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An Exploratory Analysis of High Harmspots in Sussex

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Abstract

While crime and place are inexplicably linked in terms of count, is the same true of harm? Forthcoming research by Weinborn *et al.* (2016) adopts the Cambridge Crime Harm Index (CHI) to provide analysis of 15 cities across the United Kingdom. Their research shows that while hotspots of crime were concentrated in 3% of all street segments, concentrations of harm were condensed in 1% of street segments. Identifying that crime harm is three times as concentrated as count creates implications for both policy and research, but what are the dynamics and characteristics of harmspots?

This thesis provides an unprecedented attempt to classify and categorise harmspots from predetermined data that has adopted the CHI. An exploratory analysis of 99 high harmspots in Sussex has been undertaken with consideration to; the composition of the harmspots, temporal analysis, harmspot trajectories and the classification of harmspots. A qualitative analysis is also adopted to support the narrative of specific high harmspots.

It is found that 80% of all the harm within the high harmspots came from just four discrete offence categories: sexual offences, violence against the person, robbery, and theft and handling. It has also been shown that within these high harmspots, crime counts and harm are strongly correlated (r=.82). Temporal analysis of the data shows that harmspots are not evenly spread across time and place, matching findings regarding hotspots of crime (for example; Sherman *et al.* 1989; Ariel 2011; Weisburd *et al.* 2012). Harmspot trajectories were evaluated in order to identify if there was evidence of stability within the high harmspots. From the top fifty harmspots it was found that 70% of these remained in the top 50 four years

later. The classification of harmspots produced mixed results, but with a strong indication for categorising harmspots for robbery and other theft and handling. The qualitative analysis offers epidemiological observations that would benefit from future research. The implications of these results are discussed in terms of research and policy, providing a sound foundation for future research into the ecology of harmspots.

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Introduction

The prevailing approach, both in criminological research of crime and place as well as crime analysis, relies heavily on crime count data. These "hotspots of crime", that have previously been identified as the power few problem (Sherman 2007), show that a disproportional number of crime events occur in particular places. The phenomenon has been explored considerably (for example; Sherman *et al.* 1989; Sherman 1995; Weisburd *et al*. 2012; Ratcliffe 2014; Ariel *et al.* 2016) and has become known as the law of crime concentration (Weisburd 2015). Furthermore, evidence based policing strategies show the impact of focussing on such concentrations of crime (Braga *et al.* 2014).

However, not all crimes are created equal. Sherman *et al*. (2014) have argued that simply reducing crime counts is not the best measure of public safety. They suggest that when considering risk there must be a better metric for public safety and harm reduction. Their solution is to weight individual crimes in accordance as to how harmful each crime is. Sherman *et al.* (2014) propose adopting the starting sentence of each individual offence, transposing this as necessary, in terms of number of days in prison. This weighted index, the Cambridge Crime Harm Index (CHI), is used within this thesis to identify concentrations of harm, known as harmspots of crime.

By focussing on crime harm, a relatively new and emerging field within applied criminology (Ariel *et al.* 2016; Sherman *et al.* 2014; Ratcliffe 2014; Weinborn *et al.* 2016; Macbeth and Ariel 2016), the study offers a clear picture that goes beyond crime volume.

In the main, this thesis addressees the question 'What are the patterns and concentrations of harm within high harmspots in Sussex?' This is achieved through an exploratory and qualitative in-depth analysis of high harmspots in Sussex for the four-year period of January 1st 2011 to 31st December 2014.

Predetermined data from Sussex Police was provided by the University of Cambridge. This data had previously been weighted via the CHI. Data consists of 99 street segments that have each been identified as being three standard deviations from the mean. This cohort makes up the highest harmspots in the county of Sussex. In order to address the research question the thesis is split into several distinct areas.

The thesis is structured in the following way: First, a review of the relevant literature is provided, with particular emphasis on the phenomenon of concentration of crime. The theoretical framework on opportunity and ecological theories of crime will be presented, with an attempt to understand how and why crime concentrates within hotspots. Crime pattern theory will also be discussed in order to consider spatial concentrations of crime in place. The review will then explore the relationship of crime count versus crime harm. An overview of crime harm will consider crime seriousness, the weighting of crimes, and harm indices in order to provide a clear rationale for the adoption of the CHI within the thesis.

In chapter two the methodological approach will be detailed, providing a clear context to the research. Both the geographic and demographic make-up of Sussex will be discussed in order to create the necessary framework for the thesis. A thorough appraisal of the data will be included, together with a description of how the application of the CHI has been operationalised.

The results will be presented in chapter three, showing the exploratory analysis in several distinct themes: The composition of high harmspots, temporal analysis, harmspot trajectories and the classification of harmspots. A qualitative analysis is then provided of the most harmful harmspots in the four most harmful offence types, those harmspots with a year on year upward trend and by geographic clusters.

Chapter five will provide a discussion of the results under three subheadings: research implications, policy implications and limitations of the results. A conclusion will provide a summary of the thesis together with the key findings.

The modest contribution of this study is its unprecedented attempt to classify and categorise harmspots. This creates a clear addition to the evidence base of what makes harmspots harmful and will provide a sound foundation for further research into the ecology of harmspots.

Furthermore, the research suggests policy implications that can target high harm locations with the most appropriate and cost effective response in order to reduce harm. This addition to the literature, particularly in times of fiscal restraint, offers a clear opportunity to reduce crime harm by suggesting that limited resources should be focussed to high harmspots of crime. It is hoped that the thesis will add to the discourse around crime harm and provide appropriate direction for the development of effective and efficient prevention and deterrent strategies for policing high harm locations.

Literature Review

Within this literature review the concentration of crime, alongside theories of why crime concentrates, will be examined. Crime pattern theory will also be discussed in order to consider spatial concentrations of crime in place.

The review will then explore crime count versus crime harm, providing an overview of literature regarding the development of crime harm. There have been several attempts over the years to quantify crime in terms of severity, seriousness, harm or gravity. This review will consider crime seriousness, the weighting of crimes and harm indices in order to provide a clear context to the topic. In turn, this will provide a rationale for the adoption of data formed from the Cambridge Crime Harm Index within the thesis.

The literature review will consider largely published works, however, given the recent growth in UK literature regarding crime harm, unpublished works held by the University of Cambridge relating to the Cambridge Crime Harm Index and the concentration of crime harm will also be considered.

Concentration of Crime in Place

Crime does not occur randomly. Indeed crime is often concentrated to a minority of places. Sherman *et al*., in their seminal study 'Hotspots of Predatory Crime: Routine Activities and the Criminology of Place', identified that over half of all calls to the police for which a vehicle was dispatched to came from just 3.3% of all places (1989, p.37).

This recognition of crime concentration has been identified in several other studies spanning nearly three decades. Weisburd and Mazarolle (2000) found that

approximately four percent of streets and intersection areas in New Jersey had nearly fifty percent of all drug arrests and over forty percent of all disorder arrests. Weisburd *et al.* (2004) through a study that considered crime over a 14-year period showed that approximately 5% of street segments accounted for 50% of all crime, confirming the clustering effect of crime and place. More recently, Weisburd (2015, p.134) proposed a 'law of crime concentration', arguing that a focus on geographic micro-locations is necessary and can enhance criminology as a science. Through his study of four cities Weisburd (2015, p.143) identifies that more than 50% of crime occurs at between 2% to 6% of places across all cities, providing this law of concentration. This is also true of crime within the UK; Ariel (2011) found that over a five year period the same one hundred train stations within the UK experienced the highest amount of crime. Ariel *et al.* (2016) found that the 'hottest' hotspots within the city of Peterborough remained the same over a period of 24 years.

The consistency of concentrated crime has provided strong evidence for police decision makers as to how to target resources effectively. It also allows for focussed policy making regarding crime prevention strategies. In particular, the concentration of crime in a place is much greater than that committed by repeat offenders. Weisburd *et al*. (2012) identified that in Seattle within a given year, an average of 1,500 street segments accounted for 50% of the crime. For the same period approximately 6,000 offenders were responsible for 50% of the crime. Using these figures, a focus on places reduces the amount of police intervention by 75% compared to approaching offenders. Moreover, places have a distinct advantage with regards to policing as put simply, they do not move.

The phenomenon of crime concentration, as outlined in the literature discussed above, has become an increasingly important characteristic of crime theory (Ariel and Partridge 2016). As more contemporary views focus on micro spaces of place (Ariel and Partridge 2016, Ariel *et al.* 2016), it is important to determine exactly what a 'hotspot' of crime is.

Defining a Hotspot

While recognising that crime concentrates at specific places, it is important to define what is commonly referred to as a hotspot. Eck *et al*. (2005) recognise that these concentrations can occur at beat level, street segments, clusters or specific addresses, as well as census level. While the focus originally has been on macro levels of hotspots, for example a police beat (Sherman *et al*. 1989), more recent research focuses much more closely on micro levels of place (Weisburd *et al*. 2012; Sherman 2013). Although it is recognised that to deal with crime appropriately the prevention mechanism needs to be able to be implemented within the boundaries of the hotspot (Ratcliffe 2014), there is not a universal definition of what a hotspot is (Weisburd *et al*. 2012). Sherman (2013) highlights that these crime concentrations are clearest at the micro-level, suggesting either a cluster of addresses or 'block-face'; a street segment from corner to corner. For the purpose of this thesis it will be the definition of a street segment that will be adopted as the identifier of the micro-location.

Theoretical Framework

It is evident that crime concentrates in specific places and that these concentrations appear to remain stable over time (Weisburd *et al*. 2012; Sherman 2013; Ratcliffe 2014; Ariel *et al.* 2016; Weisburd *et al*. 2016). However, a question remains as to why crime clusters geographically. In order to explore this phenomenon it is necessary to consider relevant theories that attempt to address the causal and structural mechanisms involved. This part of the literature review will consider both opportunity and ecological theories to provide an insight into the relationship between crime and place.

Social Disorganisation Theory

Ecological theories focus on the relationship between crime patterns and the organisation of the neighbourhood via the norms and values that bind communities together. By linking deviant and criminal behaviour with external factors, ecological theories attempt to explain how causes of crime can be found through the physical environment when these social norms and controls breakdown. Social disorganisation theory is perhaps the leading ecological theory that explains differences with crime rates. The Chicago School developed the theory from Durkheim's (1893) 'collective consciousness', which he suggested was essential for the necessary formation and maintenance of society. This concept was applied directly to the ecological make-up of neighbourhoods from both a structural and cultural perspective (Weisburd *et al*. 2016). The theory suggests that communities that are similar to one another, and who have similar beliefs, would self-regulate

through shared acceptable behaviours. Concomitant to this, a weakening in this make-up through structural factors would lead to a lack of self-regulation. This would result in a breakdown of traditional social control and organisation, subsequently leading to deviant and criminal behaviour (Akers and Sellers 2012). Shaw and McKay (1942) developed the theory arguing that neighbourhoods that were deteriorated, or subjected to constant change, were more likely to suffer the effects of delinquent or criminal behaviour.

Social disorganisation theories have been modified over time with a particular emphasis on social networks, specifically social cohesion and collective efficacy (Weisburd *et al*. 2012). Sampson *et al.* (1997) define collective efficacy as "social cohesion among neighbors combined with their willingness to intervene on behalf of the common good" (Sampson *et al*. 1997, p. 918). This perceived ability of residents to maintain informal social controls would in effect keep crime rates reduced. However, unless there was high trust and social cohesion within the community, there is less of a chance that a member of the community would intervene.

Social Disorganisation and Neighbourhood Disorder

It is evident that neighbourhood disorder has a specific bearing on the study of crime. Sampson and Raudenbush (1999; 2004) took this focus on social and physical disorder as the core components of large scale systematic observations of public spaces within urban neighbourhoods. Their studies consisted of triangulating data

from various sources. They included neighbourhood surveys, census data, police records and systematic observations. The 1999 study looked to assess the sources and consequences of public disorder, with the 2004 study considering how individuals formed perceptions of disorder.

In order to define both social and physical disorder their work largely drew from the Chicago School, both in terms of the observational methods and through the concepts identified within social disorganisation theories. In their reanalysis of the data in the second study, they measured not only traditionally defined disorder, but also elements they recorded as physical decay together with land use looking at 500 blocks in Chicago (Sampson and Raudenbush 2004). Their methodology purposefully measured these additional components as it allowed them to more easily assess observable physical conditions such as abandoned vehicles, in comparison to rarer social conditions such as gangs in public (Sampson and Raudenbush 2004). Importantly, their measurements consisted of visible cues provided from the observations rather than being solely based on individual perceptions or fears of crime. This directly relates to collective efficacy which also relates to visible elements within public spaces.

From their findings Sampson and Raudenbush (1999) suggest that crime and disorder may be seen on a continuum, where a lack of structure and control may be the cause of both disorder and more serious criminality. Their work has come under criticism, namely from the observations being undertaken during the day (Sousa and Kelling 2006), and that crime and disorder has been measured with strong

correlations, separate to collective efficacy (Xu *et al*. 2005). Despite criticisms, their findings do not signify that disorder is irrelevant to understanding crime.

Broken Windows Theory

Wilson and Kelling's (1982) influential work "Broken Windows: The Police and Neighborhood Safety" argued that it was the cues that the public were given from the neighbourhood that would either result in public incivilities or not. The theory contends that if an area remains clean and free from minor incivilities that members of the community are more likely to intervene and prevent any disorder from happening (Wilson and Kelling 1982). This neighbourhood, being void of such incivilities, will remain less attractive to potential offenders as they will perceive the area to be subject to these invisible social controls. However, even minor incivilities such as a broken window, if left unaddressed, would attract more disorder and criminality. This is because offenders would perceive that the community are not concerned as to what is happening within the area, resulting in an increasing spiral of criminality that increases in seriousness (Wilson and Kelling 1982). Broken windows theory links both physical disorder, the broken window, with social disorder, the unwillingness of individuals to intervene (Greenberg and Rohe 1986). Wilson and Kelling (1982) suggest that in order for neighbourhoods to be restored the police need to step in and control crime and disorder, thereby allowing for informal social controls to be restored. The theory has gained popularity in both

America and the United Kingdom, influencing policy perhaps most famously with police crackdowns in New York (Kelling and Coles 1996; Kelling 1998).

Opportunity Perspectives

Opportunity theories began a distinct move towards explaining crime, not the criminal. A point noted by Gottfredson and Hirschi (1990) who expressed how modern criminology has typically neglected this perspective, focussing largely on either psychological or sociological traits and influences to explain why individuals or groups become involved in crime. Opportunity theory explained crime as a function of the characteristics of specific situations that would then offer an opportunity, to those who chose to take it, to commit a crime. This move from a dispositional or sociological stance as to why crime was committed came to the fore with the advent of routine activity theory.

Routine Activities and Rational Choice

Routine activity theory is largely seen as a sub-field of crime opportunity theory. The seminal work by Cohen and Felson (1979) on routine activities argues that it is a convergence in time and space of three elements, that of a motivated offender, a suitable victim or target and the lack of a capable guardian that are required in order for a crime to occur. Although Cohen and Felson (1979) originally developed the theory in order to explain the routine activities of individuals in relation to societal

crime rates, more recently routine activities have developed traction with regards to the criminology of place (for example; Eck and Weisburd 1995; Weisburd *et al*. 2012). As places are included as one of the three elements of the theory it is perhaps not surprising as to why routine activities have become a key theoretical consideration regarding the discourse. Routine activity theory developed from rational choice and wider opportunity theories, where proponents argue that criminals make bounded rational decisions based on the offender's appraisal of risk and reward (Clarke 1993; Clarke and Felson 1995).

Rational choice theory takes the assumption that individual offenders are rational decision makers, and that their decisions to commit crimes are judged on a risk versus reward basis (Cornish & Clarke, 1986). The starting point for rational choice theory is that offenders seek an advantage for themselves via their criminal behaviour. These decisions are rational, based on their assessment of the constraints of time, ability and availability of information (Cornish & Clarke, 1986).

The development of both rational choice and routine activities is at odds with wider sociological discourse, where typically social causes are seen as the conditions from which crime develops. In adjusting this approach to considering alternative mechanisms for criminality, both theories have opened up the debate as to why, and in what context crime takes place.

Crime Pattern Theory

Although opportunity theories have highlighted mechanisms for committing crime in specific places, they do not fully explain why a specific, micro-location is identified. Crime pattern theory attempts to address this element by explaining the conditions identified within both routine activities and rational choice, applying these to the environmental landscape. According to the theory, individuals follow basic routines that take them along streets (paths) to specific places known as nodes (Brantingham and Brantingham 1993a; Brantingham and Brantingham 1993b). These nodes and the paths in between are important as these are what individuals are familiar with. The places would be such things as place of employment, leisure or residence. The paths between these will consist of shops, homes, car parks or any variety of broad locations. According to the theory, it will be along these paths that offenders routinely look for suitable targets, not randomly choosing places outside of their routines (Brantingham and Brantingham 1993b). It is the mix of the offender's knowledge and familiarity with an area that makes suitable targets more susceptible in a particular area, as opposed to a similar target outside of the offender's routine nodes and paths.

By intersecting routine activity theory with environmental factors crime pattern theory looks to identify why certain areas become criminogenic. The theory does provide a level of insight into how routines of both victims and offenders can overlap within time and place. However, these patterns may be considerably more complex than are perhaps first thought, especially considering the transient nature of individuals in the modern day.

Crime Severity and Harm: Early Work

While a clear focus on the concentration of crime has prevailed over the past three decades, more recently there has been much greater recognition over the complications of simply focussing on crime rates (Greenfield and Paoli 2013; Ratcliffe 2014; Sherman *et al*. 2014). Weighting crime has its origins in the work of Sellin and Wolfgang (1964), who suggested the development of a scale of seriousness based on the conclusions of a panel including judges, police officers and students. Their work consisted of asking this group to rank crimes based on a scale of 1 through to 11, where 11 was the most serious (Figlio, 1975). Although their work found strong correlations between each group, their approach has been criticised widely, largely due to their methodological stance. Criticism levelled at their approach has challenged several areas; the use of a survey to determine index weightings (Maltz, 1975), lack of diversity of the individuals involved in the panel (Rose, 1966), the difficulty of distinguishing generic harms from individual victimisations (Cohen *et al.* 1994) and the additivity assumption; the formulation of harm scores by simple addition (Pease *et al*. 1974).

The issue regarding additivity assumptions is important as this issue is yet to be resolved. Pease *et al.* (1974), through their own work, highlighted that offences which included two or more crimes did not immediately result in the public's view as double the amount of harm. They themselves found that only 31.8% of respondents perceived 'double offences' to be twice as serious; thereby highlighting a serious concern regarding the additivity assumption (Pease *et al*. 1974 p.261). Although the work of Sellin and Wolfgang (1964) suffers from methodological issues, they did

provide a clear attempt to identify a metric for weighting crimes, and attempts to develop metrics for measuring seriousness developed from this point.

Rossi *et al.* (1974) replicated the work of Sellin and Wolfgang (1964). They generated a more representative sample of 200 individuals who ranked 140 crimes from 1 to 9 where 1 was the least serious and 9 being the most serious. Rossi *et al.* (1974) also found a strong correlation between those surveyed and their perceptions of serious crime. Wolfgang *et al*. (1985) further developed the model by considering crime seriousness scores for a full set of offences, increasing their survey respondents to 60,000 households from a stratified random sample producing the National Survey of Crime Severity. Although their study also found general levels of agreement on severity rankings, the researchers accepted that the issue of additivity within their study remained unresolved (Wolfgang *et al*. 1985). Although fair criticism of both methodological and theoretical limitations (see for example Pease 1988; Collins 1988; Parton *et al*. 1991) are levelled at these studies, the approaches certainly add to the discourse regarding crime harm and highlight both the issues of simple crime counts and complexities of calculating crime harm.

Canadian Crime Severity Index

The Canadian Crime Severity Index adopts the use of actual sentences from court records in order to provide an additional measure regarding crime (Statistics Canada 2016). They recognise that the focus on crime count is erroneous when considering overall crime figures. As more serious crimes are relatively low volume, an increase in the count of these each year will have very little impact upon crime rates. The

index ensures that more serious crimes are more heavily weighted in comparison to less serious crimes. By doing so, changes in more serious crimes will have a greater impact on the i as opposed to crime count. This move from traditional methods of crime recording allows a clear reflection of changes in incidences that are more serious (Statistics Canada 2016). Court data was chosen as an objective measure for the index as it is collected nationally. The data consists of two components; the imprisonment rate for the offence that is then multiplied by the average prison sentence. Five years of data is analysed at any one time to produce reliable data and remove outliers, this is then updated every five years to take account of sentencing guideline changes (Statistics Canada 2016).

Limitations of the data are recognised by the authors, including the fact that the index does not take into account time on remand or conditional sentences. Furthermore, the court system within Canada does not allow for the identification of repeat offenders within this data set (Statistics Canada 2016), which would arguably skew sentence lengths.

Pennsylvania Offense Gravity Score

The Pennsylvania Offense Gravity Score provides a non-mandatory guideline for judges that weights offences on a scale of 1 through to 15 (Ratcliffe 2014). Ratcliffe (2104) positions the gravity score method as both independent, and therefore not open to manipulation, and specific enough to enable each offence category to be weighted. The scoring also allows for relevant alterations, for example aggravating factors being able to score higher (Ratcliffe 2014). The data itself is drawn directly

from the police database that provides a record of all incidents that are recorded, as well as reported crimes. This provides an interesting measure as it is separate to both calls for service, removing erroneous data from the set, and includes incidents that may be subject to attrition. Criticism of this method comes largely from the ranking process (Sherman *et al*. 2016), where scores only fluctuate between 1 and 15, for example, can five simple assaults (ranked 3) "truly" equal a murder.

Cambridge Crime Harm Index

Sherman *et al.* (2014) proposed the Crime Harm Index (CHI) as an alternative to solely counting crime by adopting an alternative index based approach through a weighted index. The CHI converts individual crimes into a value, based on the starting point of recommended sentencing guidelines for first time offenders (Sherman *et al*. 2014). This provides the lowest starting point for an offence for a previously unconvicted offender. The exact sentence is then converted into days. For sentences that attract community orders the amount of hours are converted into days. For those sentences where the minimum starting point is a fine the weighting has been achieved by converting the fine into hours worked, using the national minimum wage as the unit for the analysis (Sherman *et al*. 2014). This tool offers a weighted system of ranked harm according to the sentencing guidelines. Importantly, the index does not include police-generated crimes, ensuring that, for example, pro-active policing of drug offences does not skew the statistics in relation to harm.

The CHI provides a major shift by refocussing the attention on crime counts to that of harm. As with the previous two indices, it is not intended to replace crime counts, but to sit alongside these to create an alternative picture of harm as well as crime. This is important as Sherman *et al.* (2016, p.1) argue "a count of all crimes has no specific meaning unless all crimes are created equal". The CHI provides this alternative mechanism for counting harm and is argued that it creates less distortion when considering the assessment of risk, allocation of resources and accountability (Sherman *et al*. 2014). Similar to the previous indices discussed, the CHI attempts to address the imbalance created by crime counts that disproportionately weight high volume, yet low harm crimes. Furthermore, by adopting the starting sentence of sentencing guidelines, the index avoids any distortion that may be caused by using average sentencing figures, as the impact of aggravating factors or an offenders previous history are not in any way included within the calculation.

Whilst the CHI is an advanced method of addressing crime harm, it remains relatively untested. In support of the index, Sherman *et al*. (2016) suggest it meets three key benchmark tests. Firstly democratically; Sherman *et al.* (2016) argue that by adopting measures from sentencing guidelines, the metric proposed has been derived from elected legislators who have provided the necessary sentencing guidelines used within the CHI. Secondly, in terms of reliability, they argue that the CHI provides a reliable measure that is void of bias due to demographic or any other characteristics of the unit being measured. Lastly, they suggest that the cost of the adoption of the index is paramount, in particular with regard to ongoing austerity measures. The CHI can be calculated via figures that are already collected and published, it requires nothing more than a simple calculation and therefore would

not result in resources needing to be directed away from preventing crime on order to instigate the index.

It is however acknowledged that their benchmarking is subjective; the actual democratic process is perhaps diluted by their specific approach of using sentencing guidelines. Furthermore, in terms of reliability, by ignoring other characteristics this would negate consideration to the harm that is suffered by repeat victims, which may be a necessary variable when truly counting the cost of harm.

However, what is evident is that the CHI therefore provides the closest index available in terms of objectivity, consistency, as well as reflecting public opinion through the adoption of sentencing guidelines. Moreover, the CHI provides a clear indication for police, policy makers and the public to ensure they are better informed regarding crime trends, rates, risks posed and the necessity for targeted resources in particular locations. It is for these reasons that the index has been adopted within the thesis.

Concentration of Crime Harm

Given the evidence that crime is concentrated at specific micro-locations, can the same be true of crime harm? In their forthcoming publication Weinborn *et al*. (2016) adopted the CHI, applying the metric to all crimes in a sample of UK cities to investigate whether similar patterns of harmspots emerged when using the CHI alongside hotspots based solely on crime count. By adopting the unit of analysis of a street segment, they wished to consider whether crime harm had a spatial concentration. The analysis of 15 cities across the United Kingdom showed that

hotspots of crime were concentrated in 3% of all street segments yet harmspots were concentrated in just 1% of street segments (Weinborn *et al.* 2016). This study would suggest that police activity and preventative measures can be focussed in even fewer areas in order to have the greatest impact with regards to harm. However, although the research to date is promising, caution must be given to the fact that increased activity or preventative measures in police harmspots has not yet been tested via a randomised control trial.

Summary

From a review of the literature it is evident that the CHI provides more objectivity than the other indices discussed. Largely this is due to it ensuring that it is devoid of criticism from the use of public survey or judiciary decisions, as well as providing a baseline measure for an objective year-to-year measure of crime harm (Sherman *et al.* 2016). The literature has highlighted that crime harm is even more concentrated than crime counts (Weinborn *et al.* 2016) and this creates a clear focus of the thesis to adopt the CHI measure and focus on pre-identified harmspots. The definition of what constitutes a harmspot may not (as yet) be as clearly contested as those of hotspots. However, it is important to define what will be considered a harmspot. Within this thesis a harmspot will be considered as a street segment, demarcated by a street intersection.

The necessary theoretical framework has given consideration to opportunity and ecological theories of crime in an attempt to understand how and why crime concentrates within hotspots. While definitions of hotspots remain complex,

evidence based policing strategies show the impact of focussing on such concentrations of crime (Weisburd *et al*. 2012; Sherman 2013; Ratcliffe 2014; Ariel *et al.* 2016; Weisburd *et al*. 2016). This review has provided a sound theoretical basis for the exploratory, descriptive analysis of high harmspots in Sussex.

Methods

The intention of this study is to identify, through explorative and descriptive analysis, the answer to the research question; 'What are the patterns and concentrations of harm within high harmspots in Sussex?'

In order to perform the analysis of the harmspots it is necessary to consider the methodological approach taken to the study. Firstly the research setting will consider both the geographic and demographic make-up of Sussex in order to frame the research area appropriately. The methods will then describe the data that has been used within the thesis, including how the application of the Cambridge Crime Harm Index (CHI) to the individual crime counts has been operationalised. How the results will be presented will be described. Lastly, any limitations with the data will be explored.

Research Settings

This thesis looks at data in relation to the county of Sussex. Sussex is divided into East Sussex, West Sussex and the city of Brighton and Hove. Sussex covers 1,460 square miles, of which approximately 150 miles are along the coastline of the south of England (DEFRA 2011). Government data lists both East and West Sussex as part rural, with between 26% – 50% of the population living in rural areas (DEFRA 2011). HMIC state that there are some areas of deprivation within Sussex, but that as a county it is generally affluent (HMIC 2015).

However, data from the Lower Layer Super Output Areas (LSOA) shows that there are areas of significant deprivation nestled within the more affluent areas.

LSOA data focuses on population groups of around 1,000 to 3,000 people (Kemp 2013) and can therefore highlight small areas of deprivation that are overlooked at a macro level. Within East and West Sussex there are a total of 503 wards. Of this total, 15 wards, 3 in West Sussex and 12 in East Sussex, are in the top 10% most deprived areas of England. 34 wards, 16 in West Sussex and 18 in East Sussex, are in the top 20% most deprived areas of England (Kemp 2013). While this data is not specifically explored within this thesis, it provides an important contextual position of the demographic make-up of Sussex, as while it is mostly affluent, substantial levels of deprivation do occur at the micro level.

The population of Sussex is approximately 1.7 million people, a growth of 9% over the last decade (ONS 2012). This provides a population density of 1,130 per square mile; however the population largely live in the urban centres that are situated predominantly along the coast (HMIC 2015). The coastal areas include the city of Brighton and larger towns such as Bognor Regis, Hastings, Hove, and Horsham. The resident population has a high percentage of 16+ students; 32,920 in 2011, equating to 14.1% of the resident population (Corporate Policy and Research Team 2014). This figure is significantly higher than the average across both the South East (7.5%) and the rest of England (8.1%). Of the 32,290, there are 27,229 18+ full time students living within the Brighton Ward (Corporate Policy and Research Team 2014). While it is not possible to know what percentage of this population are only resident during university term time, it still provides a significant increase in population of people in the age category (16-24) most likely to be a victim of personal crime (ONS 2013).

Sussex, in particular Brighton, benefits from a large number of visitors each year with approximately 8.5 million visitors annually to Brighton alone (Corporate Policy and Research Team 2014). Sussex also contains major transport infrastructure that includes rail stations, sea ports and Gatwick airport. The airport is located to the North of Sussex and has in excess of 42 million passengers annually (Gatwick Airport Limited 2016).

Sussex Constabulary

Sussex Constabulary has 2723 police officers, 325 Police Community Support Officers and 393 Special Constables as of March 2015 (Allen and Dempsey 2016). Their annual force budget is approximately £250 million. This is expected to decrease by 3% annually until 2018/19 as part of the Government's Comprehensive Spending Review (PCC Sussex 2015).

Crime in Sussex has been decreasing year on year, a pattern replicated in national crime counts. While resources and targeted police patrols are aimed at necessary concentrations of demand, these areas are not the totality of demand. The provision of service extends to remote, more rural areas, as well as providing a service to the lesser challenging areas (HMIC 2015).

The concept of mapping crime harm by police forces remains a relatively new phenomenon. However, how limited police resources are organised and managed, such as officer location and their working patterns, must be influenced by all of the

above. Therefore the identification and subsequent indexing of harm has, at least as a research aim, increased greatly in significance in recent years.

Data

The data selection, which was pre-determined, provides data over four years; 1st January 2011 through to 31st December 2014 inclusively. The selection of four years of data provides a relatively large data set that will allow for yearly analysis and any patterns within analysis of the harmspots.

This data has been shared by the University of Cambridge for the purpose of this study. An earlier collaborative partnership between Sussex Police and Cambridge University has previously made access to this data available. The data contains crime counts, type of crime, crime harm index score and the unique crime locations with geo-coordinates. The coordinates had been collected by Sussex Police through their GPS tracking system, this data was then adopted to place these spatially within a mapping system (Weinborn 2016a).

In order to identify the harmspots, the original analysis took all crime counts over the four-year period. Crime count is used to signify the total amount of crimes, where each crime, regardless of offence, is counted singularly. The figures for these crimes are from police recorded crime in Sussex and are submitted for audit against the National Crime Recording Standards (NCRS). These crimes will therefore be included within national records held by the Home Office.

Crime harm, for the purposes of the thesis, refers to the total weighted count that has been applied to all crime counts via the Cambridge Crime Harm Index (CHI).

The CHI provides an index of total harm value per individual count by converting each crime into a value based on the starting point of recommended days of imprisonment of sentencing guidelines for first time offenders (Sherman et al. 2014). The weightings for the Crime harm Index were applied manually by identifying the sentencing guidelines in England and Wales through the Sentencing Guidelines (2008) and the Crown Prosecution Service (2013). Attempts and conspiracy offences were weighted the same as substantive offences. For each individual crime harm score see Appendix A.

Once the indexing had been finalised it was decided to include only those street segments with at least four offences in the four-year period for analysis (Weinborn 2016a). This left a total of 15,314 street segments from the original sample of 60,009 (Weinborn 2016a). Z-scores were then calculated for the data, with the threshold for selecting the harmspots set at three standard deviations from the mean, 99 harmspots met this criterion (Weinborn 2016a).

For the purpose of the original research the harmspots that had identified offences of murder and domestic violence were removed from the count as part of the data cleaning exercise. In addition to this, drug offences that were initiated by police action were also removed from the overall count (Weinborn 2016b). This left only those offences reported to the police by victims and witnesses, excluding all police-identified enforcement offences.

This is essential, as these offences are initiated by the police own action, it is possible that they could produce outliers within the data. This could negatively

impact the positioning of harmspots due to the CHI values attributed increasing greatly in areas that had perhaps been identified for police 'crackdowns'.

At the macro level this data is representative of the whole of Sussex. At the micro level the harmspots replicate the measurement in the original study; a street segment including both sides of the street, intersection to intersection (Weinborn et al 2016). As this thesis adopts the data used previously it is essential that the same unit of analysis be adopted for this thesis. This not only ensures consistency of approach but can provide easy replication of results as necessary.

Presentation of Results

In order to answer the research question; 'What are the patterns and concentrations of harm within high harmspots in Sussex?' the results will be thematically considered. The exploratory analysis will consider the composition of crime, crime counts and harm within the high harmspots. Secondly a temporal analysis will provide collective data of crime and harm within the 99 harmspots by months, days, hours and police shifts. High harmspot trajectories will then be considered by tracking the top 50 high harmspots of 2011 through to 2014. Lastly, the exploratory analysis will consider the classification of high harmspots by offence type.

In addition to the exploratory analysis a qualitative descriptive analysis is provided for a selection of harmspots. These are identified by the four offences that contribute the most harm, those harmspots with a year on year upward trend, and by geographic clusters of harmspots.

The data has been mined within Excel to produce appropriate tables and graphs to support the narrative. Statistics Package for Social Scientists (SPSS) has been adopted to perform a Pearson's r correlation of crime counts and crime harm within the high harmspots. The use of Google Maps has been utilised to provide map views of harmspot locations, as well as satellite imagery of harmspots identified for closer analysis.

Data Limitations

As with any official data analysis, consideration must be given to the original data collection methods and any changes to recording that may have occurred during this time period within Sussex. As only data that matches the National Crime Recording Standards (NCRS) has been recorded it is presumed that this provides a standardised method of crime recording.

Caution must be given to how the original data have been stored by Sussex police. For example, any temporal analysis will have to be considerate to the fact that crime recording methods may not accurately record the exact time of offence. This is particularly problematic with property offences where there is often a window of opportunity in which the crime has been committed.

When considering recorded crime statistics an advisory note must be made regarding how accurate these figures actually are. An interim report by HMIC (2014) has found that more than 800,000 crimes, in effect one in five crimes nationally, are not being recorded by officers. The impact of non-recording is greatest in sexual offences (26%) and violent offences (33%) (HMIC 2014). These are crimes that could

impact greatly in terms of harmspots of crime. Furthermore, official statistics do not record those crimes that go unreported or remain 'hidden' from the police, as often highlighted within the British Crime Survey.

It is further unknown as to whether historic data is part of the dataset. This is relevant given the rise in reported historic offences, in particular sexual offence cases that have been highlighted via high profile cases in the media, resulting in greater reporting of historical offences nationally.

The use of geo-locations to map the offences to the closest street segments has been undertaken by ArcGIS, a sophisticated geographic information system for the management, display and mapping of geographic data. While the accuracy of locating crimes to the closest street segment is largely assured, this method may also inadvertently skew the data. Offences that have taken place in an open expanse of land may be associated to a street segment that is otherwise void of crime. For example, a woodland car park may be completely inaccessible from the closest street but the proximity of the street to the offense site would associate all crimes to this street, not the offence location based on how crime locations are linked to the closest street segment.

Summary

The methods have provided the context of Sussex based on geography and demographics. An overview of Sussex Constabulary has also been provided. The explorative and descriptive analysis of secondary data has then been discussed, showing how this will be undertaken. By providing this analysis of high harmspots in

Sussex the composition of the harm within these will be analysed. This categorisation of high harmspots is new to the evidence base of policing; patterns and characteristics of high harmspots have never before been undertaken. The composition of harm and how it may vary across the harmspots will help to categorise harmspots to understand what harm makes up high harmspots in Sussex.

Results

The following chapter will outline the major findings. The research question; 'What are the patterns and concentrations of harm within high harmspots in Sussex?' forms the overarching theme of the chapter which is broken down into the following sections: The composition of high harmspots, temporal analysis, harmspot trajectories and the classification of harmspots. A qualitative analysis is then provided of the most harmful harmspots by the four most harmful offence types, those with a year on year upward trend and by geographic clusters. A brief summary is provided for each of these below in a road map to enable navigation of the results.

Roadmap of Results

The exploratory analysis will begin by unpacking the composition of high harmspots in Sussex. In broad terms, it was found that within high harmspots there are four types of crime that make up 80% of all harm; sexual offences, violence against the person, robbery, and theft and handling. The inclusion of theft and handling is an interesting finding as it is not an offence that would typically be associated with high harm.

The results then demonstrate that within the high harmspots, crime counts and harm are strongly correlated (r=.82). This is an important finding. The correlation shows that there are not high harmspots consisting of very few crimes; when crime counts increase, harm increases. It is also shown that even within the high harmspots harm concentrates; 49% of all harm is in just twenty street segments.

Next, temporal analysis shows that crime and harm within the harmspots cluster within particular months, days, hours and police shifts. Monthly peaks of harm will be shown during the months of March, July, August and September. Daily, Friday to Sunday is shown as high harm days with harm peaking at nearly twice as much (21%) compared to Monday to Thursday (11%). The police night shift (22:00 – 06:00) will show the highest period for harm at 58%, compared to the late shift (14:00 – 22:00) and early shift (06:00 – 14:00) at 26% and 16% respectively.

The results will then review the trajectory of high harmspots. Firstly, the top 50 high harmspots of 2011 will be tracked over the four year period. It is identified that 70% of these remain in the top 50 high harmspots by 2014; providing an interesting finding that suggests a level of stability over the four year window. The results look closer at the top 20 high harmspots to see if this pattern is repeated amongst the most harmful of street segments. From the analysis it is shown that 75% of the original top 20 segments remain in the top 20 by 2014.

The classification of harmspots provides tentative results within the thesis. In order to understand if it was possible to classify harmspots, the top four offences that contribute 80% of all harm within the high harmspots were analysed. This created a profile of harm in the high harmspots for each of the offence types. The results show that street segment 23, cumulative harmspot 1, is the most harmful harmspot in each of the four offence categories. In order to explore this concept further every harmspot that contributed greater than 2% of the overall harm for the specific offence was analysed. The results indicate that harmspots can be categorised by a predominant offence type, with much clearer indication for the offences of robbery and other theft and handling.

A qualitative analysis of the harm contained within the high harmspots is then explored. Firstly, the analysis considers harmspot number 1, the most harmful harmspot for the four high harm offence categories. A detailed description of the data and geographic location is provided. The second most harmful harmspots for each of the four high harm offences are then considered. The year on year trend is also reviewed from an ethnographic perspective, identifying the 5% of harmspots that increase rank year on year for further analysis. These harmspots are appraised through descriptive analysis of the data and geographic area. An interesting observation of those identified for qualitative analysis is the high predominance (90%) of licensed premises within the vicinity of these harmspots, and the close proximity, less than 100metres, they all are to bus stops.

Lastly, the qualitative analysis is extended to include clusters of harmspots by geographic areas. It is evident from the data that a number of the harmspots are geographically close to one another and formed several distinct clusters. The analysis of these clusters will also provide cautionary findings indicating that harmspot clusters can be categorised by a predominant offence type.

Exploratory Analysis

The final dataset consisted of a total of 41,148 single crime events within the 99 high harmspots over the four year period 1st January 2011 to 31st December 2014. Each individual crime had previously been multiplied to give a value that equalled the equivalent number of days in prison as identified by the Cambridge Crime Harm Index (CHI) (see Appendix A). For a detailed discussion of the methods, including criteria for the inclusion and exclusion of offences, please see the methods section.

It is helpful to place these harmspots visually on a map, figure 1 below is taken from Google Maps where the data has been entered to create a visual representation.

Figure 1: 99 high harmspots geographical location.

It is clear that a large proportion of harmspots are situated along the 150 mile coast line, with a clear cluster to the north of the counties. Closer inspection of the geographic area does show that the clusters are not as compact as an overview image may suggest, they have however been clustered into several areas which will be considered later in the results. These are indicated below in figure 2.

Figure 2: Cluster area of locations.

The Composition of High Harmspots

Given that these 99 harmspots have already been recognised as the high harm places that are all three standard deviations from the mean, it is important to consider their make-up of crime types alongside their distribution, by volume, both by single crime count and by crime harm. This has been displayed below in Table 1 as an overall percentage of both count and harm. It is worth drawing attention to the top four harm categories which consist of nearly 80% (79.84%) of all crime harm in these harmspots; these are highlighted in the table. It is further worth mentioning that not all high-volume crimes are indicative of low harm scores with other theft and handling being so prevalent that it is responsible for 15% (14.96%) of crime harm in Sussex.

Table 1: Crime count and harm value totals, including percentages.

Crime Category	Count of Crime	Sum of CHI	Counts	CHI
Other theft & handling	21172	165657.6	51.45%	14.96%
Violence against the person	9557	309802	23.23%	27.98%
Criminal damage	3196	6441.1	7.77%	0.58%
Burglary (commercia)	1493	15650	3.63%	1.41%
Possession of controlled drugs (cannabis)	1182	1773	2.87%	0.16%
Auto theft	1102	5283.7	2.68%	0.48%
Other offences	794	63955.7	1.93%	5.78%
Possession of controlled drugs (excluding cannabis)	759	2019	1.84%	0.18%
Sexual offences	510	270578.4	1.24%	24.44%
Burglary dwelling	387	9320	0.94%	0.84%
Robbery	378	137970	0.92%	12.46%
Fraud & forgery	318	15996.5	0.77%	1.44%
Trafficking in controlled drugs	221	102550.6	0.54%	9.26%
Vehicle interference & tampering	64	194	0.16%	0.02%
TOTALS	41,148	1,107,214.6	100%	100%

The total number of combined single crime counts alongside the CHI weighted crime harm values are presented in Table 1. The highest volumes recorded in the 99 high harmspots for crime count, all of which totalled in excess of 5% of crime counts, were: other theft and handling (51.45%), violence against the person (23.23%) and criminal damage (7.7%). Cumulatively these offences accounted for 82.45% of all crime count offences within the high harmspots.

Table 1 shows that once the application of the CHI has been undertaken there is a shift in the pattern of distribution when viewing the figures from a perspective of harm. Figure 3 below visually represents this data by showing the crime count and crime harm distribution by percentage for 2011 – 2014 in the high harmspots.

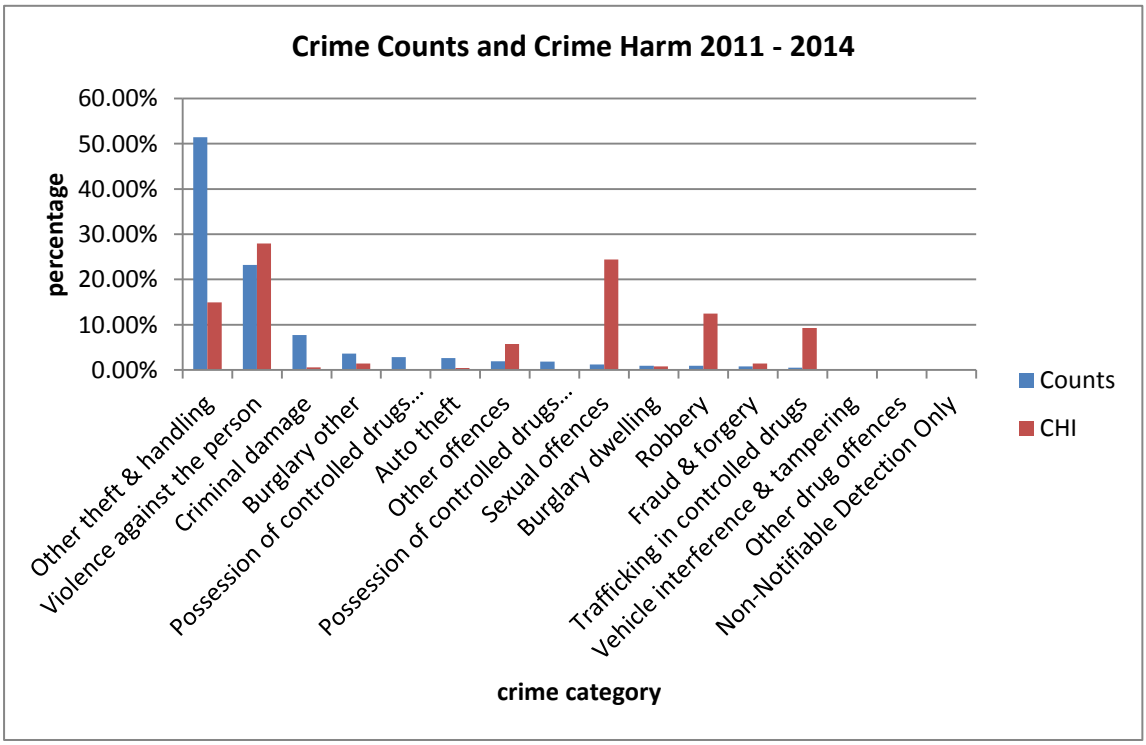

Figure 3: Crime count and crime harm distribution by percentage.

It is interesting to see the pattern of harm within high harmspots. The application of the CHI to the crime data changes the distributed pattern of crime from the perspective of harm.

By using pre-determined data it was already expected that there would be a move from traditional low harm, high volume offences to low volume, high harm crimes, such as serious violent crime and sexual offences. Perhaps of most interest is that the volume of other theft and handling is so high, 51.45% of volume, that it remains in the top three categories of harm at 14.96% alongside violence against the person; 23.23% of volume compared to 27.98% of harm and sexual offences; 1.24% of volume against 24.44% of all harm. The fourth highest, robbery, is less than 1% of all counts (0.92%) yet made up 12.46% of all harm. These four most harmful crimes consist of 80% (79.84%) of all harm in the top 99 high harmspots.

As these harmspots are already identified as the power few concentrations of harm, it was unknown if harm would concentrate within the data. Figure 4 below provides the harm distribution across the 99 harmspots.

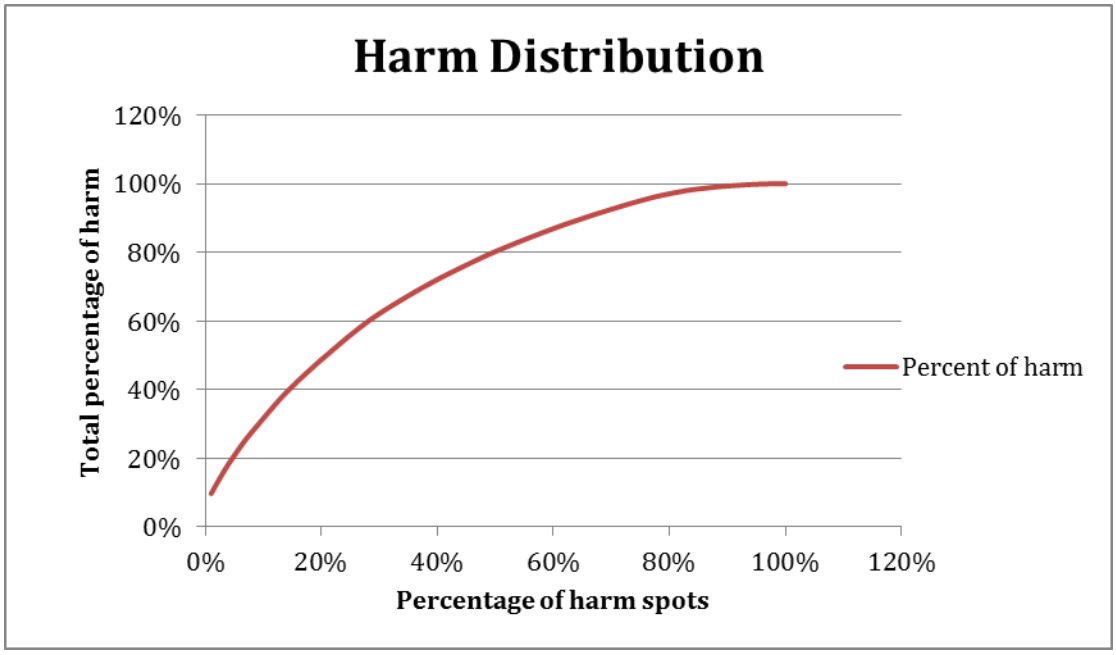

Figure 4: Distribution of Harm across the 99 high harmspots.

The data illustrates that even in high harmspots there is still a concentration of harm with nearly half of all harm (49.03%) concentrated in 20.20% of places (20 street segments).

Crime and Harm Correlation

A Pearson's r correlation was undertaken on the data to see if there was a correlation between crime and harm within the high harmspots. Table 2 below provides the results of the Pearson's r test.

Table 2: Pearson's r correlation for count of crime and CHI.

Correlations			
		Total Sum of Crime Harm 2011 to 2014	Total Sum of Crime Count 2011 to 2014
Total Sum of Crime Harm 2011 to 2014	Pearson Correlation	1	.821**
	Sig. (2-tailed)		.000
	N	99	99
Total Sum of Crime Count 2011 to 2014	Pearson Correlation	.821**	1
	Sig. (2-tailed)	.000	
	N	99	99

**. Correlation is significant at the 0.01 level (2-tailed).

This is an interesting correlation as it shows that within high harmspots in Sussex, crime and harm does correlate. Figure 5 shows a graph of crime and harm with this correlation.

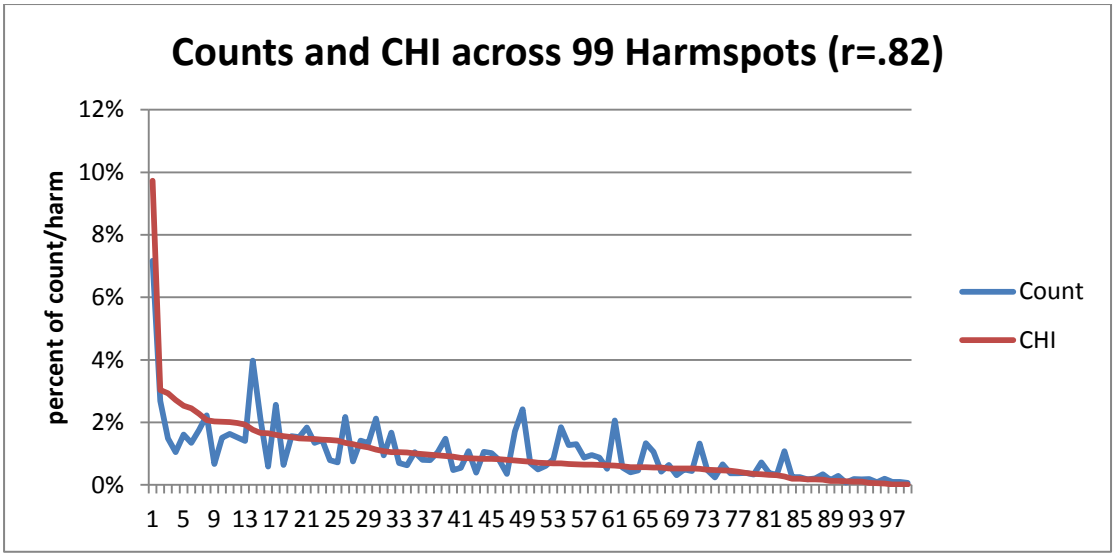

Figure 5: Graph showing total counts of crime and sum of CHI across the 99 harmspots.

Temporal Analysis

Following analysis of four years of crime data, the results are presented in the following subsets of temporal analysis. The findings show the distribution of 100% of both crime count and crime harm in the 99 high harmspots over the period. Results of the research are presented for the high harmspots and include, analysis by month, by week, by hour in day and then by police shift pattern.

Temporal Analysis – Monthly

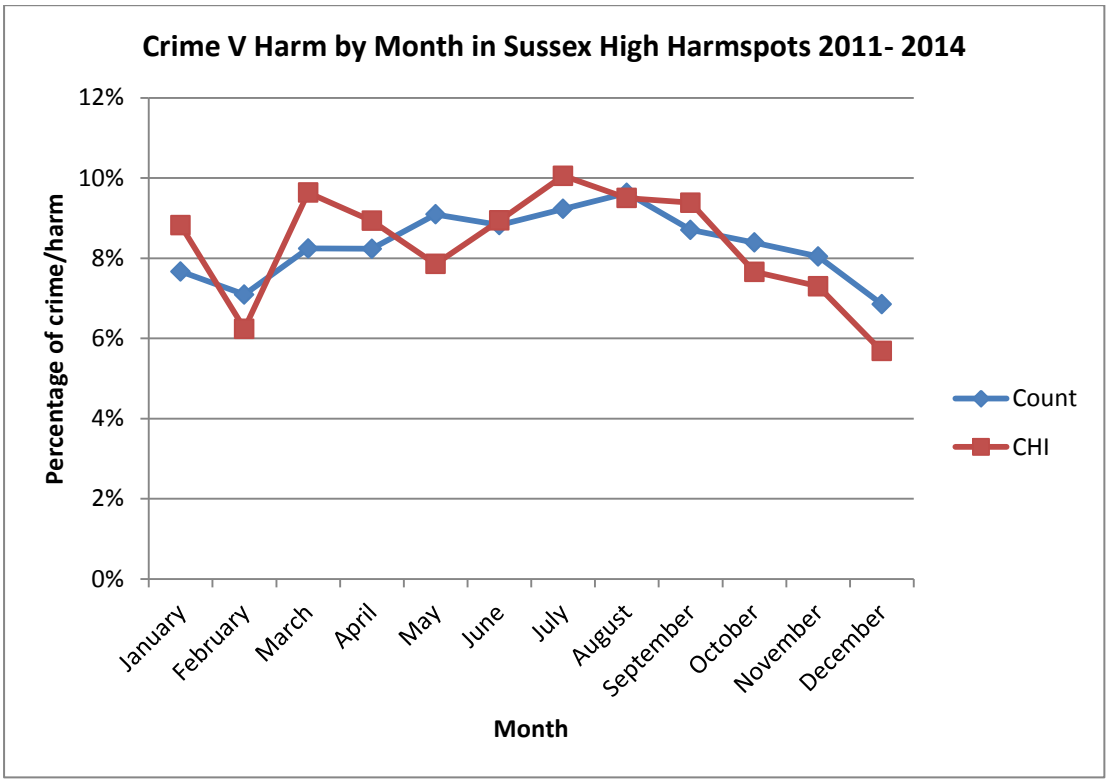

Figure 6: Graph showing Crime V Harm by month in Sussex high harmspots 2011 – 2014.

Within high harmspots the graph shows that crime count fluctuates between 7 to 10% while crime harm fluctuates between 6 to 10%. Crime harm spikes from 6% to 10% from February into March before reducing steadily to 8% by May. Harm then increases steadily to 10% in July and remains relatively stable until October, where it reduces to 8% and falls to its lowest point in December at 6%, before rising to 9% by January.

Temporal Analysis – Daily

Figure 7 shows the percentage of crime counts and percentage of crime harm by day of the week.

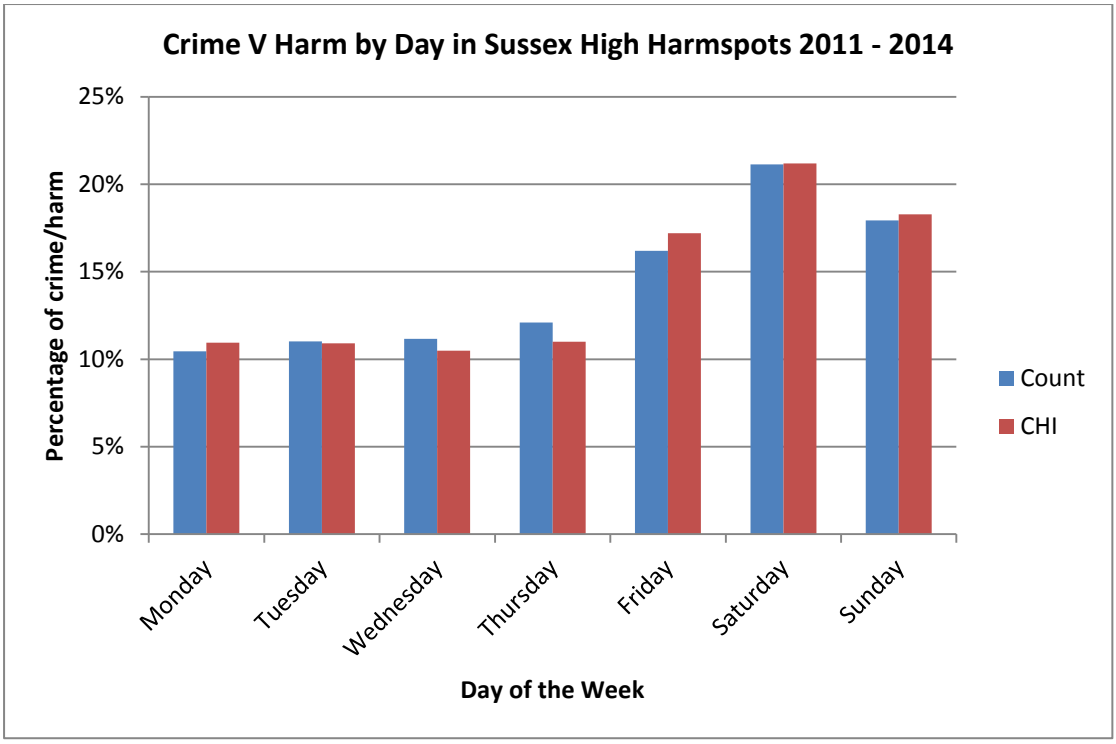

Figure 7: Chart showing crime V harm by day in Sussex high harmspots 2011 – 2014.

This data is also represented below in table format.

Table 3 Daily crime V harm by percentage in Sussex high harmspots 2011- 2014.

Day of Week	Count of Crime	CHI
Monday	10.45%	10.94%
Tuesday	11.02%	10.91%
Wednesday	11.16%	10.49%
Thursday	12.09%	10.99%
Friday	16.20%	17.19%
Saturday	21.14%	21.18%
Sunday	17.94%	18.29%
Grand Total	100.00%	100.00%

The results show that crime counts remain between 10 to 12% Monday to Thursday, while crime harm remains virtually static at 11%. Crime count increases to 16% by Friday before peaking at 21% on Saturday, reducing to 18% on Sunday. Crime harm virtually mirrors this increase, increasing to 17% on Friday, peaking at 21% Saturday and reducing to 18% on Sunday too. Within the high harmspots the largest difference between count and harm as a percentage is on a Friday with harm being 1% greater than count. There is nearly double the amount of harm on the period Friday to Sunday than during the rest of the week.

Temporal Analysis - Hourly

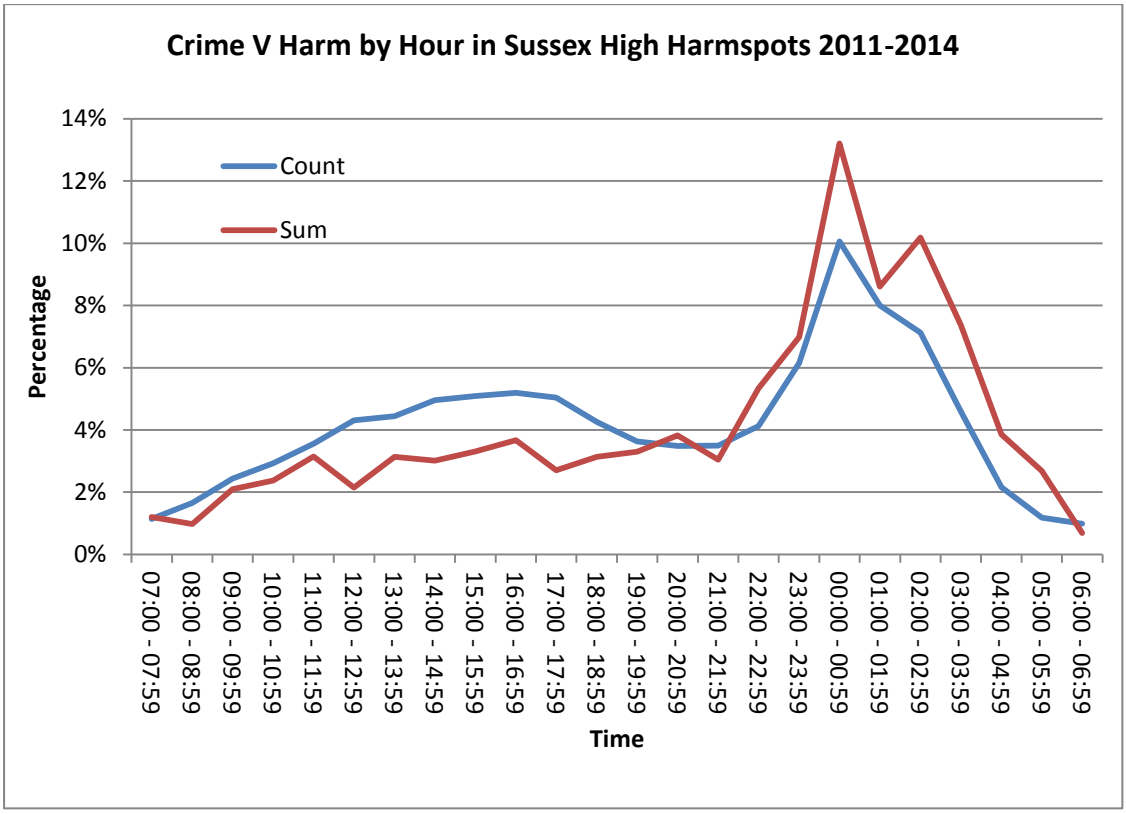

Figure 8: Daily crime count and crime harm rates for the 99 harmspots.

Figure 8 shows the temporal distribution of crime count and crime harm over the four year period for the 99 high harmspots in Sussex. The results show that between the hours of 07:00 and 19:00 crime count and crime harm follow a similar trajectory but with crime count being 1 to 2% higher than harm. Both crime count and crime harm peak at around 00:00 with 10% of crime counts recorded in this hour and 13% of crime harm. Further, it is evident from the graph that at 19:00 the two intersect and harm increases its trajectory at a greater speed than count. Between 21:00 and 00:00 harm increase by 10%, while counts increase by just under 5% for the same period. It is not until 05:00 that harm returns to the rate it is recorded at for the periods 06:00 through to 20:00.

Temporal Analysis – By Shift

Crime and harm will now be analysed by the police shift pattern of early, 06:00 – 14:00, late, 14:00 – 22:00, and nights, 22:00 – 06:00.

The graph below provides the total percentage of crime and harm by these shifts.

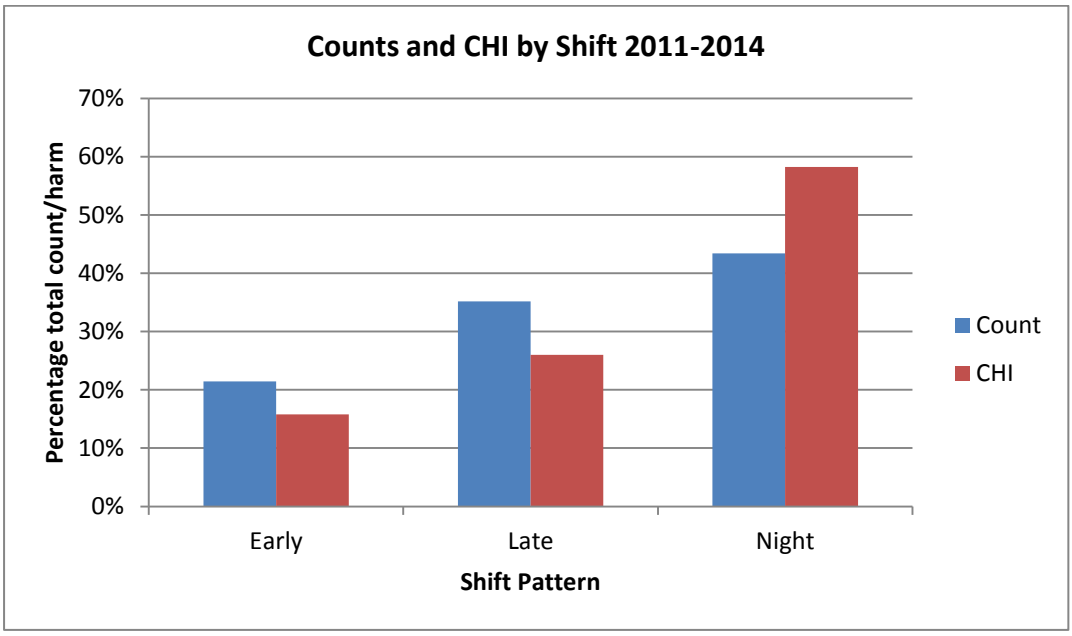

Figure 9: Graph showing percentage of count and harm by shift

The graph shows that for the early shift (06:00 – 13:59) 21% of crime is recorded in the high harmspots V 16% of harm. Both counts and harm increase to the late shift (14:00 – 21:59,) where 35% of crime count is recorded V 26% of harm. It is in the night shift (22:00 – 05:59) where the percentage of harm increases substantially to 58% in comparison to crime count at 43%. While both count and harm increase, this is the only police shift that harm outweighs crime count.

Harmspot Trajectory

While the data presented shows the cumulative position of the harmspots over the four year period from 2011 to 2014, it was possible to rank the harmspots by year, providing an analysis of each harmspots year on year trend. Appendix B contains the full table where it is possible to see the complete data and changing position of the harmspots. Table 4 below shows the count and percentage change of harmspots over the four year period.

Table 4: Harmspot rank change from previous year by count and percentage.

	2011-2012		2012-2013		2013-2014	
	Counts	Percent	Counts	Percent	Counts	Percent
up	48	48.48%	50	50.51%	53	53.54%
down	47	47.47%	45	45.45%	43	43.43%
stable	4	4.04%	4	4.04%	3	3.03%

In order to provide a more detailed analysis both the top 20 and top 50 harmspots were tracked to identify their yearly change. Table 5 shows the percentage that remained within the top 20 and top 50 harmspots:

Table 5: Percentage of harmspots within top 20 and top 50 positions year on year.

Year	% Remaining in top 20	% Remaining in top 50
2011	100%	100%
2012	60%	66%
2013	55%	72%
2014	75%	70%

Figure 10 provides these results in a line graph:

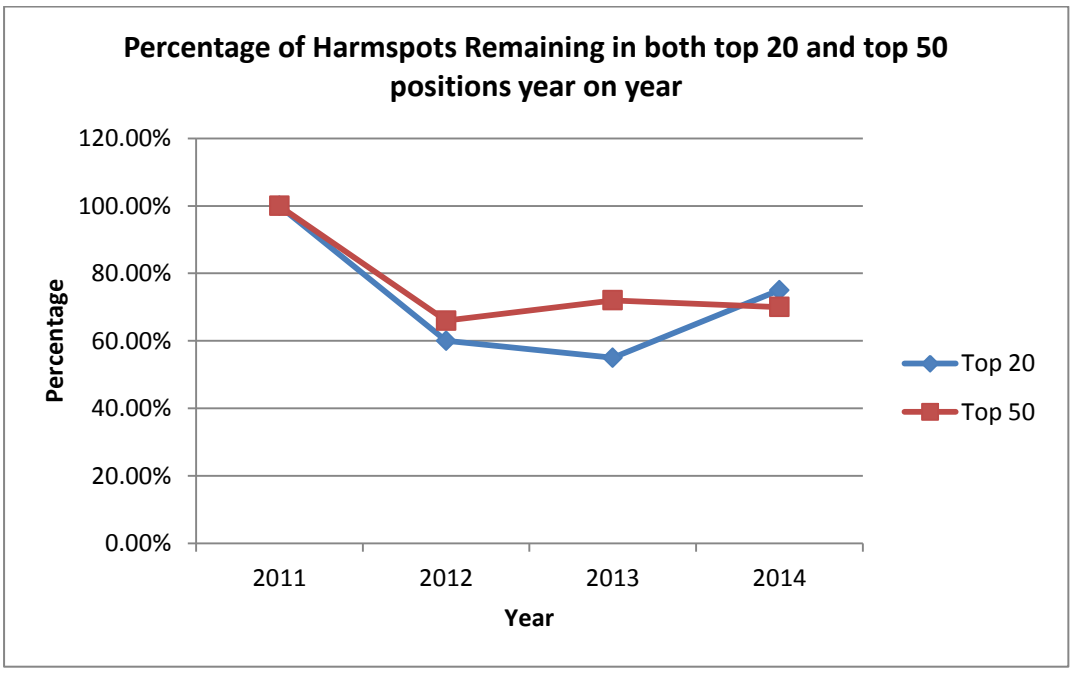

Figure 10: Percentage of harmspots remaining in top 20 and top 50 positions year on year.

From figure 10 it is evident that over the four year period at least 55% of street segments always remain within the original category they were in. There is a sharp decrease by almost 40% in both sets of data from 2011 to 2012 but the harmspots steadily increase their rate of return over 2013 to 2014. Of the top 50 harmspots 70% of these remain in the top 50 high harmspots by 2014; that suggests a level of

stability over the four year window. For the top 20 high harmspots it is shown that 75% of the original top 20 segments remain in the top 20 by 2014.

Classifications of Harmspots

In order to understand the type of harm in each harmspot it was necessary to look at the percentage of harm in each crime category across the 99 harmspots. This analysis was undertaken to identify if any categorisation of harmspots could be identified from the data.

The following figures, 11 to 14, show the data represented by percentage of harm in each harmspot for each of the four high harm categories; sexual offences, violence against the person, robbery and theft and handling (see Appendix C for the complete analysis). The top two harmspots that held the most harm for the above categories will be identified for further qualitative analysis later within the results.

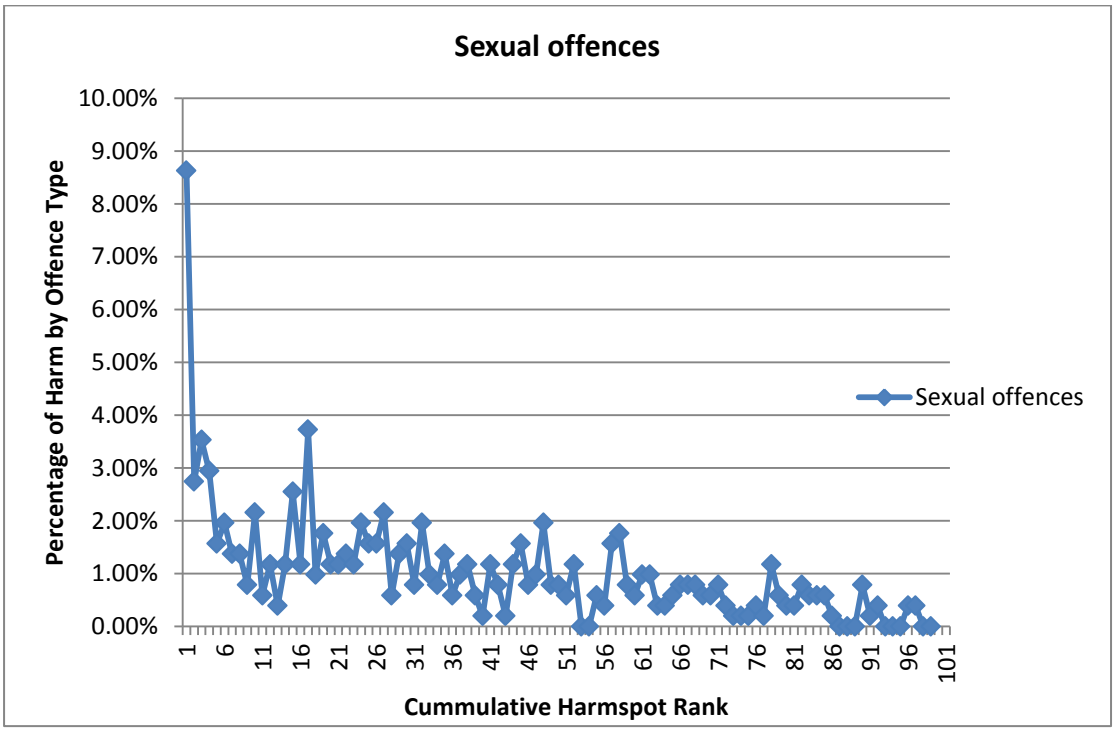

Figure 11: Percentage of harm by harmspot for sexual offences

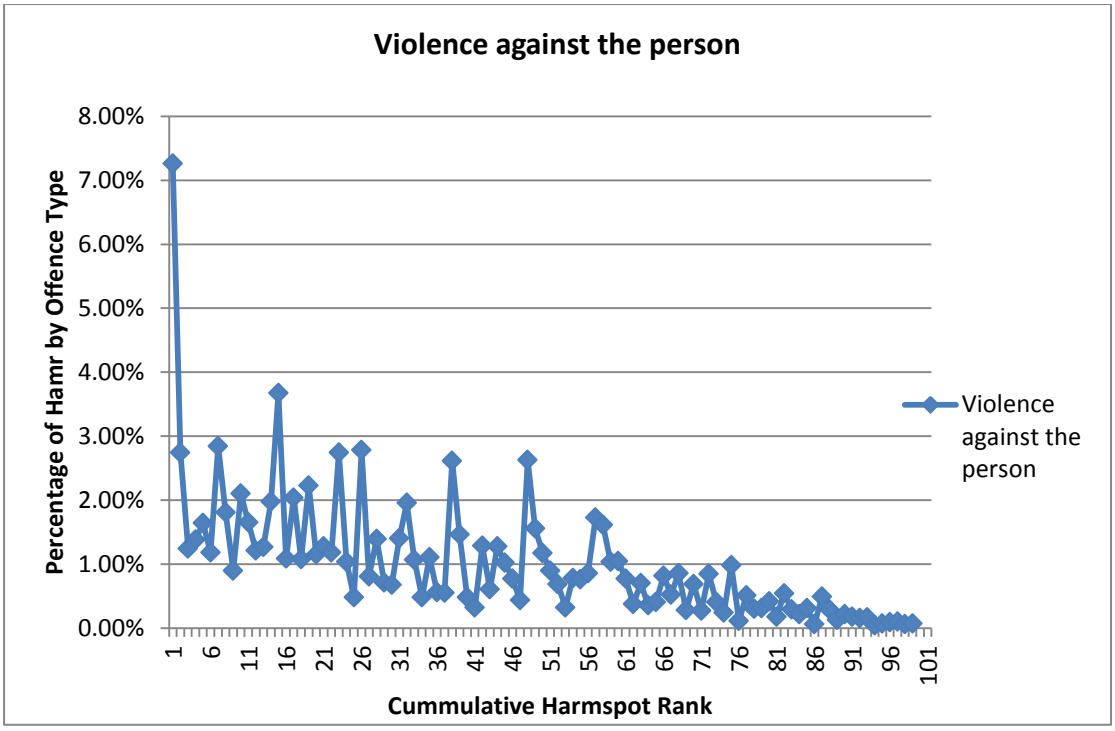

Figure 12: Percentage of harm by harmspot for violence against the person

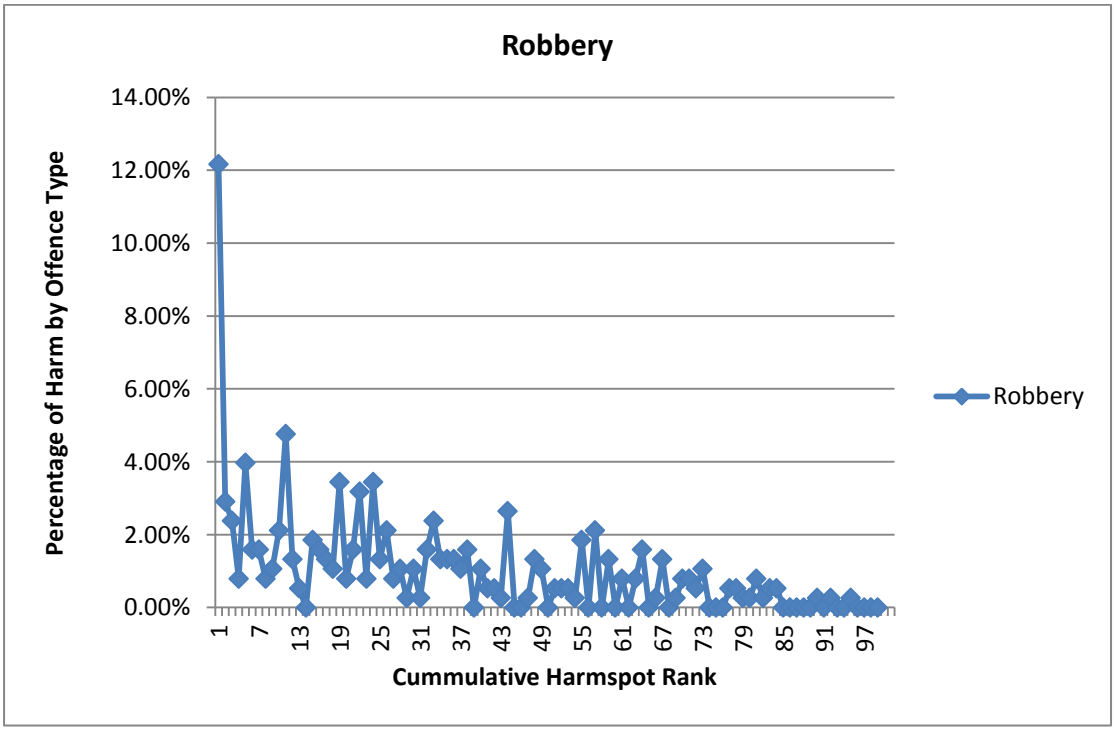

Figure 13: Percentage of harm by harmspot for robbery

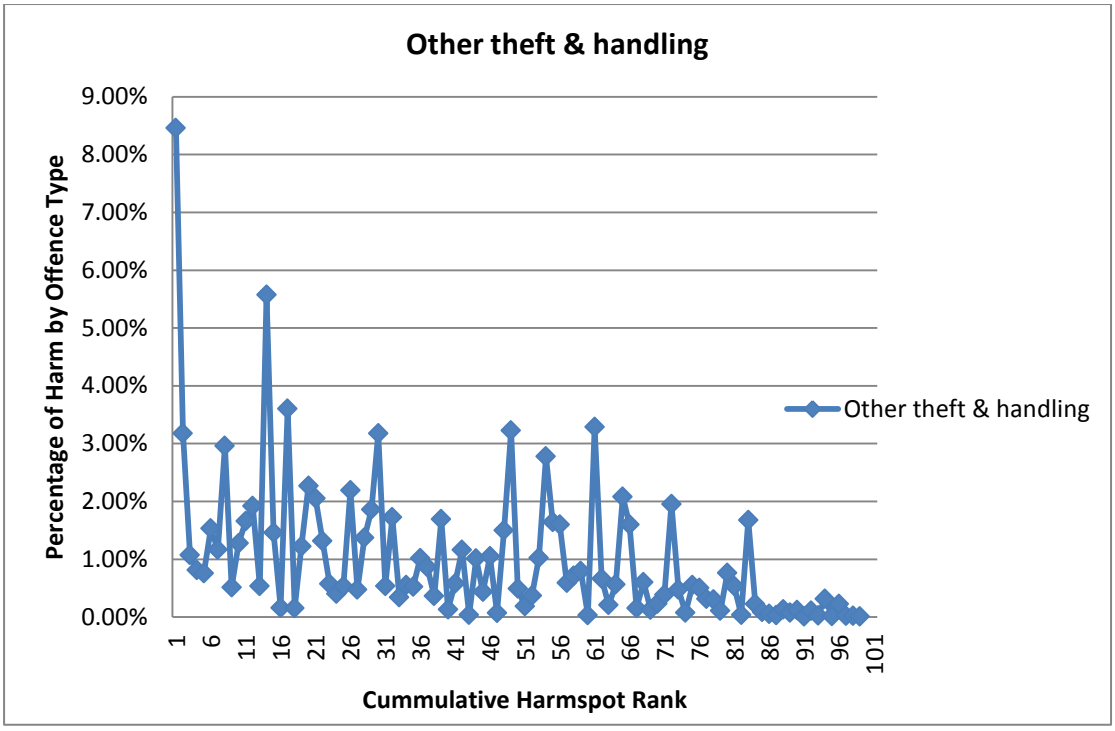

Figure 14: Percentage of harm by harmspot for other theft and handling

Further Classification

In order to explore the categorisation of harmspots further, each harmspot that contributed to 2% or greater of the overall percentage of harm was identified. Figures 15 to 18 display these results in clustered bar graphs against the top four offences to identify any visual pattern of categorisation.

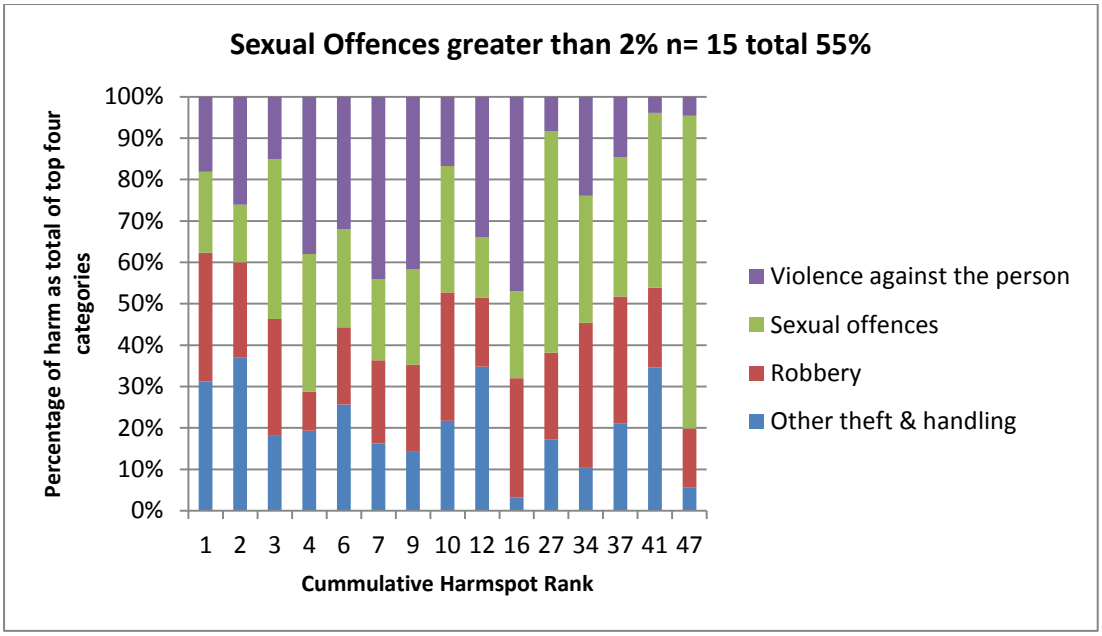

Figure 15: Cluster bar graph of harmspots with greater than 2% of all sexual offences against top four harm categories.

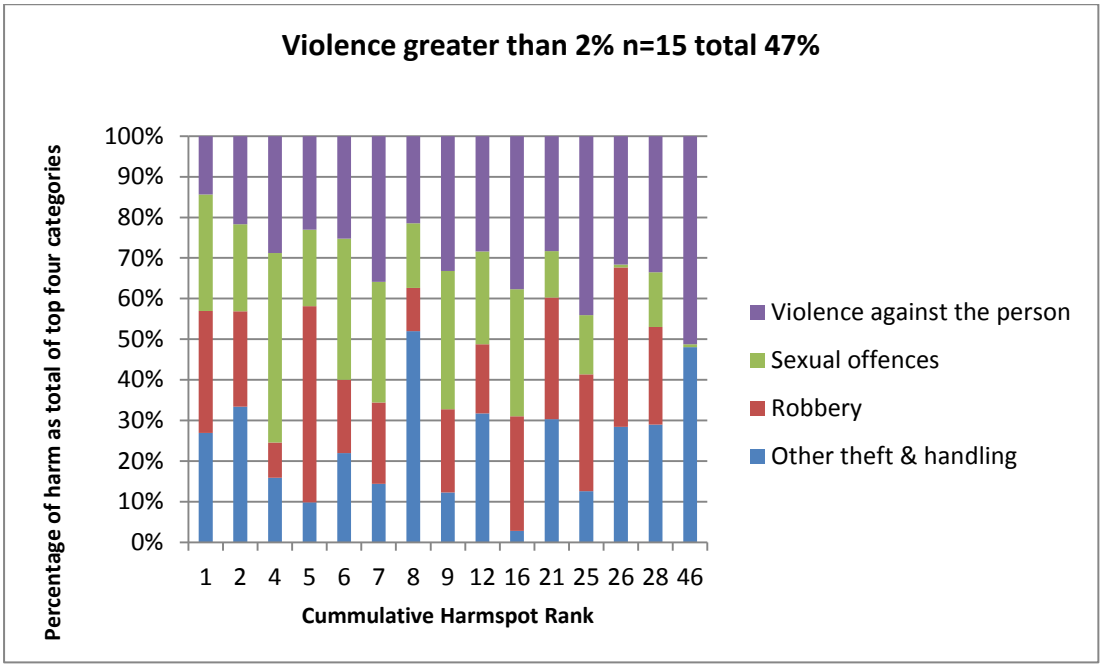

Figure 16: Cluster bar graph of harmspots with greater than 2% of all violence against the person offences against top four harm categories.

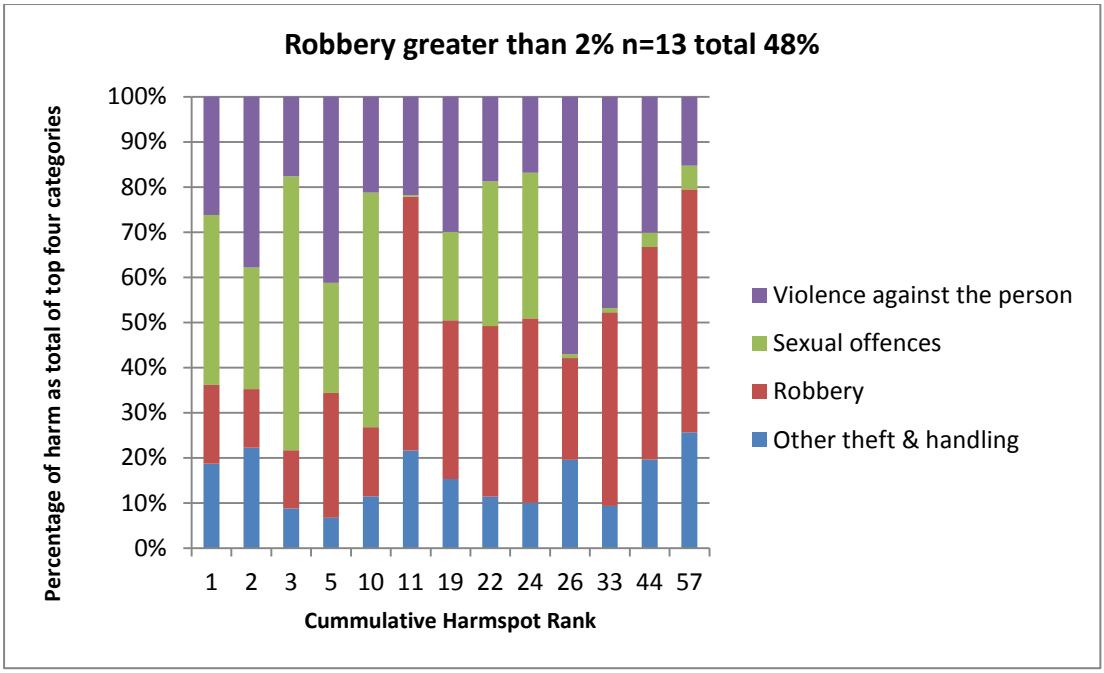

Figure 17: Cluster bar graph of harmspots with greater than 2% of all robbery offences against top four harm categories.

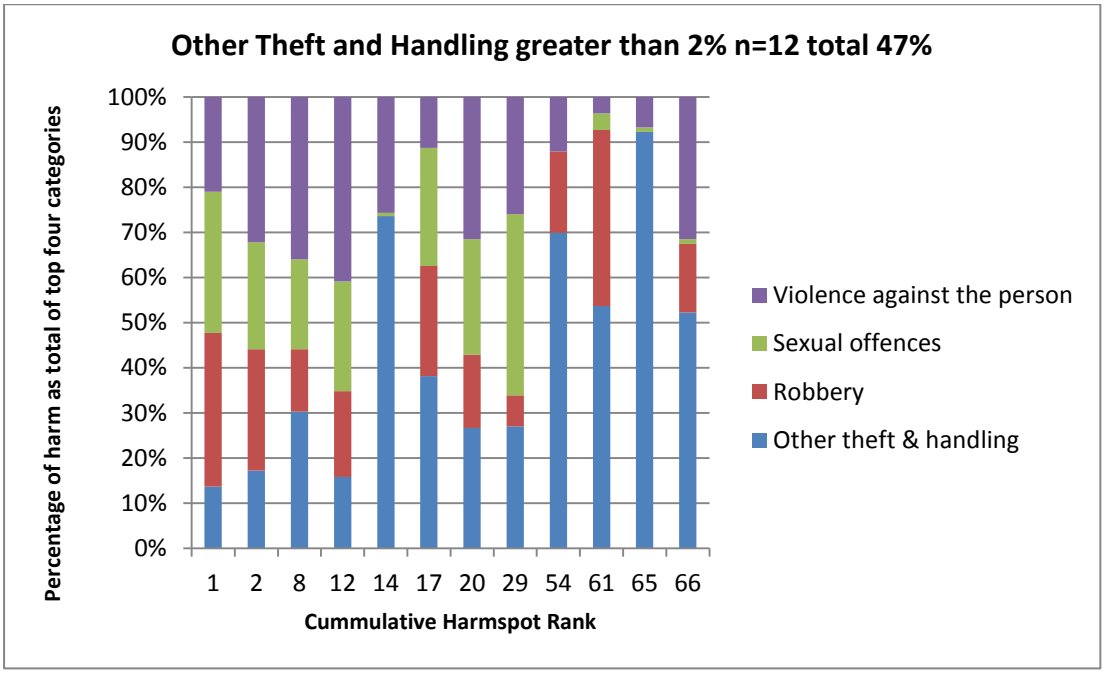

Figure 18: Cluster bar graph of harmspots with greater than 2% of all theft offences against top four harm categories.

The cluster graphs show that harmspots are not solely made up of one type of harm. However, for robbery and other theft and handling, there is a much clearer visual representation of these being the predominant form of harm within the harmspots that contained 2% or greater of the overall harm for these offence types.

Qualitative Analysis of Harmspots

In order to provide a more qualitative view of the pattern of harm within harmspots the top two most harmful harmspots, for the four most harmful offence categories, will now be considered.

Harmspot Number 1

Cumulatively ranked as Harmspot number 1, it has not changed position since 2011 and is the most harmful area within the whole of Sussex. The harmspot is geographically located on the street segment outside Brighton's Music hall, which contains Britain's largest heated beach terrace (Brighton Music Hall 2016). The street segment is part of the A259, the main A road that runs along the seafront of Brighton. Within close proximity of the harmspot, along the same segment, is the West Pier, three hotels and three hostels. There are also a number of bars and eateries within close proximity to the location. The location is along the seafront of Brighton. Figure 19 below shows a satellite image of the harmspot, identified by the highlighted red marker.

Figure 19: Cumulative harmspot number 1 satellite image.

Figure 20 provides the count of crimes over the four year period from 2011 to 2014 for the harmspot.

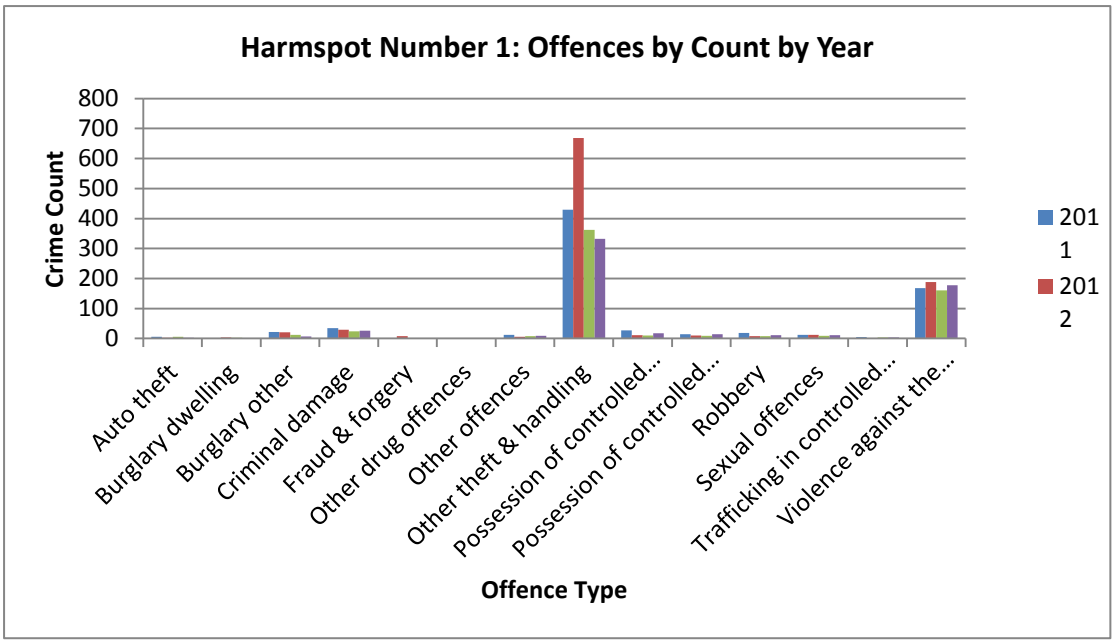

Figure 20: Cumulative harmspot number 1 count of crimes.

Figure 20 shows that the vast majority of crime events every year are for theft and handling, followed by violence against the person. Figure 21 shows the same information but with the crime counts transposed to crime harm.

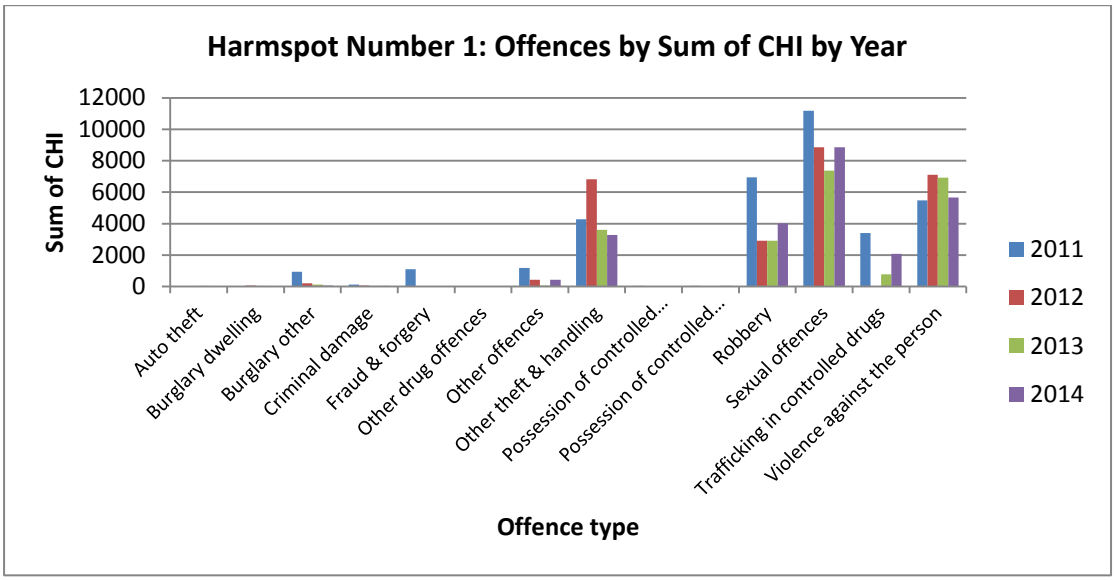

Figure 21: Cumulative harmspot number 1, sum of CHI values by year.

By comparing Figure 20 to Figure 21 it is clear that by transposing the figures to CHI values harmful events consist primarily of sexual offences, violence against the person, robbery and theft and handling. While theft and handling remains a harmful event, due to the volume of offences, the identification of offences against the person is emphasised by the values within the CHI.

Harmspot number 1 consisted of the highest overall percentage of harm for each of the four high harm offence types. To show how harm is spread within the harmspot Figure 22 provides the sum of all harm by offence types.

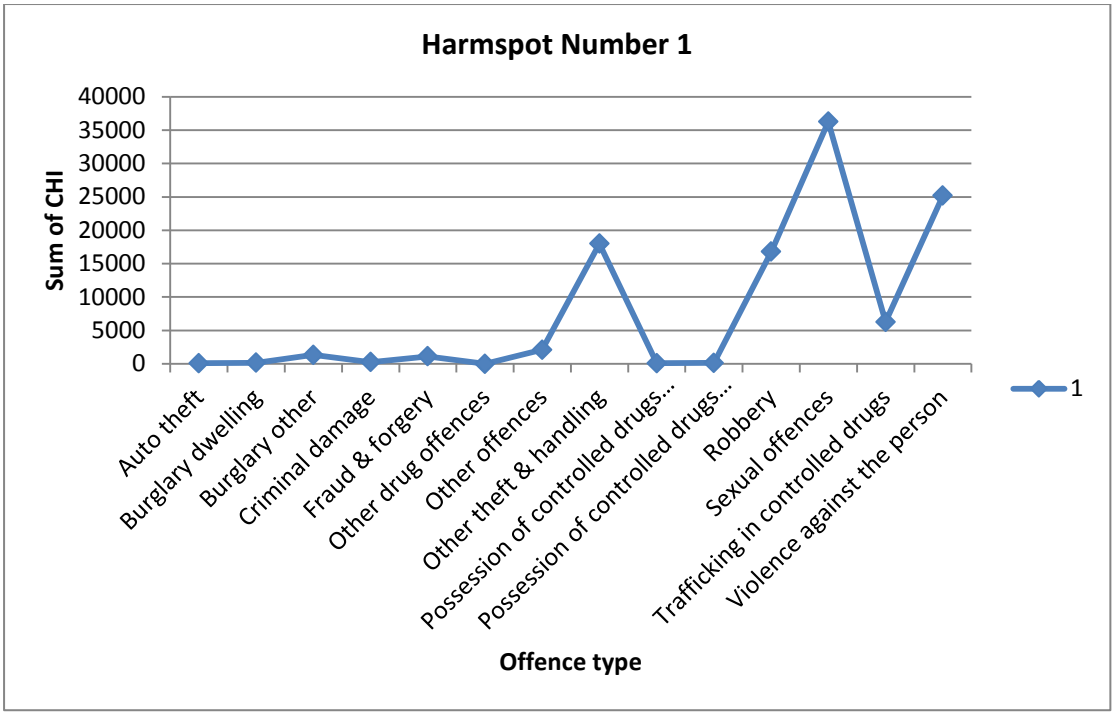

Figure 22: Sum of CHI; harmspot 1 by offence type

Harmspot 1 can be categorised by all four of the most harmful offences identified in this analysis. The results show that sexual offences is the most harmful offence type followed by violence against the person, theft and robbery.

The most amount of harm for each offence type identified that harmspot 1 remained consistent across each offence. However, it is shown below that this level of consistency does not remain beyond harmspot 1.

High Harmspots by Offence

The results will now consider the second highest harmspot for the most harmful harm categories, sexual offences, violence against the person, robbery and other theft and handling.

Sexual Offences

The harmspot for the most harmful sexual offences after harmspot 1 was harmspot number 3. Harmspot 3 is situated on the seafront at Brighton. Figure 23 below provides a satellite image of harmspot 3, identified by the highlighted red marker.

Figure 23: Harmspot 3

Harmspot 3 is directly opposite the seafront, it is a mixed residential and commercial area with a bus stop, identified by the blue marker, within the vicinity. Ecologically there is nothing else that is apparently distinct about the street segment. However, approximately 200 metres to the east of the harmspot between the A259 and the seafront promenade there is a live music venue and night club, Concorde 2.

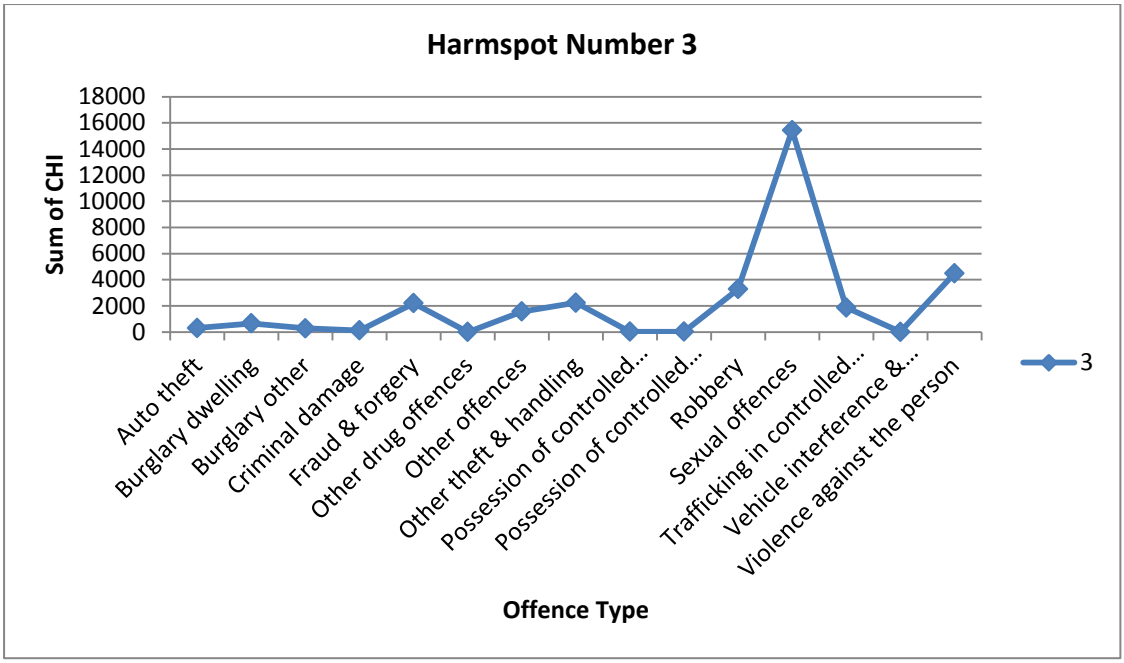

Figure 24: Sum of CHI; harmspot 3 by offence type

Figure 24 shows that in terms of overall harm, harmspot 3 can be clearly categorised as a sexual offence harmspot.

Violence Against the Person

The second highest harmspot for most harmful violence against the person offences is harmspot number 7. Harmspot 7 is in the geographic area of Hastings, approximately 150 metres from the seafront. Figure 25 below shows the satellite image for the harmspot, identified by the highlighted red marker.

Figure 25: Harmspot 7

Harmspot 7 is a main road. As can be seen from the image, the area is largely commercial with cafes, eateries and shops in the immediate vicinity. Within 100 metres there are four bars and two bus stops. Figure 26 shows the sum of all CHI by offence type for harmspot 7.

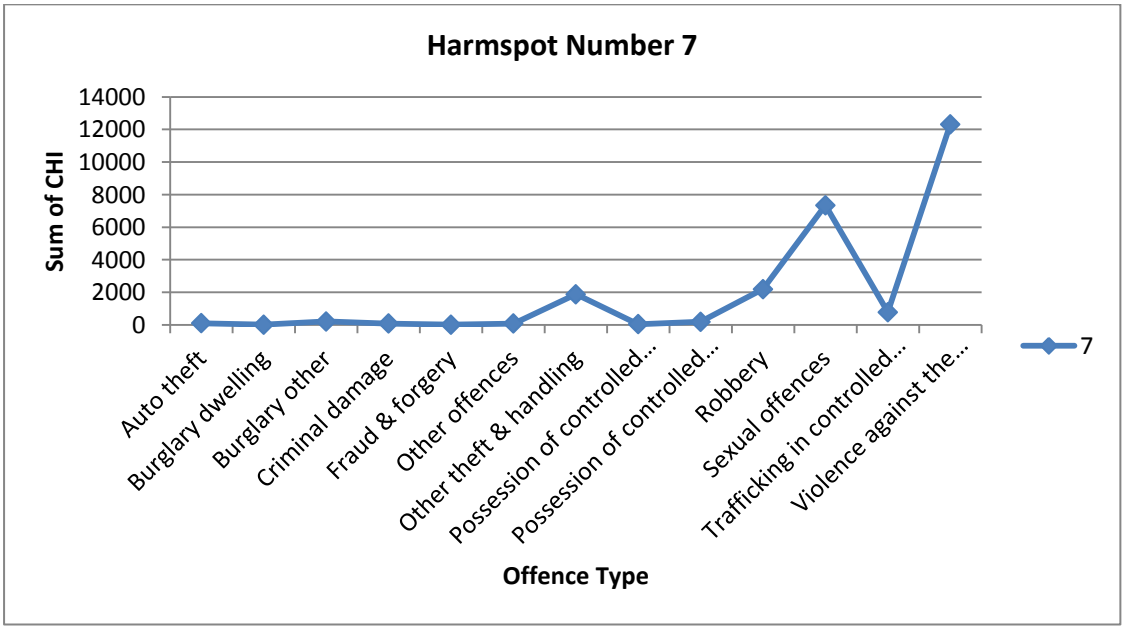

Figure 26: Sum of CHI; harmspot 7 by offence type.

As shown in figure 26, violence against the person is the predominant form of harm within this harmspot. Harmspot 7 also records a peak of harm for sexual offences. It is these two categories of offence that make up the largest proportion of harm associated with the street segment.

Robbery

After harmspot 1, the second most harmful area for robbery was harmspot 11. Harmspot 11 is a busy interchange to the north of Brighton, approximately 1 kilometre from the seafront. Figure 27 provides a satellite image of the harmspot, identifiable by the highlighted red marker.

Figure 27: Harmspot 11

Harmspot 11 backs on to a large park and joins the A270, a main road through Brighton. It is within 100 metres of a bar, a range of eateries and a bus stop. Figure 28 shows the sum of all harm for the harmspot.

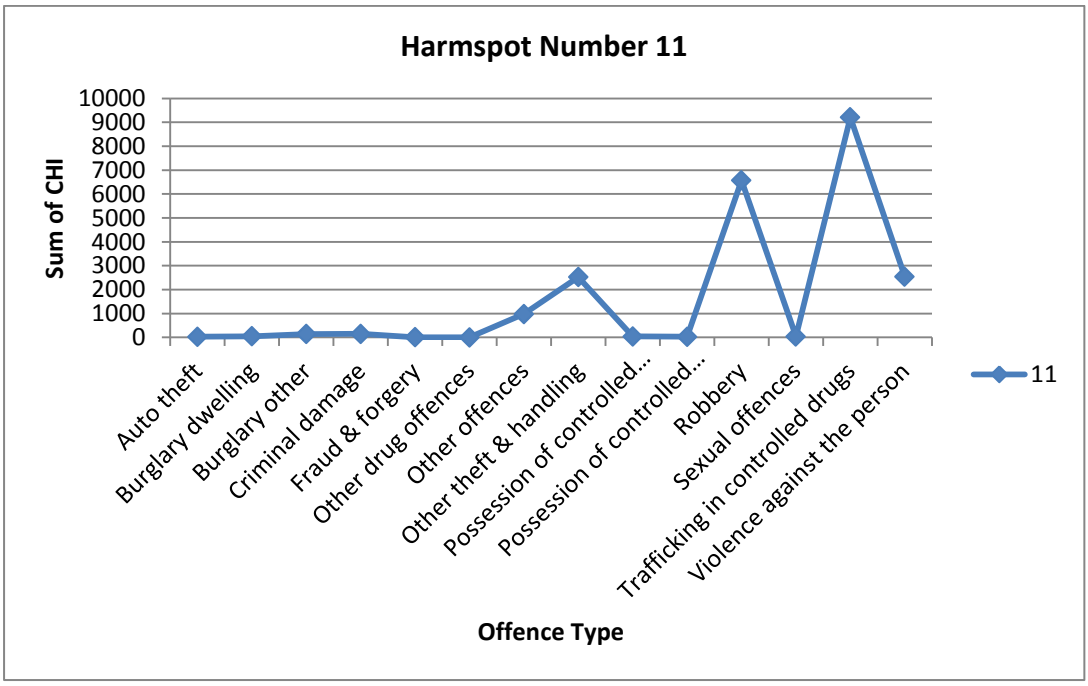

Figure 28: Sum of CHI; harmspot 11 by offence type.

Figure 28 shows that harmspot 11 is categorised harmful by two types of crime, robbery and trafficking in controlled drugs.

Other Theft and Handling

The second highest harmspot for other theft and handling is harmspot 14. Harmspot 14 is located directly outside of Gatwick Airport and can be seen in figure 29 below identified by the highlighted red marker.

Figure 29: Harmspot 14

There is both a train station and bus stops within 100 metres of the harmspot.

Figure 30 provides the sum of all harm for the harmspot.

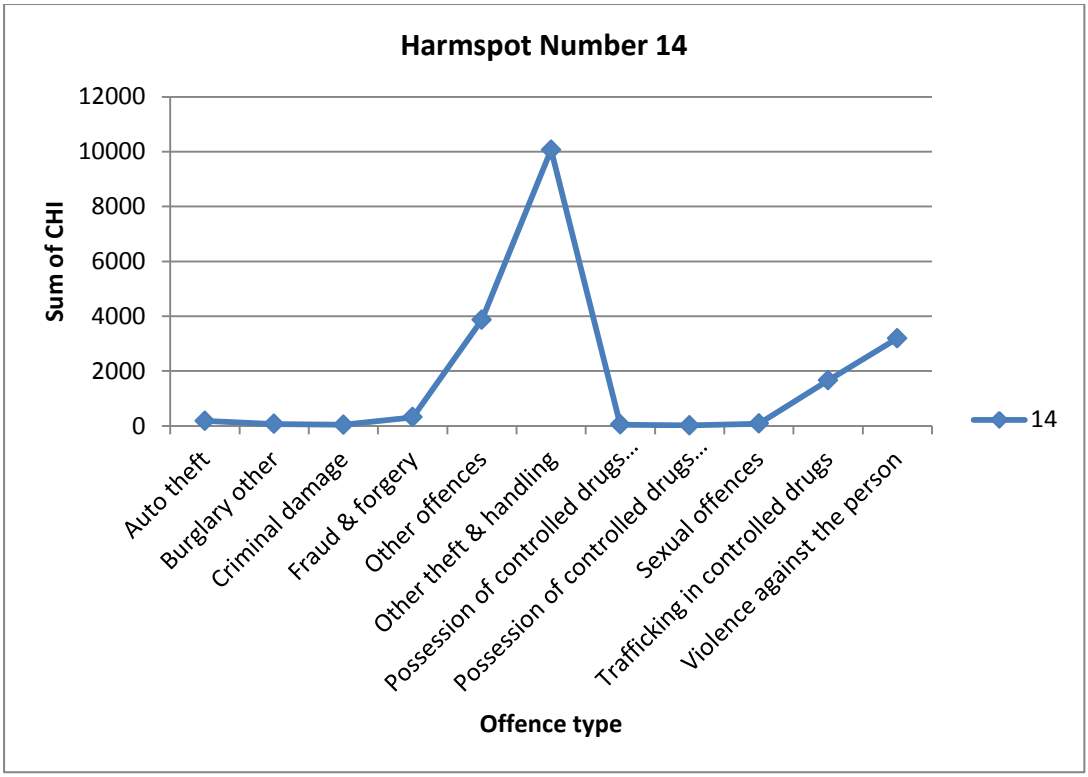

Figure 30: Sum of CHI; harmspot 14 by offence type.

Figure 30 shows that harmspot 14 can be clearly categorised by harm due to other theft and handling offences.

For these five identified harmspots figure 31 provides a mosaic of the distribution of harm for the period 2011-2014.

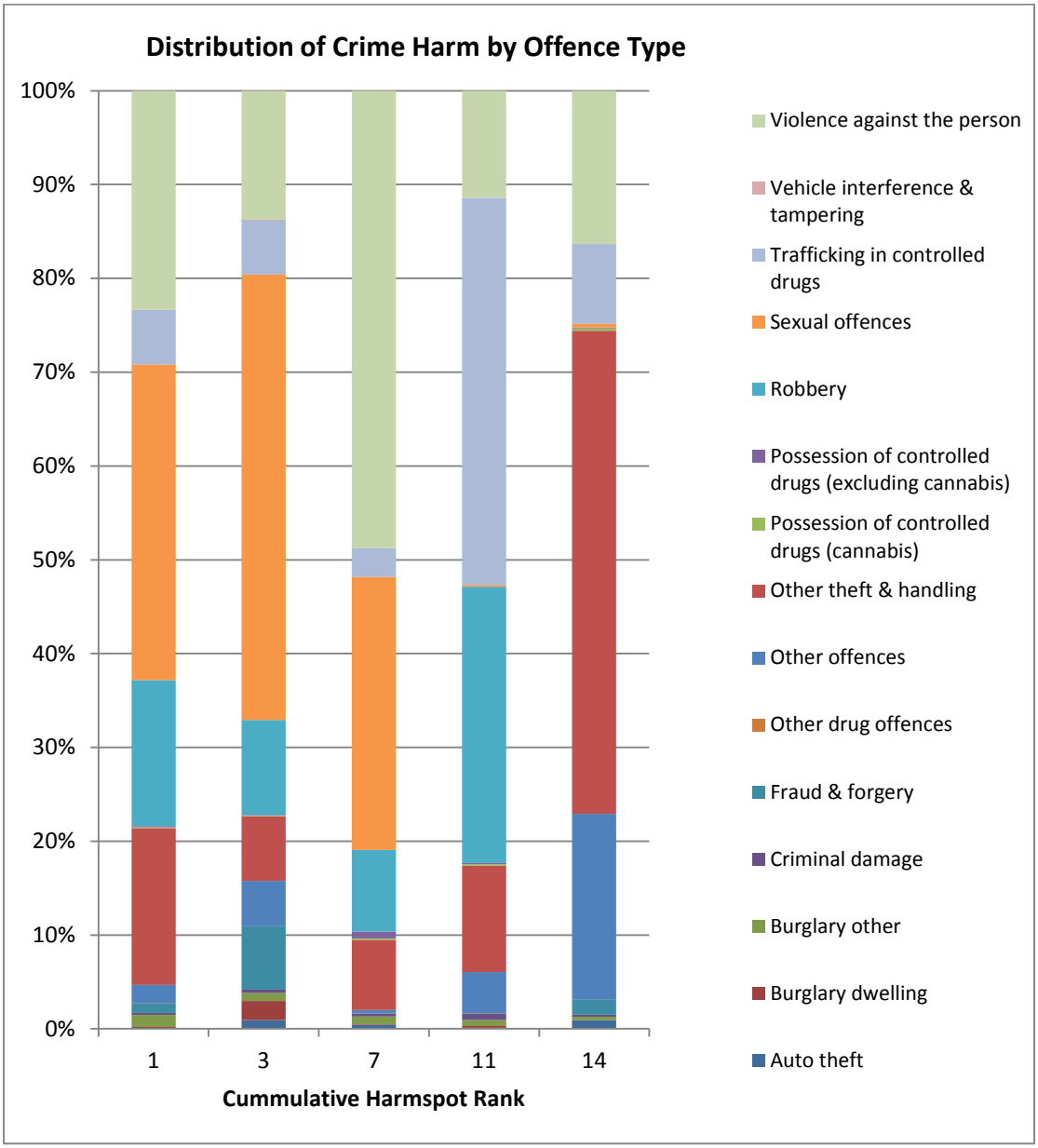

Figure 31: Graph showing spread of harm by offence type for harmspots 1, 3, 7, 11 and 14.

Figure 31 shows visually the difference in harm categories within these harmspots, indicating that it is possible to categorise the high harmspots by a predominant offence. Two epidemiological observations from the harmspots are evident. Firstly the close proximity to public transport links, with each harmspot being within 100metres of a stop or station. Secondly, that all of the harmspots except harmspot 14 (other theft and handling), are within close proximity of either a club, bar or public house.

The harmspots were also reviewed to see if any further trends were apparent over the four year period. Of the 99 harmspots 6 either remained static or have increased yearly. Table 6 identifies these 6 from the original data selection (see Appendix B for the complete analysis). Below they are arranged numerically by their 2011 ranked position, highest to lowest.

Table 6: Harmspots that have remained static or increased yearly.

2011 Sum of CHI	2011 Rank	2012 Sum of CHI	2012 Rank	Change from 2011 to 2012	2013 Sum of CHI	2013 Rank	Change from 2012 to 2013	2014 Sum of CHI	2014 Rank	Change from 2013 to 2014	Total Sum of CHI	Total Counts	Overall Rank
34697.7	1	26548.3	1	static	21950.7	1	static	24563.9	1	static	107760.6	2952	1
1890.5	48	2975.5	37	up	2930.9	32	up	4120	28	up	11916.9	388	31
1756	49	5690.4	12	up	6101	8	up	13595.4	2	up	27142.8	555	6
1125	59	1726	57	up	1409.3	56	up	3135.7	39	up	7396	523	55
1116.5	60	4182	22	up	5032	16	up	6175.4	13	up	16505.9	631	20
142	89	2056.5	51	up	2729.5	35	up	4457	25	up	9385	162	43

Harmspot number 1 has already been discussed above. The remaining five harmspots, all of which had an upward trend year on year, will now be explored. The harmspots will be discussed by their cumulative ranking and will be arranged below by this order.

Harmspot Number 6

Cumulatively ranked as harmspot number 6, this harmspot has increased rank exponentially year-on-year. From the starting CHI rank of 49 in 2011 it increased substantially to position 12 by 2012. It then increased to 8 by 2013 and position 2 by 2014. A comparison of all the data over the four year period ranks the harmspot sixth.

The harmspot is geographically placed on the seafront of Brighton, a short distance to the pier. Figure 32 below shows the satellite image for the harmspot, identified by the highlighted red marker.

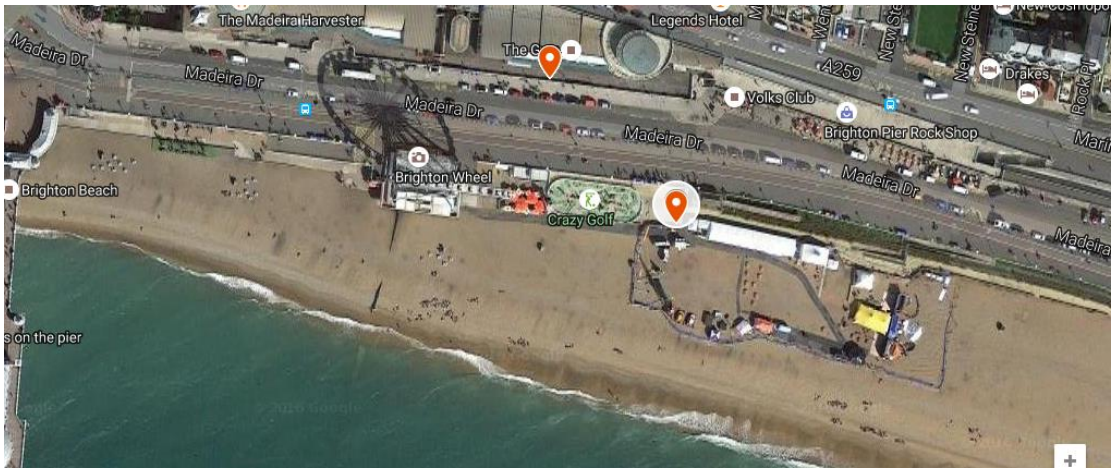

Figure 32: Cumulative harmspot number 6 satellite image.

The location of harmspot number 6 is a non-residential site with public activities located within and near to it, including Brighton Pier and the Brighton Ferris Wheel. It is situated directly opposite Volks Club, a night club that has a license allowing it to operate from 11:00 – 19:00 and then from 22:00 through to 07:00 (Volks Club 2016). Madeira Drive, on which the harmspot is situated on, also hosts many events throughout the year. It is the finishing line for the annual London to Brighton Bike

Ride, the Ace Café yearly reunion motorcycle event, the Brighton and Pioneer motorcycles run, the start of the Brighton Pride parade and the start of the Brighton Marathon (Brighton and Hove City council 2016).

Figure 33 provides the count of crimes over the four year period from 2011 to 2014 for cumulative harmspot number 6.

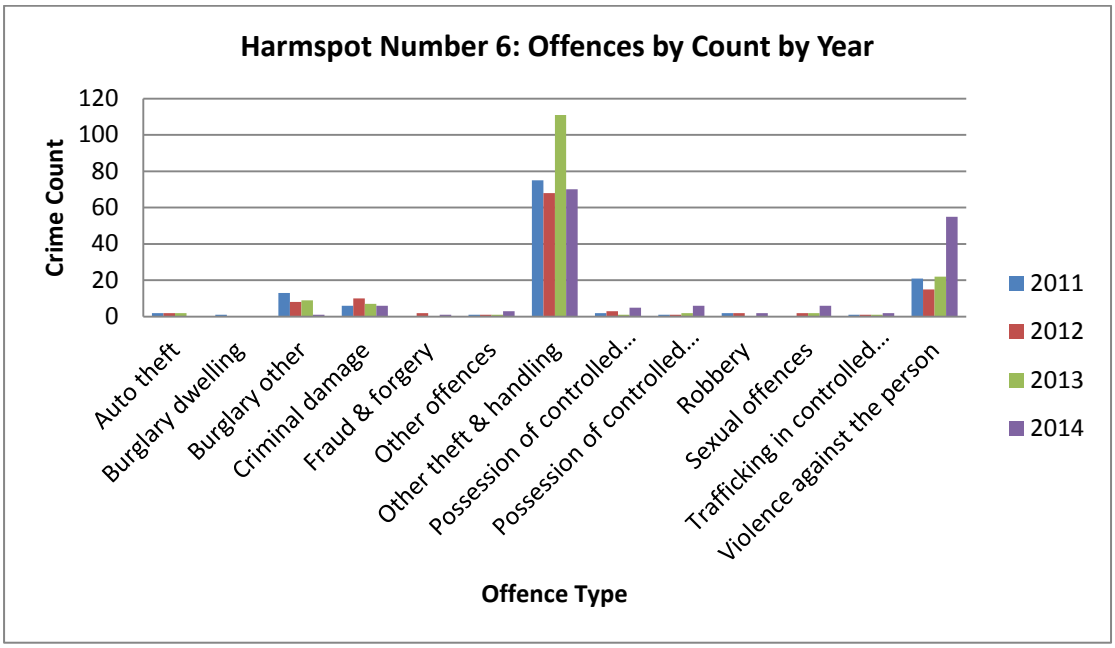

Figure 33: Cumulative harmspot number 6: Count of crimes.

Figure 34 shows the same information but with the crime counts transposed to crime harm.

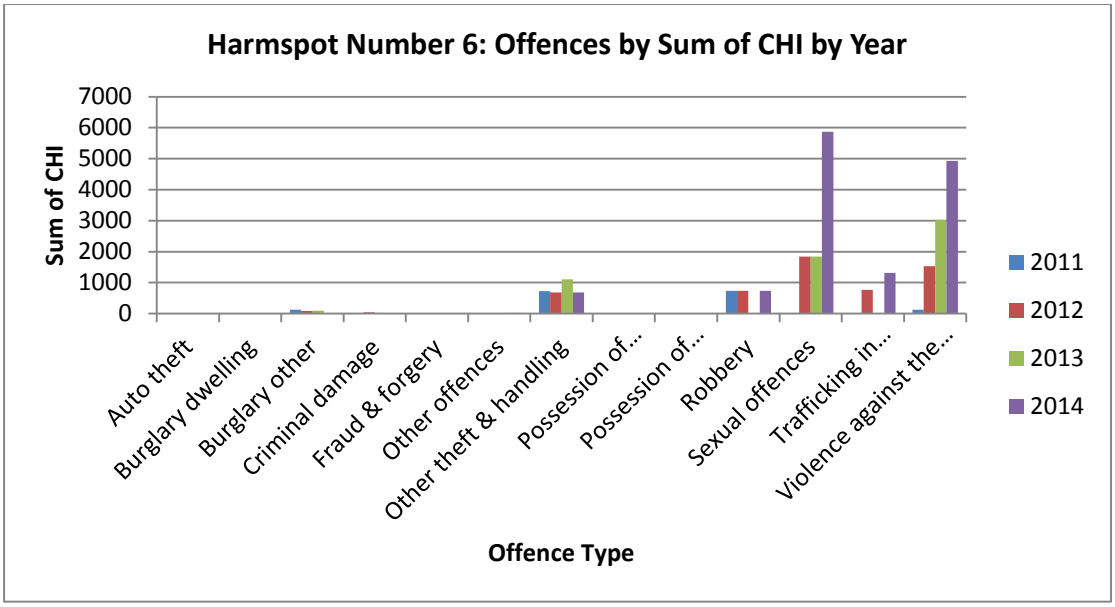

Figure 34: Cumulative harmspot number 6, sum of CHI values by year.

It is clear from the above two figures that by transposing the crime count to CHI values it is the increase in sexual and violent offences that have created a more harmful harmspot.

Harmspot Number 20

In 2011 cumulative harmspot 20 was ranked 60. It moved up to a rank of 22 in 2012, 16 in 2013 and 13 in 2014. Cumulative harmspot 20 is in the geographic area of Brighton and is located on the seafront with a bar within close proximity. It is a commercial area adjoining the seafront. Figure 35 shows the satellite image of the harmspot where it is identified by the highlighted red marker.

Figure 35: Cumulative harmspot 20 satellite image.

Figure 36 provides the count of crimes over the four year period from 2011 to 2014 for cumulative harmspot number 20.

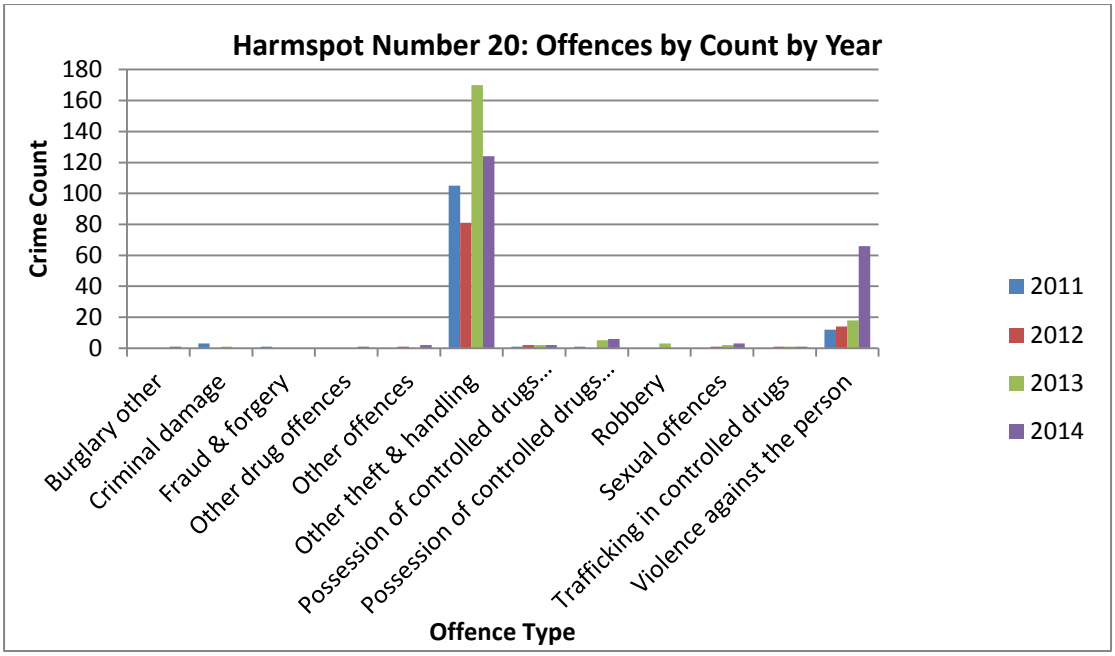

Figure 36: Cumulative harmspot number 20: Count of crimes.

Figure 37 shows the same information but with the crime counts transposed to crime harm.

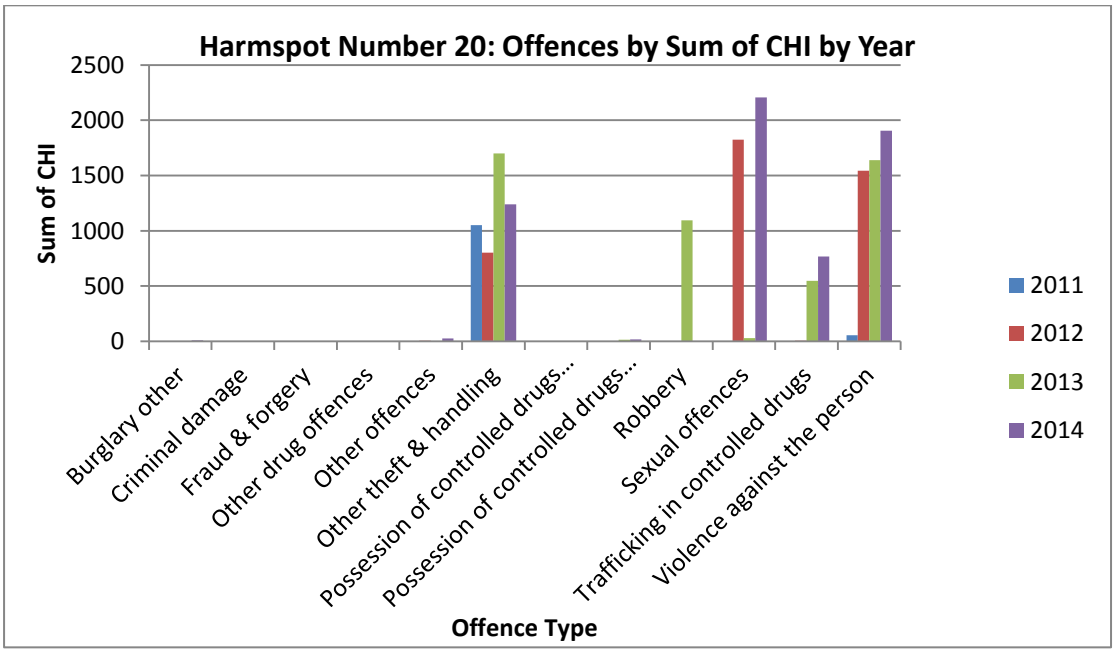

Figure 37: Cumulative harmspot number 20, sum of CHI values by year.

The volume of theft and handling in this harmspot is so great that it shows as a peak within the harmspot data. The harmspot also shows substantial harm from sexual offences (n=1 for 2012 and n=3 for 2014) as well as for violence against the person.

Harmspot Number 31

Cumulatively ranked harmspot 31 was ranked 48 in 2011. This harmspot has increased yearly, being ranked at 37, 32 and 28 for years 2012, 2013 and 2014 respectively.

This harmspot is in the geographic area of Bognor Regis, situated in a mix-residential location along the esplanade. Opposite the seafront is a large block of flats that have shops situated in the ground floor. Figure 38 shows the geographical

position of the harmspot, it is identifiable by the highlighted red marker in the image.

Figure 38: Cumulative harmspot number 31 satellite image

The harmspot is located along the seafront of Bognor Regis, opposite a Brewers Fayre, a public house with eatery. It is also situated opposite a large block of flats. This residential area is mixed with commercial buildings, with shops situated in the ground floor of the flats on the side opposite the sea front.

Figure 39 provides the count of crimes over the four year period from 2011 to 2014 for cumulative harmspot 31.

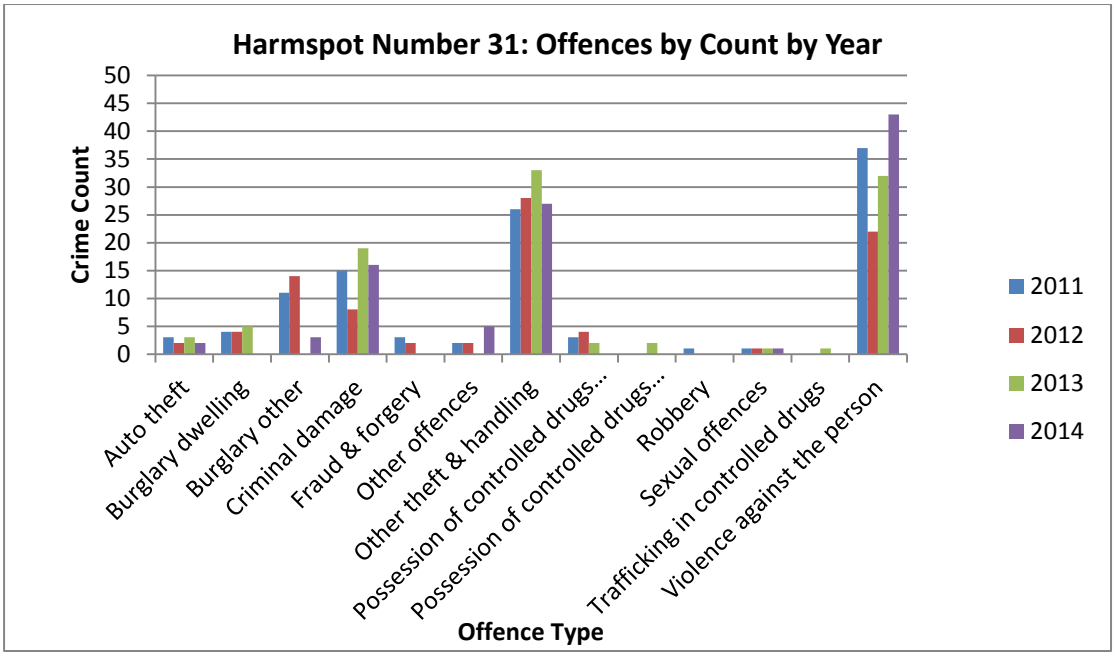

Figure 39: Cumulative harmspot number 31: Count of crimes.

Figure 40 shows the same information but with the crime counts transposed to crime harm.

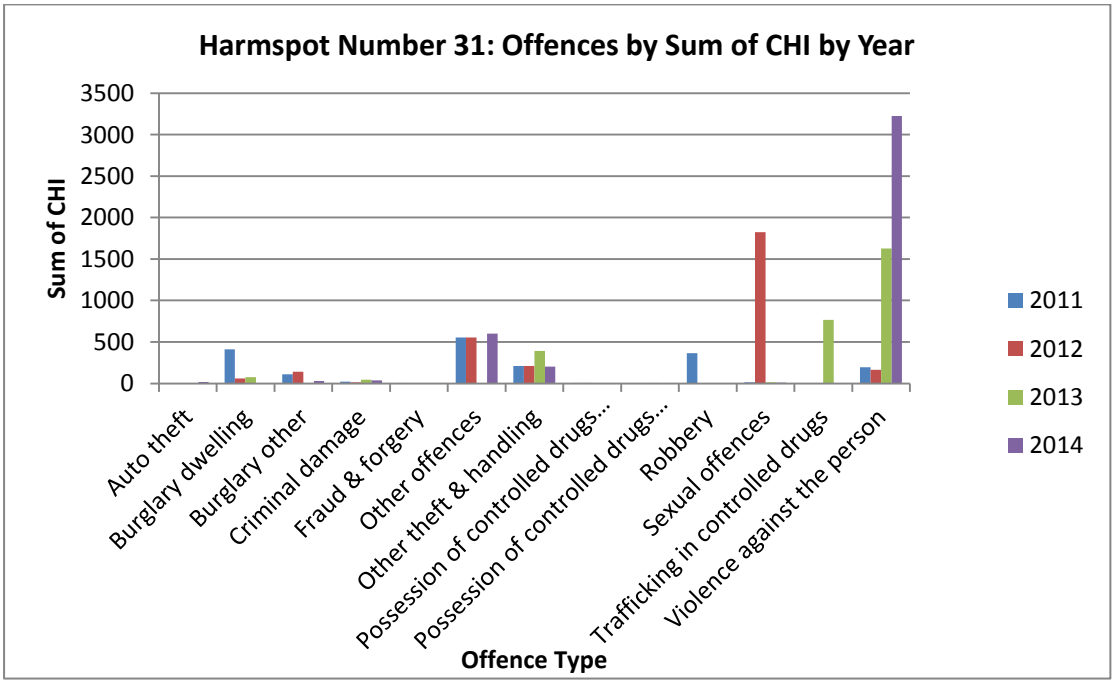

Figure 40: Cumulative harmspot number 31, sum of CHI values by year.

Although this harmspot has increased in its CHI rank year on year it follows a similar pattern to crime count, with violence against the person providing substantial increases in both count and harm. The sexual offences are a single count with a more serious offence being recorded in 2012, shown by the spike in harm in figure 40.

Harmspot Number 43

Cumulative harmspot 43 was ranked at 89 in 2011, increasing to 51 in 2012, 35 in 2013 and 25 in 2014. Cumulative harmspot 43 is geographically based in a residential area of Southwick. It is opposite the river Adur with a power station directly opposite the location on the other side of the river. Figure 41 shows the satellite image of cumulative harmspot 43, identifiable by the highlighted red marker.

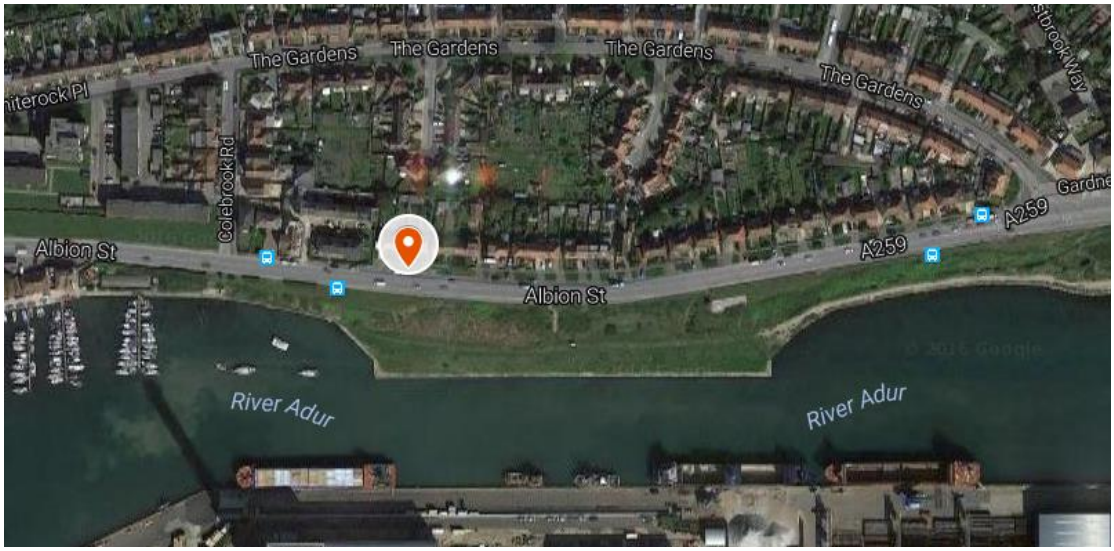

Figure 41: Cumulative harmspot 43 satellite image.

The segment is a residential area; the 4 blue icons on the image indicate bus stops. There is a mixed residential and commercial area 500 metres to the left of the street segment that is partly shown in the image above, which includes the harbour.

Figure 42 provides the count of crimes over the four year period from 2011 to 2014 for cumulative harmspot number 43.

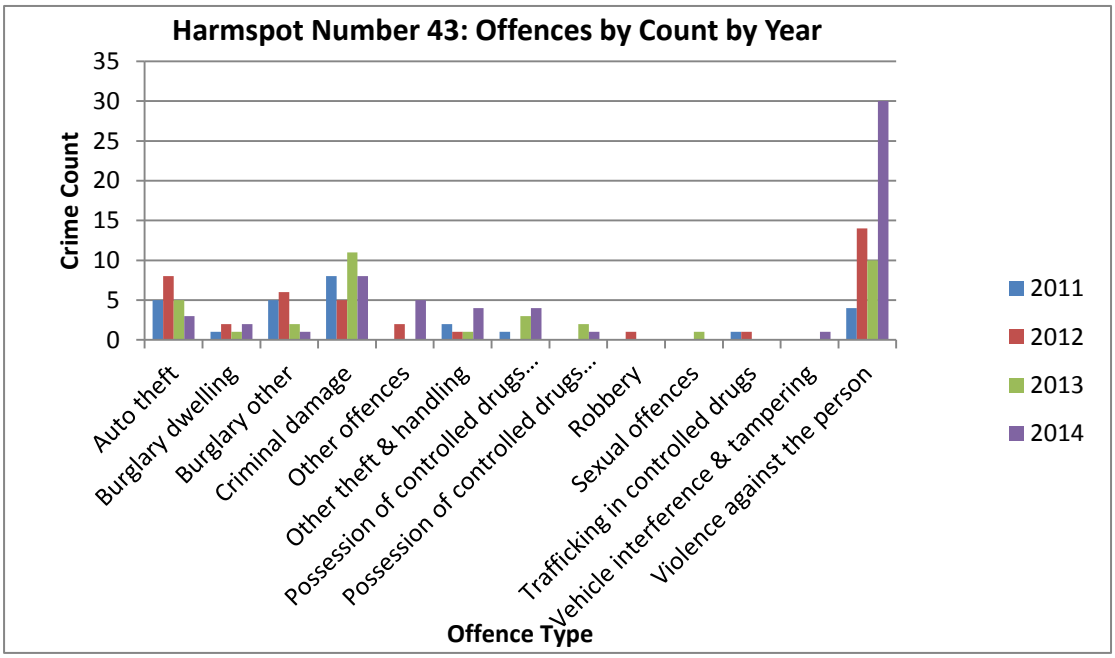

Figure 42: Cumulative harmspot number 43: Count of crimes.

Figure 43 shows the same information but with the crime counts transposed to crime harm.

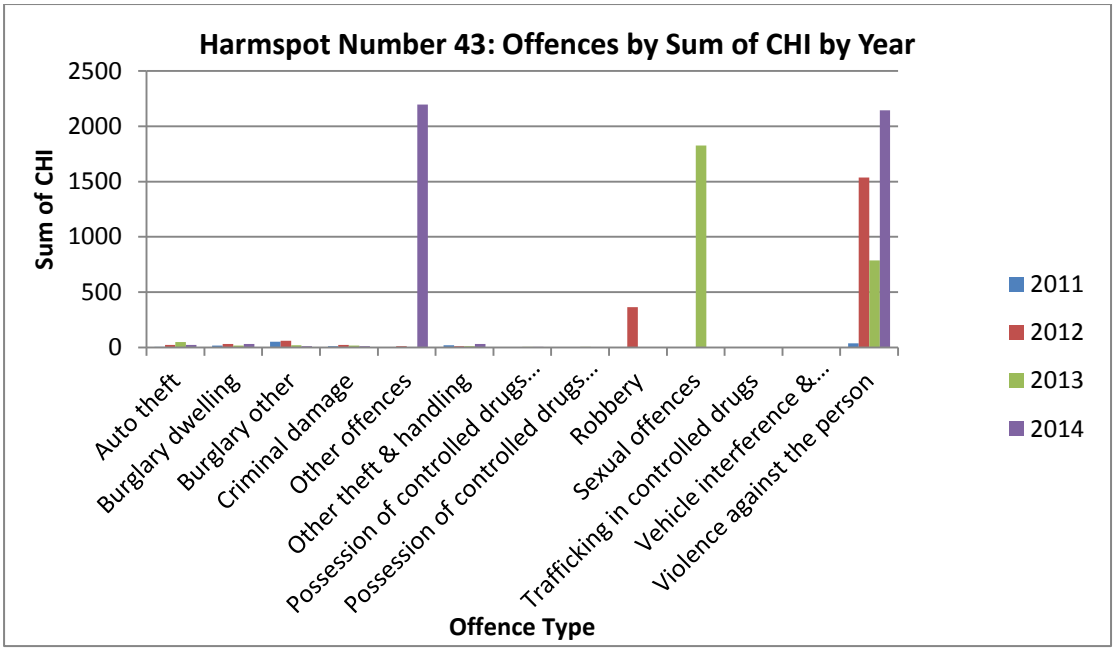

Figure 43: Cumulative harmspot number 43, sum of CHI values by year.

The spike in other offences has impacted on the CHI ranking of this harmspot. This, including violent offences, has contributed to its yearly rise.

Harmspot Number 55

Cumulatively ranked as harmspot 55, it has risen slightly each year, from 59 in 2011 to 57 in 2012, then to 56 in 2013 before its largest increase, by 17 places, to harmspot 39 in 2014.

The harmspot is in the geographic area of Worthing. It is positioned on Marine Parade, next to the sea and opposite mixed residential and commercial premises. Figure 44 shows the satellite image of the harmspot, identified by the highlighted red marker.

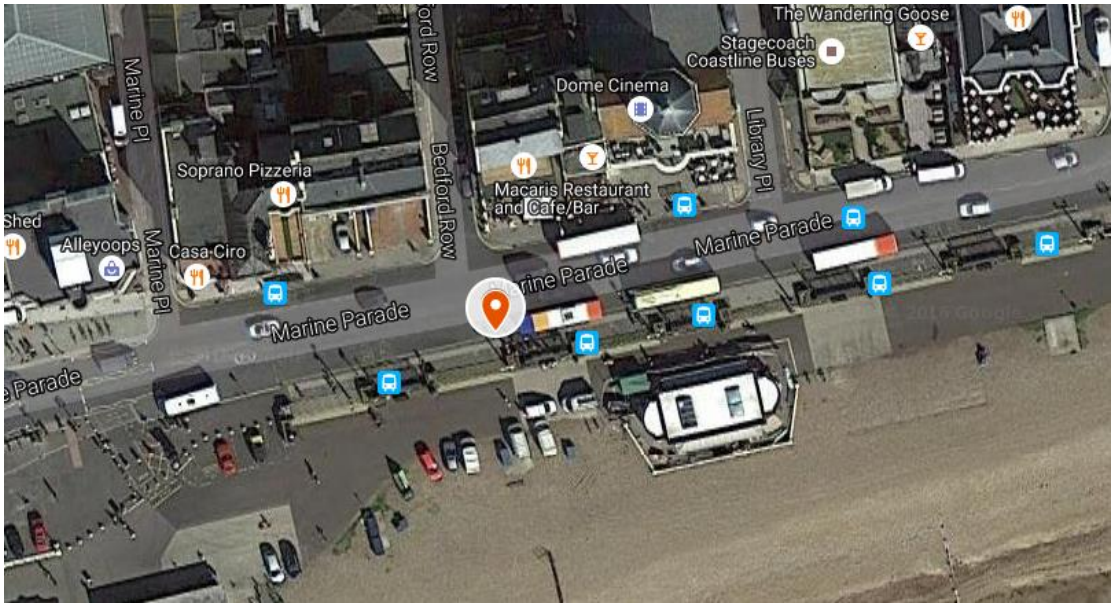

Figure 44: Cumulative harmspot 55 satellite image.

Within figure 44 you can see eight blue markers, these are bus stops, creating a large number of public transport links. There are eateries, public houses and a cinema all opposite the location. The pavilion theatre is also just to the edge of this segment.

Figure 45 provides the count of crimes over the four year period from 2011 to 2014 for cumulative harmspot number 55.

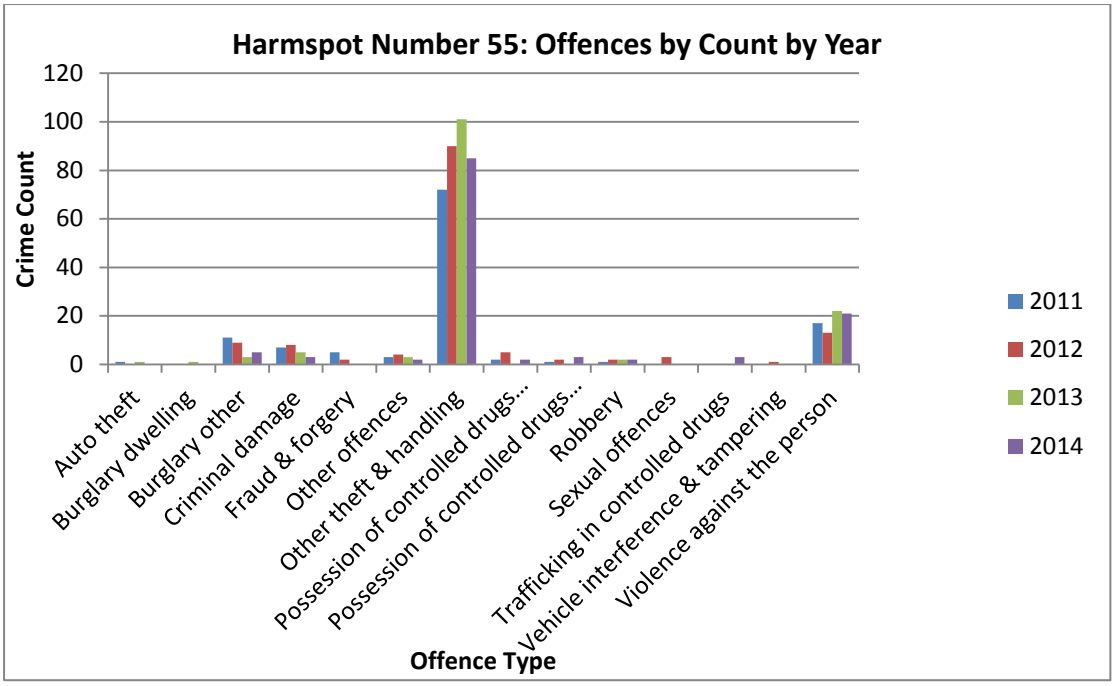

Figure 45: Cumulative harmspot number 55: Count of crimes.

Figure 46 shows the same information but with the crime counts transposed to crime harm.

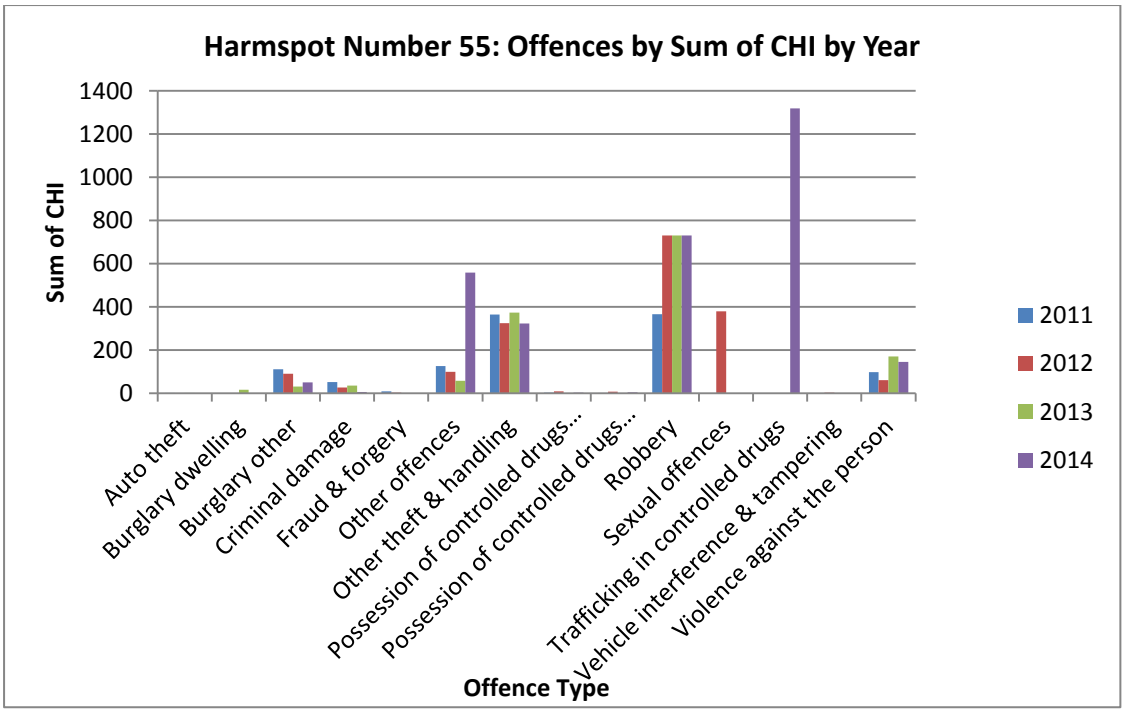

Figure 46: Cumulative harmspot number 55, sum of CHI values by year.

It is evident; having transposed crime count to CHI values, that of the three drug offences that took place in 2014 there was a serious trafficking offence within this data. Robbery is another low volume crime (n=2 for 2012, 2013 and 2014), but has a high amount of harm associated with the offence type. Interestingly, offences of violence against the person resulted in relatively low level harm within this harmspot.

The qualitative analysis provides interesting observations. As with the highest harmspots, the same ecology is apparent; public transport networks and premises serving alcohol are all in close proximity to the harmspots.

Harmspot clusters

The previous section has considered analysis of individual harmspots based either on being within the most harmful 2% for the high harm offence categories, or by having a year on year upward trend. The results will now consider clusters of harmspots.

Visually it can be seen that high harmspots have clustered largely along the coast with a further cluster to the north of the counties. It was therefore decided to look at these cluster groups and see if there were any identifiable patterns within these groups. Figure 47 shows the overall image of the harmspots with the clusters identified in several distinct groups. While they have been named by their geographic region it is important to note that not all harmspots in a particular region have been included, only those that visually cluster together have been identified. For example, there are 35 harmspots that are geographically based within Brighton and Hove, but only 31 are included in this cluster due to their proximity to each other.

Figure 47: Geographic clusters of harm.

The harmspots have been grouped together and analysed by the four most harmful categories of crime within this data set; violence against the person 27.98%, sexual offences 24.44%, theft and handling, 14.96% and robbery, 12.46%. Together these four most harmful crimes consist of 80% (79.84%) of all harm in the top 99 high harmspots. These will now be considered alphabetically.

Bognor Regis Cluster

Figure 48 shows the first of these clusters, Bognor Regis:

Figure 48: Bognor Regis cluster of harmspots.

Bognor Regis consists of a cluster of 11 harmspots. Ranked by the cumulative harm, they are harmspots 4, 31, 42, 49, 51, 56, 62, 79, 85, 87 and 89.

Figure 49 below provides a line graph showing both the count of crime and sum of crime for the cluster of Bognor Regis over the four year period 2011 – 2014.

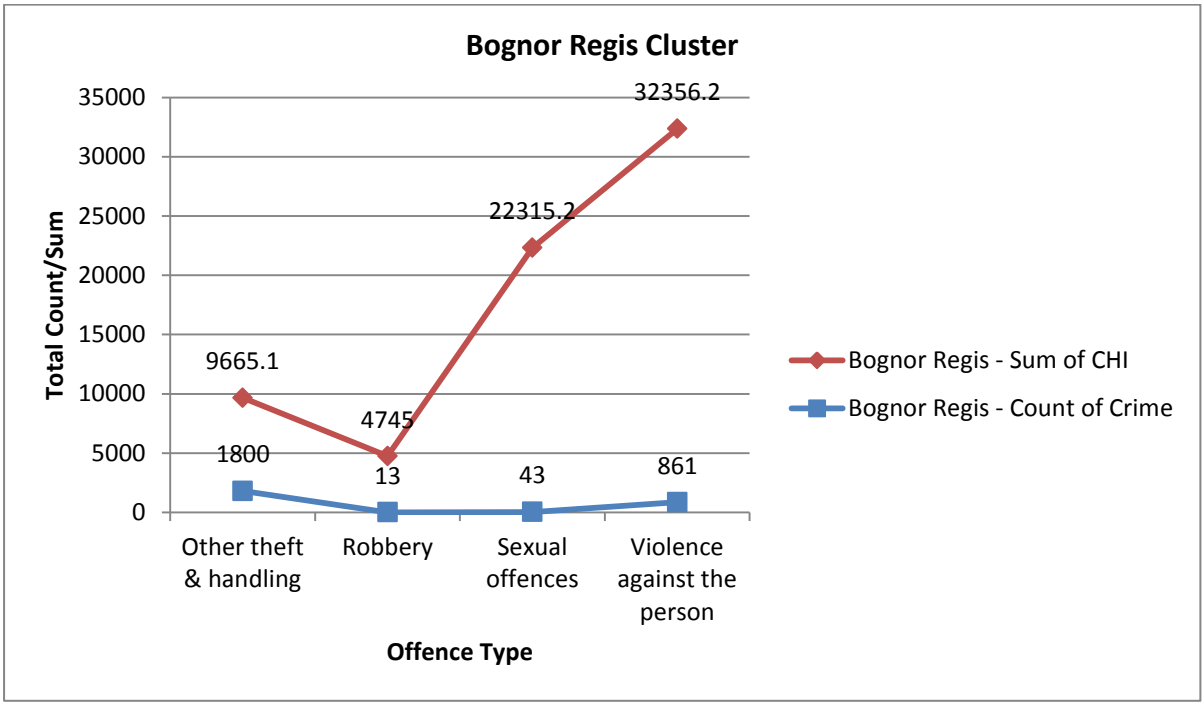

Figure 49: Count and sum of harm for Bognor Regis cluster, 2011 - 2014.

It is evident from these four categories that the most harm within this cluster is attributed to violence against the person and sexual offences, as can be seen in the bar chart in figure 50.

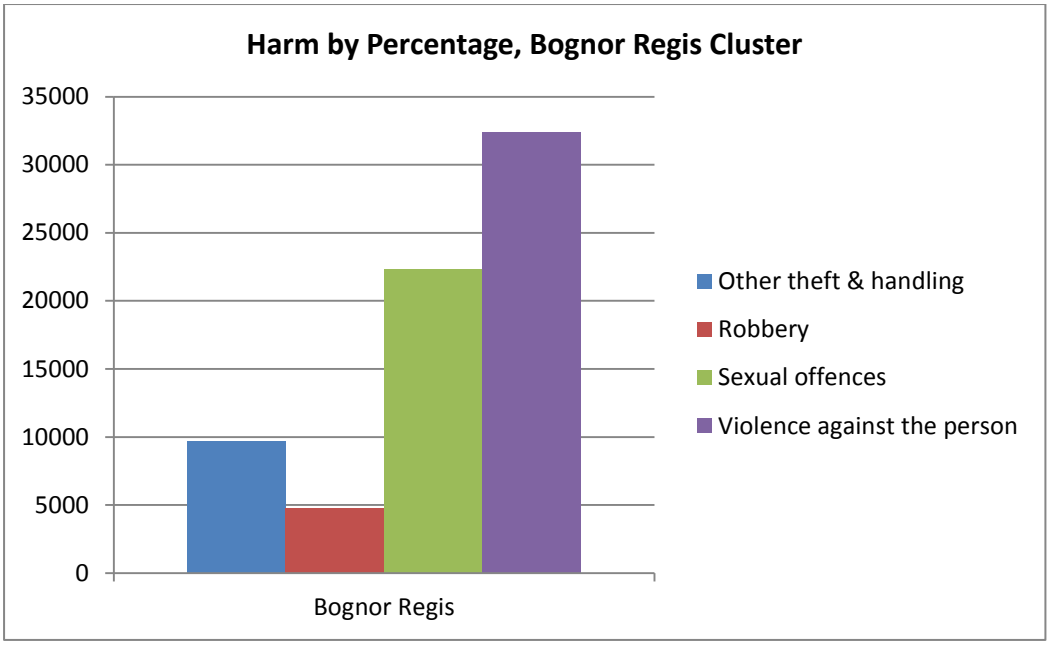

Figure 50: Bar chart of crime harm for Bognor Regis cluster.

Brighton and Hove Cluster

Brighton and Hove is the largest cluster group. Figure 51 shows this cluster from a satellite view of a map:

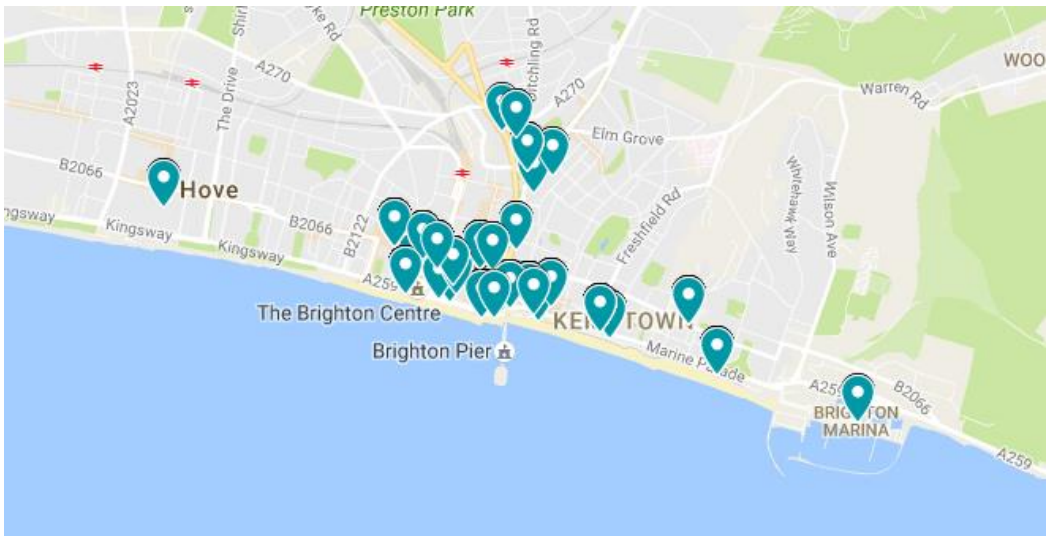

Figure 51: Brighton and Hove cluster of harmspots.

There are a total of 31 harmspots identified in this cluster. They are identified by their cumulative harmspot rank and are harmspots: 1, 2, 3, 6, 8, 9, 10, 11, 12, 15, 17, 20, 24, 25, 26, 27, 28, 29, 30, 32, 33, 36, 41, 44, 46, 53, 57, 58, 61, 66 and 71.

Figure 52 below provides a line graph showing both the count of crime and sum of crime for the cluster of Brighton and Hove over the four year period 2011 – 2014.

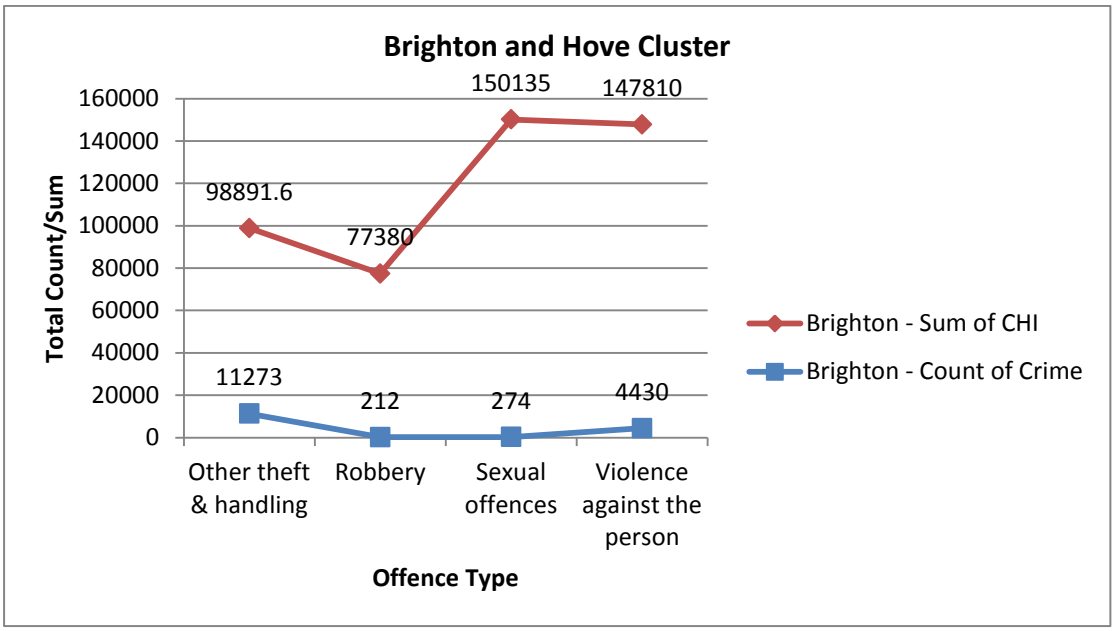

Figure 52: Count and sum of harm for Worthing cluster, 2011 - 2014.

It is evident that the cluster of Brighton and Hove provides much larger volumes of crime on all offences. Sexual offences and violence against the person are the most harmful types of crime for this cluster, but it is interesting to see that the sheer volume of theft and handling offences (n=11273) create a substantial amount of crime harm. The bar chart in Figure 53 shows these results visually for crime harm in this cluster.

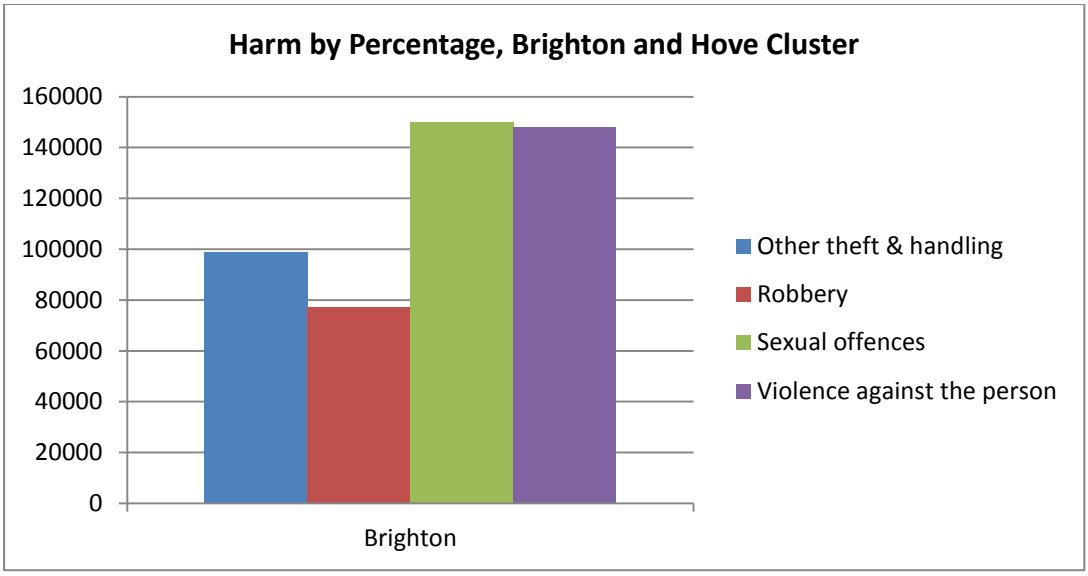

Figure 53: Bar chart of crime harm for Brighton and Hove cluster.

Crawley Cluster

Figure 54 provides the cluster to the north of Sussex, the geographical area of Crawley:

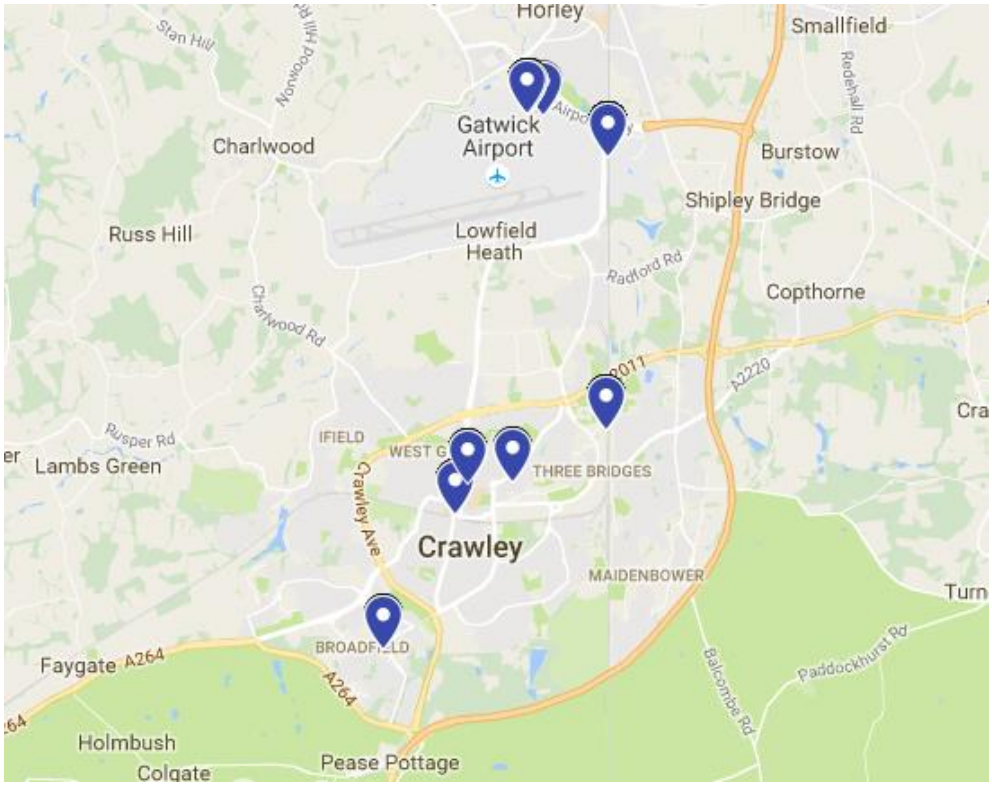

Figure 54: Crawley cluster of harmspots.

There are a total of 9 harmspots identified within the Crawley cluster, identified by cumulative harmspot rank, they are harmspots: 14, 38, 54, 59, 60, 65, 72, 83 and 96.

Figure 55 provides a line graph showing both the count of crime and sum of crime for the cluster of Crawley over the four year period 2011 – 2014.

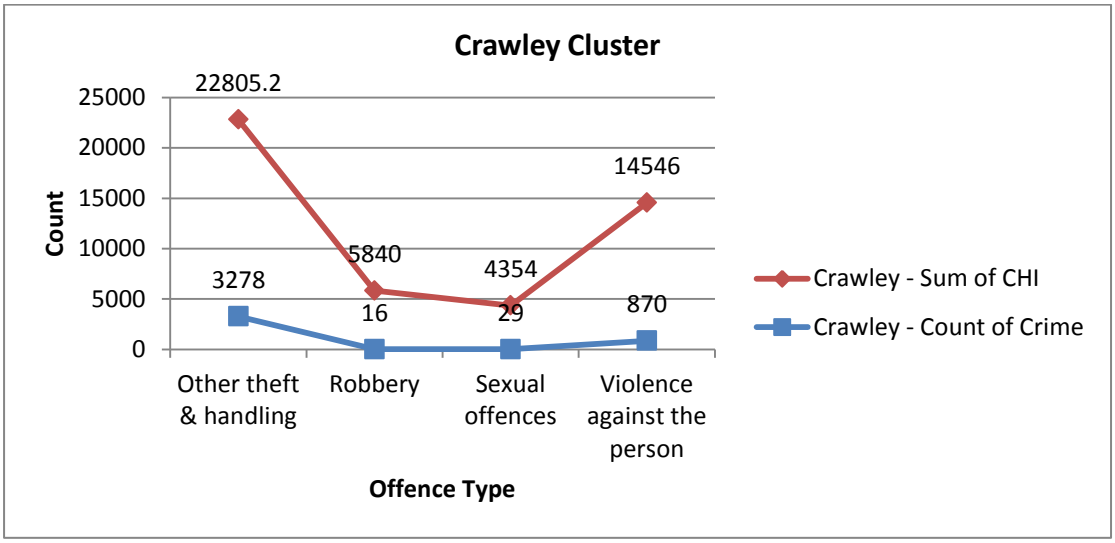

Figure 55: Count and sum of harm for Crawley cluster, 2011 - 2014.

It is evident from figure 55 that the Crawley cluster has a high predominance of theft and handling offences contributing to a cluster of harmspots with this feature. Geographically Gatwick airport is located within this cluster, a passenger airport that sees in excess of 40million passengers each year (Gatwick 2016). Two of the harmspots are located to the segments directly outside Gatwick airport and have contributed substantially to these figures. Figure 56 provides a bar chart of this data.

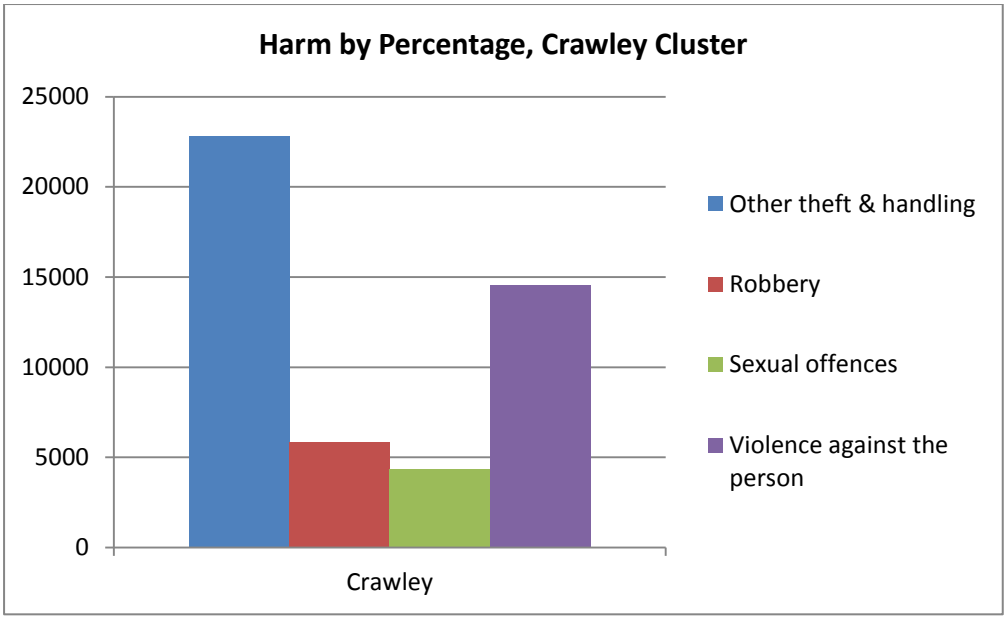

Figure 56: Bar chart of crime harm for Crawley Cluster

Eastbourne Cluster

The next cluster group, shown in the map, below is Eastbourne:

Figure 57: Eastbourne cluster of harmspots.

There are 10 harmspots within Eastbourne. The ranking of them by cumulative harmspot is 16, 35, 39, 48, 67, 77, 81, 84, 91 and 94. Figure 58 provides a line graph showing both the count of crime and sum of crime for the cluster of Eastbourne over the four year period 2011 – 2014.

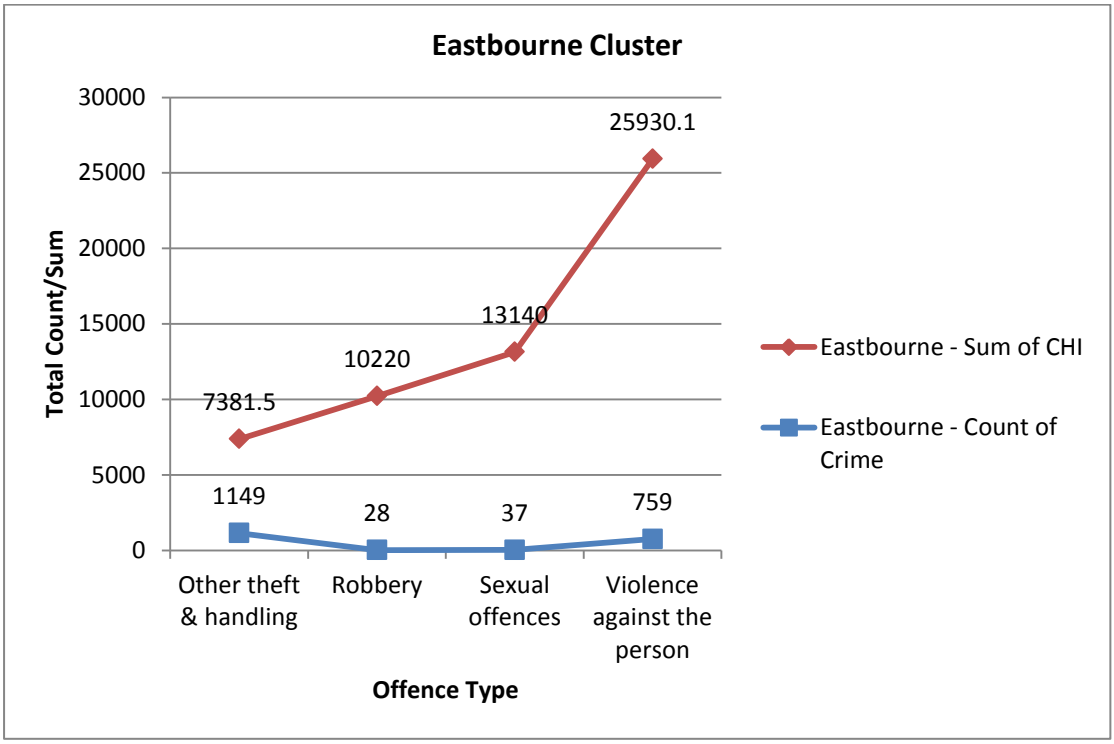

Figure 58: Count and sum of harm for Eastbourne cluster, 2011 - 2014.

From figure 58 the four year period shows that most harm came from violent offences followed by sexual offences and then robbery, as shown in the bar chart below.

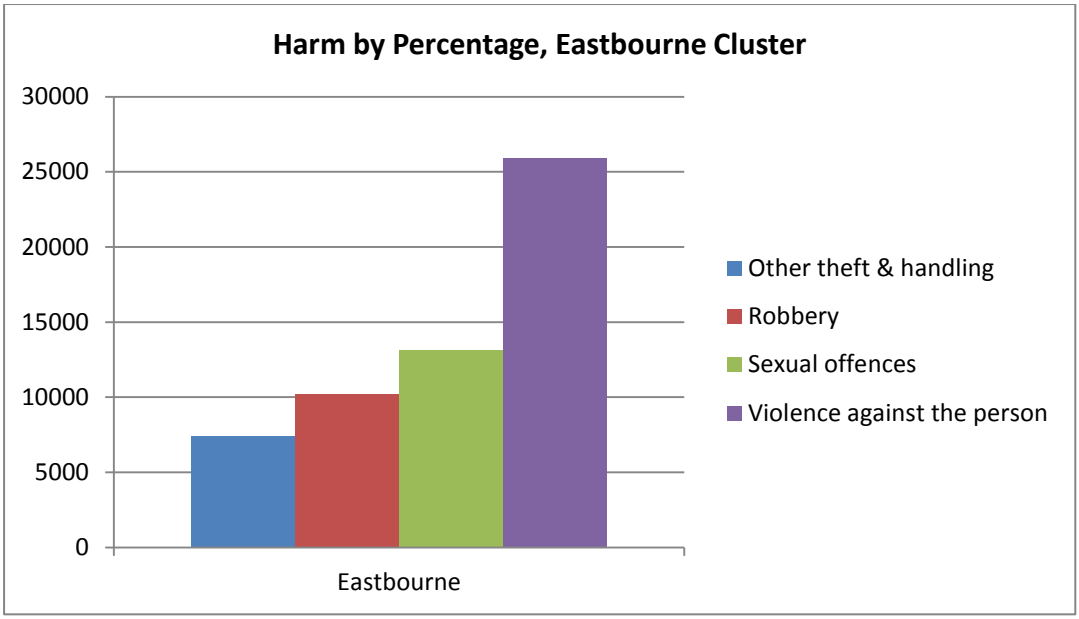

Figure 59: Bar chart of crime harm for Eastbourne Cluster

Hastings Cluster

The geographic cluster of harmspots in Hastings can be seen below:

Figure 60: Hastings cluster of harmspots.

There are 9 harmspots within the Hastings cluster, identified by cumulative harmspot rank they are harmspots: 5, 7, 13, 19, 22, 23, 40, 52 and 75. Figure 61

provides a line graph showing both the count of crime and sum of crime for the cluster of Hastings over the four year period 2011 – 2014.

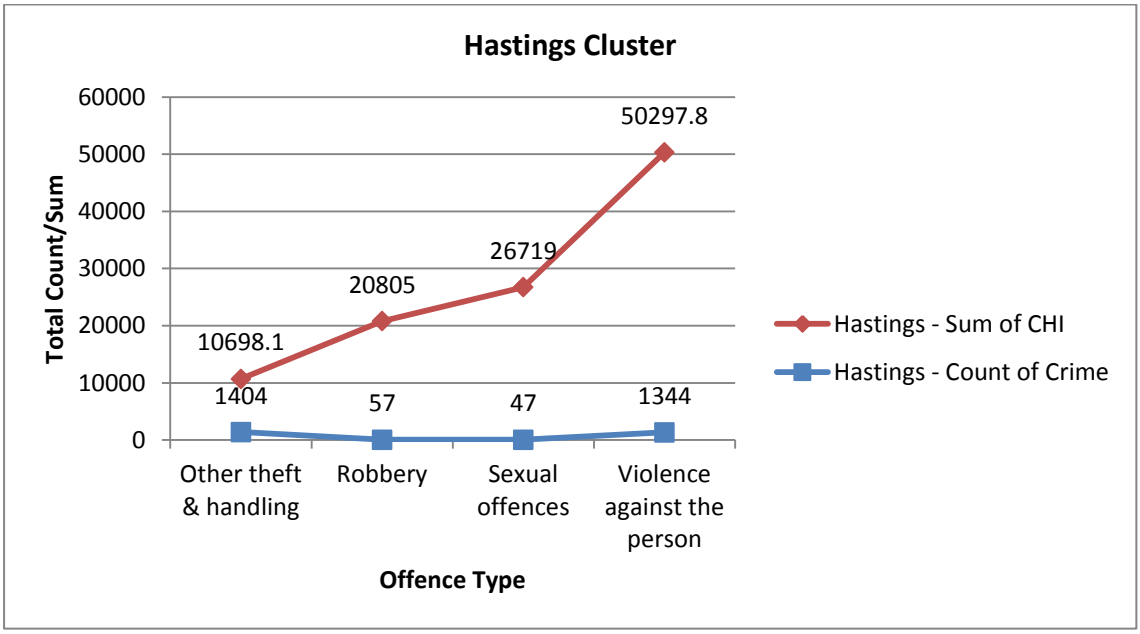

Figure 61: Count and sum of harm for Hastings cluster, 2011 - 2014.

Hastings had a larger volume of robbery offences (n=57) over the four year period, which brought the total harm value closer to that of sexual offences than in other clusters. Violence against the person was the most harmful crime type within the cluster followed by sexual offences, as seen below in Figure 62.

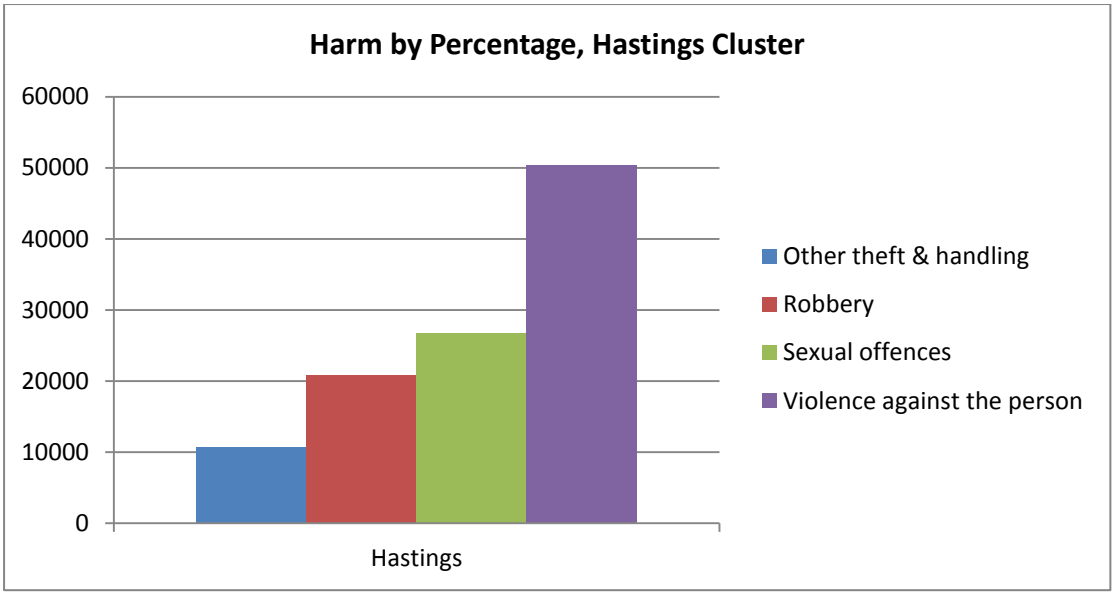

Figure 62: Bar chart of crime harm for Hastings cluster

Shoreham-By-Sea and Southwick Cluster

The next cluster group, Shoreham-By-Sea and Southwick consists of 7 harmspots and is situated to the east of Worthing. Figure 63 shows this cluster:

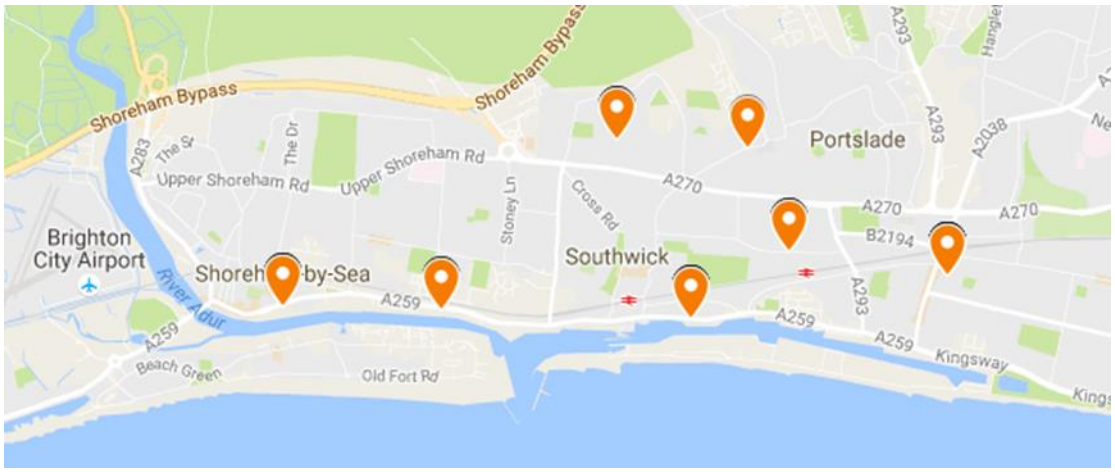

Figure 63: Shoreham-By-Sea and Southwick cluster of harmspots.

Shoreham-By-Sea and Southwick consists of seven harmspots. The cumulative harmspot ranking for these is 37, 43, 63, 69, 78, 80 and 95. Figure 64 below provides

a line graph showing both the count of crime and sum of crime for the cluster of Shoreham-By-Sea and Southwick over the four year period 2011 – 2014.

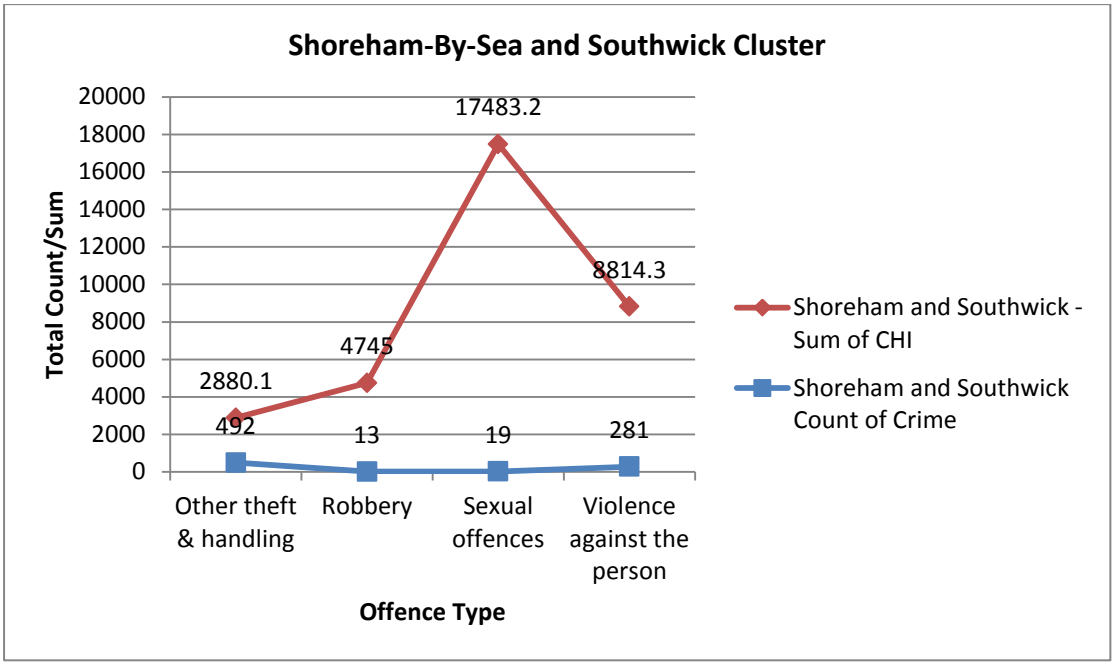

Figure 64: Count and sum of harm for Shoreham-by-Sea and Southwick cluster, 2011 - 2014.

Figure 64 shows that the majority of harm is concentrated in the sexual offences (n=19) over the four year period for this cluster. Violence against the person provides the second highest harm category. It is an interesting visual representation given the comparably low volume of the amount of harm caused by sexual offences. Figure 65 shows these results visibly through a bar chart of crime harm.

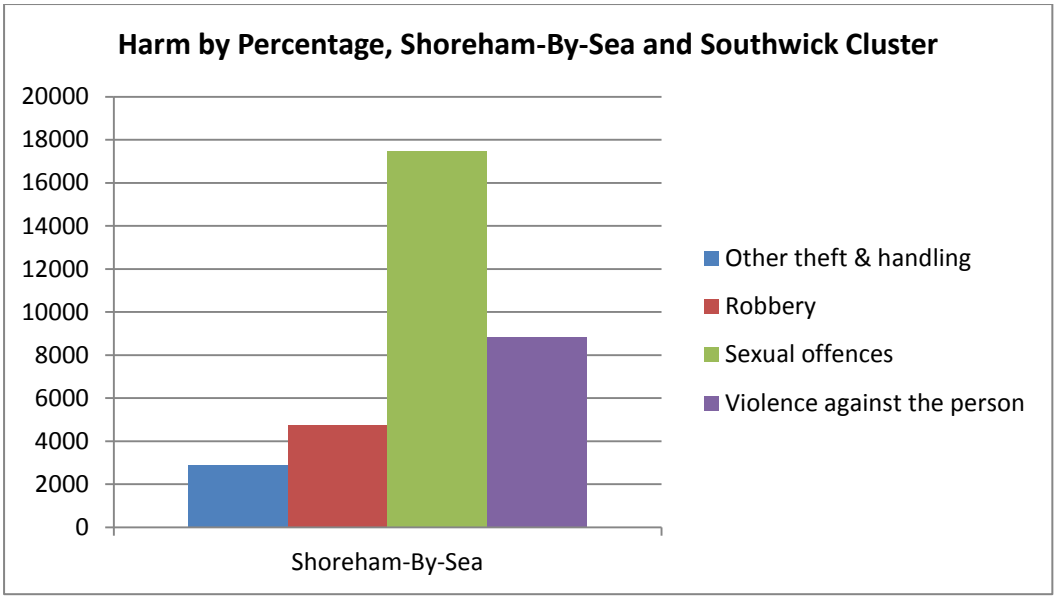

Figure 65: Bar chart of crime harm for Shoreham-By-Sea and Southwick cluster.

Worthing Cluster

The last cluster identified was that of Worthing. Although only a relatively small cluster group (n=5), it continued the line of harmspots that could be identified along the coastline of Sussex:

Figure 66: Worthing cluster of harmspots.

The harmspots within Worthing total 5, ranked by their cumulative harmspot ranking, are 21, 34, 50, 55 and 68. Figure 67 below provides a line graph showing both the count of crime and sum of crime for the cluster of Worthing over the four year period 2011 – 2014.

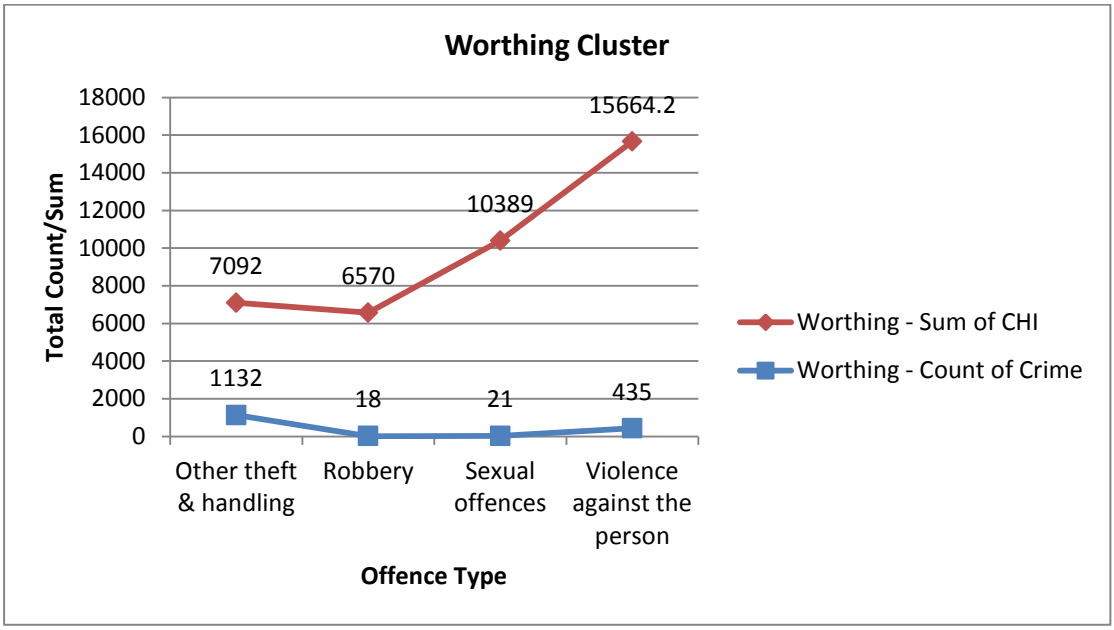

Figure 67 Count and sum of harm for Worthing cluster, 2011 - 2014.

Figure 67 shows that while theft and handling consists of three times the count of violence against the person, violent offences consist of double the amount of harm attributed to theft and handling. Sexual offences are the second most harmful category although the count of these offences is relatively low over a four year period n=21. Figure 68 shows these results in a bar chart.

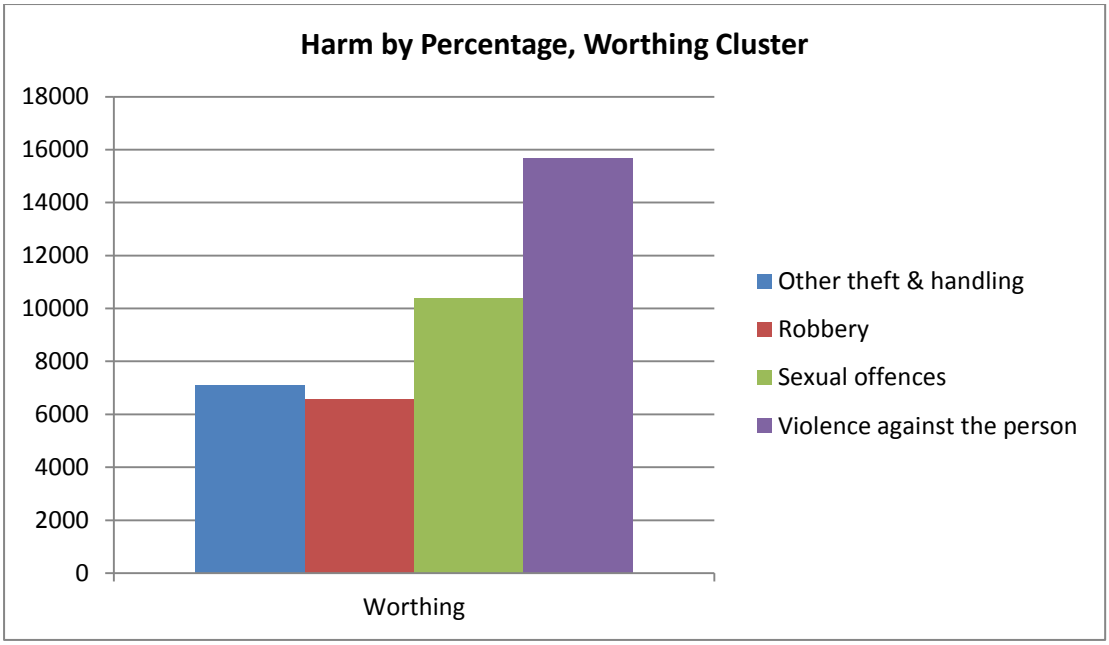

Figure 68: Bar chart of crime harm for Worthing cluster.

These results are now considered alongside each other. Figure 69 provides a stacked bar chart of each geographic cluster showing the percentage of harm by offence type:

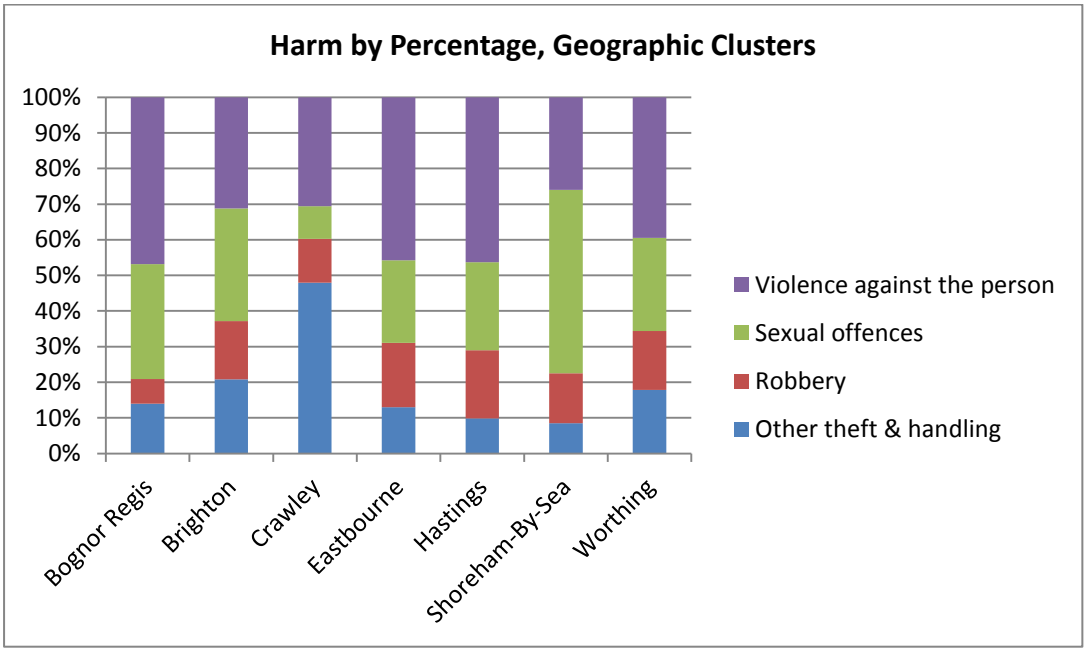

Figure 69: Cluster bar graph of geographic areas.

The results show that clusters of harm groups are made up by different forms of harm. The clusters of Bognor Regis, Eastbourne and Hastings are made up of more than 45% of harm from violence against the person. Shoreham-By-Sea and Southwick cluster consists of more than 50% of its harm coming from sexual offences, and nearly 50% of the harm in the Crawley cluster comes from theft offences.

Discussion

Within the previous chapter the results have addressed the research question; 'What are the patterns and concentrations of harm within high harmspots in Sussex?' In order to address the question, the results were underpinned by specific areas of focus: the composition of high harmspots, temporal analysis, high harmspot trajectories, and the classification of high harmspots. A qualitative analysis provided further detail of high harmspots, harmspots with a year on year upward trend, and harmspot clusters.

This chapter will consider the theoretical and policy implications of the major findings presented in the results chapter. How these findings contribute to the existing literature will be discussed, together with any implications for future research. The practical implications of how these findings can be considered will then be explored before the limitations of the study will be acknowledged, in order to ensure that the research is contextualised appropriately.

Research Implications

As addressed in the literature review, crime does not occur randomly. Indeed crime is often concentrated to a minority of places (Sherman *et al.* 1989; Ariel 2011; Weisburd *et al.* 2012; Weisburd 2015; Ariel *et al.* 2016). While the majority of literature focuses on the relationship between crime counts and locations, resulting in the 'law of crime concentration' (Weisburd 2015), this focus on hotspots of crime does not take into account the harm caused by each individual crime as it is focused on crime counts, not weights.

Even though the literature around crime harm has gained prominence in recent years (Ratcliffe 2014; Sherman *et al* 2014; Ariel and Partridge 2016; Sherman *et al.* 2016; Weinborn *et al.* 2016) the identification and analysis of spatial crime harm remains a relatively new concept and is becoming an increasingly important characteristic of the criminological landscape (Macbeth and Ariel 2016). The predetermined dataset has used the Cambridge Crime Harm Index (CHI) as an alternative to solely counting crime through an index based approach to weighting crime. This thesis provides a new insight into crime harm by the categorisation and classification of harm within these 99 high harmspots.

In order to address the question; 'What are the patterns and concentrations of harm within high harmspots in Sussex?' the research initially looked at the composition of harm. The research has shown that 80% (79.84%) of harm in the high harmspots is made up of four crime categories; sexual offences (24.44%), violence against the person (27.98%), robbery (24.44%) and other theft and handling (14.96%).

Given that these were predetermined high harmspots it was expected that there would have been a shift from high volume, low harm offences in the dataset to more harmful yet less frequent offences, as is typically recognised when considering crime harm (Sherman *et al.* 2014). The inclusion of other theft and handling is therefore an interesting addition to the composition of the most harmful offences within the harmspots. The prevalence of other theft and handling is so high (n=21,172) it equated to over 50% (51.45%) of all crime counts in the high harmspots. As yet unpublished research by Weinborn *et al*. (2016), in their study of 15 cities in the UK, identified that while theft was the most prevalent offence

category (37%), it only counted for 5% of all harm, and did not appear in the top 72% of all harm (Weinborn *et al.* 2016 p9). This research has shown that harmspots are not solely prepopulated by low volume high harm offences.

Further, in order to see the relationship between crime counts and harm within the high harmspots a Pearson's r correlation was undertaken. The results show that there was a strong correlation (r=.82) between crime counts and harm, a finding that is not as unsophisticated as it seems. The correlation shows that for the high harmspots the more incidents there are, the more harm is present. This demonstrates that for this dataset the most harmful harmspots are not made up of just one or two incidents of high harm offences.

Temporal analysis of crime has previously provided evidence that crime is not evenly spread across time and place (Ratcliffe 2002). This research supports the above finding and looks further at the relationship between crime counts, harm and time within the high harmspots. The results show that monthly, for the period analysed, crime harm spikes from December (6%) to January (9%) by an increase of 3%, falls to 6.2% in February before spiking by more than 3% to 9.6% in March. These are the clearest peaks of harm and these results are not mirrored by crime count where there is less than a 1% (0.8%) increase between December to January, a fall of 0.6% between January to February and then an increase of 1.2% for February to March.

Daily analysis of the results show that harm remains between 10 and 11% Monday through to Thursday, before increasing substantially to 17% on Friday and peaking at 21% on Saturday. Crime counts follow a very similar trajectory, remaining

within 1% of crime harm. Therefore, within these high harmspots, crime count and crime harm do not differ in their distributed occurrence over the week.

Lastly, the temporal analysis considered the hourly rate of crime and harm. Crime counts remained above harm from 06:00 through to 19:00 where they intersect and remain relatively similar until 21:00, where harm substantially peaks from 3% rising to 13% by midnight. Crime count increased for this period at a lesser velocity, from 3.5% to 10%. Harm remains at least 1% above crime count until 06:00. This pattern is exemplified in the police shift pattern with 58% of harm compared to 43% of count taking place in the night shift. This is the only shift where harm is higher than count as an overall percentage of count and harm.

Previous literature in relation to hotspots has demonstrated that hotspots remain relatively stable over time (Weisburd *et al*. 2012; Sherman 2013; Ratcliffe 2014; Ariel *et al.* 2016). However, is the same true of harmspots? Harmspot trajectories were evaluated in order to identify if there was evidence of stability within the high harmspots. From the top fifty harmspots it was found that 70% of these remained in the top 50 four years later. Closer analysis for the top 20 harmspots showed that 75% had endured four years later. These results are an interesting addition to the literature base regarding harmspots, suggesting that high harmspots show evidence of indicating stability and enduring over the four year period (see Weisburd et al 2004; Weisburd et al 2012).

The results then considered whether harmspots could be classified by the four highest harm categories; sexual offences, violence against the person, robbery and other theft and handling. The results showed cautionary findings in terms of specifically identifying categories of harmspots: Individual harmspots were shown to

have a predominance of a specific type of harm within them, which can lead to a categorisation of the harmspot. However, the crime count varied considerably with some harmspots having as low as two specific offences that contributed largely to their categorisation. Therefore, in order to provide further clarity, each of the harmspots that contributed to more than 2% of the total harm for each of the high harm offences was analysed. The results produced mixed results, but with a strong indication for categorising harmspots for robbery and other theft and handling than sexual and violent offences. The categorisation of harm within harmspots is a new addition to the evidence base. It is clear that further research is required to investigate this phenomenon that is recognised as being a considerable void within the evidence base (Weinborn *et al.* 2016).

In order to understand the patterns and concentrations of harm a qualitative analysis of the harmspots was undertaken as well. This included the most harmful harmspots that had been identified through the classification of harmspots, together with those that had increased rank year on year. Interesting observations show the proximity of harmspots to premises that serve alcohol and to transport links. We know that alcohol is a prevalent factor in violent and sexual offences (ONS 2015) and the observation from this research would encourage future research to explore this phenomenon. The presence of licensed premises is supported as a risk factor that can be correlated with crime (Roncek and Bell 1981; Roncek and Maier 1991; Block and Block 1995; Brantingham and Brantingham 1995). Likewise, it is well established that crime is correlated with bus stops (Stucky and Smith 2014; Ariel and Partridge 2016). While no causation can be implied from the proximity of bus and rail stops/stations to the harmspots, it is an epidemiological observation that would

benefit from future exploration. The research supports previous findings by showing the presence of licensed premises and bus stops within the vicinity of the harmspots. Could it be that the presence of these are the antecedents of high crime harm, not just counts?

Lastly the results showed that geographic clusters of harm groups tended to be made up of different forms of harm. The clusters of Bognor Regis, Eastbourne and Hastings consisted of more than 45% of harm from violence against the person. Shoreham-By-Sea and Southwick cluster consists of more than 50% of its harm coming from sexual offences, and nearly 50% of the harm in the Crawley cluster comes from theft offences. These findings do point towards the possibility of harmspots being categorised by offence types. However, they remain tentative due to the low volume of some crime counts in harmspots, which requires further exploration from wider datasets.

Policy Implications

Given that these harmspots had already been identified as the power few locations of the most harm in Sussex (Weinborn 2016a), it was unknown if harm would concentrate within the dataset. The results have shown that crime does still concentrate even within the highest harmspots. Nearly half of all harm within these intersections (49%) is attributed to just 20 places. It has also been shown that these street segments endured over the four year period. The research could therefore lead to the re-examination of the resourcing profile based on harm and not just demand. By prioritising these 20 places it is proposed that the greatest reduction in harm can be made.

Spatially, the research has considered the most harmful times and by what shifts. While the increase in harm mirrors that of crime count there are more substantive peaks of harm. Are resources therefore appropriately focussed at the right time? Ensuring that the human resource matches the peak harm periods, deploying officers on preventative patrols to those 20 areas at the right time is required.

However, there is also a greater need to understand the reasons for the occurrence of high crime harm within these areas. Weisburd *et al.* (2015) identify that just knowing that crime is concentrated is not sufficient in terms of tackling the problem. This is true of crime harm. For policy implications the questions will remain as to what the underlying causes of crime (harm) are and what can be done to address these. In order to make the research more accessible to practitioners the link must be made in terms of why crime harm concentrates and what can be done to alleviate the problem.

The results have shown that harmspots do remain relatively stable over time and that there are predominant categories of harmspots. However, some of the high harmspots within the dataset have relatively low counts of crime over a year period. Nonetheless, given that they form the 99 most harmful street segments in the whole of the county, none should be ignored. It is therefore important to consider preventive measures for all locations. What is apparent is that traditional approaches of hot spot policing patrol methods will not be the most appropriate method for harmspots with less than a crime a week. Therefore, in order to provide longer term preventative measures for such harmspots, wider measures of

prevention, specific to the categorisation of harm within the harmspots, needs to be considered.

Situational crime prevention was developed as an intervention to reduce the opportunity of crime that arises from everyday routines (Clarke 1995). Situational crime prevention strategies include target hardening, improved surveillance and deflecting offenders from certain locations (Clarke 1983). The techniques have included a range of measures that have developed over time from 12 (Clarke 1992) to a total of 25 strategies (Cornish and Clarke 2003), which are considered under five broader areas:

- Increasing effort to commit crime
- Increasing the risk of being caught committing a crime
- Reducing the rewards of crime
- Reducing provocation
- Removing excuses

While this thesis does not suggest what methods of prevention are needed, it does point to the necessity to recognise the importance of environmental criminology and preventative approaches to reduce harm in a targeted way. It is therefore suggested that the four most harmful crime categories should be considered by a wider group of agencies, led by the police, in terms of how harm may be prevented. Specific interventions should be targeted at these high harmspots, prioritising techniques by the category of harm within the harmspot. It is argued that this considered targeting would not only reduce harm but lead to financial savings. This can be achieved by focussing specific preventative techniques

only to the identified harmspots where they can have the most impact, rather than providing a blanket approach to crime harm prevention.

The results showed that by analysing the harmspots in geographic clusters there was the ability to categorise harmspot clusters by a predominant category of harm. Do the resources in these geographic areas match this data? A consideration should be given to focussing teams at the correct time and location to prevent and deter these crimes.

Limitations of the Research

The thesis has been approached diligently to provide meaningful finding from the research. However, limitations are evident. Firstly, a comparison group of 'cool-spots' is not provided. Future research would greatly benefit from understanding if there is anything distinct about similar locations that do not contain high levels of harm.

The research dataset is also limited to a four-year panel data analysis, and future research should consider a much broader period of time in order to provide greater emphasis on any trajectory analysis and trends over time.

A further limitation is the use of secondary data, originally drawn from police recorded crime. As discussed in detail within the methodology, limitations exist with official crime records, which also extend to how the original data was recorded and stored. Notwithstanding these limitations, police recorded crimes are subject to local audits and recorded against National Crime Recording Standards, so it is expected that strong accuracy can be drawn from these. However, if the research were to be widened, it would be essential that the methodology considers any changes made to

crime recording that may occur, or any differences in collection and recording methods if widened to other force areas.

The Cambridge Crime Harm Index (CHI) has been adopted within this thesis as the most objective based measure for creating an index of harm. It is however a relatively untested concept. While the CHI adopts sentencing guidelines that have been democratically derived at, the CHI would greatly benefit from public validation and acceptance. In terms of future research, any changes to sentencing guidelines will need to be reflected within the CHI and recalculated to provide a consistent methodology.

Lastly, there is also a question raised over the definition of a harmspot. It is apparent that definitions of hotspots remain contested (Weisburd *et al*. 2012). It is expected that definitions of harmspots will be similarly disputed. Within the original dataset the criteria for inclusion was restricted to a minimum of four crimes a year. A question remains as to if an intersection with four crimes is truly indicative of a harmspot.

Summary

Despite these limitations the research adds to the evidence base through an exploratory analysis of what the patterns and concentrations are within high harmspots in Sussex. The results support previous research regarding the concentration of harm and adds new evidence in terms of crime and harm correlation (r= .82) within high harmspots. The results also show that, even in high harmspots, harm concentrates substantially. Moreover, these segments remained relatively stable over the research period, providing clear policy recommendations

for the prevention and reduction of harm. A further addition is the categorisation of harmspots by a particular offence type, providing an opportunity for both targeted patrols and alternative preventative measures with regards to criminogenic high harm places.

Conclusion

It is evident that crime concentrates in place. This phenomenon, known as hotspots of crime, is supported by a wealth of research (for example; Sherman *et al.*1989; Sherman 1995; Weisburd *et al*. 2012; Ratcliffe 2014; Ariel *et al.* 2016) Indeed, it is now asserted as the law of concentration of crime in place (Weisburd 2015).

However, the research regarding the concentration of crime has invariably focussed on crime counts (for example; Sherman *et al.* 1989; Weisburd *et al.* 2012; Weisburd 2015). This focus on counts has more recently led to the recognition that count alone does not provide a true picture of the harm associated with individual crimes (Sherman 2014). The concept of measuring both crime counts and harm continues to gather pace in both academic and police practitioner discourse (Macbeth and Ariel 2016). What is unmistakable is that a reduction in the most harmful crimes is of more benefit to society, and can ensure that limited police resources are targeted appropriately (Weinborn *et al*. 2016).

The ability to effectively measure harm has perhaps been the most challenging aspect of moving from a model of simple crime counts. This thesis used pre-determined data that adopted the Cambridge Crime Harm Index (CHI) as a mechanism to measure crime severity. As discussed within the literature review, the CHI is currently the most suitable mechanism that can provide police forces with a consistent metric of crime harm. The systematic application of this index to four years of crime data from 2011 to 2014 in Sussex provided 99 street segments that were all three standard deviations from the mean. These pre-determined 'power few' harmspots were the most harmful street segments in the whole of Sussex. The thesis, through exploratory analysis, has analysed these harmspots to answer the

question ‘What are the patterns and concentrations of harm within high harmspots in Sussex?’

The thesis has added to the evidence base by understanding the composition of high harmspots within Sussex. It has found that 80% of all the harm within the high harmspots came from just four discrete offence categories: sexual offences, violence against the person, robbery, and theft and handling. Of most interest is the inclusion of other theft and handling. This offence comprised 15% (14.96%) of the overall harm, creating an interesting account of the composition of harm within these street sections: Harmspots can be influenced by high volume, low weighted offences.

It has also been shown that within these high harmspots, crime counts and harm are strongly correlated (r=.82). This is an important finding: there are no high harmspots that are solely made up of low counts of high harm crimes. While counts do vary, the correlation shows that crime counts and harm are inexplicably linked within this data set.

Temporal analysis of the data shows that harmspots are not evenly spread across time and place, matching findings regarding hotspots of crime (Sherman *et al.* 1989; Ariel 2011; Weisburd *et al.* 2012; Weisburd 2015; Ariel *et al.* 2016). Further, the analysis showed that the largest amount of crime harm (58%) is recorded during the police night shift (22:00 – 06:00). It has also been shown that while counts and harm have a similar trajectory through a weekly analysis, the level of harm rises sharply during the period Friday through to Sunday. This gives rise to policy implications. Preventative approaches need to consider these spatial and temporal

fluctuations in order to select the most appropriate methods for tackling and reducing crime harm.

Concentration of harm is present even within the highest harmspots in Sussex. Nearly half of all the recorded harm within the harmspots is located in just 20% of street segments. Trajectory analysis of these 20 street segments showed that 75% of those that were in the top 20 in 2011 remained within the top 20 street segments by 2014. This is of critical importance. While it may be considered that harm would fluctuate more freely, as harmful events are seen as rarer, these results show that is not the case. Therefore evidence based, targeted patrols, of these street segments would have the greatest reduction in crime harm.

The classification of harmspots has led to findings that show that harmspots can be categorised by a predominant offence type. This is also true of harmspot clusters. While these findings are tentative, they further the discourse regarding the classification of harmspots and suggest that particular resources, for example specialist teams, should be placed in specific harmspots where they would have the greatest impact.

The qualitative analysis did not attempt to draw causation from any correlation that has been observed, but has provided direction for future research to consider. 90% of the harmspots that were qualitatively analysed were within close proximity of a licensed premise. All of the harmspots were within 100 metres of a bus stop. These provide interesting observations that support previous research regarding crime risk factors of licensed premises (Block and Block 1995) and bus stops (Stucky and Smith 2014).

This thesis has looked at the patterns and concentrations of harm within high harmspots, providing a detailed understanding of the composition of high harmspots in Sussex. These findings add to the growing debate for evidence based approaches for dealing with both crime counts and crime harm (Sherman 2014; Macbeth and Ariel 2016; Weinborn *et al* 2016). In addition, it is evident from the results that the CHI has provided a supplementary method to complement the approach of simply counting crime. It is clear that the importance of considering harmspots is likely to increase. By addressing the limitations of simply counting crime, the CHI provides an alternative measure that can influence reduction and prevention strategies in order to reduce not just counts, but the most harmful of crimes.

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Appendix A: Table 7: Cambridge Crime Harm Index Menu.

Offence	CHI Value
Murder (equal to or greater than 1 year old)	5475
Murder (less than 1 year old)	5475
POSSESSING FIREARM WHILE COMMITTING A SCHEDULE 1 OFFENCE (GROUP 1)	4380
CARRYING IMITATION FIREARM W/I TO COMMIT INDICTABLE OFFENCE (GROUP 1)	4380
CAUSING OR INCITING CHILD PROSTITUTION OR PORNOGRAPHY - CHILD UNDER 13	3650
ATTEMPTED MURDER	3285
RAPE OF A FEMALE CHILD UNDER 13 BY A MALE	2920
RAPE OF A MALE CHILD UNDER 13 BY A MALE	2920
ATTEMPTED RAPE OF A FEMALE CHILD UNDER 13 BY A MALE	2920
PAYING FOR SEX WITH A FEMALE CHILD AGED UNDER 16 – NO PENETRATION	2920
PAYING FOR SEX WITH A MALE CHILD UNDER 16- NO PENETRATION	2920
RAPE	2920
POSSESSION OF FIREARMS ETC., WITH INTENT TO ENDANGER LIFE (GROUP I)	2190
POSSESSION OF FIREARMS BY PERSONS PREVIOUSLY CONVICTED OF CRIME (GROUP 1)	2190
POSSESSION OF FIREARMS BY PERSONS PREVIOUSLY CONVICTED OF CRIME (GROUP 3)	2190
ABDUCTION OF A CHILD BY PARENT	2044
SEXUAL ACTIVITY WITH A FEMALE CHILD UNDER 13 - OFFENDER AGED 18 OR OVER - PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	2044
CAUSING OR INCITING A FEMALE CHILD UNDER 13 TO ENGAGE IN SEXUAL ACTIVITY - OFFENDER AGED 18 OR OVER - PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	2044
SEXUAL ACTIVITY WITH A FEMALE CHILD FAMILY MEMBER - OFFENDER AGED 18 OR OVER AT TIME OF OFFENCE AND VICTIM UNDER 13 -PENETRATION	2044
CAUSING OR INCITING A MALE CHILD UNDER 13 TO ENGAGE IN SEXUAL ACTIVITY - PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	2044
CAUSING OR INCITING A FEMALE CHILD UNDER 13 TO ENGAGE IN SEXUAL ACTIVITY - PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	2044
SEXUAL ACTIVITY WITH A MALE CHILD UNDER 13 - OFFENDER AGED 18 OR OVER - PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	2044
SEXUAL ACTIVITY WITH A FEMALE CHILD FAMILY MEMBER UNDER 13 - OFFENDER UNDER 18 - PENETRATION OF ANUS VAGINA MOUTH BY PENIS OR PART OF BODY	2044
SEXUAL ACTIVITY WITH A MALE CHILD FAMILY MEMBER - OFFENDER AGED 18 OR OVER AT TIME OF OFFENCE AND VICTIM UNDER 13 -PENETRATION	2044
SEXUAL ACTIVITY WITH A MALE CHILD FAMILY MEMBER UNDER 13 - OFFENDER UNDER 18 - PENETRATION OF ANUS VAGINA MOUTH BY PENIS OR PART OF BODY	2044
RAPE OF A FEMALE AGED 16 OR OVER	1825
RAPE OF A FEMALE AGED UNDER 16	1825
ATTEMPTED RAPE OF A FEMALE AGED 16 OR OVER	1825
RAPE OF A MALE AGED 16 OR OVER	1825
RAPE OF A MALE AGED UNDER 16	1825
ATTEMPTED RAPE OF A FEMALE AGED UNDER 16	1825
ATTEMPTED RAPE OF A MALE AGED 16 OR OVER	1825
ATTEMPTED RAPE OF A MALE AGED UNDER 16	1825
ATTEMPTED RAPE OF A MALE CHILD UNDER 13 BY A MALE	1825

GROSS INDECENCY OR INDECENCY BY A MALE AGED 21 OR OVER WITH ANOTHER MALE AGED UNDER 16	1825
OFFENCES IN RELATION TO THE UNLAWFUL IMPORTATION OF A DRUG CONTROLLED UNDER THE MISUSE OF DRUGS ACT 1971:-CLASS A	1643
ACQUISITION, POSSESSION OR USE OF PROCEEDS OF DRUG TRAFFICKING	1643
CONCEALING OR TRANSFERRING THE PROCEEDS OF DRUG TRAFFICKING	1643
HAVING A CONTROLLED DRUG IN POSSESSION ON A SHIP. CLASS A DRUG	1643
WOUNDING, ETC, WITH INTENT TO DO GRIEVOUS BODILY HARM, ETC., OR TO RESIST APPREHENSION	1460
ASSAULT ON A FEMALE CHILD UNDER 13 BY PENETRATION	1460
ASSAULT OF A MALE CHILD UNDER 13 BY PENETRATION	1460
ADMINISTERING A SUBSTANCE WITH INTENT TO COMMIT A SEXUAL OFFENCE	1460
SETTING TRAPS W/I TO CAUSE GRIEVOUS BODILY HARM	1460
COMMITTING AN OFFENCE WITH INTENT TO COMMIT A SEXUAL OFFENCE	1278
SEXUAL ACTIVITY WITH A FEMALE CHILD FAMILY MEMBER 13 TO 17 - OFFENDER UNDER 18 - PENETRATION OF ANUS VAGINA MOUTH BY PENIS OR PART OF BODY	1278
FORGERY OR COPYING FALSE INSTRUMENT	1095
CAUSING DEATH BY DANGEROUS DRIVING	1095
CAUSING DEATH OR SERIOUS INJURY BY DANGEROUS DRIVING	1095
SEXUAL ACTIVITY WITH A FEMALE PERSON WITH A MENTAL DISORDER IMPEDING CHOICE - PENETRATION	1095
CARE WORKERS: SEXUAL ACTIVITY WITH A FEMALE PERSON WITH A MENTAL DISORDER - PENETRATION	1095
CAUSING A PERSON WITH A MENTAL DISORDER TO ENGAGE IN SEXUAL ACTIVITY BY INDUCEMENT, THREAT OR DECEPTION - PENETRATION	1095
MANSLAUGHTER	1022
BREACH OF FOREIGN TRAVEL ORDER	913
SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG CLASS A HEROIN	767.2
HAVING POSSESSION OF A CONTROLLED DRUG WITH INTENT TO SUPPLY CLASS A COCAINE	767.2
SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG CLASS A CRACK	767.2
HAVING POSSESSION OF A CONTROLLED DRUG WITH INTENT TO SUPPLY CLASS A HEROIN	767.2
MEETING A FEMALE CHILD FOLLOWING SEXUAL GROOMING ETC. (OFFENDER AGED 18 OR OVER AND VICTIM AGED UNDER 16)	767.2
SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG OTHER CLASS A	767.2
SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG CLASS A LSD	767.2
SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG CLASS A MDMA	767.2
SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG CLASS A METHADONE	767.2
CAUSING OR INCITING A FEMALE CHILD UNDER 13 TO ENGAGE IN SEXUAL ACTIVITY - NO PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	730
POSSESSING ETC. FIREARMS OR AMMUNITION W/OUT CERTIFICATE (GROUP 1)	730
SEXUAL ACTIVITY WITH A FEMALE CHILD UNDER 13 - OFFENDER AGED 18 OR OVER ? NO PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	730
ADMINISTERING POISON TO AGGRIEVE	730
AGGRAVATED BURGLARY IN A BUILDING OTHER THAN A DWELLING	730
CAUSING OR INCITING A FEMALE CHILD UNDER 13 TO ENGAGE IN SEXUAL ACTIVITY - OFFENDER AGED 18 OR OVER ? NO PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	730
CAUSING OR INCITING A MALE CHILD UNDER 13 TO ENGAGE IN SEXUAL ACTIVITY - NO PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	730
SEXUAL ACTIVITY WITH A MALE CHILD UNDER 13 - OFFENDER AGED 18 OR OVER ? NO PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	730

CAUSING A FEMALE PERSON TO ENGAGE IN SEXUAL ACTIVITY WITHOUT CONSENT - PENETRATION [WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 16]	730
CAUSING OR INCITING A MALE CHILD UNDER 13 TO ENGAGE IN SEXUAL ACTIVITY - OFFENDER AGED 18 OR OVER ? NO PENETRATION (WAS UNLAWFUL SEXUAL INTERCOURSE WITH A GIRL UNDER 13)	730
BURGLARY WITH THE COMMISSION OF AN OFFENCE TRIABLE ONLY ON INDICTMENT OR WITH VIOLENCE OR THE THREAT OF VIOLENCE.	730
TRESPASS WITH INTENT TO COMMIT A SEXUAL OFFENCE	730
ENDANGERING LIFE OR CAUSING HARM BY ADMINISTERING POISON	730
ABUSE OF A POSITION OF TRUST: CAUSING OR INCITING A MALE CHILD TO ENGAGE IN SEXUAL ACTIVITY (OFFENDER AGED 18 OR OVER AND VICTIM AGED UNDER 13)	730
ABUSE OF A POSITION OF TRUST: SEXUAL ACTIVITY WITH A MALE CHILD (OFFENDER AGED 18 OR OVER AND VICTIM AGED UNDER 13)	730
KIDNAPPING	636.7
BREACH OF A NON-MOLESTATION ORDER FAMILY LAW ACT ADDED BY DOMESTIC VIOLENCE CRIME AND VICTIMS ACT 2004	548
TAKING, PERMITTING TO BE TAKEN OR MAKING, DISTRIBUTING OR PUBLISHING INDECENT PHOTOGRAPHS OR PSEUDO PHOTOGRAPHS OF CHILDREN	548
BREACH OF SEXUAL OFFENCES PREVENTION ORDER (SOPO) AND INTERIM SOPO	548
HAVING POSSESSION OF A CONTROLLED DRUG WITH INTENT TO SUPPLY CLASS A CRACK	548
FALSE IMPRISONMENT	548
SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG CLASS A COCAINE	548
HAVING POSSESSION OF A CONTROLLED DRUG WITH INTENT TO SUPPLY CLASS A MDMA	548
HAVING POSSESSION OF A CONTROLLED DRUG WITH INTENT TO SUPPLY OTHER CLASS A	548
MEETING A MALE CHILD FOLLOWING SEXUAL GROOMING ETC. (OFFENDER AGED 18 OR OVER AND VICTIM AGED UNDER 16)	548
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ABUSE OF A POSITION OF TRUST: SEXUAL ACTIVITY WITH A MALE CHILD (OFFENDER AGED 18 OR OVER AND VICTIM AGED 13 - 17)	10
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HAVING POSSESSION OF A CONTROLLED DRUG WITH INTENT TO SUPPLY CLASS B CANNABIS	5
ACQUISITION, USE & POSSESSION - CRIMINAL PROPERTY	5

CARRYING A LOADED OR UNLOADED OR IMITATION FIREARM OR AIR WEAPON IN PUBLIC PLACE	5
CRIMINAL DAMAGE TO A DWELLING ENDANGERING LIFE	5
SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG CLASS B CANNABIS	5
CONCEALING ETC. - CRIMINAL PROPERTY	5
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MAKING FALSE STATEMENT OR WITH HOLDING MATERIAL INFORMATION IN ORDER TO OBTAIN THE ISSUE OF A CERTIFICATE OF INSURANCE	5
BREACH OF A RESTRAINING ORDER ISSUED ON ACQUITTAL	5
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SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG CLASS B AMPHETMINE	5
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PERJURY AND FALSE STATEMENTS (ALSO FALSE DECLARATIONS AND REPRESENTATIONS MADE PUNISHABLE BY ANY STATUTE)	5
ARRANGEMENTS - BEING CONCERNED IN ARRANGEMENT, KNOWING OR SUSPECTING, FACILITATING ACQUISITION, RETENTION, USE OR CONTROL OF CRIMINAL PROPERTY BY OR ON BEHALF OF ANOTHER PERSON	5
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MAKING FALSE STATEMENTS TO OBTAIN OR FAILURE TO PRODUCE REVOKED LICENCE	5
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SUPPLY ETC OF ARTICLES FOR ADMINISTERING OR PREPARING CONTROLLED DRUGS	5
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HAVING POSSESSION OF A CONTROLLED DRUG WITH INTENT TO SUPPLY CLASS C ANABOLIC STEROIDS	5
ACQUISITION, POSSESSION OR USE OF PROCEEDS OF CRIMINAL CONDUCT	5
CARRYING A LOADED OR UNLOADED FIREARM IN A PUBLIC PLACE (GROUP 2)	5
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INCITE ANOTHER TO SUPPLY A CLASS C CONTROLLED DRUG	5
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KNOWINGLY MAKE A FALSE STATEMENT TO OBTAIN ISSUE OF A DRIVER QUALIFICATION CARD	5
MAKING A STATEMENT KNOWN TO BE MATERIALLY FALSE OR MISLEADING OR RECKLESSLY MAKING A STATEMENT WHICH IS MATERIALLY FALSE OR MISLEADING IN COMPLIANCE WITH A REQUIREMENT UNDER PART I OF THE ACT OR IN ORDER TO OBTAIN AUTHORISATION OR VARIATION OF AUTHORIS	5
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SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A CONTROLLED DRUG CLASS C ANABOLIC STEROIDS	5
SUPPLYING OR OFFERING TO SUPPLY (OR BEING CONCERNED IN SUPPLYING OR OFFERING TO SUPPLY) A	5

CONTROLLED DRUG CLASS C GHB (HYDROXY-N-BUTRIC ACID)	
MAKING OFF WITHOUT PAYMENT	3
INTERFERENCE WITH MOTOR VEHICLES	3
CAUSE INTENTIONAL HARASSMENT ALARM OR DISTRESS	3
HAVING POSSESSION OF A CONTROLLED DRUG CLASS A COCAINE	3
PRODUCTION OF OR BEING CONCERNED IN THE PRODUCTION OF A CONTROLLED DRUG CLASS B CANNABIS	3
HAVING POSSESSION OF A CONTROLLED DRUG CLASS A HEROIN	3
THREAT	3
PASS ETC COUNTERFEIT COIN OR NOTE AS GENUINE	3
HAVING POSSESSION OF A CONTROLLED DRUG CLASS A MDMA	3
HAVING POSSESSION OF A CONTROLLED DRUG OTHER CLASS A	3
HAVING POSSESSION OF A CONTROLLED DRUG CLASS ACRACK	3
POSSESS COUNTERFEIT COIN OR NOTE	3
BY ANY DISHONEST ACT OBTAINS SERVICES FOR WHICH PAYMENT IS REQUIRED, WITH INTENT TO AVOID PAYMENT INCLUDES ATTACHING A DECODER TO HER TELEVISION TO ENABLE VIEWING ACCES	3
HAVING POSSESSION OF A CONTROLLED DRUG CLASS A METHADONE	3
PERMITTING PREMISES TO BE USED FOR UNLAWFUL PURPOSES CLASS B CANNABIS	3
CAUSING DANGER BY CAUSING ANYTHING TO BE ON A ROAD, INTERFERING WITH A VEHICLE OR TRAFFIC EQUIPMENT	3
PRODUCTION OF OR BEING CONCERNED IN THE PRODUCTION OF A CONTROLLED DRUG OTHER CLASS B	3
HAVING POSSESSION OF A CLASS A DRUG METHYLAMPNETAME (CRYSTAL METHS) MISUSE OF DRUGS ACT 1971 (CLASS A DRUG METHYLAMPNETAME)	3
HAVING POSSESSION OF A CONTROLLED DRUG CLASS A LSD	3
OFFENCES TRIABLE EITHER WAY UNAUTHORISED USE OF TRADE MARK ETC IN RELATION TO GOODS; FALSIFICATION OF REGISTER ETC.	3
(A) WITH INTENT TO DEFRAUD OR DECEIVE MAKING A COUNTERFEIT OF ANY DIE OR MARK; (B) REMOVING ANY MARK FROM AN ARTICLE OF PRECIOUS METAL ETC.; (C) UTTERING ANY COUNTERFEIT OF A DIE OR ANY ARTICLE BEARING A COUNTERFEIT OF A MARK; (D) HAVING IN CUSTODY ETC	3
MAKING COUNTERFEIT COIN OR NOTE	3
PERMITTING PREMISES TO BE USED FOR UNLAWFUL PURPOSES OTHER CLASS B	3
OFFENCES TRIABLE EITHER WAY; MAKING FOR SALE OR HIRE, IMPORTING, POSSESSING OR DISTRIBUTING ARTICLES WHICH INFRINGE THE COPYRIGHT; MAKING, IMPORTING OR DISTRIBUTING ILLICIT RECORDINGS.	3
PRODUCTION OF OR BEING CONCERNED IN PRODUCTION OF A CONTROLLED DRUG - CLASS B. CATHINONE DERIVATIVES INCLUDING 4- METHYLMETHCATHINONE ALSO KNOWN AS MEPHEDRONE	3
PRODUCTION OF OR BEING CONCERNED IN THE PRODUCTION OF A CONTROLLED DRUG CLASS C GHB (HYDROXY-N-BUTRIC ACID)	3
AGGRAVATED TAKING WHERE THE ONLY AGGRAVATING FACTOR IS CRIMINAL DAMAGE OF ¿5,000 OR UNDER	2.1
UNDERTAKING OR ASSISTING IN THE RETENTION, REMOVAL, DISPOSAL OR REALISATION OF STOLEN GOODS, OR ARRANGING TO DO SO	2.1
RACIALLY OR RELIGIOUSLY AGGRAVATED CRIMINAL DAMAGE	2.1
RACIALLY AGGRAVATED OTHER CRIMINAL DAMAGE.	2.1
RACIALLY OR RELIGIOUSLY AGGRAVATED OTHER CRIMINAL DAMAGE	2.1
RELIGIOUSLY AGGRAVATED OTHER CRIMINAL DAMAGE	2.1
OTHER CRIMINAL DAMAGE TO A DWELLING	1.5
THEFT FROM A SHOP AND STALLS	1.5
HAVING POSSESSION OF CONTROLLED DRUG - CANNABIS	1.5
DISHONESTLY MAKES A FALSE REPRESENTATION TO MAKE A GAIN FOR HIMSELF OR ANOTHER OR TO CAUSE LOSS TO ANOTHER OR TO EXPOSE ANOTHER TO A RISK FRAUD ACT 2006	1.5

ASSAULT ON A CONSTABLE POLICE ACT 1996	1.5
OWNER OR PERSON IN CHARGE ALLOWING DOG TO BE DANGEROUSLY OUT OF CONTROL IN A PUBLIC PLACE INJURING ANY PERSON	1.5
RECEIVING STOLEN GOODS	1.5
HAVING POSSESSION OF A CONTROLLED DRUG CLASS B AMPHETAMINE	1.5
THEFT OF MAILBAG OR POSTAL PACKET OR UNLAWFULLY TAKING AWAY OR OPENING MAILBAG	1.5
POSSESSION OF A CONTROLLED DRUG - CLASS B CATHINONE DERIVATIVES INCLUDING METHYLMETHCATHINONE ALSO KNOWN AS MEPHEDRONE	1.5
MAKE. ADAPT, SUPPLY OR OFFER TO SUPPLY ANY ARTICLE KNOWING THAT IT IS DESIGNED OR ADAPTED FOR USE IN THE COURSE OF OR IN CONNECTION WITH FRAUD, OR INTENDING IT TO BE US	1.5
HAVING POSSESSION OF A CONTROLLED DRUG OTHER CLASS B	1.5
OBSTRUCTING EXERCISE OF POWERS OF SEARCH ETC. OR CONCEALING DRUGS ETC.	1.5
OWNER OR PERSON IN CHARGE ALLOWING DOG TO ENTER A NON-PUBLIC PLACE AND INJURE ANY PERSON	1.5
ASSAULTING A DESIGNATED OR ACCREDITED PERSON, OR PERSON ASSISTING HIM OR HER, IN THE EXECUTION OF HIS OR HER DUTY	1.5
ASSAULT ON CONSTABLE	1.5
ASSAULT WITH INTENT TO RESIST APPREHENSION OR ASSAULT ON A PERSON ASSISTING A CONSTABLE	1.5
DISHONESTLY FAILS TO DISCLOSE INFORMATION TO MAKE A GAIN FOR HIMSELF OR ANOTHER OR TO CAUSE LOSS TO ANOTHER OR TO EXPOSE ANOTHER RO A RISK FRAUD ACT 2006	1.5
POSSESION OF SYNTHETIC CANNABINOID AGONISTS	1.5
DISHONEST REPRESENTATION FOR OBTAINING BENEFIT ETC.	1.5
CONSPIRACY TO DEFRAUD	1.5
OTHER FRAUDS (SPECIFY OFFENCE AND ACT AND SECTION (OR COMMON LAW) UNDER WHICH PROCEEDINGS WERE TAKEN)	1.5
ASSAULT ON A DESIGNATED PERSON OR ASSISTANT IN THE EXERCISE OF A RELEVANT POWER	1.5
FALSE ACCOUNTING (WAS 52/00)	1.5
ASSAULTS A TRAFFIC OFFICER TRAFFIC MANAGEMENT ACT 2004	1.5
ASSAULTING, RESISTING OR OBSTRUCTING A PERSON ASSISTING A CONSTABLE	1.5
SENDING LETTER/ARTICLES/EMAILS TO CAUSE DISTRESS OR ANXIETY	1.5
MAKING, SUPPLYING OR OBTAINING ARTICLES FOR USE IN OFFENCE UNDER SECTIONS 1 OR 3	1.5
RESISTING OR WILFULLY OBSTRUCTING A DESIGNATED OR ACCREDITED PERSON, OR PERSON ASSISTING, IN THE EXECUTION OF HIS OR HER DUTY	1.5
IS SEND BY PUBLIC COMMUNICATION NETWORK AN OFFENSIVE / INDECENT / OBSCENE / MENACING MESSAGE / MATTER	1.5
ASSAULTING A COURT SECURITY OFFICER	1.5
FAIL TO DISCLOSE KEY TO PROTECTED INFORMATION REGULATION INVESTIGATORY POWERS ACT 2003	1.5
ASSAULTING A PRISONER CUSTODY OFFICER OR CUSTODY OFFICER (STC)	1.5
ASSAULTING OR OBSTRUCTING AN OFFICER OF REVENUE OR CUSTOMS COMMISIONERS FOR REVENUE AND CUSTOMS ACT 2005	1.5
KNOWINGLY OR RECKLESSLY DISCLOSING INFORMATION UNDER S.93(2)	1.5
ASSAULT AN IMMIGRATION OFFICER	1.5
ASSAULT ON PERSONS PRESERVING WRECK	1.5
FAILING TO COMPLY WITH ANY REQUIREMENT TO PROVIDE RELEVANT INFORMATION	1.5
MAKE FALSE REPRESENTATIONS OR OMISSIONS IN CONNECTION WITH APPLICATION FOR DEBT RELIEF ORDER INSOLVENCY ACT 1986 AS INSERTED BY SCHEDULE 1 OF THE TRIBUNALS COURTS AND ENFORCEMENT ACT 2007	1.5
FROM MOTOR VEHICLES	1
FROM OTHER VEHICLES	1
RACIALLY OR RELIGIOUSLY AGGRAVATED COMMON ASSAULT OR BEATING	0.7

RACIALLY AGGRAVATED COMMON ASSAULT	0.7
COMMON ASSAULT AND BATTERY	0.5
HARASSMENT ALARM OR DISTRESS	0.5
AIDING, ABETTING, CAUSING OR PERMITTING RECKLESS DRIVING	0.5
HAVING POSSESSION OF A CONTROLLED DRUG OTHER CLASS C	0.5
HAVING POSSESSION OF A CONTROLLED DRUG KETAMINE (SPECIAL K OR CLUB HORSE DRUG)	0.5
DEPOSITING, CAUSING THE DEPOSITION OR PERMITTING THE DEPOSITION TREATING, KEEPING OR DISPOSING OF CONTROLLED (BUT NOT SPECIAL) WASTE IN OR ON LAND WITHOUT A LICENCE	0.5
DEPOSITING, CAUSING THE DEPOSITION OR PERMITTING THE DEPOSITION OF CONTROLLED SPECIAL WASTE IN OR ON LAND WITHOUT A LICENCE	0.5
HAVING POSSESSION OF A CONTROLLED DRUG CLASS C GHB (HYDROXY-N-BUTRIC ACID)	0.5
HAVING POSSESSION OF A CONTROLLED DRUG CLASS UNSPECIFIED	0.5
OTHER INDICTABLE/TRIABLE-EITHER-WAY OFFENCES RELATING TO DRUGS	0.5
POSSESSION OF PIPERAZINES (INCLUDING BZP)	0.5
RESISTS OR WILFULLY OBSTRUCTS A TRAFFIC OFFICER IN THE EXECUTION OF HIS DUTIES TRAFFIC MANAGEMENT ACT 2004	0.5
OBSTRUCT/RESIST A CONSTABLE IN THE EXECUTION OF DUTY	0.5
OBSTRUCTION OF AN OFFICER IN THE EXERCISE OF A POWER CONFERRED BY A WARRANT ETC.	0.5
PERMITTING PREMISES TO BE USED FOR UNLAWFUL PURPOSES KETAMINE (SPECIAL K OR CLUB HORSE DRUG)	0.5

Appendix B: Table 8: High Harmspot Rank Change Year on Year.

2011 Rank	2012 Rank	Change from 2011 to 2012	2013 Rank	Change from 2012 to 2013	2014 Rank	Change from 2013 to 2014
1	1	static	1	static	1	static
2	39	down	64	down	33	up
3	20	down	40	down	68	down
4	25	down	50	down	5	up
5	5	static	10	down	3	up
6	7	down	2	up	11	down
7	3	up	5	down	7	down
8	32	down	9	up	64	down
9	2	up	22	down	14	up
10	27	down	7	up	12	down
11	24	down	21	up	16	up
12	43	down	14	up	45	down
13	19	down	6	up	60	down
14	17	down	30	down	15	up
15	13	up	43	down	6	up
16	11	up	3	up	19	down
17	8	up	13	down	10	up
18	6	up	11	down	20	down
19	67	down	49	up	9	up
20	45	down	37	up	8	up
21	21	static	23	down	4	up
22	33	down	58	down	34	up
23	38	down	18	up	18	static
24	86	down	66	up	58	up
25	70	down	24	up	29	down
26	87	down	87	static	42	up
27	81	down	55	up	96	down
28	48	down	19	up	72	down
29	79	down	42	up	32	up
30	10	up	29	down	43	down
31	4	up	41	down	26	up
32	52	down	47	up	37	up
33	23	up	79	down	79	static
34	58	down	48	up	73	down
35	40	down	81	down	38	up
36	63	down	45	up	95	down
37	69	down	61	up	55	up
38	31	up	76	down	30	up
39	30	up	70	down	47	up
40	54	down	25	up	69	down
41	47	down	74	down	56	up
42	85	down	46	up	71	down
43	61	down	26	up	53	down
44	15	up	59	down	46	up
45	60	down	12	up	23	down
46	90	down	91	down	49	up
47	14	up	53	down	50	up
48	37	up	32	up	28	up
49	12	up	8	up	2	up

50	56	down	31	up	67	down
51	59	down	20	up	41	down
52	72	down	51	up	54	down
53	53	static	54	down	31	up
54	71	down	60	up	57	up
55	34	up	36	down	75	down
56	74	down	63	up	24	up
57	77	down	80	down	21	up
58	42	up	57	down	63	down
59	57	up	56	up	39	up
60	22	up	16	up	13	up
61	64	down	39	up	51	down
62	66	down	75	down	74	up
63	62	up	71	down	40	up
64	36	up	68	down	52	up
65	41	up	17	up	22	down
66	55	up	65	down	44	up
67	65	up	69	down	86	down
68	78	down	27	up	70	down
69	9	up	4	up	35	down
70	26	up	62	down	17	up
71	16	up	82	down	93	down
72	49	up	88	down	76	up
73	92	down	67	up	59	up
74	18	up	15	up	27	down
75	91	down	77	up	89	down
76	35	up	84	down	62	up
77	75	up	86	down	91	down
78	44	up	34	up	82	down
79	94	down	90	up	77	up
80	68	up	72	down	83	down
81	88	down	28	up	66	down
82	50	up	44	up	85	down
83	80	up	33	up	80	down
84	29	up	73	down	36	up
85	84	up	52	up	92	down
86	46	up	83	down	81	up
87	76	up	85	down	78	up
88	96	down	89	up	65	up
89	51	up	35	up	25	up
90	95	down	92	up	90	up
91	99	down	99	static	98	up
92	89	up	78	up	84	down
93	28	up	38	down	48	down
94	93	up	96	down	61	up
95	73	up	94	down	87	up
96	82	up	95	down	94	up
97	83	up	97	down	88	up
98	97	up	93	up	97	down
99	98	up	98	static	99	down

Appendix C: Figures 70 to 79: Percentage of Harm within Harmspots by Offence Category.

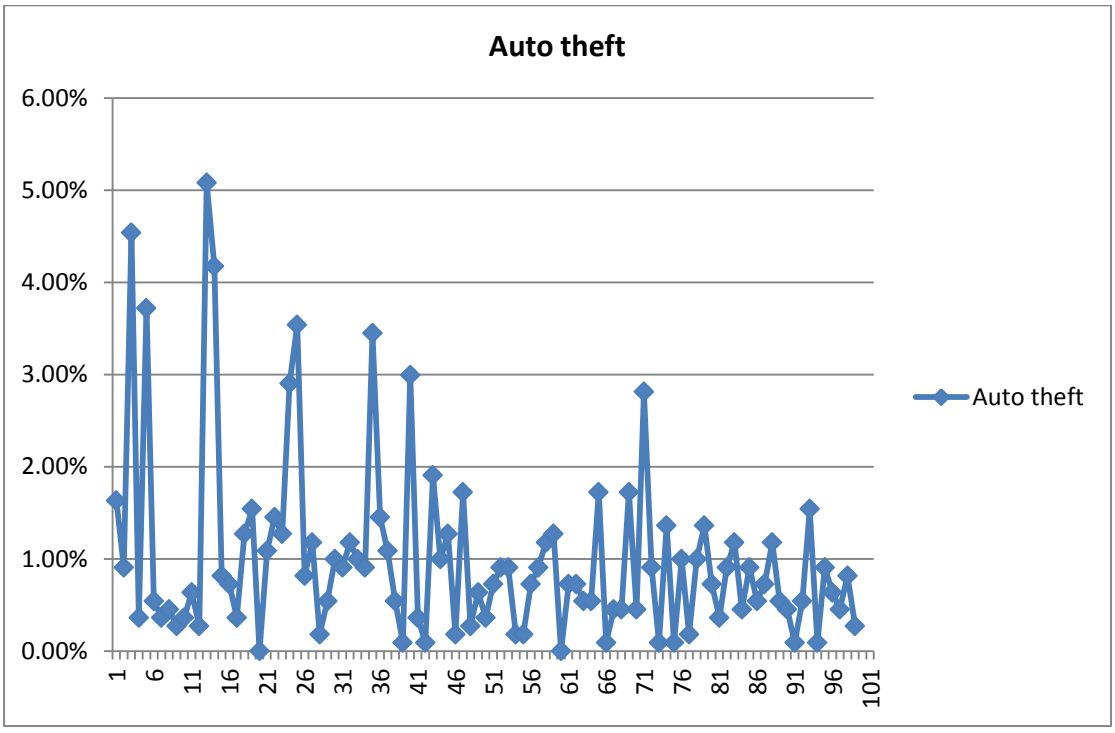

Figure 70: Percentage of harm by harmspot for auto theft.

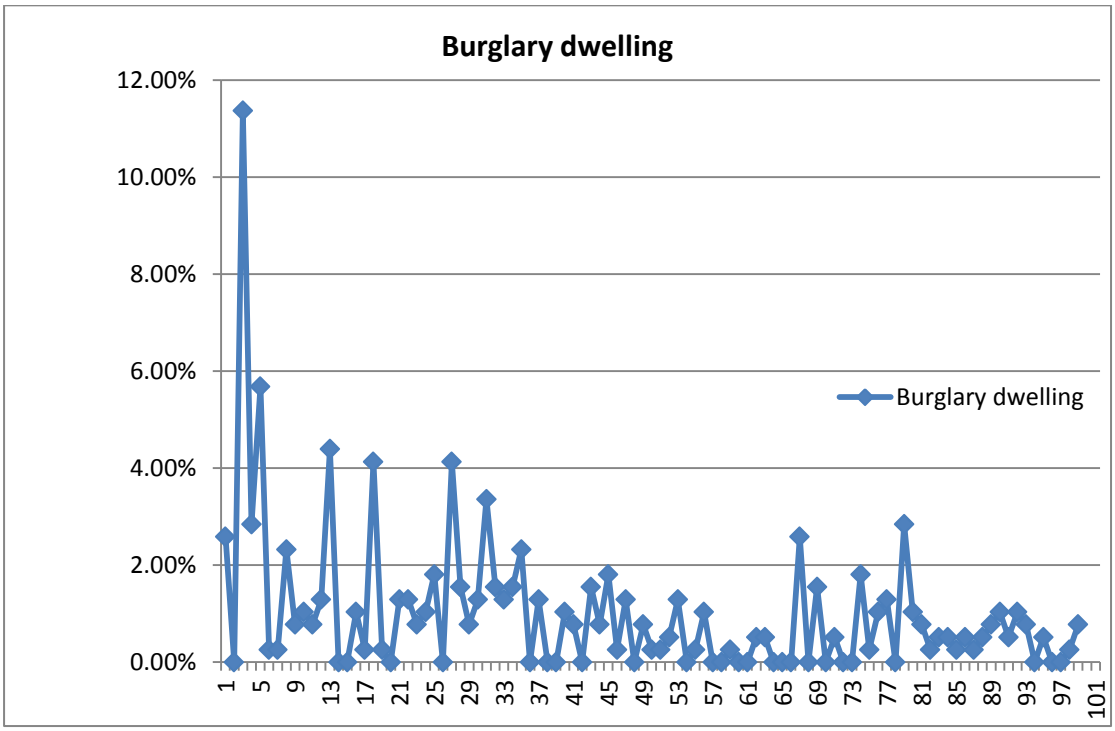

Figure 71: Percentage of harm by harmspot for burglary dwelling.

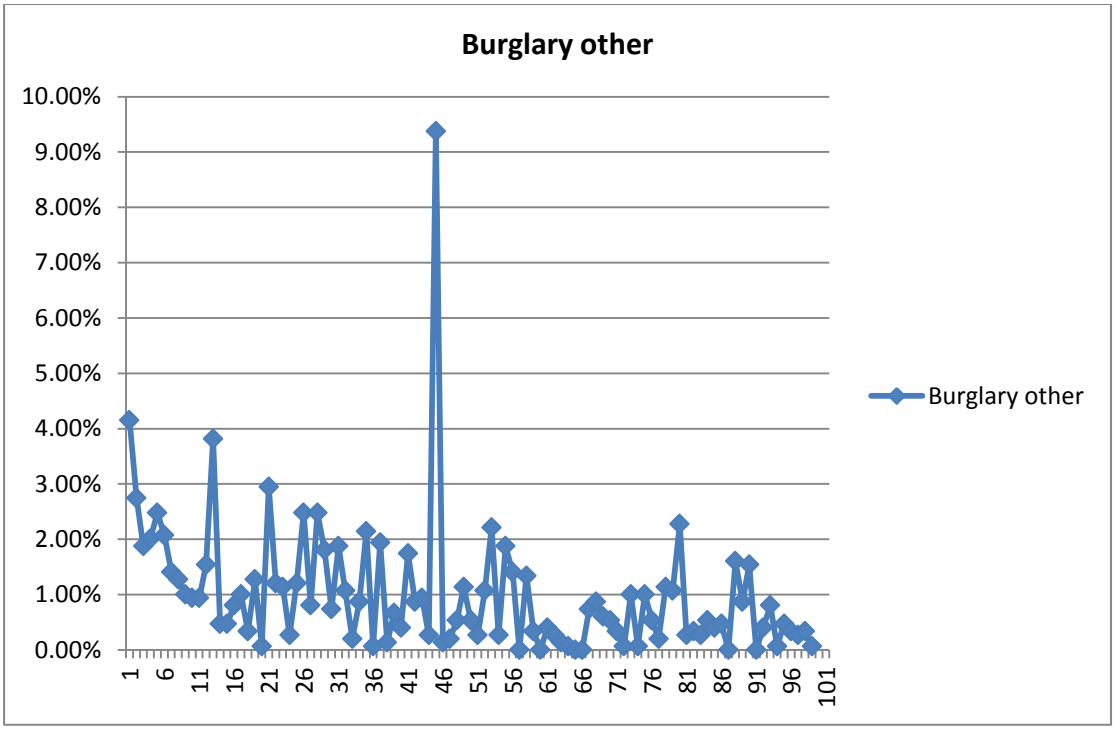

Figure 72: Percentage of harm by harmspot for burglary other.

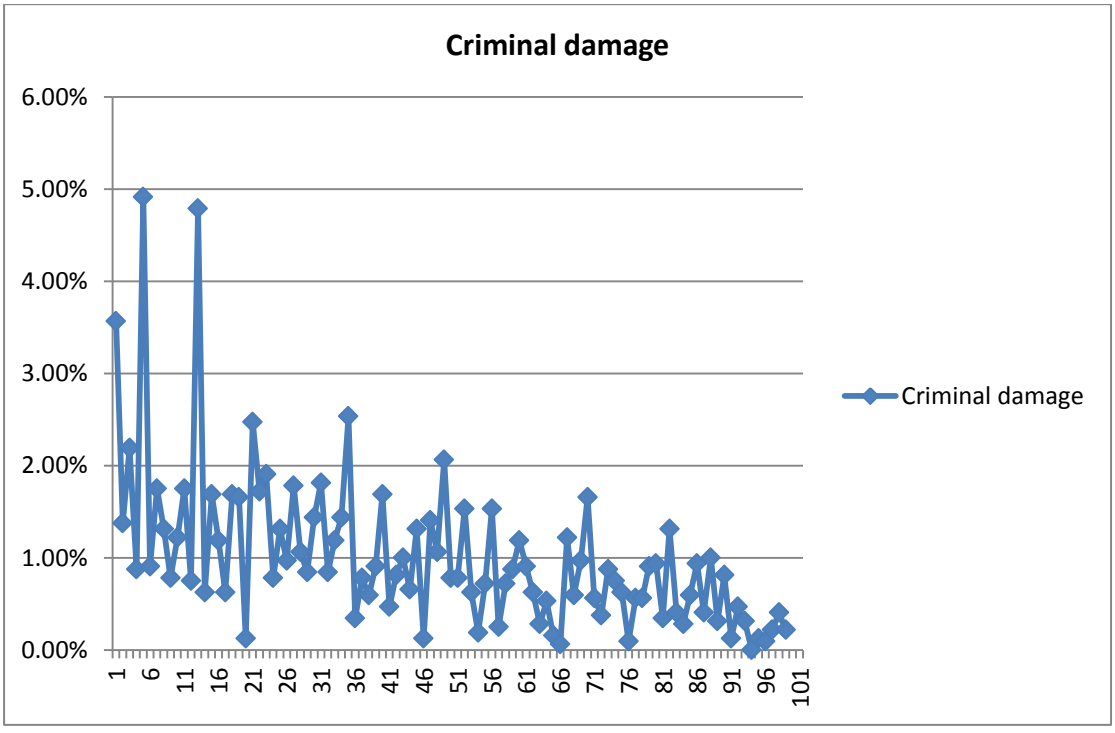

Figure 73: Percentage of harm by harmspot for criminal damage.

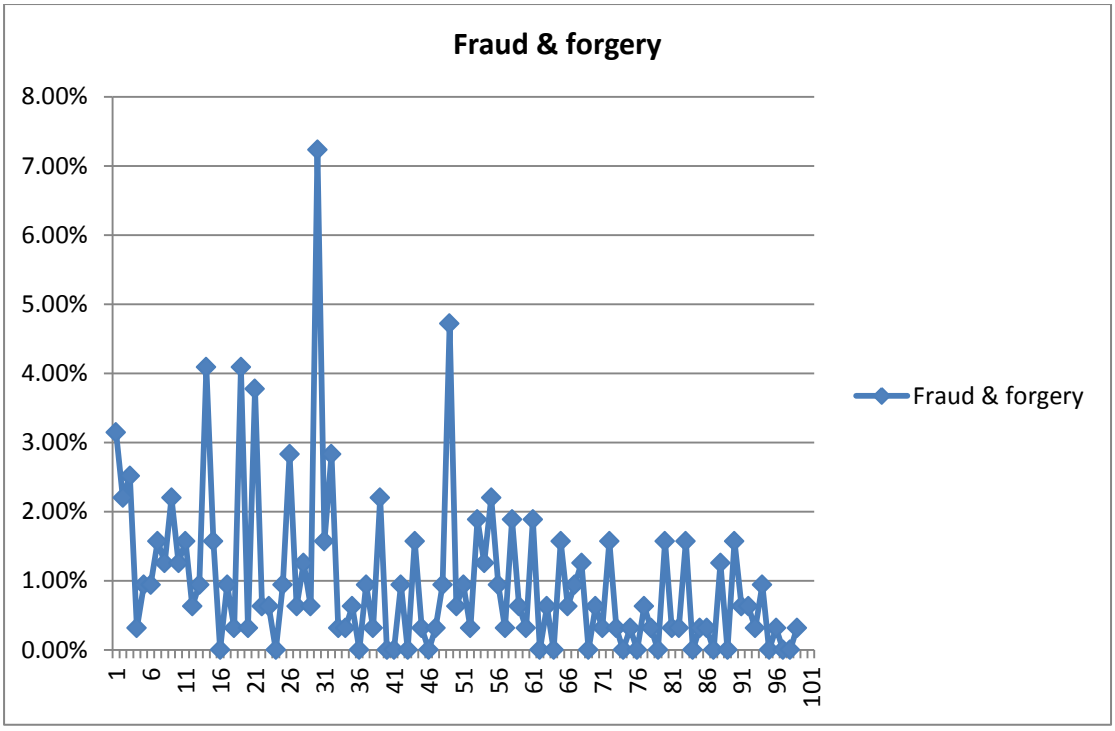

Figure 74: Percentage of harm by harmspot for fraud and forgery.

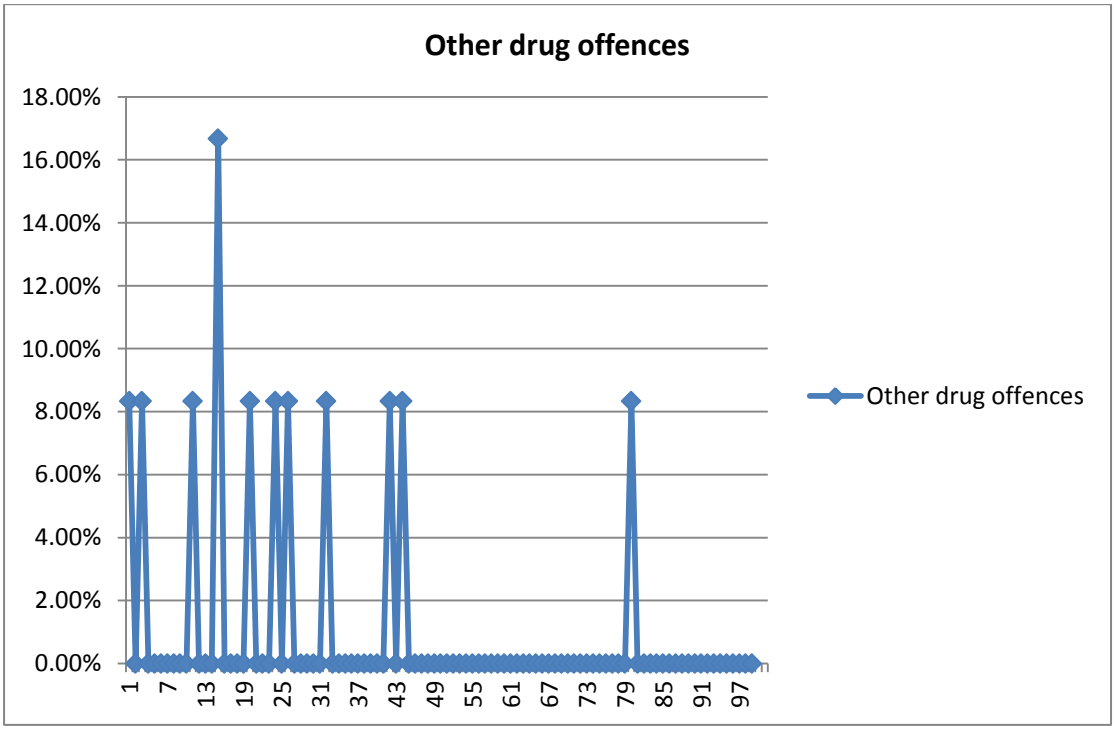

Figure 75: Percentage of harm by harmspot for other drug offences.

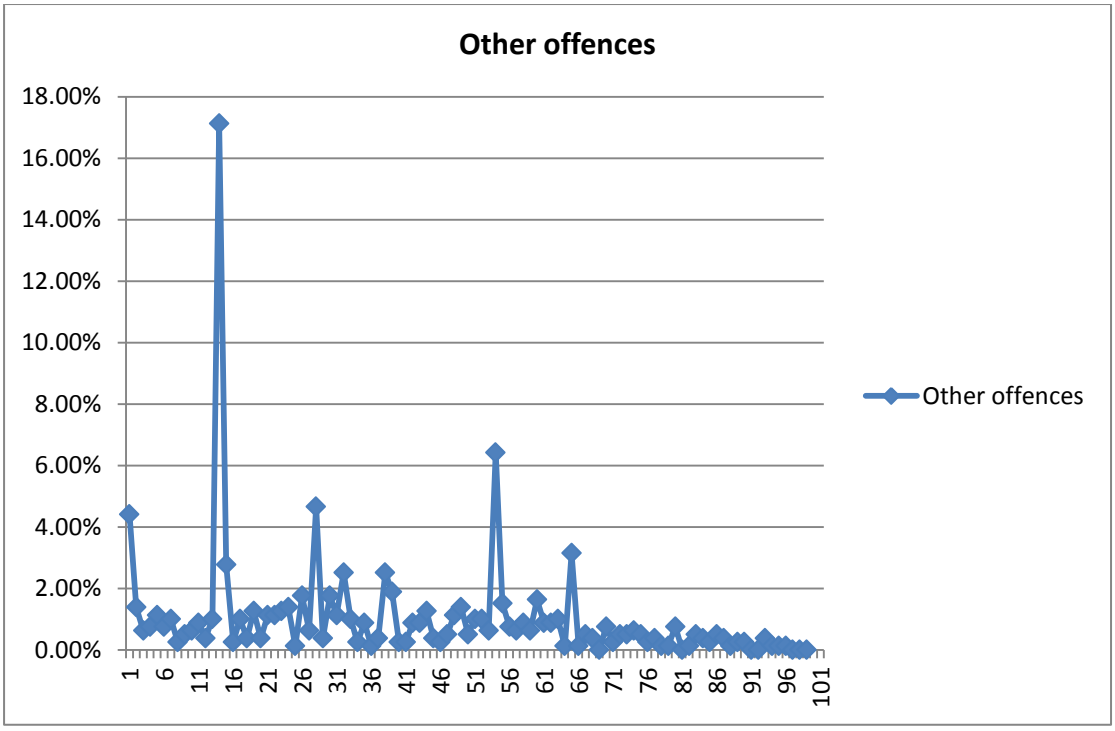

Figure 76: Percentage of harm by harmspot for other offences.

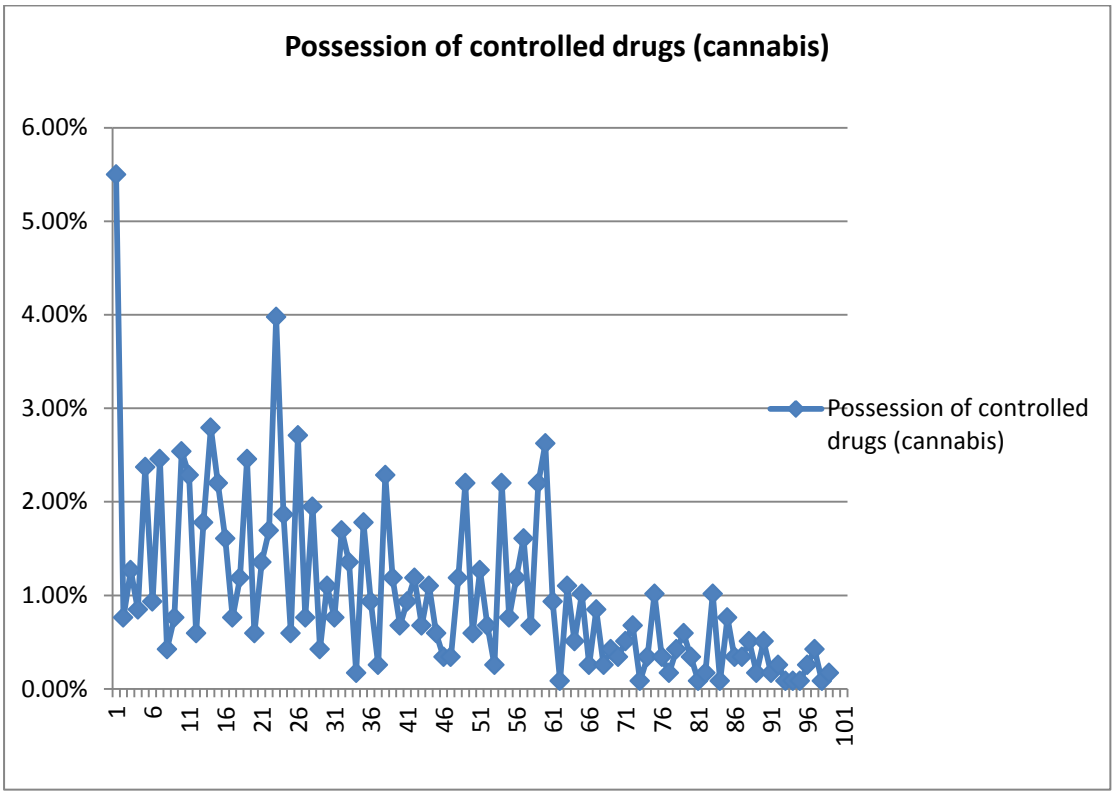

Figure 77: Percentage of harm by harmspot for possession of cannabis.

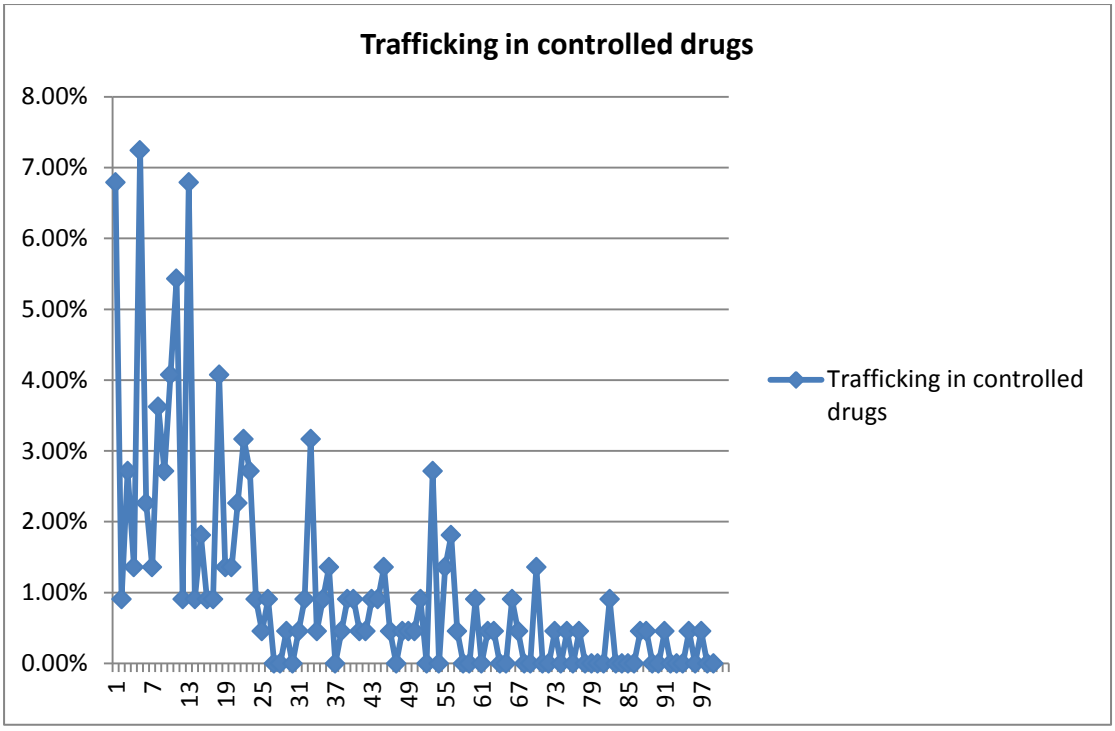

Figure 78: Percentage of harm by harmspot for Trafficking in controlled drugs.

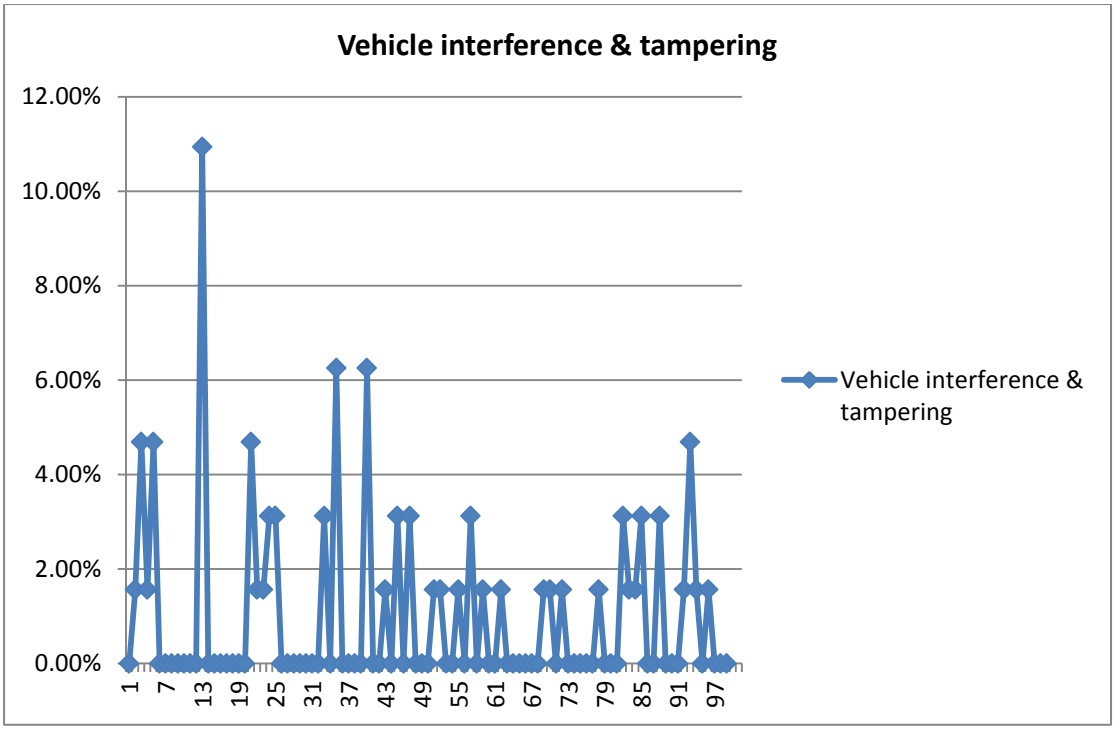

Figure 79: Percentage of harm by harmspot for vehicle interference and tampering.