

## Understanding Acquisitive Crime through Collaborative Spatial Analysis of Burglary and Shoplifting

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### Background

Although Leeds has mirrored national reductions in most crime types, burglary and shoplifting have not historically followed this trend, putting Leeds in an almost unique national position. The aim of this collaborative project was to draw together a large dataset of over 10 years police recorded crime data covering all cases of burglary and shoplifting across West Yorkshire. It would subsequently conduct a large-scale spatio-temporal data analysis – using a combination of crime, socio-demographic, and geospatial data – in an attempt to identify clusters and explain differences in the distribution of acquisitive crimes across cities in West Yorkshire. This quantitative analysis was to be complemented by interviews with key retail managers to better understand security measures and reporting behaviours with regard to shoplifting, hence mediating some of the problems with recorded crime statistics.

The intended impacts on policing were:

- A better understanding of the social and/or economic impacts on shoplifting in West Yorkshire. This understanding will help West Yorkshire Police to design initiatives to reduce shoplifting, or provide evidence that the problem is best addressed by other organisations (e.g. social services or the shops themselves).
- A clearer picture of how burglary patterns have varied over the past decade, and why West Yorkshire (or Leeds specifically) has traditionally shown high rates of burglary when compared to other similar cities. Again, this might point to policies that the Police can implement to reduce burglary, or might suggest that the problem requires action beyond the remit of the Police.
- A streamlined process for sharing data between the University and the Police, to encourage further projects of this type.

### Key Findings:

- The project navigated a complex administrative process across two large organisations (the University of Leeds and West Yorkshire Police) to reconcile a data sharing agreements and to share data. Whilst this processes took longer than expected, data were ultimately delivered. The process revealed useful information about practices in both organisations and will provide input into the follow-on N8 Policing Research Partnership.
- National shoplifting surveys suggest that there might be an increase in shoplifting, although the different surveys are occasionally inconsistent in their findings.
- Early results of the shoplifting survey implemented for this project suggest that there is a perceived change in both volume of shoplifting and the types of goods being targeted, although these are not yet conclusive.

## Introduction

The study represents one strand of an ESRC funded Knowledge Exchange Opportunities Scheme (KEOS) project that sought to explore innovative models of research co-production and knowledge translation. The project was a collaboration between a team of researchers at the University of Leeds and West Yorkshire Police (WYP) together with the Office of the Police and Crime Commissioner for West Yorkshire (OPCCWY).

Nationally, crime has shown substantial reductions in recent decades, as evidenced by both the Crime Survey for England and Wales (CSEW, formerly the British Crime Survey) and police recorded crime statistics. See Figure 1. However, there are two volume crime types in particular that tend to show different trends and these have been chosen as the subject of this pilot: shoplifting and burglary.

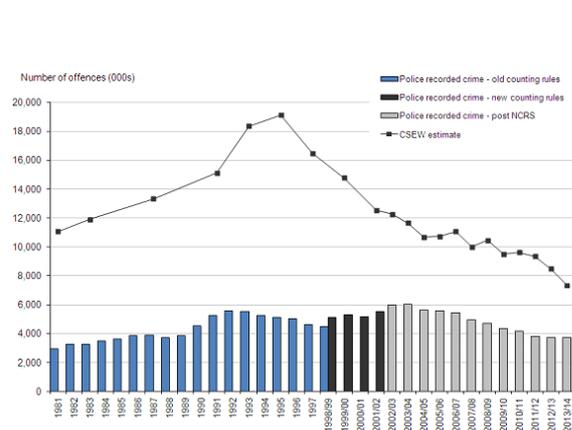


Figure 1. Trends in crime. Taken from ONS (2014).

## Background – Shoplifting

From the mid-1990s, crime in England and Wales has generally shown substantial

reductions. However, in recent years there is evidence that the volume of shoplifting has not shared in this decrease and some even some evidence of an increase. There are three major surveys to draw on regarding shoplifting, whose major findings can be summarised as follows:

- The **Retail Crime Survey** (British Retail Consortium, 2015) found that crimes against retailers increased from 612,819 incidents in 2011/12 to 631,391 in 2012/13 (British Retail Consortium, 2015).
- **Police recorded crime statistics** point to an increase in shoplifting: 302,245 offences in 2011/12 to 313,693 in 2012/13 (Office for National Statistics, 2014). See Figure 2.
- The **Commercial Victimisation Survey** (Home Office, 2014) found a decrease in theft, although it was not statistically significant. It should, however, be noted that the CVS surveys wholesalers as well as retailers.

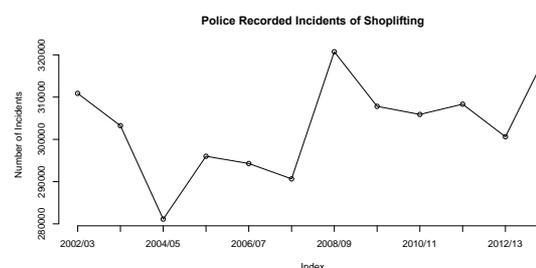


Figure 2. The number of incidents of shoplifting recorded nationally by the Police (ONS, 2014)

In addition, some anecdotal evidence points to a rise in shoplifting as a result of the recession (Gentleman, 2014) and is echoed by the ONS:

*Anecdotal evidence from police forces suggests that this rise is likely to be a result of a genuine increase in*

*crime rather than any change in recording practice. (ONS, 2014)*

This increase also matches increases in shoplifting prosecutions in the criminal justice system<sup>1</sup>. Overall, therefore, it is likely that shoplifting has either increased, or is stable where other crime types are decreasing. Three possible explanations are provided by the ONS (2014) for the apparent increase:

1. shops are more frequently reporting crimes to the police;
2. police recording practices have changed (although there is no evidence for this);
3. the real amount of shoplifting has increased.

In effect, the main aim of this project was to look for empirical evidence in West Yorkshire to determine which of the three above are responsible for the apparent increases in recorded shoplifting, and if (3) is the most likely, then try to explain why. The quantitative parts of the research will be supplemented by interviews with shop managers to gain an insight into their practice of managing and reporting shoplifting.

### Background – Burglary

Although both the Crime Survey for England and Wales (CSEW) and police data suggest that burglary rates have been falling from a peak in the early 1990s, as illustrated by Figure 3, West Yorkshire (and Leeds in particular) has not traditionally shared in this reduction; although there is recent good news in that burglary rates do seem to be falling faster

than national rates. The challenges here were to identify why burglary has traditionally contradicted national trends in Leeds, whether this is reflected in West Yorkshire as a whole, and to use volume recorded burglary data to identify what some of the main reasons for these unusual patterns might be.

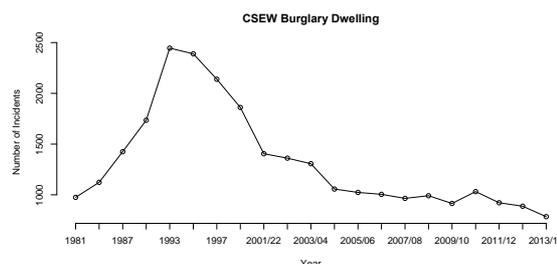


Figure 3. The number of incidents of Burglary Dwelling as recorded by the Crime Survey for England and Wales 2013/14 (ONS, 2014).

### Methods and Data Collection

At its inception, the project planned to have completed the transfer of data from West Yorkshire Police to the University by January 2015. Unfortunately, there were some difficulties and as a result the transfer was not completed until October 2015. This limited the amount of time that could be devoted to quantitative analysis (the major strand activity). However, the process was a useful one; the implications of which are discussed below.

Although this strand has not produced useful empirical findings at this stage, it is important to note the the research will continue regardless. The immediate next steps are:

1. Implement the full shoplifting survey

<sup>1</sup> For Ministry of Justice reports documenting the increase in shoplifting prosecutions, see:

<https://www.gov.uk/government/statistics/criminal-justice-statistics-quarterly-december-2013>

2. First-pass over the data to identify inconsistencies and/or potential errors,
3. Descriptive analysis to exhibit how the spatial and temporal patterns in burglary and shoplifting in West Yorkshire have changed over time.

Building on the descriptive analysis, the research will identify one or two case studies for both burglary and shoplifting that attempt to explain how the underlying mechanisms that influence crime are changing (e.g. social / economic changes) and where particular crime reduction initiatives have had (or are having) an impact.

### Conclusion – Implications for Data Sharing

As discussed, due to delays in the delivery of data to the University, the quantitative analysis areas of the project were not completed. However, it is important to note that the data have been delivered. This is a considerable achievement; both the University and WYP are large organisations with complex data processing and security infrastructure requirements. Having navigated a number of different data sharing agreements, the project (as with similar forthcoming collaborative projects) is in a stronger position to collaborate in the future. In particular, the documents and processes uncovered will be form an invaluable part of the new N8 Policing Research Partnership. One of the aims of the Partnership is to create a data ‘clearing house’ that will develop standardised frameworks for data sharing and collaboration. The implications of this project will be extremely useful in the future.

particularly with regards to spatial coordinates and temporal accuracy. In the meantime, the shoplifting survey will continue to be implemented and the quantitative analysis can begin in earnest.

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### References

- British Retail Consortium (2015). *BRC Retail Crime Survey 2014*. Technical report.
- Gentleman, A. (2014). Rise in female shoplifters linked to benefit cuts, say police. *The Guardian*. Published Thursday 23 January 2014.
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### Acknowledgements & Further Information

The research team is grateful to officers and staff at WYP and OPCCWY, including members of the project Steering Group, and to the partner organisations who assisted and participated in this project.

Copies of the project reports and further information are available from the project website:

<http://www.law.leeds.ac.uk/research/projects/an-exploratory-knowledge-platform-for-policing/>

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