

in brief...

Rapid response policing: the impact on crime detection

Is it worth police officers aiming to get to the scene of a crime as soon as possible after being alerted by a member of the public? Analysis of data from the Greater Manchester Police by **Jordi Blanes i Vidal** and **Tom Kirchmaier** indicates that such practices not only boost crime detection but also reduce the time it takes to find the offenders.

Police agencies across the world devote considerable resources to minimising their response times. They track and publicise response time statistics, and often include target response times as part of the core performance measures by which they are evaluated.

Indeed, according to the British Crime Survey, responding to emergency calls is the aspect of police work that is most valued by the public. And in a recent BBC interview about whether resources devoted to neighbourhood policing may have to be significantly reduced, Sara Thornton, chair of the National Police Chiefs' Council, said that officers would 'always respond to the pub fight, domestic abuse, to people in difficulty'.

Criminologists have long argued that the emphasis on rapid response policing is misplaced, since rapid responses have not been found to have any effect on crime rates or even on the likelihood of detecting a crime. But this widely held view is largely the result of a single piece of social science research: the Kansas City Response Time Analysis Study.

The US study examined a small number of crimes in two neighbourhoods over a period of four months and found no correlation between police travel time (the time between an officer being asked to attend a scene and arrival at the scene) and the likelihood of an arrest. The Kansas City Study was pioneering for its time. But it suffers from a number of significant shortcomings, including a limited and highly non-random sample, and the lack of any attempt to identify whether there is a real causal connection.

Our research examines the effect of police response time on the likelihood of crime detection using a uniquely large dataset and a credible strategy for identifying causation. We analyse data from the 2008-14 internal record of the Greater Manchester Police, which is the second largest force in England and oversees a local population of 2.6 million people.

A first look at our dataset indicates that response time and crime detection are negatively correlated. But it

would be naïve to interpret this correlation as evidence of a causal link. The police optimally assign different levels of priority to the calls for service that they receive. Crimes assigned a higher priority could be those with either a higher or lower difficulty of detection, making the identification of causation challenging.

To deal with this challenge, we make use of the fact that crime scenes closer to the police stations where the response officers are based can be reached more quickly following a call for service. Of course, unobserved determinants of detection difficulty at the crime scene might correlate with distance to the response station. To account for this, we exploit the partition of the Greater Manchester territory into 11 operationally distinct divisions.

This partition implies that crime scenes within a small local area but on different sides of a division boundary are served by separate response stations, which may be at very different respective distances. Once we have controlled for the 'local area' by introducing a large number of geographical cell indicators, variation in distance to the division response station is due to crime scenes in the same local area falling on separate sides of division boundaries. We use this exogenous variation in distance as our instrument for response time.

What do we find? A 10% increase in response time leads to a fall of 4.6 percentage points in the likelihood of detection. The effects are larger for thefts and robbery than for violent crimes, although they are large for every type of crime.

Longer response times
reduce the likelihood
of crimes being
detected, especially
thefts and robbery



Faster response times make it more likely that victims or witnesses will name a suspect

Our findings also hold on the intensive margin. When we look only at those crimes that are eventually detected, we find that the number of days it takes to detect those crimes is significantly lower when the initial response time is faster. A 1% increase in response time is associated with a 0.9% increase in the number of days that it takes to detect the crime, conditional on eventual detection.

So why would response time have such a large effect? There are many potential mechanisms: the police could arrest the offender either at the scene of the crime or in its vicinity; they could collect physical evidence before it is contaminated or destroyed; they could interview witnesses before they have left the scene; and they could encourage victim or witness cooperation by signalling efficiency and dedication.

While we cannot explore every possible mechanism, our dataset allows us to measure the importance of the last two mechanisms. In particular we have information on whether a suspect was named to the police by a victim or witness.

Unsurprisingly, the naming of a suspect is strongly correlated with the likelihood of detecting the crime: among the 24% of crimes where there is a named suspect, 65% of them are detected; whereas in the remaining 76%, the detection rate is only 29%. We find that faster response times lead to a higher likelihood of this type of cooperation by a victim or witness, suggesting that this is indeed a mechanism through which faster response times have a positive effect on crime detection.

So what should we make of all of this? The effect of response time on the likelihood of detection is statistically significant and economically large. We cannot compare the cost effectiveness of response time policing relative to every other use to which the police could devote their limited financial resources. Indeed, to the best of our knowledge, such an ambitious analysis has never been credibly undertaken.

But what our findings do suggest is that if the police are interested in detecting as many crimes as possible, rapid response policing is a major mechanism that can accomplish that. Our findings also illustrate that when social scientists and the public hold completely opposite views about the effectiveness of a policy, it may be the public that turns out to be right.

This article summarises 'The Effect of Police Response Time on Crime Detection' by Jordi Blanes i Vidal and Tom Kirchmaier, CEP Discussion Paper No. 1376 (<http://cep.lse.ac.uk/pubs/download/dp1376.pdf>).

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