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Sefydliad y Prifysgolion ar Wyddorau'r Heddlu

MAPPING AND MEASURING THE SOCIAL HARMS OF CRIME AND ANTISOCIAL BEHAVIOUR: TOWARD AN OUTCOMES-BASED APPROACH TO COMMUNITY SAFETY IN WALES

Professor Martin Innes and Dr Charlotte Leigh

UPSI, Cardiff University School of Social Sciences, King Edward VII Avenue

Cardiff, CF10 3WT

InnesM@cardiff.ac.uk

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Contents

List of Figures

List of Tables

Summary

This document reports findings from an exploratory study designed to conceptually and empirically develop the concept of 'social harm'. Social harm is defined as the negative collective impacts associated with an illegal or disorderly act, or social control intervention. The study had three key aims:

1) To establish a more robust conceptual definition of social harm in relation to the impacts of crime and disorder;

2) Reflecting this definition, to develop a more sophisticated method of measuring the distribution and intensity of social harm;

3) Apply these measures to test what insights they may afford in relation to how crime and disorder affects communities and neighbourhoods.

Engagement with these aims is set against a backdrop where harm has become an increasingly influential idea in some areas of the criminal justice system. In particular, it is commonly used in relation to illegal narcotics and has acquired some traction in relation to measures designed to address serious and organised crime. These developments notwithstanding, wider uptake and use of the concept of harm has been inhibited by difficulties in deriving robust and stable measurements, as well as a lack of clarity in thinking about what precisely constitutes harm and how it differs from other measures.

The work conducted for this study suggests that harm can be differentiated from several other allied concepts of risk, threat and vulnerability. Examining these helps to define and clarify the unique conceptual space occupied by the idea of harm. Orthodox approaches to measuring risk are based upon determining the likelihood of an event occurring in conjunction with its relative impact. Risks become threats when they are less prospective and more immediate. Vulnerability is concerned with the likelihood and capacity to be harmed. These ideas can be combined in order to identify the 'risk of harm' or 'vulnerability to harm'. However, it can be seen that harm is unique in focusing upon actual negative impacts.

The defining quality of a harm based framework is then that it attends to the impacts or effects of problems or issues. So whereas more orthodox measures of crime and disorder tend to be weighted towards prevalence, that is the amount of that issue that is occurring, focusing upon harm shifts attention to impact and consequences. The significance of this is that it recognises that in terms of understanding and mitigating the harms of crime and disorder, there might be a small number of incidents that impact quite heavily upon the public. Likewise, just because there is a highly prevalent issue in an area, it cannot be assumed that it is the 'market mover' in terms of shaping public attitudes and opinions.

There are of course different kinds of harm that can be generated and experienced. Crime and disorder receives attention (at least in part) because of the harm that is done to victims. Whilst this form of individual harm is important, herein, the focus is explicitly upon the 'social' harm of crime. Adopting this approach reflects findings from an accumulating body of research evidence, that crime and disorder can be extremely consequential at the collective level in terms of negatively shaping the security, well-being and resilience of communities and/or neighbourhoods.

In advancing the position on social harm the report is informed by data derived from a study of crime and its effects across South Wales. These data were collected through face-to-face interviews with members of the public between 2008 and 2009. Analysis of these data suggests that in seeking to measure social harm the following aspects are important:

- It is helpful to differentiate between the 'scale' and 'intensity' of social harm. The scale measure refers to the number of people who are impacted by a problem or incident. This is different from the intensity measure which is concerned with how much each of these people is negatively impacted.

- By separating out intensity and scale it is possible to differentiate those problems that are important because they affect a lot of people a lot, from those that are attended to because although only a few people are affected, this occurs with some intensity.

- There are suggestions in the data that social harm needs to be conceptualised as a process in that levels of harm experienced change over time. However, this temporal dimension could not be assessed robustly with the available data. It is something though that future studies could examine.

- Likewise, it is clear that social harm is not generated solely by individual incidents, but there is an important accumulative quality. In this respect, socio-economic context and socio-demographic factors are important in shaping levels of vulnerability to harm.

- Consequently, the overall level of harm depends upon an interaction between an act and situation in which the act occurs.

In this study, the social harm of crime and disorder was calibrated by asking a sample of members of the public about different problems occurring locally and the impacts that these had upon them. The sample of respondents were drawn from across every neighbourhood in South Wales. As such, by looking at the distribution of different types of impacts it is possible to calculate the relative impacts that crime and disorder are having across different areas of the region. The findings of this approach are summarised in the proceeding figure (Figure 1). The darker shaded areas denote higher levels of social harm detected.

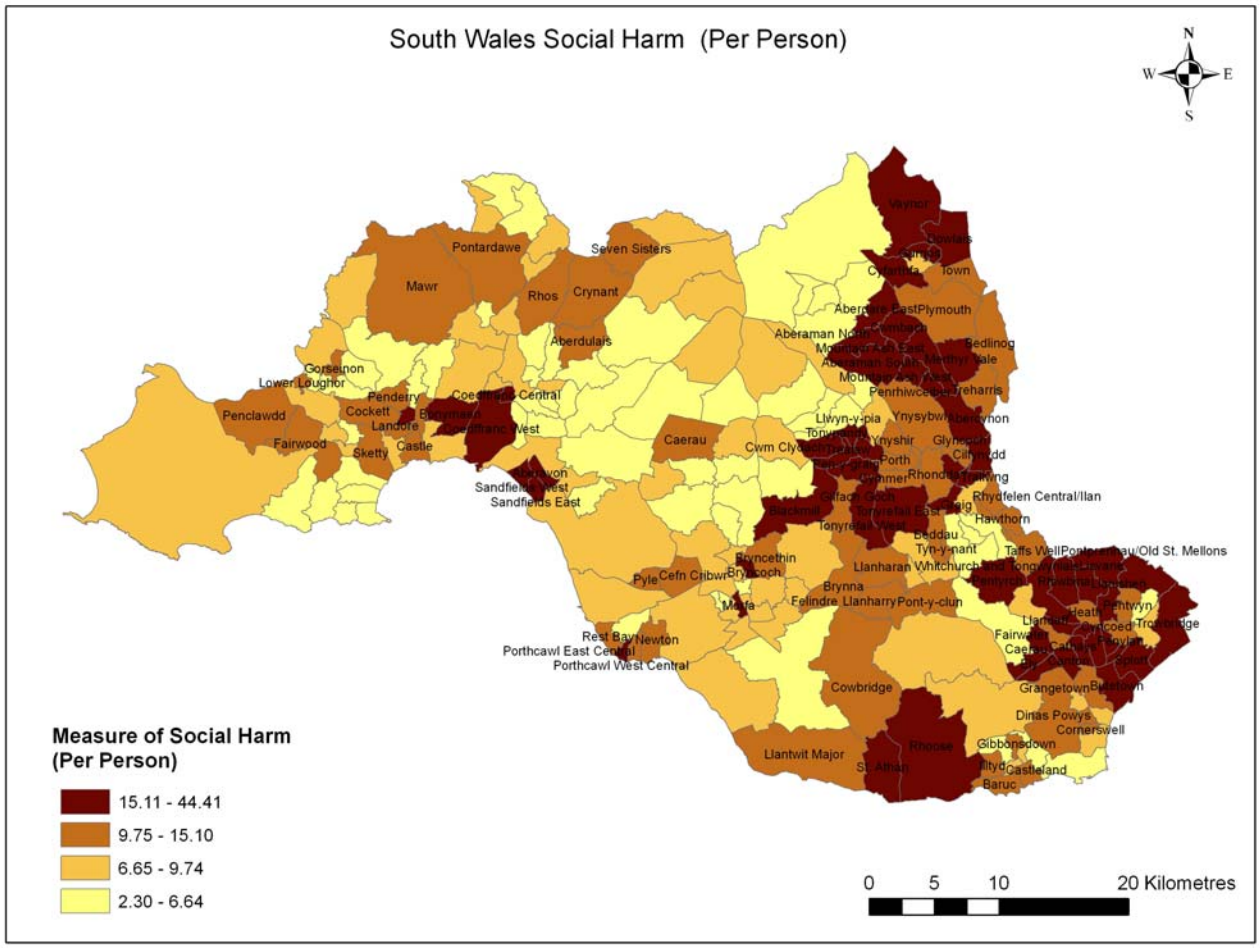

Figure 1 South Wales Social Harm

The map above clearly shows those areas of South Wales where crime and disorder are impacting upon the well-being of local neighbourhoods. This analysis can be refined by tracing these effects back to different kinds of problems. In the proceeding map (Figure 2), the analysis has focused upon what types of incident are acting as drivers for these patterns of impact. So it can be seen that those areas shaded red are where the social harm is being driven by a combination of crime, social disorder and physical disorder. In contrast, those areas shaded light blue are where the collective sense of harm is being driven by social disorder issues, the light green areas are where environmental disorder is the key community focus, and so on. Where the area is unshaded it means there is no overall issue that can be discerned. This mode of analysis should provide a useful resource for informing strategic planning.

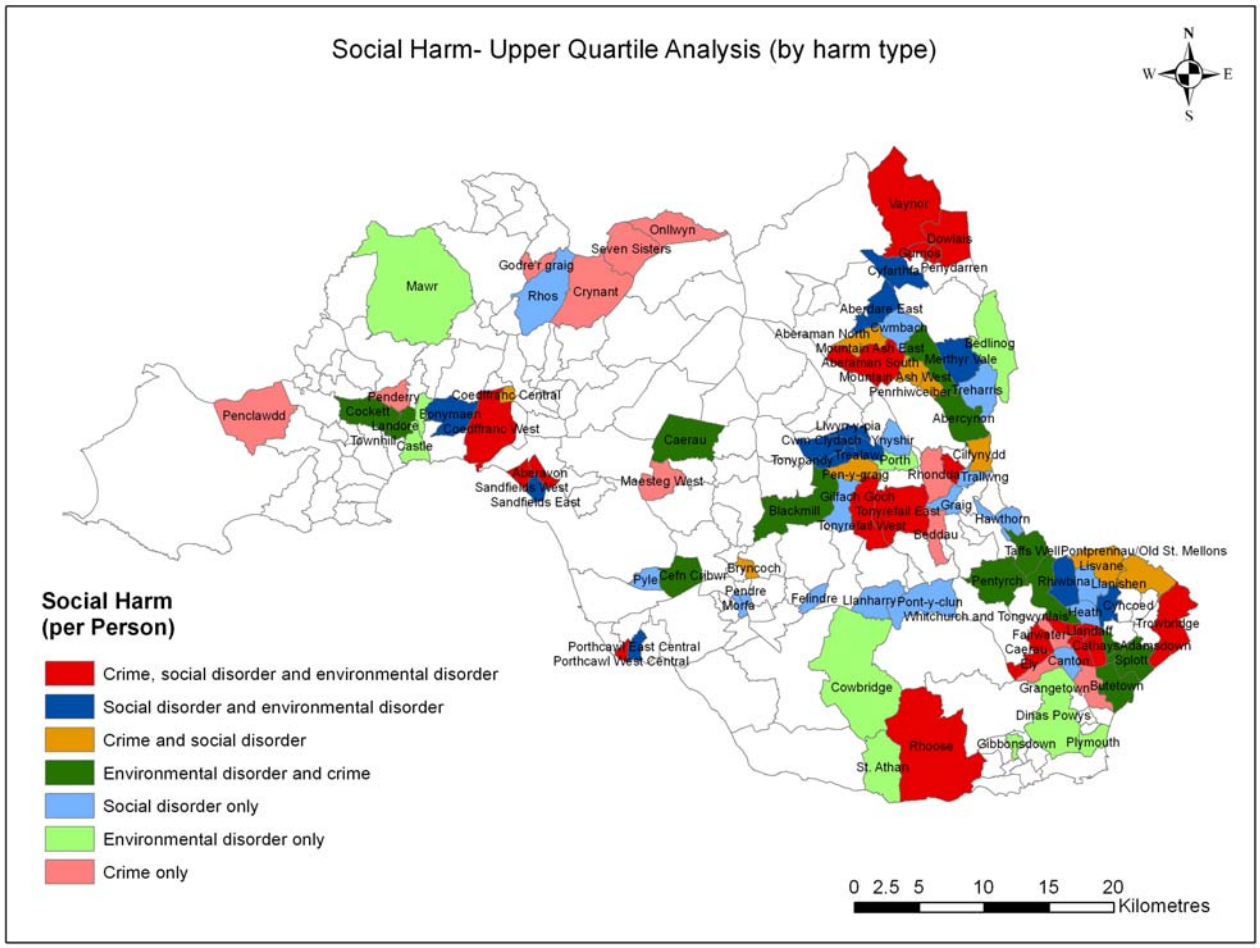

Figure 2 Social Harm Upper Quartile Analysis

The strategic utility of understanding levels of social harm as displayed in the above map are clear, it allows different types of community safety asset to be directed to where particular types of problem are having an especially acute impact.

A particular quality of harm and the impacts of crime and disorder is that people do not construct their perceptions of harm in relation to individual incidents. Rather they make connections between events to inductively appraise what a series or cluster of crimes and disorders indicate about an area. To put it another way, in terms of their capacity to induce harm, signal crimes and disorders have an accumulative dimension. In order to reflect this property, the analysis applied 'inverse distance weighting' (IDW) methods to the data. IDW is an established interpolation tool for creating three dimensional (3D) models, however applying the method to harm and crime forms experimental research for the purpose of this study. Applied to the harm data it allows us to examine the local influence of individual events upon the impacts of other similar occurrences in the near vicinity. To investigate this in the following map we have 'drilled down' to focus upon Cardiff. The map (Figure 3) shows a surface model displaying relatively 'hot' and 'cold' areas of social harm. The hotter areas are where there is a more intense and greater scale of crime and disorder impacts.

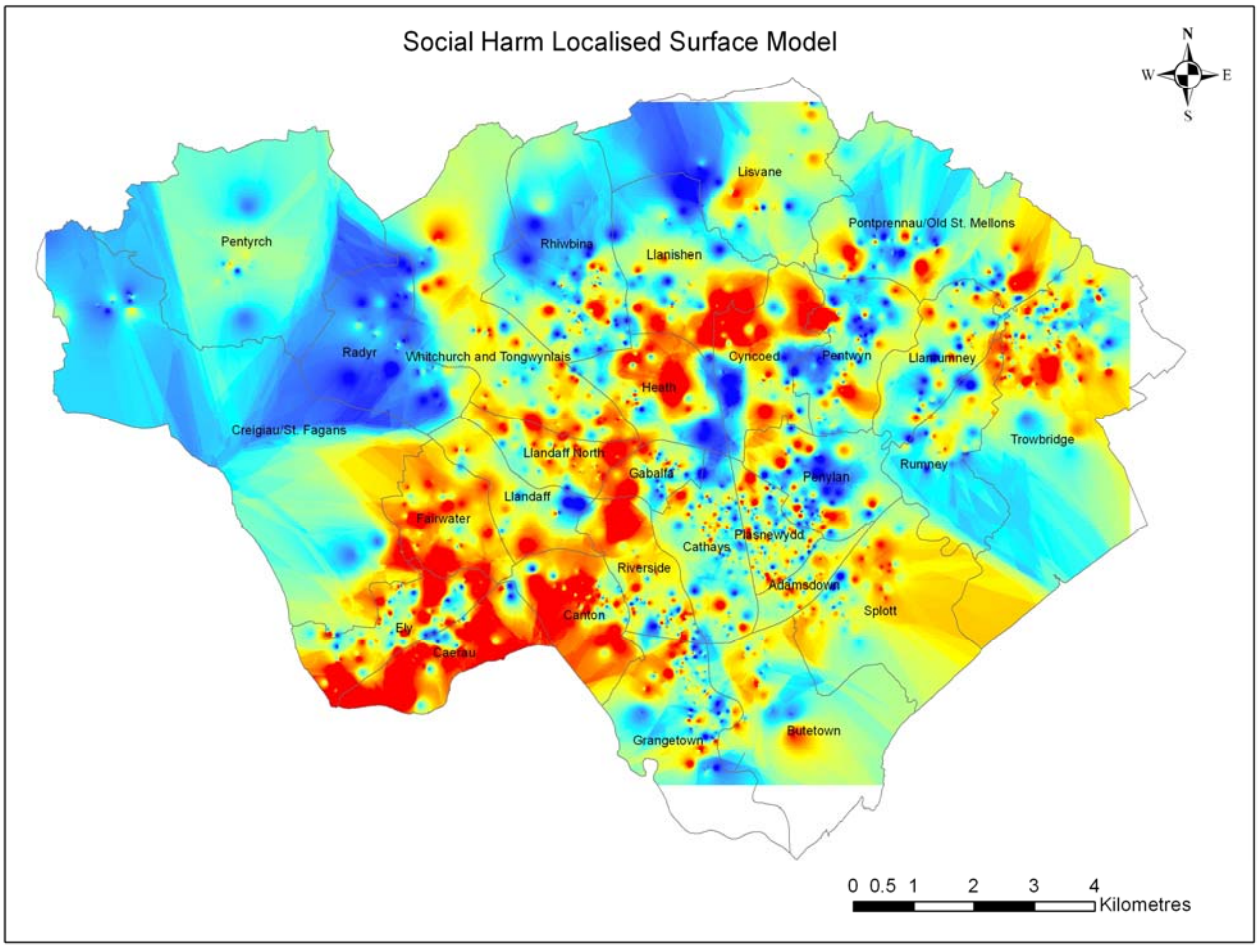

Figure 3 Cardiff Harm Surface

The map above starts to provide a fine-grained depiction of the 'harm multiplier' effects of crime and disorder. The red shaded areas show where the co-occurrence of harmful incidents is predicting the presence of an accumulation of social harm. The blue shaded areas show the inverse of this – that there are incidents occurring that are changing how people think, feel or behave, but these are not having a multiplier effect to induce social harm. The particular value of this analysis is in those areas of the map where high social harm areas occur next to low harm areas. For this shows the very local ways in which the negative impacts of crime and disorder do and do not 'travel'.

To help explain the implications of this analysis it is possible to render these findings in a 3D model (Figure 4). The high red peaks denote where most social harm is being accumulated.

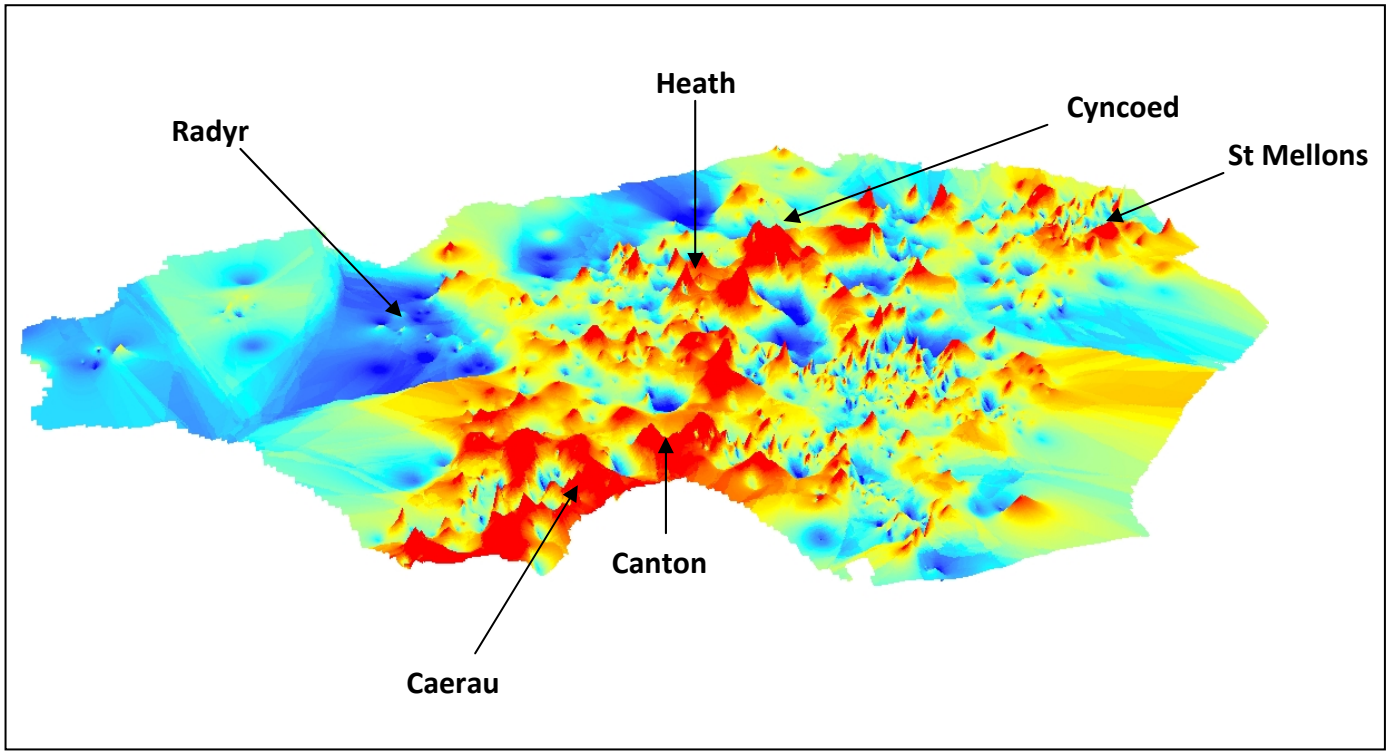

Figure 4 Cardiff 3D Harm Surface

On the basis of the conceptual and empirical measurement development work detailed herein, we believe that further developing thinking around harm offers several potential benefits for policy-makers and practitioners. In particular:

- Social harm may provide a common unit of measurement around which the performance and contribution of the range of different agencies involved in delivering community safety could be judged.
- In an era of austerity and contracting budgets focusing service delivery around where most harm is presenting may be a reasonable way of rationing finite public resources.
- Measures of social harm may help to focus agencies' activity upon public-facing outcomes. For example, harm measures will reflect the fact that some agency interventions may actual increase rather than decrease net harmfulness.

Although the economic recession has now technically ended, it is clear that its social impacts will be both deep and long-lasting. In relation to the provision of community safety these impacts are likely to be experienced in two main ways:

1. Directly through the reduction of funding to community safety partnerships and the police;
2. Indirectly, in that as communities come under increasing stress caused by reductions in public service provision and decreasing economic opportunities, so there are likely to increasing levels of crime and antisocial behaviour.

Consequently, it is likely that those charged with providing safe and secure communities across Wales will have to contend with expanding demand, but fewer resources. Confronted

with such a challenging operating environment, it becomes important to establish what the key priorities for agencies should be in order that key business areas can be sustained and protected. The evidence base compiled herein suggests that developing a focus around social harm could provide a reasonable way of adapting to this new environment.

1 Introduction

This document reports findings from a study conducted to examine the potential for using the concept of social harm to frame our understandings of the impacts of crime and disorder on communities and neighbourhoods across Wales. The study had three principal aims:

1) To establish a more robust conceptual definition of social harm in relation to the impacts of crime and disorder;

2) Reflecting this definition, to develop a more sophisticated method of measuring the distribution and intensity of social harm;

3) Apply these measures to test what insights they may afford in relation to how crime and disorder affects communities and neighbourhoods.

As public services are having to adjust to the requirements associated with the onset of the age of austerity, moving in this direction has the potential to help agencies reconcile the tensions that they will increasingly be subject to.

1.2 The Concept of Social Harm

The concept of 'social harm' has become increasingly influential in thinking about the delivery of community safety and criminal justice. Whilst harm reduction frameworks are most often associated with substance misuse policies[1], currently there is considerable interest in extending and elaborating such ideas to apply them more widely. For example, in a recent policy document, the Cabinet Office and Home Office identified a need for an "…integrated response [that] will include common metrics for assessing harm so that all agencies prioritize individuals and groups consistently" (p.24).[2]Albeit principally focused upon the harm caused by serious and organized crime, this report implicitly recognizes several potential benefits that could be afforded by developing a robust approach to measuring the harms induced by a range of activities. These benefits can be summarized as:

- Helping to reorient the attention of service providers to the ultimate outcomes of their activity (have they reduced the harm), rather than focusing upon output measures such as the number of sanctioned detections, or the numbers of ASBOs issued;

- Relatedly, harm could, if appropriately configured, provide partner agencies with a common language and framework for measuring the success of their activities.

The One Wales coalition agreement associated with the previous administration in Wales acknowledged the importance of harm reduction approaches in tackling substance misuse and expresses support for such strategies.[3] However, as recognized in a recent report by the United Kingdom Drug Policy Commission, there are difficulties associated with trying to

[1] Inciardi, J. and Harris, L. (1993) Harm Reduction: National and International Perspectives. Thousand Oaks, Ca.: Sage.

[2] Cabinet Office and The Home Office (2009) Extending Our Reach: A Comprehensive Approach to Tackling Serious Organised Crime. London HMSO.

[3] p.27 Labour and Plaid Cymru (2007) One Wales: A Progressive Agenda for the Government of Wales.

measure the harm caused by drugs.[4] This reflects a more general problem in that as yet, researchers have struggled to find a way to translate the concept of social harm into a form that is empirically measurable and testable.

It is this problem that is addressed by the current study. By using empirical data on public reactions to crime and disorder across South Wales it seeks to derive a more conceptually precise formulation of social harm, and a better understanding of what is required to use this to drive service delivery in Wales. Such thinking has been afforded added impetus by the onset and effects of the economic recession. This is placing increased pressure on a number of public service agencies engaged in community safety work as their budgets are reduced often by significant amounts. As such, there is a requirement for such agencies to decide on what grounds they will or will not continue to deliver services in respect of a range of problems. The concept of harm seems to have potential in this respect, in that focusing upon those issues and incidents that are most harmful seems a reasonable way of reconciling the tensions in play.

The 'harm principle' was first set out by J.S. Mill in his 'On Liberty.' But it was the American criminologist Edwin Sutherland writing in 1949 who first introduced the notion of a specifically 'social' harm dimension attached to crime. He did this in order to try and capture how crime and disorder can influence and shape the collective views and sentiments of the public, even when they have not been directly victimized by an incident.[5] More recently, there has been a revival of interest in this notion, on the grounds that it might afford new possibilities for shaping how criminal justice and neighbourhood management interventions are conceived and constructed.[6]

Set against this backdrop the aim of this study is to conduct a preliminary investigation and test of the potential to develop the hitherto abstract conceptualization of social harm, into something that provides a robust empirical measurement of the outcomes of community safety interventions.

[4] United Kingdom Drug Policy Commission (2009) Refocusing Drug-Related Law Enforcement to Address Harms. London: UKDPC.

[5] Sutherland, E. (1949) White Collar Crime. New York: Holt, Rinehart and Winston.

[6] Sparrow, M. (2009) The Character of Harms: Operational Challenges in Control. Cambridge: Cambridge University Press.

2 Data and Method

In 2008/09 working in collaboration with South Wales Police (SWP), and the Cardiff and Merthyr Tydfil Community Safety Partnerships in particular, the Universities' Police Science Institute at Cardiff University conducted 3664 face-to-face interviews with members of the public across the SWP Force area. Interviewees were selected on the basis of a sampling frame that integrated considerations of demographic and geographic representativeness. The interviews were designed to provide SWP and their partners with detailed community intelligence on what crime and disorder incidents were functioning as 'drivers' of neighbourhood insecurity across the regions' towns and cities. In so doing, the aim was to develop a distinctly citizen focused approach for the delivery of Neighbourhood Policing and Neighbourhood Management interventions.

Importantly, fairly uniquely during these interviews, as well as identifying what problems were occurring and where, data were collected on the variety of effects that these were having upon individuals and groups. To date, these 'effects' data have not been thoroughly analyzed or utilized. This study provides a robust and rigorous secondary analysis of these materials that will 're-purpose' them to provide insights into the relative social harms caused by crime and disorder in South Wales.

During the interviews respondents were asked to identify and locate 'signal crimes' and disorders that are happening or have occurred in their locality. During the interview the impact of the signal upon the respondent is also recorded, the interviewer records any effect that the respondent mentions, including: fear; anger; intimidation; threat; avoidance of an area; investment in security equipment; direct action on part of the respondent; and changes in behaviour.

To ensure an evenly distributed and representative geographic distribution of interviews was achieved, one respondent was selected for interview per Output Area (OA). A geographic OA is a map unit consisting of approximately 300 people. Using 'Neighbourhood Statistics' based on census data a demographic representative sample was also identified on criterion of age, gender and ethnicity.

Table 2.1 summarises the demographic breakdown of the interview sample. As indicated previously, this is broadly representative sample of the South Wales population.

Number of interviews conducted	3664
Male	1652
Female	1900
Gender not recorded	112
Asian-Indian	35
Asian-Pakistan	14
Asian- Bangladeshi	4
Any other Asian Background	11
Black - Caribbean	8
Black- African	2
Any other Black Background	1
White and Black Caribbean	1
White and Asian	2
Any other Mixed background	6
Chinese	1
Any other ethnic group	2
White- British	1514
White- Irish	3
Any other White background	40
Ethnicity not recorded	8
Age Under 18	74
Age18-29	471
Age 30-49	1290
Age 50-69	1311
Age 70 and over	490
Age not recorded	28

Table 2.1 Interview Sample

3 Main Findings

The 3,664 people interviewed across South Wales identified 12,487 separate signal crimes and disorders. As previously mentioned, during the interview the respondent was asked how they have been affected by each specific signal event that they have identified. The response of the respondent was coded into one or more of nine main effects (Table 3.1). It is these effects that form the basis of the social harm measure. For the purpose of this analysis, each effect has been assigned a weight of either 1 or 2. The choice of weight is representative of the relative impact of the signal event, for example, if the respondent expresses that he/she took direct action or have changed their behaviour in some way as a result of the signal event, it is assumed that the signal has had more of an impact than if they simply state they feel angry or feel that that the area is degenerating due to the problem.

Signal Effect	Weight
1. Fear	2
2. Anger	1
3. Direct Action	2
4. Avoidance	2
5. Change in behaviour	2
6. Invest in security equipment	2
7. Area degeneration	1
8. Threat	1
9. Intimidation	1

Table 3.1 Signal effect and weight

Each signal has been assigned a harm score by the summation of the effects weight according to the impact of the signal. For the main part of the analysis a mean harm score per person has been used. This is to normalise the data by population, to account for differences in the administrative wards varying cumulative population and geographical area. Ward level analysis of harm has been calculated by a summation of the social harm score per ward and normalised by the population of that ward. For the purposes of displaying key findings in an easy to interpret fashion, most of the map based analyses employ a quartile classification method. This method has been chosen to provide a consistent measure for map comparison. To further organize and structure the analysis, each effect has been analysed according to

'people' (demographic analysis), 'events' (according to the signals) and 'places' (geographic analysis).

Figure 2.1 below summarises the main findings using harm per person as a consistent measure. The figure provides a rank and pathway of the main drivers of harm, the demographics of harm victims and the top locations in South Wales for harm. The figures in brackets represent the mean harm score per person. It can be summarised that the main type of harm is fear based, caused by social disorder signals, and caused by the disorder associated with groups of youths. Harm is experienced slightly more by females, and people aged 50-69. The location where social harm emanating from crime and disorder is most intense in South Wales is Gurnos ward in Merthyr Tydfil. A full rank of effects, signals, demographics and geographical locations as drivers of harm can be found in the separate Technical Appendix to this report.

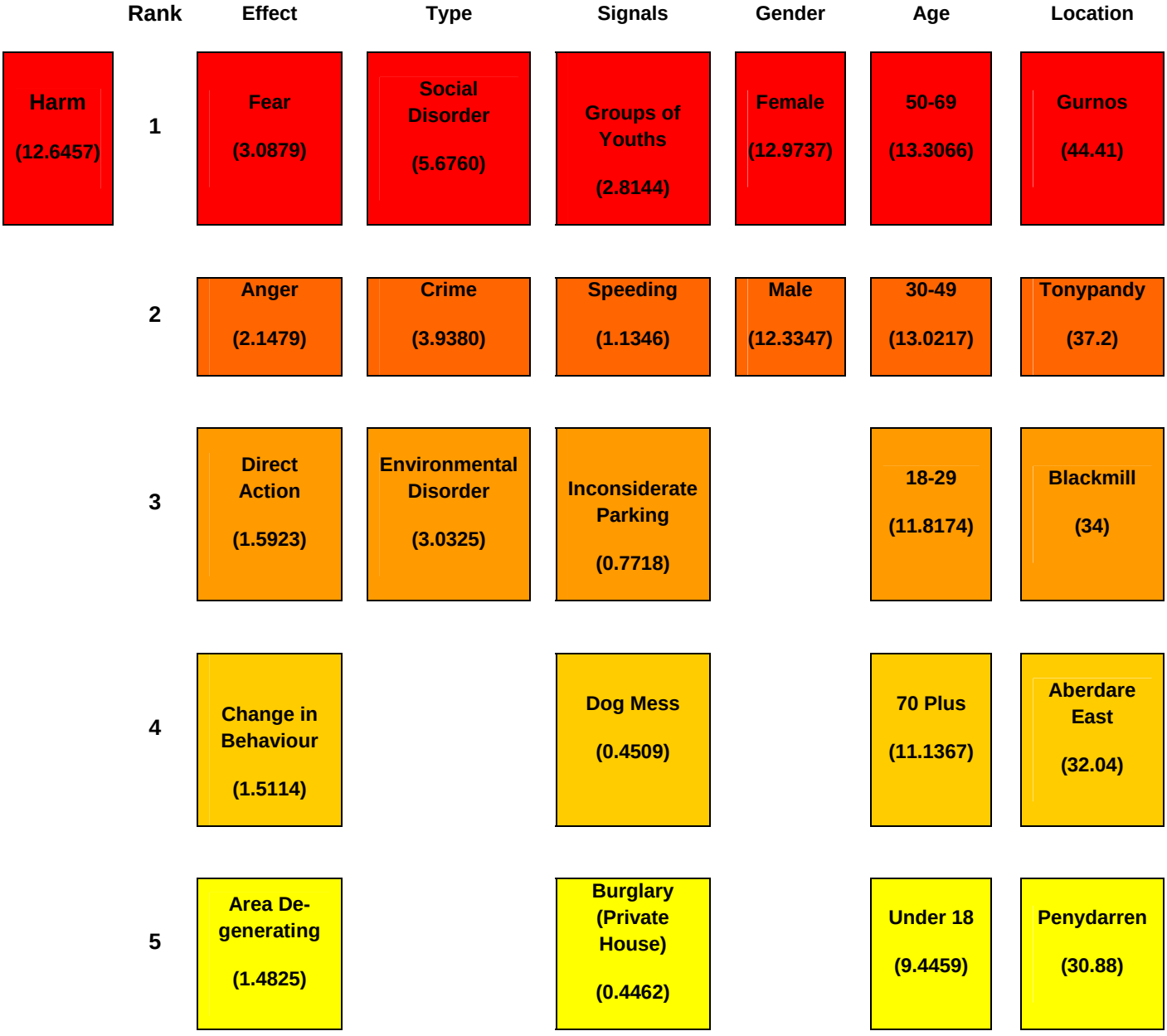

Figure 3.1 Main Findings

Females account for 52% of the total respondents, males 45%, and for 5% no data on gender were available due to interviewers not recording this. Females identified a mean average of 3.4 signals while males had a similar mean average of 3.5 identified signals per person.

Gender	Respondents	Signals	Total Harm	Mean Harm Per Signal	Standard Deviation	Mean Harm Per Person
Undisclosed	112	330	1307	3.9606	2.3319	11.6696
Female	1900	6445	24650	3.8247	3.8247	12.9737
Male	1652	5712	20377	3.5674	2.209	12.3347
Total	3664	12487	46334	3.7106	2.2981	12.6457

Table 3.1 Harm by Gender

On average, females are marginally more likely to identify that they have been harmed by exposure to crime and disorder. The analysis identifies they have a slightly higher rate of harm per person and mean harm per signal than males, but with a larger range of variation between the average rate per person (higher standard deviation).

If we switch focus from gender to age it is found that higher rates of harm are found in the 50-69 age group, closely followed by the 30-40 age group. The least amount of harm is happening to those aged less than 18. Bringing these findings together to examine the interactions between gender and age it emerges that the highest levels of harm are being experienced by females aged 50-69, closely followed by males aged 30-49. Males and females aged under 18 experience the lowest levels of harm per person.

3.1 Places

The initial analysis has demonstrated that there are clear variations in terms of who is being harmed by crime and anti-social behaviour. Developing this analysis, we now turn to examine whether similar variations can be found at the area level. The following section provides a geographical analysis of the prevalence and distribution of harm.

Figure 3.2 provides a basic geographical analysis at ward level of the relative distribution of harm per person across South Wales. The data have been classified in quartiles. The darker coloured areas identify the wards where greater concentrations of social harm are occurring per person.

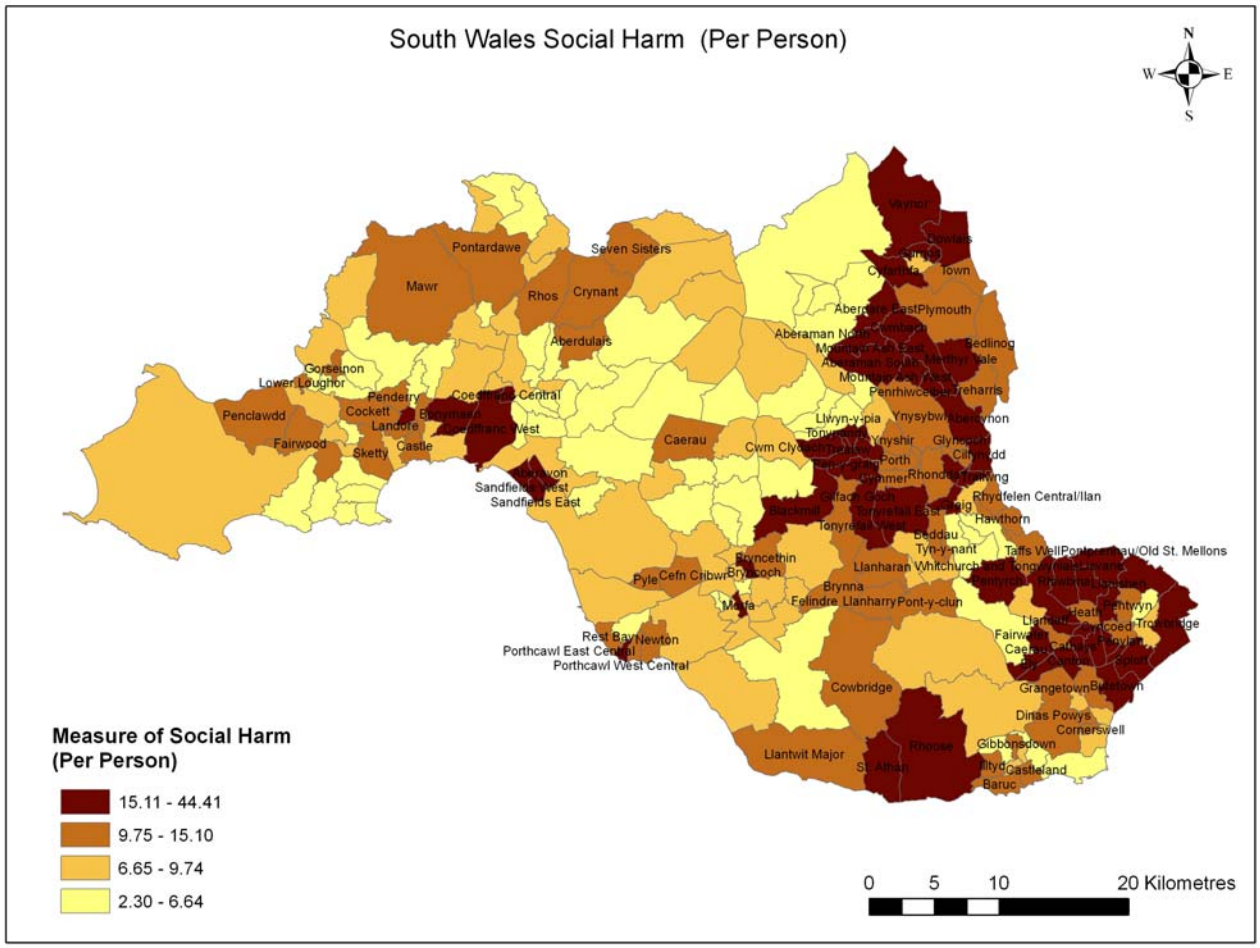

Figure 3.2 South Wales Social Harm per Person

The particular insight afforded by this map is that it displays those areas of South Wales where crime and ASB is impacting negatively upon citizens perceptions and attitudes. This is different from simple measures of prevalence. It is evident from this that compared with other areas of South Wales, overall wards in Cardiff are most likely to be harmed by crime and ASB. Interestingly, this includes some neighbourhoods in North Cardiff that are relatively affluent and experience little recorded crime. Rhondda Cynon Taff and Merthyr Tydfil also emerge as areas where multiple wards are being negatively impacted. Such results are not altogether surprising. In addition, there are two wards in the Vale of Glamorgan and four wards in Swansea that are also highly affected by crime and ASB issues. The former is perhaps less of an expected result.

When interpreting these results it is important not just to focus upon the highest scores. There are several regions of South Wales that although not ranked in the most harmed quartile are just below this level. For example, there are several wards around Pontardawe in this category, and also on the southern coast around Llantwit Major. The identification of these areas in this way is interesting because they are not routinely thought of as high crime and disorder areas in the context of South Wales. Given that these are relatively rural areas the analysis is potentially suggesting a degree of vulnerability at work.

Owing to limited space, it is not possible or desirable to provide a full account of these results. The full ranking can though be found in the Technical Appendix.

In order to further develop this analysis, the next question posed was whether the levels of harm found in different areas were being caused by similar or different issues. Accordingly, the next series of maps (Figures 3.3 to 3.5) seeks to break down the problem by exploring the relative levels of harm associated with different types of problem. Because these are relative measures they are all sensitive to each other providing a sense of what issues are doing the most work in particular areas. For example, in the Figure below that looks at the levels of social harm attributable to social disorder, it is of note that social disorder features strongly in the band of more affluent low crime wards in the North of Cardiff. This suggests that it is anti-social behaviour occurring in the vicinity of these areas that is a cause of the previously noted levels of social harm in these areas.

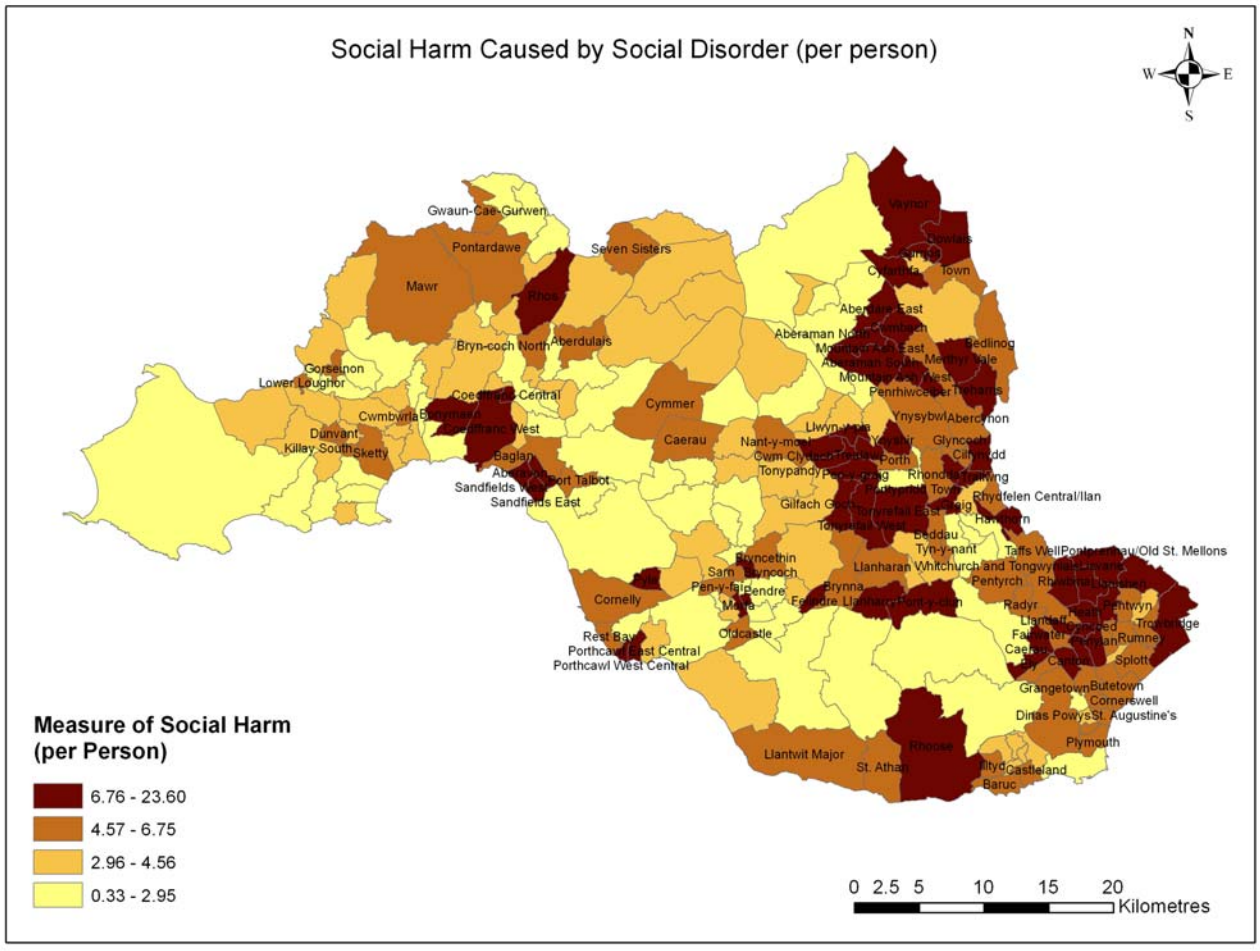

Figure 3.3 South Wales Harm Caused by Social Disorder

Comparing the patterns displayed in the figure above (Figure 3.3) and in the next map (Figure 3.4), helps to show how the principal drivers of public concern can differ. For when we examine the distribution of harms induced by crime, it can be seen that a few new areas are ranked in the uppermost quartile.

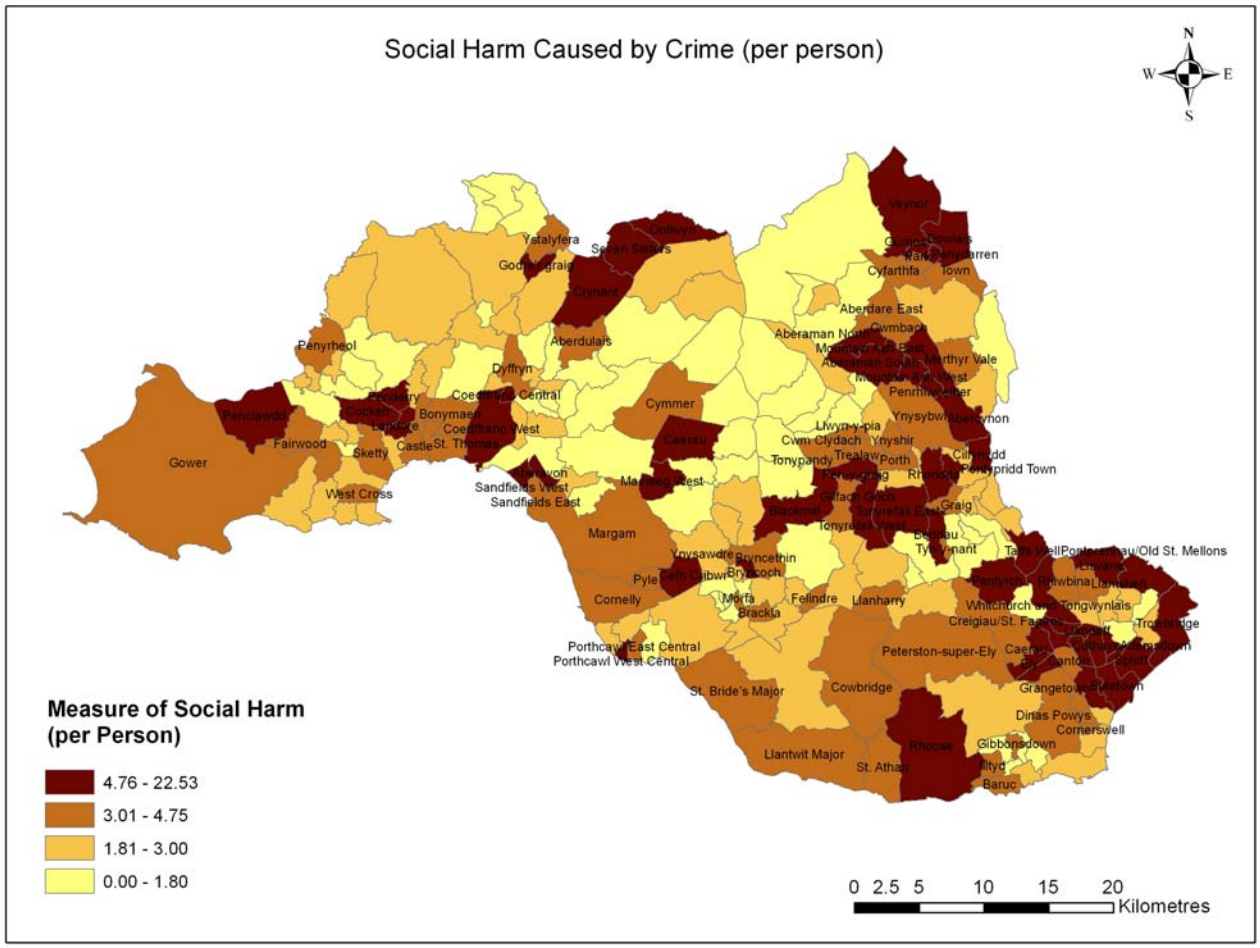

Figure 3.4 South Wales Harm Caused by Crime

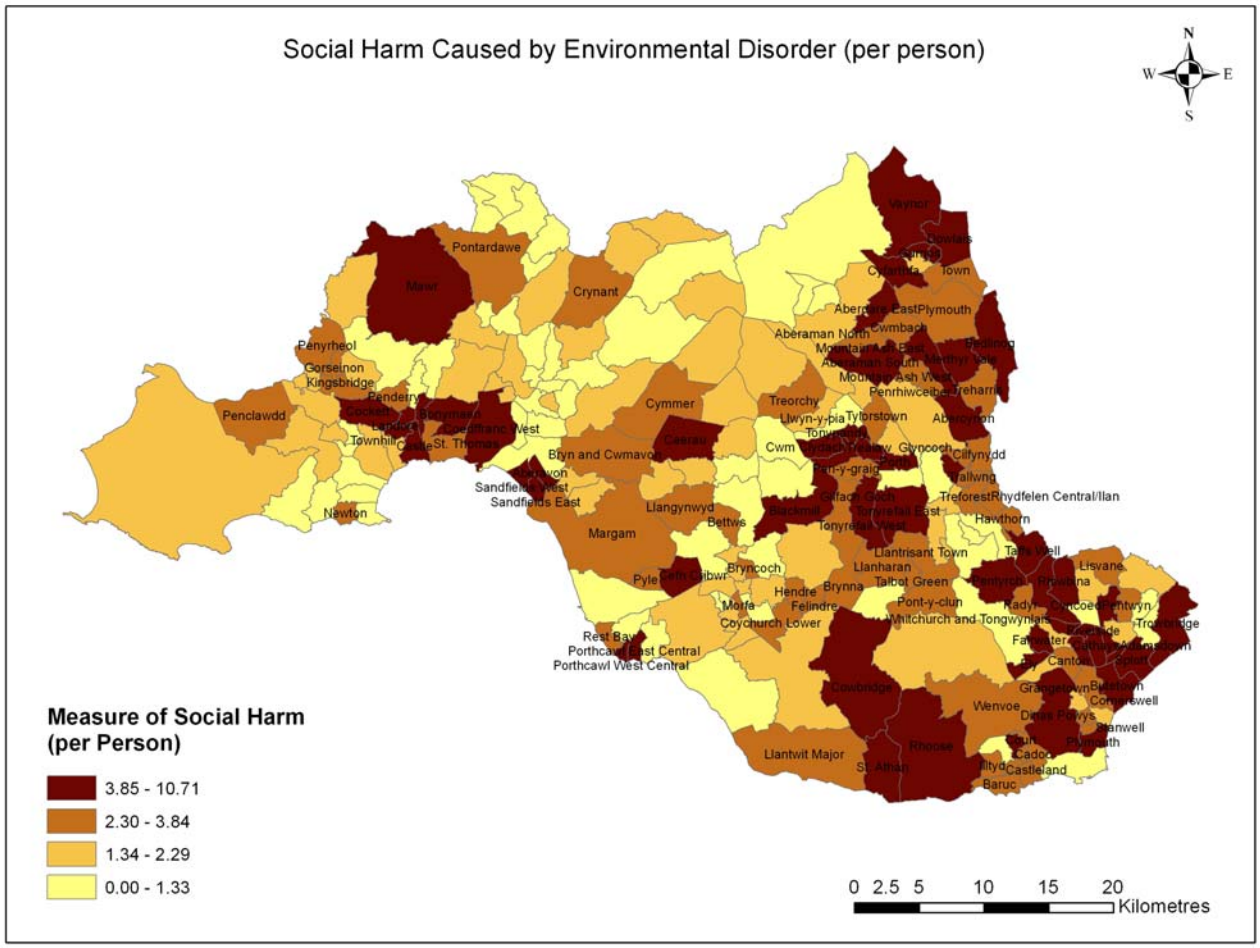

Figure 3.5 South Wales Harm Caused by Environmental Disorder

The notion that levels of relative harm at an area level shift depending upon the nature of the issue being examined is further advanced by investigating the links between measures of environmental disorder and negative impacts. Compared with the previous two maps, where the pattern is broadly albeit not absolutely similar, a number of new areas emerge. In the Vale of Glamorgan for example, there is a cluster of wards where physical disorder appears to be having a marked negative impact upon public perceptions.

The proceeding map (Figure 3.6) demonstrates the main drivers of harm, affecting the top 25% of high harm wards.

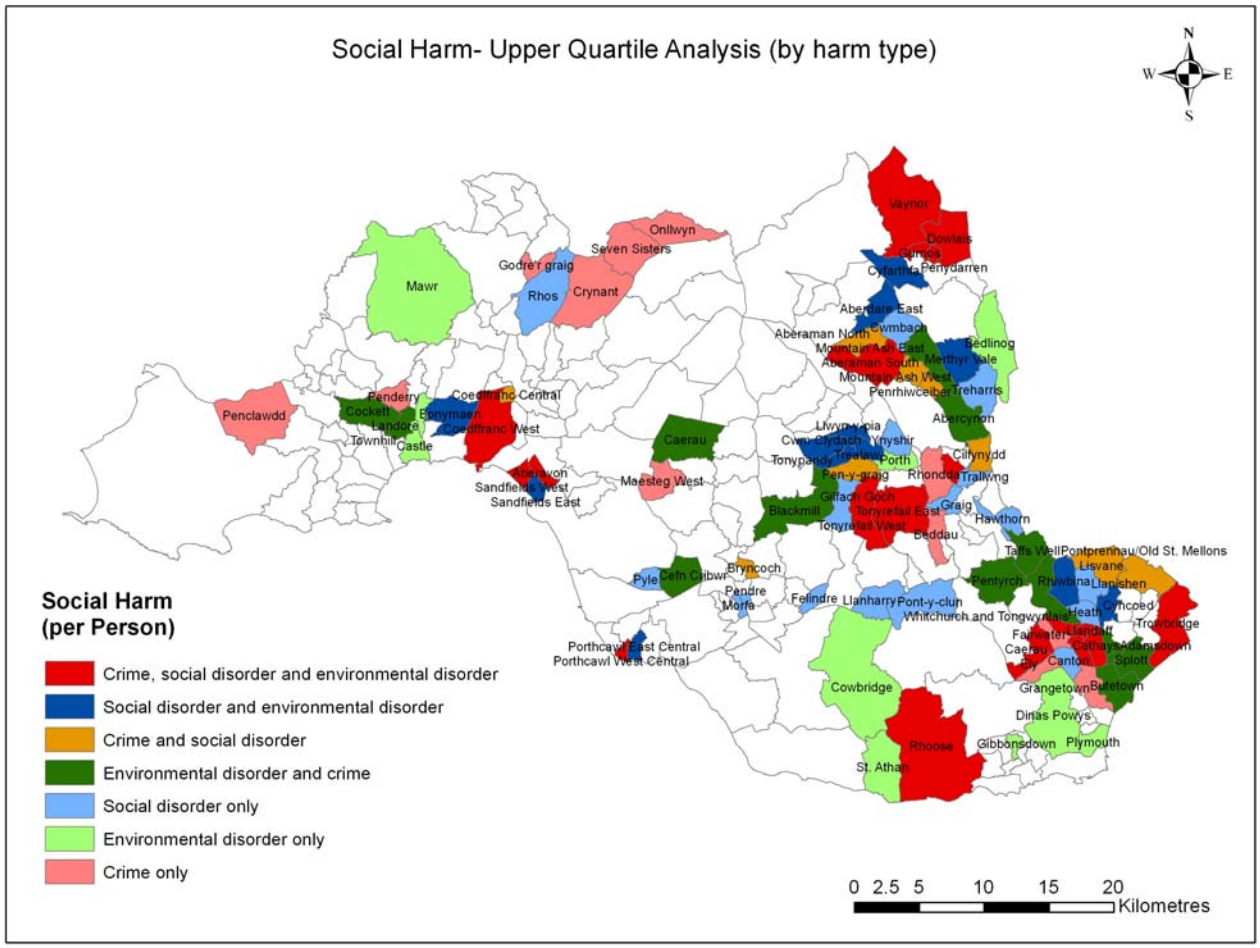

Figure 3.6 Drivers of Harm (upper quartile analysis)

The red areas are wards displaying high harm per person (top 25% wards) driven by accumulated crime, social disorder and environmental disorder. Each county includes at least one ward that is identified as having high crime, social disorder and environmental disorder as the top drivers of harm for that ward. In other areas though, the social harm that is presenting is driven primarily either by social disorder (light blue) or physical disorder issues (light green), and so forth. This analysis helps to clarify how different types of community safety asset need to be targeted to particular areas.

We can refine this analysis by looking in a bit more detail how different kinds of crime and disorder effects are contributing to the overall levels of social harm, in different combinations across separate areas. This is displayed in Figure 3.7.

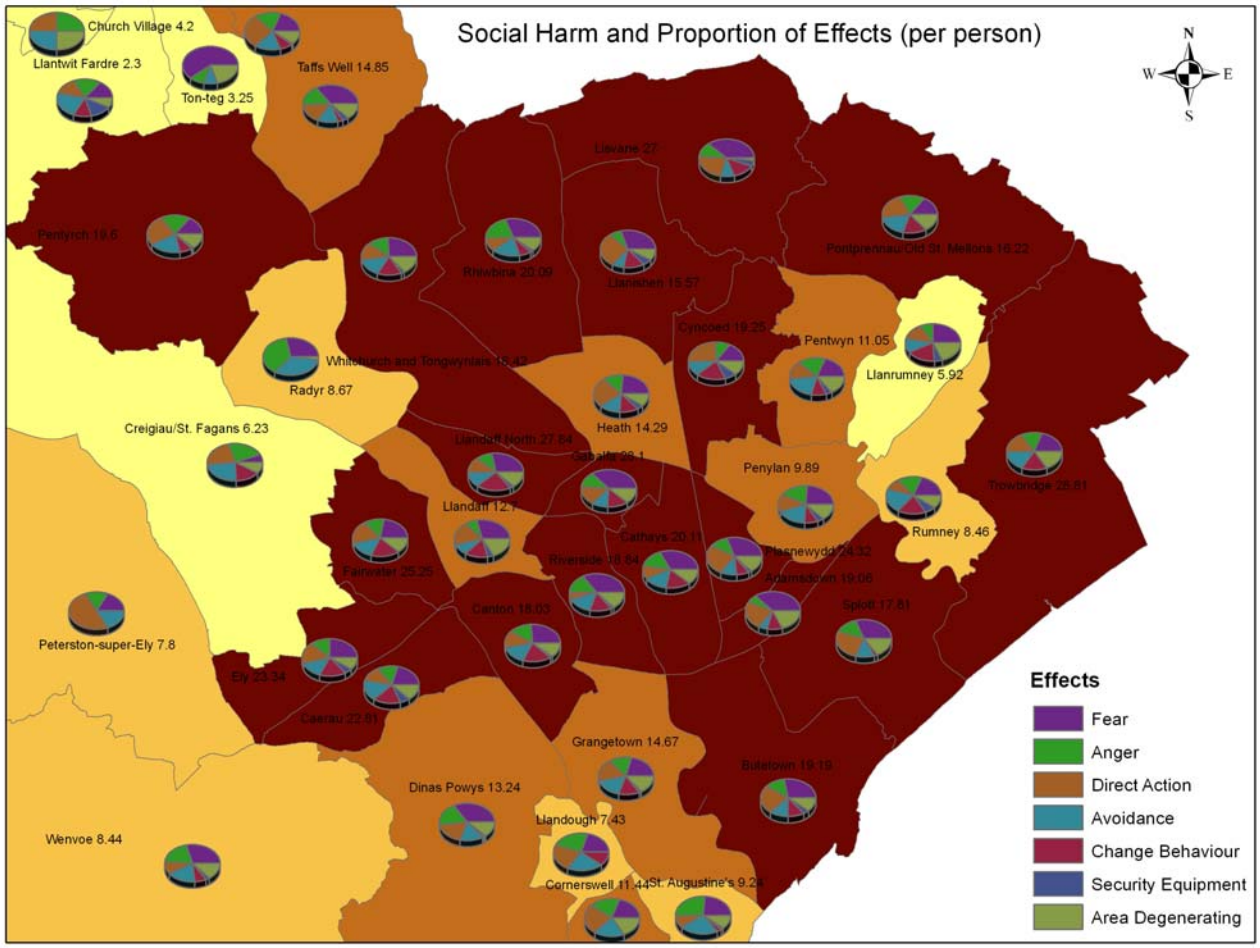

Figure 3.7 Social Harm Proportion of Effects

3.2 Events

The preceding analyses have focused upon identifying who is being harmed by a range of issues, and where these harms are occurring. Further insights can be teased out by conducting a more detailed analysis of what types of crime and disorder events are responsible for inducing these negative reactions.

To commence this analysis, we can first examine the amount of harm that is attributable to particular categories of problem: crime; environmental disorder; and social disorder. The Technical Appendix contains a list of the mastercodes included in each category. Table 3.2 suggests that signals related to social disorder are causing considerably more harm per person than crime and environmental disorder signals. This could be attributed to there being significantly more social disorder signals being identified than other signals. In this regard, it is pertinent that while crime generally scores low on mean harm per person, the mean harm per signal is highest out of the three categories. This shows that the majority of the population is at relatively low risk of harm caused by crime, but if a crime signal does affect a person, it will do so fairly intensely.

	Count	Total Harm	Mean Harm Per Signal	Std Dev	Mean Harm Per Person
All Signals	12487	46334	3.710579	2.298173	12.645742
Crime	3626	14429	3.979316	2.240779	3.938046
Environmental Disorder	3574	11111	3.108841	1.975122	3.032478
Social Disorder	5287	20794	3.933043	2.45975	5.676037

Table 3.2 Harm per Person by Signal Type

'Drilling down' into the data for a bit more of a detailed view, it is possible to look at the harm related to the crime and disorder problems mentioned most often across the original interviews (Table 3.3). This shows that youth disorder is most likely to induce negative reactions.

Rank	Mastercode	Count	Total Harm	Harm Per Person
1	Groups of youths	2372	10312	2.8144
2	Speeding	1197	4157	1.1346
3	Inconsiderate parking	946	2828	0.7718
4	Dog mess	630	1652	0.4509
5	Burglary (private house)	374	1635	0.4462

Table 3.3 Harm per Person by Mastercode

The above table (Table 3.3) starts with the problems that were mentioned most often as causing negative reactions. However, it is entirely plausible that this might neglect rare but significant events. Accordingly, the levels of harm associated with all problems were calculated. Table 3.4 below lists those issues that were found to cause most harm. As hypothesized, a rather different profile of problems emerges. It can be seen that there a number of rarely encountered issues associated with serious forms of crime that are possessed of the capacity to impact extremely negatively upon people and places.

Rank	Mastercode	Count	Total Harm	Mean Harm
1	Blade violence	9	56	6.2222
2	Other guns	5	31	6.2000
3	Riot	1	6	6.0000
4	Threatening behaviour	111	627	5.6486
5	Sexual assaults (adults)	7	37	5.2857

Table 3.4 Harm per Signal

The overall pattern of these results identifies that in undertaking to measure levels of social harm it is important to differentiate between the number of people exposed to, or aware of, a harmful event and the nature of the impact caused. The former dimension we refer to as the 'scale' of the harm, the latter its intensity'. By differentiating between 'high' and 'low' forms of these dimensions we can start to map out a helpful conceptualization.

	High Intensity	Low Intensity
High Scale	Public Harm	Parochial Harm
Low Scale	Private Harm	No Social Harm

Table 3.5 Harm Scale/Intensity

Where a problem occurs and does not affect many people, nor with any intensity, then it is possible to identify that no social harm is occurring. This is not to say that there is no harm, but rather this is restricted to the victims and those close to them. There is no collective element. There are occasions though where a limited number of people are affected quite powerfully by an occurrence. In order to capture this pattern, we can describe this as a form of 'private social harm'. Generally, this tends to arise where the initial harm caused 'travels' within an established social network. That is, the effects and repercussions are felt keenly across a group of people who have established strong social ties.

This can be differentiated from what we have termed 'parochial social harm'. This is where a problem impacts negatively upon the perceptions, attitudes or experiences of the majority of people in a given geographic unit, for example, a neighbourhood, ward or town. However, it's parochial nature means that these reactions do not travel further than this.

Finally, there are those small number of problems that display the capacity to affect large numbers of people relatively intensively. These we term public harms. These tend to occur infrequently, but often have important legacy effects in that they shape public perceptions and attitudes over a long period of time.

This temporal dimension is important to understanding the social dynamics and mechanics of crime induced harms. Within the original empirical data collected there are suggestions of a number of historic crimes, whose effects were so acute and profound that they continue to influence and shape the neighbourhood security situation even today. The implication of this is that social harm needs to be understood as a process rather than just an event. That is, as something that unfolds, evolves and adapts over time. Limitations of the data available for this

report meant that it was not possible to investigate this processual dimension in any meaningful way. This is something that future work should consider as understanding how levels of harm change over time, might help us to understand aspects of community resilience.

3.3 Recorded Crime and Harm

It has been identified that there is a significant relationship between high social harm and high perception of crime, environmental disorder and social disorder in some wards and the reverse for other areas. This raises the question of the relationship between reported crime and social harm. Are wards with high reported crime also areas experiencing high social harm?

The next section explores this notion focusing upon Cardiff. Figure 3.8 shows social harm for the 29 wards of Cardiff. It should be noted that the rank of the wards in Cardiff differs from figure 3.1 that shows the rank order for the whole of South Wales. This is due to the data being classified in quartiles, relative to the rest of the area that is being mapped. The map below (Figure 3.8) shows the upper most quartile of wards in Cardiff with the highest harm, compared with the rest of Cardiff only.

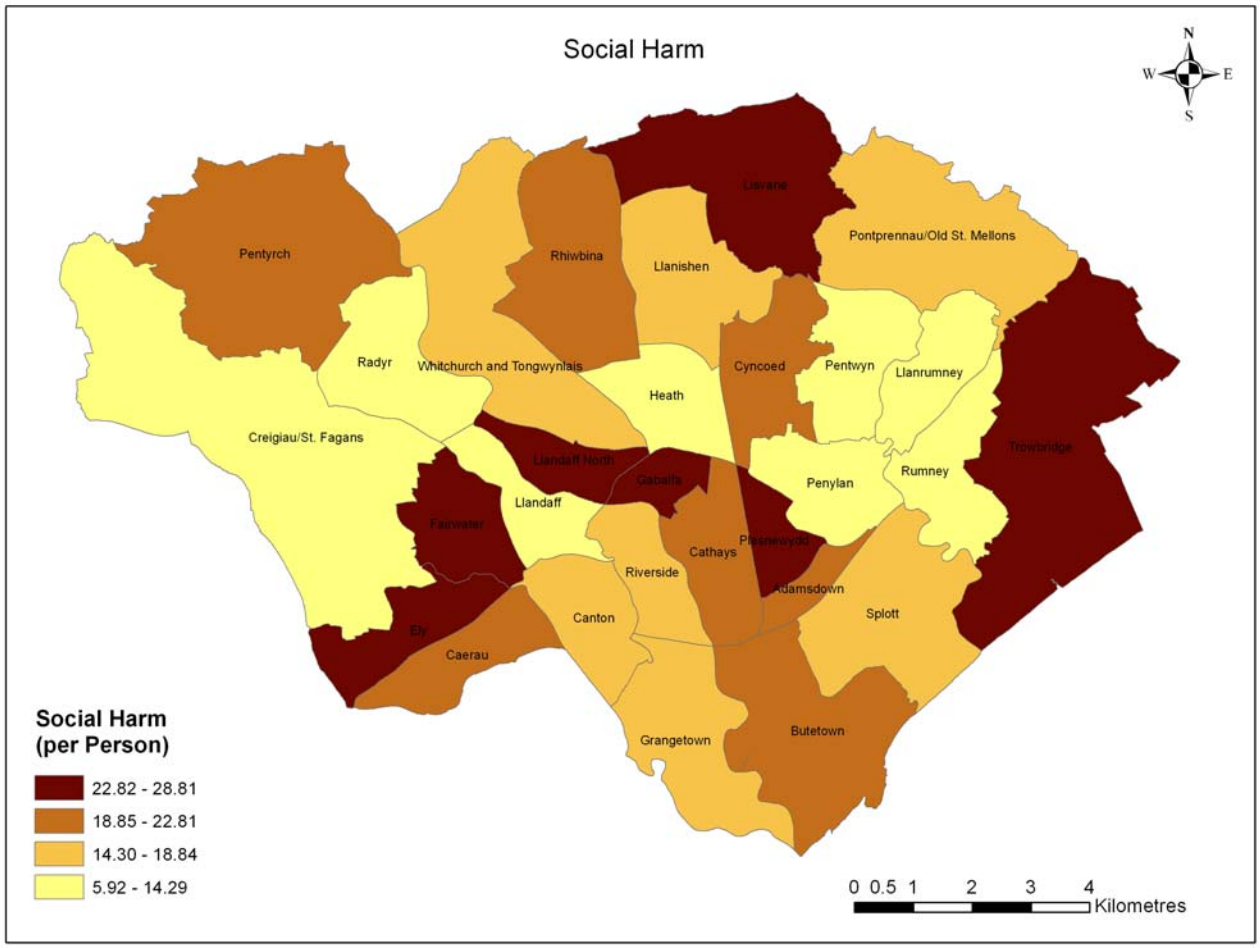

Figure 3.8 Social Harm in Cardiff

Contrasted with the above, Figure 3.9 breaks down levels of recorded crime for the city.

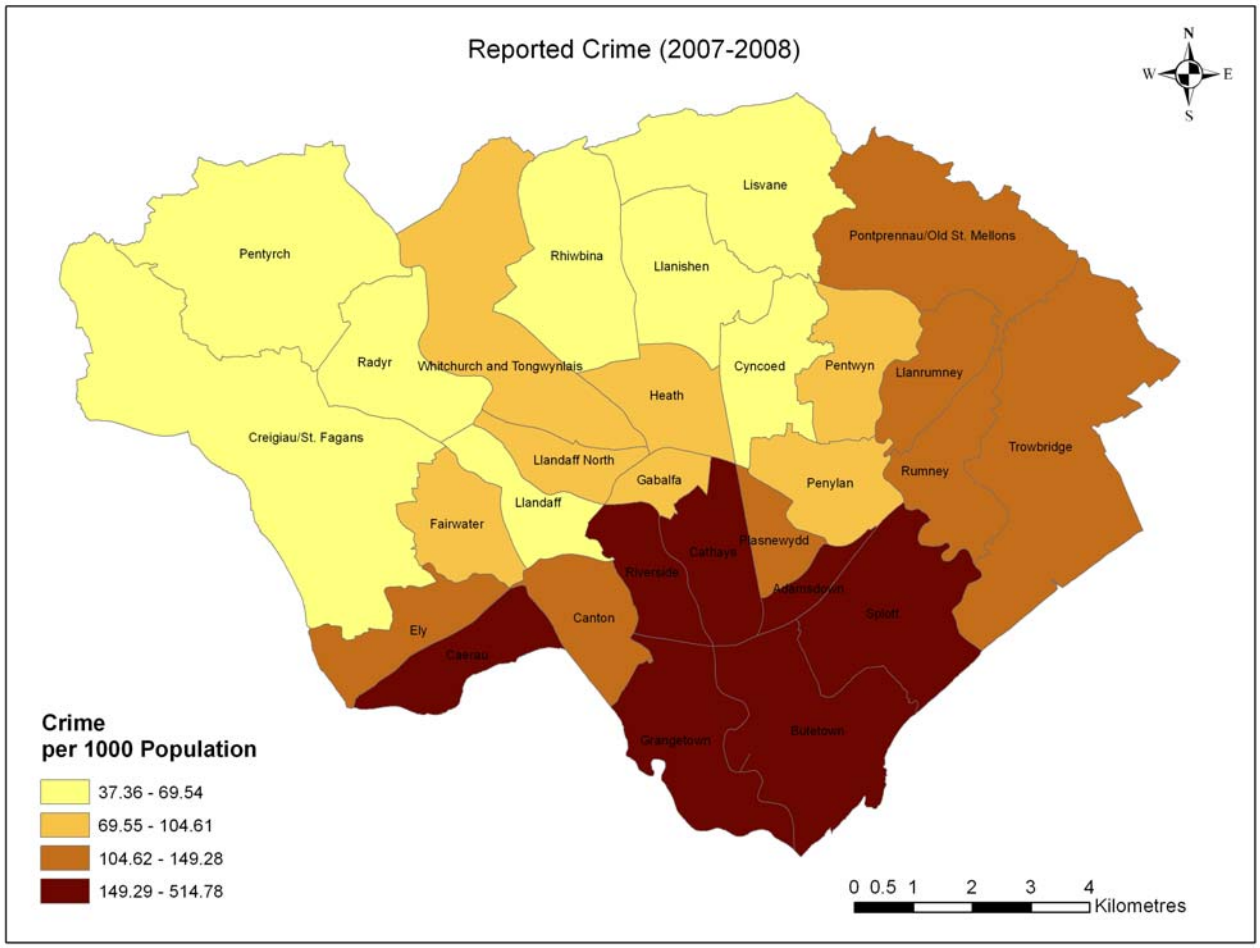

Figure 3.9 Reported Crime for Cardiff (2007-2008)

Figure 3.9 shows Cardiff classified according to reported crime incidents (2007-2008). The data have been normalised by population and categorised into quartiles for comparative analysis with figure 3.8. It is evident that there is a clustering of high crime wards in the South of Cardiff, mainly neighbouring wards of the City Centre. East Cardiff is also displaying signs of higher than average cases of reported crime, as are Caerau, Canton and Plasnewydd. North and West Cardiff wards are displaying very low levels of reported crime.

Figure 3.10 brings the data from the two preceding figures together. It is a combined map of reported crime and social harm. The quartiles have been coded as very high, high, low and very low (quartiles Q4, Q3, Q2 and Q1 respectively).

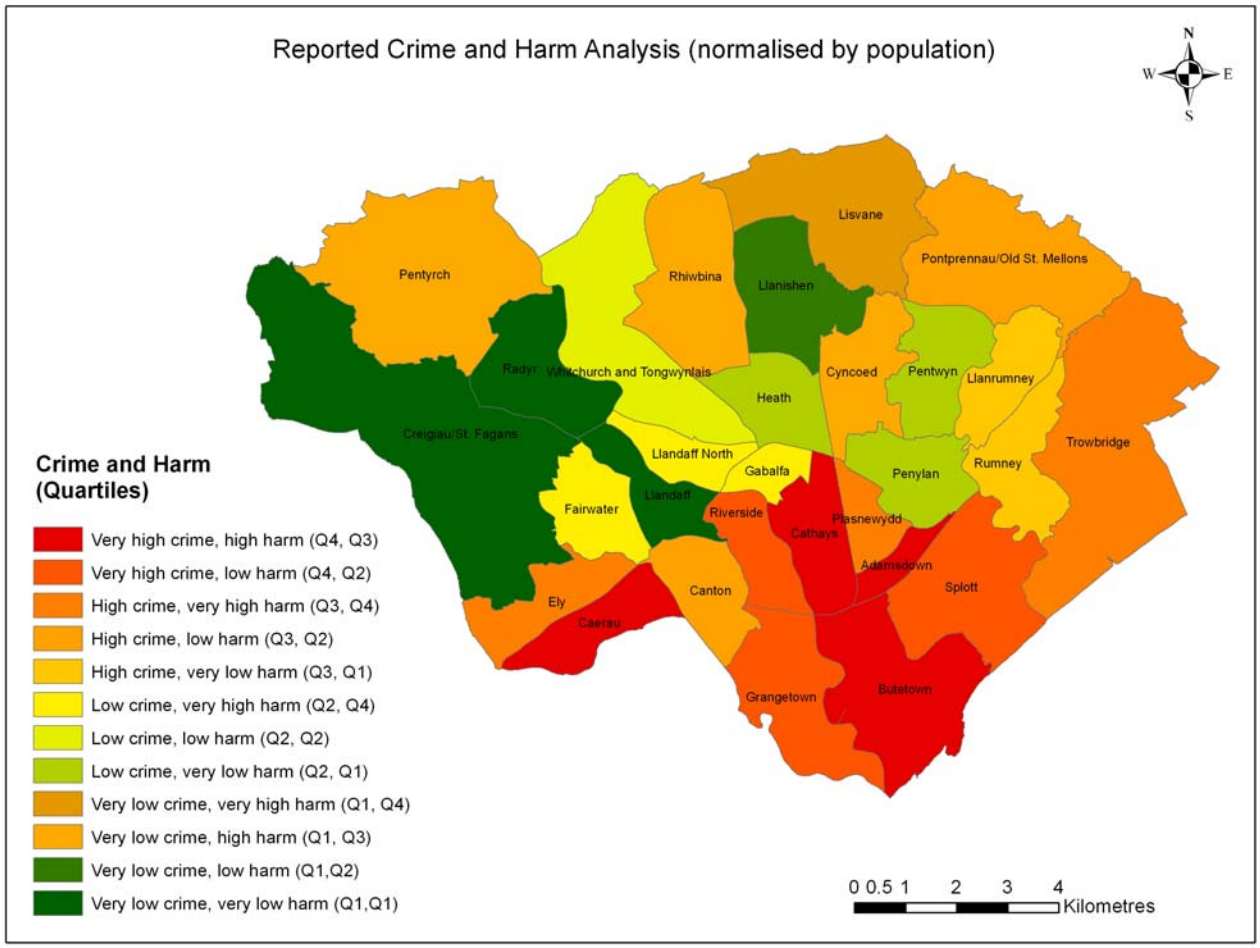

Figure 3.10 Reported Crime and Harm Analysis

It can be seen from figure 3.10 that there are some Cardiff wards (notably Caerau, Cathays, Adamsdown and Butetown) that have experienced very high reported crime and are experiencing high harm. Similarly Creigiau/St Fagans, Radyr and Llandaff have experienced very low reported crime and very low harm. Interestingly some wards are polar opposites such as Lisvane, experiencing very low crime but very high harm, where as Riverside and Grangetown are experiencing very high crime levels, but relatively low harm.

3.4 The Harm Multiplier Effect

A particular quality of harm and the impacts of crime and disorder is that people do not construct their perceptions of harm in relation to individual incidents. Rather they make connections between events to inductively appraise what a series or cluster of crimes and disorders indicate about an area. To put it another way, in terms of their capacity to induce harm, signal crimes and disorders have an accumulative dimension. In order to reflect this property, the analysis applied 'inverse distance weighting' (IDW) methods to the data. IDW is an established interpolation technique for creating three dimensional (3D) models, however applying the method to harm and crime forms experimental research for the purpose of this study. Applied to the harm data it allows us to examine the local influence of individual events upon the impacts of other similar occurrences in the near vicinity. To investigate this in the following map (Figure 3.11) we have 'drilled down' to focus upon Cardiff. The map shows a

surface model displaying relatively 'hot' and 'cold' areas of social harm. The hotter areas are where there is a more intense and greater scale of crime and disorder impacts.

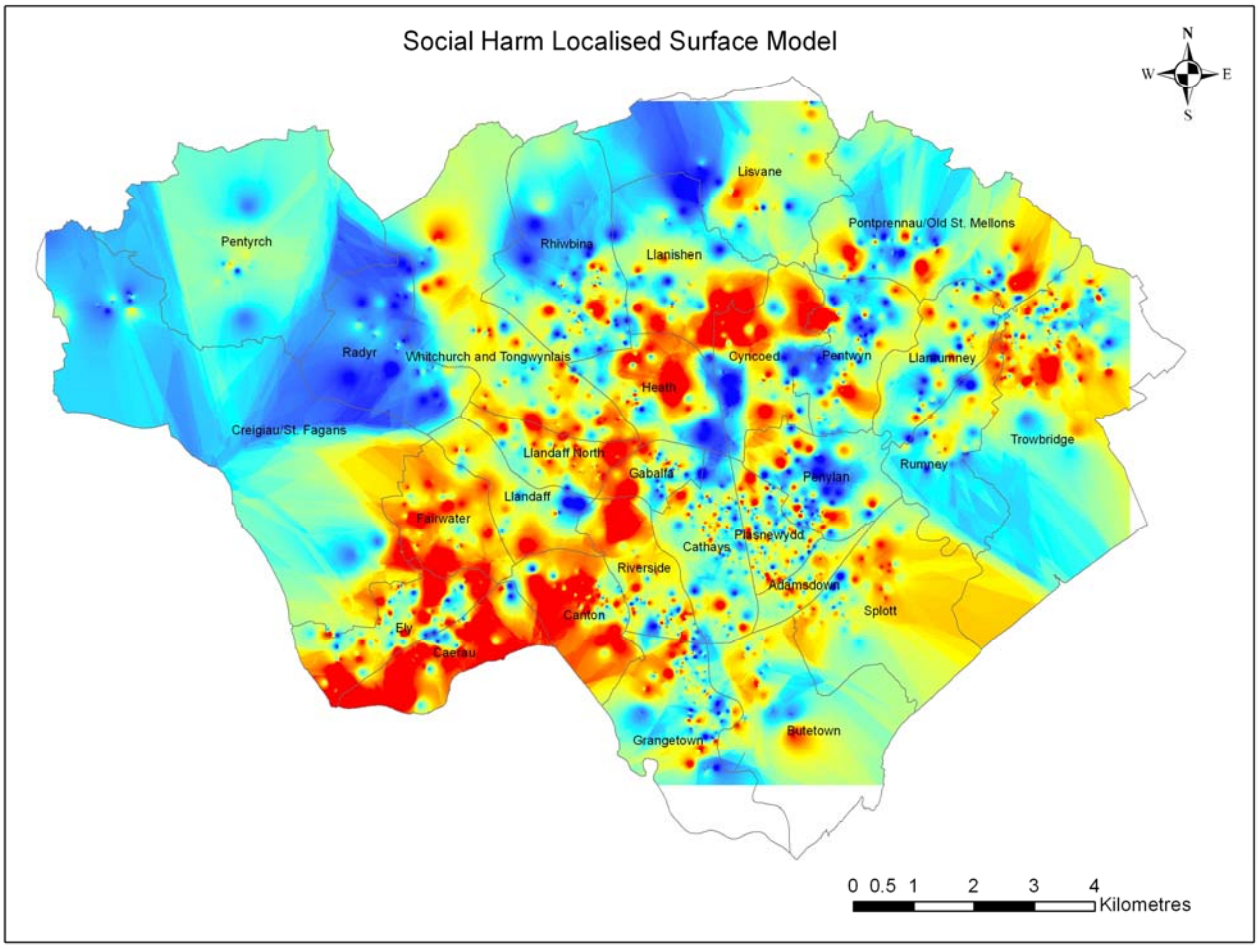

Figure 3.11 Cardiff Harm Surface

The map above starts to provide a fine-grained depiction of the 'harm multiplier' effects of crime and disorder. The red shaded areas show where the co-occurrence of harmful incidents is predicting the presence of an accumulation of social harm. The blue shaded areas show the inverse of this – that there are incidents occurring that are changing how people think, feel or behave, but these are not having a multiplier effect to induce social harm. The particular value of this analysis is in those areas of the map where high social harm areas occur next to low harm areas. For this shows the very local ways in which the negative impacts of crime and disorder do and do not 'travel'.

To help explain the implications of this analysis it is possible to render these findings in a 3D model (Figure 3.12). The high red peaks denote where most social harm is being accumulated.

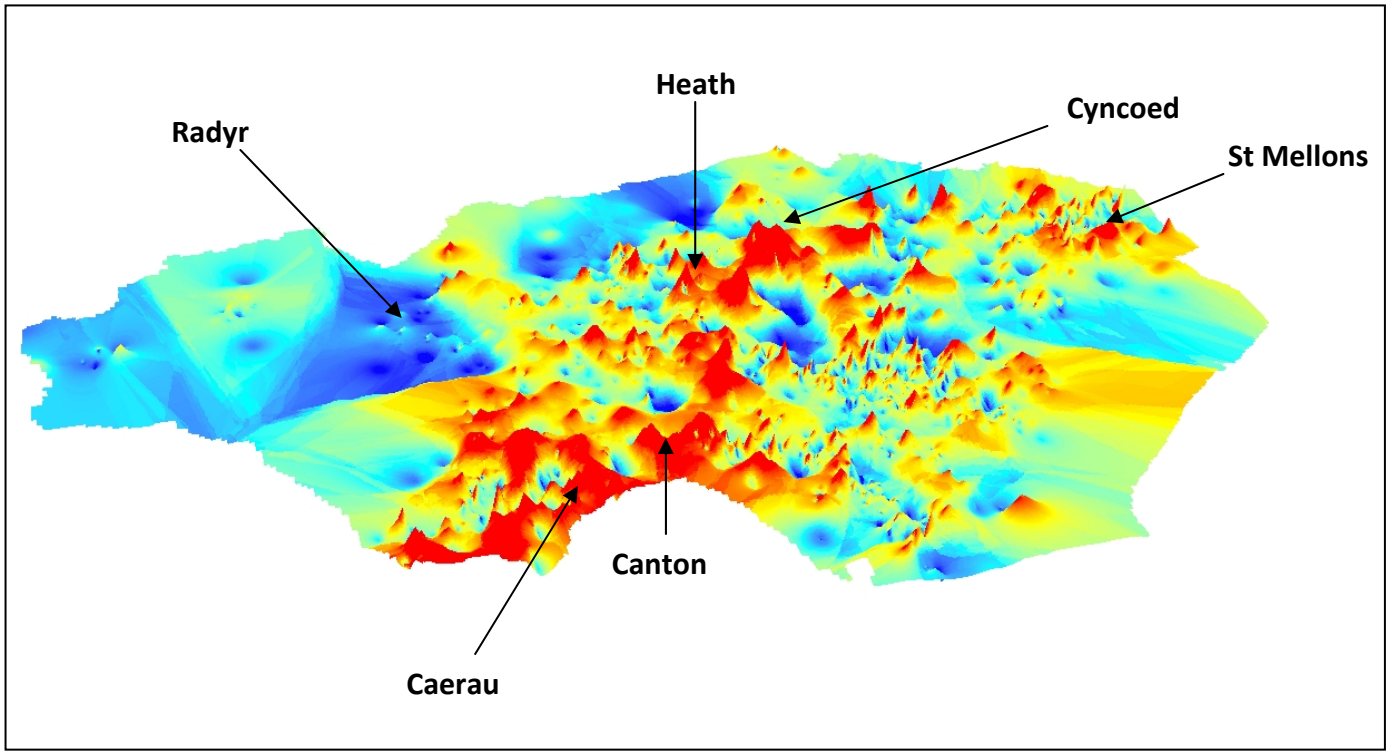

Figure 3.12 Cardiff 3D Harm Surface

4 Conclusion

The principal focus of a harm-oriented analysis is to understand the impacts and effects of crime and ASB, rather than simple prevalence rates. This is potentially important in recognizing that some incidents and some types of crime are more corrosive of neighbourhood security and community well-being than others. Some areas may be more vulnerable to the impacts of crime than others and possess less resilience.

The interviews used to capture the data from members of the public in South Wales demonstrate that ASB and crime issues can induce a range of negative effects spanning fear, concern, and behavioural change. Collectively these are understood to constitute different forms of impact and harm. In this sense, harm provides a generic master-concept for measuring the negative consequences of illegal and troublesome behaviours.

The empirical data analysis has been organized around examining the distribution of harm around people, places and events. In each case it has been demonstrated that levels of harm are not uniformly distributed. The key findings are:

- Older people, particularly women aged 50-69, are more likely to indicate that they have been harmed by the occurrence of ASB and crime. This is even though they report fewer direct experiences than do young people.

- Turning to places, the geographic aspects of the analysis were able to show that ASB and crime are having a greater impact in some areas of South Wales than others. In some areas it appeared that the levels of harm detected were being driven by a combination of ASB, crime and physical disorder. Whereas in other areas, just one of these categories was responsible for driving the harm.

- Social disorder problems were found on average to be generating the most harm across South Wales. This reflects more than just issues of seriousness though. Part of the explanation of why social disorder matters is that it is directly experienced by large numbers of people.

- The analysis detects that there are some serious and organized crime problems that are powerfully harmful when they occur. But their overall contribution to levels of harm across South Wales is mitigated by the fact that they are experienced relatively infrequently by citizens.

These findings have a number of implications both for practical delivery of community safety services, but also for thinking about what would be required to develop a harm-based framework for Wales.

The principal implication is that we would need to start collecting and analyzing different kinds of data. Far more attention needs to be paid to the effects and impacts that specific incidents have. Currently both police figures and the main victimization surveys are focused upon counting the numbers of different types of crime and disorder, but the effects of these incidents is relatively neglected.

In thinking about harm the empirical analysis suggests it is important to distinguish between the number of people who are harmed by an incident or problem and the intensity of the harm each of them experience. For in so doing it becomes possible to recognise different

modalities of harm according to whether a lot of people are being harmed a little, or a few people are being harmed a lot. Pursuing this approach the analysis identifies three main modes of harm:

- Public harm – is where high intensity effects are detectable across a wide spectrum of people from different areas and backgrounds.
- Parochial harms – involve situations where the majority of the people in a defined territory (such as a neighbourhood), or a social group (such as a community of interest) are negatively impacted. Critically though the negative effects do not travel beyond these boundaries.
- Private harms – pertain to where negative consequences are experienced, often quite intensely, but only by a very limited number of individuals.

More immediately in terms of practical service delivery the findings that there are some clear patterns in the distribution of crime induced social harms can be used to target resources and effort to particular sectors. The fact that some people, places and events are more involved in the generation of harm offers an opportunity to target resources and attention towards these.

Thinking in terms of harm may be especially important in a period of contracting budgets. Reducing harm could provide a shared common goal that all agencies involved in delivering community safety services could agree upon. With its strong commitment to Social Justice, in an age of austerity, it seems rather than trying to increase individual and collective well-being, the Welsh Government could agree to focus its limited resources upon ensuring that its focus is upon tackling those issues that do most harm to its people and communities.