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Understanding the impact of hot spot policing on crime and community perceptions

Extended Findings Report

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Principal research questions

1. Did hot spot policing influence public perception of crime and policing in Leicestershire?
2. What was the impact of hot spot policing on street violence and public disorder?

Hot Spot Policing

This evaluation examined the impact of hot spot policing in Leicestershire for the period from April 1, 2024, to March 31, 2025. Hot spot locations were selected based on places with elevated levels of crime (street violence) or high levels of anti-social behaviour (ASB) in the previous 12 months. Visible foot patrols (hot spot patrols (HSPs)) were deployed across 25 small-level geographic areas at pre-specified time periods during the 12-month deployment. The evaluation was commissioned by Leicestershire Police and the Home Office.

Methodology

The research team (NTU) conducted 1901 street intercept questionnaires with the public at ten hot spot areas and ten identified 'similar' control areas. Semi-structured intercept interviews were conducted at 213 local businesses at the same twenty sites. Crime data (N=190,669) was analysed for a baseline period before the intervention (36 months), and a 12-month intervention period. We used a synthetic control measure to identify the 'most similar' control areas, accounting for the counterfactual – what would have happened if the hot spot policing had not occurred.

Key Findings

- Respondents in the HSPs observed significantly higher police visibility, more appropriate levels of policing, and greater confidence in the police's ability to address crime than in the control areas.
- There were no differences in perceptions of whether crime is increasing or decreasing between the hot spot and control sites.
- In both areas, the presence of police officers made people feel safer.
- These perceptions were not universal, and variations based on age, gender, and ethnicity should be explored for future strategic and operational learning.
- Businesses in HSPs reported a wider range of crime experiences, including violence and drug-related incidents, compared to control areas.
- Businesses appreciated visible policing for its deterrent effect and reassurance, although some questioned its effectiveness or relevance to business outcomes, particularly in relation to shoplifting.
- There was a recognition that what officers do when on patrol matters, and active engagement is more important than visibility alone.
- There was an observed reduction of 4.7% in the crime types examined (excluding drug offences), although this was not statistically significant.
- Across all hot spot types, there was a 33% increase in drug offences (not statistically significant), which may be reflective of increased detection. This should be explored further (e.g. use of arrest data) and was not part of this analysis.
- Crime reduced in the 12-hour period following HSPs, but then 'rebounded' to previous levels.
- The study identified inconsistencies in patrol duration, often falling below the recommended 15-minute guidance for deployment.

Conclusion

Hot spot policing in Leicestershire has improved perceptions of police visibility and increased confidence in some communities and businesses. However, its impact on long-term crime reduction is limited and context dependent. Visibility alone is insufficient; effectiveness requires sustained, strategic, and community-informed deployment.

Community Perceptions of Hot Spot Policing

Key Findings

- Hot spot policing had a significant positive impact on policing visibility, satisfaction and confidence in the HSP areas compared to the controls.
- The public also identified the HSPs as places with higher risks of street violence and ASB
- There were no statistically significant differences in perceptions of whether crime is increasing or decreasing.
- Seeing police officers made people feel safer, and there was no meaningful difference between the HSP and the control areas.
- Findings varied by demographics; positive impacts were more pronounced for those aged 25 and older, full-time workers, and undergraduates. Younger people under 25, part-time workers, and certain ethnic minority groups were less favourable about the HSPs.
- Black respondents were the only group not to respond positively to the question 'the presence of policing makes me feel safer'.

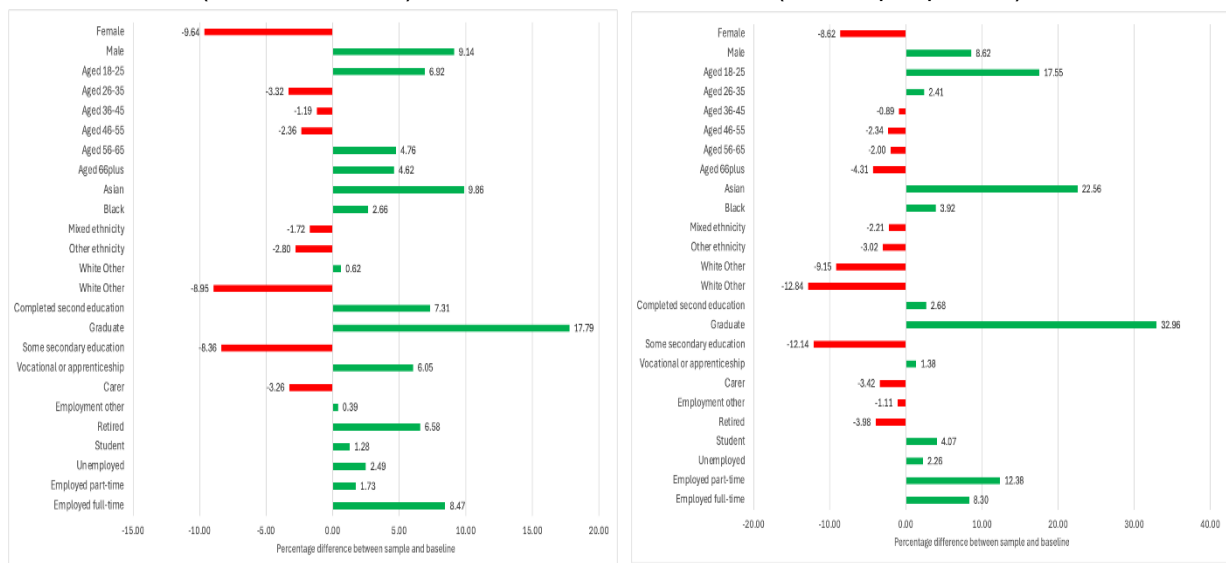
Sample size and use of controls

For this study fieldworkers collected 1,495 daytime (DTE) intercept questionnaires conducted between 10am and 5pm, across all days of the week. There were 767 surveys in HPS area (51.5%) and 728 in control areas (48.5%). Control areas identified for the fieldwork were those with the most similar socio-demographic characteristics and crime levels (see Full Report). 202 Night-Time Economy (NTE) intercept questionnaires were conducted in bars and pubs (5 pm-7 pm) in Leicester city centre. The analysis revealed a sizeable proportion of participants for the NTE survey frequent venues in both the HPS and the control areas, thus these are used as a daytime/NTE comparator only rather than a to compare between control and HSP areas.

Sample characteristics of the daytime survey.

The study sample was compared with the residential populations of the survey areas using the 2021 Census of Population (Figure 1), in lieu of detailed ambient population data. The study sample had more people under 25, males, students, and those employed, but fewer white individuals than would be expected compared to the residential population. The control area showed higher proportions of graduates, people aged 16–25 and 55+, and Asian groups. HSPs had more people under 35 and students. The intercept survey targeted the daytime population - those working or socialising locally - rather than just residents and therefore is more reflective of 'daytime usage' in these locations.

Figure 1: Sample characteristics compared to residential census population (2021)
(a: control areas) (b: hot spot patrols)



Key Questions

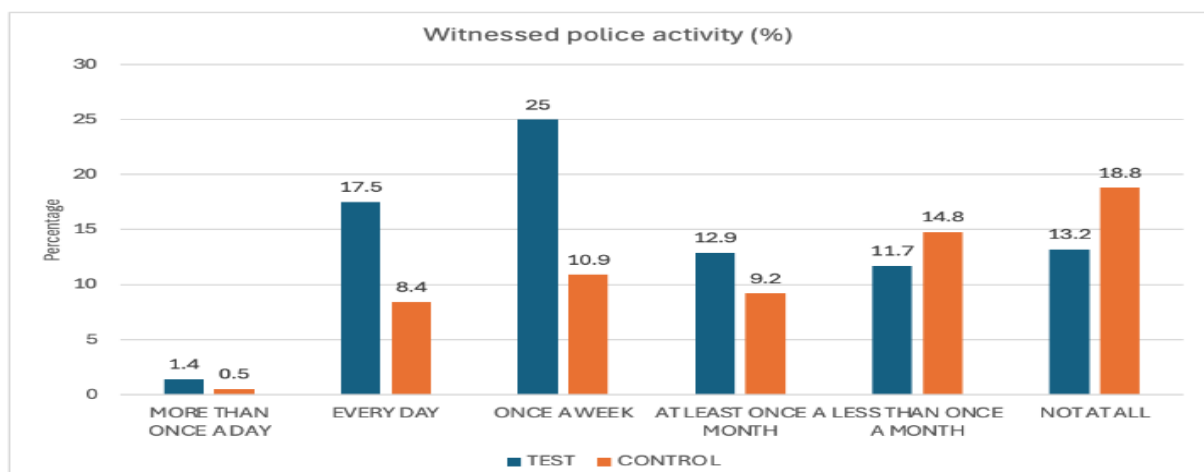
The intercept survey asked participants a series of questions, including demographic information. The key eight topic questions asked in both the control and HSP (test) areas were.

1. How often have you witnessed police activity in this area?
2. Is there the right amount of police activity in this area?
3. Is crime increasing or decreasing?
4. What is the risk of ASB occurring in this area?
5. What is the risk of street-based violence occurring in this area?
6. Does seeing police officers in this area make you feel safer?
7. How satisfied are you with the performance of Leicestershire Police?
8. How confident are you that Leicestershire Police are dealing with crime in this area?

Summary of Results

For each question, a baseline response was established (all participants). This was then used to compare responses in the hot spot police areas (test) with those in the control areas, and an example figure is provided in Figure 2. Figures for all questions are available in the Full Report.

Figure 2: Responses to 'how often have you witnessed police activity in this area'



To test whether the observed differences were significant, a series of statistical models (5) were used to compare the distribution of responses in the hot spot policing areas with the fieldwork control areas. A detailed description of each test can be found in the Full Report. The results are summarised in Table One below.

Variations by population groups

A further set of analyses was conducted to compare the responses in the hot spot and control areas by the demographics of the sample. An example plot is provided below for question one. Responses to all questions are provided in the Full Report. This shows the proportion of respondents by gender across the hot spot and control areas.

A series of statistical tests were conducted to identify any significant differences in sample socio-demographics between the control and hot spot areas. There are valuable lessons to be learned about how hot spot policing was received across these groups. A comprehensive analysis, including all tests, is provided in the Full Report. The results are summarised in Table 2.

Table 1: Table summarising model results across survey questions

Question	Comparison between the response in the hot spot policing (HSP) and the control area	Number of tests with significant findings (n=5)
How often have you witnessed police activity in this area?	More responses in the 'most frequent' categories in HSP areas	5
Is there the right amount of police activity in this area?	Greater proportion of responses in the 'agree' categories in HSP areas	5
Is crime increasing or decreasing?	Greater proportion of responses in the 'increasing' categories in the HSP areas	0
Perceived risk of ASB occurring in this area	Greater proportion of responses in the 'higher risk' categories in HSP areas	4
Perceived risk of street-based violence occurring in this area	Greater proportion of responses in the higher risk categories in HSP areas	5
Seeing police officers in this area makes me feel safer	No meaningful difference	1
Satisfied with the performance of Leicestershire Police	Slightly greater proportion of responses in the 'agree' categories in HSP areas	3
Confident Leicestershire Police are dealing with crime in this area	Greater proportion of responses in the agree categories in the test areas	5

Figure 3: Responses to 'how often have you witnessed police activity in this area' by selected demographic characteristics across hot spot (test) and control areas

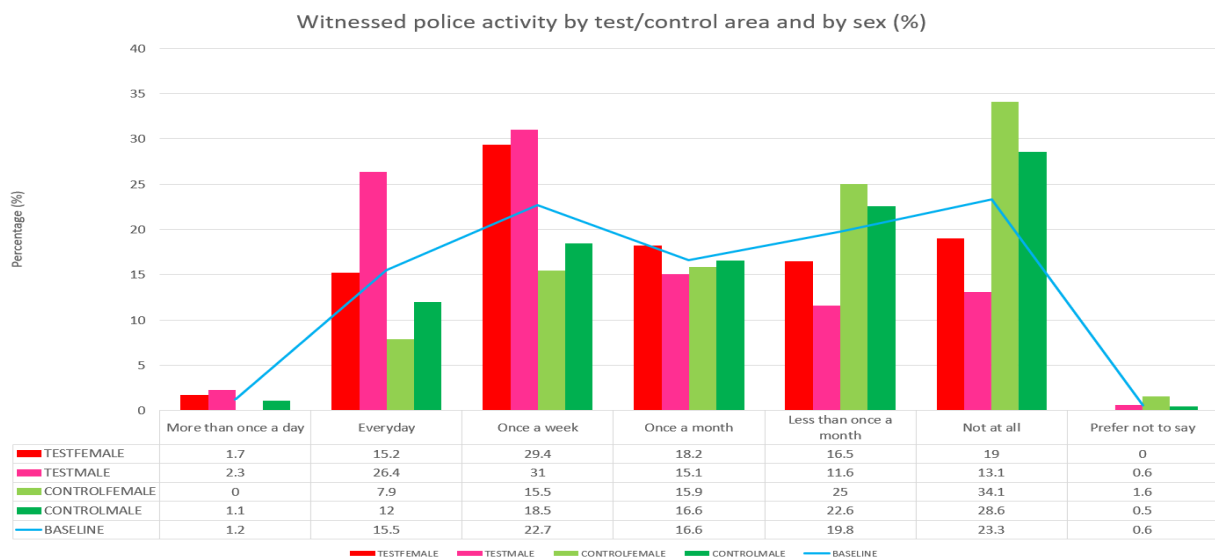


Table 2: Question response variations between control/hot spot areas by demographics

Question	Significant difference from baseline (all samples) by demographics
How often have you witnessed police activity in this area?	Significantly higher impact in hot spot areas on those aged 26 plus, most ethnicities except mixed, students, and those unemployed and retired
Is there the right amount of police activity in this area?	Significantly higher impact in hot spot areas on those aged 36 plus, students and those retired
Is crime increasing or decreasing?	No impact in hot spot areas
Perceived risk of ASB occurring in this area	Those who were male and white perceived levels of ASB to be low risk
Perceived risk of street-based violence occurring in this area	Those who were male, aged 18-25 and white perceived levels of street violence to be low risk
Seeing police officers in this area makes me feel safer	Male, Black, and part-time employed respondents in the test area disagreed with this statement. Undergraduates in the test area agreed with this.
Satisfied with the performance of Leicestershire Police	Those aged 36-45 and retired people were not satisfied with policing in the control areas
Confident Leicestershire Police are dealing with crime in this area	Those aged 36-35, as well as white and retired individuals in the control area, did not agree with this statement. In the hot spot area, only undergraduates agreed with this.

The impact of hot spot policing was not uniform across all demographic groups. Positive effects were more evident among older age groups, undergraduates, and retirees. In contrast, groups such as Black respondents, part-time workers, and those with completed secondary education showed less positive or even negative responses. Satisfaction with police performance and confidence in crime handling were higher in HSPs, but perceptions varied significantly depending on respondents' age, ethnicity, education, and employment status. This suggests that while hot spot policing can improve perceptions in some groups, it may not be sufficient to shift entrenched views in others.

Business Workers' Perceptions of Hot Spot Policing

Key Findings

- Interviews with local businesses were designed to focus on street crime and public nuisance. However, a sizeable proportion wished to discuss shoplifting and criminal damage.
- There was a recognition that what officers do when on patrol matters, and active engagement is more important than visibility alone.
- There were mixed responses in terms of positive and negative experiences with the police
- Business owners recognised the value of proactive police presence as opposed to reactive responses to police calls for service.

Sample and Methods

Fieldworkers conducted 213 semi-structured interviews with businesses across the hot spot (106) and control areas (107), conducted during business hours to capture the views of staff who worked during the daytime. Businesses varied in size and structure, ranging from national retailers to small independent shops and local charities. The main business types interviewed were 'eating and drinking establishments' (N=66), 'household, office, leisure and garden businesses' (N=54), and 'food, drink and multi-item retail outlets' (N=28). Interview questions were drawn from the same question set as used in the street intercepts. Interviews were recorded, transcribed, and thematically coded using a coding framework. This consisted of five themes and fourteen sub-themes, as outlined in Table 3.

Table 3: Coding Framework for Business Interviews

Main Code	Sub-code	Description
Experience with Police	Police Contact	Experience with calling or interacting with the police. How often and under what circumstances participants have contacted the police on behalf of their business
	Incident Types Triggering Police Involvement	Categorises the types of incidents leading to police contact (e.g., vandalism, burglary, theft, disturbances)
	Victim/Witness of Crime	Experience as a victim or witness of a crime
	Police Visits, Resolution and Outcome of Incidents	Experience with police visits to the business (positive/negative)
Perception of Police	Visibility and Police Presence	Frequency of seeing police presence around the business
	Impact on Safety	How police presence impacts their feelings of safety
	Perception of Police Effectiveness	Confidence in the police's ability to reduce crime
Perception of Crime	Crime Trends	Perception of crime trends (increase or decrease)
	Types of Crime Highlighted	Specific crimes mentioned (e.g., burglary, vandalism, theft, drugs, violence).
	Impact of Crime on Business	How crime affects the business (e.g., theft, vandalism)
	Environmental and Community Factors	Broader issues such as the presence of homeless people, drug-related behaviours, or urban disorder.
Police Impact on Business	Impact of Police Activity	Impact of police activity on the business (e.g., customers, experience, profit)
General Feedback	Suggestions for Police Action	Suggestions on what the police should be doing
	Additional Comments	Any other relevant feedback or comments

Experience with Police

Participant responses were mixed, some highlighting positive experiences with police, and others less so. Approximately 50% of the respondents had called the police about an issue, although not necessarily in the past 12 months. Issues reported included shoplifting, criminal damage, and incidents of violence near their businesses. There were mixed responses by those who were victims of crime, from *[yeah, I did have a really good experience. I thought he seemed really on the ball, and he was very professional too [they took my phone number – that's it. Nothing else]]*.

Perceptions of Police

Police were identified as visible by most interviewees, although a minority suggested they rarely saw police officers. This variation was identified at both the control and hot spot sites. Distinctions were made between on foot and in car patrols *[I seen them walking as well and sometimes in car, drove the car around the street, all of the street]*. In contrast, *[I think they need a lot more police in this area, especially at night because every week somewhere gets broken into]*. Police presence was also recognised for providing reassurance and deterrence as opposed to waiting for a response: *[I would say yeah, I think it makes everyone just feel a bit safer because with the presence there you just feel like you're being cared for and there is someone you can easily talk to if you see them on the street. Whereas if you ring 999 to get someone you know it's going to be a while until they can get to you, and that's just the way it is, you can't help that]*.

Perceptions of crime

The focus on shoplifting featured prominently in discussions of the impact of crime on business and its effect on profit and business viability. In the control areas, there was a recognition that they were not in a high crime area: *[the area that we're in it's quite quiet anyway so it's not really something that's overly needed, it's probably better in the city centre or something like that.]* Negative experiences tended to reflect responses to business crimes: *[there's a lot of businesses and lots of shops, shoplifting's the main crime]*.

Police impact on business

Business interviewees provided a mixed view on the impact that the police have on businesses. There was a general view that a police presence could reduce crime, as noted in the sections above, but many didn't see or report high levels of policing. There was also a recognition that the type of activity carried out by police officers was relevant with positive engagement identified as a key issue; *[I suppose it would depend on what they were doing and how they were behaving. I mean I'm all for a supportive police presence where police officers kind of know the local community and have those relationships, I think that would make me feel safer. But just police presence per se, I think it would depend on the relationship that the officers have with the community.]*

Summary

Based on the interview content, there were only slight differences in perceptions and experiences in the hot spot areas compared to the control. Whilst several interviewees described their location in detail and discussed it in comparison to other parts of Leicestershire (or where they had lived before), many have shared wider experiences and feelings about the police and crime. The interviews highlight that an understanding of place informs their views; they are also influenced by the media, their friends, and past experiences (at these locations or elsewhere). Interviewees usefully shared experiences of shoplifting and criminal damage, and occasionally discussed anti-social behaviour. There may be value in exploring how hot spot patrols can engage with business owners to support efforts against shoplifting and theft, similar to NTE patrols engaging with pub and bar owners and security staff to build relationships and gather intelligence.

The Impact of Hot Spot Policing on Crime

Key Findings

- Overall, there was a 3.3% reduction in crime in the hot spot areas. When drug offences are removed from this, there was a 4.7% reduction in crime.
- There was a 31% increase in drug offences. This may be expected, as the increased presence of officers may have led to an increased number of stop-and-searches, intelligence gathering, and/or arrests, as police were more likely to observe incidents with an elevated yet intermittent and randomised site presence.
- The reductions observed were not universal across all hot spot types (violence, ASB, DTE and NTE) and there is learning to be considered regarding which were more robust.
- The daytime economy hot spots and ASB hot spots experienced higher levels of reduction.
- The mixed and NTE hot spots did not experience the reductions in crime observed in the other HPS areas.
- The fixed effects model identified a short-term deterrent effect within the first 6–12 hours post-patrol, followed by a rebound in crime over the next 12–48 hours, before levelling off.
- It was challenging to identify suitable controls, given that hot spot policing occurred in most urban areas with high levels of violence and ASB.

Data and Methods

The table below summarises the data sources used and the methodologies employed.

Table 4: Crime Analysis Data and Methods

Crime Impact Evaluation: Date and Methods Summary	
Study Design	Quasi-Experimental Design • Synthetic Control Model (SCM) • Generalised Linear Model (GLM) • Difference-in-Differences (DiD)
Timeline	Baseline Period 01/04/2021-31/3/2024 (Months 1-36) Intervention Period 01/04/2024-01/04/2025 (Months 37-48)
Crime Types	Violence Against the Person (violence with/without injury, robbery) Public Disorder Criminal Damage and Arson Drugs Offences (Possession and Supply)
Covariates	Used to match control areas. Covariates: Population Density per km, % social rented, % unemployed or long-term sick, % with low educational attainment, number of health facilities in location. The full report details the 14 covariates assessed.
Hot Spot Patrol	Time, date, and duration of each hot spot patrol.
Hot Spot Classification	ASB hot spots/violence hot spots/mixed hot spots Daytime hot spots/Night-Time hot spots

Synthetic controls were modelled using the SCM method to account for the counterfactual – what would have happened in the absence of the hot spot patrols. Full details of the methodology are provided in the Full Report. The covariates are used to identify control areas most similar to the hot spot patrol locations, with weights assigned from multiple potential control areas (donor pool) to find the most robust measure. For each crime type, we ran the synthetic control method to identify changes in crime between the baseline and implementation periods.

Results

Figure 4 shows the weights assigned to control units in the synthetic control model for all crime types. These weights indicate how closely each control unit matches the treated units before the intervention, with higher weights contributing more to the synthetic comparison. The distribution of weights helps validate the construction of the synthetic control group, ensuring it closely resembles the treated group prior to patrol deployment. These figures are repeated for all crime types in the full report.

Figure 4: Synthetic Weights – All Crime

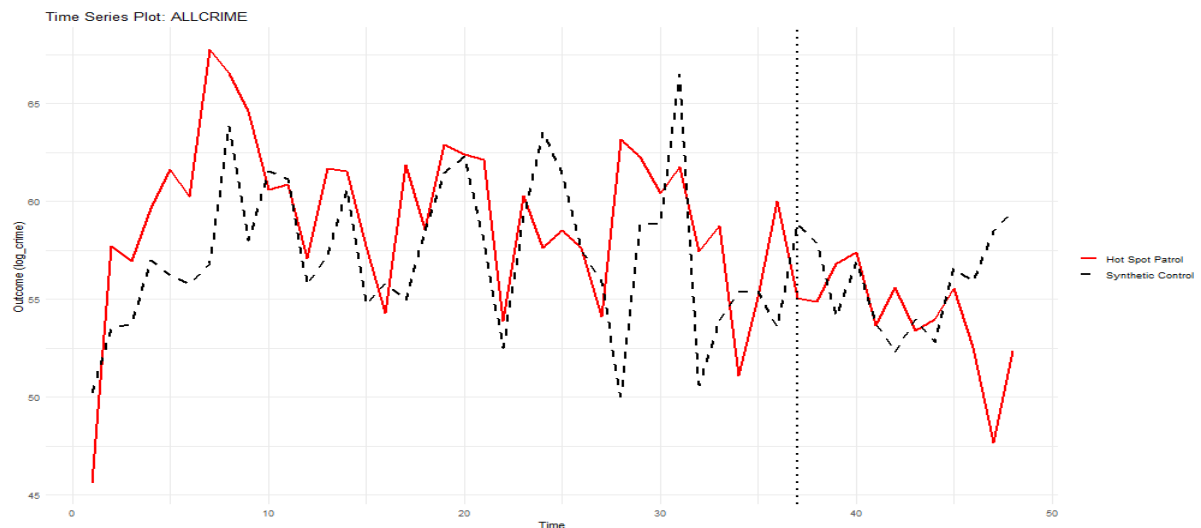
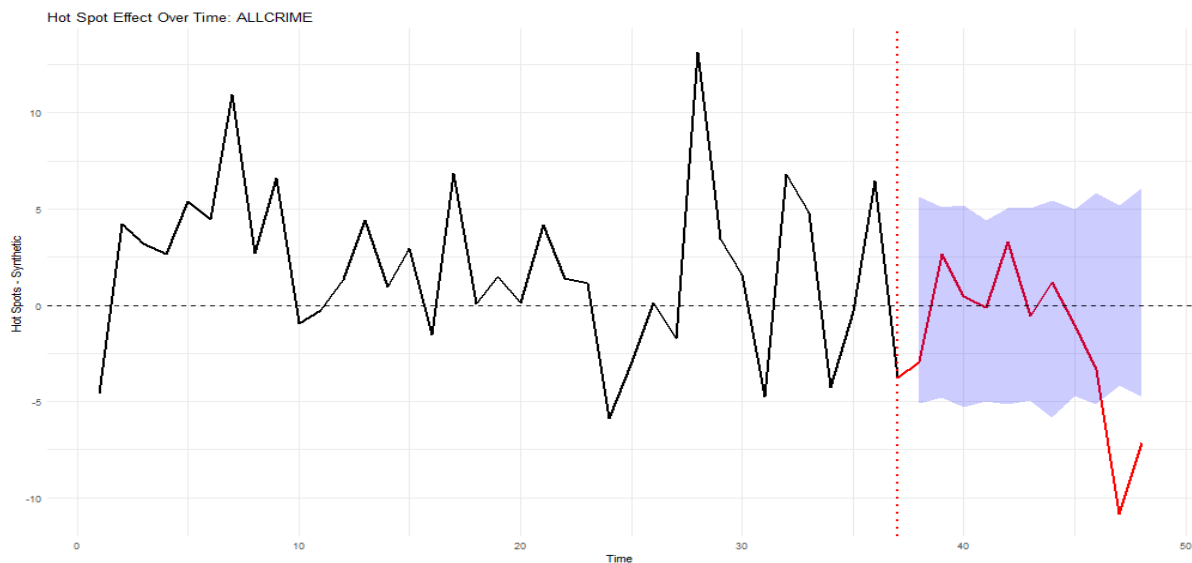


Figure 5 compares crime trends between the synthetic control group and the actual hot spot areas where patrols were introduced. A visible divergence between the two lines after the intervention suggests a treatment effect, with the synthetic control serving as a counterfactual. The figure helps illustrate whether patrols led to a measurable change in crime, beyond what would have occurred naturally. This is repeated for each crime type in the Full Report.

Figure 5: All Crime (Synthetic Control versus Hot Spots Differences Plot)



This analysis was replicated across all crime types, and a summary of the results are shown in Figure 6. The blue circles to the left of the dotted line are reductions. The bar indicates confidence intervals (shorter lines indicate better performance). This indicates that there was an overall reduction in crime in the hot spot area of 3.3%. There were increases in drug offences (31%) and public disorder (2.8%). There were reductions of 2% for both violence against the person and criminal damage and arson. When drug offences were excluded from the 'all crime' category, there was a 4.7% reduction in crime during the hot spot policing intervention period. However, these results are not statistically significant, and there are significant challenges in identifying an appropriate counterfactual, as outlined in the Full Report.

Figure 6: Percentage change in HSP areas (pre to post intervention)

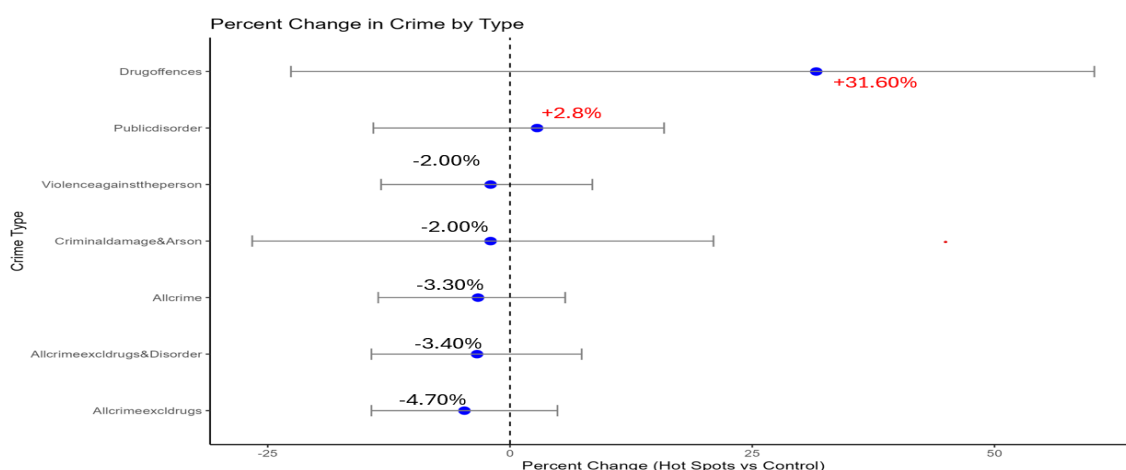
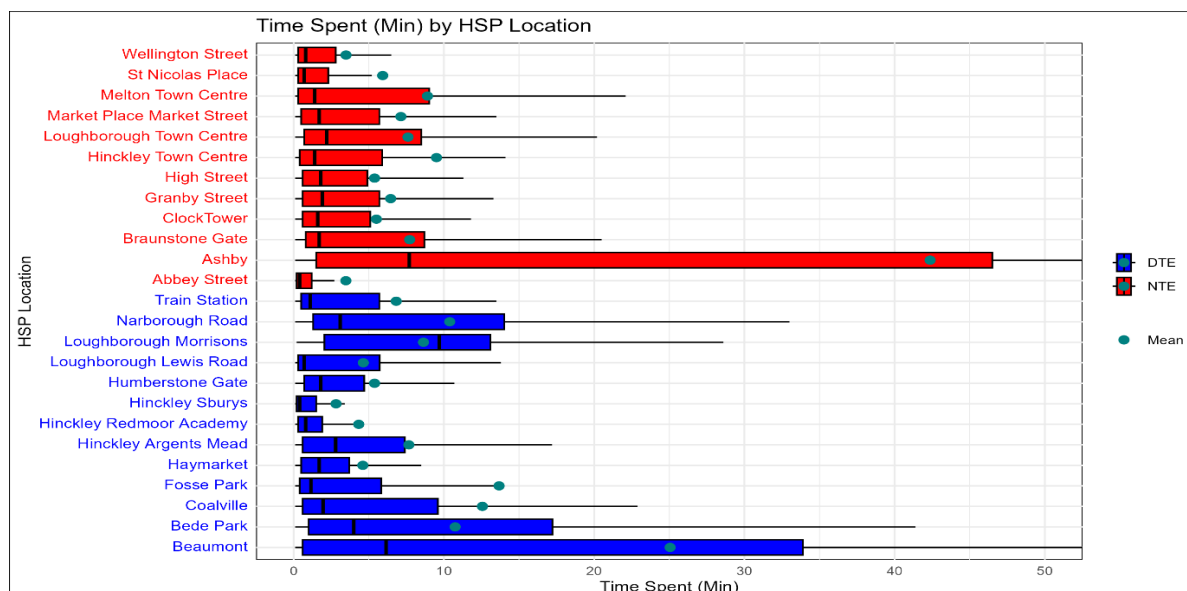


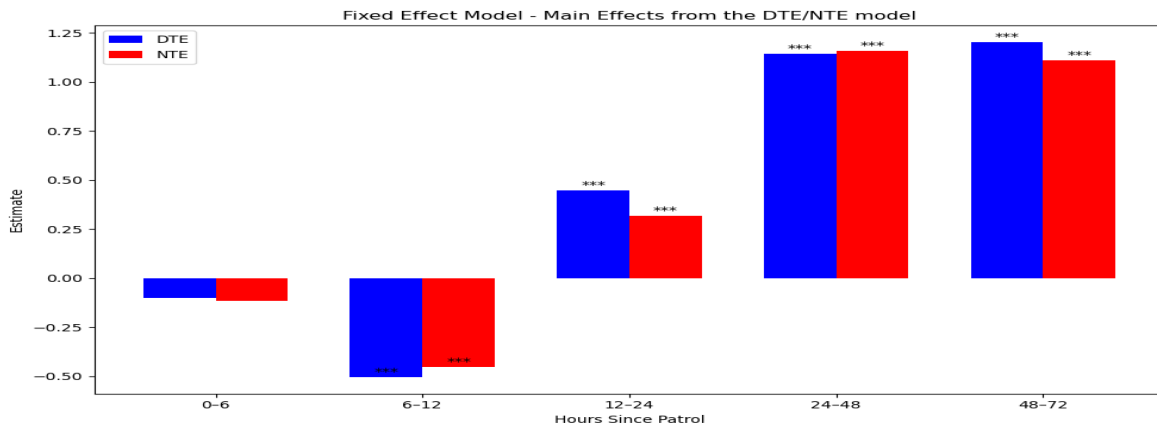
Figure 7 illustrates the mean and median number of minutes spent at each of the hot spot sites over the 12-month intervention period. This demonstrates considerable variation in HPS duration, with Asby and Beaumont receiving on average 30- to 40-minute hot spot patrols. In contrast, some sites, such as Abbey Street, Wellington Street, and St Nicholas Place, received less than 5 minutes on average. For several sites, the mean patrol time was less than 10 minutes, which is less than the suggested 15 minutes in the literature. However, these averages are calculated over 12 months, so extreme values may skew the results. Overall, this figure indicates that DTE and NTE hot spots received similar levels of hot spot patrols, in terms of the time spent (in minutes).

Figure 7: Hot Spot Patrols – average time spent per patrol

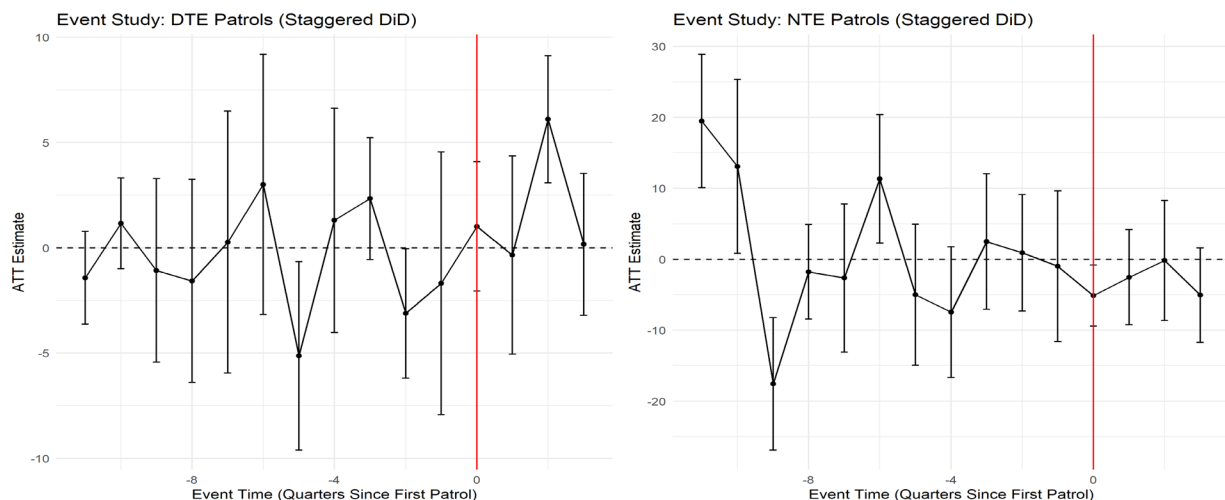


Two additional analysis methods were used (due to challenges in identifying appropriate controls): a Generalised Linear Model (GLM) and a Difference-in-Differences (DiD) model. The fixed effects model (Figure 8) revealed a distinct temporal pattern in the impact of the HSP intervention. Specifically, there were notable reductions in outcomes during the first 6 to 12 hours following the intervention, suggesting an immediate but short-lived deterrent effect. However, this was followed by increases in the 12 to 48-hour window, indicating a possible rebound or displacement effect shortly after the initial decline

Figure 8: Fixed Effects Model: Controls are within the same HPSs but at non-patrol times (>72 hours): DTE and ASB Hot spot Patrols



The staggered Difference-in-Differences (DiD) model uses a "not yet treated" control group. It estimates the average treatment effect over time by comparing treated locations to those that have not yet received patrols, separating results for Day-Time-Economy (DTE) and Night-Time-Economy (NTE) hot spots. This shows statistically significant impacts (reductions) around 6 months into the intervention for the daytime patrols, but these impacts then tapered off towards the end of the intervention. For the NTE patrols, no significant impacts were observed.



Overall, the evaluation highlighted several methodological and practical limitations. The treated areas represented only 1% of locations but accounted for 8% of crime, making it challenging to find comparable control units. This imbalance, along with the complex and context-dependent nature of crime, limited the generalisability of findings and increased the risk of bias. While the use of multiple models provided triangulation, the results underscore the challenges of evaluating police interventions in dynamic urban environments and suggest the need for more targeted, consistent, and context-sensitive approaches.

Policy Recommendations

- HSP strategies and tactics should focus on problem solving for specific crime types, given that the mixed HSP locations did not experience the reductions observed in others.
- The tactics of the NTE deployment should be reconsidered as this did not achieve the reductions of the DTE hot spots.
- There is a need to manage media and public expectations. HSPs may initially increase crime levels due to increased detection. Indeed, the research found reductions were realised halfway through the implementation period (around 6 months).
- There is an opportunity to engage with businesses as part of the deployment. Spending time speaking with business owners and managers, and visiting premises, may improve relationships and provide better intelligence on levels of shoplifting in the HSP locations.

Policy Recommendations

- There is a need to understand if, and why levels of stop and search and or arrests for drugs increased during the HSPs. This may have been a direct tactic, or one subjectively employed by officers.
- Research should be conducted into combining public awareness and communication strategies with HPSs.
- A post-implementation evaluation should be conducted to examine whether the HSPs' impact is sustainable.

Data, Methods, and Limitations

- Hot Spot Patrols (increased officer visibility on foot) were conducted over a 12-month period across 25 identified high-crime locations. (April 2024 to March 2025).
- These included serious violence, anti-social behaviour (ASB) and mixed profile hot spots. They included a mixture of night-time economy (NTE) and daytime economy (DTE) hot spots.
- Eight fieldworkers conducted street intercepts (surveys) and in-situ semi-structured interviews with businesses between November 2024 and March 2025.
- There were 1702 DTE surveys, 203 NTE surveys, and 213 interviews. Ten similar fieldwork control areas and ten hot spot patrol sites were identified for this purpose.
- Police crime data (violence against the person, public nuisance, criminal damage and arson, and drug offences) were analysed for a 3-year baseline period (36 months) and a 12-month implementation period.
- No pre-intervention (baseline) data were available on community and business perceptions.
- The HPS areas represented only 1% of locations in Leicestershire PFA but accounted for 8% of crime. They were spread across all major urban centres, making it challenging to find comparable control units.
- In response to this, the crime analysis (impact evaluation) employed synthetic control methods (SCM), fixed effects models, and difference-in-differences (DiD) models to address challenges in identifying appropriate counterfactuals – what would have happened without the HPSs.