UNIVERSITY OF BIRMINGHAM | CENTRE FOR CRIME JUSTICE AND POLICING

KNIFE CRIME ACROSS POLICE FORCE AREAS: THE ECONOMY MATTERS

June 2019

Executive summary

- Statistical analysis across 42 PFAs (Police Force Areas) shows that past knife crime rates and unemployment are the most important factors explaining knife crime.
- This suggests the positive role of improving employment opportunities in reducing knife crime.
- Any policy that reduces knife crime will have a long run positive impact because of the persistence of crime rates.

Background

Knife crime in England and Wales has risen consistently in the last three years, particularly involving young people. While various explanations have been suggested for this sharp rise, there has been little systematic data analysis to see how some of the hypothesised factors (e.g. cuts to police funding, general public sector cuts, unemployment rates) correlate with a rise in knife crime. This is important as we need a solid evidence base to inform policy to combat this increase. With around 40,000 offences in 2018 (as compared to less than 25,000 offences in 2014) and trends of increases in Accident and Emergency admissions from knife incidents, as well as increased severity, this has huge direct societal costs and also affects people's perception of safety. Researchers from the University of Birmingham's Centre for Crime, Justice and Policing provide a statistical analysis to explain knife crime and theories on factors contributing to this increase.

The team analysed knife crime across the 42 Police Force Areas (PFAs) [1] and used regression analysis to understand the impact of spending variations in police and other public services across time and PFAs, as well as that of other socio-economic factors that can potentially affect crime. Given the possible persistence of these effects, the team used past values of knife crime that also form a short hand for 'peer effects'.

Key findings

Results showed that:
1. Past crime is the primary predictor of future crime. We find that a 1% change in crime rate in a year is associated with a 0.7-0.8% increase in the following year, showing a high degree of persistence.
2. The second most important factor is unemployment, which increases knife crime significantly. A 1% increase in unemployment in the past year increases knife crime by 0.1-0.2%. In terms of numbers, a rise in unemployment levels from a low of 3% to a high of 6% could lead to between 2000-4000 more knife crime incidents yearly.

These results suggest that crime is both persistent and affected by unemployment. In other words past changes in employment can cause significant changes in knife crime. While social scientists have been puzzled by falling crime numbers during a recession, it seems past unemployment does have a significant effect on knife crime once we control for other relevant factors.

Somewhat surprisingly, neither police expenditure drops nor cuts in police numbers seem to affect knife crime. It should be noted that this is consistent with the drop in knife crime, and indeed all crime, observed in the data as police expenditure and numbers were cut. This suggests that the short-term impact of policing on knife crime may not be anywhere as large as hypothesised.

We do not suggest that policing cannot affect crime, since over time falling expenditure may stretch the forces, lower detection rate and ultimately incentivise criminals. However, for the period of analysis, this is not a significant factor in explaining knife crime.

Among other factors that cannot be captured in the data, mutual fear can cause more people to carry knives and lead to a cycle of violence. Thus there is a need to intervene and encourage people to surrender knives for which citizen's trust in feelings of safety are important.

Policy reccomendation: Our analysis points to the important role that employment plays in deterring knife crime.

Given the role of employment, it is important to look at ways to improve employment opportunities by empowering citizens with skills needed for gainful employment. Further, given the strong relationship with past crime, any policy that can lower knife crime will have positive long-run effects which must be taken into account when doing a cost benefit analysis.

Research methods

The team ran a regression with knife crime convictions per thousand of population from ONS data as the dependent variable and the independent variables were expenditure

variables per thousand of population (such as police, fire, housing, education social care) as well as socio-economic and demographic variables, including unemployment, wages, percent of young population. All data were aggregated at the PFA level for the period 2008-17.[2]

It should be noted that the analysis is not causal as the team have not been able to take advantage of a randomised control trial or a natural experiment. However, they have included important predictors of crime and also taken measures to account for possible reverse causality in the relationship through appropriate statistical techniques.

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Footnotes

[1] The City of London was excluded from the analysis due to lack of data.

[2] There are some missing data for 2018, the knife crime figures continue to show a rise in 2018 but a slower rate.

About the authors

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