

Measuring crime

Written for the Question Bank by Mike Hough, 2002

Court and police measures of crime

There have been records of criminal court proceedings for almost as long as there have been criminal courts. In the 18th century Jeremy Bentham advocated the use of national court statistics as a sort of 'political barometer' indicating the moral health of the nation. For a long time these were the only social statistics which related to crime. Of course court convictions were – and are – only a very rough guide to the extent of crime. Only a small minority of crimes committed are ever brought to court.

With the development of 'modern' police bureaucracies in the 19th century came crime statistics recorded by the police. These were statistics of *crimes* known to the police, rather than of *offenders* dealt with in court. England and Wales was one of the first jurisdictions to require police forces to maintain annual crime statistics. Many other industrialised countries, especially those in mainland Europe, began to maintain statistics of recorded crime only in the 20th century.

For most of their history, police statistics have been interpreted as a fairly unproblematic guide to the extent of crimes *committed*. In fact those involved in the preparation of national crime statistics have long been aware of their limitations. A century ago, for example, the 1897 Crime Statistics for England and Wales contained an erudite and elegant account of the pitfalls of crime statistics. The problems in measuring crime are that:

- Victims will often decide against notifying the police
- When they *do* notify the police their account of events may not be accepted
- And even if it is accepted, there may be reasons – good or bad – for leaving the crime unrecorded.

The upshot is that the police count of crime is only a very partial one. The majority of crimes – and especially the less serious crimes – never reach police statistics. Take the offence of criminal damage, for example. A vandal runs a coin down the side of a new car; the damage will cost at least £100 to repair. The victim may notify the police, but may well decide against doing so, especially if their insurance policy discourages them from making a claim. Even if they do report the crime, the police may question whether the damage was actually intentional; it could have been accidental. And the pressures on the police to inflate or deflate their statistics vary over time. In the 1970s police forces with high crime counts were rewarded with extra resources. In the 1990s, by contrast, chief officers who failed to meet performance targets in reducing crime were subject to criticism.

Thus the proportion of crime reported to the police can vary over place and time, as can the proportion of reported crimes which get into police records. In other words the ratio between crimes committed and crimes recorded is not necessarily constant over place and time, making police statistics an unreliable index of crime. For most of the 20th century, politicians in developed countries ignored this reality, and treated changes in recorded crime at face value. It was only towards the end of the century, with apparently rapid increases in crime, that the need for fuller and more reliable indices of crime emerged.

The British Crime Survey

The alternative index of crime which many countries have developed over the last three decades is the crime survey, also known as victim surveys or surveys of victimisation. The

principle is simple. Instead of counting crimes known to the police, one surveys a sample of the population, asking them directly what crimes have happened to them over the recent past. It is then possible to gross up to the population as a whole, to yield a count of crimes *committed*, as opposed to crimes *recorded by the police*.

Origins

The earliest recorded crime survey took place in the Danish city of Århus in the 17th century. However large-scale sample surveys are a relatively recent phenomenon, pioneered by American researchers who worked for the Presidential Crime Commission which reported in 1969. These crime surveys led to a national US programme of victimisation surveys, the main one being a national survey of households which is still in existence today.

A similar survey has been in existence in Britain for twenty years. The first British Crime Survey (BCS) was commissioned by the Home Office in 1981. Since then, sweeps have been conducted in 1984, 1988, 1992, 1994, 1996, 1998 and 2000. More recently the survey design has been substantially revised and extended, to take the shape of a very large continuous or rolling survey (see below).

The original BCS was regarded as a very costly investment, and in its current shape it is still more expensive. What prompted government to commission it? In the early 1980s there was a belief amongst politicians, civil servants and criminologists that the police statistics were substantially overstating and misrepresenting the crime problem. It was thought that more widespread insurance protection and greater access to telephones were resulting in a greater proportion of crimes committed to be *reported* to the police. And it was suspected that computerisation of police statistics and the methods of allocating police resources were interacting to drive up the proportion of reported crime that was *recorded*.

The survey has continued to earn its keep partly because of its value as a corrective to police statistics, and partly because of the richness of information that it has been able to yield about the nature of crime. More recently, the size of the sample has been substantially to allow it to yield estimates for regions and for police force areas. It is also regarded as an authoritative source of information on fear of crime, confidence in the police, attitudes to punishment and other crime-related issues.

Methods

The 2000 BCS is described here; only preliminary findings for the 2001 survey had been published at the time of writing, drawing on a sub-sample whose design followed that of the 2000 sweep. Previous sweeps differed from the 2000 BCS only in minor detail. The 2000 British Crime Survey was carried out in the first half of 2000 by the National Centre for Social Research. Design of the survey was shared between staff of the Home Office Research, Development and Statistics Directorate and the National Centre.

i. Sampling

The 2000 BCS comprised a 'core' sample and an additional 'booster' sample of black and South Asian respondents. The core sample was designed to give, after appropriate weighting, a representative cross-section both of private households in England and Wales and of individuals aged 16 and over in such households. As in BCS 1992–1998, but not in earlier sweeps, the Postcode Address File (PAF) was used in 1996 as the sampling frame as it represents the fullest register of household addresses. (The PAF is a listing of all postal delivery points in the country, almost all households having one delivery point, or letter box.)

The sample was stratified by police force area with the aim of ensuring that there were more than 300 interviews in each police force. The sample design required selection of 906

postcode sectors as primary sampling units (PSUs). These were selected systematically from a randomly selected start point, once sectors had been sorted according to population density and household class. Slightly adapted procedures were employed in small police force areas, to ensure that the minimum number of respondents was achieved in these areas.

Once postcode sectors had been selected, 32 addresses were randomly selected from each. Then, where there were two or more dwelling units at an address (2% of the total), interviewers randomly selected one. Finally, in dwelling units with two or more person aged 16+, interviewers selected one, using a randomising procedure.

The booster sample was assembled partly by over-sampling in areas with high densities of minority ethnic groups, and partly through a process of “focused enumeration” whereby respondents were selected from homes adjacent to those of core respondents if they were from ethnic minorities.

ii. Fieldwork

The 2000 core sample covered a nationally representative sample of 19,411 households in England and Wales, and a booster sample of 3,874 ethnic minority respondents who defined themselves as black or South Asian. The response rate for the core sample was 74%, and for the booster sample 58%. One adult (defined as 16 or older) in each household was interviewed. Computer assisted personal interviewing (CAPI) procedures were used.

iii. Structure of the questionnaire

These were several parts to the questionnaire: the *Main Questionnaire*; *Victim Forms* (a maximum of six per respondent, with the fourth, fifth and sixth forms being truncated versions); one of two possible *Follow-up Questionnaires*, a further set of questions on household fires, the *Demographic Questionnaire* and two *Self-completion Questionnaires* (which covered questions about drugs for those aged 16-59 and questions about experience of sexual victimisation for women aged 16-59).

People were initially ‘screened’ in the main questionnaire to see if they had been the victim of a wide variety of crimes in the period between 1 January 1999 and interview (typically in February – May 2000). Anyone who had been a victim completed up to a maximum of six victim forms, which collected details about the crime, including when and where it occurred, and whether it was reported to the police.

Once people had been asked about their experience of crime, they were asked about other crime-related topics. They were randomly assigned to one of the two versions of the Follow-up Questionnaire. Follow Up A focused on contact with the police, whilst Follow Up B covered attitudes to, and knowledge of, punishment, views about neighbourhood watch, household and vehicle security and various other issues. Next they completed questionnaire on fires, then the Demographic Questionnaire, and finally those under 60 answered questions about illicit drugs and about sexual victimisation.

The questionnaire structure is highly complex, and it would have been impossible to administer it using traditional ‘pencil and paper’ methods. However, computer assisted personal interview meant that the interviewer could be guided with complete accuracy from module to module. The rationale for introducing different follow-up questionnaires was that the largely attitudinal questions asked at this stage of the interview did not require the same precision as those relating to crime; it made sense, therefore, to split the sample into two, extending topic coverage at little cost in terms of precision. The selected adult respondent in each household completed the Main, Demographic and one or other version of the Follow-up

Questionnaires. Victim Forms were completed only by those who said they had experienced a crime since the beginning of 1999.

iv. Sampling error and design effects

The sampling design, particularly the stratification and degree of clustering of addresses, has an effect on the statistical reliability of the results. A design factor quantifies this effect on estimates, and is a measure of the expected variability of estimates from repeated samples of the sample design, relative to a simple random sample. Design factors for the core sample typically ranged from unity to 1.25.

v. The 2001 BCS

Full details of the 2001 BCS will be released in mid 2002. The design has been substantially revised, the main changes being a greatly extended sample of 40,000, and a shift from a 'snapshot' survey to a rolling or continuous survey. The latter change was a consequence of the former, because it would have been impossible to assemble a sample of 40,000 people for interview in the first part of the year. As it was, the surveys of the 1990s had had an increasingly large proportion of interviews falling outside the first three months of the year, reducing the reliability of victims' reports about crime in the previous calendar year.,

Once the decision had been taken to run a continuous survey, the 'reference period' was changed from a calendar year to a 12-month reference period. That is, when screened for crime, people were asked about their experience of crime in the previous 12 months, rather than in the period from the start of the preceding calendar year. This is because it has been shown that people cannot accurately remember the detail of events which happened over 12 months previously.

However, in order to preserve continuity with previous sweeps the 2001 BCS had a spliced sample, with a quarter (8,985) being selected and interviewed in a way which was totally consistent with the 2000 sweep.

Technical limitations

The BCS is now one of the largest and best-known government surveys. It has made a very significant contribution to understanding of crime, and public debate about crime trends is much better informed and more sophisticated than it was twenty years ago. However, like any sample survey, the BCS has its limitations.

Sampling error imposes limitations on what can be said about trends, especially for rare crimes such as street robbery. The survey provides a picture of overall trends, rather than a precise estimate of year-on-year changes for specific categories of crime. For example, the best estimate of the number of burglaries in 1999 was 1,284,000. Sampling error could mean that the true figure lies somewhere between 1,175,000 and 1,393,000 burglaries. Robberies are rarer: half of one per cent of the sample in 2000 said that they had been robbed in the previous year, and grossed up to the population as a whole, the survey indicates that there were around 350,000 robberies in 1999. This estimate is highly precise in absolute terms, but the true value could lie anywhere between 240,000 and 466,000.

Sample bias is another problem, especially as response rates have fallen over time. The 1996 survey achieved 82.5%, a figure which fell in 1998 to 78.7%, in 2000 to 74% and in 2001 to 71%. It is hard to say whether those most at risk of crime are more or less likely to be included in the sample now than five years ago. Those who are hard to contact and those who refuse to take part may share characteristics that make them more vulnerable than others to crime.

Response bias is a problem, especially when asking about experience of crime. People may forget incidents, misremember them or dissemble. Particularly with less serious incidents, people find it hard to recall precise dates, and may say that a crime occurred within the reference period when it didn't, or vice versa. Some victims will not wish to talk about some of their experiences, where these are painful to recall or embarrassing to describe. Some will not report incidents to the interviewer simply to reduce the length of interview.

Finally the coverage of the survey is limited in several ways. It does not include the experiences of people under 16 – a group especially at risk of some sorts of crime – or of people in institutions. There are crimes committed against individuals which cannot readily be covered by a survey, such as fraud. There are also many types of crime involving corporate or institutional victims, such as shoplifting, many forms of white-collar crime and vandalism. Again, a household survey is not a sensible way of measuring these. Nor should one omit offences involving pollution and other damage to the environment, whose long-term effects may be far more severe than most conventional crimes.

Thinking about crime

The lay person thinks, reasonably enough, that it should be possible to provide a fairly definitive answer to questions about the extent of crime and trends in crime. For most of its life, and in most of its analyses, the British Crime Survey has taken this frame of reference as a given, and has aimed to improve our knowledge about levels and trends. It has often presented itself as revealing more of the 'complete picture' about crime and charting the 'dark figure' of unrecorded crime. In doing so it has performed a valuable service.

However, this perspective has masked an important reality about crime, that it is ultimately a normative, rather than a descriptive, concept. Crimes are events that *ought* to be dealt with by the criminal justice system, rather than events which are illegal according to the letter of the law. The playground fight, minor act of vandalism, the use of office phones for personal calls are - judged against the latter criterion – all crimes. We do not usually regard them as crimes, as the vast majority of cases are simply not appropriate for the attention of the criminal justice system. There are important political choices to be made about the sorts of events and processes which should be dealt with by the criminal justice system.

For some purposes it makes sense to reconceptualise crime surveys as machines which count various categories of *social harm* rather than crimes. According to this perspective, they can tell us about variations over time, place and social group in the ways in which the victims of these social harms look to the police and the criminal process for help in redressing the harm. Domestic violence and racial victimisation are clear examples of the latter. The value in this perspective is that it reveals more clearly those forms of harm from which the criminal process is retreating, and those with which it is engaging more fully.