

Herman Goldstein Submissions 2024

A WIDE Approach

Submitted by Durham Constabulary

Name: Superintendent Lee Gosling

Email: Lee.Gosling@nersou.police.uk

A WIDE Approach

Summary

Scanning:

The proposer became aware of the research of Professor Andromachi Tseloni and her team at Nottingham Trent University. This identified the combinations of security devices associated with the greatest reduction in risk of domestic burglary, based on many thousands of responses to the Crime Survey for England and Wales. This established that the greatest reduction in risk (which the Tseloni team identified as good specification window locks, interior lights, door locks and exterior lights (hence the acronym WIDE). The project sought to provide a security upgrade featuring these elements to areas in County Durham suffering an enduring high rate of domestic burglaries.

When introduced, SARA was depicted as a linear process, with the process ending at Assessment. More recent depictions see it as circular, with assessment feeding into the next Scan in a process of continuing improvement. This approach is espoused here, with much attention being given to improvements in the next iteration of SARA. This had two components to the initial scan: first the identification of Lower Super Output Area (LSOA) which met the criteria for funding under the Safer Streets Project; second the identification of packages of home security products which in combination had the maximal preventive efficacy (WIDE).

Analysis:

Combinations of LSOAs which, when combined, were geographically coherent, experienced significant repeat victimisation and satisfied Safer Streets funding criteria were selected as the intervention area. Search of the relevant research unearthed the work of Professor Andromachi Tseloni's team at Nottingham Trent University.

Response:

Security upgrades were offered to residents in homes in designated high burglary risk areas who has suffered burglaries in the pre-implementation and implementation phases of the project, and to their two immediate neighbours in a 'cocooning' process, given what is known about repeat and near repeat burglaries.

Assessment:

Comparison of burglary incidence in seasonally equivalent pre-initiative, initiative and post-initiative periods, and analysis (still ongoing) of characteristics of burglaries in the post-initiative phase. These were less common, but if the aim is to reduce burglaries to very low levels, it is important to know MOs in the burglaries which WIDE did not prevent.

Summary Word Count: 344

A Wide Approach

Description

Scanning:

The project described here, was undertaken by Durham Constabulary to deploy untested home security measures which minimise the risk of domestic burglary. The systematic approach adopted, simultaneously increased community engagement with a methodology that could be replicated in other areas of concentrated residential burglary. The target area is comprised of three County Durham LSOA's: 025A Easington Colliery Central, 025B Easington Colliery North and 025D Easington Village South. As the name suggests there was a working coal mine in Easington for over 90 years - until 7 May 1993, when the colliery closed, with the loss of 1,400 jobs creating legacies of high deprivation and low trust that remain today; - including one of the highest burglary rates in the Durham force area.

As of 1st Sept 2021 – Easington was experiencing significant repeat victimisation with 30% of dwelling burglary locations being associated with 2+ previous victimisation reports and 16% of all burglaries being repeats. Easington also suffers near-repeat victimisation due to concentrated colliery style housing with 81% of dwelling burglaries resulting in successful entry and a 16% attempted burglary rate.

The WIDE approach

The evidence base identified by the Durham team, comes from the work of Professor Andromachi Tseloni at Nottingham Trent University. It analyses data from sweeps of the Crime Survey for England and Wales and allows comparison of burgled and non-burgled homes. This huge sample makes possible the calculation of Security Protection Factors (SPF) for homes with every combination of security hardware. SPFs calculated as the reduction in the rate of domestic burglary associated with each such combination. The "WIDE" combination - Window locks, Internal lights on a timer, Door locks and External lights on a sensor ("WIDE" Hunter & Tseloni 2018) was found to have a particularly high SPF, reducing the risk of burglary by 64% compared to homes with minimal security. The Durham project is believed to be the first anywhere to test the efficacy of this combination directly, rather than inferred from research. The project systematically identified households at an elevated risk of residential burglary by date of burglary victimisation or proximity to a recently burgled home. These high-risk Durham households were offered a package of WIDE security hardware.

Analysis:

Easington Colliery

Research was undertaken by Durham Constabulary to identify highly disproportionately affected burglary areas across the Police Force Area (PFA) as depicted in the map contained in **appendix one**. This information demonstrates that the LSOAs 025B Easington Colliery Central, 025A Easington Colliery North, which collectively form the target area of "Easington", are ranked 4th and 6th in terms of burglary rate across the PFA. 025D Easington Village South is also included in the target area. Accounting for the adjacency of these high risk LSOAs, the problem of persistently high burglary rates in the target area was selected as a focus for the proposed intervention.

Partner Data Sources

Durham County Council identifies this target area as a priority area for improving outcomes for residents. This prioritisation was based on the target area (a) having one of the highest concentrations of private-rented colliery terraced houses with many in a very poor state of repair and many tenants living in seriously substandard conditions; and (b) is home to a relatively high number of deprived families who suffer from a range of interrelated issues of deprivation, unemployment high incidences of crime and anti-social behaviour and poor health outcomes.

It is believed that focusing the proposed intervention in the target area, will both reduce the occurrence of burglary, whilst complementing the multi-agency work of the Council aimed at addressing a broader range of issues as discussed above.

Analysis: Previous Incidents – Burglary

The table contained in **appendix two** shows the average combined burglary crime rates in the target area, demonstrating that it is above the national benchmark of 8.3 per 1000.

Analysis of burglary events occurring within the target area provides a number of insights as shown in **appendix three**. The target area experiences moderately high levels of (same location) repeat victimisation, with 30% of burglary offences analysed being associated with premises that had experienced 2 or more victimisations, and 16% of all neighbourhood offences being repeat (same location) burglaries.

Spatiotemporal analyses indicate patterns of near repeat burglaries consistent with previous research evidence. The occurrence of residential burglary is consistent throughout the week. Aoristic temporal analyses demonstrate higher likelihood of offending in the afternoon and early evenings, as depicted in **appendix four**. Most offences were successful (81% all burglaries) or attempted (16%) burglaries, with very few aggravated burglaries (4%) occurring in the target area.

Crime/ASB

Historic analysis in the target area demonstrates that the overall rate of crime and ASB incidents (see graphs contained in **appendix five**) is consistently higher than the average across England.

Current analysis for 2020/21 demonstrates that despite the impact of the covid-19 pandemic, the average neighbourhood crime rate for 025B remains second highest in the PFA, at 45.5 per 1000 population. 025A and 025D have seen little change.

Target Area Profile

The local insight profiles for each LSOA produced by Durham County Council were used to gain a better understanding of the wider demographic information. This identified that the target area is a hotspot for many measures relating to deprivation, including child poverty and households in receipt of welfare benefits. Easington Colliery North was the 2nd most deprived areas in England and Wales in 2019, with one part of the area having suffered most, with the extra pressures of poor housing and environment with 22.5% of households are in fuel poverty. The area has had little, if any significant investment aimed at improving facilities for its population or its infrastructure.

The Environmental Visual Audit (EVA) conducted highlights the visible signs of crime, ASB that exists in the area and areas of concern regarding permeability, structure/condition of dwellings, derelict buildings and lack of ownership. Property conditions are poor, in various stages of disrepair with serious failings such as structural issues, defective roofs and many of the houses have category one hazards. There is a high percentage of empty properties (16% void rate in comparison to a national

average of 4%); a high number of private rented properties (33.3%); and a high number of absentee landlords. The graph contained in **appendix six** shows that most of the properties in these LSOAs are terraced. In some of these terraced streets, most houses are vacant, significantly reducing the amount of natural surveillance from dwellings onto the street and making the occupied properties more vulnerable.

Local Concerns

East Durham Trust, the area's community development organisation, supplies local intelligence and a community voice. Anecdotal reporting to this VCS organisation from those working in the community and members of the community themselves supports the need and desire for this scheme. High levels of crime, antisocial behaviour and a recent rise in arson have left many in the community feeling fearful and under threat. They fear reprisal should they report crime and as such do not pass on important intelligence. Community and public sector workers delivering services in this area report they only feel comfortable to do so during daylight hours. This means that receipt of vital services for already vulnerable members of the community are often delayed or are missed out altogether. Feedback from the community and Councillors confirms that they believe the overall look of the area is the underlying cause of the problem as this encourages further crime and disorder. Due to the high volume of empty properties and absent landlords, incidents of this nature are unreported and normalised. People tell the Trust that improved security and more effective and visible CCTV would improve confidence and help them feel these streets are safer.

Previous Work

Whilst pockets of previous work may have been undertaken to assist in tackling Crime and ASB in the target area (securing the perimeter of properties, removing waste from alleys, replacing missing waste bins) no previous work has attempted to specifically reduce residential burglaries in such a systematic response as proposed in this bid. There was no sustainability to the environmental projects resulting in many measures being stolen. An example of this was the removal and/or burning of erected wooden fences and gates which were aimed at securing the yards of empty properties to prevent burglary.

Overall hypothesis about the problem.

Research has previously shown that residential properties without adequate levels of security experience significantly higher levels of victimisation relative to those with security. Residents in parts of the target area live in the second most deprived areas in England, consequently their houses are not well secured. Initial scanning in the target area demonstrates that residential burglaries occur near previous victimisations at property with low levels of security. Recent ONS analyses of the Crime Survey of England and Wales suggest that, to oversimplify slightly, changes in burglary patterns are characterised by increasing rates of repeat victimisation of the diminishing stock of homes with poor security. Our hypothesis is that by making houses more secure, we will reduce burglaries.

Response:

Following assertions regarding the drivers of burglary in the target area, the proposed project focuses on the systematic identification of households at an elevated risk of residential burglary and their treatment through the provision of home security devices for properties that have been shown to be effective in reducing crime. The installation of home security devices significantly reduces the likelihood of burglary victimisation (Hunter & Tseloni, 2018). Based on this the proposed project will

supply “high risk” (Johnson & Bowers, 2004) residential properties in the target area with devices that have been shown to reduce that risk and prevent repeat victimisation.

Victims of residential burglary in the target area was provided with one of two responsive treatment packages. If the burglary is the first to have occurred at an occupied property within the intervention period, the standard victim treatment will be offered. This will consist of the installation of WIDE security measures (Hunter & Tseloni, 2018) – Secure-by-Design (SBD) window locks, internal lights on a timer, SBD double locks / deadlocks on external doors, and external lights on a sensor. If the occupied property has previously been victimised, a repeat protective victim treatment will be offered, consisting of a re-evaluation (and repair if necessary) of previous measures, and an additional Crime Security & Environmental Assessment. This could include referrals to relevant support agencies if required. In addition, reflecting identified risks of near repeat victimisation, properties near the initial burglary - as defined by a cocoon of 2 households in all directions - will also receive the pro-active treatment package, consisting of the installation of WIDE measures.

Victim Crime and Advice Service (VCAS) where the principal sponsor for this project with a project co-ordinator identified for overall project coordination. The multi-agency crime prevention/victim safety team had responsibility for the delivery of the intervention (initial engagement with the victim, identification of cocoon properties), together with a sub-contracted joiner and electrician for the actual fitting of the security measures.

Durham Constabulary’s Crime Prevention Team performed the crime security and environmental assessments for repeat victims of burgled properties. The Crime Prevention Team were responsible for the procurement of the home security measures and providing wider crime prevention advice .

Summary

During the period September 1st, 2021, to April 1st, 2022, 370 households received the WIDE package during the project period September 1st, 2021 to March 31st 2022. Intervention volumes increased dramatically early into the project - only 17% of total interventions completed by the end of October, increasing to 39% by the end of November; - proof of engagement and trust being built.

Assessment:

The implementation phase of the project took place in a seven-month period from September 2021 to March 2022. For purposes of comparison, seasonally equivalent periods before and after the implementation period were used. Numbers of burglaries in the three seven-month periods were calculated for the implementation area, a buffer zone of 1000 metres around the implementation area, and the remainder of the policing sector in which the study area was located.

These results are preliminary and written to form part of this submission and the analysis continues. No innovation, including all policing initiatives are perfect from the start (or indeed at the end). For this reason, results here will be improvement-oriented, not achievement centred. Once improvement ceases to be the aim, those with experience contend that implementation drift sets in. That said, the WIDE project set out to reduce burglary. Did it do so?

The intervention area was chosen as three Lower Super Output Areas (LSOA) exhibiting chronic levels of residential burglary over a preceding three-year period. The implementation phase of the project took place as a seven-month implementation period from September 2021 to March 2022. For

purposes of comparison, seasonally equivalent periods before and after the implementation period were used. The results are displayed in the table in **appendix seven**.

The calculation went as follows. The intervention period was September 2021 to March 2022. The number of burglaries in the intervention area in the preceding seasonally equivalent year (i.e., September 2020 to March 2021) was totalled. The same calculation was made for the seasonally equivalent period in the year succeeding the intervention (i.e., September 2022-March 2023). The buffer area numbers were not based on LSOA counts because defining an area within 1000 metres of the intervention area does not correspond with LSOA boundaries. The sector remainder is thus the sector total minus just the intervention area total. The sector total burglary count shows an almost identical fall as the adjacent sector for which we had data. This provides some reassurance that using sector totals as a benchmark against which to measure intervention effect is justifiable.

The numbers in **appendix seven** are encouraging but should be seen as an opportunity rather than an achievement. As stressed earlier, thinking we have the finished product is an invitation to complacency and implementation drift. Although it represents a lot of hard work, this is a relatively small project. The volatility of numbers in relatively small studies makes interpretation necessarily tentative, but if the implementation area numbers had declined in line with figures in the remainder of the police force sector, the project saved thirty-five burglaries and by the Home Office costing of the average domestic burglary, this represents a saving just short of a quarter million pounds. Implementation costs must of course be set against this.

While stressing that the results described are to be treated as provisional, it is worth recalling the purpose of buffer zone. Whatever skills burglars have, it is unlikely that knowing where Lower Super Output Areas lie, is one of them. Recognising that something is changing in the implementation area is likely to spill over into adjacent LSOAs. Precision is spurious, but the cost saving calculation takes no account of the diffusion of benefits in surrounding areas which **appendix seven** suggests may have occurred. The alternative interpretation of the burglary decline in the buffer zone shown in **appendix seven** is regression to the mean, i.e. that areas or people chosen as extreme at one time tend to be less extreme when assessed again. In the present project this is possible but thought unlikely because eligibility for Safer Streets funding depended on an area remaining extreme over a period of three years.

The preamble to this section promised that it would be improvement oriented. The results so far are believed to justify refinement and extension of the approach. The most obvious drawback is that a quarter of burglary victims offered the security upgrade declined it, as did over a third of those eligible via the cocooning approach. This is evidenced in the table contained in **appendix eight**.

If the aim is a sort of 'herd immunity' against burglary, this rate of failure to upgrade security is far too high. One avenue of possible improvement would involve looking at the research on influence processes in advertising and other sales contexts, insufficiently exploited in crime prevention. Durham Constabulary has already (with Professor Jason Roach) pioneered the use of 'nudges' to sensitize people to being persuaded of something.

The second issue concerns the match between WIDE equipment and methods of entry. While the evidence base for the security protection afforded by the WIDE combination is solid, experienced Crime Prevention Design Advisers (CPDA) will contend that details of installation will depend on the setting. Detailed notes on the installation process on record from the project reported here support this contention. A review of Modus Operandi (MO) by CPDAs in conjunction with crime scene investigators could lead to an even closer match between vulnerabilities and equipment and installation. Of particular interest are the MOs used in burglaries following installation of updated

security on WIDE lines. There are only nine such cases in the initiative so far (with three where the upgrade offer was declined and thirty where burglaries occurred at homes not eligible for upgrades, which suggests that cocoon size could usefully be increased).

Finally, but linked to the MO issue, will the lower burglary victimisation be resilient over time? This is self-evidently important for cost-benefit analysis. If it is not, it will be regrettable but would not necessarily consign the approach to the dustbin. For example, if burglaries against WIDE protected homes rise because of increased use of physical force against doors, it may be that the 'D' in WIDE should encompass multi-point locking on doors.

Economic and social cost of crime

In the second edition of this Home Office publication, crime costs are classified as costs in anticipation (e.g. security measures), costs in consequence (e.g. loss, medical costs of the victimisation), and response costs (police and criminal justice system). Excluding costs in anticipation, the average domestic burglary cost £5220. These are not exhaustive costs. For example, they exclude the opportunity costs of police resources being removed from preventive patrolling. The data on which the 2018 report was based refer to the financial year 2015/16. Adjustment for inflation puts the current average cost of a domestic burglary at £6727. Cost of each WIDE intervention was £498 therefore achieving a Saving per burglary of £5602.

Analysis of the data to hand will continue, the intention being to submit to a peer-reviewed journal a more detailed analysis of the experience gleaned from the WIDE project, with a view to improved follow-on initiatives.

Description Word Count: 3035

Appendix One

Highly disproportionately affected burglary areas across the Police Force Area (PFA).

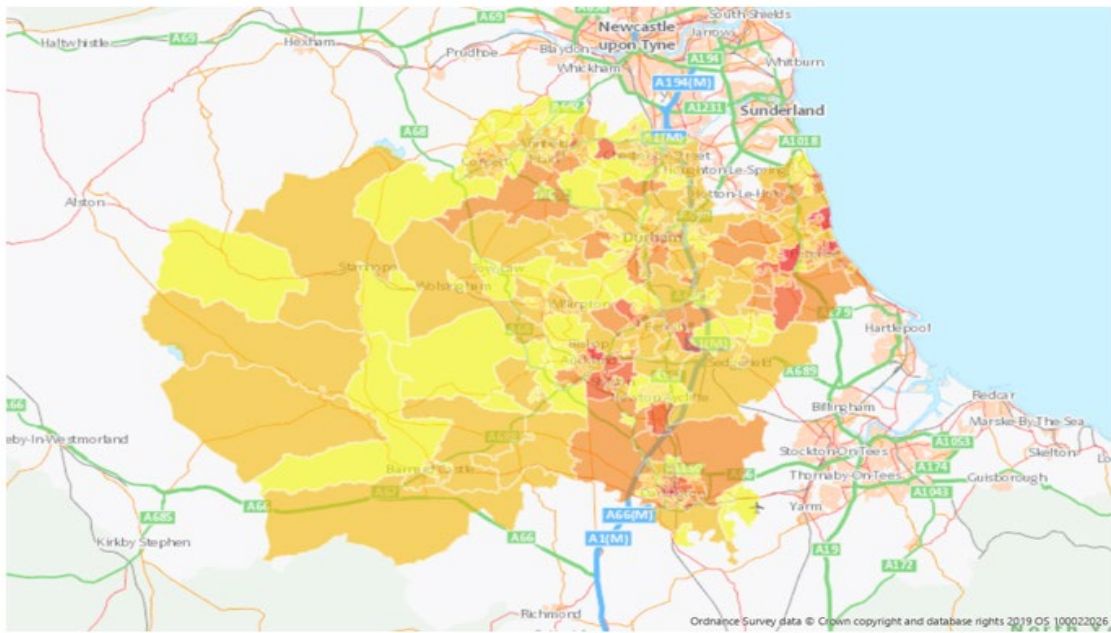


Figure 1-the distribution of burglary crimes recorded between 01/04/2017 and 31/03/2020, by LSOA.



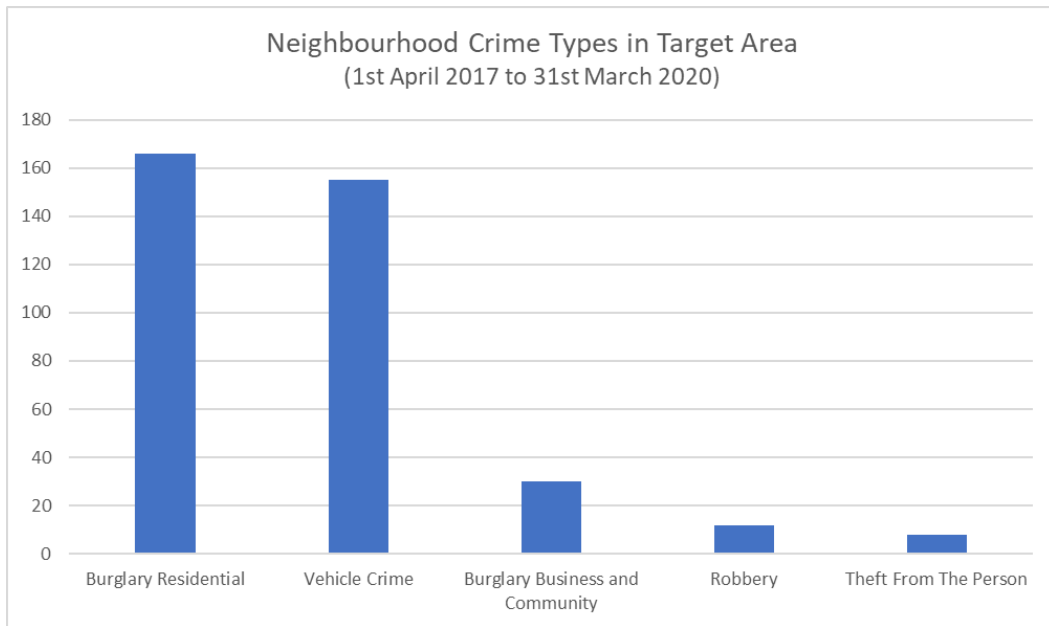
Appendix Two

Average combined burglary crime rates in the target area.

LSOAName	2017/18	2018/19	2019/20	Total	Population			Burglary crime			Average
					(2017)	(2018)	(2019)	rate (1718)	rate (1819)	rate (1920)	Burglary Crime Rate
County Durham 025B	54	34	32	120	1052	1053	1122	51.3	32.3	28.5	37.4
County Durham 025A	11	24	14	49	1823	1811	1767	6.0	13.3	7.9	9.1
County Durham 025D	7	7	13	27	1405	1414	1460	5.0	5.0	8.9	6.3
LSOAs Combined	72	65	59	196	4280	4278	4349	16.8	15.2	13.6	15.2

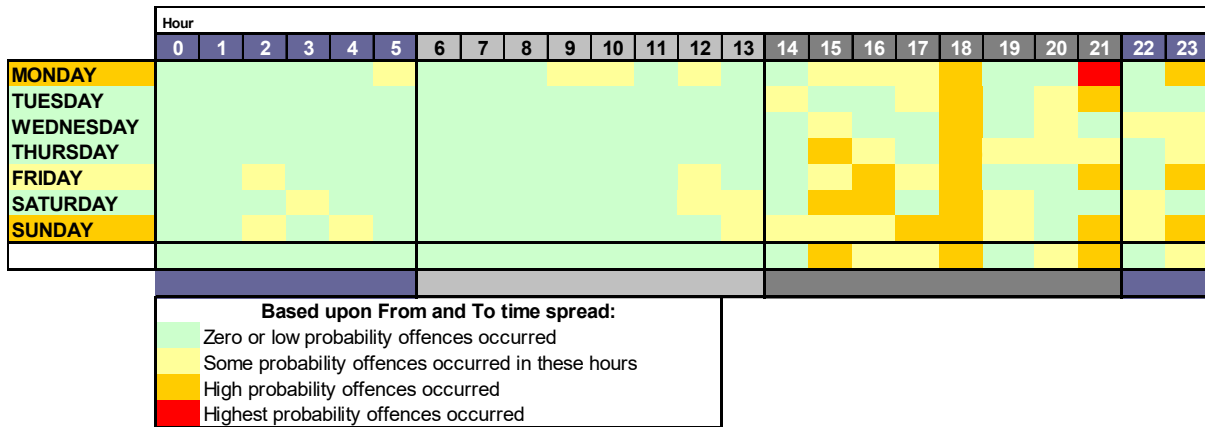
Figure 2: Combined LSOA Average Burglary Crime profile 2017-2020 per 1,000 population. Source: Durham Constabulary

Appendix Three



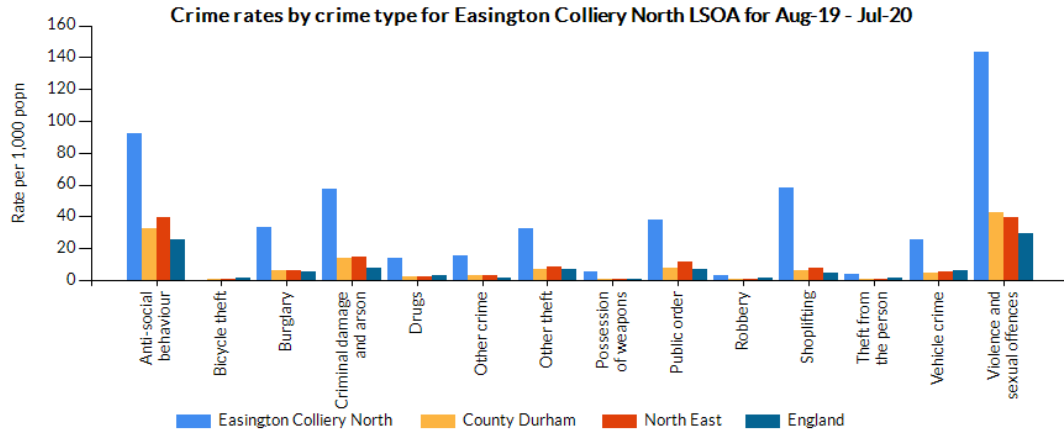
Appendix Four

Aoristic temporal analyses demonstrate higher likelihood of offending in the afternoon and early evenings.



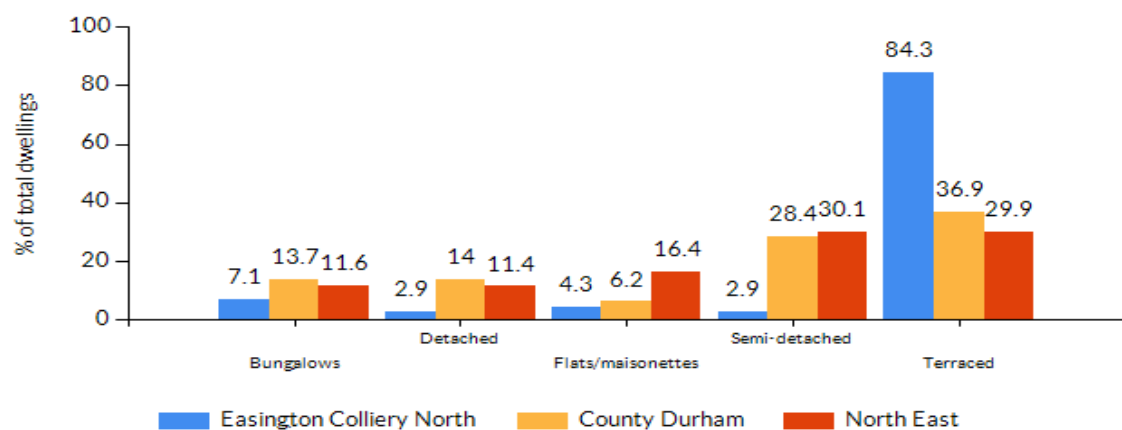
Appendix Five

Historic analysis in the target area demonstrates that the overall rate of crime and ASB incidents is consistently higher than the average across England.



Appendix Six

% of total dwellings by type in Easington Colliery North for 2017



Source: MHCLG

Appendix Seven

The implementation phase of the project took place as a seven-month implementation period from September 2021 to March 2022. For purposes of comparison, seasonally equivalent periods before and after the implementation period were used. The results are shown below -

	Intervention	Buffer	Sector Remainder
Before	56	83	144
After	21	37	109
Decline (%)	62	54	24

Appendix Eight

Take-Up of Security Upgrade

	Accept	Decline	Total
Victim	52	14	66
Cocoon	315	244	559
Total	367	258	625