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Can the output of collective services be measured?
The case of Public Order and Safety

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Abstract

In December 2003 Sir Tony Atkinson was asked to conduct an independent review of the measurement of government output and productivity. An independent review was felt necessary because current measures of government output were not considered robust. The Atkinson Review was tasked with advancing methodologies for the measurement of government output, productivity and associated price indices in the context of the National Accounts, as set out by the National Statistician.

Following the publication of the Atkinson Review: Final Report in January 2005, the UK Centre for the Measurement of Government Activity (UKCeMGA) was established to improve the measurement of public services output and productivity, taking forward the findings in this report.

The Atkinson Review Final Report can be found at:

http://www.statistics.gov.uk/about/data/methodology/specific/PublicSector/atkinson/final_report.asp

Output measures can be used to calculate the productivity for different areas of government and these productivity estimates can be used by; the general public to assess the performance of the Criminal Justice System; by ministers and policy makers to assess and devise policy; different components of the Criminal Justice System to monitor performance; as well as the research community for more involved analysis. Different methodologies may be suitable for these different users/uses.

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Introduction and definitions

Public Order and Safety is a category within the UN's Classification of the Functions of Government (COFOG)¹. The UK's work on measuring government output is conducted mainly within the context of final expenditures within GDP: COFOG categories provide a natural building block for this approach. The Public Order and Safety category includes police, fire protection services, law courts (both civil and criminal), probation services and prisons.

The System of National Accounts 1993 (SNA93) classifies Public Order and Safety as collective services. Simplistically, these are services that are delivered to every member of the community simultaneously, as opposed to individual services which can be recorded as being received willingly by individuals. For example, a policeman on patrol is protecting the whole of the community, whereas a doctor performing an operation is delivering the service to an individual.

Current guidance

Current international guidance (the *Eurostat Handbook on Price and Volume Measures in National Accounts*²) states that it is preferable to measure government output using direct output methods (rather than equating outputs to inputs). This applies to both individual and collective services. However, measurement of the outputs of collective services is particularly challenging and little progress has been made in developing direct volume measures in this area. This paper presents the ideas currently being considered in the UK to take this work forward.

Ideas on implementation

One possibility would be to take an agency by agency approach. This would require identifying the outputs of the various agencies involved in Public Order and Safety: the police, fire services, law courts, probation services and prisons. This would reflect the approach taken in other functions. In education and health, for instance, the chosen output measures identify the outputs produced by various agencies and aggregate them: in health, for instance, the output indicator is an aggregation of the various outputs of hospitals, of general practitioner services, of ambulance services etc. Each agency provides services consumed directly by beneficiaries and which, at least for the purpose of the output measure, are treated as separate.

Using the same approach for Public Order and Safety would lead us to measure the separate processes of investigating crimes, prosecuting defendants and enforcing sentences. There may be some sense in measuring efficiency on an agency by agency basis. But it is difficult to argue that each of these agencies produces its own separate outputs, each of which is consumed by its customer, the public. The public may not think of itself as the consumer of a police investigation by itself: that seems of little value without taking account of follow-up actions. The result of the investigation could be regarded, in effect, as an intermediate output. What is more likely to be

¹ <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=4>

² Eurostat: Manual on Price and Volume Measures in National Accounts, 2001

valued by the public is the result of a series of related actions, such as a case which is investigated and produces a detection, is passed on to prosecutors and then to a court which secures a conviction. Indeed, detection of a serious crime which follows this route seems likely to be more highly valued by the public than detection of a minor crime.

This approach – in which we try to measure the output of a system rather than of each of its constituent parts – is currently being developed in the UK by the Home Office, the Department for Constitutional Affairs, the Office for Criminal Justice Reform and the Crown Prosecution Service. Using this approach requires the selection of end points which form one important boundary for what is being consumed. These end points could include the issuing by the police of a caution, a fine, a reprimand or a final warning; and conviction by a court to a custodial sentence, community punishment, a fine or drug rehabilitation. Other possible end points include acquittals, suspended custodial sentences, drug treatment orders, supervision orders and discharges. These end points in the Criminal Justice System have been termed “disposals”. Expenditure on a case which has not reached an end point valued by society – for example, a crime which remains unsolved – is unlikely to have generated value to society and therefore does not generate an output – even though inputs will have been consumed.

Overheads and expenditure on activities that fail to produce a valuable output in the above sense should be counted against the cost of the successful outcomes. That is not fully satisfactory: for instance, it gives no value to the fact that police activities not leading to a detection may still have deterrent effects and thus have a value.

Outputs should ideally be weighted together in a way which reflects the value society puts on each of them. But, to the extent that this is not possible, it is expected that the weights used will reflect the cost of performing the services.

Completing the framework

On current plans, the measure for Public Order and Safety would comprise:

- the “disposals” by the criminal justice system as identified above;
- the outputs of the correctional services which are tasked to administer the sentences imposed by the courts; these include prisons (measured in terms of total number of person-nights) and probation (total number of weeks of supervision);
- police activities not related to the investigation of crime (e.g. patrolling, crime prevention);
- civil courts (various activities performed);
- fire services (various activities performed);

All these outputs must be aggregated to produce an overall output series for Public Order and Safety. This is still work in progress though much has been achieved to date, not only in specifying a framework but also in measuring the cost and the incidence of the various components.

The same principles apply here as elsewhere in government output. Activities must be identified at the most disaggregated level possible so as to allow the output indicator to adequately reflect “changes in the mix” over time. Identifying weights requires

close cooperation with the accountancy function in each of the services being measured: the cost data required by this framework are not always easily identifiable within the current financial reporting systems. Much work is therefore required to derive the data required from detailed financial records.

The quality dimension of outputs is something which it has not been possible to quantify to date. But it is not difficult to identify some areas where quality change happens and therefore needs to be quantified. In recent years, the numbers held in prison have grown rapidly, leading to overcrowding. That is a situation which is generally viewed as giving prisoners conditions which are below the standard society has set out to achieve. Other quality themes include protecting prisoners from harm, limiting escapes from prison and limiting drugs use in prison. The UK does not have any operational quality adjustments at present.

Conclusion

Measuring the output of Public Order and Safety in a meaningful and accurate way requires much cooperation and goodwill from all the services concerned. But the results, when they eventually emerge, should provide a different – and interesting – window on an important part of government.

References:

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