

Herman Goldstein Award Submission 2019

12 Streets

1. Summary

12 Streets demonstrates how the principles of problem solving were used to drive down the number of reported burglary offences targeting student occupied dwellings in Durham City.

High numbers of burglary offences were reported in the years leading up to the project and whilst investigative standards were improved, it did not reduce the number of offences committed.

A high proportion of victims were students and that property taken usually consisted of digital devices.

Analysis demonstrated that the success from targeting the offender was limited. While it solved crimes and brought offenders to justice, it was not successful in reducing reported offences.

Targeting the location was resource intensive and was not proven to work.

The solution seemed to be in targeting the mind-set of the victim. Evidence suggested victims were vulnerable as this was often their first time away from their family home. Many reported offences involved insecure property suggesting an absence of responsible behaviour. Changing this behaviour was therefore our focus.

As we wished to change behaviour we became interested in 'Nudge Theory' and whether it was effective in changing the behaviour of potential victims. Dr Jason Roach of Huddersfield University, an experienced practitioner in nudge theory presented the idea which led to 12 streets.

12 Streets involved the identification of the twelve most burgled streets in the City. The residents of these streets would be canvassed with a survey to quiz the occupants on the demographic makeup of the household and their attitudes to crime prevention. Crucially the questionnaires were delivered by Durham Police Volunteer Cadets. Many questions were designed to be nudges in themselves to prompt respondents to consider their own role in this problem.

The data gathered by the survey was to be used to develop a range of nudge tactics which would have been applied to six of the twelve streets whilst leaving the remaining six alone. This would have been the response stage.

What followed was an immediate and unanticipated reduction in burglary offences – reduced by 83% compared to the same period in the previous year. In turn the reduction in the locality as whole was 27%. 12 Streets demonstrated that the nudges within the questionnaires appeared to have been successful in reducing the number of burglary victims.

1. Description

A. Scanning

The nature of the problem was that there were high levels of dwelling burglary reported in the Durham City area. This represented the highest levels of burglary offences in the Durham Locality and a huge level of demand on the policing resources in that locality including the response teams who were responsible for patrol and responding to reported incidents of crime, the Neighbourhood Policing Team who were responsible for patrols and community engagement, and the CID team who were responsible for the investigation into these offences and accountable for performance in relation to dwelling burglary.

It was clear that the main area of concern were the numerous streets housing students who attended the local university. This represented a significant part of the housing within the city. The standards of investigation into these matters required improvement in terms of Detective Sergeant supervision and CID ownership.

There had been no clearly documented problem solving approach and no evidence that there had been any sort of sustainable response implemented over previous years.

This had been a long standing problem and officers who had worked the Durham City area throughout many preceding years recalled problems with student occupied dwellings being subject to burglary.

For the scanning process basic data for the last three years was reviewed which demonstrated that in the Durham City section, in 2015/16 37 offences of dwelling burglary were reported. This increased to 60 offences in 2016/17 and then fell to 50 offences in 2017/18. The numbers were not particularly stable however they presented a huge demand on the police resources covering the area and created many victims (Appendix A).

Dwelling burglary can have a huge impact on victims. Aside from the loss of property, the impact on the mental state and wellbeing of the victim can be significant as can the impact on

confidence in the police. In addition to this Durham Police considered investigation into dwelling burglary to be an effective barometer of how effective the organisation was at investigating crime as generally speaking the suspect for the offence would not be known by the victim therefore Police had to use their investigative skills to identify an offender. This led to some scrutiny around performance in relation to the investigation of dwelling burglary.

The cost of investigating burglary offences can be significant - £530 per investigation according to Home Office figures (Appendix C). However this could be increased significantly for those cases where an offender is identified in police custody as frequently this would lead to paid overtime for the team of detectives involved in the investigation.

The ownership for investigation and performance rested with the CID team at Durham City who were also responsible for investigating serious and complex crime including serious sexual offences, robbery, and violence and so on. It stands to reason that if the demand posed by dwelling burglary was reduced it would allow the limited resources to dedicate more time and focus on crime types where arguably the potential threat of harm could be more significant. It was also at the heart of the Durham Constabulary vision which promises to deliver excellent policing, solve problems, protect neighbourhoods, and target criminals in order to inspire confidence in victims and communities.

There was a clear importance to solving this problem with the objective set from the outset to reduce the number of dwelling burglary victims in the Durham City area.

B. Analysis

The traditional response from Police tended to centre on trying to arrest their way out of the problem which had some success in terms of bring offenders to justice however this had no lasting effect on the numbers of reported offences. Targeting the affected areas with uniform and non-uniform patrols was also a well-used tactic.

A process whereby each recorded offence was reviewed by the Detective Sergeant was quickly implemented as was investigative ownership from CID – this would be an important part of the analysis to assist in understanding the nature and extent of the problem and

ensuring that a proper investigation was conducted. This review process made it clear that burglary offences were frequently reported, the victims were very often students living in multi occupancy houses, there was often an element of dwellings being left insecure, and property stolen usually consisted of electronic equipment such as laptops. The potential harm to victims could be significant.

The Problem Analysis Triangle (PAT) was used to analyse the problem further.

Offender

- This was probably the most obvious starting point when considering how to deal with the problem. Were all or most of the reported burglary offences being committed by the same person/group? Who is the offender? The public would expect the police to be capable of identifying the offender and bringing them to justice.

These questions were answered relatively quickly.

- Improvements in investigative standards led to the identification of several offenders in the period of time from December 2016. Many were convicted of burglary at court and received significant prison sentences.
- The arrests of these offenders did not lead to any immediate or long term drop in the numbers of recorded dwelling burglary offences. There is no indication that the suspects were connected in any way or part of a larger organised group.
- Many of the suspects lived outside of the area and indeed in different areas to one another. There was no intelligence that would suggest that they were frequenting or were criminally active in the Durham City area.
- Each of the suspects had their own complex problems and needs in relation to substances/alcohol misuse, accommodation, relationships and associations and reality would require their own individual problem oriented approach. From a PAT perspective there were different handlers for each.

- While the investigations led to convictions for one or more offences there was no evidence or indeed confidence that any one of them was responsible for a significant proportion of the offences reported.
- There would be limited sustainability in trying to tackle this problem by targeting the offender. Experience demonstrated that there were clearly multiple offenders operating in the area and removing one or several did not appear to stop the problem.
- Targeting the offender through investigation is something that would occur in any case and did not need a problem oriented approach other than, where possible, with specific individuals. Had there been an offender who was responsible for a significant part of the problem, a problem oriented approach to tackling their criminality may have been appropriate.
- Intelligence gathered from those brought to justice indicated that they were targeting the student occupied areas as they were regarded as a soft touch where their criminality was rewarded with expensive items of property that they could easily sell. Indeed there was evidence that some had been travelling into Durham to commit burglary offences for many years.
- It must be accepted that without reliable intelligence, Police could have little control over who could arrive in Durham City and commit burglary offences.
- **Offender example – BL – Burglary at High Wood View, Durham City.**

BL is a white 40 year old male who lives in a town around six miles south of Durham City. BL lived with his partner and her four children. The relationship was strained due to finances and his criminal behaviour. BL is a habitual cannabis user and there were strong suspicions that he also injected amphetamine. His criminal record shows that he has previously been convicted of burglary offences which he committed some years earlier against student occupied dwellings in Durham City.

There was no information or intelligence to suggest that he was frequenting Durham City.

In December 2016 a burglary was reported at an address in Durham City. This was a student multi-occupancy household where six males resided. They were all third years at the local University. They returned home one evening to discover that entry had been forced at the rear of the house by smashing a window, reaching inside and unlocking the door. The offender entered and conducted a search of the downstairs rooms taking property which had been left in plain view. The property consisted of several laptop computers and an iPod. Dissertations of at least two of the victims were stored on the laptops but not backed up.

BL was identified as a suspect following a forensic examination and arrested. He was subsequently charged, convicted and sentenced to ten years imprisonment. It was established that BL had no links in the Durham City area and only travelled there to commit crime. He targeted the student housing because he knew that they were easy targets in terms of security and they had desirable belongings which he would be able to sell on.

- The analysis in relation to the offender revealed that of those questioned, most shared the behaviour and attitudes of BL and all would state that student housing in Durham was an easy target.

Location

- As the problem was confined to a particular locality this was always going to be an important consideration for a problem oriented approach.
- Durham City has a large student population due to the presence of a large university. There is student housing across the city ranging from halls of residence, to purpose built apartments, to privately owned dwellings.
- Most of the recorded offences occurred in pleasant Victorian terrace streets which are situated in the south and North West of the city. These are privately owned

rentals which have been adapted to house multiple students. Access to the rear of these premises is via dark back streets leading to the yards of the individual houses.

- The houses are generally occupied by second and third year students who will be present during term time only. Few of the residents are 'locals' who live there full time.
- Targeting the location from a policing perspective is difficult. The type of housing is spread over much of the city which results in a thin spread of officers during routine or targeted patrols.
- Police patrols have been conducted, both uniform and non-uniform with limited success. There have been some occasions where offences have occurred during patrol based operations in the area and other occasions where there have been no further offences. Where there were no further offences reported we have no way of understanding whether it was the patrols that were effective or whether the offences would have not occurred anyway.
- Patrol operations can be expensive. To commit officers to significant patrols in particular areas either pulls them away from their normal duties or is paid for with overtime. Given that its effectiveness can be difficult to measure it can be a difficult tactic to justify.
- **Patrol example**

Overtime was authorised in response to an increase in burglary dwelling. Four CID officers conducted non-uniformed patrols around the Victorian terraced streets mentioned above. The back streets were found to be very dark and secluded and few gates leading to the rear yards were secure. They were ideal conditions for criminals to thrive. During the briefing the officers were tasked with challenging poor security such as doors and windows being left open and property such as bikes being left insecure. During de-brief it was found that a burglary had occurred in one of the streets included in the operation. Indeed it was found to be the case

that the sneak-in burglary had occurred while officers were actually in the same street however the offence was not reported until several hours later.

- Analysis revealed that the location was a very important aspect of the problem, however it was felt that the key to providing an effective and sustainable response would be more closely associated with the victim

Victim

- Scanning had suggested that there was a problem with the attitudes and behaviours of the victim.
- The victims could be regarded as vulnerable. They were young and in many cases this would be the first time that they had lived away from the family home. There was a large foreign student population which would mean in some cases language problems.
- Many of the burglary offences recorded were against insecure premises.
- Many of the burglary offences recorded involved the theft of computer equipment that had been left in plain sight. Rarely could the victim provide important information about their property that would allow us to identify them as the owner should it be recovered. For example, they did not know the serial numbers of their devices, they were not password protected, they did not have 'find my device' activated, important university work had not been backed up. Rather than gather the numbers relating to these trends, it was considered important to consider why these characteristics exist.
- Engagement with the victims suggested a lack of interest on their part. Attending officers would report that students did not seem bothered. Many were affluent and indicated they would replace the property. Many had not followed the forensic advice given to help protect the scene.
- Previous engagement operations by CID and the Neighbourhood Policing Team highlighted worrying apathy among the student residents.

Victim example

On discovering the front door of a house stood open, officers entered and announced themselves. There was no reply. On venturing further into the house the officers passed numerous items of property which would be desirable to thieves – computer equipment, mobile phones, pedal cycles, expensive sporting equipment. It was not until officers reached the rear of the house where they found the occupants baking in the kitchen. There was little concern on seeing the non-uniformed strangers stood in their house.

- While specific numbers were not gathered in relation to the characteristics of each offence – i.e. was the house secure etc., there was enough information gathered to suggest that the mind-set of the victims was something that could be influenced. Nudge theory therefore became of interest.

Nudge Theory

The presentation of a range of options in such a way that it shapes behaviour in a certain way while still maintaining an individual's freedom of choice.

In order to consider using nudge however, more detailed information must be gathered about those who are to be nudged. It must be evidence based.

12 streets

- Dr Jason Roach is a senior lecturer in Criminology at the University of Huddersfield and is an experienced practitioner in relation to nudge theory. Dr Roach presented the concept of 12 Streets which would be an evidence based way of gathering information about potential victims of burglary and using the data gathered to design a range of nudges to influence their future behaviour.
- 12 Streets involved using crime recording data to identify the twelve most burgled streets in Durham City (appendix B). The residents in those 12 streets would then

be canvassed with a survey designed by Dr Roach to capture the following information:

- Demographic breakdown of the household – who lives there? Age, sex, number of residents? Student? What year?
- Rental status and understanding of insurance.
- Lifestyle information.
- Security information and behaviours and awareness of crime.

Some of the questions were in themselves designed to be nudges such as ‘Are you aware that you are living in one of the 12 most burgled streets in Durham?’

- For the response section it was intended that the data gathered during these surveys would then be used to design nudges to influence the behaviour of potential victims and hopefully reduce the number of dwelling burglary victims. The nudges would be applied to six of the selected twelve streets while the remaining six were left ‘un-nudged’ as a control sample making it possible to measure whether the nudges were effective.
- This approach had not been used before in relation to this problem and would be an evidenced based approach in terms of effectively meeting the objective in a cost effective way.

Police Volunteer Cadets

Durham Police Volunteer Cadets support local policing through volunteering and consist of members aged 11 – 18 years of age and it affords members the opportunity to learn the role of Police in the community and introduces them to Problem Oriented Policing.

During the 12 Streets operation a group of around twenty cadets in full high visibility uniform worked with a handful of Durham Detectives over five nights to complete the surveys in the designated streets. There was a belief that the cadets would be able

to reach out to the target audience in a way that police officers could not due to the similarity in age.

- This provided a cost effective way of gathering the information for analysis as many of the 12 streets consisted of 40 – 60 houses which would have placed a huge demand on Police resources. Key facts and figures:
 - 85% of those questioned are students – only 1% from the local area
 - 54% in year 2 – 30% in year 3 at University
 - Only 2% were aware that they were living in one of the ‘12 streets’
 - 77% say that completing survey has made them think about security from burglary
 - 59% say they are likely to change their behaviour

The data gathered would be excellent to plan evidence based nudge responses.

- This data tended to confirm the early perceptions gathered during the scanning and analysis phase. The twelve most burgled streets were occupied mainly by students. Most were not from the local area. Few seemed to have any regard that they may have been the victim of burglary. There was little confidence from the responses to suggest that there were serious positive attitudes to crime prevention.

C. Response

While the data was being reviewed in order to prepare the nudges for the response phase there was an immediate and quite unanticipated reduction in dwelling burglary in the 12 Streets which continued for a sustained period of time.

One explanation for this was due to the nudges contained in the survey which made potential victims aware of their potential vulnerability to this crime type. This allowed some confidence that the proposed use of nudges would have been effective.

The reduction was to such an extent that there was no requirement to implement any additional response.

D. Assessment

- 12 Streets activity commenced on 17 May 2017. Appendix B shows a simple table which demonstrates the number of recorded dwelling burglary offences in the 12 streets month to month 2015 – 2017. The highlighted blue section demonstrates the immediate effect of 12 streets.
- Following the commencement of 12 Streets there was a 25% reduction in dwelling burglary compared to the same period in 2015. The numbers involved here however are small and may not give an accurate picture.
- Following the commencement of 12 Streets there was an 83% reduction in dwelling burglary compared to the same period in 2016. This is a significant reduction.
- Following 12 Streets up until October 2018 there were only six reported dwelling burglary offences reported within the nominated streets.
- In the context of the Durham City locality as a whole this represented a 27% reduction in reported dwelling burglary offences in 2017/18 compared to 2016/17. The same period of time saw an increase in solved rates from 13% in 2016/17 to 20% in 2017/18.
- When looking at the numbers for the Durham City locality with the 12 streets removed, recorded burglary remained within normal variances.
- This would demonstrate that 12 Streets achieved a significant reduction in the number of dwelling burglary victims without any displacement to other areas in Durham.
- It is difficult to determine whether the reduction in recorded dwelling burglary offences can be attributed to the nudges present in the survey, the high visibility and engagement provided during the survey by the cadets, a combination of the two or some other factor. However it can be stated that the reduction in recorded offences correlated with the timing of 12 Streets.

- Looking ahead it is understood that dwelling burglary in the student occupied streets can be a cyclical problem as the residents of those streets will change each academic year. If we are saying that 12 Streets reduced the number of dwelling house burglary victims through influencing the behaviour of potential victims then the challenge is to look at what tactics can be used going forward to sustain this reduction. This is likely to involve use of digital measures and further attempts to engage guardians and super controllers including the students union and the university itself.

3. Agency and Officer Information

Key Project Team Members

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Appendices

Appendix A

Breakdown of burglary dwelling for Durham City section

Year	Total Offences	Solved	Solved rate
2015/16	37	6	16.2%
2016/17	60	9	13.6%
2017/18	50	10	20.0%
Total	153	25	16.3%

Breakdown for burglary dwelling for Durham City section

Appendix B
Cost of crime types according to H.O.

Table 22: Average police costs associated with different crimes⁸¹

Crimes	Unit costs
Individual	
Homicide	£11,960
Violence with injury	£1,130

⁸⁰ It is therefore not a unit cost to police of each crime recorded as it uses all crimes (rather than police recorded crime) to estimate the unit cost for each crime.

⁸¹ Commercial crimes are assumed to cost the same per crime as individual crimes. For example, a domestic burglary is assumed to cost the same as a commercial burglary.

53

Crimes	Unit costs
Violence without injury	£810
Rape	£6,360
Other sexual offences	£570
Robbery	£1,010
Domestic burglary	£530
Theft of vehicle	£2,030
Theft from vehicle	£80
Theft from person	£40
Arson	£1,080
Other criminal damage	£150
Fraud (1)	£60
Cyber crime (2)	-

(1) We calculate the number of fraud cases in 2015/16 using the number of fraud offences within disseminations which are handed to the police by NFIB. Fraud is reported and recorded by Action Fraud not police forces. Reports include direct reports from members of the public and businesses, and data from Cifas and Financial Fraud Action UK on behalf of their member organisations. These reports are reviewed and put into intelligence packages which are then disseminated to the police. Each dissemination may include a number of reported frauds.

Appendix C
The '12 streets'

1. High Wood View
2. Boyd Street
3. Anchorage Terrace
4. Back Mount Joy
5. Church Street Head
6. Hawthorne Terrace
7. May Street
8. Lawson terrace
9. The Avenue
10. Mistletoe Street
11. Holly Street
12. John Street

Appendix D
Burglaries in the 2 streets by month 2015-2118

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015												
2016												
2017												