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Evaluation of Licensing Act: Measuring Crime and Disorder in and around Licensed Premises, Research Study SRG/05/007 Technical Annex prepared for the Home Office

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Evaluation of Licensing Act: Measuring Crime and Disorder in and around Licensed Premises

Research Study SRG/05/007
Final Report Prepared for the Home Office
Technical Annex

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This report was submitted July 2007.
The views expressed in this report are those of the authors, not necessarily those of the Home Office (nor do they reflect Government policy).

Applying
criminological research
for policy and practice

Executive Statement

The Licensing Act 2003 (hereafter referred to as the Act), which came into effect on 24th November 2005, represented a major change to the sale of alcohol in England and Wales, by potentially allowing licensed premises to sell alcohol for up to 24 hours, 7 days per week.

The introduction of the Act brought with it a range of additional measures. These included an expansion of police powers to close areas or particular premises, specific offences relating to the sale of alcohol to children and a new mechanism for reviewing the granting of licenses that takes into account crime prevention, public safety public nuisance and child protection.

The rationale behind the Act was that by removing fixed and artificially early closing times, the numbers of people exiting licensed premises would be dispersed over a longer time period. The expectation was that this would reduce binge drinking, violent behaviour, damage to property and disorder. At the same time, concerns were voiced that the Act would lead to greater alcohol consumption, increased levels of violence and more pressure on accident and emergency units.

In October 2005, the Applied Criminology Centre (ACC) at the University of Huddersfield was commissioned to carry out an evaluation of the impact of the legislation on changes in crime and disorder. The study examined baseline conditions and subsequent change occurring in the town centres of five case study areas, namely, Blackpool, Birmingham, Croydon, Guildford and Nottingham. This technical annex provides a detailed breakdown of the methodologies used in the research. This annex sits alongside a number of reports that have been produced following this research, including a final report, 5 case study annexes, and a supplementary annex.

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1. Introduction

The Licensing Act 2003 (LA03) hereafter referred to as the Act, came into effect on 24th November 2005. This technical annex describes the data analysis techniques and methodologies used in a study by the University of Huddersfield to measure the impact of the Act on crime and disorder in and around licensed premises. It provides supporting material to the final report. The research, commissioned by the Home Office, examines the impact of the Act in five case study areas. These were:

- Blackpool Unitary Authority (UA);
- Birmingham City Centre (police force area F1);
- Croydon Borough;
- Guildford Borough;
- Nottingham Unitary Authority (UA).

The commissioning body selected these areas for a number of reasons. Firstly, areas were selected that spanned the broad profile of violent crime in England, taking different measures of violent crime into account and based on discussions with senior officers in police forces. All of these measures indicate that the nature and intensity of violent crime significantly differ between the chosen areas.

The selection of case study areas also provided a good mix of urban/rural area types when compared against ONS classifications of local authority districts: two cities, two smaller towns (one market town surrounded by a significantly rural population and one seasonal sea-side resort), and one London borough. A decision was made not to select any areas that were primarily rural based on Department for Environment Food and Rural Affairs (DEFRA) classifications to avoid to undertaking focused case study work in sparsely populated rural areas, where the volume of crime data is low and it is unlikely any discernible effect on crime levels would be detected.

The final basis for choosing areas were those prepared to be involved with the evaluation and provide the crime and disorder data on a monthly basis between 2004 and 2006. Birmingham police force area F1 was used as it was agreed to supply crime data for this area.

For each area a supplementary Annex has been produced. The final report, the supplementary annexes, and this technical annex comprise a single research study. This research is part of a wider evaluation programme including a number of larger scale national measures and surveys.

Research aims

The overall aims of the research were to provide a baseline indicator of levels of crime and disorder in and around licensed premises, and to examine the impact of the Act on patterns of crime and disorder in and around licensed premises. A number of specific research questions were formulated for this research:

- What patterns of crime and disorder exist in and around licensed premises?
- What other local factors may explain the prevalence of crime and disorder in and around licensed premises?
- Does the granting of extended opening hours for licensed premises lead to a change in crime and disorder in these licensed premises?
- Have overall levels of crime and disorder within town and city centres changed following the Act?
- Have the peaks of crime and disorder displaced to later or earlier periods?

- Has the profile of crime and disorder in and around licensed premises and associated hot spots changed in relation to new licensing hours?
- Are there any unintended consequences of the Act? For example, geographical displacement or diffusion of benefits of crime to surrounding areas.

In order to answer these questions, a number of methodologies were employed and these are described below. Often a series of methodologies have been used to answer a single research question.

Research design

There are a number of analysis methods that might be used to assess impact of the Act, although not all are applicable to an area-based evaluation of this type, for example, the use of hypothetical comparison groups. Three area based methods were considered for this research. Only the first of these is entirely experimental in the sense that it can, if successfully conducted, control for all potential threats to validity such as maturation and selection effects. The remainder are quasi-experimental.

Randomised control trials (RCT)

Offenders or places are allocated at random either to the intervention/policy area or to a control group/control area who will either receive a different intervention/policy or treatment as usual. This approach minimises the chances that the treated and comparison groups differ in significant and important ways and that one group is biased from the outset to do better or worse. It is evident that a RCT is not a viable approach to an evaluation of a piece of legislation introduced within one jurisdiction. This is because the legislation affects the population over the same time period, meaning that the creation of control groups/areas is not possible. Thus, the strongest methodological approach to determining causality of an intervention (in this case legislation) on an outcome was not available for this specific research.

Matched pairs

In this instance, people (or areas) exposed to an intervention or policy are matched with people (or areas) given no intervention or some other intervention. The ability of this type of design to rule out threats to validity is very dependent on the closeness of the match. In other words, it is vital to control for all variables which might theoretically be expected to impact upon the outcome measure/s. Retrospective matching (where data are collected after the event) is less satisfactory than prospective matching (data are collecting before and during) but more common and less expensive. This is because the samples are matched on information contained in records rather than the evaluator making active decisions about what should be recorded and what the samples should be matched on.

Within the current evaluation it had been hoped to prospectively match premises which applied for and received extended hours with those premises which did not. Even if this had been possible (which as described below is not the case), this methodology would not have been ideal due to differences in key variables between premises which applied for extended hours and those which did not. For example, city centre pubs may be more likely to apply, *and* also be more likely to experience crime and disorder. Furthermore, premises with a high level of crime and disorder in the baseline period may be refused extended hours for precisely that reason.

As it transpired, matched pairs analysis was not possible due to the fact that the data which would be required for matching individual premises in baseline and post implementation periods were not available. Although it had been hoped that the data in each of the case study areas would be of sufficient quality for robust analysis, this was not the case. This was due to the fact

that data on baseline opening hours and post implementation opening hours as well as capacity limits were not routinely available (see below for more details). It was possible to obtain data on the post implementation hours applied for, but this involved considerable processing to generate usable datasets. An added difficulty here is that premises regularly may not use all of these applied hours.

Longitudinal status comparisons

Longitudinal status comparisons involves assessing an individual's (or an area's) change over time and making inferences based upon the timing of the intervention and changes in outcome measures. It is important to note that without a comparison group, there is a possibility that changes in the outcome measure may be a consequence of factors unrelated to the intervention (for example, maturation). A comparison group can be included within this design to improve methodological rigour and ensure the assessment of other possible effects.

Longitudinal status comparisons differ from before/after tests in that they sometimes involve multiple measurements of outcomes before and after the intervention. This single group longitudinal comparison is the closest research design to the one selected for this specific evaluation, as changes in outcomes such as crime and disorder are assessed in relation to the introduction of the Act. As noted previously, the national implementation of the policy precluded the possibility of using a comparison group, and this means that the design is unable to rule out (with adequate certainty) other threats to validity.

The selection of the methodology was based upon several factors, these largely relate to the difficulty of obtaining certain datasets as well as the difficulties of measuring a legislative change. This effectively constrains the methodological options open, and means that in interpreting the results of this research it is important to bear in mind that changes in outcome over time (such as crime) may be due to factors other than the introduction of the legislation. There are two main threats to the validity of the findings within this research

History

The effect is caused when some event, which is *not* the intervention of interest (e.g. increase in police numbers) takes place at the same time as the intervention/policy of interest and influences the outcome measure (for example the crime rate). There are numerous other factors which could influence crime rates and which may have occurred during the period under study. These include economic factors, other policing initiatives, sporting events, changes to police recording crime practices, introduction of SIA accredited door supervisors as well as factors such as the weather.

Regression to the mean

This is a statistical phenomenon whereby extreme scores tend to return to the mean over time, even if there is no intervention. In other words, left alone, things tend to return to normal. Such changes are often mistakenly assumed to indicate that the policy or intervention has worked. When studying time series data on crime rates, for example, it is important to recognise that year by year fluctuations may be entirely normal and not due to any particular intervention.

The fact that threats to validity exist does not, however, mean that they are inevitable. In this report steps have been made to identify alternative explanations for the results and consider how likely they are. For this research, two approaches have been adopted to try and minimise the likelihood of errors. The first is to adopt a multi-level approach to the quantitative analysis by examining change at three scales - the micro level, the macro level, and the meso level. The second is to supplement the quantitative analysis with detailed qualitative analysis. This adds further contextual information on conditions in each of the five case study areas and helps to identify alternative explanations for the results.

Research context

One of the major difficulties in conducting this piece of research is the inability to define a control area not affected by the introduction of the Act. In addition, it is difficult to isolate the impact of the Act as the geographical dispersal of licensed premises is such that there is an inter-dispersal of premises that have extended their hours of trading post implementation. One methodological step to address these problems is the use of multi level analysis.

Scale of analysis

The quantitative analysis used in this research examines crime and disorder over the baseline and post implementation periods at three geographical scales. These are:

- The macro level (aggregated data for the entire case study area).
- The meso level (aggregated data near to licensed premises).
- The micro level (data aggregated to inside or directly outside licensed premises).

It should be noted that while there are advantages to using this three pronged geographical approach, some care should be taken in interpreting findings. Some potential errors of note are the Modifiable Areal Unit Problem (MAUP) and the ecological correction. These are discussed in more detail later in this report.

Timescale

This research examined two time periods, a two year baseline period before the introduction of the Act (23rd November 2003 to 23rd November 2005) and a post implementation period (24th November 2005 to 24th November 2006). This enabled a two year baseline and a full twelve months of post implementation data to be examined.

Research approach

A number of quantitative crime analysis methods were adopted for this research. The data sources used were as follows:

- Police recorded crime data (offence data).
- Police calls for service data (disorder incidents only).
- Licensed premises data.
- Accident and emergency data.
- Ambulance call out data.
- Ordnance Survey AddressPoint®.
- Ordnance Survey 1:10 000 scale raster.
- UKBORDERS digital boundaries.
- Office for National Statistics (ONS) mid-2005 population estimates¹.
- ACORN 2006 population estimates¹.
- Penalty Notices for Disorder (PNDs)²

This quantitative crime analysis was supplemented by qualitative fieldwork which involved participant observation in the main drinking areas and inside key drinking premises, as well as semi-structured interviews with licensees, door supervisors and bar staff. These took place during

¹ This was the most up to date information available that was coterminous with the case study boundary

² See appendix nine for more details

the baseline and post implementation periods. This mixture of analysis techniques increases the robustness of the findings.

A note on the licensed premises data

Obtaining accurate information on licensed premises was found to be more problematic than had been anticipated. Information requested included the following fields:

- Name of premise.
- Full address and postcode.
- Grid reference (easting and northing).
- Capacity.
- Trading hours before the Act (baseline period).
- Status regarding application for additional trading hours (post implementation).
- Date additional hours granted/refused (if applicable).
- Current trading hours (post implementation).

Unfortunately, initial expectations regarding the availability of this information were highly over-optimistic. There are several reasons for this discrepancy which are outlined below.

- The Inn Keeper database was used by the police to keep information on premises in four of the five case study areas. However, this system became redundant with the introduction of the Act and therefore certain information was no longer available.
- As a result of the Act, Local Authorities Licensing Authorities became responsible for administering licenses and this resulted in a backlog of entries that needed to be entered into a database or new electronic system.
- This backlog was primarily due to a large number of applications being submitted over a short period of time, and a general lack of resources, as all premises were required to adhere to the new licensing requirements.
- Where case study areas did provide licensed premise data, only partial and incomplete records were obtained.
- In only one area was data on former hours available.
- Only one area provided location data on licensed premises (easting and northing). In all other areas it was necessary to geo-code the licensed premises, often from partially complete address fields.
- No case study areas provided complete records relating to capacity.
- There was a lack of consistency in the information provided, and many fields were only partially completed.

Geo-coding is a process by which structured address fields that distinguish property numbers from streets, districts and unit postcodes are matched against a gazetteer to append a 12 figure Easting and Northing grid reference to each record. For this research project, the process was time consuming as it was necessary to first enhance the partial information provided on licensed premises (using internet search engines and online business addresses).

Due to the difficulties in obtaining accurate information on licensed premises, this research project only examines crime and disorder around three types of licensed premises, namely pubs, bars and night clubs. It is acknowledged that there are limitations to this as premises such as off-licences, supermarkets and restaurants are excluded.

Table 1.1 (below) details the number of premises with suitable data for the purposes of analysis, and Table 1.2 summarises the data supplied for this research and some of its limitations.

Table 1.1 Number of licensed premises in each case study area

	Number of premises ¹	Number of pubs and bars in case study area ²	Number of clubs in case study area ²
Birmingham	2726	179	15
Blackpool	1526	170	23
Croydon	1199	226	9
Guildford	531	100	2
Nottingham	1159	260	20

¹ Note this is the number of premises supplied by the licensing authority and not necessarily the number of premises that are situated inside the case study area.

² This includes premises with an address that could be accurately geo-coded only.

Table 1.2 Licensed premises data supplied

	Format (note all supplied as electronic)	Address	Geo-coded	Current opening hours	Former opening hours	Extended hours Yes/No	Capacity	Premise type
Birmingham	Individual records	Partial	X	√	x	x	x	√
Blackpool	Single Database	Partial	X	√	√	√	√	√
Croydon	Individual records	Partial	X	√	x	x	x	x
Guildford	Single Database	Partial	Partia l	√	x	x	x	√
Nottingham	Single Database	Partial	X	√	x	x	x	√

2. Crime data analysis

This section describes the different quantitative analysis techniques used to examine crime and disorder within the case study areas, particularly focusing upon areas in and around licensed premises.

Description of the data

The police recorded crime data was supplied on a regular basis by each of the five forces, to the commissioning body who, in turn, supplied the records to the research team. This data provision was separate to the compulsory Annual Data Return (ADR) that all forces are required to submit to the Home Office (HO) which is published regularly under National Statistical Protocols. Three categories of police recorded crime data were used for this research. The HO codes used to define these categories are provided in Appendix One. These were requested by the commissioning body as they have been shown by previous HO research and analysis to be those likely to be associated with alcohol and the night-time economy. The categories examined were as follows:

- Violence against the person.
- Criminal damage.
- Sexual offences.

In addition to these categories, these data were supplied with a number of fields. Those standardised across the five case study areas examined were:

- Crime number.
- Date and time of offence (reported and committed).
- HO code (see Appendix One).
- BCU/OCU identifier.
- Offence location (full address including postcode).
- Easting and northing (grid reference).
- *Modus Operandi* details (short summary of offence).
- Victim's age and gender.

Some additional fields were requested. These were 'flags' to indicate;

- If the offence could be attributed to a licensed premise.
- The name of the licensed premise.
- If alcohol was considered to be involved in the offence.
- If the offence was considered to be domestic violence.

Data accuracy and reliability

On receipt of data, validation procedures were conducted to identify any inconsistencies, anomalies or missing data. Steps were then taken to cleanse the data to improve the quality and utility of the data analysis. This involved a three stage process outlined in the sections below.

Data capture and cleaning

The crime data supplied was imported into a Microsoft Access database. This involved a number of procedures.

- Standardisation of date and time fields to enable merging of files from different sources.
- Validation of location data.
- Splitting address components into separate variables (e.g. distinguishing the house number, street, town and unit post code).
- Identification and validation of extreme values.
- Identification of missing data.

Data coding

The data for each case study area was also imported into the statistical package SPSS. This enabled the generation of a number of new fields for analysis. The new fields generated included:

- Day of week.
- Month.
- Year.
- Time of day.
- Time of day interval (time of day was split into twenty four equal intervals, for example 1.00am to 1.59am, 2.00am to 2.59am and so forth).
- Baseline year 1 (24th November 2003 to 23rd November 2004).
- Baseline year 2 (24th November 2004 to 23rd November 2005).
- Post implementation (24th November 2005 to 23rd November 2006).
- Quarterly period (the data was split into three month periods, eight before the introduction of the Act and four after the introduction of the Act).
- Age category (0-4, 5-9,10-14,15-19,20-24 and so forth up to 80 plus).

The data were also exported into a Geographical Information System (GIS). For this research the ESRI package ArcGIS was used. This allowed for the validation of each offence's location (easting and northing). This process is described below. It also allowed individual offences to be identified by additional location information. The first of these were concentric buffer zones, and the second was an area with a high density of licensed premises. These are both described in the GIS analysis section below.

Validation of location data

The police recorded crime data provided for this research contained a geo-reference for each individual crime offence. This was a 12 figure grid reference using the OS national grid. The coordinates for the location of offences are often referred to as the easting and northing. The grid references can then be displaced as points on a map and are used in GIS to pinpoint the precise geographical locations of offences.

The location of the crime and incident data (easting and northing) was validated using OS Address Point and the location of the police beat/ward. By using a triangulated approach, the easting and northing, the OS address point, and the location of the police beat/ward were all compared. In addition, a sample of grid reference points were cross-referenced with the OS 1:1000 raster scale maps to test their accuracy. This approach enabled confidence to be placed in the accuracy of the geo-coded police data. To this end, the research team were entirely satisfied that the accuracy of the police geo-coded recorded crime data was of a high quality and was suitable for the purposes of this research.

Methodology

A range of methodologies were used to analyse the crime data, and often multiple methods were applied to answer the research questions outlined earlier. The methodologies used were as follows.

Distribution of offences (daily, weekly, monthly and by time of day)

For each of the three categories of crime data examined (violence against the person, sexual offences and criminal damage), exploratory analysis was carried out to examine trends in the monthly, yearly, weekly and daily crime patterns, and to consider whether the Act may have influenced these trends.

Crime rates

Monthly crime rates were calculated for each of the five case study areas. For Birmingham the case study area was the city centre (police force area F1 as this was the area data was supplied for). Here Acorn 2006 population figures were used as the case study area was not coterminous with wards used in the census. In all other case study areas, population figures from the ONS 2005 population estimates (the most up to date figures at the time of writing) were used as the ward boundaries were coterminous with the case study area boundaries.

The post implementation crime rates were calculated as a monthly rate per 10,000 persons. The baseline rates were calculated as a rate per 10,000 persons of the average monthly baseline frequencies of crime. Hence, for the post implementation period of January 2006, the baseline rate uses the average of the corresponding baseline months January 2004 and January 2005.

There are limitations with using residential populations to calculate crime rates, particularly when the feature of interest is crime near to licensed premises. There are a number of potential reasons for persons to be present in public places, perhaps because of where they live (the residential population), or because they are visiting an area (for business, pleasure, for leisure purposes, for education), or for other reasons. This will also vary by time of day, and by day of week and month of year. Blackpool, for example, is a seasonal resort and its population will vary by peak and off peak seasons. Guildford, Nottingham and Birmingham all have large universities and the populations will vary during term time and holidays. However, it is extremely costly and problematic to produce population estimates for local areas based upon survey data. For this reason, the research used residential population to generate crime rates for each area. These are typically used in England and Wales crime statistics.

Percentage change

The percentage change was calculated for monthly periods between the baseline period and post implementation period. For each monthly period in the baseline period, the average count was used. Thus, the percentage change in January 2006 was the change between the crime count in January 2006, and the average crime count of January 2004 and January 2005.

The average percentage change was also calculated for time of day. Crime counts for each year were divided by time of day (into twenty-four one hour time intervals). The baseline periods were the time periods 24th November 2003 to 23rd November 2004 and 24th November 2004 to 23rd November 2005. The post implementation period was (24th November 2005 to 23rd November 2006). The average frequency was used for the baseline period.

Proportional change

The proportional change analysis compares data from the baseline period with the post implementation period by time of day. To calculate proportional change the following procedure was used. For the post implementation period, the times of day of all offences were split into 24 equal intervals (midnight to 0.59am, 1.00am to 1.59am, 2.00am to 2.59 am, and so forth). For each time interval the percentage of offences was then calculated (as a percentage of all offences over the 24 hours). For the baseline period the same method was used to calculate percentage of crime by time of day interval. The proportional analysis then compares the change in the two percentage figures (baseline average and post implementation) for each time interval.

Victim profile

The offence records contained categories for both the age and gender of the victim. However, this was not always recorded, and the percentage of unrecorded offences also varied by case study area. Table 2.1 shows the percentage of violence against the person and sexual offences where the gender is not known or not recorded for each case study area, both in the baseline and the post implementation periods. This varies between seven and 28 per cent for violence against the person and between one and 35 per cent for sexual offences. This makes comparisons between different case studies difficult. In addition, in some case study areas there was a ten per cent difference between the baseline and post implementation periods in the number of offences where the gender of the victim was unknown.

Table 2.1 Percentage of violence against the person and sexual offences where the victim's gender is unknown or not recorded

Area	Crime category	Percentage of offences gender unknown (baseline)	Percentage of offences gender unknown (post implementation)
Birmingham	Violence against the person	25	18
Blackpool	Violence against the person	16	28
Croydon	Violence against the person	7	8
Guildford	Violence against the person	15	20
Nottingham	Violence against the person	16	22
Birmingham	Sexual offences	8	5
Blackpool	Sexual offences	1	5
Croydon	Sexual offences	1	2
Guildford	Sexual offences	1	2
Nottingham	Sexual offences	28	35

'Alcohol' and 'domestic violence' flags

The crime data contained flags for offences considered to involve alcohol or domestic violence³. These flags are subjective and were not reported consistently across the five study areas. Table 2.2 shows the percentage of violence against the person offences with alcohol and domestic violence flags for the baseline and post implementation periods. This demonstrates that there was wide variability in the use of these codes between the five police forces who supplied the data. In addition, there were differences between the percentages of offences with alcohol and domestic violence flags recorded in the baseline and post implementation periods. However, it

³ Defined by the Home office as "any violence between current and former partners in an intimate relationship, wherever the violence occurs"

was difficult to state with any confidence whether this change was due to the Act, or due to the way the flags were recorded.

Three of the five forces have commented on their use of these flags and the rules they use for these. It was suggested to the authors that these flags are as accurate as possible, however, it was also acknowledged that they rely upon the subjective view of the police officer present.

Table 2.2 Percentage of violence against the person offences with alcohol and domestic violence flags (baseline and post implementation periods)

Case study area	Percentage of offences with alcohol flag (baseline)	Percentage of offences with alcohol flag (post implementation)	Percentage of offences with domestic violence flag (baseline)	Percentage of offences with domestic violence flag (post implementation)
Blackpool	43	43	16	14
Birmingham	7	3	7	5
Croydon	missing data	missing data	27	24
Guildford	45	44	16	19
Nottingham	13	12	16	16

As there are difficulties in collating data with an alcohol flag, this research used time and location stamped data as an indirect measure of alcohol related crime and disorder. Thus, the time of day of incidents (particularly between 9.00pm and 5.00am) and the location of incidents (proximate to licensed premises) has been used as an indicator of such crime and disorder levels, and its change (if any) baseline between the baseline and post implementation periods.

GIS analysis

A GIS is a computerised system for the capture, storage, retrieval, analysis and visualisation of spatial data (Jones, 1997). It allows crime to be mapped over time and space, and to be cross referenced with multiple data sources, for example licensed premises and land use. The distribution of crime in an area is not random, and the analysis of spatial patterns of crime is now a well established technique used to examine the complex interaction between crime, space and time. Within the case study areas the distribution of both licensed premises and crime is not random, and GIS enables the relationship between the two to be analysed. Furthermore, the relationship can be tracked over time, and change monitored in relation to a changing landscape (for example changes to the supply points of alcohol).

One of the benefits of GIS is that patterns of crime can be examined at different geographical scales. Hence, in addition to looking at crime over the entire case study area (macro level), crime can be examined in smaller areas within the case study area (meso level) or in precise locations such as inside or directly outside licensed premises (micro level). Changes that occur at the micro level and meso level may be masked by the overall patterns of crime in the entire study area. Thus, examining crime patterns at all three levels enables specific changes to be detected (for example changes to crime near to licensed premises).

One of the difficulties in measuring the impact of the Act is that licensed premises may or may not alter their hours of trading, and geographically there may be an inter-dispersal in an area of premises with varied opening hours, premises which changed their hours as well as premises which did not. Their relationship to crime is not mutually exclusive as crime can happen inside, directly outside, or near to a licensed premise. In addition to this, the geographical distribution of premises is not random and within the study areas there are locations with a high density of licensed premises. For this reason, two different areas were generated within each case study area. The first of these were concentric buffer zones at 50 metre intervals surrounding licensed

premises. The second included areas with a cluster of licensed premises, effectively hot spots not of crime but of licensed premises, or areas with high densities of premises.

One of the advantages of GIS is that individual disaggregate data can be aggregated to various spatial units, for example police beats, census wards and buffer zones. However, it is important to note that one potential error that may arise is the modifiable areal unit problem (MAUP) (Openshaw and Taylor, 1981). This may occur because spatial analysis can be sensitive to the definition of the units for which data are aggregated. By altering the shape and size of the boundaries used, the outcome of analysis may also be altered. To allow for this, two distinctly different methods were used to aggregate the data. The first were buffer zones - to examine proximity to licensed premises at 50 metre intervals. The second were licensed premise clusters - produced by a mathematical clustering technique to examine the cumulative effect of licensed premises.

The ecological fallacy (Brown, 1991) exists when assumptions are made that relationships that hold true for groups (based on aggregated data) will necessarily hold for individuals. One example of this is if an area with high levels of unemployment was identified as having a high number of offenders, it is assumed unemployed people are offenders. It is important not to make assumptions about an individual who lives in the area based on aggregate data about the region. The individual fallacy (Landman, 2000) is in effect the opposite of the ecological fallacy, when an assumption about a group is inferred from characteristics of an individual in that group.

By altering the unit of analysis the results of analysis can change dramatically. Hot spots or clusters of crime may occur on the global scale or at a more localised scale. Clusters of crime may be discovered at a particular location, but this will vary dependent upon whether examining at the macro, meso or micro scale. For example within an area of relatively high crime identified at the meso level, there may be smaller pockets of high and low crime areas apparent when examined at the micro scale.

Buffer zone analysis is a technique used to analyse discrete objects, for example the location of a pub or a bar, and to examine discrete areas surrounding these features. 50 metre concentric buffer zones were generated around licensed premises to produce a number of zones - the first up to 50 metres from premises, the second 50 to 100 metres, the third 100 to 150 metres, and the fourth 150 to 200 metres. This allowed crime patterns in each of these pre - defined zones to be explored and tracked over time. This analysis was used to reveal whether there were any changes in the spatial and temporal patterns of crime near licensed premises, or if their had been any displacement of crime away from licensed premises since the introduction of the Act.

As was mentioned within the introduction to this section, licensed premises were not randomly distributed within the case study areas. Analysis of the spatial distribution of licensed premises using the Nearest Neighbour Index (NNI) revealed that there was evidence of clustering in the spatial distribution of premises. The nearest neighbour index (NNI) figure is a statistical test used to validate that there is evidence of hotspots and that the data are clustered. A value of less than one (as found for both violence against the person and criminal damage) indicates the data are clustered, and that these hot spot methods are appropriate. The Z score is a measure of confidence in the NNI, the more negative this is the more confidence can be placed in the findings.

This analysis revealed the presence of areas inside each case study area where there were concentrations of licensed premises. Thus, in addition to buffer zone analysis, patterns of crime inside areas with clusters of licensed premises were also explored to look at the cumulative impact of licensed premises within each case study area. These clusters were generated using nearest neighbour hierarchical clustering (NNHC). This technique is described in more detail below.

Hot spot analysis

Areas with a high concentration of crime are often described as hot spots (Eck *et al*, 2005). There are a number of theories around why crime is concentrated in particular localities, and these may be around individual points or groups of points, around individual streets or groups of streets, or around particular neighbourhoods. Hot spot analysis focuses upon examining why areas have above average numbers of crime offences, and hot spots are often cross referenced with the physical infrastructure and social conditions of an area to attempt to explain such concentrations. Hot spots may form due to repeat victimisation, near repeat victimisation, or the presence of risky facilities (Clarke and Eck, 2005). Licensed premises could be described as a risky facility for crime, and hot spots may form around these. Thus, hot spot analysis was used to explore whether the location of hot spots in the case study areas had shifted since the introduction of the Act.

It is important to test for the presence or absence of hot spots in crime data before running hot spot analysis, and the test used for this was again the NNI. In all case study areas there was evidence of clustering in the data and two different types of hot spot methods were used in this analysis. Nearest Neighbour Hierarchical Clustering was the first technique used. The software used for this was CrimeStat 3 (a free software package available online⁴). This technique uses nearest neighbour analysis of points (licensed premises) and only points that are closer than expected under spatial randomness are identified. A set of ellipses are produced called first order ellipses. Grouping these clusters using this method can then generate second order clusters, and this process is repeated until all points fall into a single cluster (Levine, 2002). For the purposes of visualisation, second order clusters are displayed in the figures used within this research (see individual case study area annexes). Visually comparison suggested this were the most appropriate level to use.

It is important to note the limitations of the NNHC analysis. It is sensitive to some parameter settings, and may fail to represent actual spatial distributions of data (clusters of bars and crime do not naturally form ellipses). However its purpose is to identify areas where there are clusters of premises within which crime can be measured. An alternative for future research may be to use the G_i^* statistic. However, although this can identify spatial significance it does not identify spatially significant change. For more information the reader is referred to the CrimeStat manual (Levine 2004) and a recent publication by Eck *et al.*, which detail hot spot techniques in detail.

For this research, the baseline crime data and the post implementation crime data were used to generate baseline and post implementation hot spots. Hot spots were produced for violence against the person and criminal damage. Due to the small numbers, hot spots of sexual offences were not generated. The advantage of these ellipses is that they identify areas that are not geographically defined except by the extent of the cluster. They are a product of the location of crime points and do not reflect the layout of the underlying area. They allow a visual examination of the location of crime hot spots that can be mapped against the location of licensed premises. As they are based upon a minimum of 12 months of crime data, they represent areas that can be considered fairly stable. For this analysis, differences in hot spots by time of day were not explored, as interpolation methods were thought to be most appropriate.

The second hot spot analysis technique employed was kernel density estimation (KDE) interpolation, again using CrimeStat 3. Interpolation aggregates points within a user specified search radius and smoothes the data into a continuous surface. As crime data is discrete to individual points, an appropriate method suggested for this is quartic kernel density interpolation (Eck *et al*, 2003). This creates a grid over the crime data points. A weight is assigned to each point within a user defined bandwidth and within this density points are calculated for each point using mathematic functions. Grid cell values are then calculated by summing the value for all

⁴ [<http://www.icpsr.umich.edu/CRIMESTAT/>]

circle surfaces generated. It allows a continuous surface to be generated that is based upon calculations at all locations as opposed to alternative methods that discard some locations. This continuous surface allows for crime clusters to be easily interpreted and accurately reflects the spatial distribution of the data. For more information on this technique see Eck *et al* (2003) and Levine (2002).

For this research, quartic KDE interpolation hot spot maps were generated for both violence against the person and criminal damage. It is also known that hot spots vary by time of day. Based upon the results of the proportional time of day analysis, and as these were thought to be most influenced by the Licensing Act, four time intervals were examined (all two hours) for both the baseline period and post implementation period. These were as follows:

- 9.00pm to 10.59pm.
- 11.00pm to 0.59am.
- 1.00am to 2.59am.
- 3.00am to 4.59am.

Crime ratios

Crime ratios are used to express how much crime in an area of interest occurs in respect to a wider reference area. For the purposes of this research, the areas of interest used were the cluster areas of licensed premises (areas with a high density of licensed premises). The crime ratio is the amount of crime in the cluster area divided by the amount of crime in the remainder of the case study area. This was examined over twelve quarterly periods, eight before the Act and four after the Act. Quarterly periods are commonly used to analyse crime ratios. A crime ratio of 1.0 implies that the cluster area and the reference area (remainder of the study area) each contribute the same proportion of crime to the study area. A crime ratio of 0.5 implies the cluster area contributes one third of the study area's crime, and a ratio of 2.0 suggests that the cluster area accounts for two thirds of the case study area's crime. This analysis determines whether the cluster area (high density of licensed premises) is accounting for a greater proportion of the case study area's crime over time.

Resource Targeting Tables

It has been suggested that licensed premises may be risky facilities, and it is also known that crime tends to be concentrated both in time and place. A Resource Targeting Table (RTT) is an innovative technique for identifying how much of a problem (crime) is concentrated in varying proportions of licensed premises. For the purpose of this analysis, violence against the person offences were examined, and the licensed premise flag was used to assign individual crime offences to an individual licensed premise. Criminal damage was not examined in this way as the data structure did not flag premises against damage offences. This may be when a violence against the person offence occurred inside or directly outside (in the vicinity of) a particular premise. It is used to attribute violence against the person offences to licensed premises. It should be noted that there are a number of limitations to this analysis. As there is no causal link between the premise and the offence, it is possible that the victim and offender were outside a premise when the offence occurred, but only one or neither of these had been inside the premise in the events leading up to the offence. Furthermore, a premise may be exhibiting good practice by refusing entry to an intoxicated person, yet this person may then cause an offence outside the premise (linking the offence to that premise). Despite the limitations, this technique is useful in determining how concentrated violence against the person is amongst licensed premises, both for targeting resource prevention and monitoring how the Act has influenced this concentration over time. This technique allows useful questions to be posed including:

- What percentage of all violence against the person offences occur at the top 15 ranked premises?

- How many premises contribute to 25%, 50% or 75% of the offences?
- How has this changed since the introduction of the Act (how many premises have remained in the Top 15 for example)?

It should be noted that there are limitations with the RTT analysis. The format of the data makes it difficult to attribute an offence to an actual premise, thus it refers to offences that occurred inside or directly outside a premise (linked by premise name in the recorded crime data). However offences may occur on street corners adjacent to a number of pubs, or a door security person may refuse entry to an intoxicated person who may cause an offence. Thus care should be taken when attributing offences to an individual premise. Furthermore, these take no account of the size of a premise, its capacity, or the number of hours it remains open. However, this technique is very important for measuring risk, as the volume of offences does relate directly to police the level of policing required at a particular location. Moreover, a premise may have been closed down for part of the year. If this still appears in the top 15 list, then this heightens its risk as it may not have been open for as many months as a premise with fewer offences. However it is acknowledged that if a premise with a small capacity has a relatively high number of offences (in relation to its size) then this may be missed using this analysis. It is suggested this analysis could also be included in any future analysis.

Additional hours used (sample premises visited)

One of the difficulties faced in this research was obtaining accurate information on changes in licensed premises' opening hours baseline to post implementation. Indeed, even where data was obtained on baseline trading hours and post implementation hours applied for, this did not equate to actual additional hours *used*. The qualitative research and other research conducted in the case study areas (see Cragg Ross Dawson study for example) suggested although premises applied for additional hours, they typically did not use all the hours entitled to them. To examine this further, the qualitative fieldwork was used to gather information on additional hours applied for (from licensees and licensing authorities) as well as additional hours used on average, per week. This was undertaken at those premises visited during phase three of the fieldwork, as detailed later in this report.

The number of additional hours *used* per week was then compared with the number of additional hours *applied for* per week. This gave an average percentage of additional hours used by premises in each of the case study areas. It should be noted that this figure is based on a small sample of less than fifteen premises in some study areas.

In addition, the additional hours *used* by premises each week was grouped into three categories - none, low and high. The total number of violence against the person offences at each of these premises were then summed for each of the three additional hours categories. This gave the total number of offences for each grouping, for both the baseline and post implementation periods. For each category, the average number of offences in the baseline periods and post implementation periods were calculated. The changes in volume and in the proportion of offences in each category were then calculated, to compare base line and post implementation periods by number of additional hours *used*. Unfortunately because of the data structures, it is difficult to link offences by time of day and day of week. The recorded crime data (violence against the person offences) is used to extract violence against the person offences, using the premise name. This is a text field and the extraction is the number of times it appears (frequency). It is a complex process to link the frequencies generated on premise name back to the individual crime records to extract number of offences at each premise by time of day or day of week. It is suggested that future research here is necessary and that local authorities maintain a database of violence against the person offences by premise which include the date and time of the offence, the name of the premise, and the premise opening hours at the time of the offence.

Additional hours applied for (estimated for all premises)

In addition to examining the additional hours *used* at the sample of premises visited during the fieldwork, additional hours *applied for* per week were estimated for all premises in the study area. It proved to be difficult to obtain data on former trading hours (during the baseline period). For this reason, the researchers estimated these to be 11.00pm for pubs and 2.00am for night clubs. The data on current hours *applied for* (not necessarily those used) were then used to generate additional hours applied for per week for all premises in each case study area.

These hours were then grouped into three classifications - no additional hours, low additional hours and high additional hours. For each of these three groupings, the number of violence against the person offences at each of the premises were summed to give a total number of offences in each group, for both the baseline and post implementation periods. The changes in volume and in the proportion of offences in each category were then calculated, to compare base line and post implementation periods by number of additional hours applied for. Again because of the data structures, and for the reasons stated above, it is difficult to link offences by time of day and day of week.

Limitations and analysis not considered

There were a number of analyses that were not considered appropriate for this research. The analysis of the sexual offences data was only carried out at the macro level, as numbers were too small to perform meaningful meso and micro level analysis.

Criminal damage offences often have a date/time range recorded in the crime record that refers to when the crime occurred. The exact time is often not known because the offence could have been caused to property and not been brought to the attention of the owner until some later point. Temporal analysis of this type of crime data often uses a weighted (also referred to as an aoristic) approach. However, preliminary analysis of this time range field suggested this would not be appropriate here (see Appendix 11). The analysis splits the crime data into one hour intervals. 40 per cent of all offence records did not contain a 'to field', and, almost 75 per cent of all offence records either had a 'to time' field that occurred within one hour of the 'from time', or did not contain a 'to time'. Thus, use of the 'from time' field was considered the most appropriate for the purposes of this research. Thus the proportional and time of day analysis is based on the 'from' time of day field only.

Due to the difficulties in obtaining accurate data on the baseline hours of licensed premises, and accurate information on whether premises had extended and/or used extended hours during the post implementation period, it was not possible to use the matched comparison analysis as originally intended for the research. Furthermore, difficulties in linking the violence against the person offence data to individual premises precluded the use of this matched pair analysis. The difficulties in constructing this analysis have enabled yearly breakdowns of these offences, but resource constraints have restricted further analysis by weekends and night-time offences.

There are a number of potential errors that arise in the crime analysis. The first of these errors is due to the under-reporting of crime data (Walker, Kershaw and Nicholas, 2006). The 2005/2006 British Crime Survey suggests that approximately 42 per cent of comparable crimes are reported, although this varies by crime type. For violent crime this figure is approximately 68 per cent, for common assault this figure is much lower (35%). The under-reporting of crime is well documented, and it is likely that the crime data used in this analysis is subject to the same limitations. One of the disadvantages of using police recorded crime data is the extent of under-reporting of crime to the police and this is well documented (Walker et al 2006). Additionally increased police activity in an area may impact upon recorded crime statistics, as it may lead to an increase in offences as more crimes are detected. Conversely, the presence of additional

police may deter potential offenders and actually reduce crime. Thus, A&E and ambulance call out data was used to supplement this crime analysis.

When examining change over time however, there is no reason to suggest (and the qualitative fieldwork supports the likelihood) that the reporting of crime data has not changed between the baseline and post implementation periods. Thus, whilst the under-reporting of crime data should be acknowledged, it is unlikely to explain any changes found in crime patterns between the baseline and post implementation periods. However, as stated above, there are some changes to the classifications of 'serious violence against the person offences. Recent changes in the National Crime recording Standards (NCRS) influenced how Threats or Conspiracy to Murder are recorded (this was introduced in February 2005 (Walker et al, 2006) and recent changes aimed at over-preventing of less serious threats and is likely to have contributed to falls in no injury violence. As a result of this the violence against the person offence data was separated into more and less serious offences. However, because only three per cent of offences were classified as 'more serious', only annual comparisons were examined. The results of this analysis are shown in the Final report, and the methodology used described in the supplementary analysis section of this technical annex.

The recorded crime data will also be influenced by seasonality (Hird and Ruparel, 2007) as it is affected by short-term effects associated with the time of year. These short term effects can obscure longer term trends in the data, and it is important to consider these when interpreting any change observed. Violent assaults and sexual offences, for example, are typically high during the summer months and lower during the winter. Criminal damage tends to have peaks in the spring and autumn, with a slight fall in the summer. Thus, it is important to consider longer term change over a twelve month or longer time period. In addition to seasonal factors, other influences on the recorded crime data may include music festivals, carnivals, and bank holidays, or demonstrations and riots which may vary by location and time of year. For this reason, the crime data are examined over a three year period where possible.

Another potential influence on the crime analysis is the influence of police operations and activity in the case study areas. Alcohol Misuse Enforcement Campaigns (AMECs)⁵ involve short (typically eight week) police-led operations to tackle alcohol-related crime and disorder. AMEC was spearheaded by the Home Office Police and Crime Strategy Unit (PCSU) and the Association of Chief Police Officers (ACPO) and was designed to send a clear message that alcohol-related violence or underage sales/drinking would not be tolerated. The first campaign involved 92 of the 255 Basic Command Units (BCUs) across the country, and 46 trading standards departments, focusing energies and activities around weekends and bank holidays – the busiest time for alcohol-related offences. These were ongoing during the time period analysed.

Furthermore, in some of the case study areas, including Nottingham, the Tackling Violent Crime Programmes (TVCP⁶) were in operation. The timing of both AMECs and TVCPs are highlighted in the individual case study annexes.

Finally, at the outset it had been hoped to incorporate additional contextual information into the analysis. Although there is an abundance of residential neighbourhood classifications, such as ACORN that is used in the British Crime Survey, no equivalent classification exists for non residential areas. There is a clear need for such a classification to be developed, especially to inform studies that seek to identify and explain changes in crime in areas associated with the night-time economy. If such a classification were available for the whole country this would complement existing residential neighbourhood typologies commonly referred to as Geodemographic classifications.

⁵ <http://police.homeoffice.gov.uk/operational-policing/crime-disorder/alcohol-misuse>

⁶ <http://www.crime-reduction.gov.uk/tvcp/tvcp03.htm> and
<http://www.crime-reduction.gov.uk/tvcp/tvcp04.htm>

In the absence of a non residential land use classification, individual components of relevant land use would have to be selected and captured within a GIS. The most relevant would have been alcohol supply points other than pubs and clubs (restaurants, off licenses, supermarkets), major transport routes, taxi ranks and late night shops/ fast food outlets. Given the difficulties in just being able to capture data on pubs and clubs, extending the analysis to capture land use components was deemed infeasible.

In the present study some idea of land use is provided by data derived from the GIS analysis on the density of pubs and nightclubs found in demarcated town centres. Density in this sense is represented by the inter-pub distances expressed in metres in areas of concentrated drinking. These are compared with pub densities in areas outside of the main pub clusters in each of the case study areas. The ratio between the two (i.e. the average distance between pubs in the main drinking circuits divided that between pubs in the rest of the town) gives some idea of the greater concentration of establishments in the main areas of interest.

Finally there was an error with the Guildford criminal damage data (see Annex 10). There appears to be a peak in the post implementation period of offences between midnight and 0.59am. However, when examining this further it is evident that many (65%) of the records are between midnight and 0.01am. This is often a default setting for offences that occur when the time is unknown. Thus, this increase may be the result of data error and not represent actual change.

3. Disorder data analysis

This section of the annex describes the different quantitative analysis techniques used to examine disorder within the case study areas, particularly focusing upon the areas in and around licensed premises.

Description of the data

Police calls for service records (disorder incidents only) were supplied for all five case study areas. These are logs of calls made by the public for police assistance. The following fields were supplied for all five areas:

- Date of incident.
- Time of incident.
- Incident code⁷.
- Incident location (full address including postcode).
- Easting and northing (grid reference).

For each of the five case study areas, disorder codes were extracted from the calls data (Appendix Two). It should be noted that the codes used by each of the five police areas were not standardised across each area, therefore, care should be taken when comparing results between the five areas.

Data accuracy and reliability

On receipt of data, validation procedures were conducted to identify any inconsistencies, anomalies or missing data. Steps were then taken to cleanse the data to improve the quality and utility of the data analysis. This involved a three stage process which was identical to the crime data validation.

Data capture and cleaning

The incident data was captured and cleaned using the same methods as the crime data

Data coding

The data for each case study area was also imported into a statistical package SPSS. This enabled the generation of a number of new fields for analysis. These were identical to those for crime data except there was no age category supplied with the incident data.

The data was also exported into a GIS to validate the incidents location. The procedure was identical to that of crime data.

Validation of location data

The methods used to test the accuracy of the location of calls data was identical to the procedure used for the crime data. For each of the five case study areas, the research team were satisfied that the accuracy of the police geo-coded disorder data was of a high quality and was suitable for the purposes of this research. It is important to note that in one area, Croydon, the data was not supplied by one metre grid references (easting and northing) but by 100 metre grid squares. This

⁷ A breakdown of incident types by codes is provided in Appendix Two

impacted slightly upon the analysis undertaken here, and this is described in more detail within that separate annex.

Methodologies

A range of methodologies were used to analyse the disorder data. These are outlined below.

Distribution of incidents (daily, weekly, monthly and by time of day)

Exploratory analysis was carried out to examine trends in the monthly, yearly, weekly and daily disorder patterns, and to consider whether the Act may have influenced these trends.

Incident rates

Monthly incident rates were calculated for each of the five case study areas. The population estimates used in each area were the same as those used to analyse the crime data. The post implementation rates were calculated as a monthly rate per 10,000 persons. The baseline rates were calculated as a rate per 10,000 persons of the average monthly baseline frequencies of disorder incidents. Hence, for the post implementation period of January 2006, the baseline rate uses the average of the corresponding baseline months January 2004 and January 2005.

Percentage change

The percentage change was calculated for monthly periods between the baseline period and post implementation period. For each monthly period in the baseline period, the average count was used. Thus, the percentage change in January 2006 was the change between the incidents count in January 2006, and the average incident count of January 2004 and January 2005.

The average percentage change was also calculated for time of day. Incident counts for each year were divided by time of day (into twenty-four one hour time intervals). The baseline periods were the time periods 24th November 2003 to 23rd November 2004 and 24th November 2004 to 23rd November 2005. The post implementation period was (24th November 2005 to 23rd November 2006). The average frequency was used for the baseline period.

Proportional change

The proportional change analysis compares data from the baseline period with the post implementation period by time of day. For both the baseline periods and post implementation periods incident counts by time of day (categorised into twenty-four one hour intervals) were used to calculate the percentage of crime in the baseline and post implementation periods by each of the twenty-four time periods. The proportional change figure relates to the percentage point change between the baseline and post implementation periods.

GIS analysis

As with the crime data, spatial analysis of the disorder data was used for this research. Again, buffer zones were used to examine calls for disorder in proximity to licensed premises, and cluster areas of licensed premises were generated to examine the cumulative impact of premises on disorder in areas with high densities of licensed premises.

For the Croydon case study area only, the calls for disorder buffers were created at a distance of 250m intervals. Two such zones were generated, the first up to 250 metres from licensed premises, the second 250 to 500 metres from premises. This is because the calls for disorder data were recorded by 100m grid squares (not individual locations accurate up to one metre). For

this reason, the margin of error of using 50m buffer zones precludes their use. For all other areas 50 metre buffer zones were used following the same procedure as used in the analysis of the crime data.

Incident ratios

Calls for disorder ratios were carried out using the same process as that outlined within the crime section, however, crimes were replaced with calls for disorder data.

Limitations and analysis not considered

The calls for disorder data did not contain fields for age and gender, thus victim profiles were not examined. They also did not contain licensed premise, domestic violence and alcohol flags, thus no analysis of this type could be undertaken. Again time and location data were used as an indirect measure of alcohol related disorder. The location of calls for disorder data was shown (running the analysis using a sample of data from some of the case study areas) to be similar to the criminal damage recorded crime data, thus hot spots of disorder were not generated. Another factor in not examining hot spots of disorder were that in Croydon this analysis was not possible, as the data was located by 100m grids (not individual points).

Care should be exercised in interpreting the calls for disorder records, because they do not reflect actual crimes. There may be multiple calls relating to one incident (although steps were taken to identify duplicate incidents in the data and remove them), thus the disorder data may be subject to over-reporting. The data may also be subject to under-reporting for similar reasons to that of recorded crime data.

Finally, the calls for service data was not standardised across the five study areas, as, unlike the recorded crime data, it is not subject to national reporting standards. This is an important consideration when comparing the five case study areas. In addition, in Nottingham, there was a change in the classification of codes used for all calls for service types during the baseline period, which impacted upon the analysis in that there were only eight months of comparable data baseline and post implementation. In Blackpool, although new codes for disorder were introduced, these were comparable over the time period under consideration.

It is important to the disorder data for Nottingham and Guildford. In Nottingham there was a change in the classification codes used, and this change to the recording standards directly influence the number of incidents classed as disorder. This change occurred in March 2005, and as a result of this, there is not a comparison of two years of baseline data with one year of post implementation data. Instead, the analysis used an eight month baseline period (April 2005 to November 2005) and an eight month post implementation period (April 2006 to November 2006). This makes the findings less robust than the other case study areas, but this analysis is not affected by the change in codes. Using all the baseline data over the two year period would not be examining comparable datasets.

In addition there was an error with the Guildford disorder data (see Annex 10). There appears to be a peak in the post implementation period of incidents between midnight and 0.59am. However, when examining this further it is evident that many (45%) of the records are between midnight and 0.01am. This is often a default setting for incidents that occur when the time is unknown. Thus, this increase may be the result of data error and not represent actual change.

4. Health data analysis

For each of the five case study areas, data was requested on assaults and deliberate injuries from both the ambulance service, and accident and emergency departments of local hospitals. This data is used to supplement the information provided on violence against the person from police recorded crime records. The methods used to clean and validate, and then analyse this data are now described in more detail below.

Requested data

The commissioning body requested data for all five case study areas.

The A&E data and the ambulance data was used to supplement the violence against the person analysis, as it provided further information on assaults. The use of this data enables an assessment to be made of overall levels of alcohol-related attendances (e.g. alcohol poisoning etc) and whether there was any change following the introduction of the Licensing Act. One of the advantages of using this 'health' data is that violence against the person (particularly more serious offences) may be reflected here. Combining health and crime data on violence and assaults in this way increases the robustness of the findings.

Data was requested by the commissioning body from one hospital A&E department per case study area. The hospital selected (if there was more than one) was the one that was most likely to receive attendances/admissions from the city centre. Data was requested for attendances on weekend nights (defined as 10.00pm Friday to 5.00am Saturday and 10.00pm Saturday to 5.00am Sunday), for those people aged between 17 and 35 years, for all presenting symptoms. It was decided to limit to data collection to these specific days, times and ages following a discussion of the commissioning body with Professor Jonathan Shepherd, who assured the commissioning body that these factors would provide a good proxy measure of alcohol-related attendances.

Data was requested for all presenting symptoms as Prof. Shepherd⁸ highlighted that all A&E departments have slightly different recording systems and not all departments routinely record whether the patient was drunk/had consumed alcohol prior to attending or whether an injury was the result of an assault or an accident. The following data was requested:

- Age of patient
- Sex of patient
- Date of attendance
- Time of attendance

Additionally, it was requested that attendances related to assault were flagged (if this was possible given the individual recording systems).

Ambulance data were requested from one ambulance station per case study area. The station selected (if there was more than one) was the one that was most likely to receive call-outs from the city centre. The requested data was for call-outs on weekend nights (defined as above), for those people aged between 17 and 35 years, for all presenting symptoms. The rationale for this is the same as the A&E data.

A summary of the classifications of incidents provided for each case study area are provided in appendix eight.

⁸ See <http://www.cardiff.ac.uk/dentistry/research/phacr/violence> for most recent report

Description of the data

It was not possible to obtain both accident and emergency data and ambulance data for all five case study areas. Thus, of the data that was received, the following data sets were considered suitable for the purposes of this research.

Table 4.1 Data supplied on assaults and deliberate injuries

Case study area	Ambulance data	Accident and emergency data
Blackpool		√
Birmingham	√	
Croydon	√	
Guildford		√
Nottingham	√	√

For each of the five case study areas, the following fields were supplied:

- Date of incident.
- Time of incident.
- Incident type⁹.
- Age of victim.
- Gender of victim.

It is important to note that the incident types are not standardised across all five areas, thus care should be exercised when making comparisons between the five areas. Extracted codes are shown in Appendix Three.

Data accuracy and reliability

On receipt of data, validation procedures were conducted to identify any inconsistencies, anomalies or missing data. Steps were then taken to cleanse the data to improve the quality and utility of the data analysis. This involved a two stage process.

Data capture and cleaning

The crime data supplied was imported into SPSS to clean and validate. This involved a number of procedures.

- Standardisation of date and time fields to enable merging of files from different sources.
- Identification and validation of extreme values.
- Identification of missing data.

Data coding

The data for each case study area was also imported into a statistical package SPSS. This enabled the generation of a number of new fields for analysis. The new fields generated included:

- Day of week.
- Month.
- Year.

⁹ Incident types were supplied as text based fields. For a breakdown see Appendix Three

- Time of day.
- Time of day interval.
- Baseline year 1 (December 2003 to November 2004).
- Baseline year 2 (December 2004 to November 2005).
- Post implementation (December 2005 to November 2006).

Nottingham's accident and emergency data could not be used in the analysis because of the lack of consistency in any of the text fields used to describe the reason for the presentation at accident and emergency units. The data set comprised 42,883 records covering all presentations to accident and emergency units between November 2003 and December 2006. Of these, 34,522 had an entry in the 'cause of visit' field as 'unspecified'. However, it was possible to identify assaults from the Nottingham ambulance data and this provided some information on assaults for the area.

In some cases, processing of these data involved extracting cases of assault from the many different types of incident recorded (e.g. accidents, suspected heart problems, panic attacks, other health conditions). Codes requested were the ICD10 codes. There was also a need, in some areas, to filter out records that covered time periods or days of the week outside the main focus for this part of the research which was on weekend nights (based on the time periods thought to be most influenced by alcohol, and the introduction of the Licensing Act. Unfortunately the nature of the data supplied meant these time periods were not consistent with those used to analyse the crime data. These are defined as follows:

- Friday night from 10.00pm until midnight.
- Saturday (early hours) from 00:01 am until 5.00 am.
- Saturday night from 10.00pm until midnight.
- Sunday (early hours) from 00:01 until 5.00 am.

Data completeness

Although each area was provided with a list of data requirements; unfortunately for a range of reasons what each area provided varied with regard to completeness and quality. The completeness of fields supplied varied by case study area. Table 4.2 shows the characteristics of each data set. Different time periods were covered and there were also variations in the completion of fields such as patients' age and reason for attendance.

Table 4.2 Completeness of assaults data from the ambulance service and accident and emergency sources

Data set	Date range	All incidents	Number of assaults	Percentage assaults	Number with record of victims age
Blackpool accident and emergency data	November 2003 to December 2006	2103	1478	70.2	1471 (99.5%)
Guildford accident and emergency data	January 2005 to December 2006	970	649	66.9	645 (99.3%)
Birmingham ambulance data	November 2004 to December 2006	6382	846	13.2	844 (97.4%)
Croydon ambulance data	November 2003 to	19,901	1214	6.1	965 (79.5%)

	December 2006				
Nottingham ambulance data	November 2003 to December 2006	3819	810	12.1	490 (60.5%)

Methodologies

A range of methodologies were used in the incident data analysis.

Distribution of incidents by month and year

The analyses that were conducted for most areas involved comparing the monthly counts of incidents in the post implementation period (December 2005 through to November 2006) with a baseline constructed from the previous two years' worth of data (December 2003 through November 2005). Thus, the analysis was consistent with that carried out for recorded crime and calls for service to the police (disorder incidents only). However, in Guildford and in Birmingham, the data covered a short period of just over two years and as a result two year baselines could not be calculated.

Comparisons were made in the monthly frequencies of assaults for each post implementation month and the average frequency for months in 2003/04 and 2004/05. Monthly comparisons were also made between the number of assaults from accident and emergency units and ambulance data and violence against the person recorded by the police.

Percentage change

The percentage change was calculated for monthly periods between the baseline period and post implementation period. For each monthly period in the baseline period, the average count was used. Thus the percentage change in January 2006 was the change between the incidents count in January 2006, and the average incident count of January 2004 and January 2005.

The average percentage change was also calculated for time of day. Incident counts for each year were divided by time of day (into twenty-four one hour time intervals). The baseline periods were the time periods 24th November 2003 to 23rd November 2004 and 24th November 2004 to 23rd November 2005. The post implementation period was (24th November 2005 to 23rd November 2006). The average frequency was used for the baseline period

Distribution of incidents by time of day

Sub-sets of the violence against the person data were created for each case study area that matched the days and hours of the day covered by the assaults (weekend nights) (as recommended by Professor Shepherd to the commissioning body). Comparisons could then be made between the assaults and violence against the person in the overall volume of cases, the monthly frequencies, the timing of incidents and in how all of these changed between the baseline and post implementation period.

The exception to this was in Guildford where accident and emergency unit assaults were provided that covered all days of the week and time periods. As the total number of cases was small it was decided not to reduce the size of the data set further by excluding all but weekend night time assaults.

An extension to the analysis of assaults involved comparing violence against the person on weekend nights to violence against the person generally, paying particular attention to the extent to which changes on weekend nights compared with changes in violence against the person generally between the baseline and the months following the implementation of the Act.

Victim profile

Other analyses performed on the assaults data included an examination of the age of the patients requiring either accident and emergency or ambulance service assistance, and how this had changed between the baseline and post implementation periods.

Limitations and analysis not considered

A number of limitations in the use of these data need to be highlighted. Firstly, there will be different interpretations of what constitutes violence against the person for police recording purposes and what constitutes an assault as recorded by accident and emergency units and the ambulance service. Information was not provided on the definitions of incidents or 'types of complaint' used by accident and emergency units and the ambulance service. There is likely to be some degree of overlap between the two, although, it was not possible to quantify this.

A further limitation is that it was not possible to identify the coalescence between the 'catchment area' for accident and emergency and ambulance services and the boundaries used to define the case study areas for this evaluation. Finally, there was no means of linking accident and emergency and ambulance data records to recorded crime data on violence against the person. Thus, the extent to which accident and emergency and ambulance assaults reflected unreported violence could not be determined.

One potential limitation of the analysis is that any change detected in the analysis may reflect changes in the recording practices or recording systems used by the accident and emergency units and the ambulance services. Information on the recording procedures and their potential impact on the findings were not provided.

Only two of the five case study areas provided location data. These were Nottingham and Birmingham ambulance data. Only Nottingham provided both an address and an easting and northing, thus in four of the five areas it was not possible to validate the accuracy of the location data. Therefore, the location of the ambulance data was not further examined in this research.

5. Supplementary analysis

In response to a number of comments by peer review, and after discussion with the commissioning body it was agreed to update the initial reports for this research (produced in March 2007) with some supplementary analysis. The following analysis was therefore included.

- T tests (half yearly comparisons based on weekly values)
- Serious violence against the person analysis
- Weekday and weekend analysis
- Synthesis maps (average baseline to post implementation change) for violence against the person and criminal damage

The findings from these analyses are presented in the final report and supplementary annex.

Statistical significance tests

T tests were run to determine whether there were any significant changes in crime between the baseline period and post implementation. Independent sample t tests were used for this analysis, as there is no reason why crime in one time period would influence crime in a subsequent time period. These were applied to violence against the person, criminal damage, and calls for disorder in each of the five case study areas. T tests were not run on sexual offences due to the small numbers involved. These were run on weekly crime counts in the baseline and post implementation periods. Due to potential seasonal fluctuations that may hide important changes that could only be observed in the first six months or second six months periods, each year was subdivided into a half year period. Weekly values were used as opposed to monthly values as this increases the sample size and reduced the standard error, thus making the test more robust. Thus for this analysis weekly crime counts for the following time periods were compared.

- Baseline (Year 1 A) 23rd November 2003 to 23rd May 2004
- Baseline (Year 1 B) 24th May 2004 to 23rd November 2004
- Baseline (Year 2 A) 23rd November 2004 to 23rd May 2005
- Baseline (Year 2 B) 24th May 2005 to 23rd November 2005
- Post Implementation (Year 3 A) 23rd November 2005 to 23rd May 2006
- Post Implementation (Year 3 B) 24th May 2006 to 23rd November 2006

Tests were run on corresponding times of the year, for example the first six months of year one of the baseline was compared with the first six months of the second year baseline (1A 2A), and in turn this was compared with the first six months of the post implementation period (2A 3A).

Serious and other violence against the person

The five individual case study annexes examined violence against the person offences in detail at the macro level (entire case study area), meso level (near licensed premises) and micro level (inside or directly outside licensed premises). However, changes to the recording process of more serious violence against the person offences (for example 'threats to kill') since April 2005 may influence the results of this analysis. Additionally, lower level offences including other offences against the person (less serious violence) are likely to be influenced by police activity more so than more serious violence. For this reason the average baseline and post implementation violence against the person offences were separated into more serious and other violence against the person offences.

The classification codes used for this analysis, and the findings are detailed in the final report and supplementary annex.

Weekday and weekend comparisons

In addition to the day of week and time of day analysis carried out at each case study area (see individual case study annexes) it was deemed necessary to examine crime by weekday and weekends. One of the reasons for this was that the results of this fieldwork (and that of Cragg Ross Dawson) suggested that where premises tended to extend their hours more at the weekends. Thus analysis by individual days of the week and by time of day may not be sensitive to any difference in night-time offences between weekday and weekend offences.

Two methodologies were employed here, similar to those used in the individual annexes but with an additional weekday weekend split. The first was to examine monthly crime counts (for violence against the person, criminal damage and calls for disorder) for the average baseline and post implementation periods (separated by weekday and weekend offences). The second was also to examine all these offences by time of day. For the purposes of this analysis weekends were considered as between 0.01 am Friday morning to midnight Sunday and weekday offences 0.01 Monday to midnight Thursday.

Synthesis maps

In order to examine change between baseline and post implementation time periods, the kernel density estimate (KDE) hot spot maps produced in the individual annexes for violence against the person and criminal damage were used to produce synthesis maps. For more detail on the construction of KDE hot spot maps see the technical annex. The advantages of these synthesis maps are that changes in the spatial and temporal distributions of crime patterns can be examined at a glance on a single map.

In the individual annexes two KDE maps were produced (one for the average baseline and one for the post implementation periods) for each of the four time categories under consideration. These time periods were:

- 9.00pm to 10.59pm
- 11.00pm to 0.59am
- 1.00am to 2.59am
- 3.00am to 4.59am

In this annex, the two maps (baseline and post implementation) for each time group have been combined to give a map of change for each time period. This was created by subtracting the KDE (z score) for each grid cell in the average baseline period from the KDE score in the post implementation period to give a KDE (Z value) change for each cell. These values of change (based on the change from the two z values) were then categorised into five groups. These were;

- high increase
- increase
- little or no change
- reduction
- high reduction

Note that these categories are comparable only for each crime type under consideration, and only for individual areas. Thus the change depicted is relative to that area and that crime type. It is not possible using these scales to compare a high increase in criminal damage from 3.00am to 4.59am in Birmingham with a high increase in criminal damage at the same time period in Blackpool. However, the synthesis maps do indicate change in violence against the person from

1.00am to 2.59am in Nottingham with change in violence against the person from 3.00am to 4.59am in Nottingham. In other words, like crime categories within individual case study areas can be compared, to examine changes both in time and place, but criminal damage can not be compared with violence against the person, and Nottingham can not be compared with Birmingham in the scale of high increase to high reduction.

6 Qualitative analysis

The quantitative analysis used in this research was supplemented by qualitative fieldwork at each of the five case study areas. There were two methodologies employed:

- Participant observation.
- Semi-structured interviews.

The purpose of this was to gain additional contextual information in each of the five case study areas. This included:

- Changes in the 'styles' of establishments.
- Changes in the age of clientele.
- Introduction of new safety measures.
- New staff training programmes.
- Changes in consumer drinking patterns.
- Changes in target populations.
- Introduction/development of new community safety initiatives.
- Changes to the nature of policing (style, organisation, new initiatives, resources and priorities).
- Cultural changes post implementation (for example to a 'continental cafe culture' for example).
- Information about the actual usage of additional hours granted post implementation.

Timescale

The fieldwork section of this project consisted of three phases. These were as follows:

- Phase One - November 2005 (baseline period)
- Phase Two - January to March 2006 (approximately two months into the post implementation period)
- Phase Three - January 2007 (approximately twelve months into the post implementation period).

Participant observation took place during all three phases, and semi-structured interviews took place during the second and third phase visits. Two researchers were employed at each study area to conduct this fieldwork.

Participant observation

Participant observation was carried out at each of the five case study areas during each of the three phases of fieldwork. This observational work was carried out in the key drinking areas in each case study area (the general area outside premises) and inside a number of premises. Premises were selected for a number of reasons including previous crime rates, location (to sample premises from all key drinking areas) and on the basis of discussions with local police forces so as not to compromise fieldworker safety. The observation templates used for the participant observation are provided in Appendix Four.

Semi-structured interviews

Semi-structured interviews were conducted at a number of venues in each of the case study areas, at differing points in time. The purpose of these was to add contextual data on the conditions of the five case study areas, to supplement the findings of the quantitative analysis.

The resources available did not permit transcriptions of the interviews, but all interviews (where possible) were recorded, and the findings were categorised according to pre-identified topic guides (Appendix Five)

Phase two interviews

These were carried out at each case study area early in the post implementation period (between December and March 2006). Due to the limited resources, a sampling framework was developed to allow researchers to select the appropriate number of premises. The premises visited were selected based upon information from the relevant police forces who were asked to identify the 15 licensed premises with the highest levels of violence against the person offences. An additional step in selecting premises was to omit from the search criteria any premises that had been visited by Cragg-Ross Dawson (who conducted qualitative fieldwork at each of the five case study areas as part of a separate research project). This research was commissioned at the same time as this research, in the same five case study areas, thus steps were taken (as described below) to avoid duplication of effort.

Fieldworkers also sought police advice to ensure that they did not place themselves in unnecessary danger before visiting any premises. A copy of the interview schedule is provided in Appendix Six

Phase three interviews

These interviews took place in January 2007, just over twelve months after the Act was implemented. A copy of the interview schedule is provided in Appendix Seven. The premises visited were selected based upon the following criteria:

- Those in the top 15 ranked premises for violence against the person offences recorded during the period December 2005 to August 2006¹⁰.
- If the bar managers/licenseses had been interviewed by Crag Ross Dawson, interviews took place with door staff.
- For continuity between the phase two and phase three interviews, an additional five premises were added to the top fifteen lists in each study area. These premises were those which had been visited in the first phase of interviews, but were no longer in the top fifteen ranked premises. This enabled the research to investigate why some premises had moved out of the top fifteen, and if they had any common characteristics or policies.

Prior to the interviews and participant observation taking place, both the Home Office and local Police Licensing Officers were provided with details of the premises being visited, the names and contact details of fieldworkers and the dates when fieldwork would be taking place. Fieldworkers were also given contact details of the local police as well as letters from the Home Office (on headed paper) to confirm the legitimacy of the research.

Participants were given the opportunity to provide their name, but were assured that this was not a requirement and that, if they did provide a name, this would not be used to identify comments they made in any of the reports.

Fieldworkers generally found the task of arranging and conducting interviews problematic. The major problem faced by the fieldworkers was that a number of premises had closed down or changed their name. In Birmingham the Dubliner had recently burnt down, in Nottingham,

• ¹⁰ Note due to the data available at the time this post implementation period is based on nine and not twelve months of data

Obsessions Bar had been renamed Kudos, in Croydon, Bar Med, One92One Bar and the Litten Tree had closed down, and in Guildford Bar 39 had changed its name to the Mandolay Hotel and Flares had changed its name to Edwards. Other problems included staff having little or no spare time, refusal to take part and difficulties contacting potential participants. These issues are expanded upon within each annex, but every effort was made to obtain interviews with the maximum 15 participants from each of the 5 case study areas.

There are some additional questions that are suggested for future research. The first is to ask the price of two or three drinks, to compare which are the more expensive premises. This may influence the clientele premises are aiming to attract. The second is to ask premises which premises in the area they think are the most troublesome, and whether this has altered over the past year or even two years.

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Appendix 1

Violence against the person, criminal damage and sexual offences

The following crime codes were used for each crime type based on the Home Office counting rules for recorded crime, April 2005.¹¹

Violence against the person

- 1 Murder
- 2 Attempted murder
- 3 Threat or conspiracy to murder
- 4/1 Manslaughter
- 4/2 Infanticide
- 4/3 Child destruction
- 4/4,6 Causing death by dangerous driving
- 4/7 Causing or allowing death of child or vulnerable person
- 5 Wounding or other act endangering life
- 6 Endangering a railway passenger
- 7 Endangering life at sea
- 8A Other wounding
- 8B Possession of weapons
- 8C Harassment
- 8D Racially or religiously aggravated other wounding
- 8E Racially or religiously aggravated harassment
- 11 Cruelty to and neglect of children
- 12 Abandoning child under two years
- 13 Child abduction
- 14 Procuring illegal abortion
- 15 Concealment of birth
- 37/1 Causing death by aggravated vehicle taking
- 104 Assault on a constable
- 105A Common assault
- 105B Racially or religiously aggravated common assault

Criminal damage

- 56 Arson
- 58A Criminal damage to a dwelling
- 58B Criminal damage to a building other than a dwelling
- 58C Criminal damage to a vehicle
- 58D Other criminal damage
- 58E Racially or religiously aggravated criminal damage to a dwelling
- 58F Racially or religiously aggravated criminal damage to a building other than a dwelling
- 58G Racially or religiously aggravated criminal damage to a vehicle
- 58H Racially or religiously aggravated other criminal damage
- 59 Threat or possession with intent to commit criminal damage

Sexual offences

- 16 Buggery – repealed wef May 2004
- 17 Indecent assault on a male – wef May 2004 split into:
 - 17A Sexual assault on a male aged 13 and over
 - 17B Sexual assault on a male child under 13

¹¹ Available from: <URL: <http://www.homeoffice.gov.uk/rds/counrules.html> > [Accessed 21 February 2007].

- 18 Gross indecency between males – repealed wef May 2004
- 19A Rape of a female - wef May 2004 split into:
- 19C Rape of a female aged 16 and over
- 19D Rape of a female child under 16
- 19E Rape of a female child under 13
- 19B Rape of a male – wef May 2004 split into:
- 19F Rape of a male aged 16 and over
- 19G Rape of a male child under 16
- 19H Rape of a male child under 13
- 20 Indecent assault on a female – wef May 2004 split into:
- 20A Sexual assault on a female aged 13 and over
- 20B Sexual assault on a female child under 13
- 21 Sexual activity involving a child under 13 – wef May 2004
- 22 Unlawful sexual intercourse with girl under 16 – repealed wef May 2004
- 22A Causing sexual activity without consent –wef May 2004
- 22B Sexual activity involving a child under 16 –wef May 2004
- 23 Familial sexual offences (previously titled incest)
- 24 Exploitation of prostitution – wef May 2004
- 25 Abduction – repealed wef May 2004
- 26 Bigamy
- 27 Soliciting of women by men – wef May 2004
- 70 Sexual activity etc with a person with a mental disorder – wef May 2004
- 71 Abuse of children through prostitution and pornography – wef May 2004
- 72 Trafficking for sexual exploitation – wef May 2004
- 73 Abuse of trust – wef May 2004
- 74 Gross indecency with a child– repealed wef May 2004
- 88A Sexual grooming – wef May 2004
- 88B Other miscellaneous sexual offences – wef May 2004

Appendix 2

Calls for disorder

The following codes were extracted from the police calls for service database for 'disorder' related incidents.

Birmingham

Initial Incident Class: Disorder (as coded by police force)

Blackpool

For calls from November 2003 to March 2005 the codes selected were:

Code	Description
32	Juvenile nuisance
40	Street disturbance
41	Disturbance at licensed premises
45	Drunken persons
46	Breach of the peace
47	Other disturbance
55	Community problem

For calls from April 2005 to December 2006 codes selected were:

Code	Description
100	Public Order
401	Street Drinking
412	Noise - Pubs & Clubs
420	Environmental Damage or littering
422	Inappropriate use of public space
431	Rowdy or inconsiderate behaviour
432	General drunken behaviour
440	Serving alcohol after hours (pub or club)

Croydon

26	Disturbance in public place
27	Disturbance in licensed premises
34	Drunkenness
35	Noise nuisance

Guildford

C7 Drugs
D1 Disturbance
D2 Personal/social/community
D9 Community disorder
S2 Public nuisance
S4 Noise nuisance
S6 Rowdy/nuisance behaviour

Nottingham

For calls from November 2003 to March 2005

Calls result:

- Breach Of The Peace
- Disorder St/Pub PI/Lic Premise
- Disorder St/Pub PI/Lic Prems
- Drunkenness
- Drugs

For calls from February April 2005 to December 2006

Calls result:

- As-Noise-Pubs/Clubs
- As-Rn-Use Pub Spac
- As-Rowdy/Nuis
- As-Rowdy/Nuisance/Behaviour
- As-Rowdy/Nuisance-Inapp Gather
- As-Street Dri
- As-Street Drink-Breach Dppo
- As-Street Drinking
- As-Street Drinking-General
- Drugs
- Licensing
- Rowdy/Nuisance/Behaviour
- As-Rowd/Nuis-Inap Use Pub Spac
- Street Drinking

Appendix 3

Breakdown of codes selected for assault data from accident and emergency and ambulance data

The following codes were extracted from the accident and emergency units and ambulance data records for 'assaults'

Birmingham

'Assault'

Blackpool

'Assa/Rape'

Croydon

'Assault'

Guildford

'Assault'

Nottingham

ASSAULT/RAPE

Assault/Sexual Assault

ASSAULT/SEXUAL ASSAULT

Appendix 4

Participant observation template

General area template

Please fill in for each of key drinking areas in city/town centre)

E=Essential

VD=Very Desirable

D=Desirable

Level of Importance	Category	Information
Description of area		
E	Name of Area (general "name" given to area if exists)	
E	Main drinking establishments (name of main premises in area)	
VD	Drinking circuits (any known drinking circuits)	
VD	Interaction with other key drinking areas (start here, move on to other area, vice versa, tend to stay in this area, additional comments)	
E	Key pressure points (text description of where and why problems may occur)	
E	Management of area (text description of any community safety initiatives)	
Policing and Community safety		
E	Policing method (foot patrols, high visibility, patrols in car, police walk through pubs regularly, other, additional comments)	
VD	What is the policing style? (soft, mixed, zero tolerance, additional comments)	
VD	How much police presence is there at night? (few officers visible, pressure points policed, high visibility policing, covert policing, primarily on car, primarily on foot)	
VD	What relationship exists between the police and door supervisors? (Poor, good, excellent, varies by premise, overall comments)	
Other potential pressure points/sources of conflict		

VD	Under age/young kids on street (Y/N additional comments)	
VD	U18 disco/events (Y/N additional comments)	
E	Late night food venues (name of pressure points and description)	
E	Taxi ranks (name of pressure points and description)	
E	Any sign of use of Taxi Marshalls? (Y/N)	
E	Late night buses/trains (name of pressure points and description)	
E	Key Routes out of city centre (name of pressure points/streets and description of)	
E	Ease of getting home late (after 11pm)	
E	Taxi (easy to get, some trouble, very difficult, additional comments)	
E	Bus (frequent services, some services, no service, additional comments)	
E	Train (frequent services, some services, no service, additional comments)	
Other Comments		
D	Any additional comments to those above	

Inside premise template

Please fill in for each of main premises visited

E=Essential

VD= Very Desirable

D=Desirable Information

Level of Importance	Category	Information
Pub Environment (situational factors)		
E	Name of Premise	
E	Address (Street Number, Road, Postcode)	
D	Contact Telephone Number	
VD	Name of Licensee (Licensee or Managers Name)	
E	Current Operating Hours (times open and	

	close by day of week)	
VD	Food Served (Y/N)	
VD	Hours of Service (times serve food, by day of week if variable)	
VD	Type of bar i.e. traditional pub, gastro pub, bar, wine bar, sports bar, nightclub etc	
VD	Dress Code (text description none, no trainers, no tracksuits, no hooded tops, no baseball caps, smart casual, additional comments)	
VD	Floor Space (approx % seating / approx % standing, any additional comments)	
VD	Collection of glasses, bottles etc (dedicated glass collectors, bar staff, use glass carrier, bottle bins, bucket on wheels, stored out of public reach, in public reach, additional comments)	
VD	Door Supervisors (Y/N)	
Pub Environment (situational factors) - Additional information obtained from observation/interviews/informal conversations/other sources		
E	Applied for extension (Y/N)	
VD	Any problems obtaining extension (text description if can obtain information)	
VD	Former opening hours (pre Nov 2005) – times open and close by day of week	
VD	Door supervisors (number employed, gender, times operate by day of week if varies)	
Clientele		
VD	Approximate Target audience (18-21, 22-25, 26-34, 35+, could be combinations of these, additional comments).	
VD	Description of typical clientele - students, young professionals, families, young couples, mature couples, large single sex groups, large mixed sex groups, stag parties, hen parties	
VD	Gender and numbers (single sex groups (less than 3, 3-5, 5-10, more than 10) couples, mixed groups (less than 3, 3-5, 5-10, more than 10), additional comments	
Clientele - Additional information obtained from observation/interviews/informal conversations/other sources		
VD	Busy hours (“early doors” 6-8.30pm, mid doors 8.30-10.00pm, “late doors” 10.00pm to midnight, “club” after midnight, any	

	additional comments)	
VD	Type of venue (Post work drinks, meeting point and move on, call in for a few drinks, stay all night, varies, any additional comments)	
Marketing/Facilities		
VD	Signs for drinks promotions/happy hours (Y/N, hours and days of week, types of drinks offered, other comments)	
VD	Is there a specific food service/restaurant area?	
VD	Entertainment facilities (Large TV screens, pool tables, fruit machines, game machines etc, additional comments)	
VD	Signs for entertainment evenings (Sports matches, karaoke, quiz nights, live music/bands, DJ, additional comments)	
D	Non Smoking Section (Y/N, additional comments)	
VD	Target drinks market (wines, lagers, local bitters and ales, spirits, alcopops, cocktails, additional comments)	
D	Beer garden (Y/N)	
D	Area/facilities for children (Y/N)	
VD	Charge for entry/admission (Y/N)	
Marketing/Facilities - Additional information obtained from observation/interviews/informal conversations/other sources		
VD	Drinks promotions/happy hours (Y/N, hours and days of week, types of drinks offered, other comments)	
VD	Entertainment evenings (Sports matches, karaoke, quiz nights, live music/bands, DJ, additional comments)	
VD	Charge for admission (how much and on what nights)	
Management/Rules/ Crime Prevention		
VD	Signs Over 21s' policy (Y/N, Over 21's, Over 25's, Appears Discretionary, Strictly Enforced, additional comments)	
VD	Acceptable ID Notice/Sign (Y/N, forms of ID accepted Passport/Drivers License/Prove It Card/Other)	
VD	Signs for Refusal to Serve Intoxicated Persons (Y/N, Sign/Poster Displayed additional comments)	
D	Any evidence of enforcement of this whilst in establishment (Y/N additional comments)	
VD	Door supervisor interaction with clients (chat/friendly, greet and welcome, no interaction, move around establishment, find vantage point to observe)	
D	Response to trouble if observed (talk to calmly + then remove if necessary, remove immediately without discussing,	

	ask to leave or remove with force, additional comments)	
D	Management of area by staff (any additional comments)	
VD	Safety initiatives/polices (warning signs displayed, plastic glasses, CCTV, other, additional comments)	
Management/Rules/ Crime Prevention - Additional information obtained from observation/interviews/informal conversations/other sources		
VD	Over 21s' policy (Y/N, Over 21's, Over 25's, Appears Discretionary, Strictly Enforced, additional comments)	
VD	No large groups (Y/N, applies to young males only, additional comments)	
VD	Refusal to Serve Intoxicated Persons (Y/N, Sign/Poster Displayed additional comments)	
Additional Comments		
D	Other comments not included above	
Additional Information		
D	Any additional information obtained from observation/interviews/informal conversations/other sources	

Appendix 5

Topic guides

Door supervisors

Theme	Key Questions	Follow on and Notes
Context	<ul style="list-style-type: none"> • Length of time worked in industry • Knowledge of town centre/city • SIA registered? 	<ul style="list-style-type: none"> • Brief background information • Speed of turnover of door supervisors may alter post extended hours
Violence and Disorder	<ul style="list-style-type: none"> • Perceived Changes in Violence and Disorder since extended hours • Problematic times/days/groups/times of year • How much of a problem are knives/bottles and glasses/firearms/other weapons? • How safe is town/city • Physical measures to remove problem clients • How do methods used influence crime levels 	<ul style="list-style-type: none"> • Subjective view • How compare with crime data • Personal experience of violence and disorder • Any differences between extended hours and non extended hours • Any unusual (i.e. not Friday/Saturday night, Not young males 18-25) • Has this changed since introduction of act
Cientele	<ul style="list-style-type: none"> • Type of clientele (age, sex, single/mixed groups, couples, small/large groups) • Locals/Non Locals • Over 21/25 policy • Clothing policy • Other policies • Forms of ID accepted? • Number of door staff • Part of drinking circuits • Changes since Nov 2005 to management/clientele 	<ul style="list-style-type: none"> • It is difficult to develop mutually exclusive categories for type of clientele • Primary differences are apparent age, gender and group size • Subjective view of type of clientele • Value of perceived client type and its relationship with the associated level of violence and disorder • Has any of this changed since the introduction of extended hours

Relationship with Police	<ul style="list-style-type: none"> • Interaction between door supervisors and police in reducing crime • Relationship between police and door supervisors • Influence this has on violence and disorder • Links with police i.e. radio, CCTV • Views of police. Has this changed since Nov 2005? • Accreditation. 	<ul style="list-style-type: none"> • Has any of this changed with the introduction of extended hours
Extended Hours	<ul style="list-style-type: none"> • Opening hours pre and post Nov 2005. • Changes to working practices • Changes to tactics/methods used to ensure safety • Impact of extended hours alter level of difficulty of doing job • What should be done 	<ul style="list-style-type: none"> • How changed since extended hours • Look for good practice suggestions

Licencees and bar managers

Theme	Key Questions	Follow on and Notes
Context	<ul style="list-style-type: none"> Length of time worked in industry Knowledge of town centre/city 	<ul style="list-style-type: none"> Brief background information Speed of turnover of management may alter post extended hours
Violence and Disorder	<ul style="list-style-type: none"> Perceived Changes in Violence and Disorder since Nov 2005 How much of a problem are bottles/glasses, knives, firearms etc? Change in level of use since Nov 2005. Problematic times/days/groups/times of year. 	<ul style="list-style-type: none"> Subjective view How compare with crime data Personal experience of violence and disorder Any differences between extended hours and non extended hours Any unusual (i.e. not Friday/Saturday night, Not young males 18-25)
Establishment Type	<ul style="list-style-type: none"> Type of establishment (size, opening hours, pub/bar/club, target drinks market, target clientele) Extended hours/ Non Extended Provision (big screen, pool table etc.) Service provided Promotions / theme nights / Special events Formal security and door supervisors Accreditation schemes Informal security/crime prevention measures Changes to management/premises/security since Nov 2005 	<ul style="list-style-type: none"> How do crime violence and disorder rates differ by establishment type How does pub 'environment' impact on crime How can the pub environment be altered to increase security Has any of this changed since the introduction of extended hours? If so, in what way(s)? What differences exist between extended and non extended premises. Do these influence crime levels Look for good practice examples of formal and informal security/crime prevention measures
Clientele	<ul style="list-style-type: none"> Type of clientele (age, sex, single/mixed groups, couples, small/large groups) Locals/Non Locals Over 21/25 policy Clothing policy? Other policies? Forms of ID accepted? Part of drinking circuits Changes since Nov 2005 to clientele 	<ul style="list-style-type: none"> It is difficult to develop mutually exclusive categories for type of clientele Primary differences are apparent age, gender and group size Subjective view of type of clientele Value of perceived client type and its relationship with the associated level of violence and disorder Has any of this changed since the introduction of extended hours

Relationship with Police	<ul style="list-style-type: none"> • Interaction between licensees and police in reducing crime • Relationship between police and licensees • Influence this has on violence and disorder • Links to police i.e. radio/CCTV • View of police – has this changed since Nov 2005? • Relationship with other agencies i.e. fire service, environmental health etc. 	<ul style="list-style-type: none"> • Has any of this changed with the introduction of extended hours
Extended Hours	<ul style="list-style-type: none"> • Applied for extended hours • Usage of extended hours granted • Impact of extended hours on (working practice, environment of establishment, violence and disorder, clientele, crime reduction schemes) • Overall opinion on extended hours • How should alcohol related crime and disorder be reduced • Opinion of SIA accreditation. 	<ul style="list-style-type: none"> • Number of establishments using • Clustered in location or spread out through town/city • Impact on Night-Time Economy • Licensees opinions on extended hours • Look for good practice suggestions • Track this over time?

Appendix 6

Templates for semi-structured interviews (phase 2)

Interviews with door supervisors

Contextual Information

1. How many years have you worked as a door supervisor? Number of years
years _____
2. How many years have you worked in this area? (town/city centre) Number of years _____
3. How many years have you worked at this premise? Number of years _____
4. Do you usually work at this premise or do you rotate/also work at other bars/clubs in the area?
Only work here / usually work here, sometimes work other premises/ work at other premises often
- 5 (a) Do you live in this area (in the vicinity of town/city) Y / N
(b) (If Yes) How many years lived in this area? Number of years

Clientele and Premise

6. Thinking about the area around here how would you describe the night-time economy, that is:
 - (a) what sort of bars/pubs are there?
 - (b) and what sort of clientele are they marketed to/do they attract?
7. What type of people drink in this premise?
8. What differences (if any) exist between the clientele during different nights of the week?
9. Do you have any particular policy on admittance (over 21s, type of clothing etc)
Do you enforce the policy?
Policy name _____ (strictly enforce/sometimes enforce/discretionary)
Policy name _____ (strictly enforce/sometimes enforce/discretionary)
Policy name _____ (strictly enforce/sometimes enforce/discretionary)
10. Which forms of identification do you accept? (Passport/driving license/proof of age card/other)
11. (a) How many door staff work here each night?
(b) How many work on the door/how many inside the establishment?

Day	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Inside							
Outside							

12. (a) Does the premise form part of any "drinking circuit" that you know of Y / N
(b) If Y, Can you name other premises clients tend to visit on this circuit
Name of premises _____

13. Are clientele of the establishment generally known to you (locals) or are many of them unfamiliar

Mainly known drinkers, mixture of known and unknown drinkers, mainly unknown drinkers

14. Have you noticed any major changes since the introduction of the new Act?
 - (a) to the way this licensed premise is managed
 - (b) to the clientele that drink here

Levels of Violence and Disorder

15. (a) How do you think the amount of night time violence has *changed* in the town/ city centre in the last two years? *increased/ decreased/ not changed*
(b) Why do you think this is?
16. (a) How do you think the amount of night time disorder (“drunk and disorderly”) has changed in the town/ city centre in the last two years? *increased / decreased / not changed*
(b) Why do you think this is?
17. (a) How do you think the amount of night time violence has changed in the town/city centre since the start of the new Licensing Act (Nov 2005)? *increased / decreased / not changed*
(b) Why do you think this is?
18. (a) How do you think the amount of night time disorder (“drunk and disorderly”) since the start of the new Licensing Act (Nov 2005) has changed in the town/ city centre?
increased / decreased / not changed
(b) Why do you think this is?
- 19 How much of a problem are weapons used to commit violence in the town/city centre
bottles/glasses *not problem/minor problem/major problem*
knives *not problem/minor problem/major problem*
firearms *not problem/minor problem/major problem*
other (name) *not problem/minor problem/major problem*
20. Do you think there has there been a change in their level of use in the last two years?
Bottles/glasses *large reduction/small reduction/no change/small increase/large increase*
knives *large reduction/small reduction/no change/small increase/large increase*
firearms *large reduction/small reduction/no change/small increase/large increase*
other (name) *large reduction/small reduction/no change/small increase/large increase*
21. Do you think there has there been a change in their level since the new licensing Act?
Bottles/glasses *large reduction/small reduction/no change/small increase/large increase*
knives *large reduction/small reduction/no change/small increase/large increase*
firearms *large reduction/small reduction/no change/small increase/large increase*
other (name) *large reduction/small reduction/no change/small increase/large increase*
22. Have you had to deal with any incidents of violence while working in this premise?
(a) In the last two years *Y / N*
(If Yes) Approximately how many? _____
(b) Since the start of the new Licensing Act November 2005? *Y / N*
(If Yes) Approximately how many? _____
- 23 (a) How safe do you think the night time is in the town/city centre where you work?
(very safe / safe / unsafe / highly unsafe?)
(b) Has your view on this changed since the introduction of extended hours? (Y/N)
(c) If Y, how safe do you think it is now *(very safe / safe / unsafe / highly unsafe?)*
24. (a) Are there particular days or times when there is a greater risk of violence? Y/N
(b) *If Y, When are these?*
(c) Have these changed since the start of the New Licensing Act?
(d) *If Y, how has this changed?*
25. Are there particular times of year when there is a greater risk of violence?
If Y, when are these?
26. What age groups and sexes tend to cause the most problems?
27. How often have you used physical measures to remove persons from the premises?
(a) In the last two years
(b) Since the start of the New Licensing Act (November 2005)
- 28 (a) What are the main reasons for having to use force/physical measures?
(b) What other methods may you also use under what circumstances?
29. Have you changed your view on how best to remove persons from premises since the introduction of the new Licensing Act?

Relationship with Police

30. (a) With regards to your job as a door supervisor, do you talk to the local police in your area about violence and disorder? Y/N

(b) *if N*, Why not?

if Y Do you liaise with them about potential 'troublemakers'? (Y/N)

(c) *if N*, Why not?

if Y How frequently (*daily/weekly/monthly/quarterly/when need to/never*)

31 (a) Do you have a direct radio link to the police if you require assistance? Y/N

(b) *if N*, Why not?

(c) *if Y*, Do you use it (Y/N)?

(d) *if Y*, How often do you use it? (*never/only in emergency/rarely/sometimes/often*)

32 Do you think the police (*help your job/hinder your job/have no influence on your job*). Why?

33. Has your view of the police changed since the introduction of the new Act?

Extended Hours

34. Has the introduction of extended hours changed your job in any way?

35. Has it resulted in *more/less/same* amount of trouble/problems?

36. Has it made your job *easier/harder/same* level of difficulty? Why?

37. What do they think should be done to reduce alcohol-related crime and disorder?

(a) in the place you work;

(b) in the local area

(c) and nationally?

38 Could we approach you in 12 months to do a follow up survey (Y/N)?

Interviews with licensees and bar managers

Contextual Information

1. What is your job title/role?

2. How many years have you worked at this premise? Number of years _____
3. How many years have you worked in the trade? Number of years _____
- 4.(a) Have you worked at other premises in the city centre in the past? Y/N
(b) If Y, what other premises _____
5. (a) Do you live in this area (*by area mean vicinity of town/city*) Y/N
(b) (if Yes) How many years have you lived in this area? Number of years _____

Type of Establishment

(If you know this information it is not necessary to ask these)

6. (a) What are your current opening hours (if unknown)?
(b) What were they before the Act (if unknown)?
(c) What is your capacity (if unknown)?
(d) Do you serve food (if unknown)?
(e) Do you have a pool table/big screen/fruit machines? (if unknown)?
7. (a) How many door staff work here each night?
(b) How many work on the door/how many inside the establishment?

Day	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Inside							
Outside							

- 8 Do you have table service (for drinks) Y/N
9. (a) Do you have happy hours? Y/N
(b) (If Y) On which days and at what times?
- 10 (a) Do you have special promotion nights (*live music, DJs etc*)? Y / N
(b) If Y, On which days and at what times?
- 11 (a) Do you charge for entry? Y/N Y / N
(b) If Y How much on what days/nights?
12. What are your popular drinks?
(mainly... *strong lagers/sprits/wines/local ales and bitters/cocktails/alcopops/other*_____)
13. Are you aware of any of the following, and if so have you signed up to any of the following schemes?
Aware Signed
- up to
- (a) Any good pub/club accreditation scheme (eg Best Bar None)
(name)_____ Y/N
Y/N
- (b) British Beer and Pub Association (BBPA) responsible Y/N Y/N
drinking code?
- (c) The Portman Group's code of conduct for the sale of alcohol? Y/N Y/N
- (d) The Government's Social Responsibility Standards for the Y/N
Y/N
Production and Sale of Alcohol in the UK
- If you have signed up to any of these
- (f) Do they think they make a difference? Y / N
(g) If yes, in what way?
14. (a) Do you operate any other crime prevention schemes? Y / N
(b) If y, please describe?
15. Have you made any changes since the introduction of the Act?
(a) To your target market?

- (b) To your management of the premise (ie introduced any new safety/crime reduction initiatives)
- (c) To any promotions?
- (d) To any special/theme nights etc?

Clientele

- 16. What age and sex are your typical clients?
- 17. Does this vary by night of the week/ by day and night?
- 18. What type of people drink in these premises?
- 19. Are you satisfied with the behaviour of clients who drink in the premise? Y / N
- 20. Are there differences between the clientele during different nights of the week?
- 21. Do you have any particular policy on admittance (over 21s, type of clothing etc) Y / N
- If Y, what policy and do you enforce the policy?
- Policy name _____ (strictly enforce/sometimes enforce/discretionary)
- Policy name _____ (strictly enforce/sometimes enforce/discretionary)
- Policy name _____ (strictly enforce/sometimes enforce/discretionary)
- 22. Which forms of identification do you accept? (Passport/driving license/proof of age card/other)
- 23. Does the premise form part of any "drinking circuit" that you know of Y / N
- (If Y) Can you name other premises clients tend to visit on this circuit
- Name of premises _____

- 24. Are clientele of the establishment generally known to you (locals) or are many of them not (infrequent visitors, large local population or from outside the area perhaps)?
- Mainly known drinkers, mixture of known and unknown drinkers, mainly unknown drinkers*
- 25 (a) Has your clientele changed since the introduction of extended hours? Y/N
- (b) If Y, In what way and why?

Levels of Violence and Disorder

- 27. (a) How do you think the amount of night time violence has *changed* in the town/ city centre in the last two years? *increased/ decreased/ not changed*
- (b) Why do you think this is?
- 28. (a) How do you think the amount of night time disorder ("drunk and disorderly") has changed in the town/ city centre in the last two years? *increased / decreased / not changed*
- (b) Why do you think this is?
- 29. (a) How do you think the amount of night time violence has changed in the town/city centre since the start of the new Licensing Act (Nov 2005)? *increased / decreased / not changed*
- (b) Why do you think this is?
- 30. (a) How do you think the amount of night time disorder ("drunk and disorderly") since the start of the new Licensing Act (Nov 2005) has changed in the town/ city centre? *increased / decreased / not changed*
- (b) Why do you think this is?
- 31 How much of a problem are (the following types of) weapons used to commit violence in the town/city centre
- bottles/glasses *not problem/minor problem/major problem*
- knives *not problem/minor problem/major problem*
- firearms *not problem/minor problem/major problem*

- other (name) *not problem/minor problem/major problem*
32. Do you think there has there been a change in their level of use in the last two years?
 Bottles/glasses *large reduction/small reduction/no change/small increase/large increase*
 knives *large reduction/small reduction/no change/small increase/large increase*
 firearms *large reduction/small reduction/no change/small increase/large increase*
 other (name) *large reduction/small reduction/no change/small increase/large increase*
33. Do you think there has there been a change in their level since the new licensing Act?
 Bottles/glasses *large reduction/small reduction/no change/small increase/large increase*
 knives *large reduction/small reduction/no change/small increase/large increase*
 firearms *large reduction/small reduction/no change/small increase/large increase*
 other (name) *large reduction/small reduction/no change/small increase/large increase*
34. Have you had to deal with any incidents of violence while working in this premise?
 (a) In the last two years Y / N
 (If Yes) Approximately how many? _____
 (b) Since the start of the new Licensing Act November 2005? Y / N
 (If Yes) Approximately how many? _____
35. (a) How safe do you think the night time is in the town/city centre where you work?
(very safe / safe / unsafe / highly unsafe?)
 (b) Has your view on this changed since the introduction of extended hours? Y/N
 (c) If Y how safe think it is now *(very safe / safe / unsafe / highly unsafe?)*
36. (a) Are there particular days or times when there is a greater risk of violence? Y/N
 (b) If Y, When are these?
 (c) Have these changed since the start of the New Licensing Act?
 (d) If Y, how has this changed?
37. Are there particular times of year when there is a greater risk of violence?
 If Y, when are these?
38. What age groups and sexes tend to cause the most problems?

Relationship with Police

39. (a) With regards to your job, do you talk to the local police in your area about violence and disorder? Y/N
 (b) if N, Why not?
 if Y Do you liaise with them about potential 'troublemakers'? (Y/N)
 (c) if N, Why not?
 If Y How frequently (daily/weekly/monthly/quarterly/when need to/never)
40. (a) Do you have a direct radio link to the police if you require assistance? Y/N
 (b) If N, Why not?
 (c) If Y, Do you use it (Y/N)?
 (d) If Y, How often do you use it? *(never/only in emergency/rarely/sometimes/often)*
41. Do you think the police *(help your job/hinder your job/have no influence on your job)*. Why?
42. Has your view of the police changed since the introduction of the new Act?

Extended Hours

43. (a) Have you/Head Office applied for extended hours Y/N
 (b) If No, are you intending to apply in the future and why?
 (c) If Yes, have you experienced any difficulties in applying for extended hours?
44. What conditions were put on your licence? Are these new?
45. Do you intend to use all the hours you have applied for?
46. Do you think the introduction of extended hours has resulted in staggered closing times in your area?
47. Do you think people are drinking more responsibly because of the extended hours?
48. Do you think much has changed in your premise with the introduction of extended hours?
49. Do you think much has changed in the area around your premise as a result of the introduction of extended hours?
- 50.(a) [If using extended hours]Are you making any additional profit with extended hours?

- 50 (b) [If not using extended hours] Do you think you would make any additional profit with extended hours?
52. Has the introduction of extended hours have a direct influence on your job? In what way?
53. Overall, do you think the introduction of extended hours has been a good policy? Can you give reasons for your answer?
54. What do they think should be done to reduce alcohol-related crime and disorder:
- a) in the place where you work?
 - b) in the local area?
 - c) nationally?
- 55 Could we approach you in 12 months to do a follow up survey (Y/N)?

Appendix 7

Templates for semi-structured interviews (phase 3)

Interviews with door supervisors

Contextual Information

1. How many years have you worked as a door supervisor? *Number of years* _____
2. How many years have you worked in this area? (*name the town/city centre*) *Number of years* _____
3. How many years have you worked at this premise? *Number of years* _____

4. (a) Are you SIA registered?

- Yes
No

(b) If yes, how many years have you been registered? *Number of years* _____

5. Do you usually work at this premise or do you rotate/also work at other bars/clubs in the area?

- Only work here*
Sometimes work at other premises
Often work at other premises

6(a) Do you live in this area (*in the vicinity of town/city*)

- Yes
No

(b) (*If Yes*) how many years lived in this area? *Number of years* _____

Clientele and Premise: Current Situation

7. Thinking about the area around here, how would you describe the night-time economy, that is:

(a) what sort of bars/pubs are there?

.....
.....

(b) and what sort of clientele are they marketed to/do they attract?

.....
.....

8. What type of people drink in this premise?

.....

9. What differences (if any) exist between the clientele during different nights of the week?

.....
.....

10. Do you have any particular policy on admittance (over 21s, type of clothing etc)

Policy name _____ This policy is....

- Strictly enforced*
Sometimes enforced
Discretionary

Policy name _____ This policy is....

- Strictly enforced*
Sometimes enforced
Discretionary

Policy name _____ This policy is....

- Strictly enforced
- Sometimes enforced
- Discretionary

11. (a) Do you have a Drugs Policy?

- Yes
- No

(b) If so, how long has this policy been in place?

.....

12. Which forms of identification do you accept? (please tick all relevant boxes)

- Passport
- Driving license
- Proof of age card
- Other (please describe).....

13. (a) How many door staff work here each night?

.....

(b) How many work on the door/how many inside the establishment?

Day	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Inside							
Outside							

14. (a) Does the premise form part of any "drinking circuit" that you know of?

- Yes
- No

(b) If Yes, Can you name other premises clients tend to visit on this circuit?

Name of Premises.....

15. Are clientele of the establishment regulars/locals or are many of them unfamiliar?

- Mainly known drinkers
- Mixture of known/unknown drinkers
- Mainly unknown drinkers

16. Have you noticed any major changes since the introduction of the new Licensing Act (since November 2005)?

(a) to the way this licensed premise is managed

- Yes
- No

(b) If yes, can you please expand

.....

.....

(c) To the clientele that drink here

- Yes
- No

(d) If yes, can you please expand.....

Opening Hours

17. Can you please tell me your current opening/closing hours for this premise?

Current:

	Mon-Wed	Thurs	Fri	Sat	Sun
--	---------	-------	-----	-----	-----

Opening hours					
Closing hours					

18. (a) Do you know if the hours changed after the implementation of the Licensing Act (Nov 2005)?

Yes
 No

(b) If yes, can you tell me what they were before?

Pre-Licensing Act:

	Mon-Wed	Thurs	Fri	Sat	Sun
Opening hours					
Closing hours					

Levels of Violence and Disorder

19. (a) Focusing first specifically upon these premises, since the introduction of the Licensing Act (Nov 2005), do you think that the level of night time violence has:

Increased
 Decreased
 Not changed

(b) Why do you think this is?

.....

20. (a) Focusing now upon the town/city centre generally, since the introduction of the Licensing Act (Nov 2005), do you think that the level of night time violence has:

Increased
 Decreased
 Not changed

(b) Why do you think this is?

.....

21. (a) Focusing first specifically upon these premises, since the introduction of the Licensing Act (Nov 2005), do you think that the level of night time disorder (“drunk and disorderly”) has:

Increased
 Decreased
 Not changed

(b) Why do you think this is?

.....

22. (a) Focusing now upon the town/city centre, since the introduction of the Licensing Act (Nov 2005), do you think that the level of night time disorder (“drunk and disorderly”) has:

Increased
 Decreased
 Not changed

(b) Why do you think this is?

.....

23 (a) How much of a problem are bottles/glasses being used to commit violence in the town/city centre

- Not problem*
- Minor problem*
- Major problem*

(b) How much of a problem are knives being used to commit violence in the town/city centre

- Not problem*
- Minor problem*
- Major problem*

(c) How much of a problem are firearms being used to commit violence in the town/city centre

- Not problem*
- Minor problem*
- Major problem*

(d) How much of a problem are other weapons being used to commit violence in the town/city centre

- Not problem*
- Minor problem*
- Major problem*

Please

expand.....

24. Do you think there has there been a change in their level since the new Licensing Act (Nov 2005)?

(a) Bottles/glasses being used as a weapon

- Large reduction*
- Small reduction*
- No change*
- Small increase*
- Large increase*

(b) Knives being used as a weapon

- Large reduction*
- Small reduction*
- No change*
- Small increase*
- Large increase*

(c) Firearms being used as a weapon

- Large reduction*
- Small reduction*
- No change*
- Small increase*
- Large increase*

(d) Other weapons (name)

- Large reduction*
- Small reduction*
- No change*
- Small increase*
- Large increase*

25. (a) Since the start of the new Licensing Act (November 2005), have you had to deal with any incidents of violence while working in this premise?

- Yes*
- No*

(b) If yes, approximately how many.....

(c) Compared to the year before the Act was introduced, has the number of violent incidents in these premises:

- Increased
- Decreased
- Stayed the same

26 (a) How safe do you think the night time is in the town/city centre where you work?

- Very safe
- Safe
- Unsafe
- Highly unsafe

(b) Has your view on this changed since the introduction of the Licensing Act?

- Yes
- No

(c) If Yes, do you think that it is:

- Safer
- Less safe
- About the same

27. (a) Are there particular days or times when there is a greater risk of violence?

- Yes
- No

(b) If Yes, When are these?.....

(c) Have these changed since the start of the New Licensing Act?

- Yes
- No

(d) If Yes, how has this changed?.....

28. (a) Are there particular times of year when there is a greater risk of violence?

- Yes
- No

(b) If Yes, when are these? (prompt – Summer, Xmas, Football season etc.)

29. What age groups and sexes tend to cause the most problems?.....

30. Thinking about the one year period prior to the Licensing Act (Nov 04-Nov 05) and the one year period since the Licensing Act (Nov 05-Nov 06) has your use of physical measures to remove persons from the premises:

Increased

i.e. you have used physical measures to remove people from the premises more between Nov 05 and Nov 06 than between Nov 04 and Nov 05.

Decreased

i.e. you have used physical measures to remove people from the premises less often between Nov 05 and Nov 06 than between Nov 04 and Nov 05.

About the same

i.e. the level has remained largely unchanged

31 (a) What are the main reasons for having to use force/physical measures?.....

(b) What other methods may you also use under what circumstances?.....

32. (a) Have you changed your view on how best to remove persons from premises since the introduction of the new Licensing Act?

Yes
No

(b) Can you explain.....

(c) If yes, is this linked to the introduction of the Licensing Act or other measures such as SIA Accreditation?

33 (a) Are you aware of any other changes to the premises/and or management of the premises since the introduction of the Licensing Act in Nov 2005?

Yes
No

(b) If yes, can you explain.....

Relationship with Police

34. (a) With regards to your job as a door supervisor, do you talk to the local police in your area about violence and disorder?

Yes
No

(b) If No, Why not?

(c) If yes, do you liaise with them about potential 'troublemakers'?

Yes
No

(d) If No, why not?.....

(e) If Yes, how frequently?

Daily
Weekly
Monthly
Quarterly
When need to
Never

35 (a) Do you have a direct radio link to the police if you require assistance?

Yes
No

(b) If No, Why not?

(c) If yes, do you use it?

Yes
No

(d) If yes, how often do you use it?

Never
Only in emergency
Rarely

Sometimes
Often

(e) If no, why not?
.....

36. Do you think the police:
Help your job
Hinder your job
Have no influence on your job
Can you expand upon your answer.....

37. (a) Has your view of the police changed since the introduction of the new Act?
Yes
No

(b) If yes, has it:
Got better
Got worse
Stayed the same

38. Is this bar a Best Bar None venue?
Yes
No

Impact of Licensing Act on role of door supervisor

39. (a) Has the introduction of the Licensing Act changed your job in any way?
Yes
No

(b) If yes, please expand.....

40. Has it resulted in:
More trouble/problems
Less trouble/problems
About the same trouble/problems

41. Has it made your job:
Easier
Harder
About the same level of difficulty

42. What do you think should be done to reduce alcohol-related crime and disorder?
(a) in the place you work.....
.....
(b) in the local area
.....
.....
(c) and nationally.....
.....

Interviews with licensees and bar managers

Contextual Information

1. How many years have you worked at this premise? Number of years _____
 2. How many years have you worked in the trade? Number of years _____

3(a) Have you worked at other premises in the city centre in the past?

- Yes
 No

(b) If Yes, what other premises _____

4. (a) Do you live in this area (*by area mean vicinity of town/city*)

- Yes
 No

(b) If Yes, how many years have you lived in this area? Number of years _____

Type of Establishment

5. (a) Can you please tell me your current opening/closing hours for this premise?

Current:

	Mon-Wed	Thurs	Fri	Sat	Sun
Opening hours					
Closing hours					

(b) Do you know if the hours changed after the implementation of the Licensing Act (Nov 2005)?

- Yes
 No

(c) If yes, can you tell me what they were before?

Pre-Licensing Act:

	Mon-Wed	Thurs	Fri	Sat	Sun
Opening hours					
Closing hours					

(d) What is your capacity?.....

(e) Do you serve food?

- Yes
 No

(f) If yes, did you serve food prior to the Licensing Act being introduced?

- Yes
 No

(g) Why did you decide to introduce this service?.....

(h) If no, have you previously served food?

- Yes
 No

(i) Why did you decide to stop serving food?.....

(j) Do you have any of the following?

- Pool table
 Big screen
 Fruit machines

6. (a) How many door staff work here each night?

(b) How many work on the door/how many inside the establishment?

Day	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Inside							
Outside							

7. (a) Do you have table service (for drinks)

Yes
 No

(b) If yes, did you have this prior to the Licensing Act?

Yes
 No

(c) Why did you decide to introduce this service?.....

8. (a) Do you have happy hours?

Yes
 No

(b) If yes, on which days and at what times?.....

(c) If yes, did you have Happy hours prior to the introduction of the Licensing Act?

Yes
 No

(d) If no, why did you decide to introduce Happy hour?.....

9 (a) Do you offer live entertainment (*live music, DJs etc*)?

Yes
 No

(b) If Yes, n which days and at what times?.....

(c) If yes, did you offer live entertainment prior to the introduction of the Licensing act?

Yes
 No

(d) If no, why did you decide to introduce live entertainment?.....

10 (a) Do you charge for entry?

Yes
 No

(b) If Yes, how much on what days/nights?.....

(c) Did you charge for entry prior to the introduction of the Licensing Act?

Yes
 No

(d) What prompted this change (if relevant)?.....

11. (a) What are your popular drinks? Are they mainly (tick just one box please):

- Strong lagers
- Spirits
- Wines
- Local ales/bitters
- Cocktails
- Alcopops
- Other Please expand.....

(b) Has this changed since the introduction of the Licensing Act?.....

12. (a) Are you aware of any of the following?

	Pub/Club Accreditation scheme i.e. Best Bar None	British Beer and Pub Association (BBPA) responsible drinking code	The Portman Group's code of conduct for the sale of alcohol	The Government's Social Responsibility Standards for the Production and Sale of Alcohol in the UK	Pubwatch/ Clubwatch	Other
Yes						
No						
Don't know						

(b) Have you signed up to any of the following schemes?

	Pub/Club Accreditation scheme i.e. Best Bar None	British Beer and Pub Association (BBPA) responsible drinking code	The Portman Group's code of conduct for the sale of alcohol	The Government's Social Responsibility Standards for the Production and Sale of Alcohol in the UK	Pubwatch/ Clubwatch	Other
Yes						
No						
Don't know						

13. (a) If you have signed up to any of these, do they think they make a difference?

- Yes
- No

(b) If yes, in what way?.....

Y / N

14. (a) Do you operate any other crime prevention schemes such as CCTV?

- Yes
- No

(b) If yes, please describe?.....

15. Have you made any changes since the introduction of the Licensing Act (Nov 2005)?

(a) To your target market?

- Yes
- No

(b) If yes, please expand.....

(c) To your management of the premise (i.e. more door supervision, stricter enforcement of policies, not letting people in after 11pm)?

- Yes
- No
- (d) If yes, please expand.....
- (e) To the use of drinks promotions/happy hours?
- Yes
- No
- (f) If yes, please expand.....
- (g) To any special theme nights/live entertainment etc?
- Yes
- No
- (h) If yes, please expand.....

Clientele

16. What age and sex are your typical clients?.....
17. Does this vary by night of the week/ by day and night?
- Yes Please expand
- No

18. What type of people drink in these premises?
.....

19. Are you satisfied with the behaviour of clients who drink in these premises?
- Yes
- No Please expand.....

20. Do you have any particular policy on admittance (over 21s, type of clothing etc)

Policy name _____ This policy is....

- Strictly enforced*
- Sometimes enforced*
- Discretionary*

Policy name _____ This policy is....

- Strictly enforced*
- Sometimes enforced*
- Discretionary*

Policy name _____ This policy is....

- Strictly enforced*
- Sometimes enforced*
- Discretionary*

21. (a) Do you have Drugs Policy?

- Yes
- No

(b) If yes, when was this introduced?.....

22. Do you have a specific policy regarding serving alcohol to people who already appear intoxicated?

- Yes Please expand.....
- No

23. Which forms of identification do you accept? (please tick all relevant boxes)

- Passport*
- Driving license*
- Proof of age card*

Other (please describe).....

24(a) Does the premise form part of any "drinking circuit" that you know of?

Yes

No

(b) If Yes, Can you name other premises clients tend to visit on this circuit?

Name of Premises.....

25. Are clientele of the establishment regulars/locals or are many of them unfamiliar?

Mainly known drinkers

Mixture of known/unknown drinkers

Mainly unknown drinkers

26 Have you noticed any major changes since the introduction of the new Licensing Act (since November 2005)?

(a) To the clientele that drink here

Yes

No

(b) If yes, can you please expand.....

Levels of Violence and Disorder

27 (a) Thinking specifically about these premises, since the introduction of the Licensing Act (Nov 2005), do you think that the level of night time violence has:

Increased

Decreased

Not changed

(b) Why do you think this is?

.....
.....

28 (a) Thinking more generally about the town/city centre, since the introduction of the Licensing Act (Nov 2005), do you think that the level of night time violence has:

Increased

Decreased

Not changed

(b) Why do you think this is?

.....
.....

29 (a) Since the introduction of the Licensing Act (Nov 2005), do you think that the level of night time disorder ("drunk and disorderly") has:

Increased

Decreased

Not changed

(b) Why do you think this is?

.....
.....

30 (a) How much of a problem are bottles/glasses being used to commit violence in the town/city centre

Not a problem

Minor problem

Major problem

(b) How much of a problem are knives being used to commit violence in the town/city centre

Not problem

Minor problem

Major problem

(c) How much of a problem are firearms being used to commit violence in the town/city centre

Not problem

Minor problem

Major problem

(d) How much of a problem are other weapons being used to commit violence in the town/city centre

Not problem

Minor problem

Major problem

Please

expand.....

.....

31. Do you think there has there been a change in their level since the new Licensing Act (Nov 2005)?

(a) Bottles/glasses being used as a weapon

Large reduction

Small reduction

No change

Small increase

Large increase

(b) Knives being used as a weapon

Large reduction

Small reduction

No change

Small increase

Large increase

(c) Firearms being used as a weapon

Large reduction

Small reduction

No change

Small increase

Large increase

(d) Other weapons (name)

Large reduction

Small reduction

No change

Small increase

Large increase

32 (a) Since the start of the new Licensing Act (November 2005), have you had to deal with any incidents of violence while working in this premise?

Yes

No

(b) If yes, approximately how many.....

(c) Between November 2005 and present, has this figure:

- Increased
- Decreased
- Stayed the same

33 (a) How safe do you think the night time is in the town/city centre where you work?

- Very safe
- Safe
- Unsafe
- Highly unsafe

(b) Has your view on this changed since the introduction of the Licensing Act?

- Yes
- No

(c) If Yes, do you think that it is:

- Safer
- Less safe
- About the same

34 (a) Are there particular days or times when there is a greater risk of violence?

- Yes
- No

(b) If Yes, When are these?.....

(c) Have these changed since the start of the New Licensing Act?

- Yes
- No

(d) If Yes, how has this changed?.....

35. (a) Are there particular times of year when there is a greater risk of violence?

- Yes
- No

(b) If Yes, when are these? (prompt – Summer, Xmas, Football season etc.)

36. What age groups and sexes tend to cause the most problems?.....

Relationship with Police

37(a) With regards to your job, do you talk to the local police in your area about violence and disorder?

- Yes
- No

(b) If no, what not?

(c) If yes, do you liaise with them about potential ‘troublemakers’?

- Yes
- No

(d) If no, why not?

(e) If yes, how frequently?

- Daily
- Weekly
- Monthly
- Quarterly

When need to
Never

38 (a) Do you have a direct radio link to the police if you require assistance?

Yes
No

(b) If no, why not?

(c) If yes, do you use it?

Yes
No

(d) If yes, how often do you use it?

Never
Only in emergency
Rarely
Sometimes
Often

39 Do you think the police:

Help your job

Hinder your job

Have no influence on your job

Can you expand upon your answer.....

40 (a) Has your view of the police changed since the introduction of the new Act?

Yes
No

(b) If yes, has it:

Got better

Got worse

Stayed the same

41. (a) Have you been visited by any other agencies since Nov 2005? For example, Fire service, Environmental Health, Trading Standards.

Yes Please expand (who, how many visits, who did they come with...)
No

(b) What was the outcome of these visits?.....

Extended Hours

42 (a) Have you/Head Office applied for extended hours?

Yes If yes, when?
No

(b) If No, are you intending to apply in the future and why?

(c) If yes, have you experienced any difficulties in applying for extended hours?

(d) Were you granted the hours that you applied for or were these changed by the licensing authority?

43. What conditions were put on your licence? Are these new?

44. Do you intend to use all the hours you have applied for?

Yes If yes, on what days?
No Why not?

45. Do you think the introduction of extended hours has resulted in staggered closing times in your area?

- Yes Please expand
- No Why not?

46. Do you think people are drinking more responsibly because of the extended hours?

- Yes Why?
- No Please expand

47. Do you think much has changed in your premise with the introduction of the Licensing Act?

- Yes Please expand
- No Please expand

48. Do you think much has changed in the area around your premise as a result of the introduction of the Licensing Act?

- Yes Please expand
- No Please expand

49(a) [If using extended hours] Are you making any additional profit with extended hours?

- Yes Please expand
- No Please expand

(b) [If not using extended hours] Do you think you would make any additional profit with extended hours?

- Yes Please expand
- No Please expand

50 (a) Has the introduction of the Licensing Act had a direct influence on your job?

- Yes
- No

(b) In what way?

51 (a) Do you think that having SIA accredited door supervisors has any impact on crime and disorder either in or around licensed premises?

- Yes
- No

(b) Please expand.....

52 (a) Overall, do you think the introduction of the Licensing Act has been a good policy?

- Yes
- No

(b) Can you give reasons for your answer?

53. What do they think should be done to reduce alcohol-related crime and disorder?

(a) in the place you work.....
.....

(b) in the local area
.....
.....

(c) and nationally.....
.....

Appendix 8

Accident and Emergency and Ambulance data (classification codes)

Blackpool Accident and Emergency data

Complaint

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Apparently Drunk	246	11.7	11.7	11.7
Assault	1478	70.3	70.3	82.0
Overdose and Poisoning	379	18.0	18.0	100.0
Total	2103	100.0	100.0	

Guildford Accident and Emergency data

Complaint

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Alcohol	131	13.5	13.5	13.5
Assault	649	66.9	66.9	80.4
Drink	27	2.8	2.8	83.2
Drunk	156	16.1	16.1	99.3
Fight	1	.1	.1	99.4
Intoxicated	6	.6	.6	100.0
Total	970	100.0	100.0	

Birmingham Ambulance data

Complaint

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Abdo Pain	298	4.7	4.7	4.7
	Allergic R	32	.5	.5	5.2
	Anim Bites	7	.1	.1	5.3
	Assa/Rape	846	13.3	13.3	18.5
	Back Pain	42	.7	.7	19.2
	Breath Pro	702	11.0	11.0	30.2
	Burns/Expl	9	.1	.1	30.3
	Card/Resp	21	.3	.3	30.7
	Choking	9	.1	.1	30.8
	Chst Pain	400	6.3	6.3	37.1
	CO/Inh/HzC	3	.0	.0	37.1
	Conv/Fits	292	4.6	4.6	41.7
	Diab Prob	50	.8	.8	42.5
	Electroctn	1	.0	.0	42.5
	Eye Pr/Inj	15	.2	.2	42.7
	Fall/Back	89	1.4	1.4	44.1
	Haem/Lacer	234	3.7	3.7	47.8
	Headache	91	1.4	1.4	49.2
	Heart Prob	38	.6	.6	49.8
	Heat/Cold	6	.1	.1	49.9
	OD/Ing/Psn	751	11.8	11.8	61.7
	Preg/Misc	376	5.9	5.9	67.6
	Psyc/Suic	147	2.3	2.3	69.9
	Sick Pers	370	5.8	5.8	75.7
	Stb/Shot	106	1.7	1.7	77.3
	Stroke/CVA	3	.0	.0	77.4
	Traff Acc	75	1.2	1.2	78.5
	Trauma Inj	700	11.0	11.0	89.5
	Unco/Faint	572	9.0	9.0	98.5
	Unknown	97	1.5	1.5	100.0
	Total	6382	100.0	100.0	

Croydon Ambulance data

Complaint

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	.0	.0	.0
Accident	607	3.0	3.0	3.1
Admission	1	.0	.0	3.1
Assault	1214	6.1	6.1	9.2
Cardiac problem	47	.2	.2	9.4
Day case appointment	1	.0	.0	9.4
Discharge	5	.0	.0	9.4
Fall	1793	9.0	9.0	18.5
Fall from height	66	.3	.3	18.8
Fire incident	35	.2	.2	19.0
Illness - known	3355	16.9	16.9	35.8
Illness - unknown	6345	31.9	31.9	67.7
Inter - hospital transfer	90	.5	.5	68.1
Neo-natal / SCBU	6	.0	.0	68.2
Not given	529	2.7	2.7	70.8
NULL	3866	19.4	19.4	90.2
Obstetric	322	1.6	1.6	91.9
Other incident	399	2.0	2.0	93.9
Out-patient appointment	1	.0	.0	93.9
Plane/ helicopter	3	.0	.0	93.9
Police incident	83	.4	.4	94.3
Psychiatric problems	189	.9	.9	95.3
RTA	536	2.7	2.7	98.0
Self-harm	403	2.0	2.0	100.0
Train/ tube incident	2	.0	.0	100.0
Treatment appointment	3	.0	.0	100.0
Total	19907	100.0	100.0	

Nottingham Ambulance data

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	23	.6	.6	.6
ABDOMINAL PAIN/PROBLEMS	16	.4	.4	1.0
Abdominal Pains/Problems	27	.7	.7	1.7
Allergies(Reactions)/Env m/Stin	6	.2	.2	1.9
ALLERGIES/ENVENOMATIONS	1	.0	.0	1.9
ALLERGIES/RASH/ETC	1	.0	.0	1.9
Animal Bites/Attack	1	.0	.0	2.0
ANIMAL BITES/ATTACKS	2	.1	.1	2.0
ASSAULT/RAPE	254	6.7	6.7	8.7
Assault/Sexual Assault	658	17.2	17.2	25.9
ASSAULT/SEXUAL ASSAULT	146	3.8	3.8	29.7
BACK PAIN (NON-TRAUMATIC)	1	.0	.0	29.7
BACK PAIN(NO RECENT TRAUMA)	1	.0	.0	29.8
Back Pains (Non-Traumatic)	3	.1	.1	29.9
Breathing Problems	101	2.6	2.6	32.5
BREATHING PROBLEMS	82	2.1	2.1	34.6
Burns(Scalds)/Explosion	13	.3	.3	35.0
BURNS(SCALDS)/EXPLOSIONS	2	.1	.1	35.0
BURNS/EXPLOSION	8	.2	.2	35.2
Carbon Monoxide/Inhalation/Haz	1	.0	.0	35.3
Cardiac or Respiratory Arrest/	8	.2	.2	35.5
CARDIAC OR RESPIRATORY ARREST/	4	.1	.1	35.6
CARDIAC/RESPIRATORY ARREST	2	.1	.1	35.6
Chest Pain	22	.6	.6	36.2
CHEST PAIN	17	.4	.4	36.7
Choking	1	.0	.0	36.7
Convulsions/Fitting	65	1.7	1.7	38.4
CONVULSIONS/FITTING	42	1.1	1.1	39.5
Diabetic Problems	14	.4	.4	39.9
DIABETIC PROBLEMS	9	.2	.2	40.1
Drowning (Near)/Diving Acciden	1	.0	.0	40.1

DROWNING(NEAR)/DIVING/SCUBA AC	2	.1	.1	40.2
Eye Problems/Injuries	1	.0	.0	40.2
EYE PROBLEMS/INJURIES	1	.0	.0	40.2
EYE/PROBLEMS/INJURIES	1	.0	.0	40.2
Falls	177	4.6	4.6	44.9
FALLS	32	.8	.8	45.7
FALLS/BACK INJURIES	36	.9	.9	46.7
HAEMORRHAGE/LACERATIONS	76	2.0	2.0	48.7
Headache	4	.1	.1	48.8
HEADACHE	2	.1	.1	48.8
Heamorrhage/Lacerations	81	2.1	2.1	50.9
HEART PROBLEMS.A.I.C.D	2	.1	.1	51.0
Heart Problems/AICD	4	.1	.1	51.1
Heat/Cold Exposure	1	.0	.0	51.1
Industrial/Machinery Accident	1	.0	.0	51.1
OVERDOSE/INGESTION /POISONING	135	3.5	3.5	54.7
Overdose/Poisoning (Ingestion)	384	10.1	10.1	64.7
OVERDOSE/POISONING (INGESTION)	96	2.5	2.5	67.2
Pregnancy/Childbirth/Miscarria	9	.2	.2	67.5
PREGNANCY/CHILDBIRTH/MISCARRIA	7	.2	.2	67.7
PSYCHI/ABNORM BEHAVIOUR/SUICID	4	.1	.1	67.8
Psychiatric/Suicide Attempt	50	1.3	1.3	69.1
PSYCHIATRIC/SUICIDE ATTEMPT	17	.4	.4	69.5
Sick Person (Specific Diagnosi	43	1.1	1.1	70.6
SICK PERSON (SPECIFIC DIAGNOSI	28	.7	.7	71.4
SICK PERSON(SPEC.DIAGNOSIS)	10	.3	.3	71.6
SICK PERSON(SPECIFIC DIAGNOSIS	16	.4	.4	72.1
STAB/GUNSHOT WOUND	6	.2	.2	72.2
Stab/Gunshot/Penetrating Traum	30	.8	.8	73.0

STAB/GUNSHOT/PENET RATING TRAUM	12	.3	.3	73.3
TRAFFIC ACCIDENTS (RTA)	72	1.9	1.9	75.2
Traffic/Transportation Acciden	80	2.1	2.1	77.3
TRAFFIC/TRANSPORTA TION ACCIDEN	11	.3	.3	77.6
Transfer/Interfacility/Pallia t	2	.1	.1	77.6
TRAUMATIC INJURIES(SPECIFIC)	27	.7	.7	78.3
Traumatic Injuries, Specific	108	2.8	2.8	81.2
TRAUMATIC INJURIES, SPECIFIC	37	1.0	1.0	82.1
TRAUMATIC INJURIES,SPECIFIC	20	.5	.5	82.7
Unconscious/Fainting (near)	304	8.0	8.0	90.6
UNCONSCIOUS/FAINTIN G(NEAR)	64	1.7	1.7	92.3
UNCONSCIOUS/PASSIN G OUT	95	2.5	2.5	94.8
UNKNOWN PROBLEM (COLLAPSE-3RD	25	.7	.7	95.4
Unknown Problem (Collapse 3rd	126	3.3	3.3	98.7
UNKNOWN PROBLEM(COLLAPSE- 3RD P	28	.7	.7	99.5
UNKNOWN PROBLEM(COLLAPSE)	20	.5	.5	100.0
Total	3819	100.0	100.0	

Appendix 9 Penalty notices for disorder

This research does not consider Penalty Notices for Disorder (PNDs) which were introduced in April 2004. It is suggested that future research incorporates these when trying to assess the impact of the Act. See the following websites.

General information: <http://www.homeoffice.gov.uk/anti-social-behaviour/penalties/penalty-notices/>

PNDs 2004 report:

<http://www.crimereduction.gov.uk/antisocialbehaviour/antisocialbehaviour51.htm>

Review of PNDs

<http://www.crimereduction.gov.uk/policing20.htm>

Operational Guidance <http://police.homeoffice.gov.uk/operational-policing/crime-disorder/index.html/>

Criminal Justice Statistics 2005

<http://www.homeoffice.gov.uk/rds/pdfs06/hosb1906.pdf>

In 2005 37,000 PNDs were issued.

Appendix 10 Guildford data errors

It is suggested that the time period midnight to 0.01am there were errors in the Guildford data for criminal damage and calls for disorder only. A large percentage of these offences and incidents occur between midnight and 0.01am, which is the default setting for unknown times. It is possible increases found in this time period represent errors in the data and not actual increases.

Criminal damage incidents between midnight and 0.59am

Time	Frequency	Percent
0	214	63.5
1	37	11.0
5	6	1.8
6	1	0.3
9	1	0.3
10	8	2.4
14	3	0.9
15	14	4.2
20	7	2.1
21	1	0.3
25	5	1.5
28	1	0.3
30	17	5.0
35	3	0.9
40	5	1.5
45	3	0.9
48	1	0.3
50	3	0.9
55	7	2.1

Note the time is the minutes of the offence

Calls for disorder incidents between midnight and 0.59am.

Time	Frequency	Percent
0	300	45.3
1	10	1.5
2	6	0.9
3	3	0.5
4	2	0.3
5	3	0.5
6	6	0.9
7	4	0.6
8	10	1.5
9	4	0.6
10	2	0.3
11	10	1.5
12	10	1.5
13	5	0.8
14	8	1.2

15	5	0.8
16	11	1.7
17	10	1.5
18	3	0.5
19	4	0.6
20	9	1.4
21	7	1.1
22	6	0.9
23	5	0.8
24	10	1.5
25	8	1.2
26	6	0.9
27	5	0.8
28	9	1.4
29	9	1.4
30	6	0.9
31	6	0.9
32	3	0.5
33	6	0.9
34	6	0.9
35	7	1.1
36	9	1.4
37	6	0.9
38	6	0.9
39	6	0.9
40	8	1.2
41	5	0.8
42	3	0.5
43	10	1.5
44	3	0.5
45	2	0.3
46	7	1.1
47	8	1.2
48	7	1.1
49	8	1.2
50	4	0.6
51	3	0.5
52	9	1.4
53	10	1.5
54	6	0.9
55	6	0.9
56	2	0.3
57	4	0.6
58	3	0.5
59	3	0.5

Note the time is the minutes of the incident

Appendix 11 'From' time and 'to' time analysis note

The table below shows a breakdown of the data in one of the case study areas. These figures were fairly standard across all case study areas. It shows the breakdown of offences by the difference between the 'from' time (first committed) and 'to' time (last committed time).

Criminal Damage	Percentage of records	Cumulative Percentage
Time To	61.4	38.6
1 hour difference	28.3	75.9
2 hour difference	34.3	79.9
3 hour difference	38.8	88.4

This shows that

- Almost 40% of records did not have a time field entered
- Over 75% of incidents had the from and to fields within the same one hour intervals, or such records were not recorded
- As a result of this, the temporal analysis was not weighted based on the 'from' and 'to' fields.