally injured persons are not routinely assessed by the standard alcohol assessment tools by Police.

There is a very significant difference in the alcohol suspected proportion for licensed and unlicensed drivers, 49.5% of unlicensed drivers were suspected of consuming alcohol prior to the crash more than double the 22.1% of licensed drivers suspected of consuming alcohol prior to the crash.

Table 10: Person Believed Responsible for fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
PBR	63.6%	82.4%
Not PBR	33.6%	16.5%

The Person Believed Responsible (PBR) is assessed by the Attending Officer at the time of initial attendance based on the information that is available at that time. This may or may not be confirmed by subsequent investigations. Unlicensed drivers are more likely to be considered responsible for the crash, 4 out of 5 unlicensed drivers are considered responsible for the crash whereas 3 out of 5 licensed drivers are considered responsible.

Table 11: No of Injuries by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
Average no of Injuries	1.275	1.516

Unlicensed drivers are associated with a higher number of injured persons per crash than licensed drivers. This is in spite of the higher incidence of single vehicle rollovers associated with unlicensed drivers. 69.2% of unlicensed driver crashes are single vehicle crashes whereas 54.7% of licensed drivers were single vehicle crashes. The proportion of persons fatally injured in crashes was virtually the same for both licensed driver and unlicensed driver cohorts, however slightly more licensed drivers escaped the crash uninjured or injured but not fatally injured than unlicensed drivers.

Table 12: Metropolitan v Regional WA of drivers in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
Regional WA	80.4%	19.6%
Metropolitan	84.9%	15.1%
Total	82.4%	17.6%

55.1% of crashes within this dataset occurred in Regional WA, indicating that fatal crashes are more common in regional, rural and remote areas as approximately 28% of the population reside in non metropolitan areas. Within the crashes in Regional WA, 19.6% of drivers were unlicensed, this is higher than the 15.1% of drivers in metropolitan areas who were unlicensed. The impact of unlicensed Indigenous drivers in Regional WA can be seen when they are excluded from the analysis, when including Indigenous drivers 61.5% of crashes in Regional WA involve unlicensed drivers, this drops to 47.2% when Indigenous drivers are excluded.

Table 13: Restraint use by drivers in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
Not worn	13.6%	33.0%
Worn	61.7%	42.9%

Unlicensed drivers are less likely to wear restraints than licensed drivers. 33.0% of unlicensed drivers were not wearing a restraint, in contrast, 13.6% of licensed drivers were not restrained.

Table 14: Crash nature fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
Hit object	31.9%	20.9%
Head On	17.4%	17.6%
Right angled	16.4%	12.1%
Non-collision	10.1%	30.8%
Hit pedestrian	7.5%	3.3%

The top five most common crash types display two significant features. Unlicensed drivers have significantly more non collision crashes (single vehicle rollovers), and surprisingly fewer hit object crashes. This would be consistent with the disproportionate number of unlicensed driver crashes occurring in Regional WA, which is characterised by fewer roadside objects, more unsealed roads and higher speed limits.

Table 15: Causal factors in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
Speed	16.9%	8.8%
Careless	11.7%	16.5%
Alcohol/Speed	9.2%	22.0%
Inattention	10.1%	7.7%
Alcohol	6.8%	16.5%
Fatigue	8.2%	4.4%
Fail to give way	7.5%	3.3%
Reckless	4.2%	5.5%
Turn in front	5.4%	0.0%
Overtaking	4.0%	3.3%

Comparing causal factors is complicated by the non mutually exclusive nature of the some categories and the extensive list of casual factors. The ten most common causal factors have been included in this analysis. The causal factors of unlicensed driver crashes are disproportionately Alcohol/Speed, Alcohol, and Carelessness.

Table 16: Sealed Roads in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
Unsealed road	5.6%	19.8%
Sealed road	94.4%	80.2%

91.9% of fatal crashes occurred on sealed roads. 19.8% of fatal crashes involving unlicensed drivers occurred on unsealed roads, this is significantly higher than for licensed drivers. This is consistent with the disproportionate number of fatal crashes involving unlicensed drivers occurring in Regional WA where there are proportionately more unsealed roads.

Table 17: Speed Limit in fatal crashes by Licence Status

Characteristic	Licensed drivers	Unlicensed drivers
0	1.2%	2.2%
40	0.5%	1.1%
50	7.7%	4.4%
60	16.4%	13.2%
70	9.4%	12.1%
80	11.5%	11.0%
90	8.5%	3.3%
100	6.6%	5.5%
110	32.9%	38.5%

The relative dominance of the 110 kph speed limit category can be seen in both licensed driver and unlicensed driver groups, the most significant variation occurring in the 110 kph where unlicensed drivers have a higher proportion of crashes. This is consistent with the higher proportion of unlicensed drivers being in Regional WA where there are proportionately more high speed limit roads.

Summary

- 17.6% of drivers involved in fatal road traffic crashes were unlicensed
- There is little gender variation in unlicensed driving
- 92.1% of Indigenous drivers involved in fatal road traffic crashes were unlicensed
- Indigenous drivers formed 38.5% of the unlicensed driver pool
- 50% of unlicensed drivers are in the 25-39 years age range
- Unlicensed drivers are twice as likely to have an Court outcome for Alcohol as licensed drivers. Unlicensed drivers average 4 alcohol outcomes

- Unlicensed drivers are four times as likely to have an Court outcome for DWOL as licensed drivers. Unlicensed drivers average 6 DWOL outcomes
- Unlicensed drivers are nearly three times as likely to have an Court outcome for Criminal Offences as licensed drivers. Unlicensed drivers average 31 criminal outcomes
- Unlicensed drivers are twice as likely to be suspected of consuming alcohol as licensed drivers. 49.5% of unlicensed drivers are suspected of consuming alcohol prior to the fatal crash
- 82.4% of Unlicensed drivers were assessed as being the person believed responsible for the crash
- Unlicensed drivers are likely to involve more people in the crash than licensed drivers.
- Unlicensed drivers are less likely to use restraints
- Unlicensed drivers are three times as likely to have a non collision type crash
- The causal factors in unlicensed driver crashes are twice as likely to involve alcohol and alcohol speed.

Impact on road safety and traffic enforcement strategy and practice

The evidence of both the unlicensed driver involvement in fatal crashes and the data about risk factors would indicate that unlicensed drivers are a key high risk group from both the perspective of safer roads and from the perspective of traffic enforcement. Unlicensed drivers are less receptive to road safety messages and more likely to have a significant involvement with traffic enforcement and judicial authorities. The likelihood of apprehension and punitive measures clearly is not engendering high levels of compliance.

Unlicensed drivers who currently operate outside the licensing system, be they “never holds” or disqualified, cancelled, or suspended licence holders are in an unusual position in that the current punishment of loss of licence is one which they clearly ignore. Effective deterrents should therefore be outside the current punitive framework such as immediate vehicle seizure. Ideally this would be reinforced by appropriate road safety campaigns and intelligence led enforcement action.

The high proportion of Indigenous unlicensed drivers and the likelihood that they will be located in rural and remote areas makes the use of broad mass media road safety campaigns problematic. Successful road safety campaigns will need to have a very clear understanding of the decision making framework of Indigenous drivers and passengers in rural and remote communities. Campaigns will have to target those drivers outside the licensing system, and increase levels of compliance with outcomes of traffic enforcement and judicial authorities for drivers who have held licenses. Licensing authorities will need to incorporate the “never held” category of drivers into the licensing framework in order that they participate in the driver education processes and have a privilege at stake when the traffic enforcement or judicial threat of licence suspension is invoked.

Traffic enforcement agencies will need to impact on drivers perception of the risk of being detected. Using classical deterrence theory, traffic enforcement agencies face a choice between a focus on the risk of apprehension or a focus on the swiftness and certainty of penalties. Clearly impacting the risk of apprehension is the primary tool of traffic enforcement agencies. Whilst in WA there is evidence of increasing DWOL offences, this has not been backed by a widely publicised campaign which seeks to impact on the perception of the risk of apprehension.

There are a number of strategies available which can impact on the perception of risk and indeed on the risk of driving whilst unlicensed including; Automatic Number Plate Recognition technology, targeted patrol activities, surveillance of recidivist offenders and incorporating licence checking in Random Breath Testing. These strategies would need to be backed by an increased emphasis on good quality, timely and readily available data on the actual licensing status of drivers. This would ensure that drivers whose status is checked can have their licensing status accurately determined at the point of contact.

Enforcement and educative strategies will need to be tailored to impact on both metropolitan and regional populations and are likely to require a combination of common broad based and localised strategies.

A combination of the identified enforcement strategies and education campaigns would appear to be the most likely tools for impacting on a high risk driver cohort that are over represented in fatal traffic crashes in Western Australia.

Sources:

IMS

Briefcase

Casualty database

Office of Auditor General, Third Public Sector Performance Report, November 2005

Crime Research Centre, Disqualified Driver Study, September 2003

Fines Enforcement Registry data