

Institution: University of Birmingham
Unit of Assessment: C18 – Economics and Econometrics
Title of case study: Challenging perspectives on crime and crime policy
<p>1. Summary of the impact Critical public policy debates on the likely effect of reductions in police staffing levels and on understanding the implications of crime patterns have been informed by findings from research conducted at the University of Birmingham by Dr Siddhartha Bandyopadhyay. The novel research contributed to raising public and practitioner awareness and understanding of the possible impact of cuts in police staffing, whether or not “prison works” and in explaining the apparent paradox of a fall in recorded acquisitive crime during a recession. These findings, which often challenged political perspectives and conventional wisdom, were initially publicised by an independent think-tank, Civitas, and followed-up in national press articles (one of which generated approximately 450 reader comments) and presentations to stakeholder agencies including central UK Government.</p>
<p>2. Underpinning research The purpose of the underpinning research is to explain the determinants of crime and to identify the implications for crime reduction policy and the operation of the police and criminal justice system. The research involves theoretical modelling as well as empirical analysis. The theoretical research uses game theoretic modelling and provides an understanding of how innovative policies such as encouraging citizen reporting interact with standard policing and socio-economic factors in affecting the incentive to commit crime. The empirical analysis looks at the strength of the various determinants of crime, including the impact of several policy variables such as the Crime (Sentences) Act 1997 and the Crime and Disorder Act 1998. The main findings from the research are:</p> <ol style="list-style-type: none"> 1. An increase in crime detection by the police has an unambiguous impact in lowering crime rates and so is an important deterrent. 2. The relationship between prison sentencing and crime rates is complex. Prison sentences are lower for some categories, e.g. fraud and forgery, but not for others, e.g. theft and handling. Short sentences do not necessarily deter crime and in fact may even increase it as prison introduces inmates to criminal networks leading to greater crime opportunities once out of prison. For serious crimes, sentences may need to be longer; longer sentences deter would-be criminals and keep hardened criminals away from the public. 3. Socio-economic factors like inequality, employment and wages have a less clear-cut role on variation in crime rates as changes in these factors affect both costs and benefits of crime, making the net effect ambiguous. Further, socio-economic factors affect crime differently across high and low crime areas; for example, the impact of unemployment in increasing crime is strongest in high crime areas. 4. Innovative measures like citizen reporting can be counterproductive since without adequate training in crime detection, citizens may misread innocent activity as criminal and thus waste police resources by directing attention towards them. This leaves fewer resources to solve actual crimes and criminals can take advantage of citizens misreporting crime by generating false reports. Citizen bias about some groups having higher crime rates can be self-perpetuating i.e. an initial bias can become true. If citizens are known for their bias towards a group, law enforcement treats reports about that group less seriously. The group in question recognises that reports about them will be investigated less thoroughly and would therefore have more incentives to commit crime. Thus the initial bias against them leads to higher crime rates in that group even when their propensity to commit crime is identical to other groups <p>The policy implications are:</p> <ol style="list-style-type: none"> 1. Initiatives to increase detection rates should be encouraged. 2. High levels of detection should be widely publicised to deter potential criminals. 3. Non-custodial alternatives to short sentences should be actively considered. 4. Citizen reporting and target group profiling need to be carefully implemented.

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The research is novel for three reasons:

1. On the theoretical side, in its mathematical modelling of innovative policies such as citizen engagement in crime reporting. To date there is very little formal analysis of the way crime across groups is affected by encouraging citizens to report signals of incipient criminal activity. The research thus fills a gap in our understanding of complementary crime policies which encourage citizen reporting by mapping out the mechanisms by which it affects criminal activity.
2. On the empirical side, it uses modern econometric techniques to separate out causation from mere correlation, and in modelling crime dynamics by including a lagged dependent variable. Inclusion of a lagged dependent variable poses estimation challenges which are overcome using appropriate econometric techniques
3. In the use of both theoretical and empirical modelling to answer specific policy questions such as: a) under what conditions are neighbourhood reporting schemes useful in lowering crime? and b) are short prison sentences counterproductive in terms of crime reduction? Question a) is answered using a game theoretic model which derives conditions under which neighbourhood reporting is useful and b) is answered empirically by using a quadratic specification (instead of a linear regression model as is standard) and estimating 'turning points' for prison sentences below which they increase rather than reduce crime.

The research commenced in 2004 and continues to date. This ongoing research agenda is led by Dr. S. Bandyopadhyay, who joined the University of Birmingham in 2003 and is a Senior Lecturer in the Department of Economics. Two of the co-authors were in Birmingham during a substantial part of the research: Dr. Lu Han as a PhD student from 2004-9 and Dr. Marianna Koli as a Teaching Fellow from 2010-11.

3. References to the research

- R1) Bandyopadhyay, S. and Chatterjee, K., (2010) 'Crime reporting: profiling and neighbourhood observation', *The B.E. Journal of Theoretical Economics*, vol. 10l, ss. 1 (advances), article 7 [doi: 10.2202/1935-1704.1625] [submitted in REF2]
- R2) Bandyopadhyay, S., (2011) *An Analysis of Crime and Crime Policy*, CIVITAS: Institute for the Study of Civil Society [available from HEI on request]
- R3) Han, L., Bandyopadhyay, S. and Bhattacharya, S., (2013) 'Determinants of violent and property crimes in England: a panel data analysis', *Applied Economics*, vol. 45, no. 34, pp. 4820-4830 [doi:10.1080/00036846.2013.806782] (Previously published as a University of Birmingham, Department of Economics Discussion Paper)
- R4) Bandyopadhyay, S., Bhattacharya, S. and Sensarma, R. (2011) *An analysis of the factors determining crime in England and Wales: a quantile regression approach*, Birmingham: University of Birmingham, Discussion paper 11-12 [available from HEI on request]
- R5) Bandyopadhyay, S., Bhattacharya, S., Koli, M. and Sensarma, R. (2012) *Acquisitive crime, detection and sentencing: an analysis of England and Wales*, Birmingham: University of Birmingham, Discussion paper 12-09 [available from HEI on request]
- R6) Bandyopadhyay, S. (2013) 'Crime policy in an era of austerity', *Police Journal*, vol. 86, issue 2, pp. 102-115 [doi: 10.1350/pojo.2013.86.2.617]

4. Details of the impact

The Birmingham research findings have **contributed to high profile public and policy debates** on the likely effect on crime patterns of reductions in police staffing levels and changes to criminal justice policy. These issues are particularly relevant in the context of the intense pressure on public expenditure in the UK since 2010 and the high level of political and public attention given to crime and policing. More recently, the findings have featured as part of a debate about why crime rates have continued to fall during a recession and the appropriate policy conclusions to draw from this trend.

The research created impact in the following ways:

1. By **stimulating informed debate about crime reduction policy among important stakeholders** in the criminal justice system such as policy makers (e.g. the Home Office, Ministry of Justice), practitioners (e.g. the Police Federation), and opinion shapers (e.g. policy forums and think tanks interested in crime and criminal justice),

2. By **increasing policy-makers' and criminal justice professionals' understanding** of the complex relationship between policing, sentencing and crime levels, and **the implications of different policy prescriptions**, and
3. By **improving wider public understanding** of the issues through coverage in numerous print and on-line media (e.g. *The Economist*, *The Guardian*, *Society Central* and *Police Life Magazine*), exemplified by the significance of individuals who commented on and discussed this report and the underlying research in the media.

The findings were widely publicised by a think-tank, Civitas, and were reported in the national press as challenging the perspectives adopted by government ministers at the time, including those held by the Secretary of State for Justice and the Minister of State for Policing and Criminal Justice.

Public policy on police staffing levels and implications for crime detection

The public policy implications of the Birmingham team's research findings on the relationship between police staffing levels and crime detection were first taken forward by Civitas, a highly respected independent social policy think tank, which identified the significance of the papers (R3 and R4 above) and included them in a January 2011 Briefing, *Police reductions could see crime rate surge* (source 1 below). Following this, Bandyopadhyay was commissioned by Civitas to write two reports for publication. The first of these, *An Analysis of Crime and Crime Policy* (R2), was published in March 2011 and drew on the Birmingham research to explore the factors which had affected the extent of criminal behaviour in England and Wales over the previous decade. The second report, *Acquisitive Crime: Imprisonment, Detection and Social Factors* (July 2012), put forward the analysis of the impact of sentencing on crime levels (Source 2). The Deputy Director of Civitas has said that these reports "...proved to be of urgent interest to the public, the press, as well as several government bodies" and provoked significant high-level debate amongst criminologists and policy researchers (source 3).

Civitas accompanied the publication of these reports with press releases which highlighted the challenge they presented to public policy. They said the March 2011 report challenged Government claims that police cuts would not endanger the public; and that the 2012 report showed that tougher prison sentences would actually contribute to reducing property crime (source 4). These were – and remain – issues of extensive public and political concern, and led to further comment in the national press and within the policing policy community.

The reports were circulated to civil servants in the Home Office and Ministry of Justice by Civitas, leading to a meeting between Bandyopadhyay and senior Ministry of Justice officials who, as a result, expressed an interest in expanding their evidence base. This developing relationship was followed-up by a high profile seminar organised by Civitas in November 2012, where Bandyopadhyay used these findings to debate crime policy with Richard Garside, Director of the Centre for Crime and Justice Studies (an independent body, established in 1931, that works for a safe and just society), before an audience of Whitehall officials, including the Ministry of Justice's Chief Scientific Adviser and representatives from the Police Foundation (an independent think tank concerned with developing knowledge and understanding of policing and crime reduction).

There was also growing media response to the Civitas reports. The findings on the impact of detection were reported in *The Guardian* (7th January 2011) under the headline "Police cuts will boost crime says thinktank Civitas", prompting comment from the police minister at the time, Nick Herbert MP, and a response from his Labour shadow. The first commissioned report prompted further coverage, including from the *Daily Mail* (Mail Online, 14th March 2011) focusing on the effect cuts in police spending could have on crime levels (source 5).

Typical of the debate prompted by the analysis of the effect of sentencing was an article in *The Observer*, "Longer prison terms really do cut crime, study shows" (7th July 2012) which generated 282 reader comments and the subsequent response in *The Daily Telegraph* on 11th July (generating a further 477 comments), with other pieces in *The Daily Express* and *The Sunday Times*. In response, Jack Straw MP, the former Secretary of State for Justice, wrote an opinion

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piece (12th July 2012) commenting on the Birmingham research findings in the CIVITAS report. The CIVITAS report was particularly timely as government ministers, especially the Secretary of State for Justice at the time, the Rt. Hon. Kenneth Clarke MP, were debating with some of their backbench colleagues about whether there was evidence that “prison worked” (source 6).

Policing websites and blogs also commented on the findings; for instance, Simon Reed, Vice-Chairman of the Police Federation of England and Wales (the national organization representing 124,000 police officers), commented that this was a significant report which showed “that a reduction in police officer numbers as a result of a 20 percent cut to policing is highly likely to lead to increased crime rates and create a more dangerous society” (source 7).

Understanding falling crime rates

Bandyopadhyay participated in a panel discussion on ‘Why crime rates are falling’ organised by the Criminal Justice Alliance (CJA) in April 2013. The CJA is a coalition of 70 organisations - including campaigning charities, voluntary sector service providers, research institutions, staff associations and trade unions - committed to improving policy and practice across the criminal justice system.

Alongside Bandyopadhyay, the other panellists were Professor Mike Hough (Professor of Criminal Policy and Co-Director of the Institute for Criminal Policy Research, Birkbeck College, University of London), Richard Garside, Director, Centre for Crime and Justice Studies, and Sara Thornton, Chief Constable, Thames Valley Police. The panel discussion was chaired by Mark Easton, the BBC’s Home Editor and the audience included representatives from the Home Office, the Sentencing Council (an independent body created by the Ministry of Justice to promote greater transparency and consistency in sentencing), the Howard League for Penal Reform (a long-established criminal justice charity), the Police Foundation, the Police Federation, and NACRO (which works with offenders and those at risk of offending). This enabled Bandyopadhyay to disseminate his work to a wide audience of government policy makers, professions and agencies working in various parts of the criminal justice system, and influential think tanks shaping policy and practice.

The Office of National Statistics (ONS) cited this research as one of the possible explanations of reductions in acquisitive crime in England and Wales in their publication *Trends in Crime - A Short Story 2011/12* (July 2012) (source 8). Bandyopadhyay’s analysis was also reported in *The Economist* (April 20th 2013) (source 9) as part of an analysis of crime trends. Subsequent articles published by *Police Life* and *Metropolitan Life* (both May 2013) by Bandyopadhyay, both professional journals targeted at serving police officers, have also drawn upon his research in analysing changing crime patterns. This has shown that the data can be used to provide a consistent explanation for crime patterns.

5. Sources to corroborate the impact

1. <http://www.civitas.org.uk/crime/europolice.htm>
2. <http://www.civitas.org.uk/crime/crimepolicyMarch2011.pdf> and <http://www.civitas.org.uk/crime/crimeanalysis2012.pdf>
3. Corroborating statement from Deputy Director, Civitas, available from the University
4. Copies of the press releases available from the University
5. See <http://www.guardian.co.uk/uk/2011/jan/07/police-cuts-crime-civitas?INTCMP=SRCH> and <http://www.dailymail.co.uk/news/article-1365978/Police-cuts-open-invitation-criminals-commit-crime--researchers-claim.html>
6. http://www.guardian.co.uk/law/2012/jul/07/longer-prison-sentences-cut-crime?CMP=twf_fd , <http://blogs.telegraph.co.uk/news/edwest/100170214/why-a-liberal-whos-been-mugged-doesnt-become-a-conservative/> and http://www.lancashiretelegraph.co.uk/opinion/jack_straw/9813785.Column__Getting_tough_on_career_criminals_does_work/
7. http://www.ifsecglobal.com/document.asp?doc_id=552734
8. http://www.ons.gov.uk/ons/dcp171776_273394.pdf
9. <http://www.economist.com/news/britain/21576437-better-policing-only-one-reason-why-despite-persistent-economic-slump-and-high-youth>