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# **Profiling Drink Driving Offenders in Queensland**

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## **KEYWORDS**

Drink driving; offender profiling; recidivism

## **ABSTRACT**

The major objective of this research was to characterise drink drivers in Queensland and generate profiles of drink drivers within the general driving population, convicted drink drivers, recidivist drink drivers, and crash-involved drink drivers. This profile was part of Phase 1 of the work program of the Impaired Driving Legislation Review Research Sub-Group convened by Queensland Transport, and was conducted to provide background information that could inform other components of the review. Variables of interest included: gender; age; Indigenous status; licence status; frequency of drink driving; BAC at time of drink driving offence; previous convictions; location of drink driving offence; socio-economic status (income and education); employment; purpose of trip; passengers; and vehicle type. While profiles of the drink driving offender were generated for each of the four “sub-groups” of drink drivers, this paper will present the general profile of the drink driver in Queensland.

## **INTRODUCTION**

Due to the significant social and road safety concerns associated with recidivist offending, a substantial body of profiling drink driving offender research has focused upon defining the sub-group of drink drivers that can be considered recidivist offenders. This research has established a number of demographic and lifestyle characteristics which can be used to distinguish high risk, “hard-core” recidivist offenders from the general driving population. These factors may also be useful for distinguishing between sub-groups of drink driving offenders (Beirness, Simpson, & Mayhew, 1998; Ferguson, Schonfeld, & Sheehan, 1999). Several studies have identified distinct and clinically relevant sub-groups of recidivist drink driving offenders (Donovan & Marlatt, 1982; Wells-Parker, Anderson, Landrum, & Snow, 1988; Wilson, 1991). Whilst these characteristics may assist in creating a descriptive profile of recidivist offenders, a plethora of studies have attested to the heterogeneity of this group of offenders (Beirness et al., 1998; Hedlund, 1995).

Broadly speaking, the following characteristics have been associated with drink driving recidivism: offenders tend to be male; are more likely to be single, separated, or divorced relative to members of the general population; are likely to possess low levels of literacy and low self-esteem; tend to have a history of other general traffic as well as criminal offences; are from a low socio-economic background; and tend to be employed in a blue-collar

occupation (Beirness et al., 1998; Ferguson et al., 1999; Ferrante, Rosman, & Marom, 2001; Hedlund, 1995; Homel, 1988; MacDonald & Dooley, 1993; Sheehan, 1993).

However, as noted previously, repeat offenders do not represent a homogeneous group and therefore, considerable demographic variation may occur within this sub-group of offenders (Hedlund, 1995). This review, similar to other international and national research, is underpinned by a notion highlighted by Harrison (1998, p. 120), who posited that "...drivers who continue to offend are unlikely to form a single homogenous group....[however] smaller groups of drivers may share some of the characteristics that might be useful for the development and targeting of new countermeasures". Further, it is acknowledged that recidivist offenders are one part of the whole drink driving problem, and the majority of drink driving offenders are not recidivists. It is therefore important to profile not only recidivist drink driving offenders, but all groups of drink drivers, to determine what, if any, differences between groups exist.

The major objective of this research was to characterise drink drivers in Queensland using existing data sources. Drink drivers were divided into a number of groups: drink drivers in the general driving population; convicted drink drivers; recidivist drink drivers; and crash-involved drink drivers. For the purposes of this research, the index period for convicted and crash-involved drink drivers was the 2004 calendar year. In order to identify factors which may be associated with increased risk of drink driving and predictors of recidivism as found in existing literature (Baum, 1999; Harrison, 1998; Hedlund, 1995; Marowitz, 1998; Sheehan, 1993), this paper examines available statistics regarding drink driving in Queensland. The research on profiling drink driving offenders is underpinned by the notion that in order to more effectively target drink driving behaviours, a greater understanding of the characteristics of drink driving offenders is needed (Baum, 1998; Ferguson et al., 1999). Data will be reviewed in an attempt to profile the characteristics of drink driving offenders in Queensland, and this profile will be compared to those available in the literature.

## **DATA SOURCES**

A number of variables of interest were identified, including: gender; age; Indigenous status; licence status; frequency of drink driving; BAC at time of offence; previous convictions; location of offence; socio-economic status (income and education level); employment; purpose of trip; passengers; and vehicle type. A number of possible data sources were identified. Those available for use within research timeframes included: Queensland Police Service Random Breath Testing (RBT) statistics (Queensland Police Service, 2005); household surveys, such as the 2004 National Drug Strategy Household Survey (Australian Institute of Health and Welfare & Australian Government Department of Health and Ageing, 2005) and Queensland Road Safety Tracking Research (Queensland Transport, 2004); Queensland Transport licensing and offence data (Queensland Transport, 2005a, 2005c); "Under the Limit" drink driving rehabilitation program evaluations conducted by CARRS-Q (Ferguson et al., 1999; Ferguson, Schonfeld, Sheehan, & Siskind, 2001; Ferguson, Sheehan, Schonfeld, & Davey, 1998; Siskind, Sheehan, Schonfeld, & Ferguson, 2000); Alcohol Ignition Interlock Trial data (Freeman, 2003); and Queensland Transport crash data (Queensland Transport, 2005b). Although the index year for the research was 2004, the "Under the Limit" program evaluations relate to information collected 10 years earlier.

### ***Data sources relating to drink drivers in the general population***

The Queensland Police Service RBT data (Queensland Police Service, 2005) was collected by requesting breathalyzer instruments from all police stations in Queensland, and downloading any data held on the instrument into a single data file. The data set outlined the results of 21599 breath tests conducted between March 7, 2003 and June 1, 2005. All Queensland

Police Districts provided at least one instrument, and there did not appear to be any biases in the data that would limit representativeness. The National Drug Strategy Household Survey 2004 (Australian Institute of Health and Welfare & Australian Government Department of Health and Ageing, 2005) was identified as a source of information regarding drink drivers in the general population as one item asked respondents if they had driven a motor vehicle while under the influence of alcohol in the last 12 months. A computer file of data for all Queensland respondents was made available to the researchers through the Australian Social Sciences Data Archives. Since 1997, Queensland Transport has regularly conducted surveys for the Queensland Road Safety Tracking Research study (Queensland Transport, 2004). This survey is designed to monitor the effectiveness and outcomes of road safety advertising and other public relations initiatives. Drink driving behaviours are typically assessed by one question only, e.g., respondents are asked to indicate the extent to which they drive when they think that they may be over the legal alcohol limit.

#### ***Data sources relating to convicted drink drivers***

Queensland Transport provided licensing and offence history information for all drivers with a drink driving breach that occurred on Queensland roads in the 2004 calendar year (Queensland Transport, 2005a). The Queensland Police Service RBT statistics (Queensland Police Service, 2005) described previously were also analysed to provide information about BAC levels. The “Under the Limit” drink driving rehabilitation program for convicted drink drivers is a 12 week program aimed at helping drink driving offenders separate future episodes of drinking from driving. It is a behaviour change intervention that aims to reduce recidivism through modification of relevant lifestyle factors. Information about offenders participating in the “Under the Limit” program has been derived from a number of evaluation reports prepared by CARRS-Q (Ferguson et al., 1999; Ferguson et al., 2001; Ferguson et al., 1998; Siskind et al., 2000). Offering offenders the option of participating in the program is at the discretion of magistrates, and individual offenders ultimately decide whether to undertake the program, which limits the representativeness of the samples due to a self-selection bias.

#### ***Data sources relating to recidivist drink drivers***

As described above, Queensland Transport provided licensing and offence information for all drivers with a drink driving breach that occurred on Queensland roads in the 2004 calendar year (Queensland Transport, 2005a). Recidivist drink drivers were defined as those with more than one breach in 2004, or a previous drink driving breach in the calendar years 2003 and / or 2002. Under current Queensland legislation, a person is considered to be a recidivist offender if they have had a previous drink driving offence within five years. However, the extraction method used was only able to go back as far as 2002 within project timeframes, thus only the full calendar years of 2003 and 2002 were included for this research. Therefore, the proportion of recidivist drink drivers identified in this research is an underestimate of the true proportion of recidivist drink drivers in Queensland. The Queensland Alcohol Ignition Interlock Trial represented the first randomised trial of court-ordered alcohol ignition interlocks in Queensland (Freeman, 2003). Eleven courts from Brisbane and surrounding areas were involved in the trial, each of which was assigned the classification of either a control or experimental court. During the two year data collection period, 472 recidivist offenders were convicted of drink driving across the 11 courts and, of these, 166 volunteered to participate in the trial. As a large proportion of offenders declined to participate in the trial, a self-selection bias may limit the representativeness of results.

#### ***Data sources relating to crash-involved drink drivers***

Queensland Transport provided data for drivers involved in crashes during the calendar year 2004 where the driver’s BAC was over the legally prescribed concentration of alcohol (Queensland Transport, 2005b). It was possible to extract offence histories for these drivers for the 2002, 2003 and 2004 calendar years.

## OVERALL FINDINGS

The prevalence of drink driving observed in this research varied. For example, drink driving in the general population ranged from 1.6 percent in the Queensland Police Service RBT statistics to 11.0 or 12.4 percent in self-report data sources in which participants reported if they had ever engaged in drink driving. It is not possible to compare figures, however, as the nature of each measure differed.

There were 25,836 drink driving offences recorded in Queensland in 2004, committed by 24,661 drivers. This equates to one percent of Queensland licensed drivers. This proportion assumes that these convictions were attributable only to Queensland drivers and that the number of licences on record is an accurate reflection of the true number of drivers on the road. The true figure would probably differ, although one percent is a reasonable estimate.

Of the 24,661 drivers convicted of a drink driving breach in 2004, 3,679 (or 14.9%) were classified as recidivist offenders, as they had more than one breach in 2004, or at least one drink driving breach in 2003 and / or 2002. However, this is an underestimate of the true proportion of recidivist offenders due to the limited time period compared to the legislative definition of recidivism in Queensland.

Finally, of the 39,473 drivers involved in crashes on Queensland public roads during 2004, 1,581 (or 4.0%) crashed with a BAC that was over the prescribed concentration of alcohol. For serious crashes (fatal and hospitalisation), this proportion rose to 6.1 percent. However, this is likely to be an underestimate as not all drivers and riders involved in crashes are breath tested. Of these crash-involved drink drivers, 219 (or 13.9%) were classified as recidivist offenders using the definition described above, which is also likely to be an underestimate.

## DRINK DRIVER VARIABLES OF INTEREST

This section summarises the key findings for each of the variables of interest in this research. Additional information relating to variables that were not in the variables of interest list, but were available for analysis in the data sets, is discussed as “Other variables”.

### *Gender*

The gender of the driver was available in all data sets analysed for this research. Analysis revealed that males are consistently over-represented in drink driver samples. Males accounted for 68.1 to 94.7 percent of drink drivers, compared to baseline (all driver) proportions of 49.5 to 86.8 percent (maximum figures are from the Queensland Police Service RBT data set, and may overestimate the proportion of male drivers due to the default [male] instrument setting). Such a large gender discrepancy leads to the question of whether an overall profile of drink drivers would be skewed towards males. For this reason, data sets were analysed separately for females where possible.

There was no difference in the mean BAC of drink drivers (i.e., those with a BAC of 0.05 and over) in the Queensland Police Service RBT statistics sample as a function of gender. However, these analyses should be interpreted with caution, as a number of females are likely to be included in the data set as males due to the default settings on the instruments. Compared to male self-reported drink drivers in the National Drug Strategy Household Survey sample, female drink drivers were: more likely to report being of Aboriginal origin; less likely to be employed; more likely to be a student or engaged in home duties; less likely to hold a qualification above secondary school; and likely to have lower annual incomes.

There were no significant differences as a function of gender in the convicted drink driver

sample (Queensland Transport, 2005a). However, female recidivist drink drivers were slightly older than male recidivist drink drivers and less likely to have had a drink driving breach in all three calendar years. When female crash-involved drink drivers were considered separately, they were slightly older than male crash-involved drink drivers and less likely to be novice drivers. They had received less traffic tickets, and were more likely to crash in a car or station wagon. Their crashes were less likely to be considered speed-related by the attending Police Officer, but were more likely to have involved an illegal manoeuvre.

### *Age*

The age of the driver was available in all but one (Queensland Police Service RBT statistics) of the seven data sets analysed for this research. Analysis revealed that drink drivers are generally young (i.e., under 30 years of age). However, analysis of some data sets (e.g., National Drug Strategy Household Survey; Queensland Alcohol Ignition Interlock Trial) indicates that drink drivers are aged under 35 or 37 years. Interestingly, Queensland Road Safety Tracking Research suggests that there is no difference in self-reported drink driving behaviour between respondents aged under and over 30. Analysis of offence description in Queensland Transport data files revealed that drivers charged with driving under the influence of liquor (under 0.15%) were younger ( $M = 30.5$ ,  $SD = 10.7$ ) than drivers charged with driving under the influence of liquor (over 0.15%) ( $M = 35.4$ ,  $SD = 11.2$ ).

### *Indigenous status*

The Indigenous status of the driver was available in four of the seven data sets analysed for this research. This involved the driver self-reporting their Indigenous status (National Drug Strategy Household Survey; “Under the Limit” program evaluations; Queensland Alcohol Ignition Interlock Trial), although “Racial Appearance” was also a field in the Queensland Transport crash data. The proportion of drink drivers who identified as Indigenous ranged from 1.8 percent to 10.8 percent; however 10.8 percent may be an over-estimate given that this was obtained in a Central Queensland sample for the “Under the Limit” program evaluation. Police described the racial appearance of 3.6 percent of crash-involved drink drivers as “Aboriginal and Islander”. It is important to note that self-report data is reliant upon a respondent’s willingness to identify as Indigenous, and that racial appearance in crash data may be unreliable given the difficulties assessing Indigenous status by appearance alone.

### *Licence status*

Licence status of drink drivers was available in three of the seven data sets analysed for this research. Two of these data sets were based on official records from Queensland Transport, while respondents to the “Under the Limit” program evaluations self-reported their current licence status. It was difficult to draw any conclusions about the licence status of drink drivers in Queensland, as some data sets included current licence status (Queensland Transport, 2005a), while others considered licence status at the time of the offence (Ferguson et al., 1999; Ferguson et al., 2001; Ferguson et al., 1998; Freeman, 2003; Queensland Transport, 2005b; Siskind et al., 2000). Further, some data sets included unlicensed or unknown categories, while others were simply Learner, Provisional or Open (full licence).

Novice drivers were over-represented, as the proportion of drink drivers with Learner or Provisional licences was much greater than that for all drivers. Between 6.1 percent and 11.7 percent of drink drivers had Learner licences (versus 3.7% of all drivers), 20.6 percent to 59.6 percent held Provisional licences (versus 6.3%) and 31.7 percent to 56.8 percent held an Open licence (versus 90.1%). Although a higher proportion of novice drivers may be expected, given that drink drivers tended to be younger, proportions as high as those observed here were unexpected. It is possible that the date of data extraction may have inflated the proportion of novice drivers, as current licence status was provided. Thus drink drivers who held an Open licence at the time of their drink driving offence may hold a Provisional licence at the time the data was extracted due to a sanction imposed. “Under the Limit” program evaluation data and

crash data also revealed that 12.8 percent and 20.5 percent of drink drivers, respectively, were unlicensed (or disqualified) from driving at the time of their offence or crash.

### ***Frequency of drink driving***

Frequency of drink driving was only available in two of the seven data sets analysed for this research. Almost half of the drink drivers in the “Under the Limit” sample (48.0%) reported drink driving once in the previous six months, while 39.1 percent admitted doing so more than once. Among recidivist drink drivers in the Interlock sample, 60.2 percent admitted drink driving at least once in the six months prior to commencing the trial, with 18.0 percent admitting doing so more than 10 times. Thus self-reported drink driving indicates that drink driving is far more common than official recidivism statistics suggest.

Self-reported frequency of drink driving has a number of limitations. Firstly, it assumes that individuals can not only accurately judge when they were drink driving (or were over the legal limit), but keep an accurate count of how often they engage in the behaviour. They need to be able to remember the event, which may be difficult given that they must be under the influence of alcohol in order to drink drive, and thus may not recall it due to the impairment associated with alcohol consumption. There is also the problem of honesty in responses (social desirability bias). For example, three recidivist drink drivers in the Interlock sample (1.8%) indicated that they had not driven while drunk in their lifetime, yet they had at least two drink driving convictions.

### ***BAC at time of drink driving offence***

The driver’s BAC at the time of their drink driving offence was available in five of the seven data sets analysed in this research. Queensland Police Service RBT statistics revealed that the mean BAC of drivers with a BAC of 0.05 and over was 0.10 ( $SD = 0.05$ ). However, as not all drivers who could have been charged with drink driving are included in this sample (that is, those for whom the legal BAC limit is zero), this result should be interpreted with caution as it is likely to be an over-estimate of the true mean BAC. This result is consistent with that observed in Queensland Transport data, where most convicted drink drivers (68.5%) for whom an offence description was available ( $N = 12,599$ ) were charged with an offence that involved a BAC of less than 0.15. Some data sets reported higher average BACs, for example, “Under the Limit” program evaluations report that most drink drivers have “high BACs” (Ferguson et al., 1999; Ferguson et al., 2001; Ferguson et al., 1998; Siskind et al., 2000), and the mean BAC of drivers in the Interlock and crash samples were 0.155 (Freeman, 2003) and 0.14 ( $SD = 0.06$ ), respectively.

Drivers with BACs of 0.15 and over were analysed separately (where possible). In the Queensland Police Service RBT data set, these drivers were more likely to be male. Among convicted drink drivers in Queensland Transport data sets, drivers with a high-range BAC were slightly older than drink drivers generally and were more likely to hold an Open licence. Crash-involved drink drivers with BACs of 0.15 and over were involved in crashes that were more severe (in terms of injury) than those involving drink drivers generally. These drivers were older and less likely to be novice drivers (a higher proportion held Open licences).

### ***Previous convictions***

Information about previous convictions was available in four of the seven data sets analysed for this research. Almost 15 percent of convicted drink drivers in the Queensland Transport data set were classified as recidivist drink drivers, as they either had more than one drink driving breach in 2004, or one breach in 2004 and at least one breach in 2003 and / or 2002. Similarly, 13.9 percent of crash-involved drink drivers could be classified as recidivist drink drivers. As the period prior to the index drink driving offence ranged between two and three years, this is an underestimate of the true number of recidivist drink drivers in the sample. It is also inconsistent with Queensland legislation and other data sets in this research, where

recidivist drink drivers are those with more than one breach in five years. For crash-involved drink drivers, this is also likely to be an underestimate given some of the drivers were from interstate or overseas, and it was only possible to extract Queensland convictions.

Consideration of the proportion of crash-involved drink drivers with a previous drink driving offence is important, as had these drink drivers been constrained or deterred after their initial drink driving offence, the proportion of alcohol-related crashes in 2004 might be reduced. Further, it is possible that some of these crashes may even have been avoided, reducing harm to the driver and other involved road users, and social cost to the community.

Of the drivers in the “Under the Limit” program evaluation samples, 30.2 percent had a previous drink driving conviction. All drivers in the Interlock sample had a previous drink driving offence, with the number of convictions ranging from two to seven. The proportion of these drink drivers with a previous traffic offence ranged from 40.4 percent to 48.2 percent. The most common traffic offence was unlicensed or disqualified driving. The proportion of drink drivers with a criminal record ranged from 32.1 percent to 47.6 percent.

Compared to all drink drivers, drink drivers classified as recidivists in this research were older, more likely to hold an Open licence, and had higher BACs. Compared to all crash-involved drink drivers, recidivist drink drivers were: less likely to be involved in fatal crashes<sup>1</sup> but more likely to be involved in property damage only crashes; more likely to hold a Provisional licence or be unlicensed (e.g., due to cancellation / disqualification); and to be driving a car / station wagon, utility / panel van, four wheel drive or riding a motorbike when they crashed while over the prescribed concentration of alcohol.

#### ***Location of “over prescribed concentration of alcohol” crashes***

The only data set analysed for this research that included location of offence was Queensland Transport crash data. Most drink driver crashes (80.2%) occurred on urban roads (that is, roads in Brisbane City, Rest of Brisbane Statistical Division and Provincial Cities). However, as this is lower than the proportion of all crashes that occurred in urban areas (86.1%), drink driver crashes appear to be more likely to occur in rural areas of Queensland. Improved knowledge regarding the location of drink driving offences could provide valuable information for intelligence and enforcement purposes.

#### ***Socio-economic status (income and education level)***

Variables relating to the socio-economic status of the drink driver were available in three of the seven data sets analysed in this research. Compared to all Queensland respondents, self-reported drink drivers in the National Drug Strategy Household Survey sample were more likely to report an annual personal income in the four highest brackets: \$20,000 to \$39,999 (30.2% versus 22.5%); \$40,000 to \$59,999 (23.5% versus 14.4%); \$60,000 to \$99,999 (9.9% versus 7.8%); and \$100,000 or more (5.2% versus 2.9%). However, in other data sources, drink drivers reported lower annual incomes. For example, most drink drivers in the “Under the Limit” program evaluations (63.5%) reported earning less than \$20,000 per year, while 65.6 percent of recidivist drink drivers in the Interlock sample reported earning between \$12,000 and \$35,000 per year.

Data from the National Drug Strategy Household Survey indicated that self-reported drink drivers in the general population are more likely to have completed Year 12 than all drivers in the sample (57.3% versus 44.1%). Similarly, self-reported drink drivers were more likely to have obtained a tertiary qualification (57.9% versus 46.3%). However, in other data sources, drink drivers reported less education. For example, 51.0 percent of drink drivers in the “Under

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<sup>1</sup> Recidivist drink drivers served at least one disqualification period during the index year as a result of their drink driving offences, so this result may be due to a decrease in driving exposure as opposed to being “safer” than all drink drivers. The proportion of serious (fatal and hospitalisation) crashes was still greater for recidivist drink drivers than that for drivers in all crashes in Queensland.

the Limit” program evaluations reported completing up to Year 10, and 66.3 percent of the Interlock sample had completed Year 10 or less.

However, the reader is reminded that these data sources differed in methodology, sampling, and importantly the year in which the research was conducted. The “Under the Limit” program evaluations were conducted approximately 10 years before the National Drug Strategy Household Survey. The samples of drink drivers differ in that those in the National Drug Strategy Household Survey may not have been convicted of drink driving, while those in the “Under the Limit” and Interlock samples have at least one conviction. Further, it was not possible to compare the samples in terms of driving exposure and frequency of drink driving to determine whether they were comparable in these aspects. The differences may also be indicative of the type of person who is likely to take the time to respond to a lengthy questionnaire such as the National Drug Strategy Household Survey.

### ***Employment***

As per socio-economic status, information relating to the employment status of drink drivers was available in three of the seven data sets analysed for this research. Self-reported drink drivers in the National Drug Strategy Household Survey sample were more likely to be employed or self-employed than all drivers in the sample (77.1% versus 53.5%). Self-reported drink drivers were less likely than all drivers in the sample to be a student, engaged in home duties or retired. Of the 66.3 percent of recidivist drink drivers in the Interlock sample who were employed, most were employed full-time in blue-collar occupations. In contrast, 42.2 percent of drink drivers in the “Under the Limit” program evaluation samples were unemployed, while only 40.1 percent were employed full-time.

### ***Purpose of trip***

The purpose of the trip when the offence was committed (e.g., leaving licensed venue, leaving party at private premises, collecting children from school) was not available in any of the seven data sets analysed for this research. The inclusion of trip purpose in drink driver data sets may be useful in terms of informing enforcement practices and intervention programs.

### ***Passengers***

Information about passengers of drink drivers was only available in Queensland Transport crash data. The number of occupants in the vehicle with a drink driver when they crashed ranged from one to nine (including the driver). Most drink drivers crashed alone (64.6%) or with one passenger (21.6%). These statistics were similar to those observed for drivers in all crashes. Improved knowledge regarding passengers of drink drivers may have important policy implications, particularly with the recent announcement of passenger restrictions for young drivers in Queensland, and in other jurisdictions.

### ***Vehicle type***

Information about the vehicle type of drink drivers was only available in one of the seven data sets analysed for this research: Queensland Transport crash data. Most drink driver crashes occurred in cars / station wagons (73.8%) and utilities / panel vans (14.9%), with some occurring in four wheel drives (6.5%) or motorcycles (3.8%). Very few drink driver crashes occurred in larger vehicles (1.2%).

### ***Other variables***

Information relating to additional variables was also available in some of the seven data sets analysed for this research, including marital status, crash severity and other factors and contributing circumstances for crashes. More than half of the drink drivers in the National Drug Strategy Household Survey sample (56.3%) were married, however they were more likely than all respondents to be single (42.4% versus 38.6%). Most drink drivers in the “Under the Limit” program evaluation samples were single (60.8%). Similarly, 60.2 percent

of recidivist drink drivers in the Interlock sample were single, divorced or separated.

Most drink driver crashes (44.3%) are property damage only crashes. However, compared to all crashes, drink driver crashes are more severe as they are more likely to be fatal (3.9% versus 1.0%) or involve hospitalisation (27.8% versus 19.8%). Drink driver crashes also involve inexperience (19.9%), inattention (15.0%) or speed (12.3%). Compared to all crashes, drink driver crashes are more likely to involve inexperience (19.9% versus 10.9%) or speed (12.3% versus 3.0%). However, these results should be interpreted with caution, as they are based on the subjective judgment of the attending Police Officer, and may be influenced by a number of other factors, such as previous experience with crashes or perceptions (e.g., crashes involving young drivers are due to their inexperience).

## **PROFILE OF THE DRINK DRIVER IN QUEENSLAND**

According to the data analysed for this research, general characteristics of drink drivers (i.e., across the four drink driver groups) include:

- Far more likely to be male than female
- Aged under 30 or under 35 years
- 1.8 – 3.6% identify as Indigenous (or 10.8% in a Central Queensland sample)
- Hold a Provisional or Open licence, although novice drivers are over-represented compared to all licensed drivers (perhaps due to sanctions previously imposed or the method of data extraction in this research)
- Report drink driving at least once in last six months, or more than 10 times in lifetime
- Likely to be caught with a mean BAC of 0.10 (or 0.14 or 0.155 for crash-involved drink drivers and recidivist drink drivers respectively)
- 13.9 – 14.9% are recidivist drink driving offenders, although this is an under-estimate, given that it was only possible to check the previous two to three years for this research
- Likely to have committed traffic and / or criminal offences previously
- While most drink driver crashes occur in urban areas of Queensland (80.2%), although crashes in rural areas are over-represented compared to all crashes (19.8% versus 13.9%).
- Annual income was varied: \$20,000 – \$60,000 for self-reported drink drivers in the general driving population; but generally lower for convicted drink drivers (less than \$20,000) and recidivist drink drivers (\$12,000 – \$35,000)
- Self-reported drink drivers in the general driving population had completed Year 12 and obtained some form of tertiary qualification, while convicted drink drivers and recidivist drink drivers had completed Year 10 or less at secondary school
- Most self-reported drink drivers in the general driving population were employed, while employment was much less common among convicted and recidivist drink drivers, where those who were employed were generally employed full-time in blue-collar occupations
- Drink drivers tend to crash alone or with one passenger in a car, wagon, ute or panel van

## **IMPLICATIONS FOR POLICY, ENFORCEMENT AND FUTURE RESEARCH**

This research has a number of implications for road safety policy, enforcement practices and future research. Most findings were consistent with those in the recidivist drink driver literature. However, interesting differences between the drink driver groups considered in this research were observed. For example, the finding that there were socio-economic (i.e., income and education) differences between self-reported drink drivers and convicted and recidivist offenders was interesting (although unexpected) and warrants further clarification or consideration, as differences in the definition of drink driving and methodology makes direct comparisons between these groups difficult.

Knowledge of the location of the drink driving offence would provide valuable information for intelligence and enforcement purposes. However, law enforcement agencies must acknowledge the limitation of the possibility of creating their own biased intelligence by conducting enforcement at a limited number of times and at a limited number of locations, as the only drink driving offences that will be detected using this methodology are those occurring at those times and at those locations. A better understanding of the socio-economic background and employment status of drink drivers may have policy implications in terms of sanctions. That is, setting fines of appropriate punitive value, and gathering information that may be relevant to the allocation of work licences to drink driving offenders.

Profiling drink driving offenders in Queensland on a regular basis would be useful in providing up to date information on the problem of drink driving in Queensland. Comprehensive profiling may also assist in evaluating the effectiveness of current interventions and enforcement practices. A review of the nature of data required to develop a comprehensive profile of drink drivers involving collaboration between relevant agencies is recommended. Establishing a better and more time and cost efficient method of data collection and storage relating to drink drivers will assist in streamlining the profiling process and improve government capacity to gather the information required to inform policy, enforcement practices and intervention development and implementation.

## REFERENCES

- Australian Institute of Health and Welfare, & Australian Government Department of Health and Ageing. (2005). *National Drug Strategy Household Survey 2004 [computer file]*. Canberra: Australian Social Science Data Archives, The Australian National University.
- Baum, S. (1998). An aggregate level analysis of the socioeconomic correlates of drink driving offenders. *Accident Analysis and Prevention*, 31, 213-220.
- Baum, S. (1999). Drink driving as a social problem: Comparing the attitudes and knowledge of drink driving offenders and the general community. *Accident Analysis and Prevention*, 32, 689-694.
- Beirness, D. J., Simpson, H. M., & Mayhew, D. R. (1998). Programs and policies for reducing alcohol-related motor vehicle deaths and injuries. *Contemporary Drug Problems*, 25(3), 553-571.
- Donovan, D. M., & Marlatt, G. A. (1982). Personality subtypes among driving-while-intoxicated offenders: Relationship to drinking behaviour and driving risk. *Journal of Consulting and Clinical Psychology*, 50(2), 241-249.
- Ferguson, M., Schonfeld, C., & Sheehan, M. (1999). *Drink driving offenders in a rural community* (No. CR183). Canberra: Australian Transport Safety Bureau.
- Ferguson, M., Schonfeld, C., Sheehan, M., & Siskind, V. (2001). *The impact of the "Under the Limit" drink driving rehabilitation program on the lifestyle and behaviour of offenders* (No. CR187). Canberra: Federal Office of Road Safety.
- Ferguson, M., Sheehan, M., Schonfeld, C., & Davey, J. (1998). *Profiling drink driving offenders in Central Queensland: Preliminary findings from the evaluation of a drink driving rehabilitation/treatment program*. Unpublished Report. Brisbane: Queensland University of Technology.
- Ferrante, A., Rosman, D., & Marom, Y. (2001). Novice drink drivers, recidivism and crash involvement. *Accident Analysis and Prevention*, 33(2), 221-227.
- Freeman, J. (2003). *Influencing recidivist drink-drivers resistant behaviours: Self reported outcomes of predominant measures*. Unpublished Doctoral Thesis. Queensland University of Technology.
- Harrison, W. (1998). The occupations of drink drivers: Using occupational information to identify targetable characteristics of offenders. *Accident Analysis and Prevention*, 30, 119-132.
- Hedlund, J. (1995). Who is the persistent drink driver? Part 1: USA. *Transportation Research Circular*, 437, 16-20.
- Homel, R. J. (1988). *Policing and punishing the drinking driver: A study of specific and general deterrence*. New York: Springer-Verlag.
- MacDonald, S., & Dooley, S. (1993). A case-control study of driving-while-impaired offenders. *Drug and Alcohol Dependence*, 33(1), 61-71.
- Marowitz, L. A. (1998). Predicting DUI recidivism: Blood alcohol concentration and driver record factors. *Accident Analysis and Prevention*, 30, 545-554.
- Queensland Police Service. (2005). *Random Breath Testing Statistics [computer file]*. Brisbane: Queensland Police Service, Breath Analysis State Support, State Traffic Support Branch.
- Queensland Transport. (2004). *Queensland Road Safety Tracking Study 2004*. Brisbane: Queensland Transport.

- Queensland Transport. (2005a). *2004 Convicted Drink Drivers [computer files; request RQ 4927]*. Brisbane: Queensland Transport.
- Queensland Transport. (2005b). *2004 Crashes [computer files; requests RQ 9182 & RQ 9411]*. Brisbane: Queensland Transport.
- Queensland Transport. (2005c). *Licences on Record - February 2004 [computer file; request RQ 4927]*. Brisbane: Queensland Transport.
- Sheehan, M. (1993). *Alcohol recidivism*. Paper presented at the Safety on the Road Conference, Canberra, Australia.
- Siskind, V., Sheehan, M., Schonfeld, C., & Ferguson, M. (2000). *The impact of the "Under the Limit" drink driving rehabilitation program on traffic safety: An outcome evaluation of "Under the Limit"* (No. CR186). Canberra: Australian Transport Safety Bureau.
- Wells-Parker, E., Anderson, B. J., Landrum, J. W., & Snow, R. W. (1988). Long-term effectiveness of probation, short-term intervention and LAI administration for reducing DUI recidivism. *British Journal of Addiction*, 83(4), 415-421.
- Wilson, R. J. (1991). Subtypes of DWIs and high-risk drivers. *Alcohol, Drugs and Driving*, 7(1), 1-12.