

Measuring police value for money

16th May 2016 - PRESENTATION TO ADVISORY COMMITTEE

<http://ggcpp.nuff.ox.ac.uk/index.php/projects/>

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Outline of presentation

Who needs to know?
 What is the question to which PCCs are the answer?
 Why is value for money hard to measure?
 Previous research
 Our project



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Who needs to know? A: Governments

Governments need to cut labour-intensive public services

- But protect, e.g., health, pensions, for political reasons

Therefore sharp cuts in unprotected services

- Public Protection function cut by up to 40% in current UK Spending Review
- Doesn't directly affect Scotland (or NI) but does indirectly
- Hurriedly bolting back on things on radar, esp. anti-terrorism
- Within policing, slogans say 'protect frontline services'; 'bobbies on the beat' (i.e., skew budget pro labour intensive services – using expensive labour)



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Who needs to know? B: regulators & academics

Professional body: CIPFA – sponsor of our research

Inspectorates: HMIC and HMIC(S)

Home Office, Scottish Government

Previous academic research

- Some generously funded
- Inconclusive answers
- Some lines of research last till funds run out: no long-term monitoring

Known knowns, e.g., bobbies on beat ineffective

Known unknowns, e.g. relationship between force size and value for money



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Police and Crime Commissioners (PCCs)

Introduced in 2012

Cover most forces, but not London or Scotland, nor non-territorial forces

- Transport (within our study). Why BTP covers trains but not ships, planes, or roads
- Ministry of Defence (not in study)
- Northern Ireland (not in study)

Meant to increase democratic accountability

Second election 2016: Greater Manchester drops out



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What is the question to which PCCs are the answer?

Democratic deficit

- Pre PCCs, little democratic control. Traditionally, none in London (or BTP, MoD). In shires, very indirect (councillors nominated to sit with magistrates)
- BUT very low turnout in first PCC elections in 2012
- Natural experiment: non PCC forces (Met, City, BTP, Scotland, MoD)

No evidence to date that PCC regime helps value for money

- Police precept still hidden in council tax bills
- Direct funding opaque
- What do PCC candidates run on? (We will ask some, and have looked at campaign literature)
- Do the public want a proven ineffective solution? (bobbies on the beat)



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Why is Value for Money so hard to measure?

Lots of descriptive stats, e.g., costs per head, staff per head

AND crime data: recorded crime; more recently reported crime

Difficult to determine input and output measures – what do the police actually do?

BUT: fundamental point due to Carr-Hill and Stern (1973, 1979):

- IT'S ALL INTERACTIVE
- E.g., more officers → more recorded crime (? → more officers?)
- More deprivation ↔ more crime (harder to run businesses in deprived areas)

AND: solving crimes is not all they do:

- They prevent crimes
- And deal with the frail, confused, and mentally ill
- Pilot completed in one large metropolitan force, saw the introduction of mental health nurses into call centres. Assessments of patterns of reduction of emergency calls reduced police demand by 15%. The 15 most prolific callers were causing 40% of incidents.



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Previous research

Carr-Hill and Stern

- Simultaneous equation modelling
- Hard to interpret. Hasn't been followed up
- Should have warned people never again to use recorded crime as dependent variable
- But they do

Other attempts at novel techniques:

- E.g., Drake & Simper – Data Envelopment Analysis (DEA)
- Ended when grant ended
- Unstable results. Used recorded crime

So most people use the old warhorse, regression analysis



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Our research: qualitative

Scope: forces with PCCS; some without (the Met, Scotland, BTP)

- Exclude City of London, MoD (too different); N Ireland (differently too different)

Interview participants, interrogate manifestos, political statements

Within size and scope of project, can't hope to get a representative sample of players

But hope to collect varied perspectives

One natural experiment: force size. Plan to explore Scotland v Wales and speak to participants in both



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Our research: quantitative

Learn from past errors

Use verifiable dependent variables (e.g., reported crime experience from BCS)

- But limited data at force level

If we HAVE to use recorded crime, mitigate effects by building difference-in-difference models

- Assume that the differences between observed reports and the unobserved 'real' level of crime doesn't change much in short run

HMIC force ratings: can they be treated as objective indicators?



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References

R.A. Carr-Hill & N. Stern

- 1973. "An econometric model of the supply and control of recorded offences in England and Wales" *Journal of Public Economics* 2:289-318.
- 1979. "Crime, the Police, and Criminal Statistics: an analysis of official statistics for England and Wales using econometric methods" London: Academic Press.

L. Drake & R. Simper

- 2000. "Productivity estimation and the size-efficiency relationship in English and Welsh police forces: An application of data envelopment analysis and multiple discriminant analysis". *International Review of Law and Economics* 20: 53-73.
- 2001. "The Economic Evaluation of Policing Activity: An Application of a Hybrid Methodology". *European Journal of Law and Economics* 12: 173-192.
- 2003. "An evaluation in the choice of inputs and outputs in the efficiency measurement of police forces". *Journal of Socio-Economics* 32: 701-710.
- 2003. "The measurement of English and Welsh police force efficiency: A comparison of distance function models" *European Journal of Operational Research* 147: 165-186.
- 2005. "Police Efficiency in Offences Cleared: An Analysis of English 'Basic Command Units'". *International Review of Law and Economics* 25: 186-206.



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