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Estimating the short-term cost of police time spent dealing with alcohol-related crime in NSW

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Abbreviations

AC	Activity Constants
BOCSAR	NSW Bureau of Crime Statistics and Research
COPS	Computerised Operational Policing System
DUMA	Drug Use Monitoring Australia
GDP	Gross Domestic Product
GISCA	National Centre for Social Applications of Geographic Information Systems
LAC	Local Area Commands
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NSW	New South Wales
POI	Person of Interest
PRA	Proactive Resource Allocation
RARI	Reactive Alcohol-Related Incidents
RBT	Random Breath Testing
SCRCSSP	Steering Committee for the Review of Commonwealth/State Service Provision

Acknowledgements

Executive summary

Research aims

- An activity survey was conducted using a representative sample of police Local Area Commands (LACs) throughout New South Wales (NSW) in 2005. The main aims of this activity survey were to estimate the percentage of police officers' time which is spent dealing with alcohol-related issues and to quantify the salary costs of this time.

Salary costs of alcohol-related activity time in NSW

- The combined total alcohol-related activity salary costs for the time spent by NSW Police in Local Area Commands and the special purpose *VIKINGS Unit* was estimated to be just under $50 million in 2005. This figure is equivalent to the combined annual salaries of around 1,000 full time constables in NSW.

- These costs were highest in the *Inner Metropolitan Region* of NSW, totalling just under $13 million. This is primarily due to the larger number of staff working in this region. The estimated costs in the sparsely populated *Western Region* of NSW were similar in magnitude to those in the more densely populated *Greater Metropolitan Region* (over $9 million), reflecting the higher incidence of alcohol-related problems in this remote region (see below).

- These costs were also broken down in terms of duties that were classified as either 'reactive,' 'proactive' or 'associated' in nature. Reactive tasks were those undertaken by police in response to a specific event or crime incident, whilst proactive activities were those undertaken by police to prevent criminal activity or enhance public safety. Associated activities were those which arose primarily after an event had initially been responded to, incorporating paperwork or court preparation tasks. Salary costs attributable to the reactive policing duties consumed the most resources, totalling over $18 million in 2005. Interestingly, around one-third of alcohol-related salary costs were spent on proactive policing, which totalled just under $17 million. Finally, $14 million in resources were attributable to associated costs.

Time spent dealing with alcohol-related issues

- Of the total person-shift time worked, police recorded 8.2 per cent of this time as having involved an alcohol-related activity. Less alcohol-related time was recorded in the second half of the year (9.1% versus 7.1%), a finding which was validated by a corresponding decrease in the number of recorded alcohol-related crime incidents on the Computerised Operational Policing System (COPS) database.

- The *Western Region* of NSW had the highest percentage of time spent on alcohol-related activities, with almost 15 per cent of their shift time recorded as such. In comparison with rural regions, metropolitan regions had lower percentages recorded, with the *Inner Metropolitan Region* recording 7.5 per cent of their time worked as alcohol-related. The *VIKINGS Unit* recorded almost one-fifth of their shift time as alcohol-related.

- The percentage of alcohol-related time varied as a function of temporal factors such as the time of day and the day of the week. Police spent more time dealing with alcohol-related problems during weekend periods and at night. For example, police recorded 17 to 18 per cent of their total time worked on Friday and Saturday nights as being alcohol-related.

- Officers rostered to complete licensing duties spent just under 50 per cent of their time on alcohol-related activities, followed by officers involved in custody duties, who spent just under 15 per cent of their time on alcohol-related tasks. Highway patrol staff recorded over 10 per cent of their time as alcohol-related, whilst general duties staff spent 9 per cent of their total time worked on alcohol-related duties.

- Responding to assault incidents was the most frequently recorded activity type, comprising almost 15 per cent of the total alcohol-related time recorded. This was closely followed by random breath testing, which comprised 14.4 per cent of the time recorded as being alcohol-related. Interestingly, paperwork took a total of 14 per cent of the total alcohol-related time recorded. Monitoring intoxicated individuals, largely with no specific offence recorded, took a total of just under five per cent of the alcohol-related time recorded. On average, alcohol-related assaults consumed 2.2 hours of police time per event, whilst alcohol-related public nuisance incidents took 1.6 hours of time.

Applicability to other Australian jurisdictions

- A series of formulae were derived which would enable other jurisdictions to apply the results from this NSW activity survey in conjunction with their own recorded crime and salary rate data to estimate their current salary costs spent dealing with alcohol-related issues. These formulae comprise three components: reactive alcohol-related incidents, proactive resource allocation and a range of activity constants which capture time spent on tasks such as paperwork, court brief preparation, custody duties and the monitoring of intoxicated persons.

- These parameters were provided for three broad location types: metropolitan areas, accessible non-remote regional areas and more remote regional areas. This was done in order to increase the general applicability of the findings throughout different parts of Australia.

- The reactive alcohol-related incident component of these formulae incorporated data from the NSW Police Force *Linking Project* relating to the percentage of given incident types which were flagged by police as alcohol-related. For total assault incidents the percentage flagged as alcohol-related ranged from 38 per cent to 58 per cent (depending on location), while for offensive behaviour incidents this percentage ranged from 62 per cent through to 73 per cent.

- In addition to applying these formulae, other jurisdictions should also consider conducting their own activity surveys over the longer term, in order to provide a more direct estimate of alcohol-related salary costs.

Chapter one: Introduction

It is well established that alcohol is an important situational risk factor for a number of crime types, such as violence, malicious damage to property, public disorder and dangerous driving (Homel 1999; Scribner, Mackinnon & Dwyer 1994; Stevenson, Lind & Weatherburn 1999). While there is evidence that alcohol is involved in about one-half of assault hospitalisations and one-third of road fatalities (Chikritzhs et al. 1999), the specific impact that such incidents place on police resources has been difficult to quantify.

Estimating the burden that alcohol places on limited police resources can be conceptualised from a number of perspectives, depending on the particular objective under study. One perspective is to attempt to estimate/quantify what percentage of a given crime type is in fact alcohol-related. An example of such an investigation was that carried out by Ireland and Thommeny (1993) in six Sydney police patrols in the early 1990s. This investigation found that almost three-quarters of assaults during weekend periods were alcohol-related. Another example is the *Linking Project*, which has been gradually rolled out through New South Wales (NSW). Preliminary results from this study reported that over 70 per cent of recorded incidents in the Hunter area are alcohol-related (Considine et al. 1998; Wiggers et al. 2004).

Investigations such as those by Ireland and Thommeny (1993) and the *Linking Project* (Wiggers et al. 2004) have been invaluable in providing better estimates of the percentage of particular crime types in NSW which involve alcohol in some way. Another perspective on the alcohol problem, however, is to focus on what costs are actually incurred by police services in dealing with crime problems that are associated with alcohol. There are relatively few economic analyses which focus on the police resources used in dealing with alcohol-related problems. Where such economic analyses have been undertaken, indirect methods have tended to be employed, rather than direct observational studies of actual alcohol-related police enforcement activity.

The Cabinet Office of the United Kingdom (UK) conducted a costing exercise of alcohol misuse in 2003, which included, amongst other factors, the cost of law enforcement related to alcohol (Cabinet Office 2003). Law enforcement was broadly defined to include police costs, costs to the criminal justice system, and prison and probation service costs. The methodology involved two steps. First, an estimate of the total number of alcohol-related incidents committed per annum was obtained using British Crime Survey data for specific crime types. Second, estimates of the average cost to deal with these reported crime incidents were obtained from a study by Brand and Price (2000). These were then multiplied by the number of crime incidents to derive the total costs. The study by Brand and Price (2000) had estimated costs using an unpublished UK activity survey designed to measure police time spent on different crimes and tasks. This study did not say whether its estimates were based on a costing of police hourly rates or via a proportion of the total police budget. This makes it difficult to assess the validity of the estimates.

Nevertheless, using these measures the UK Government Cabinet Office (2003) estimated that the total cost of alcohol-related law enforcement in 2001 was 1.66 billion pounds (approximately $A4.10 billion, using the current 2006 exchange rate). This estimate was broken down by offence category. The largest enforcement cost was associated with wounding, followed by common assault and criminal damage. This analysis used victim surveys, rather than the more commonly used police recorded crime data, as surveys are less likely to underestimate the cost of alcohol-related crime. Moreover, whilst the UK estimates are useful, there is a lack of methodological detail and published evidence to specifically validate the costing estimates. There are also potentially significant differences in the policing strategies adopted to deal with alcohol-related crime between the UK and Australia.

Australian estimates of the cost of policing alcohol-related harm were provided by Collins and Lapsley (2002), as part of their investigation of the social costs of drug abuse in Australia. In this study, Collins and Lapsley used attributable fractions developed on the basis of data from audits of male-only police detainees conducted in 1995 during the National Police Custody Survey (Taylor & Bareja 2005). They estimated that 11 per cent of all violent offences for which people were incarcerated were attributable to alcohol, and derived the costs of policing alcohol-related crime in Australia on the basis of this figure. Collins and Lapsley (2002) thus estimated that in 1998/99 in Australia, the total cost of alcohol-attributable crime in Australia was $1.7 billion, or 0.42 per cent of Gross Domestic Product (GDP). The specific cost to Australian police services of dealing with alcohol-related crime was estimated by Collins and Lapsley (2002) to be $648 million.

A limitation of both the British Cabinet Office (2003) and the Collins and Lapsley (2002) studies are that they assume that the typical police workload was similar to the profile of offence types found in previous research. In the example of Collins and Lapsley, basing the profile of incident caseload on the offences committed by males held in custody potentially underestimates the contribution of those alcohol-related offence types that are dealt with by sanctions other than arrest, such as infringement notices, warnings and cautions. Further, police may spend substantial amounts of time dealing with alcohol-related problems that do not result in the offender being charged and/or held in custody. For example, around one-third of recorded assault incidents at licensed premises do not have a known offender or person of interest (Briscoe & Donnelly 2001). Also, these studies do not capture proactive policing activities, such as random breath testing, which aim to prevent problems arising in the first place.

Another limitation of Collins and Lapsley's (2002) analysis is that their estimates of the percentage of a given offence type attributable to alcohol relied on samples of offenders from the Drug Use Monitoring Australia (DUMA) program. These offenders are not representative of all apprehended offenders. Further, while this data collection asks offenders specific questions about whether they attributed their offending to their illicit drug use, no such question is asked with respect to alcohol. Accordingly, the resulting percentages of offending attributed to alcohol from this data collection may be too low. The lower bound attributable fraction for alcohol involvement in violent offences from the DUMA sample, based on an offender being classified both as alcohol dependent and responding that they had been drinking alcohol at the time of offending, for example, was only seven per cent. Applying an upper bound estimate of alcohol involvement, based solely on drinking at time of offending, increased the alcohol attributable fraction estimate for violent crime to 23 per cent. This is still much lower than other estimates of alcohol involvement in violence (e.g. Chikritzhs et al. 1999; Ireland & Thommeny 1993), indicating possible selection bias effects.

The current investigation

Previous research has clearly demonstrated that alcohol consumption contributes to the cost of law enforcement in Australia. Despite this, there are no reliable estimates of the time and resources police spend responding to and preventing alcohol-related harms in Australia. The studies by Collins and Lapsley (2002) and Ireland and Thommeny (1993) provide some data to fill this knowledge gap. However, both of these studies have significant limitations. The main aim of the current study, then, was to investigate the amount of time and resources consumed by police on alcohol-related duties and provide an estimate of the dollar cost of this time.

Rather than using indirect approaches, as in previous research, this study conducted an activity survey across a representative sample of NSW Police Force Local Area Commands (LACs). Activity surveys, conducted on a random sample of LACs for a limited time period, have the advantage of being accurate but much cheaper to conduct than a full audit of the entire police service over a prolonged period (Steering Committee for the Review of Commonwealth/State Service Provision

(SCRCSSP) 1999). As well as being asked to record the type of alcohol-related incident attended, police officers were asked to provide information about the time actually spent on the incident. The activity survey was designed to directly measure the profile of alcohol-related activities engaged in by police (both proactive and reactive) and the amount of time spent dealing with such incidents relative to other incident types. Dollar values were assigned to police time on the basis of each participating officer's hourly salary.

Chapter two: Methods

All staff in 17 Local Area Commands (LACs) and officers from the specialised *VIKINGS Unit* were surveyed over two distinct eight-day periods. *VIKINGS* was a specialised unit which was set up to proactively target street offences with a particular focus on anti-social behaviour. While co-ordinated centrally from the Sydney Police Centre, officers from this unit were strategically deployed throughout various LACs in NSW. This unit was included on the recommendation of the NSW Police Force, as a large percentage of activities undertaken by this *VIKINGS Unit* specifically target alcohol-related crime. The two eight-day surveys were carried out six months apart in order to control for seasonal fluctuations in alcohol-related crime.

Sampling

At the time of this data collection, all 80 LACs fell within one of five police regions in NSW: (1) *Greater Metropolitan Region*, (2) *Inner Metropolitan Region*, (3) *Northern Region*, (4) *Southern Region* and (5) *Western Region*. In order to select a representative sample of 17 LACs for inclusion in the study, a stratified sampling methodology, based on these five police regions, was used. The number of LACs selected from each stratum (region) was a function of the number of police within each region. Five LACs were selected from each of the *Inner Metropolitan* and *Outer Metropolitan Regions*; three from the *Northern Region*; and two each from the *Southern* and *Western Regions*. Within each region, the sampling probability for each LAC was based on the number of officers who worked in the LAC. This 'sampling proportional to size' method meant that every officer within a given region had an equal probability of being included in the activity survey.

Letters were sent to the Local Area Commander of each selected LAC (as well as to the *VIKINGS Unit*) outlining the research and seeking permission to undertake the activity survey in their LAC. The letters also asked the Commander to nominate a contact person (with whom project staff could liaise) and to indicate when the training of their officers in the activity survey protocol could take place. All commanders from the originally sampled LACs consented to their command taking part in the research.

The survey weeks allocated to each LAC within regions were also randomly assigned in an attempt to control for any anomalous events occurring throughout the year. To do this, the months from February though June were divided into three periods; classified as high, medium or low periods for alcohol-related crime. This classification was based on police recorded assault data for NSW and is consistent with the general finding that alcohol-related crime is more prevalent during warmer months. Again, stratified by the five police regions in NSW, LACs were then randomly assigned one of these high/medium/low months in which to complete the first eight-day activity survey. To control for seasonal variability in the incidence of alcohol-related problems, LACs allocated a 'low alcohol-related crime' month in the first half of the year were then assigned a 'high alcohol-related crime' month for the second survey, and vice versa. Those in a 'medium' month for the first survey were also assigned a medium month for the second. Once assigned to these 'high'/'medium'/'low' periods, the actual starting dates were negotiated with each individual LAC Commander. The first wave of surveys commenced in late February 2005 and were completed by June 2005. The second wave of surveys commenced in July 2005 and the last survey was completed by mid-December 2005.

Activity survey instrument

The activity survey instrument completed by LAC staff during the survey periods is shown in Appendix A. Participating police officers were asked to record personal details (including name, rank and registration number); the nature of the duties for which they had been tasked; their shift start and end times; and the time and details of any alcohol-related task undertaken during the shift. This activity survey was designed in consultation with operational police and members of the BOCSAR Project Reference Group (see Appendix B for membership).

All staff in each LAC were instructed to complete one survey per shift during the two eight-day survey periods. If any activities were alcohol-related in nature, further details about the nature of this activity were sought. Where possible, the incident or activity start and end time were recorded, as well as brief details describing the nature of the activity and the intoxication level of any individuals involved. A field was also provided on the form for a COPS Event Number to be entered where appropriate to facilitate linkage of police activity with routinely recorded incidents on the COPS database. The total time taken to conduct the alcohol-related activity, including any time spent on associated tasks (for example, paperwork), was also recorded.

All police in NSW are now required, as part of the *Linking Project*, to ask perpetrators whether they have consumed alcohol prior to the event and the location where they consumed their last drink (Wiggers et al. 2004). To maintain consistency, we adopted a definition of 'alcohol-related' that was very similar to the *Linking* definition, that is, any prior consumption. For the purposes of the survey, an alcohol-related activity was defined as any incident where the victim or perpetrator consumed alcohol prior to the event or the victim reported that the perpetrator had previously been drinking. Because we wanted to incorporate additional information into the costing about proactive tasks undertaken by NSW Police that attempt to minimise alcohol-related harm, officers were also asked to include in the activity survey any time spent completing the following tasks: random breath testing (RBT), licensing-related duties, walk-throughs at licensed premises, business audits, strategic planning for large events, provision of advice on alcohol-related crime in the local area and any other proactive tasks related to minimising alcohol-related problems.

Survey training and implementation

The initial training package and the activity survey developed for this study were trialled with a small sample of police officers from several LACs in the *Inner Metropolitan Region* of the NSW Police Force. A pilot activity survey was also conducted at an inner city Local Area Command (LAC) for a seven-day period in December 2004. The response rate obtained from this initial pilot survey was relatively poor (around 15%), which led to the revised survey training and implementation protocol described below.

To improve response rates and data quality, a training manual and presentation were developed to inform officers from the selected LACs about the project and how to complete the activity survey forms. Prior to the commencement of the activity survey, project staff delivered this training presentation to each LAC management team and, in some cases, did so in conjunction with the Education or Licensing Officers to the other staff members in each LAC. The training resources were also placed on the NSW Police Force Intranet for use by the trainers and as reference material for other officers. Furthermore, the testing period was extended by one day, to eight days, in order to allow staff to adapt to and practice completing the surveys for each shift.

During the eight-day survey period, Duty Officers provided each staff member with an activity survey at the start of his or her shift. All staff, both sworn and civilian, were required to record the details of any alcohol-related task they undertook during that shift; the total time they spent on this task; and their personal details (including rank). Shift Supervisors or Duty Officers were responsible for collecting the surveys at the end of each shift and Local Area Commanders were asked to sign off on all sheets before they were returned to project staff. To oversee data collection and quality, Bureau of Crime Statistics and Research (BOCSAR) staff were also present in each LAC for the initial two days of the data collection. At least one staff member from each LAC was appointed by Commanders to oversee the entire collection for the remaining six days. This staff member was also responsible for comparing the surveys received with the roster for each shift and to encourage some LAC staff who did not return survey forms to complete and return them during their next shift.

All surveys completed in the *Greater* and *Inner Metropolitan Regions*, as well as most in the Southern and Northern Regions, were collected at the completion of the survey period by BOCSAR staff. Some surveys, however, were posted due to their distance from Sydney. At the conclusion of the data collection phase, information regarding personnel costs (including overtime payments) was sought from the Human Resources section of the NSW Police Force.

Working definition of 'alcohol-related activity'

A distinction was drawn in the survey between police activities that are reactive and those that are proactive in nature. Reactive activities are those tasks undertaken by police in response to a specific event or crime incident, while proactive activities are those undertaken by police to prevent criminal activity or enhance public safety. The following definitions were provided to participating police officers in their training sessions (and training manuals).

For reactive tasks, 'alcohol-related' activities were classified as either:

1) Any incidents where either the victim and/or the person of interest (POI) had consumed alcohol prior to the event. This includes incidents where the victim reports that the POI had been drinking. In these instances, it does not matter whether alcohol was a 'cause' of the incident; one simply needed to determine whether the individuals involved had consumed any alcohol.

   or

2) Any breach of the liquor laws (i.e. the *Liquor Act 1982* and *Registered Clubs Act 1976*) including:

   • breaches by licensees;

   • any liquor offence committed by persons under the age of 18;

   • any noise or public disorder complaint associated with a licensed premises; and

   • any refusal by a person to quit a licensed premises upon police directions.

Proactive alcohol-related tasks, by contrast, were defined as any activities undertaken by police aimed at preventing the occurrence of alcohol-related harm or disorder. Included is this category were:

- attendance at Liquor Accord meetings;
- attendance at other community meetings related to the use or misuse of alcohol;
- routine patrols of licensed premises;
- covert operations to detect licensing breaches;
- audits of licensed premises;
- Random Breath Testing (RBT) operations;
- attendance at alcohol-related seminars or training days; and
- providing advice on alcohol-related problems in the local area to other officers, senior management or outside agencies.

Participating police were also asked to include all time spent dealing with administrative duties related to alcohol, including the completion of computer and paper-related tasks associated with alcohol-related incidents or proactive duties. During training police were given a series of scenarios (reproduced in Appendix C) and asked to answer whether or not the incidents would be included on the activity survey. Finally, police were further instructed that, if in doubt, they should record details of their activity on the survey form and project staff would clarify whether or not the incident met criteria for being related to alcohol.

Response rate

The overall response rate was 75.7 per cent (defined as the percentage of survey forms returned by personnel during target shifts). However the response rate varied across each of the two data collection waves – the first wave had a total response rate of 80.7 per cent, whereas the second wave had a total response rate of 70.6 per cent.

The response rate also varied across each of the 18 participating LACs, but for the vast majority of LACs it was at, or above, 75 per cent. In two of the LACs surveyed, the response rate was below 50 per cent. However, as seen in Table 2.1 below, these LACs were in two different regions.

Table 2.1. Response Rates for each participating LAC, by NSW Police Force Region

Region	LAC1	LAC2	LAC3	LAC4	LAC5	Mean
Inner Metro	77.3	45.0	92.0	90.6	80.9	**77.16**
Greater Metro	67.4	76.0	79.5	86.2	69.1	**75.64**
Northern	66.3	39.4	86.3			**64.00**
Western	93.1	79.4				**86.25**
Southern	89.1	69.5				**79.30**
VIKINGS	69.5					**69.50**

Of the 13,787 survey forms which were returned at the end of each shift by sworn officers, 62.5 per cent did not have any alcohol-related activities recorded on them. While this suggests there may have been some degree of under-reporting of alcohol-related activity, these tended to involve periods other research has shown to have lower levels of alcohol-related problems (e.g. Briscoe & Donnelly 2001). By contrast, only 41 per cent of survey forms completed during predominately night-shift periods had no alcohol-related activities recorded on them, and this was even smaller (33 per cent) for night-shifts during weekend periods.

The final point of note relates to survey eligibility rather than to the achieved response rate. Personnel who were not rostered on during a given shift (either on a leave or rest day) were not deemed to be eligible for the survey for that particular shift. It is worth noting that an officer was not rostered on and therefore not an eligible survey respondent across 57.5 per cent of all the potential person-shift units.

Analysis of activity survey data

The percentage of police time which involved alcohol-related activities was calculated in terms of person-shift hours. That is, the total number of hours recorded in the survey as alcohol-related served as the numerator, while the total shift hours recorded in the police rosters served as the denominator.[1] These percentages were broken down in terms of police region, day of week and time of day. As the majority of shifts were 12 hours long, those shifts which commenced prior to 1 pm were defined as the day-shift period, while those which commenced after 1 pm were defined as the night-shift period.

For all but one LAC, each survey period commenced at 6 am on the Monday of a given week and concluded at 6 am on the Tuesday of the following week. It was originally planned to use the first Monday as a pilot day on the assumption that the response rate may be relatively poor. However, the response rates were actually found to be very good on that day. Rather than lose the information gathered on the first Monday, it was decided to use the data obtained from both Mondays, but to weight these data down by a factor of two when summing the relevant number of alcohol-related hours and corresponding shift-hours. For the remaining LAC, only seven days of survey data were provided during their second wave, so this weighting down of the Monday data was not required. While activity survey data were also collected from 'unsworn' personnel, these data were not analysed here because the sampling frame, on which the selection of LACs was based, only contained information about the number of 'sworn' officers in each LAC.

Costing methodology

The methodology used to estimate the cost of police time spent dealing with alcohol-related events was developed in consultation with a health economist from the National Drug and Alcohol Research Centre. Quantifying the proportion of police time spent on alcohol-related tasks required two sets of data: (1) the total time spent on alcohol-related tasks by officers as recorded during the survey weeks; and (2) the total time worked by officers as detailed in the rosters provided by each LAC at the completion of the survey periods. The resulting alcohol-related time estimates were then combined with NSW Police salary data. The following steps were involved in the costing estimation.

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[1] The number of total person-shift hours and alcohol-related person-shift hours were rounded to the nearest integer value in all tables. On some occasions this resulted in a very small degree of rounding inconsistency when summing across categories in different tables.

Step 1

An adjusted estimate of alcohol-related time for each LAC was calculated by assuming that a given per cent of 'non-responders' time was in fact alcohol-related. For each LAC this was done using information from those officers who did respond. Non-responding officers were stratified in terms of survey wave (first and second), time of day their shift commenced (before versus after 1 pm) and time of week (Monday through to Thursday versus Friday through to Sunday). The estimates of alcohol-related time derived from the 'responders' in each of these eight strata were applied to 'non-responders' to give their estimated alcohol-related time. The adjusted alcohol-related times for each LAC over the two survey periods were then calculated by summing across 'responders' and 'non-responders'.

Step 2

The total number of adjusted alcohol-related hours for each rank were multiplied by the hourly rate for that rank to derive the salary costs which were alcohol-related. The hourly rate used for each rank was averaged across all increment levels and included relevant on-costs (incl. leave loadings, superannuation, payroll tax & workers compensation). This multiplication was done separately for shifts starting before and after 1pm to allow for any penalty rates to be applied.

Penalty rates[2] from the five sections were divided up across the 24 hour period (as detailed below with rates) to an average of two periods to fit with our before/after 1pm division. Rates used were as follows: $1.99 for those people starting after 12 am, the large majority of whom start at 6am, and an average of $2.99 and $3.49 for those people who start after 1 pm, the majority of whom start at 4 pm or 6 pm (See Appendix D for a full list and breakdown of penalty rates for 2004/05). These hourly rates were added to the salary hourly rates and multiplied by the total number of hours worked by each rank. This figure was then summed across all officers to provide a total alcohol-related salary cost to the LAC for each round.

Step 3

An annual alcohol-related salary cost for each LAC was estimated by summing the first and second wave weekly alcohol-related salary costs and then multiplying this by 26.

Step 4

An annual alcohol-related salary cost for each of the five police regions was obtained by adding together the estimated annual salary costs across all participating LACs within each region (the sampling proportional to LAC size justifies doing this) and then multiplying by an inflation factor. This inflation factor was calculated as the inverse of the proportion of all officers in the whole region who work in the participating survey LACs.

Step 5

Finally, the total alcohol-related salary cost for NSW was derived as a sum of the five estimated region annual costs.

Because alcohol-related activities have been coded as being either proactive or reactive, it is also possible to provide a breakdown of total costs in terms of these sub-types. Further, costs can be ascertained for 'associated' activities such as the paperwork, court brief preparation or custody supervision which arise after having responded to a reactive alcohol-related incident.

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2 Note that other allowances, such as remote area allowances, special duties allowances, clothing allowances and meal allowances, are not included in these calculations.

Chapter three: Results

The results are presented, firstly, in terms of the time and, secondly, in terms of the effective salary-related costs of policing alcohol-related crime in NSW. The time spent by NSW Police has been broken down by various factors in order to better understand how resources are consumed. These factors include: location (region), time of day and week, duties performed by officers and alcohol-related activity type. The salary costs associated with managing alcohol-related crime were also broken down by whether the activities were reactive, proactive or associated.

Overall alcohol-related time

Across both waves of the survey, officers who responded to the activity survey worked a total of 130,300 person-shift hours. Of these person-shift hours, 10,670 (8.2%) were recorded as involving an alcohol-related activity. The percentage alcohol-related time was higher in the first survey period (9.1%) than it was in the second survey period (7.1%).

The finding that fewer alcohol-related activities occurred in the second sampling period was validated by an analysis of the number of COPS incidents recorded as alcohol-related in the participating LACS for each survey period. This showed that, in the first survey wave, 549 alcohol-related incidents (for the major BOCSAR crime categories) were recorded, while in the second, only 462 alcohol-related incidents were recorded. This finding suggests that the lower percentage of alcohol-related time recorded in the second wave of the activity survey was not an artefact of under-reporting compared with the first wave.

Police regions

Table 3.1 shows estimates of alcohol-related activity time for each of the five police regions in NSW, as well as for the *VIKINGS Unit*. In the interest of aiding interpretation for readers in other Australian jurisdictions, a brief description of these regions is provided. The *Inner* and *Greater Metropolitan Regions* should basically be viewed as the overall Sydney area per se. What was called the *Inner Metropolitan Region* also included outlying suburban areas along the coastline and should not be viewed as 'inner-city' as such. Each of the *Northern* and *Southern Regions* mainly comprise the relatively 'accessible' coastal regional areas, 'accessibility' being defined as having relatively good access to basic services such as hospitals, shopping centres and other services (GISCA – The National Centre for Social Applications in GIS 2004). The Western Region comprises more remote, less accessible regional areas.

Table 3.1 Alcohol-related time by police region

	Total person - shift hours	Alcohol-related person-shift hours	% Alcohol-related activity
Inner Metropolitan	41,526	3,112	7.5
Greater Metropolitan	36,657	1,974	5.4
Northern	22,012	1,822	8.3
Southern	16,172	1,621	10.0
Western	11,082	1,611	14.5
VIKINGS	2,850	529	18.6

Alcohol-related activities were proportionally higher in regional areas than in metropolitan areas. LACs from the more remote *Western Region* had the highest percentage of recorded alcohol-related activities among the regions with almost 15 per cent of shift time recorded as such. *Southern Region* LACs had 10 per cent of shift-time recorded as alcohol-related, while *Northern Region* LACs had over eight per cent. LACs in both Metropolitan Regions had much lower percentages, with the *Inner Metropolitan* LACs having around seven per cent recorded as alcohol-related and the *Greater Metropolitan* LACs only around five per cent. The *VIKINGS Unit* had almost one-fifth of shift-time recorded as involving an alcohol-related activity.

Temporal factors

Table 3.2 shows the percentage of alcohol-related time as a function of both day of week and time of day. Consistent with previous research (e.g. Briscoe & Donnelly 2001), police spent more of their time dealing with alcohol-related problems during weekend periods and at night. Fridays and Saturdays had the highest percentage of alcohol-related time recorded (between 10 and 13 per cent). Each of the other days of the week had between seven to eight per cent of police time recorded as alcohol-related.

Time of day was also examined by dividing the shift commencement times into those which began before versus after 1 pm. The former predominantly captures the time of those officers who worked day shifts, while the latter; those who worked night-shifts. As can be seen in Table 3.2, around two-thirds of police shift times involved day shifts. Among those officers who commenced their shifts before 1 pm, 6.2 per cent of shift-time involved alcohol-related activities. This was considerably less than the night-shift group, for whom 12 per cent of time was alcohol-related.

Table 3.2 Alcohol-related time by temporal factors (day of week and time of day)

	Total person-shift hours	Alcohol-related person-shift hours	% Alcohol-related activity
Day of week			
Monday*	17,890	1,194	**6.7**
Tuesday	23,434	1,519	**6.5**
Wednesday	23,824	1,737	**7.3**
Thursday	23,238	1,767	**7.6**
Friday	19,189	2,007	**10.5**
Saturday	12,650	1,691	**13.4**
Sunday	10,075	756	7.5
Shift commences			
Before 1 pm	87,176	5,426	**6.2**
After 1 pm	43,123	5,244	**12.2**

*Note: for all but one LAC there was an eight day survey period comprising two Mondays. The results for Mondays in these LACs were weighted down by a factor of 50 per cent

Table 3.3 also shows an interaction between day of week and time of day for alcohol-related activities. Those officers who commenced their shifts before 1 pm on Fridays and Saturdays recorded similar percentages of alcohol-related time, as did those for the same time of day during the other five days of the week (around six to seven per cent). Those officers who commenced their shifts after 1 pm on Fridays and Saturdays (and were therefore more likely to be rostered on during the night-time periods for these days) recorded greater involvement in alcohol-related activities. Around 17 to 18 per cent of this group's time involved an alcohol-related activity. The 'night-shift' group on Thursdays also showed a relatively high level of alcohol-related activity, with around 11.5 per cent of officers' time in this group being alcohol-related.

Table 3.3 Alcohol-related time by temporal factors (day of week and time of day combined)

	Total person-shift hours	Alcohol-related person-shift hours	% Alcohol-related activity
Day of week & Shift commences			
Monday*			
Before 1 pm	13,127	804	**6.1**
After 1 pm	4,763	390	**8.2**
Tuesday			
Before 1 pm	18,227	1,094	**6.0**
After 1 pm	5,208	425	**8.2**
Wednesday			
Before 1 pm	18,374	1,265	**6.9**
After 1 pm	5,450	471	**8.6**
Thursday			
Before 1 pm	16,078	948	**5.9**
After 1 pm	7,161	819	**11.4**
Friday			
Before 1 pm	10,887	610	**5.6**
After 1 pm	8,302	1,397	**16.8**
Saturday			
Before 1 pm	5,331	388	**7.3**
After 1 pm	7,319	1,302	**17.8**
Sunday			
Before 1 pm	5,153	317	**6.2**
After 1 pm	4,922	439	**8.9**

*Note: for all but one LAC there was an eight day survey period comprising two Mondays. The results for Mondays in these LACs were weighted down by a factor of 50 per cent

Alcohol-related time by type of duties

Table 3.4 shows the percentage of shift time involved in alcohol-related activities, broken down by the type of duty on which police officers were rostered. These duties have been presented in descending order of the per cent alcohol-related. Perhaps unsurprisingly, officers involved in licensing duties recorded the highest percentage, with almost half their time being alcohol-related. Officers involved in custody duties spent 14.3 per cent of their time dealing with alcohol-related offenders or suspects, while highway patrol officers spent over 10 per cent of their time involved in alcohol-related activities. Officers who were tasked to general duties recorded 8.4 per cent of their time as alcohol-related. In each of the other categories of duty, the percentage of alcohol-related time was below the overall average of eight per cent.

Table 3.4 Alcohol-related time by category of duty

	Total person-shift hours	Alcohol-related person-shift hours	% Alcohol-related activity
Licensing	1,112	545	49.0
Custody	1,140	165	14.5
Highway Patrol	10,266	1,098	10.7
General Duties	69,636	6,068	8.7
Crime Management	8,177	639	7.8
User Pay	367	26	7.1
Strike Force	160	11	6.9
Criminal Investigation	17,679	1,206	6.8
Management	7,695	450	5.8
Administration	817	43	5.3
TAG	5,750	275	4.8
Transit	2,508	85	3.4
Education	864	23	2.7
Traffic	309	8	2.6
Other	1,432	26	1.8
Anti-theft	2,388	27	1.1

Profile of alcohol-related activities and associated times

Table 3.5 provides a breakdown of the total alcohol-related activity time by the specific activity type. For these analyses unweighted data were used (i.e. each Monday in the eight-day survey period was not weighted down to 0.5) as the focus here was on the profile of recorded alcohol-related activities themselves rather than on their temporal distribution. In Table 3.5, each activity type has been flagged so as to denote whether it is predominately proactive (P), reactive (R) or associated (A) in nature.

Responding to assault incidents was the most frequently recorded activity type, comprising almost 15 per cent of the total alcohol-related activity time recorded. Within this activity type, domestic violence incidents accounted for 6.4 per cent of the alcohol-related activity time, while other assaults accounted for 8.5 per cent.

Table 3.5 Breakdown of the type of alcohol-related activities recorded

Activity type	% of alcohol-related activity time
Assault incidents *(R)*	**14.9**
(general assaults)	(8.5)
(domestic violence)	(6.4)
Random breath testing *(P)*	**14.4**
Paperwork *(A)*	**13.9**
Monitoring intoxicated persons *(R & P)*	4.7
Custody *(A)*	4.4
Court *(A)*	4.0
Licensing *(P)*	3.9
Walk-through licensed premises *(P)*	3.6
Patrols *(P)*	3.3
Traffic incidents *(R)*	3.3
Theft-related incidents *(R)*	2.6
Meetings *(P)*	1.9
Public nuisance incidents *(R)*	1.5
Murder incidents *(R & A)*	1.4
Public events *(P)*	1.2
Liquor breaches (minors & patrons) *(R)*	1.1
Malicious damage to property incidents *(R)*	1.0
Miscellaneous	19.1
TOTAL	**100.2**

(P) = proactive activities; (R) = reactive activities; (A)=associated activities

Random breath testing (RBT) had the next highest percentage of alcohol-related time, with this proactive task having accounted for 14.4 per cent of this time. The third highest activity in terms of alcohol-related time involved paperwork arising from dealing with various alcohol-related incidents and other matters. This associated activity accounted for almost 14 per cent of the alcohol-related activity time recorded.

Almost five per cent of the alcohol-related time was spent monitoring intoxicated persons. The next most frequent activity types included: custody (4.4 per cent), court preparation/appearances (4.0 per cent), licensing duties (3.9 per cent), walk-throughs of licensed premises (3.6 per cent) and patrols (3.3 per cent). Traffic incidents accounted for 3.3 per cent of alcohol-related activity time and theft-related incidents accounted for 2.6 per cent.

As can also be seen in Table 3.5, there was a miscellaneous category which accounted for around 19 per cent of all alcohol-related time recorded. This category was made up of several sub-categories. Around 15 per cent of the alcohol-related time in this category involved specifically coded activities, such as move-ons, drug detection at licensed premises exercises, noise complaints, street offences and mental health-related issues.

The remainder of the miscellaneous category either comprised activities which did not readily fit into any of the other categories, or activities where the officer had recorded the shift time spent engaged in alcohol-related activities on the survey form but did not detail the nature of this activity.

Average time spent dealing with incidents/activities

It is of interest to note how long it takes police to deal with various alcohol-related activities. Table 3.6 shows the mean and median time police officers spent responding to different incident types. In order to calculate these mean times, it was necessary to take into account the number of officers who responded to a given incident. This can only be done for incidents in which a COPS event number has been recorded (around 70% of the reactive incidents reported). The total time spent dealing with a given incident was derived by summing across the number of hours recorded by each attending officer.

Table 3.6 Mean and median person-hours responding to alcohol-related incident types (reactive)

	Mean hours	Standard error	Median hours	Inter-quartile range
Assault	2.22	0.13	1.08	0.50 – 2.83
Public nuisance (offensive behaviour)	1.62	0.22	1.00	0.50 – 2.02
Malicious damage	1.53	0.19	1.13	0.41 – 2.17
Liquor breaches (patrons/minors)	1.63	0.35	0.83	0.50 – 2.00
Theft-related	1.89	0.27	1.00	0.48 – 2.10
Traffic	1.62	0.19	1.00	0.37 – 2.00

It can be seen from Table 3.6 that, on average, 2.2 person-hours were spent dealing with each assault incident; 1.9 person-hours with a theft-related incident; 1.6 person-hours with each public nuisance/liquor breach/traffic-related incident; and 1.5 person-hours for each malicious damage to property incident. It should be noted, however, that the median number of person-hours spent dealing with these reactive incident-related activities was only about one hour per incident. The upper bound of the inter-quartile range column in Table 3.6 shows the number of hours it took to deal with each incident for those at the 75th percentile. This indicates that, for incidents such as assault, there was a much longer tail to the distribution of the time it took for police to respond, compared with the other incident types. In short, a small number of incidents which took a very long amount of time contributed to the higher mean.

Table 3.7 shows the mean and median time taken by individual officers to engage in the most common proactive alcohol-related activities during a given shift. It is worth noting that the unit of analysis here is necessarily different to that in Table 3.6, as the focus in the present case is on each individual officer's time rather than on the total person-time spent responding to a specific incident. Licensing-related proactive activities took 3.6 hours on average during shifts in which that activity occurred. Proactive patrols took 2.1 hours on average, RBT patrols 1.4 hours and alcohol-related meetings 1.1 hours. Walk-throughs of licensed premises tended to be shorter taking 0.9 of an hour on average. The median number of hours for each of these proactive activities was again substantially shorter; however the rank ordering of activity times tended to be similar.

Table 3.7 Mean and median number of hours for individual officers engaged in a given proactive activity type during shifts which involved that activity

	Mean hours	Standard error	Median hours	Inter-quartile range
RBT	**1.36**	0.05	**1.00**	0.50 – 1.58
Licensing	**3.60**	0.32	**2.00**	0.54 – 7.00
Walk-throughs	**0.86**	0.06	**0.42**	0.25 – 0.83
Meetings	**1.09**	0.09	**0.50**	0.33 – 1.25
Patrols	**2.08**	0.19	**1.00**	0.48 – 2.50

Table 3.8 shows the mean and median times for the major associated alcohol-related activities. Court-related work arising from alcohol-related problems took an average of four hours during shifts in which this activity occurred. Custody work with alcohol-related offenders took 3.3 hours on average, while general paperwork resulting from alcohol-related incidents or activities took an average of 1.7 hours. Paperwork specific to dealing with licensed premises took longer, being 3.4 hours on average.

Table 3.8 Mean and median number of hours for individual officers engaged in a given associated activity type during shifts which involved that activity

	Mean hours	Standard error	Median hours	Inter-quartile range
Court-related	**4.02**	0.27	**3.50**	1.50 – 6.00
Custody	**3.32**	0.22	**2.70**	1.17 – 4.50
Paperwork (general)	**1.65**	0.07	**1.00**	0.50 – 2.00
Paperwork (licensed premises)	**3.36**	0.32	**2.00**	0.67 – 5.50

Annual salary costs of time spent involved in alcohol-related activities

The estimated costs of alcohol-related enforcement are shown in Table 3.9, broken down by police region, as well as for NSW overall.

Table 3.9 Annual salary costs of alcohol-related police time in NSW (2005)

REGION	Estimated annual alcohol-related salary costs ($)
Inner Metropolitan	12,879,539
Greater Metropolitan	9,175,133
Northern	9,268,563
Southern	7,915,546
Western	9,307,424
VIKINGS	602,538
TOTAL	**49,148,743**

The combined total alcohol-related activity costs for the five fixed regions totalled $48,546,205. Including the costs for the *VIKINGS Unit* brings the total annual alcohol-related salary costs to just under $50 million. Given that the average annual salary costs for constables in the NSW Police Force is just over $50,000 (including on-costs), this figure of $50 million in alcohol-related salary costs is equivalent to the total annual salaries of around 1,000 constables in NSW.

Costs were highest in the *Inner Metropolitan Region* of NSW (approximately $13 million), even though this region recorded the second lowest percentage of alcohol-related police time. This is primarily due to the larger number of staff working in this Region. It is of note that costs in the sparsely populated *Western Region* are similar in magnitude to those in the more densely populated *Greater Metropolitan Region*. This, without doubt, reflects the higher incidence of alcohol-related problems in the *Western Region*.

Table 3.10 provides a breakdown of alcohol-related salary costs by proactive, reactive and associated tasks. These are shown for each region as well as for NSW as a whole. It should be noted that, because some activities recorded in our survey were not able to be categorised as proactive, reactive or associated in nature, the combined costs for each region shown in Table 3.10 do not sum to the overall costs shown in Table 3.9.

Table 3.10 Salary costs of alcohol-related police time in NSW broken down by proactive, reactive and associated activities (2005)

REGION	Proactive costs ($)	Reactive costs ($)	Associated costs ($)
Inner Metropolitan	4,261,382	5,057,874	3,451,530
Greater Metropolitan	2,853,056	3,976,221	2,291,055
Northern	2,943,099	3,798,934	2,406,846
Southern	3,627,170	2,364,055	1,907,637
Western	2,780,231	2,781,157	3,644,104
VIKINGS	465,087	60,419	73,443
TOTAL	**16,930,025**	**18,038,660**	**13,774,615**

Tables 3.9 and 3.10 indicate that proactive activities accounted for just over one-third of the total (34.4%). Salary costs from police responding to specific alcohol-related crime incidents accounted for around 37 per cent of the total alcohol-related salary bill, whilst associated costs accounted for 28 per cent. Only around one per cent of the total estimated alcohol-related salary bill was unable to be classified as either proactive, reactive or associated.

There were some differences across the police regions in terms of the estimated percentage of alcohol-related salary expenditure which was proactive. In both Metropolitan Regions, the *Northern Region* and the *Western Region,* proactive costs accounted for between 30 and 33 per cent of the total. In the *Southern Region*, proactive costs were estimated at around 46 per cent of the total. For the special purpose *VIKINGS Unit*, proactive costs were estimated at around 77 per cent of the total alcohol-related salary bill. This is not surprising given that the whole purpose of this unit was to proactively target alcohol- and drug-related crime.

The estimates for associated costs are significant and highlight an advantage of activity surveys over incident-based recorded crime data. Over one-quarter of the estimated alcohol-related salary bill was accounted for by activities which flow from crime incidents. This suggests that successful alcohol-related crime prevention efforts would free up more police time than might be expected from a consideration of time spent directly responding to alcohol-related crime.

Chapter four: Applicability to other Australian jurisdictions

In theory it is possible to apply the findings from this NSW activity survey to estimate the salary costs of police time spent on alcohol-related crime in other Australian jurisdictions. The required approach is summarised in Equation 4.1 which contains three components: (1) a reactive alcohol-related incident component (RARI); (2) a proactive resource allocation component (PRA); and (3) an activity constants component (AC). Each of these components is described below.

Alcohol-related salary costs = RARI component + PRA component + AC component   (4.1)

Reactive alcohol-related incident component (RARI)

The RARI cost component captures the amount of salary expended in a given year responding to five main categories of alcohol-related crime. The five broad crime categories which comprise this component are: (a) assault; (b) offensive behaviour/offensive language (public nuisance); (c) malicious damage to property; (d) liquor law breaches (patrons and minors); and (e) theft-related offences. These specific offences were chosen because they account for almost 70 per cent of the major offence categories in NSW which are flagged by police as being alcohol-related (excluding traffic-related offences and drink driving). Alcohol-related traffic offences are also a candidate crime category for this component. Because there are complications in the way such incidents are recorded on the NSW COPS system, however, the time spent dealing with alcohol-related driving issues was instead captured in each of the other two components described below.

To be able to estimate this RARI cost component, other jurisdictions need to provide two types of information: (1) for each of the above five crime categories, the number of incidents which police responded to in a command (or commands) in a calendar year; and (2) the average hourly salary rate for sworn officers in that command. This information should then be combined with NSW data provided in Table 4.1 (on page 22), which includes the per cent of each incident type which is alcohol-related (derived from the *Linking Project* alcohol-related flag for the LACs in this study in 2005) and also the average number of hours police spend dealing with a given alcohol-related incident type (estimated from this activity survey).

The general form of this RARI component is provided in Equation 4.2 for a given calendar year for each of the five alcohol-related incident types:

Costs of alcohol-related incidents = (no. recorded incidents per year) x (the proportion of the incidents which are alcohol-related) x (average time spent dealing with incident type) x (average sworn officers hourly rate salary)   (4.2)

By way of illustration, to estimate the costs of alcohol-related assaults, other jurisdictions would:

(a)   Take the number of assaults which were recorded in the location(s) of interest.

(b)   Multiply these by the proportion likely to be alcohol-related (derived from the percentages shown in Table 4.1), in order to obtain the number of alcohol-related assaults.

(c)   Multiply these alcohol-related assaults by the NSW estimate of how long it takes on average to deal with an assault (ie. the mean time from Table 4.1), in order to obtain the number of person-hours spent dealing with alcohol-related assaults.

(d)   Multiply this number of person-hours by the average hourly salary rate to obtain the final estimated cost of dealing with alcohol-related assaults

This process should then be repeated for each of the other four incident types. The resulting five costs would then be summed to obtain the magnitude of the RARI cost component for a given year.

As presented in the results section of this report, the percentage of police time spent dealing with alcohol-related activities was found to vary by region. Given this, we have provided three different estimates (based on locality) of both the percentage of a given incident type (such as assault) which is likely to be alcohol-related and (where sufficient number of incidents occurred in a region in our activity survey) the average amount of time spent dealing with these alcohol-related incidents. The three broad location types for which such data are provided include: (1) metropolitan police commands; (2) regional police commands in accessible, mainly coastal, areas and (3) more remote regional police commands. The first was obtained by combining both activity survey and *Linking* data from both *Metropolitan Regions* (*Inner* and *Greater*). The second was obtained by combining data from the *Northern* and *Southern* Regions. Remote regional area data was obtained from the *Western Region* alone. These estimates are provided in Table 4.1 (on page 22), which will be discussed in more detail below, where a worked example is used to illustrate this approach.

Proactive resource allocation component (PRA)

The proactive resource allocation (PRA) component is simply a function of the number of person-hours in a year in which officers in a particular jurisdiction are rostered onto: (a) random breath testing; and/or (b) proactive licensing duties, such as walk-throughs of licensed premises, running liquor licensing accords and/or general administrative audits of licensed premises. To estimate this cost component *directly*, other jurisdictions would have to provide the following two types of information: (1) the number of person-hours engaged in each of the two types of proactive activity described above; and (2) the average hourly salary rate for sworn officers in that jurisdiction. For each proactive activity type, these two pieces of information must be multiplied together to obtain the annual cost of that particular activity. Summing the two activity costs (RBT and proactive licensing) would then provide the total PRA costs component for that jurisdiction.

If specific rostering data is not available in a given jurisdiction to enable this direct estimation approach, it is also possible to estimate the PRA costs component *indirectly*. In order to do this, other jurisdictions need to provide: (1) the total person-shift hours worked in a given command (or commands), excluding leave time; and (2) the average hourly salary rate for sworn officers. This information would then be combined with the NSW activity survey estimates of the proportion of total person-shift hours worked in a given year engaged in each of the two proactive activities. This data is provided in Table 4.1 for each of the three broad location types discussed above.

This indirect approach is implemented as follows, using proactive RBT activity as an example:

(a) Using jurisdiction-specific rostering data, calculate the total number of person shift-hours worked in a given calendar year. This should not include any hours officers are on leave.

(b) Multiply this total number of person-hours worked by the NSW activity survey estimate of the proportion of total time spent engaged in RBT (derived from the percentage shown in Table 4.1). This provides the total number of person-shift hours engaged in RBT.

(c) Multiply the number of RBT specific hours by the average hourly salary rate to obtain the costs of performing RBT.

This process would then be repeated for proactive licensing and the two activity costs summed to obtain the PRA costs component.

Table 4.1 NSW parameters to be applied to derive each cost component for other jurisdictions

Cost Component	Metropolitan areas	Regional accessible areas	Regional remote areas
Reactive alcohol-related incidents (RARI)			
Assaults:			
% alcohol-related	38%	45%	58%
mean hours per incident	2.4 hrs	2.0 hrs	2.5 hrs
median hours per incident	1.0 hrs	1.0 hrs	2.0 hrs
Offensive behaviour:			
% alcohol-related	62%	73%	69%
mean hours per incident	1.7 hrs	1.6 hrs	1.6 hrs #
median hours per incident	0.9 hrs	1.1 hrs	1.0 hrs #
Malicious damage:			
% alcohol-related	8%	12%	15%
mean hours per incident	1.9 hrs	1.2 hrs	1.5 hrs #
median hours per incident	1.5 hrs	1.0 hrs	1.1 hrs #
Liquor breaches (patrons/minors):			
% alcohol-related	100%	100%	100%
mean hours per incident	1.6 hrs #	1.6 hrs #	1.6 hrs #
median hours per incident	0.8 hrs #	0.8 hrs #	0.8 hrs #
Theft-related:			
% alcohol-related	3%	3%	5%
mean hours per incident	2.1 hrs	1.6 hrs	1.9 hrs #
median hours per incident	1.0 hrs	0.8 hrs	1.0 hrs #
Proactive resource allocation (PRA) (Indirect method)			
RBT:			
% total person-shift time	0.9%	1.8%	1.5%
Proactive licensing:			
% total person-shift time	0.6%	0.6%	1.8%
Activity constants (AC)			
Paperwork:			
% total person-shift time	0.9%	1.1%	2.1%
Court-related:			
% total person-shift time	0.2%	0.2%	1.6%
Custody:			
% total person-shift time	0.3%	0.4%	0.9%
Monitoring intoxicated persons:			
% total person-shift time	0.3%	0.4%	0.7%
Traffic-related:			
% total person-shift time	0.2%	0.4%	0.4%
Miscellaneous activities:			
% total person-shift time	1.6%	2.3%	2.0%
TOTAL AC:			
% total person-shift time	**3.5%**	**4.8%**	**7.7%**

estimated from entire sample due to small number of incidents in a specific region

Short-term cost of police time spent on alcohol-related crime in NSW

Activity constants component (AC)

In order to estimate the AC component, other jurisdictions need to provide: (1) the total person-shift hours worked in a given command (or commands), excluding leave time; and (2) the average hourly salary rate for sworn officers. This information is then combined with the NSW Total AC proportion provided in the final row of Table 4.1 to obtain the estimated costs of police time spent engaged in a range of activities.

This AC component would be estimated as follows:

(a) Using jurisdiction specific rostering data, calculate the total number of person-shift hours worked in a given calendar year. This should not include any hours officers were on leave.

(b) Multiply this total number of person-hours worked by the NSW activity survey estimate of the proportion of total time engaged in the range of activities summarised in the final row of Table 4.1 (Total AC). This provides the total number of person-shift hours engaged in these various activities.

(c) Multiply the number of Total AC-specific hours by the average hourly salary rate to obtain the costs of these various activities.

This AC cost estimation approach is particularly useful for factoring in associative activities such as alcohol-related paperwork, court brief preparation and custody supervision time, which are not available from any other source, such as recorded crime data or rostering data. It is also a useful means by which to incorporate a range of reactive activities which could not be readily dealt with using the RARI component approach outlined above. For example, the monitoring of intoxicated persons is not necessarily something which gets recorded as a crime incident as such, making the application of the RARI approach infeasible. Given that traffic-related offences cannot be incorporated into the RARI component (due to complications with the COPS recording system), they are incorporated in the AC component. As outlined above, other jurisdictions need only apply the Total AC proportion in Table 4.1. However, to make it clearer what activities this total AC proportion derives from, individual fractions for each activity type are also provided in Table 4.1

Worked example of this approach

In this example we provide a demonstration of how the NSW activity survey results would be applied to estimate annual alcohol-related salary costs in a hypothetical metropolitan police command in a jurisdiction other than NSW. Given that our example involves a metropolitan police command, the NSW parameters in the first column in Table 4.1 are applied. This command would need to provide the data items shown in the first column of Table 4.2 below. The second column of Table 4.2 displays hypothetical values for each of these. Each of the three components would be calculated using the data contained in each of Tables 4.1 and 4.2. The procedure is shown beneath Table 4.2.

Table 4.2 Jurisdiction-specific information required for the applicability formulae, including hypothetical values for the worked example

Jurisdiction-specific information required	Hypothetical value
RARI component	
No. assault incidents per year	600
No. offensive behaviour incidents per year	50
No. malicious damage to property incidents per year	1,000
No. of liquor breaches by patrons/minors per year	60
No. theft-related incidents per year	3,000
Average officer's hourly salary rate	$33
PRA component (direct method)	
No. person-hours rostered on to RBT per year	3,000
No. person-hours rostered on to proactive licensing per year	1,600
Average officer's hourly salary rate	$33
PRA component (indirect method)	
Total person-shift hours worked per year (excluding leave time)	320,000
Average officer's hourly salary rate	$33
AC component	
Total person shift hours worked per year (excluding leave time)	320,000
Average officer's hourly salary rate	$33

RARI component

Costs of alcohol-related assaults = 600 (incidents) x 0.38 (proportion alcohol-related, derived from the percentage in Table 4.1) x 2.4 (mean person-hours per incident) x 33 (average hourly rate) = $18,057.60

Costs of alcohol-related offensive behaviour = 50 x 0.62 x 1.7 x 33 = $1,739.10

Costs of alcohol-related malicious damage = 1,000 x 0.08 x 1.9 x 33 = $5,016.00

Costs of liquor breaches (patrons & minors) = 60 x 1.0 x 1.6 x 33 = $3,168.00

Costs of alcohol-related theft = 3,000 x 0.03 x 2.1 x 33 = $6,237.00

Total RARI costs = $34,217.70

PRA component (direct method)

RBT costs = 3,000 (person-hours rostered on) x 33 (average hourly rate) = $ 99,000

Proactive licensing costs = 1,600 x 33 = $52,800

Total PRA costs = $151,800

AC component

Total AC costs = 320,000 (total person-shift hours worked) x 0.035 (proportion derived from % AC in Table 4.1) x 33 (average hourly rate)

Total AC costs = $369,600

Total alcohol-related salary costs = RARI + PRA + AC = $555,617.70

From the application of these formulae, it is estimated that this hypothetical metropolitan command would effectively spend almost $556,000 of its salary bill on officers involved in alcohol-related activities. There is scope built into this approach for providing some alternative cost estimates as well. Firstly, it should be noted that in the estimation of the RARI component, the estimated *mean* times for dealing with each of the five incident types were used. It would be possible to apply the *median* times as well, which are generally substantially lower than the mean estimates and would, therefore, result in a lower estimated RARI component cost. These have also been provided in Table 4.1 in case other jurisdictions were interested in comparing the impact this has on the total estimated costs. However, we would recommend using the mean because the median can underestimate potential costs (it removes any effect of outliers which can be important drivers of total costs).

It is possible to apply the *indirect* method of estimation for the PRA component. This should be done in circumstances where it is not possible to directly estimate how many person-hours officers had been rostered on to each proactive duty. Applying data from Tables 4.1 and 4.2, PRA would be estimated indirectly as follows:

RBT costs = 320,000 (total person-shift hours worked) x 0.009 (proportion derived from % total person-shift time in Table 4.1) x 33 (average hourly rate) = $95,040

Proactive licensing costs = 320,000 x 0.006 x 33 = $63,360

Total PRA costs = $158,400

This would result in an alternative total estimated salary cost of $562,217.70, which is not too dissimilar from the estimate obtained using the direct method PRA component outlined above.

Chapter five: Discussion

This study has provided the first estimate, from a representative sample of police commands in an Australian jurisdiction, of the actual time police officers spend involved in alcohol-related policing activity. This was achieved by conducting two eight-day activity surveys across one in five of the Local Area Commands (LACs) in NSW, as well as the *VIKINGS Unit*. The survey provided information about the number of hours police spend involved in alcohol-related activities, as well as the nature of such activities. The timing of these surveys was structured so as to control for seasonal factors across each of the five police regions. Information was also extracted from each participating LAC's roster in order to calculate the total shift hours worked. This information enabled estimates of the per cent of alcohol-related time to be derived. Salary data were combined with police time data to obtain an estimate of the cost of alcohol-related activities undertaken by police officers.

Overall, about eight per cent of police time is spent on alcohol-related activity in NSW. This may appear low given evidence that over two-thirds of assault and street incidents have been shown to be related to the consumption of alcohol (Ireland & Thommeny 1993; Wiggers et al. 2004). It is important to distinguish, however, between the frequency with which police attend particular crime incidents and the actual time a police officer spends engaged in various activities during a shift. While over half of assault incidents may involve alcohol, a given officer may only spend a small amount of their working day dealing with such incidents.

The investigation found that the amount of time police officers spent engaged in alcohol-related activities varied in terms of a number of factors which are known to be associated with the incidence of alcohol-related problems. Firstly, there were clear regional effects. LACs from accessible regional areas (e.g. *Northern* and *Southern Regions*) had much higher percentages of alcohol-related activity recorded than did those from Metropolitan LACs, while LACs from the more remote *Western Region* had even higher levels. This concurs with data from other Australian studies showing greater alcohol-related problems in such regional areas (Briscoe & Donnelly 2001; Gray & Chikritzhs 2000). Secondly, there were clear temporal effects. Alcohol-related time was greater during weekend periods and also during shifts that involve night-time periods. Friday and Saturday nights were particularly high, which is not surprising as these are periods where alcohol-related involvement in crime is elevated (Briscoe & Donnelly 2001; Ireland & Thommeny 1993). It was also found that the duties police officers were assigned to were predictive of the amount of time they spent dealing with alcohol-related problems. Perhaps unsurprisingly, licensing officers spent almost half of their time performing alcohol-related activities. Custody officers spent 15 per cent of their time in such activities, while Highway Patrol officers spent around 10 per cent of their shift time on alcohol-related problems. These consistent temporal and regional patterns suggest that the activity survey was reliably measuring police officers' involvement in actual alcohol-related activities.

The results also provide useful information about the profile of alcohol-related police activities. Almost 15 per cent of all recorded alcohol-related police activity involved dealing with assault incidents. Of these, almost half were domestic violence-related, consistent with recent evidence highlighting alcohol as an associated factor for this crime type (People 2005). The activity survey also revealed important information about alcohol-related activities which consume police officers' time but which are not recorded on systems such as the COPS database. For example, it was found that around 14 per cent of alcohol-related activity involved paperwork, while four per cent involved court-related work arising from alcohol-related incidents.

The time spent on proactive measures to prevent alcohol-related problems was also able to be captured. Random breath testing was found to account for over 14 per cent of the total alcohol-related activity time. Given existing research showing that random breath testing is an effective strategy for deterring drink driving, the substantial amount of alcohol-related activity time engaged in this proactive task by NSW police is clearly justified (Briscoe 2004; Mann et al. 2003; Yu, Evans & Clark 2006).

Another important insight gained from this study concerns the finding that alcohol-related police time (and associated costs) are partly a function of the shift arrangements across LACs. Over two-thirds of the shifts commenced before 1 pm, meaning that the majority of officers were rostered on during the day, when alcohol problems are not as prevalent. Whilst this shift arrangement may be designed to accommodate the need for police to respond to all crime, not just alcohol-related events, it necessarily means that the shift arrangement will, to some extent, have contributed to the relatively low estimate of the percentage of alcohol-related time across the whole survey sample.

The present study also provides some estimate of the costs of dealing with alcohol-related crime. It was estimated that the total salary bill across the 80 LACs in NSW effectively spent addressing alcohol-related problems was of the order of $50 million per annum. Activities arising from reactive policing and the activity that flows from it were estimated to cost almost $32 million per annum. Proactive policing activity was estimated to cost around $17 million per annum; that is, around one-third of total alcohol-related salary costs.

As with any research, there are some important limitations to the current investigation which need to be acknowledged. The costing estimates provided here relate to only one component of the total costs to police of dealing with alcohol-problems, namely salary-related costs. It was beyond the scope of this study to quantify other alcohol-related costs incurred by the NSW Police Force, such as transport-related costs (petrol, depreciation on vehicles) or the costs of special purpose equipment, such as breath-testing devices.

There are broader limitations to the current investigation in terms of quantifying the costs of alcohol misuse. The costing estimates generated in this study only cover alcohol-related problems in NSW that come to the attention of police. They do not extend to the costs associated with the justice system (e.g. incarceration, court resources) or costs to society (e.g. disease, injury and lost productivity). Nevertheless, the current investigation does help fill an important research gap. It provides a methodology and baseline data that can be used in future research to assess trends in alcohol-related harms to society.

It is worth noting that in their investigation, Collins and Lapsley (2002) estimated that throughout Australia, alcohol-related crime costs police services $648 million per annum. While this is a national estimate, our NSW salary-based estimate would undoubtedly have fallen short of the NSW component of the Collins and Lapsley (2002) estimate, had they been able to provide jurisdiction-specific cost breakdowns. There are a number of reasons for this discrepancy. Collins and Lapsley (2002) applied aetiological fractions to the total national police expenditure bill. This total bill would have included substantial salary payments for recreational, sick and other leave. Our study, by contrast, only costed the alcohol component of the salary for officers who were rostered on duty and must therefore be substantially less. Also, Collins and Lapsley (2002) used custody survey and police detainee data to derive aetiological fractions for the proportion of all crime which is alcohol-related. As argued previously, the profile of crime incidents is not a direct measure of the actual time police spend either responding to or attempting to prevent alcohol-related problems. Also, the profile of crime types captured in detainee surveys is without doubt different to the vast majority of offences which do not result in an offender being detained.

For all these reasons, it is not meaningful to attempt directly to compare the magnitude of the cost estimates obtained from this investigation and those obtained by Collins and Lapsley (2002). Each provides a particular perspective on the complex issue of estimating costs, though, as stated above, a clear advantage of the activity survey approach is that time expended by police in proactive activities can be separated from that involved with dealing with alcohol-related incidents.

One final issue arising from this study is the extent to which the costing results can be meaningfully applied to other Australian jurisdictions. At the request of the NDLERF Board, we have developed an approach that police commands in other jurisdictions can use to estimate their alcohol-related salary costs. The approach recognises that alcohol-related problems are more prevalent in some jurisdictions than others and enables jurisdictions to take this into account. Like any modelling-based extrapolation exercise, however, the approach we have developed for application by other jurisdictions does need to be applied with due caution. For a jurisdiction such as the Northern Territory, where alcohol consumption and associated problems are far greater than anywhere else in Australia (Catalano et al. 2001; Matthews et al. 2002), even the use of the estimates from the NSW rural remote area may significantly under-estimate the costs which that jurisdiction experiences in the management of alcohol-related crime. For this reason, it would be preferable over the longer-term if other Australian jurisdictions attempted to measure their alcohol-related crime police costs directly via their own activity surveys rather than relying on this indirect approach.

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Appendices

Appendix A: Activity survey form

(see page 32)

NSWP in consultation with NSW Bureau of Crime Statistics and Research are conducting a project to quantify the time and cost of policing incidents associated with alcohol. Your Local Area Command is participating in the project and your involvement will assist in the information collection phase. Please use this two-page diary to record brief details of any incidents associated with alcohol you spend time dealing with, in order to help quantify the cost of your involvement.

Name	Rank	Reg. No	Nature of duties	Shift start	Shift end
				__/__/05 __:__ am/pm	__/__/05 __:__ am/pm

---

1. Brief details:
○ Proactive?
COPS Number
E [ ][ ][ ][ ][ ][ ][ ][ ]

not ○
slightly ○
moderately ○
well ○
seriously ○
don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	____ minutes

---

2. Brief details:
○ Proactive?
COPS Number
E [ ][ ][ ][ ][ ][ ][ ][ ]

not ○
slightly ○
moderately ○
well ○
seriously ○
don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	____ minutes

---

3. Brief details:
○ Proactive?
COPS Number
E [ ][ ][ ][ ][ ][ ][ ][ ]

not ○
slightly ○
moderately ○
well ○
seriously ○
don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	____ minutes

---

4. Brief details:
○ Proactive?
COPS Number
E [ ][ ][ ][ ][ ][ ][ ][ ]

not ○
slightly ○
moderately ○
well ○
seriously ○
don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	____ minutes

---

5. Brief details:
○ Proactive?
COPS Number
E [ ][ ][ ][ ][ ][ ][ ][ ]

not ○
slightly ○
moderately ○
well ○
seriously ○
don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	____ minutes

Verified by Duty Officer	Verified by Supervisor	Verified by Local Area Commander
○	○	○
Name:	Name:	Name: ....
Signature:	Signature:	Signature: ....

6. Brief details:

○ Proactive?

COPS Number

E ☐☐☐☐☐☐☐☐☐

	not ○
	slightly ○
	moderately ○
	well ○
	seriously ○
	don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	_____ minutes

7. Brief details:

○ Proactive?

COPS Number

E ☐☐☐☐☐☐☐☐☐

	not ○
	slightly ○
	moderately ○
	well ○
	seriously ○
	don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	_____ minutes

8. Brief details:

○ Proactive?

COPS Number

E ☐☐☐☐☐☐☐☐☐

	not ○
	slightly ○
	moderately ○
	well ○
	seriously ○
	don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	_____ minutes

9. Brief details:

○ Proactive?

COPS Number

E ☐☐☐☐☐☐☐☐☐

	not ○
	slightly ○
	moderately ○
	well ○
	seriously ○
	don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	_____ minutes

10. Brief details:

○ Proactive?

COPS Number

E ☐☐☐☐☐☐☐☐☐

	not ○
	slightly ○
	moderately ○
	well ○
	seriously ○
	don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	_____ minutes

11. Brief details:

○ Proactive?

COPS Number

E ☐☐☐☐☐☐☐☐☐

	not ○
	slightly ○
	moderately ○
	well ○
	seriously ○
	don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	_____ minutes

12. Brief details:

○ Proactive?

COPS Number

E ☐☐☐☐☐☐☐☐☐

	not ○
	slightly ○
	moderately ○
	well ○
	seriously ○
	don't know ○

Time YOUR involvement commenced:	Time YOUR involvement ceased:	TOTAL time (inc. paperwork etc):
__:__ am/pm	__:__ am/pm	_____ minutes

Appendix B: Project reference groups

BOCSAR Convened Reference Group

Superintendent Steve Cullen	Local Area Commander
Inspector Richard Gaskin	Intelligence Officer
Acting Sergeant Damon Flakelar	Crime Coordinator
Detective Sergeant John Pendergast	Crime Coordinator
Sergeant Paul Taply	Licensing Officer
Sergeant Don Whiteway	Licensing Officer
Superintendent Frank Hansen	Manager, DAC
Inspector John Green	Manager, Alcohol Crime Project
Scotty Weber	NSW Police Association
Pat Ward	Team Leader, DAC
Dr John Wiggers	Director, Hunter New England Population Health
Dr Don Weatherburn (chair)	Director, BOCSAR
Dr Neil Donnelly	Research Manager, BOCSAR
Dr Suzanne Poynton	Statistical Services Manager, BOCSAR
Linda Scott	Senior Research Officer, BOCSAR
Bruce Flaherty	Principal Policy Officer, Crime Prevention Division
Marian Shanahan	Health economist, NDARC

NDLERF Convened Reference Group

Scotty Mitchell	Drug and Alcohol Policy Unit, NT Police
Sergeant Tim Pfitzner	Drug and Alcohol Policy Section, SA Police
Commander Steve Bonde	Western District Commander, Tasmanian Police
Dr Don Weatherburn	Director, BOCSAR
Dr Neil Donnelly	Research Manager, BOCSAR
Dr Suzanne Poynton	Statistical Services Manager, BOCSAR
Linda Scott	Senior Research Officer, BOCSAR
Marian Shanahan	Health economist, NDARC

Appendix C: Scenarios used for training/defining what should be recorded as alcohol-related

You answer a phone call in the station reporting a robbery, where the weapon used was a smashed beer bottle. The victim reports that they and the person of interest (POI) had not been drinking.
Is this an alcohol-related police activity?

NO

You are called to a hospital to interview a woman who alleges to have been sexually assaulted after having had her alcoholic drink spiked at a nightclub.
Is this an alcohol-related police activity?

YES

A POI in the above case is charged, and you are preparing evidence and interviewing witnesses.
Is this an alcohol-related police activity?

YES

Prior studies have tended to underestimate the extent of alcohol-related crime, as they have not included the victims' alcohol levels. Hence we are attempting to gain a more accurate measurement, and so it is important you record both POI as well as victim alcohol usage.

You answer a phone call in the station relating to a stolen motor vehicle. The stolen car was found on a nearby street with broken windows and littered with beer bottles.
Is this an alcohol-related police activity?

NO

Later, you find out that a person has been arrested for the above motor vehicle theft and admitted to being intoxicated.
Is this an alcohol-related police activity?

YES (go back and re-enter the incident)

You are called to attend a public disturbance, and arrive to find a homeless, intoxicated man. He is injured, and you transport him to the nearest hospital.

YES

You conduct a 'walk-through' in a licensed premises but do not detect any breaches by the licensee/barstaff or any patron disturbances.
Is this an alcohol-related police activity?

YES (proactive policing)

You are called to a licensed premise to respond to a noise complaint, arriving to find drunken individuals exiting a licensed premises.
Is this an alcohol-related police activity?

YES (breach of the Liquor Act)

You respond to a noise complaint at a private residence and discover people legally drinking.
Is this an alcohol-related police activity?

YES

You answer a phone call in the station reporting a break-in at a licensed premises.
Is this an alcohol-related police activity?

NO (no breach of the Liquor Act, and no alcohol consumed)

Note here that the definition of alcohol-related crime includes any breaches of the *Liquor Act 1982* **and** *Registered Clubs Act 1975*, **e.g. disturbances or noise complaints related to licensed premises. There does not have to be a POI or victim who has consumed alcohol in these cases. Therefore, fill in the Activity Sheet such that the episode is classed as an alcohol-related incident.**

You spend half of your shift undertaking a Random Breath Testing operation but
most of those stopped do not test positive for alcohol.
Is this an alcohol-related police activity?

YES (half of your shift should be designated alcohol-related)

You spend half of your shift planning for New Years Eve policing and risk assessments.

YES (half of your shift should be designated alcohol-related)

Note that these last two examples highlight how the study is not just using 'prior consumed' as the definition of 'alcohol-related'. Rather, it includes all activities where you are responding to, or proactively addressing, alcohol-related issues.

You are called to a home to discover an individual in breach of an AVO.
Is this an alcohol-related police activity?

NO

Later, you find out that the couple has a history of domestic violence
that is known to the police, and the male is a known alcoholic.
Is this an alcohol-related police activity?

NO

When interviewed later in your shift, the victim reports that the male went to his
former home to request money for alcohol, and that he was drunk.
Is this an alcohol-related police activity?

YES (go back and re-enter)

You have 3 offenders in cells, one of whom is drunk. You have a duty of care to all 3,
but spend about half your time on the shift monitoring the drunk offender.
Is this an alcohol-related police activity?

YES (include only the time taken with the drunk offender i.e. 1/2).

A person enters the station to report that their wallet has been stolen. They consumed a glass
of wine over lunch and it was during this period that they noticed their wallet was missing.
Is this an alcohol-related police activity?

YES

You are planning for the LAC Christmas Party and are ordering the alcohol.
Is this an alcohol-related police activity?

NO

Appendix D: Penalty rates, 2004/2005

	Start at or after	Until	8-hour flat rate	12-hour flat rate	Hourly flat rate (for flexible rostering)
Shift A	1pm	4pm	$23.93	$35.90	$2.99
Shift B	4pm	4am	$27.91	$41.87	$3.49
Shift C	10am	1pm	$15.95	$23.93	$1.99
Shift C	4am	6am	$15.95	$23.93	$1.99

The rates in Appendix D were applied to the salaries of all non-commissioned officers. Non-commissioned officers include probationary constables, constables, senior constables, leading senior constables, sergeants and senior sergeants. Commissioned officers do not receive any penalty rates under the NSW Police Enterprise Agreement 2004/05.

Penalty rates from the five possible time periods (the four listed above, and the time where no penalty rates apply) were averaged across the 24 hour period for the purposes of simplicity to fit with the before/after 1 pm division used to examine the amount of alcohol-related time for day and evening shifts. The following rates were used: $1.99 for those people starting after 12 am, the large majority of whom start at 6 am, and an average of $2.99 and $3.49 for those people that start after 1 pm, the majority of whom start at 4 pm or 6 pm. These hourly rates were added to the salary hourly rates, and multiplied by the total number of hours worked by each rank.