2004-5 British Crime Survey (England and Wales)

Technical Report Volume I

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1. Background

1.1 Introduction to the British Crime Survey

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The British Crime Survey (BCS) is a well-established study and one of the largest social research surveys conducted in England and Wales. The survey was first conducted in 1982 and ran at roughly two yearly intervals until 2001, when it became a continuous survey[1]. The survey is carried out for the Home Office, and is managed by a team of researchers in the Research, Development and Statistics area of the Crime Reduction and Community Safety Group. They develop each survey in collaboration with an external research organisation. Since 2001 *BMRB Social Research* has been the sole contractor for the survey. The current contract was awarded to BMRB by competitive tender in 2004 and lasts until the end of the 2006-7 survey.

The 2004-5 survey was conducted using a slightly different design compared with the previous few rounds of the survey. The main reason for this change of survey design was to achieve a minimum of 1,000 interviews in each Police Force Area. The overall impact of this was a total sample size of approximately 46,000 in 2004-5 compared to 37,000 in 2003-4.

The BCS is primarily a **victimisation** survey, in which respondents are asked about the experiences of **property crimes** of the household (e.g. burglary) and **personal crimes** (e.g. theft from a person) which they themselves have experienced. Following the move to continuous interviewing in 2001 the reference period for all interviews has related to the last 12 months before the date of interview. Although there have been changes to the design of the survey over time, the wording of the questions that are asked to elicit victimisation experiences, have been held constant throughout the life of the BCS.

Respondents are asked directly about their experience of crime, irrespective of whether they reported these incidents to the police. As such the BCS provides a record of peoples' experiences of crime which is unaffected by variations in reporting behaviour of victims or variations in police practices of recording crime. The BCS and police recorded figures should be seen as a complementary series, which together provide a better picture of crime than could be obtained from either series alone.

The scope of the BCS goes well beyond the counting of criminal incidents, although it is for this estimate that it has become established as a definitive source of information. In order to classify incidents, the BCS collects extensive information about the victims of crime, the circumstances in which incidents occur and the behaviour of offenders in committing crimes. In this way, the survey provides information to inform crime reduction measures and to gauge their effectiveness.

As well as providing estimates of victimisation, the BCS has been used to collect high-quality information on a range of other crime-related topics, which are designed to inform the Home Office's other performance targets. Some of these topics have been well-established aspects of the BCS, providing time-series data on matters such as contacts between the public and the police, attitudes towards aspects of the criminal justice system and exposure to illegal drugs.

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[1] Previous British Crime Surveys were carried out in 1982, 1984, 1988, 1992, 1994, 1996, 1998 and 2000.

The data arising from the BCS are mainly reported by the Home Office's Research, Development and Statistics area of the Crime Reduction and Community Safety Group. These reports include:

- A full statistical bulletin based on BCS interviews carried out in the last financial year, which is published in the summer following the end of each financial year. The latest of these reports, which also provides detailed information on police recorded crime figures, appeared in July 2005[2], and can be found at:
  http://www.homeoffice.gov.uk/rds/pdfs05/hosb1105.pdf

- A supplementary bulletin covering topics such as confidence in the Criminal Justice System, worry about crime, and Anti Social Behaviour. The most recent bulletin for the period 2002-3 can be found at:
  http://www.homeoffice.gov.uk/rds/pdfs2/hosb0204.pdf

- An annual bulletin covering drug misuse as reported on the BCS. The most recent bulletin for the period 2004-5 can be found at:
  http://www.hoeoffice.gov.uk/rds/pdfs05/hosb1605

- Shorter statistical updates produced on a quarterly basis, focusing specifically on victimisation rates and trend patterns.

- Longer subject-specific reports in the Home Office Research Series (HORS). One example of a recently published report based on the 2001 BCS survey is in relation to domestic violence, sexual assault and stalking. This can be found at:
  http://www.homeoffice.gov.uk/rds/pdfs04/hors276.pdf

- Brief Research Papers dealing with specific topics. Some of these reports are only available online. Examples of recently published online reports include those on anti social behaviour, fraud and technology crimes, and handling stolen goods

The above references are intended only to illustrate the types of reports and findings that are produced from the BCS. For more details on all RDS publications associated with the BCS see http://www.homeoffice.gov.uk/rds/bcs1.html

1.2 Structure of the technical report

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This report documents the technical aspects of the 2004-5 British Crime Survey carried out in England and Wales. The analysis in this report relates to the total sample that was issued in the financial year 2004-5, irrespective of when interviews actually took place. The distinction between issued sample and achieved sample is explained in more detail in section 4.3 of the report.

The sample design is set out in Chapter 2, showing how the Home Office's requirements were translated into a detailed specification. Data collection is the major task for the organisation commissioned to conduct the BCS and forms the central part of this report. Chapter 3 covers the content and development of the questionnaire, while Chapter 4 examines the fieldwork. Chapter 5 and 6 give details of the tasks that are involved in

[2] Nicholas S, Povey D, Walker A and Kershaw C (Editors) Crime in England and Wales 2004/2005 Home Office Statistical Bulletin 11/05

preparing the data for analysis, including the coding and offence classification and the preparation of the BCS data files. Chapter 7 outlines the weighting required for analysis of the data. Chapter 8 provides the results of some checks on the profile of the BCS achieved sample against estimates for the population that the BCS aims to represent.

Although it documents the way in which the BCS was conducted, this report does not explain how to analyse the data set. It is worth emphasising that the BCS is a complex study with data organised at different levels (households, individuals, and incidents) and it has numerous sub-samples that were asked specific questions. Accordingly considerable effort and expertise is required to analyse the data and to interpret it in a valid manner. Some of the analysis routines that play a key role in the published estimates are implemented after the data have been handed over to the Home Office, and are not documented in this report. Data files from the BCS are deposited in SPSS format with the UK Data Archive at the University of Essex.

Considerable emphasis is given in the course of conducting the interview to assure respondents that the information they provide will be held in confidence. For this reason, the data set does not identify the location of the sampled areas (postcode sectors) and this information is not released to the Home Office by the survey organisation.

The Home Office produces a set of training notes for those interested in analysing BCS data which contain further detail on the content and structure of the data and guidance on analysis.

2. Sample design

2.1 Introduction

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Following a methodological review[3], significant changes were made to the design of the British Crime Survey in 2001. The two main changes introduced at this time were an increase in the sample size and a move to continuous fieldwork. The move to continuous data collection was also associated with a change in the survey reference period, with respondents being asked about events that had taken place in the last full 12 months from the date of interview. Prior to this respondents had been asked about events that had taken place in the last calendar year.

As part of these design changes a 'spliced design' was carried out during the first 6 months of 2001 in order to assess the impact on victimisation rates of the change in reference period. This design involved randomly allocating all issued addresses during the first 6 months of 2001 either to survey A, which used the old reference period, or to survey B which used the new reference period[4].

Subsequent analysis undertaken by Peter Lynn (Professor of Survey Methodology in the Institute of Social and Economic Research at the University of Essex) indicated that the change to the reference period may, for some household offences, have improved recall of offences (i.e. may have increased the household crime count). However, for crimes against the person there appeared to be no difference in recall of offences, possibly because victims tend to remember such crimes more easily.

The 2004-5 survey was largely based on the same design compared with previous rounds of the survey since 2001, although the sample size was increased to 46,000 interviews per year to achieve 1,000 interviews in each of the 42 Police Force Areas. This involved substantial over sampling in smaller Police Force Areas.

The rest of this chapter outlines the main elements of the sample design.

2.2 Sample size and structure

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The 2004-5 survey was designed to be representative of two linked populations:

- households in England and Wales living in private residential accommodation; and
- adults aged 16 and over living in such households

The survey did not cover the population resident in institutions such as halls of residence, those in residential care, those in prison, or members of the armed forces. Nor did it cover the experiences of those less than 16 years of age.

The 2004-5 survey was also designed to provide nationally representative estimates each quarter.

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[3] Lynne P and Elliot D (2000) The British Crime Survey : A Review of Methodology (London : National Centre)

[4] More details of the spliced design can be found in Bolling, K *et. al.* (2002) 2001 British Crime Survey (England and Wales) Technical Report (London : BMRB)

Over the whole year the aim was to achieve approximately 46,000 interviews as part of the core sample. Additionally, the survey aimed to achieve a boost of 3,000 interviews with respondents from non-white groups identified through focused enumeration (see section 2.9), and a boost of 2,000 interviews with 16 to 24 year olds identified through screening at core addresses (see section 2.10).

In addition to representing the above populations, the 2004-5 survey was also designed to ensure that:

- a 1,000 core sample interviews were conducted in each Police Force Area; and

- 50% of the primary sampling units (PSUs) used on the 2003-4 survey were rotated forward to form part of the 2004-5 sample. This was done in order to improve the precision of year on year comparisons. Where PSUs were rotated forward from one survey year to the next, fresh addresses were selected.

2.3 Effect of increasing minimum sample size in Police Force Areas

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In considering how best to meet the requirement for 1,000 interviews in each Police Force Area, a design was sought that traded-off cost against efficiency. Clearly the design which would meet this requirement of the survey at minimum cost would be one which delivered an equal sample of 1,000 interviews in all 42 Police Force Areas, or an overall sample of 42,000 interviews per annum. However, such a design would also significantly increase the range of sampling fractions (and hence design weights) used to select PSUs within Police Force Areas and so would lead to a reduction in the precision of whole sample estimates. It was therefore decided to adopt a design that boosted the sample size in smaller Police Force Areas but without reducing it in the larger Areas compared to what it had been in 2003-4.

Based on the 2003-4 survey design it was established that only six Police Force Areas had an achieved sample in excess of 1,000 interviews (Metropolitan, West Midlands, Greater Manchester, West Yorkshire, Thames Valley and Hampshire). The remaining 36 Areas had achieved samples ranging from around 650 to 950. Boosting the number of interviews in these 36 PFAs to 1,000 each, without reducing the number of interviews in the larger PFAs, meant an overall sample size of just less than 46,000 per annum.

Table 2.1 shows the actual achieved sample sizes by PFA in both 2003-4 and 2004-5 to illustrate the effect of the new survey design at PFA level. It should be noted that while the aim was to achieve 1,000 interviews in each PFA, the exact number of interviews achieved depended upon the specific level of deadwood and the response rate achieved in each Area. While an attempt was made to take account of geographical variations in deadwood and response rates in determining how much sample to issue in each PFA, inevitably there was some variation in the actual number of interviews achieved relative to the target. Where the number of interviews fell short of the 1,000 target this was largely due to a fall in the response rate in that particular Area compared with the 2003-4 survey.

Table 2.1 Year on year comparison of achieved sample by Police Force Area

	2003-4 Achieved Core Sample	2004-5 Achieved Core Sample	2004-5 Response Rate
	N	N	%
Metropolitan/City	3,309	3,591	62.0
Greater Manchester	1,476	1,458	73.4
Merseyside	861	1,057	81.6
South Yorkshire	794	996	78.4
Northumbria	817	973	72.9
West Midlands	1,443	1,559	76.4
West Yorkshire	1,105	1,165	73.9
Avon & Somerset	854	1,038	80.7
Bedfordshire	781	1,070	75.5
Thames Valley	1,174	1,291	76.4
Cambridgeshire	702	1,051	74.2
Cheshire	725	1,037	80.1
Cleveland	807	1,002	74.9
Devon & Cornwall	822	998	74.3
Cumbria	755	1,075	81.9
Derbyshire	748	1,062	77.9
Dorset	736	1,027	75.5
Durham	772	1,028	75.1
Sussex	704	1,023	74.6
Essex	895	1,093	74.8
Gloucestershire	768	1,064	78.1
Hampshire	1,011	1,089	76.5
West Mercia	806	973	78.0
Hertfordshire	704	1,030	73.5
Humberside	762	1,037	76.2
Kent	881	1,026	78.1
Lancashire	864	1,092	79.8
Leicestershire	710	1,047	72.7
Lincolnshire	750	1,006	76.9
Norfolk	818	994	79.5
Northamptonshire	690	945	70.4
North Yorkshire	715	1,029	73.4
Nottinghamshire	740	940	67.1
Staffordshire	698	977	75.6
Suffolk	760	1,000	81.6
Surrey	783	962	76.7
Warwickshire	779	1,093	85.9
Wiltshire	717	1,003	75.2
North Wales	751	953	76.6
Dyfed Powys	711	985	78.4
Gwent	802	964	72.6
South Wales	713	1,007	71.3
Total	**37,213**	**46,810**	**74.8**

2.4 Sample frame

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The small user Postcode Address File (PAF) was used as the sample frame. This is generally accepted as being the best general population sampling frame in England and Wales. It has the best coverage of both residential addresses and of the private household population of individuals, and what non-coverage it has shows less evidence of systematic bias in terms of household and individual characteristics compared with alternative sampling frames (such as the Electoral Register)[5]. Furthermore PAF is structured hierarchically, is available in computerised form and can be linked to Census data, thereby permitting considerable control to be exercised over the sampling process.

2.5 Stratification

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As well as stratifying disproportionately by PFA, the sample was stratified by other socio-demographic variables in order maximise the precision of estimates. Stratification involves the division of the PSUs from which the sample is to be selected into sub-groups or strata from which independent samples are drawn. Splitting the PSUs into strata and sampling from them all ensures that all the important sub-groups are represented and the chance of selecting an extreme sample (i.e. where one or more of the sub-groups is not represented) is eliminated. In selecting specific strata for any survey it is important to try and define strata that are as homogenous as possible with respect to the estimates of primary interest to the survey.

The stratifiers used in 2004-5 were the same as on previous surveys, namely population density and the proportion of adults aged 16-74 in non-manual occupations. Further details of how the sample frame was stratified are outlined in section 2.8.

2.6 Clustering

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Whole postcode sectors were used as the primary sampling units and 32 addresses were issued in each PSU. Although issuing a smaller number of addresses in each PSU would have been possible it was felt that the sample efficiency gains attached to reducing the cluster size would be more than offset by the concomitant cost increases.

However, in PSUs where the proportion of non-white households exceeded 26% (based on the 2001 Census) only 16 addresses were issued. This was done for practical reasons to try and limit the variation in interviewer assignment sizes which would arise from the focused enumeration procedures used to generate the non-white boost sample (see section 2.9). In order to ensure that overall the address sample was self-weighting, PSUs defined as being of high non-white population were duplicated in the sample frame.

Small sectors (containing fewer than 500 delivery points) were amalgamated with neighbours before sample selection to ensure the sample had a reasonable geographic spread in these Areas.

[5] Foster K (1994) The coverage of the Postcode Address File a sampling frame, *Survey Methodology Bulletin*, 34, pp. 9-18

2.7 Rotation of sectors

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A requirement of the survey design since the survey went continuous in 2001 is that approximately 50% of all PSUs issued in a survey year are rotated forward and issued as part of the new sample. Rotation of the same PSUs from one survey year to the next helps to reduce sample variance and so increases the precision of year on year estimates of change.

In fact, although 50% of PSUs were rotated forward from the 2003-4 sample to the 2004-5 sample, the rotated sectors constituted only 40% of the 2004-5 sample. This was because of the increase in the sample size between surveys which required a larger sample of fresh PSUs to be drawn compared with the previous year.

Wherever possible an effort was made to rotate PSUs forward by exactly 12 months (i.e. if a PSU was issued for the first time in July 2003, the aim was to issue it again in July 2004). In practice, it was not always possible to allocate rotated points to exactly the same fieldwork month but in all cases rotated points were allocated to the same quarter as they had been the previous year.

Where PSUs were rotated forward from the previous year a fresh set of addresses is selected. New addresses were always selected with reference to the addresses that had been selected last year to ensure there was no chance of the same address being selected two years in a row.

Since the fresh sample was selected from the universe of PSUs this meant that a small proportion of areas in 2004-5 were selected twice in the same survey year (that is, the same postcode sector was rotated forward from 2003-4 **and** was also selected as part of the fresh sample). In fact, in 2004-5 a total of 215 PSUs were selected in both the rotated and the fresh sample. Where this situation occurred, the rotated and the fresh PSU were treated as separate assignments and, in most cases, were issued at different times of the year. However, the selection of addresses for these 'duplicated' PSUs was done as a single exercise to prevent addresses being selected twice in the same year (i.e. 64 addresses were selected from the PAF and then randomly allocated to the two assignments).

2.8 Procedures for selecting the sample

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The sample of PSUs for the 2004-5 survey was selected as follows:

1. The first stage in the process was to amalgamate any postcode sector containing fewer than 500 delivery points. Small sectors were amalgamated with neighbouring sectors in such a way to ensure that sector combinations did not cross Police Force Area boundaries.

2. All PSUs were then sorted into Police Force Area[6]. Since postal boundaries and administrative boundaries are not co-terminus, where a postcode sector crossed a PFA boundary it was allocated to the PFA that the majority of the delivery points in that PSU fell into.

[6] City of London and Metropolitan were treated as a single PFA.

3. All PSUs were flagged as being either 'high' or 'low' concentration of non-white households based on the 2001 Census. Areas of high non-white population were defined as those where 26% or more of households were of non-white origin, while all other areas were defined as being of low non-white population. High non-white PSUs were duplicated in the sample frame for reasons outlined in section 2.5.

4. Within each PFA, PSUs were ordered by population density and then divided into three bands each containing approximately an equal number of delivery points (high, medium, and low density).

5. Within each density stratum, PSUs were then ordered by the proportion of adults aged 16-74 in non-manual occupations. This was defined in terms of the proportion of adults aged 16-74 in National Statistics Socio-economic Classification (NS-SEC) categories 1, 2, 3, 4.1, 4.3, 5, 6, 7.3, or 8. Previously the proportion of household heads in non-manual occupations had been used to stratify the sample. However, with the move to using 2001 Census information, Socio-Economic Group (SEG) was replaced by NS-SEC and the new stratification was the best equivalent to what had been used previously[7].

6. PSUs were then sampled within each PFA with probability proportional to number of delivery points by the method of random start and fixed interval.

The sample of PSUs for the whole 12-month period was selected at the beginning of the year. They were then systematically allocated to quarter to ensure that a nationally representative stratified sample of sectors was issued in each quarter. Within quarter points were then systematically allocated to month.

It is important to note that although each month's issued sample is broadly spread geographically, the sample is designed only to be representative on a quarterly basis and **not** on a monthly basis.

Once the PSUs had been selected, 32 delivery points were selected by the method of random start and fixed interval. Addresses were ordered by postcode before selection to maximise the geographical spread across the sector.

Since not all PAF addresses yield eligible addresses the first task of the interviewer at each issued address was to identify whether it was an eligible residential address. Examples of ineligible addresses include vacant properties, second homes, non-residential addresses where no-one is living such as shops or factories, and establishments where people were living communally.

In the relatively infrequent cases where a PAF address generated more than one household, the interviewers in the field used a random selection method to select one.

Individuals aged 16 years or over in the selected households were listed in alphabetical order of first name and one was selected for interview by a random (Kish grid based) method. No substitutes were permitted.

[7] See Office for National Statistics (2004) The National Statistics Socio-economic Classification User Manual (London: ONS) for more details on NS-SEC including an approximation of how NS-SEC relates to SEG.

Selection of households where more than one existed and selection of an adult within the household were done by interviewers as part of their doorstep screening procedures.

2.9 Non-white boost sample

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For some analyses, the Home Office provides separate estimates for the non-white population, and for specific groups within this population. Since the number of non-white respondents identified within the core sample is not sufficient to allow for sufficiently robust analyses[8], a boost sample was incorporated in the design of the survey.

Prior to 2001 the boost sample on the BCS was restricted to black and Asian populations. From 2001, it was decided to adopt the categories used in the 2001 Census and so broaden the population covered. Thus, the groups defined as 'non-white' were:

- Indian
- Pakistani
- Bangladeshi
- Other Asian background
- Caribbean
- African
- Other black background
- Chinese
- White and black Caribbean mixed
- White and black African mixed
- White and Asian mixed
- Any other mixed background where at least part of the mix includes one of the above groups.

The key difficulty in drawing any probability sample of people of non-white origin is identifying them in a cost-effective manner. Prior to 2001, two different methods were used on the BCS to achieve a non-white boost sample. First, issuing a large number of pre-selected addresses in areas that had a high proportion of non-white households (these were known as high density boost areas). Direct face-to-face screening was then carried out at the pre-selected addresses for non-white households. And second, using a method known as focused enumeration, whereby interviewers screen addresses that are adjacent to the core sample address for eligible respondents.

The 2004-5 survey continued the protocol started in 2001 of using only focused enumeration to boost the sample of non-white respondents. This is felt to be preferable to the alternative method since it produces a sample that is representative of the entire non-white population, rather than just the non-white population living in areas of high concentration. The method is designed to try and ensure that interviewers can screen a large number of addresses as efficiently as possible by using proxy information. It is far more cost effective than direct face-to-face screening, especially in areas of low non-white concentration.

Focused enumeration involves screening addresses by proxy where possible. Interviewers screen groups of pre-identified addresses that are adjacent to the core sample address by contacting a responsible adult at either the core sample address or one of the identified

[8] In 2004-5, the core sample contained 2,858 respondents who defined themselves as non-white.

adjacent addresses and asking about the ethnic origins of those living at the adjacent addresses. The method has taken a number of forms since it was devised[9], and the version used on the BCS is one variant of the basic method.

In practice, the variant used on the 2004-5 survey was as follows:

- The interviewer identified two adjacent addresses on each side of a core sample address using a strict set of rules.

- Wherever possible, interviewers used the contact at the core sample address to establish whether anyone lived at the two addresses either side who the respondent thought was non-white.

- In cases where this was not possible, either because no contact was made at the core sample address or because the person at the core address refused to give the information or did not know anything about their neighbours, the interviewer approached one of the four identified addresses to try and gain the information.

- The interviewer continued like this until they had information about all four identified addresses. The aim was to obtain information about all four addresses in a single visit, so that no additional visits were needed.

- If a household with eligible respondents was identified, the interviewer sought to carry out an interview. Where more than one eligible respondent existed, the interviewer carried out a selection procedure exactly the same as on the core sample.

Since ethnic origin is a matter of self-definition interviewers were briefed to only use the wording provided, which was *"Is there anyone living at [specific address]…who is black, Asian, Chinese, or from any other non-white group"*. Interviewers were also briefed to accept the responses given and not to try and apply any of their own definitions. If respondents had difficulty in giving a direct 'Yes' or 'No' answer to the question, interviewers could use a card with the Census categories on it to help respondents.

Estimating the number of addresses that need to be screened in order to achieve 3,000 interviews over the whole year is complex since it depends both upon the identification rate and the response rate among identified households. For the 2004-5 survey, estimating the screening rate was complicated by the change in the core survey design. While there was an increase in the overall core sample size, much of this increase was in areas which had an extremely low non-white population.

In previous years it has been necessary to make an adjustment to the focused enumeration procedures part way through the survey year in order to achieve close to the target number of interviews. Towards the end of the 2004-5 survey, it became clear that the target of 3,000 interviews was going to be exceeded and so the volume of screening was reduced in the last 2 months of the year (February and March 2005) from 75% of addresses in each PSU to 50% of addresses. However, even with this adjustment the target number of non-white boost interviews was well exceeded.

[9] See, for example, Smith P and Prior G (1997) The Fourth National Survey of Ethnic Minorities : Technical Report (London : SCPR)

The precise addresses at which interviewers were required to carry out focused enumeration was controlled through the use of different coloured Address Contact Sheets, which easily identified whether screening was required or not at a particular address (see section 4.4).

Table 2.2 shows the number of addresses at which screening was carried out, the number of respondents identified as eligible, and the number of interviews achieved over the whole year.

Table 2.2 Identification of eligible addresses and yield of interviews from 2004-5 BCS focused enumeration procedures

	Number of addresses Screened	Addresses at which Non-white resident identified		Addresses subsequently identified as ineligible		Eligible addresses for Non-white boost sample		Achieved interviews	
		N	%	N	%	N	%	N	%
Left 1	48,120	2,058	4.3	117	5.7	1,941	4.0	1,059	54.6
2	48,120	1,760	3.7	139	7.9	1,621	3.4	864	53.3
Right 1	48,120	2,032	4.2	117	5.8	1,915	4.0	1,044	54.5
2	48,120	1,697	3.5	119	7.0	1,578	3.3	866	54.9
Total	**192,480**	**7,547**	**3.9**	**492**	**6.5**	**7,055**	**3.7**	**3,833**	**54.3**

Over the whole year 3.7% of addresses screened by focused enumeration contained an eligible respondent. As with previous years of the survey, focused enumeration seems to result in more non-white respondents being identified at the addresses closest to the core sample address. Thus, there was an identification rate of 4.3% at addresses that were first to the left and 4.2% at addresses that were first to the right of the core sample address compared to an identification rate of 3.7% and 3.5% respectively at addresses that were second to the left and right of the core sample address.

It should be noted that the overall initial identification rate of 3.9% was lower than in previous surveys (for example, in 2003-4 the equivalent identification rate was 4.5%). However, this can be explained by the change in design which increased the proportion of the core sample in areas that had an extremely low non-white population. When the sample was weighted by the PFA weight (see Chapter 7) to take account of unequal selection probabilities the identification rate was similar to the previous year (4.6%).

Table 2.2 also illustrates how the method of focused enumeration is not a perfect way of identifying non-white households. Over 6% of households which were originally identified as containing a non-white adult by a neighbour were subsequently identified as being ineligible based on the information obtained at the actual household itself. While the fieldwork procedures have been devised to cater for this situation, it is equally likely that there are households being misidentified in the opposite direction. In other words, people who perceive themselves to be non-white but who are reported as being white by their neighbours will never be identified by focused enumeration since interviewers are instructed simply to accept the information they are given.

2.10 Youth Boost sample

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As well as increasing the number of interviews conducted with non-white respondents, the Home Office also wanted a boost of young people aged 16-24 years to be carried out. The aim was to achieve a boost sample of 2,000 respondents aged 16 to 24 years. The Youth Boost part of the survey was carried out as part of the survey issued between April 2004 and January 2005. No Youth Screening was carried out as part of the February or March 2005 issued sample since it was clear that the target of 2,000 interviews was going to be well exceeded. The 'youth questionnaire' covered fewer topics than the main questionnaire and consequently average interview length was considerably shorter.

A separate screening exercise was carried out to generate sample for this age group. Interviews were only sought with eligible respondents at addresses that had been selected as part of the core sample.

Since youth screening could involve conducting two interviews in a single household, the selection for the core sample always took place first. This was to ensure that ALL adults (aged 16 years and over) in the household were included in the main selection process. If the person selected as the core sample respondent at the address was aged 16 to 24 years, a youth boost interview was not conducted, regardless of whether an interview was achieved with a core sample respondent or not. This was to ensure that no more than one 16 to 24 year old was ever interviewed in the same household.

Interviewers screened for 'youth sample' by asking a responsible adult at the core address whether there was anybody living at the address aged 16-24 years old. If more than one 16-24 year old was identified at the address, the same random selection procedure was applied as with the core sample to identify one person for interview.

Details of the youth screening and response rate for 2004-5 can be found in section 4.9.

3. Questionnaire Content and Development

3.1 Structure and coverage of the questionnaire

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The BCS questionnaire has a complex structure, consisting of a set of core modules asked of the whole sample, a set of modules asked only of different sub-samples, and self-completion modules asked of all 16-59 year olds. Within some modules there is often further filtering so that some questions are only asked of even smaller sub-samples. The precise modules asked on the survey vary from year to year as do the exact modules asked of the core, non-white boost and youth boost samples.

The 2004-5 BCS questionnaire consisted of 16 main modules as follows:

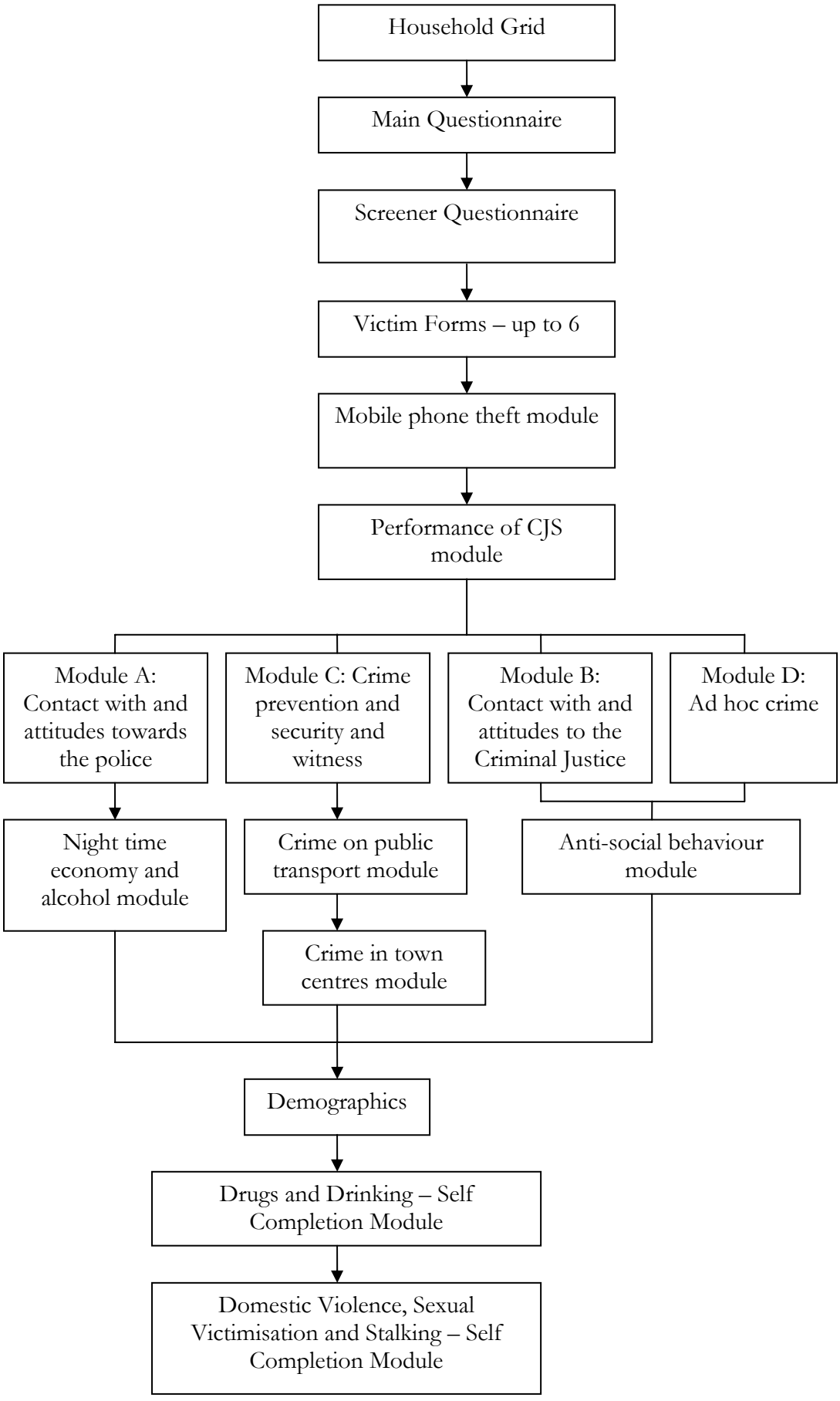
- Household Grid and Main questionnaire
- Screener questionnaire
- Victim Forms[10] for incidents identified at the screeners (up to a maximum of six)
- Mobile phone theft
- Performance of the Criminal Justice System
- Contact with and attitudes to the police (Module A)
- Contact with and attitudes to the Criminal Justice System (Module B)
- Crime prevention and security and witness intimidation (Module C)
- Ad-hoc crime topics (Module D)
- Night time economy and alcohol disorder
- Anti-social behaviour
- Crime and disorder on public transport
- Crime and disorder in town centres and high streets
- Demographics
- Self-completion module on drug use and drinking
- Self-completion module on inter-personal violence

The basic structure of the questionnaire is shown in Figure 3.1. This also shows what proportion of the sample was allocated to each module of the questionnaire (see section 3.1.6). The complete questionnaire is documented in Appendix D of Volume 2.

A brief description of each section or module of the questionnaire is outlined below.

[10] Victim Forms are so called because prior to the introduction of CAPI each incident was recorded on a separate paper form. Since the introduction of CAPI the Victim Forms have simply become part of the questionnaire script, although the terminology has been retained.

Figure 3.1 Flow Diagram of the 2004-5 BCS Questionnaire



3.1.1 Household Grid and Main questionnaire

Basic socio-demographic details (age, sex, marital status, etc.) were collected in the Household Grid for every adult in the household. Additionally, demographic details of all children under 16 years were collected.

The Household Grid was also used to establish the **Household Reference Person**[11]. Household Reference Person (HRP) is the standard classification now used on most government surveys and is based on the following criteria:

- The HRP is the member of the household in whose name the accommodation is owned or rented, or is otherwise responsible for the accommodation. In households with a *sole* householder that person is the HRP.
- In households with *joint* householders the person with the *highest income* is taken as the HRP.
- If both householders have exactly the same income, the *older* is taken as the HRP.

In 2002-3, ethnicity was added to the Household Box and asked of all adults in the household. On previous surveys this had only been asked of the respondent.

The Household Grid was followed by the Main questionnaire, a series of primarily attitudinal questions, which were mostly asked of all respondents. The questions asked of all respondents in the Main questionnaire covered the following topics:

- How long respondents had lived in their local area.
- How safe respondents felt when walking in their local area and when at home.
- How worried they were about being the victim of particular types of crime.
- How they thought crime rates in their local area had changed over time.
- How much of a problem they perceived particular aspects of anti-social behaviour to be.
- How often their home was left unoccupied and how often they went out.

Additionally, there were a few questions in the Main questionnaire which were only asked of a random sub-sample of respondents which covered respondents' perceptions about the main causes of crime and how crime or fear of crime affects their quality of life.

3.1.2 Screener questionnaire

Following the Main questionnaire, all respondents were asked whether they had experienced certain types of crimes or incidents within a specified reference period, namely the last 12 months from the date of interview. To try and encourage respondents to recall events accurately, a life event calendar was given to all respondents to act as a visual prompt when answering the screener questions (see section 3.2).

[11] Prior to 2001 all previous surveys collected details of the Head of Household.

Depending upon individual circumstances a maximum of 25 screener questions were asked. These can be grouped into four main categories:

- All respondents who lived in households with a vehicle or bicycle were asked about experience of vehicle-related crimes (e.g. theft of vehicle, theft from vehicle, damage to vehicle, bicycle theft).
- All respondents who had moved in the reference period were asked about experience of property-related crimes in their **previous** residence(s) (e.g. whether anything was stolen, whether the property was broken into, whether any property was damaged) .
- All respondents were asked about experience of property-related crimes in their **current** residence.
- All respondents were asked about experience of personal crimes (e.g. whether any personal property was stolen, whether any personal property was damaged, whether they had been a victim of force or violence or threats).

The wording of the screener questions has been kept consistent since the BCS began to ensure comparability across surveys. They are designed to ensure that all incidents of crime within the scope of the BCS, including relatively minor ones, are mentioned. The screener questions deliberately avoid using terms such as 'burglary', 'robbery', or 'assault', which have precise definitions that many respondents might not be expected to know.

The questions are also designed to ensure that the respondent does not mention the same incident more than once. At the end of the screener questions, the interviewer is shown a list of all incidents recorded and is asked to check with the respondent that all incidents have been recorded and nothing has been counted twice. If this is not the case, the respondent has an opportunity to correct the information before proceeding.

Within the screener questions a crucial distinction exists between **household incidents** and **personal incidents.**

All vehicle-related and property-related crimes are considered to be household incidents, and respondents are asked about whether **anyone** currently residing in the household has experienced any incidents within the reference period. A typical example of a household incident is criminal damage to a car. It is assumed that the respondent will be able to recall these incidents and provide information even in cases where he/she was not the owner or user of the car. For respondents who have moved within the last 12 months, questions on property-related crimes are asked both in relation to the property they are now living in, as well as other places they have lived in the last 12 months.

Personal incidents refer to all crimes against the individual and only relate to things that have happened to the respondent **personally**, but not to other people in the household. An example of a personal incident would be a personal assault. An assault against other household members would not be recorded, unless the respondent was also assaulted in the course of the incident. In such cases, the offence would be coded according to the crime experienced by the respondent (which may not be the same as the experience of another household member).

3.1.3 Victim Forms

All incidents identified at the screener questions are followed through in more detail in the Victim Form. Incidents are covered in a specific priority order as explained below, which has been kept consistent since the start of the BCS.

3.1.3.1 Identification and ordering of incidents for Victim Forms

In 2004-5, 75% of core sample respondents did not report any victimisation over the reference period, meaning that no Victim Forms had to be completed as part of the interview. This is a slightly higher proportion of respondents compared with the 2003-4 survey, when 73% of respondents did not report any victimisation.

Where a respondent had experienced one or more incidents in the reference period, the CAPI programme automatically identified the order in which the Victim Forms were asked. This meant that the interviewer had no discretion about the selection or order of Victim Forms[12].

If six or fewer incidents were identified at the screener questions then a Victim Form was completed for all of the incidents reported. The priority ordering used by the computer was as follows:

- According to the **type** of crime. Victim Forms were asked in reverse order to the screener questions. Broadly speaking this means that all personal incidents were asked before property-related incidents, which were asked before vehicle-related incidents.
- **Chronologically** within each type of crime. If a respondent reported more than one incident of the same type of crime, Victim Forms were asked about the most recent incident first and worked backwards chronologically.
- The first three Victim Forms were **long forms**, which contain all the detailed questions relating to each incident. The second three Victim Forms were **short forms**, a cut down version of the questions that are much quicker to complete.

If the respondent had experienced more than six incidents in the reference period, only six Victim Forms were asked using the above priority ordering. The priority ordering means that the survey does not collect details or only collects limited details (through the short Victim Form) for the crimes or incidents that tend to be more common (e.g. criminal damage to vehicles).

In the 2004-5 survey, a total of 19,164 Victim Forms were completed on the core and non-white boost sample and 26% of all respondents reported at least one incident (see Table 3.1). Respondents in the non-white boost sample were more likely than those in the core sample to report a crime (29% and 25% respectively).

Among victims, over two-thirds of respondents (70%) had experienced one crime in the reference period and so had to complete only one Victim Form. Less than one in twenty

[12] In the case of the incidents of sexual victimisation or domestic violence, the interviewer had an option to suspend the Victim Form, as this might embarrass or endanger the respondent in some situations. The interviewer would then attempt to arrange a revisit at a time that would be more convenient (in particular when other household members would not be present).

(4%) respondents who had been the victim of crime had to complete four or more Victim Forms.

Table 3.1 shows that just under one in five (18%) of all respondents completed one Victim Form, while only 1% of all respondents completed four or more Victim Forms.

Table 3.1 Number of respondents who completed Victim Forms

	Core sample			Non-white boost sample			Combined sample		
	N	**% of all**	**% of victims**	**N**	**% of all**	**% of victims**	**N**	**% of all**	**% of victims**
None (Non Victim)	34,976	74.7		2,719	70.9		37,695		
One or more (Victim)	11,834	25.3		1,114	29.1		12,948		25.6
Number of Victim Forms[1]		%			%				
1	8,311	17.8	70.2	764	19.9	68.5	9,075	17.9	70.1
2	2,234	4.8	18.9	219	5.7	19.7	2,453	4.8	18.9
3	780	1.7	6.6	88	2.3	7.9	868	1.7	6.7
4	282	0.6	2.4	28	0.7	2.5	310	0.6	2.4
5	108	0.2	0.9	5	0.1	0.4	113	0.2	0.9
6	119	0.3	1.0	10	0.3	0.9	129	0.3	1.0
Total	**11,834**	**25.3**	**100**	**1,114**	**29.1**	**100**	**12,948**	**25.6**	**100**

[1] The number of Victim Forms is shown both as a percentage of all respondents who were victims of crime and as a percentage of all respondents.

3.1.3.2 Series of incidents

Most incidents reported represent one-off crimes or **single incidents**. However, in a minority of cases a respondent may have been victimised a number of times in succession. At each screener question where a respondent reported an incident, they were asked how many incidents of the given type had occurred during the reference period. If more than one incident had been reported, the respondent was asked whether they thought that these incidents represented a 'series' or not. A **series** was defined as "*the same thing, done under the same circumstances and probably by the same people*". Where this was the case, only one Victim Form was completed in relation to the **most recent** incident in the series.

There are two practical advantages to this approach of only asking about the most recent incident where a series of similar incidents has occurred. First, since many (although not all) incidents classified as a series tend to be petty or minor incidents (e.g. vandalism) it avoids the need to ask the same questions to a respondent several times over. Secondly, it avoids 'using up' the limit of six Victim Forms on incidents which tend to be less serious.

In 2004-5, 82% of all Victim Forms related to single incidents and 18% related to a series of incidents. This split between single and series incidents was broadly the same as previous surveys.

In the rare cases where a respondent has experienced a mixture of single incidents and a series of incidents the interview program has a complex routine which handles the sequence of individual and series incidents and allows the priority ordering of the Victim Forms to be decided.

In terms of estimating the victimisation rates, series incidents receive a weight corresponding to the number of incidents up to a maximum of five (see section 7).

3.1.3.3 Content of Victim Forms

The Victim Form is the key to the estimate of victimisation and collects three vital bits of information:

- The exact month(s) in which the incident or series of incidents occurred. In a few cases, respondents may have reported an incident, which later turned out to have been outside the reference period. In such cases, the Victim Form was simply by-passed by the computer. If respondents were unsure about the exact month in which something happened, they were asked to narrow it down to a specific quarter. For incidents that were part of a series, respondents were asked how many incidents occurred in each quarter and the month in which the most recent incident had occurred.

  In the questionnaire program reference dates were automatically calculated based on the date of interview and appropriate text substitution was used to ensure that the questions always referred to the correct reference period. Because the 12 month reference period changed throughout the fieldwork year, this meant that some date-related questions in the Victim Form had different text each month to reflect this changing reference period. Details of these questions and the appropriate reference periods used for each month of the 2004-5 survey can be found in Appendix F of Volume 2.

- An open-ended description of the incident where the respondent describes exactly what happened in their own words. The open-ended description is vital to the accurate coding of offences that takes place back in the office. Short, ambiguous or inconsistent descriptions can often make offence coding difficult. At the end of each Victim Form, the original open-ended description that the interviewer had entered at the start of the Victim Form is re-capped, along with the answers to some of the key pre-coded questions. By presenting this information on a single screen, interviewers have the chance to confirm with respondents that the information was correct and consistent. If the respondent and/or interviewer wish to add or clarify any information they then have the opportunity to do this.

- A series of key questions used to establish important characteristics about the incident. Examples of the sort of information collected includes where and when the incident took place; whether there was a racial element to the incident; whether anything was stolen or damaged and, if so, what; the costs of things stolen or damaged; whether force or violence was used and, if so, the nature of the force used and any injuries sustained; and whether the police were informed or not.

The questions within the Victim Form have remained largely unchanged from previous years of the survey to ensure comparability over time.

3.1.4 Mobile phone theft module

Although mobile phones stolen from the respondent should be identified in the Victim Form, thefts from other members of the household (including children) are not covered. Consequently, in this module all respondents were asked who in the household, if anyone used a mobile phone, whether anyone in the household had had a mobile phone stolen in the last 12 months and, if so, some details of the incident. Respondents were asked to include incidents where mobile phones stolen had been stolen from children in the household.

Data from these questions should be analysed using the household weights to generate victimisation rates per household. These are discussed in greater detail in Chapter 7.

If one wanted to generate figures for victimisation rates per head of population, this can be done but involves generating a victimisation rate within a household (i.e. average number of mobile phone thefts per person in the household, including children) and generating sample weights equal to the household weights, multiplied by the number of persons in the household (rather than the number of adults). For victimisation rates for age groups the same process of averaging and generating new sample weights would have to be followed, but restricted to the age group of interest.

3.1.5 Performance of the Criminal Justice System and witnessing crime module

This short module asked all respondents their perceptions about the Criminal Justice System as a whole in relation to its effectiveness and how much confidence they had in particular aspects of its operation, as well as how good a job they thought the different elements of the Criminal Justice System (the courts, the Crown Prosecution Service, the police, the prison service, the probation service) were doing.

From October 2004 a new set of questions specifically relating to respondents confidence in their local police were added to the survey and asked of all respondents.

3.1.6 Part-sample modules (A-D)

Respondents were randomly allocated to one of four modules (see section 3.5 for how this was done). Core sample respondents were allocated equally to each module, meaning that approximately 11,500 respondents were asked each module. Respondents who were part of the non-white boost sample were randomly allocated to only modules A or B, in a ratio of 3:1 (i.e. approximately 2,250 respondents were asked Module A and approximately 750 respondents were asked Module B).

3.1.6.1 Module A: Contact with and attitudes towards the police

In 2004-5, Module A included questions that had been asked in previous years, as well as a number of new questions. Some of the topics covered in this module included:

- whether or not respondents knew anyone in the police or had any contact with the police
- whether or not they had been stopped by the police either in a vehicle or on foot
- if so, the reason for this and the nature of the contact
- how different things (e.g. police on patrol, CCTV, Neighbourhood Watch, etc) influenced respondents feelings of personal safety; and
- whether respondents thought the police should work with to tackle crime and make people feel safer

3.1.6.2 Module B: Contact with and attitudes to the Criminal Justice System

Again, this module included questions that had been asked in previous years as well as new questions. Topics covered in this module included:

- priorities of the Criminal Justice System
- where people get information about the Criminal Justice System
- knowledge of sentencing practices
- attitude to sentencing policy, including what respondents thought sentences should be for particular crimes and what they thought they actually were
- recent contact with different parts of the Criminal Justice System

3.1.6.3 Module C: Crime prevention and security and witness intimidation

Topics covered in this module included:

- knowledge of Neighbourhood Watch Schemes
- home security measures and reasons for lack of home security measures
- vehicle security measures and reasons for lack of such measures
- attitudes to vehicle security
- whether or not people were harassed or intimidated as a result of witnessing crimes

3.1.6.4 Module D: Ad hoc crime

This module was broadly similar to the 2003-4 survey and contained a wide variety of questions. These included:

- awareness of Victim Support
- concerns about crime and fear of crime
- attitudes to the local community and social cohesion
- involvement in community activity/ voluntary activities
- experience of anti-social behaviour

Questions on attitudes to the local community and social cohesion were also asked of all respondents on the non-white boost sample.

3.1.7 Night time economy and alcohol disorder module

In 2004-5 a new module was added to the survey to focus on the area of the night time economy and alcohol related disorder. The main areas covered by this module included:

- use of high streets and town centres in the evening
- transport home from high streets and town centres
- experience of drunk and rowdy behaviour

3.1.8 Anti-social behaviour module

For many years the survey has asked people about how common they perceive a range of 'problem' behaviours (such as vandalism, rubbish and litter, abandoned vehicles, etc.) to be in their local area. These questions are part of the Main questionnaire and are asked of all respondents. In the 2003-4 survey the list of problems was expanded to include issues such as speeding traffic, fireworks, and uncontrolled dogs and follow-up questions were added about respondents' actual experience of particular types of anti-social behaviour. These follow-up questions were only asked of a sub-sample of respondents.

In 2004-5 the module focussed on five particular problems areas, namely:

- Noisy neighbours or loud parties
- Teenagers hanging around on the streets
- Vandalism and graffiti
- People using or dealing drugs
- People being drunk or rowdy in public places

Respondents who perceived any of these issues as being a 'very' or 'fairly' big problem in their area were asked a series of follow up questions related to the problem. The structure of the module was similar to that of the Victim Forms, with respondents being asked about up to a maximum of three problems. The number of strands to be asked was selected at random. This meant that some respondents would only be asked about two strands despite stating that three or four were a problem; however this method ensured the questions went to a representative sample.

The follow-up questions on each strand of anti-social behaviour included:

- The precise nature of the problem
- How respondents had got the impression that the problem existed
- Where in their local area the problem existed
- How the problem affected their quality of life
- Whether respondents had changed their behaviour in any way because of the problem

3.1.9 Crime and disorder on public transport module

In 2004-5 a new module was added to the survey to focus on the area of the night time economy and alcohol related disorder. This module focussed specifically on the use of buses and feelings of safety whilst using buses. The main areas covered were:

- Types of public transport used in the last 12 months
- Reasons for not using public transport
- Feelings of safety when travelling by bus
- Experience of anti-social behaviour while travelling by bus

3.1.10 Crime and disorder in town centres and high streets module

This was another new module added to the survey in 2004-5. This module consisted of:

- Frequency of visits to high streets or town centres
- Reasons for visiting high streets or town centres
- Experience of anti-social behaviour in high streets or town centres

3.1.11 Demographics module

This section collected additional information on the respondent and the Household Reference Person (where this was not the same as the respondent). Questions included:

- general health, including smoking and drinking behaviour
- employment details[13]
- educational attainment and qualifications
- nationality, country of birth and religion (of respondent and HRP)
- housing tenure
- newspaper readership
- household income

3.1.12 Self – completion modules

The self-completion modules were only asked of respondents aged less than 60 years of age. They were all presented as computer assisted self-completion (CASI) modules to ensure respondent confidentiality in answering these questions. The respondent was asked to follow the instructions on the screen of the laptop and enter their answers appropriately. Practice questions were included before the start of the self-completion module to give the interviewer an opportunity to show the respondent the different functions of the computer. If the respondent was unable or unwilling to complete the modules using the computer the interviewer could administer the self-completion.

[13] Where the respondent was not the Household Reference person occupation details were also collected about the HRP

Interviewer assistance and the presence of others while completing these modules was recorded by the interviewer (see Chapter 4).

3.1.12.1 Drug usage

The module on drug use remained virtually unchanged from the previous survey. A total of 17 illicit drugs were asked about. Questions included:

- whether ever taken illegal drugs
- whether taken illegal drugs in last 12 months
- whether taken illegal drugs in last month
- age first started taking drugs
- frequency of drug use (16-24 year olds only)

3.1.12.2 Drinking

In 2004-5, only a few questions on drinking were asked of all 16-30 year olds as part of the self-completion module. This module covered:

- frequency and volume of alcohol drunk in the last 12 months
- how often felt drunk in the last 12 months

3.1.12.3 Domestic violence, sexual victimisation and stalking module

The 2004-5 survey included a new module on domestic violence, sexual victimisation and stalking. The module was largely based on a similar module included in the 2001 survey. The main areas covered by the module included:

- attitudes towards domestic violence
- experience of partner violence since age 16 and in last 12 months
- experience of sexual assault since age 16 and in last 12 months
- experience of stalking behaviour since age 16 and in last 12 months
- if suffered partner abuse whether by one or more partners
- who they told about the abuse
- injuries suffered as a result of partner abuse

3.2 Life event calendar

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Due to the change in the reference period that was introduced to the 2001 survey, the Home Office wished to take the opportunity to try and improve the accuracy with which respondents recalled events.

Whenever respondents are asked to think about events that have happened during a particular time period there is likely to be a certain level of response error. Errors most salient to the BCS include:

- respondents forgetting about more trivial incidents
- respondent not being sure about incidents that did not involve them personally, such as vehicle-related crimes
- respondents remembering an incident but placing it wrongly in time, either by remembering an incident as happening earlier than it actually did (i.e. counting something outside the 12 month reference period that actually happened within the last 12 months), or later than it actually did (i.e. counting something inside the 12 month reference period that actually happened longer ago)
- respondents deliberately concealing incidents, such as sexual assault, which they may not wish to reveal

It was decided to try and address issues of recall by using a **life event calendar** on the survey. Such a calendar works by trying to place events or incidents in some sort of meaningful context for each respondent by building up a picture of events that have happened to them in the last year (e.g. birthdays, anniversaries, holidays, starting a new job, etc.) which are memorable to the respondent. Additionally, national dates such as Christmas, Easter, or Bank Holidays can be put on the calendar as common reference points. Further details about the thinking behind the life event calendar and its development can be found in the 2001 BCS Technical Report.

In relation to the BCS, the life event calendar can be used for two purposes:

- First, to provide respondents with a visual aid throughout the screener questions; and
- Second, to help respondents who were having difficulty recalling in which particular month an incident may have occurred.

Appendix E in Volume 2 has an example of the calendar used on the 2004-5 survey.

3.3 Questionnaire development

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Since most of the questions on the 2004-5 BCS had been included in previous years of the survey, it was decided to concentrate piloting efforts primarily on new questions. Details of the questions that were piloted for the 2004-5 survey can be found in Appendix J of Volume 2. The main areas covered in the 2004-5 piloting were:

- Questions about worries about crime and problems in local area
- Questions on performance of the Criminal Justice System
- Questions about compensation for victims of crime
- Questions about the effectiveness of the police
- Questions about where people get their information about the Criminal Justice System
- Questions about Neighbourhood Watch and home and vehicle security
- Questions about concern about crime
- Questions regarding the use of town centres and alcohol related incidents
- Inter-personal violence questions

3.3.1 Main stage piloting

Piloting of the main parts of the questionnaire was done using **dynamic piloting**. This is a form of piloting which is regularly used by BMRB to develop questionnaires across many different surveys. Dynamic piloting uses cognitive interviewing techniques to try and understand the thought processes that a respondent uses in answering a survey question. It is designed to see whether the respondent understands the question, or specific words and phrases contained within the question; what sort of information the respondent needs to retrieve in order to answer the question; and what decision processes the respondent uses in coming to an answer.

3.3.1.1 Dynamic piloting methodology

Dynamic piloting involves a small number of highly experienced interviewers working together with researchers in a field setting. The interviewer fulfils his or her conventional role, while the researcher observes the interview at first hand. This enables the observer to identify and note areas of doubt, misunderstanding or incomprehension on the part of the respondent during the interview. By observing the interview as it takes place, the researcher is able to witness not only the verbal communication that takes place, but also any non-verbal reactions of the respondent. At the end of the interview or immediately following questions or sections of particular interest, the researcher probes on specific aspects of the interview. Although each observer had a standard list of probes that are developed prior to the pilot, the method is flexible enough to allow observers to carry out spontaneous probing based on what happens during each individual interview.

A small scale and intensive dynamic pilot of this nature is preferable to a larger scale exercise where the interviewers are unaccompanied. In the latter instance, interviewers tend to report back on how they rather than the respondents found the questionnaire.

With all dynamic pilots the interviewers and researchers are thoroughly briefed before starting the pilot and an informal debrief is held at the end of the pilot.

3.3.1.2 Structure of piloting on the BCS

Dynamic piloting on the BCS was carried out in two rounds during January and February 2004. This approach allowed the preliminary findings from the first round of piloting to be considered by researchers and the Home Office and amendments made to specific questions where necessary before round two. In total interviews were conducted in six areas across the pilot and a total of 30 interviews were conducted over the two rounds of piloting. Respondents were pre-recruited by interviewers and all respondents were paid a small incentive. Quotas were set to ensure that a mixture of men and women took part and that some respondents had experience of at least one of the following:

- Visiting pubs/bars in the evening
- Being a member of a neighbourhood watch scheme
- Going to nightclubs
- Using public transport

This was to ensure that the questions on these areas could be adequately piloted.

Interviews lasted approximately 30 minutes, with a further 20-30 minutes of probing by the observer.

Additional piloting was conducted with women in women's refuges to test the questions to be used in the domestic violence, sexual assault and stalking module. In total 17 women took part in these pilot interviews in March 2004.

3.3.1.3 Measuring public confidence in the police

A separate and additional stage of development was conducted for the 2004-5 survey as part of a new module of questions from October 2004 measuring public confidence in the police.

BMRB Social Research was asked to carry out developmental research to ensure that the most appropriate questions were included in the survey. The research sought to define the concept of 'public confidence in the police' from the perspective of the general public, in a way that the average person could relate to. From there a set of questions were designed with a view to introducing them into the British Crime Survey from October 2004. This research was conducted in three stages. The project began with desk-research to consider what was already known about confidence in the police. This took the form of a review of a variety of literature, including published and unpublished sources. This was followed by a qualitative stage involving research into the public's perceptions of confidence in the police through group discussions and one-to-one in-depth interviews. The third stage focused on the design of the new BCS questions to measure the underlying aspects of public confidence in policing. The proposed questions were piloted with a sample of respondents using the same form of dynamic piloting used for the main stage questionnaire development.

Recommendations were then made with regard to the positioning of the new questions within the BCS structure.

3.4 Final questionnaire and revisions

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Following feedback from the piloting and detailed analysis of the timings, further modifications were made to the questionnaire to bring the length of the questionnaire in line with previous surveys.

A paper questionnaire was produced from the Quanquest software that detailed the questions and their routing instructions as specified in the Quanquest code. This was translated into a Word document to provide a more user-friendly questionnaire.

Once all changes had been approved the questionnaire was thoroughly checked by BMRB researchers and Home Office research staff.

3.5 Allocation of sample within CAPI

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In the 2004-5 survey the unique serial number entered by interviewers into the computer had to be capable of the following:

- to randomly allocate respondents to one of four part-sample modules (and within each module to further allocate respondents into a sub-sample)
- to distinguish between a core sample respondent, a non-white boost sample respondent and a youth boost respondent

The unique serial number pre-printed on all core Address Contact Sheets and transferred by interviewers into the CAPI consisted of 6 digits. The first 4 digits (1000-9999) represented the area or sample point number and the last 2 digits (01-99) represented the address number. Additionally, the interviewers had to enter a screen number which denoted whether the interview was a core sample interview (screen number 0) or a non-white boost sample interview (screen number 1-6). Various checks were incorporated into the questionnaire to minimise the chances of errors being made by interviewers when entering the serial and screen numbers.

Allocation of respondents to each part-sample module was done on the basis of the address number, using an algorithm based on division of the address number by 8 as shown in Table 3.2. For non-white respondents, who were allocated only between part-sample modules A and B in the ratio of 3:1, the algorithm was amended to ensure a similar random allocation of respondents.

Since each sample point contained either 16 or 32 addresses the above algorithm ensured that within each sample point a similar number of issued addresses were randomly allocated to each follow-up module.

Table 3.2 Allocation of interviews to modules

Address Number	Remainder divided by 8	Modules A-D	
		Core sample	Non-white boost sample
01,09,17,etc.	1	A1	A1
02,10,18,etc.	2	B1	B1
03,11,19,etc.	3	C1	A1
04,12,20,etc.	4	D1	A1
05,13,21,etc.	5	A2	A2
06,14,22,etc.	6	B2	B2
07,15,23,etc.	7	C2	A2
08,16,24,etc.	8	D2	A2

3.6 Features of Quancept used in the BCS

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3.6.1 Don't Know and Refusal Keys

In the Quancept script, Don't Know and Refused are special codes. Rather than entering numeric codes for these options, interviewers enter DK and REF respectively. As with previous years of the survey, almost every question had a Don't Know and Refused option that the interviewer could use. However, at most questions they were hidden, and so did not appear on the screen as an explicit option. In the paper questionnaire in Appendix D, Don't Know and Refused are only shown if they actually appeared as an option on the screen.

3.6.2 Different question types

The vast majority of questions were pre-coded, meaning that a list of answer categories appears on the laptop screen and the interviewers enter the appropriate numeric code. Questions were either single response (i.e. only one code can be entered) or multi-response (i.e. more than one code can be entered). In the latter case, entered answers are separated by spaces. In multi-response questions it is possible to allow a combination of either multi-response or single response options at the same question. In the case of numeric questions, where an actual value is required, the interviewer simply types in the appropriate number.

Many pre-coded questions had an 'Other –specify' option, and if this option was selected by a respondent, the interviewer would simply type in the answer given. In all these questions, the answers were later examined by coders to see if the other answer could be back coded into one of the original pre-coded options (see section 5.2).

In Quancept the standard keys that interviewers use to move forwards and backwards through the questionnaire are *Ctrl* + *Enter* and *Ctrl* + *Backspace* respectively. It was felt that these keystroke combinations might be awkward for respondents when completing the self-completion part of the questionnaire. Consequently, a modified version of the software was used for the BCS which allowed respondents to use single keystrokes (F2 for forward, F1 for backward) to complete the self-completion.

3.6.3 Logic and consistency checks

A number of logic and consistency checks were built into the Quancept script. These were of two types: hard checks and soft checks. Hard checks are ones where the interviewer is unable to move to the next question until the discrepancy or inconsistency has been resolved. Soft checks are ones where the interviewer is asked to confirm that the information entered at a specific question is correct but is able to pass on to the next question.

A full list of all the logic and consistency checks in the 2004-5 script can be found in Appendix I of Volume 2.

3.6.4 Date calculation and text substitution

Text substitution and date calculations were used extensively throughout the questionnaire.

Text substitution is where alternative text is used in a question depending upon the series of answers given by a respondent to previous questions. In the paper questionnaire, square brackets are used to denote the existence of text substitution in a question.

Two main types of **date calculations** were used in the questionnaire:

- First, the precise reference period was calculated based on the date of interview and this was then substituted into the text of many questions. In all cases it was decided to calculate the date to the first of the month 12 months previous. Thus, for example, any interviews conducted in July 2004 would use the reference period *"since the first of July 2003"*. This means that in practice the 12 month reference period consisted of the last 12 full calendar months, plus the current month (i.e. slightly more than 12 calendar months). This fact is taken into account when the victimisation rates are being estimated.
- Second, some code frames consisted of particular time periods (e.g. months or quarters) which changed on a month by month basis. With these type of questions the Quancept script was programmed to allow the whole reference period covered by the questionnaire (that is, from April 2003 to June 2005 – a total of 27 months). However, interviewers only saw on screen the sub-set of codes that were appropriate to the correct reference period (i.e. 13 calendar months) for the month they were interviewing in.

Since some questions use these constantly rotating code frames based upon date of interview it is impossible to label these variables in any meaningful way in the SPSS data file. A list of these questions and the appropriate code frames that actually appeared on screen depending upon the month of interview can be found in Appendix F of Volume 2.

4. Fieldwork

This chapter documents all aspects of the data collection process, focusing on fieldwork procedures, the management of fieldwork across the survey year, quality control procedures and response rates achieved across the different samples.

4.1 Briefing of interviewers

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All interviewers working on the 2004-5 survey attended one of two types of briefings during the year.

All interviewers who had not previously carried out a BCS assignment were required to attend a full day face-to-face briefing before they could work on the survey. These briefings were held throughout 2004-5 as required. In total, 13 full briefings of new interviewers were held and 157 interviewers were briefed. All briefings were attended by researchers and field staff working on the survey, and many were also attended by Home Office researchers.

Each briefing covered the following topics:

- some background to the BCS and how the information is used by the Home Office
- details about sampling and fieldwork procedures and advice on how to obtain high response rates
- an explanation of the screening procedures used on the non-white boost sample
- some guidance about certain questions and topics covered in the interview. The primary focus of this part of the briefing was not to cover every single question in the survey but rather on how to ensure that information from the screener questions and the Victim Form was collected correctly. Additionally, this part of the briefing looked at how interviewers should approach the self-completion sections of the questionnaire.

In addition to this face-to-face briefing, before starting a BCS assignment for the first time all interviewers had to watch a video briefing, which provided further details about the procedures used for the youth boost screening. Video briefings are recorded on CD and interviewers are able to play them on their laptop computers. Interviewers were also required to read the written Interviewer Instructions and carry out at least two practice interviews based on particular scenarios provided in the Instructions.

Interviewers who had already been briefed on BCS were required to attend a refresher briefing. In total 27 half-day refresher briefings were held in November and December 2004 and 334 interviewers attended these events. Since the survey had only changed slightly between 2003-4 and 2004-5 the objectives of these meetings were different from the initial briefings. Although they provided an opportunity to tell interviewers about changes to the survey, the primary objectives were to provide feedback to interviewers on how the survey had gone in 2003-4; to highlight areas of field procedures and data collection that could be improved; and to generally re-motivate interviewers, many of whom had been working on the survey for a relatively long time. In addition, the review meetings gave interviewers a chance to provide feedback on the survey and fieldwork procedures.

All refresher briefings were attended by researchers and field staff working on the survey, and most were attended by Home Office researchers. Each briefing covered the following topics:

- some results from the 2003-4 BCS survey results and how these had been reported in the media
- an analysis of 2003-4 response rates (including response rates for the youth and non-white boost surveys) and discussion about how response rates could be improved
- discussion of the questionnaire development process and questionnaire length, including feedback from interviewers on what they felt were particularly problematic questions
- a discussion about field issues and other information about future developments.

4.2 Supervision and quality control

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Several methods were used to ensure the quality and validity of the data collection operation.

A proportion of interviewers, particularly those less experienced, were accompanied in the field by supervisors. This included interviewers who were new to random probability sample surveys, who were accompanied on the first day of a BCS assignment by a supervisor.

A proportion of addresses were re-contacted, to verify that the interviewer had contacted someone at the address and whether or not an interview had resulted. In total, 5,937 addresses were re-contacted (10% of addresses where contact was made) to verify that the interviewer had contacted someone and whether or not an interview had resulted. Addresses for back checking were selected on the basis of BMRB's overall field quality procedures, whereby all interviewers have their work checked at least twice a year.

These back checking procedures were mainly carried out by telephone. Where no telephone number was available a short postal questionnaire was sent to the address to collect the same information.

4.3 Fieldwork dates and fieldwork management

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During 2004-5 the survey was managed on a monthly basis. Approximately 180 assignments were issued to interviewers at the start of each month, with fieldwork starting on the first day of the new month.

Interviewers were encouraged to start their assignment as early as possible in the month to minimise the time between respondents receiving the advance letter and an interviewer calling (see section 4.4.1). Interviewers had until the end of the calendar month to cover all the addresses in their assignment and report final outcomes.

Once all the issued addresses had been covered the Address Contact Sheets were returned to Head Office and a decision was taken about re-issuing non-productive outcomes. As a general rule all non-productive addresses (non-contacts, refusals, broken appointments, etc.) were re-issued unless there was a specific reason not to or it was not considered cost effective (e.g. only one or two addresses in an assignment). Once the

first re-issue period had been completed a decision was taken about whether to re-issue addresses that were still non-productive for a second or third time.

In total across the year, 15,525 addresses were re-issued on the core sample, which represented 23% of the original sample. A further 10% of addresses were issued for a second time, and 3% of addresses were issued for a third time. Of all the addresses re-issued, 27% were converted into productive outcomes at some stage. Addresses where the original outcome had been a refusal were less likely to be converted than those that had been a non-contact or some other unproductive outcome (e.g. broken appointment, away, etc.). Overall, the impact of the re-issue process was to increase the response rate on the core sample from 67.7% after the initial issue to the final response rate of 74.8% (see section 4.7.1).

Because of this time lag between addresses being issued and interviews being achieved, the time period covered by the 2004-5 **issued sample** and the time period covered by the 2004-5 **achieved sample** are different. Although sample for the survey was issued between April 2004 and March 2005, the actual fieldwork dates over which interviews were achieved ran from April 2004 to June 2005. At the quarterly level, this means that not all interviews were actually achieved in the quarter of issue. In fact, approximately 80% of interviews were achieved in the same quarter as they were issued, with 20% of interviews falling into the next quarter. Not surprisingly, most of the interviews that fell into the following quarter were those issued in the last month of a quarter (i.e. March, June, September, and December).

Further details of how the quarterly data outputs relate to the issued and achieved sample can be found in section 6.2.

4.4 Fieldwork procedures and documents

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In most cases an interviewer assignment consisted of 32 issued addresses. However, in areas where the proportion of the non-white population was greater than 20%, interviewers were only issued with 16 addresses as it was anticipated that they would achieve a higher number of non-white boost interviews. Interviewers were only allowed to conduct interviews at the addresses they were issued with.

4.4.1 Advance letter and leaflet

All selected addresses were sent a letter from the Home Office in advance of an interviewer calling at the address. For addresses in Wales, a Welsh translation was provided on the reverse of the letter. This explained a little about the survey, why this particular address had been selected and telling the occupiers that an interviewer from BMRB would be calling in the next few weeks. The letter also provided a telephone number and an email address for people to contact to find out more about the survey, to make an appointment for an interviewer to call, or to opt out of the survey. Over the course of the whole year only 768 people, representing 1% of addresses issued, opted out of the survey by contacting either BMRB or the Home Office.

In addition to the advance letter for the core sample there were similar letters for the non-white boost sample and the youth sample. Since the boost samples were not pre-identified, these letters were given to potential respondents by interviewers once they had identified an eligible household.

Included with the advance letter was a coloured leaflet from the Home Office which provided people with some more details about the survey, including findings from the previous survey. The leaflet also tried to answer some questions that potential respondents might have such as issues relating to confidentiality.

Examples of the advance letters used on the core, non-white and youth boost samples can be found in Appendix A of Volume 2 and a copy of the leaflet can be found in Appendix B of Volume 2.

4.4.2 Address Contact Sheets (ACS)

Interviewers were issued with an Address Contact Sheet (ACS) for each sampled address. This is the key document that allows interviewers to carry out the different tasks that make up the BCS assignment and to record and manage their own calling strategies for each address. In total there are four different types of Address Contact Sheet used on the BCS, all of which are colour coded to avoid confusion. These are:

- **Yellow Address Contact Sheet** – A yellow ACS indicates a pre-identified core sample address where screening at adjacent addresses for non-white respondents is needed. All core sample Contact Sheets have the full address printed on the front page, as well as details of the serial number for that address.
- **White Address Contact Sheet** – A white ACS is identical to the yellow ACS, except that it indicates that no screening of adjacent addresses is needed. As such, it is two pages shorter than the yellow ACS.
- **Blue Address Contact Sheet** – A blue ACS is created by interviewers once they have identified a potentially eligible non-white household. Since these addresses are not pre-identified, the blue ACS is blank and interviewers have to fill in the address and serial number details themselves.
- **Pink Address Contact Sheet** – A pink ACS is created by interviewers once they have identified a potentially eligible youth respondent. As with the blue ACS, the pink ACS is blank and interviewers have to fill in the address and serial number details themselves.

The Address Contact Sheets are crucial documents to the management of the BCS, both at the level of the individual assignment and for the management of the survey overall. The primary functions of the Address Contact Sheet are as follows:

- To allow interviewers to record the days and times that they have called at an address. Additionally, there is space for interviewers to record details or comments that may be useful should the address be re-issued to another interviewer.
- To provide a record of all the outcomes achieved at the address. The ACS allows the outcome at each re-issue stage to be recorded separately, so that there is a complete record of outcomes for each address. Although these outcomes are recorded by interviewers on the ACS, they are also reported electronically to Head Office on a daily basis so that overall progress can be monitored and managed.
- To allow the interviewer to carry out any selection procedures where necessary. Where an interviewer finds more than one dwelling unit at an address they need to carry out a procedure to randomly select one dwelling unit for interview. Similarly, where more than one eligible respondent exists, interviewers need to randomly select one person for interview. The ACS allows them to carry out this procedure and record the details for future reference or checking.

- To allow the interviewer to carry out the screening process for both the non-white and youth boost samples. The ACS has step by step instructions for interviewers about how to carry out these procedures and also allows them to record the screening outcomes for every address. As with the final response outcomes, all screening outcomes are reported back to Head Office on a daily basis.
- To collect some basic information about the area and the selected address (e.g. type of property, condition of the property, whether it is in a Neighbourhood Watch area, etc.). This information is collected by interviewers based on their own observations and, as such, is highly subjective. Nevertheless, such information does tend to be highly associated with non-response and is also used by the Home Office as an area based disorder measure. This observational data is recorded by interviewers on the back page of the ACS and returned to Head Office where the information is then scanned. The data is then added to the main data files at a later stage.

Examples of both core sample Address Contact Sheets (Main sample with non white screening and the Main sample with no non white screening) and Non white boost sample and Youth boost sample ACS can be found in Appendix C of Volume 2.

4.5 Presence of others during the interview

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During the briefing sessions emphasis is given on interviewers trying to conduct the interview in private. It is felt that this not only helps make the interview run more smoothly, it might also encourage some respondents to mention certain incidents or events, which they might be embarrassed or worried of talking about in front of others.

This is a particular concern for respondents who have experienced domestic violence or sexual assault. Where respondents have experienced such incidents in the last 12 months interviewers have the option of suspending the Victim Form (simply by skipping over it) if they feel it is inappropriate to continue with the questions due to the presence of others in the room. This procedure means that the interviewer can complete the rest of the questionnaire, rather than having to abandon the whole interview. During 2004-5 a total of 18 Victim Forms were suspended by interviewers for this reason.

Despite such efforts, it is recognised that in some situations the presence of others can improve the accuracy of the information collected. This is particularly the case in incidents of vehicle crime or property crime, where the respondent may not have been personally present, reported the incident to the police, etc. Moreover, in some cases it will simply not be possible for the interview to be conducted without others present in the room.

4.5.1 Presence of others during the screener interview

The key point at which the presence of another person could affect the estimate of victimisation is during the initial set of screener questions. Therefore, at the end of these questions, the interviewer recorded whether anyone else was present. Table 4.1A shows whether or not anyone else was present or not during the initial screener part of the questionnaire, when respondents are giving details about their experiences of crime.

Table 4.1A Whether anyone else was present or not during the screener questionnaire

	Core sample	Non-white boost sample	Youth boost sample	Total
	%	%	%	%
No-one present	72	60	68	71
Children under 16	7	19	6	8
Spouse/partner	16	15	4	15
Other adult	7	15	26	9
Base: (All)[1]	*46,810*	*3,833*	*2,703*	*53,346*

[1] Percentages add up to more than 100% since more than one answer could be coded at this question

In seven out of ten interviews (71%), the respondent was interviewed without no-one else other than the interviewer being present. Respondents interviewed as part of the non-white boost sample were more than twice as likely as respondents from the core sample to be interviewed with children under 16 present (19% and 7% respectively) and with other adults present (15% and 7% respectively). Respondents interviewed on the youth boost sample were more likely than other respondents to have been interviewed with some other adult present, which possibly could be a parent.

Examining the interviewing pattern by the sex and age of respondents showed that on the core sample male and female respondents were just as likely to have done the interview with no-one else being present (73% of men and 72% of women). However, on the non-white boost sample women were significantly less likely than men to have done the screener questionnaire with no-one else present (66% of men and 55% of women). It is worth noting that this pattern was also evident among non-white respondents interviewed as part of the core sample, indicating that the difference is likely to be due to the profile of the white and non-white population and not the actual sampling method.

Respondents aged 16 to 24 were less likely than average (68%) to have done the screener questionnaire with no-one else present, with more than a quarter (26%) having done the interview with some other adult present. Interestingly, 16 to 24 year olds who were interviewed on the youth boost sample were more likely to have done the interview with no-one else present compared with 16 to 24 year olds interviewed on the core sample (68% and 63% respectively). This may reflect the nature of the methodology and the fact that a youth boost interview is generally done after a core sample interview has already taken place.

However, it is also likely to be influenced by the fact that youth boost interviews are never carried out in single person households since in such situations the core sample interview would always take priority over a boost interview. Table 4.1B shows the information from the previous table with single person households identified separately. Not surprisingly this shows that the vast majority of respondents interviewed in single person households were interviewed with no-one else present. The majority of respondents living in households with more than one person were also interviewed with no-one else present, although many were also interviewed with someone else present. Interestingly, a difference remained between the core sample and the non-white boost sample. This is probably explained by the fact that the average household size of non-white households is larger than white households (an average of 3.2 people in non-white

households against 2.4 in white households), meaning that the likelihood of being interviewed alone is reduced.

Table 4.1B Whether anyone else was present or not during the screener questionnaire by number of people in household

	Core sample		Non-white boost sample		Youth sample	
	Single person	More than one person	Single person	More than one person	Single person	More than one person
	%	%	%	%	%	%
No-one present	93	65	88	54	-	68
Children under 16	1	10	2	23	-	6
Spouse/partner	0	22	0	18	-	4
Other adult	6	7	11	16	-	26
Base: (All)[1]	*12,670*	*34,140*	*670*	*3,163*	-	*2,703*

[1] Percentages add up to more than 100% since more than one answer could be coded at this question

4.5.2 Presence of others during the self-completion

For those who did the self-completion, the presence of others during this part of the interview was also recorded. Table 4.2 shows that the proportion of people who did the self-completion with no-one else in the room was similar to those who did the screener questionnaire with no-one else in the room. In three quarters of interviews (75%) the self-completion was done with no-one other than the respondent and interviewer present. Respondents from the core sample were more likely than respondents from the non-white boost sample to have completed the self-completion with no-one else present (76% and 68% respectively). Again, not surprisingly those who lived in single person households were most likely to do the self-completion section with no-one else present.

Table 4.2 Whether anyone else was present or not during the self-completion questionnaire

	Core sample	Non-white boost sample	Youth boost sample	Total
	%	%	%	%
No-one else	76	68	70	75
Children under 16	8	13	5	8
Spouse/partner	11	11	3	11
Other adult	8	13	25	10
Base (all who completed self-completion)[1]	*29,608*	*2,938*	*2,673*	*35,219*

[1] Percentages add up to more than 100% since more than one answer could be coded at this question

Where anyone else was present during the self-completion section, interviewers were briefed to try and 'arrange' the room whenever possible so that the respondent had a degree of privacy to do the self-completion. Thus, for example, interviewers might try to ensure that the respondent is sitting with the screen facing a wall or in such a position that no-one else in the room could actually read the computer screen.

Where anyone else was present, the extent to which they were involved in answering questions was noted, as was whether the interviewer was involved in the self-completion sections.

Even where someone else was present during the self-completion, it was not common for others to become involved in answering the questions. In 89% of interviews where someone else was present, the respondent completed the self-completion section entirely on their own. In 6% of interviews someone else actually looked at or read the self-completion with the respondent, while in another 5% of cases the respondent discussed the self-completion with other people. Respondents from the non-white boost sample were more likely than average to have had someone else look at or read the self-completion (15%) or to have discussed the self-completion with someone else (8%).

Table 4.3 shows the amount of assistance that interviewers gave to respondents on the self-completion section. This shows that almost one in eight (12%) respondents who did the self-completion asked the interviewer for help with the self-completion. Respondents from the non-white boost sample were more likely to choose this option than respondents from the core sample (23% and 11% respectively).

However, the vast majority of respondents (84%) who completed the self-completion did it entirely themselves with no help from the interviewer. Respondents from the non-white boost sample were less likely than those from the core sample to have done it without any assistance (70% and 84% respectively). Respondents from the youth boost sample were the most likely to have done the self-completion themselves and without any assistance (94%).

At the end of the interview, interviewers were asked to record their assessment of whether the respondent had had any difficulties reading (English) during the interview. Not surprisingly, those who had asked the interviewer for help with the whole of the self-completion or had needed help with nearly all the questions were more likely to have

difficulties reading English than those who had needed little or no assistance. Thus, half (50%) of respondents who the interviewer assessed as having difficulty with reading English either asked the interviewer to do the self-completion for them or needed significant help with the questions.

Table 4.3 Amount of assistance given by interviewer with self-completion questionnaire

	Core sample	Non-white boost sample	Youth boost sample	Total
	%	%	%	%
All done by respondent	84	70	94	84
Help given with one or two questions	3	4	1	3
Help given with more than one or two questions, less than half	1	1	<0.5	1
Help given with more than half, but not all	<0.5	<0.5	<0.5	<0.5
Help given with all/nearly all	1	2	<0.5	1
Completed by interviewer	11	23	4	12
Base (all who completed self-completion)	*29,608*	*2,938*	*2,673*	*35,219*

4.6 Length of interview

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4.6.1 Introduction

Timing stamps were placed throughout the questionnaire to allow timing of individual sections. Due to various technical issues associated with CAPI systems, it is not always possible to derive meaningful time stamps from every interview. For example, should an interviewer briefly go back into an interview at a later time to check or amend a response the time stamps can be set to show an apparently very short (2-3 minutes) interview. Similarly, if an interviewer has to temporarily stop or suspend an interview for an hour or so and fails to come out of the questionnaire in the intervening period (simply powering down the computer instead) the time stamps can show an interview of 4-5 hours.

To eliminate the effects of these outlying cases on the calculation of average timings, it was decided to only include interviews where the total length of interview was in the range 15 minutes to 180 minutes[14]. On the 2004-5 survey, 97% of interviews (51,791 out of 53,346) had a valid time within these ranges and are included in the analysis below.

Since the calculation of interview times is based on time stamps generated within the interview (rather than an interviewer estimate), they represent the elapsed time from the first question to the last question. As such they do **not** include the time during which the interviewer is introducing the survey, setting up the laptop, or packing up at the end of the interview.

[14] For youth interviews the acceptable valid range was set between 10 minutes and 120 minutes.

4.6.2 Overall length of interview

The average (mean) length of the interview during 2004-5 was 48 minutes. This is approximately the same length as all surveys since 2001. The main influence on interview length was whether or not the respondent was a victim of crime. The average interview length for non-victims was 42 minutes compared to 65 minutes for victims of crime.

The average length of both core sample and non-white boost sample interviews was the same (48 minutes), while the average length of the youth boost sample interviews was 22 minutes[15].

The average length of interview by number of Victim Forms is shown in Table 4.4 below. The length of interview was strongly related to the number of Victim Forms completed by the respondent, with those completing 4 or more Victim Forms having an average interview length of 98 minutes.

Table 4.4 Length of interview by number of Victim Forms (Core and non-white boost sample)

Number of Victim Forms	Average time (minutes)
Non victims	**42**
All victims	**65**
1	59
2	73
3	86
4 or more	98
All respondents	**48**

The most common interview length was between 30 and 60 minutes, with 60% of all respondents completing the survey in this time. A fifth (20%) of respondents completed the survey in less than 30 minutes, while 5% of respondents took 90 minutes or over.

[15] Youth boost interviews are NOT included in the rest of the analysis since they would act to lower overall average times since the youth boost interview is a cut down version of the main questionnaire.

4.6.3 Average time for different sections of the interview.

The average times for each of the main sections of the questionnaire are shown below in Table 4.5. It should be noted that this table shows the average times for each module across all respondents. Therefore, respondents who did not complete a particular module because of the sub-sampling are allocated a time of 0.

Table 4.5 Average time for each module of the 2004-5 questionnaire (Core and non-white boost sample)

Questionnaire module	Average time (minutes)
Household Box	5.3
Main questionnaire	7.0
Screener questions	3.0
Victim forms	4.8
Mobile phones	0.6
Criminal Justice System	5.3
Module A-D[1]	5.7
Public Transport/Town Centre Crime	0.8
Night Time Economy	0.4
Anti Social Behaviour	2.5
Demographics	5.0
Drugs and Drinking	1.9
Inter-Personal Violence	4.1
End of interview administration	1.6
Average time	**48**

[1] This is the average time across all the four Modules A-D. Every respondent completes one of these modules and the aim is to ensure that they are as similar as possible in length.

4.6.4 Length of victim forms

As mentioned above the average length of the survey is affected primarily by the number of Victim Forms completed by a respondent, with the average time for non-victims being 42 minutes compared to an average of 65 minutes for victims of crime.

Although the average time taken to complete the Victim Forms was only 4.8 minutes, this time is skewed by the fact that 75% of respondents were non-victims and so took no time to complete this section. Therefore, a more meaningful analysis is to look at the time taken to complete the survey by the number of Victim Forms completed.

Table 4.6 shows that long Victim Forms averaged about 12 minutes per form, while short Victim Forms averaged 4 minutes per form. Table 4.6 also shows that the time taken to complete the first Victim Form was greater than for forms two or three, suggesting that respondents speed up as they go through each subsequent Victim Form. This pattern has been evident in all previous surveys.

Table 4.6 Average time taken for each Victim Form (Core and Non-white boost sample)

Victim Form number	Average time (minutes)
Victim Form 1	14.0
Victim Form 2	11.1
Victim Form 3	10.1
Victim Form 4	4.8
Victim Form 5	4.4
Victim Form 6	4.4

4.6.5 Length of part-sample modules

Because the BCS survey is highly filtered each respondent only complete a certain number of modules. Table 4.7 below shows the average time taken for each of the part-sample modules based only on those who were asked the module.

Table 4.7 Average length of each part-sample module (Core and Non-white boost sample)

Part-sample module	Average time (minutes)
Module A	6.0
Module B	6.1
Module C	4.8
Module D	6.1
Public Transport/Town Centre Crime (asked of respondents answering Module C)	3.5
Night Time Economy (asked of respondents answering Module A)	1.9
Anti Social Behaviour (asked of respondents answering Modules B and D)	5.4

Due to the different length of each individual module the overall average interview length varied slightly according to what modules a respondent was asked, although the difference was relatively small. Thus, on average, the shortest interview was among people who were asked Module A and the Night Time Economy modules (46.2 minutes), while the longest interview was among those who were asked Module D and the Anti Social Behaviour modules (49.4 minutes).

Similarly, the overall timings of the self-completion are masked by the fact that all those who are not eligible for the self-completion (i.e. those aged 60 years or over) and those who refuse the self-completion have an average time of zero. Considering only those respondents who actually did the self-completion sections, the average time of the Drugs and Drinking module was 3.2 minutes, while the average time of the Inter-Personal Violence module was 7.1 minutes.

In fact, 87% of respondents who did the Drugs self-completion did it in less than 5 minutes, while only 1% took more than 10 minutes to complete it. The Inter-Personal Violence module took respondents slightly longer with around half (49%) of respondents taking 5-10 minutes to complete it and 15% taking more than 10 minutes to complete it.

4.7 Response rate and reasons for non-response: core sample

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4.7.1 Overall core response rates

The full response rate analysis for the 2004-5 issued core sample is shown in Table 4.8. Overall, the response rate and non-response breakdown on the 2004-5 survey was extremely similar to the 2003-4 survey.

Around one in twelve (8%) issued core addresses were identified as not being eligible residential addresses (or deadwood). The most common types of deadwood were empty or vacant residential properties (4%) and business or industrial premises (1%). The total proportion of addresses that were identified as being deadwood was similar to that identified in the previous two surveys.

At eligible addresses the most common reason for not getting an interview was due to a refusal, which accounted for 15% of all issued eligible addresses. The most common type of refusal was after the person selection had been made, accounting for 9% of the eligible sample compared to 5% of addresses where all information was refused or someone had contacted Head Office to refuse.

Non-contact formed a much smaller proportion of unproductive addresses, accounting for 5% of all issued eligible addresses. The vast majority of such cases represented situations where no contact had been made with anyone at the address despite repeated calls over a lengthy period of time. It is possible that some of these addresses were actually empty or vacant and so should have been coded as deadwood. However, the impact that this would have on the overall response rate is likely to be minimal

Finally, a further 6% of issued eligible addresses were categorised as unproductive for other reasons including broken appointments, people who were ill or away during the period of the survey and people who had inadequate English to complete the survey.

Table 4.8 2004-5 Core sample response rate and non-response breakdown

	N	%
Total addresses issued	67,968	100
Addresses not traced	543	0.8
Not built/ does not exist	87	0.1
Derelict/ demolished	269	0.4
Empty/vacant	2,957	4.4
Second home/not main residence	550	0.8
Business/ industrial	681	1.0
Institution/communal establishment	135	0.2
Other deadwood	183	0.3
Total ineligible addresses	**5,405**	**8.0**
Total eligible addresses issued	62,563	100
No contact made with household	2,816	4.5
No contact made with selected respondent	332	0.5
Total non contact	**3,148**	**5.0**
Office refusal	768	1.2
Refused all information	2,188	3.5
Personal refusal	5,337	8.5
Proxy refusal	773	1.2
Total refusal	**9,066**	**14.5**
Broken appointment	899	1.4
Temporarily ill/incapacitated	297	0.5
Physically or mentally unable	699	1.1
Away/ in hospital	749	1.2
Inadequate English	258	0.4
Other unsuccessful	637	1.0
Total other unsuccessful	**3,539**	**5.7**
Total unproductive	**15,753**	**25.2**
Achieved interviews	**46,810**	**74.8**

4.7.2 Core response rates by Government Office Region

Response rates differ by area. In particular, response rates across all surveys tend to be lower in inner city areas compared with suburban and rural areas. This is reflected in the fact that the current BCS data includes a weight to correct for differential response rates between those areas defined as inner city and non-inner city (see section 7).

Using this same definition, in the 2004-5 survey the response rate in areas categorised as inner city was 69% compared to 75% in those areas categorised as non-inner city. It is interesting to note that refusal rates in inner city and non-inner city areas were the same

(13% and 15% respectively) and that the differential non response was almost entirely due to the non-contact rate in inner city areas being twice that compared with non-inner city areas (11% and 4% respectively).

Response rates also differ by region. Table 4.9 below shows the different response rates achieved by Government Office Region. This shows that across all regions the response to the survey was broadly the same, except for London where it was noticeably lower than average at 62%. As with inner city areas, this was primarily due to a higher than average non-contact rate (14%). Lower response rates in London are a problem that is common to most major surveys.

Table 4.9 2004-5 Core sample response rate by Government Office Region

GOR	Response rate (%)
North East	74
North West	79
Yorkshire & Humberside	75
East Midlands	73
West Midlands	79
East of England	76
London	62
South East	76
South West	77
Wales	75

4.7.3 Core response rates by type of property and type of area

As mentioned in section 4.4.2, part of the BCS assignment involved the interviewer collecting some details about the area and about the specific issued address. Since this information was collected for all residential addresses, whether or not an interview was obtained, it is possible to analyse response rates according to this data. Of most interest is how response varies first, by the type of property and second, by the type of area.

Table 4.10 below shows how response rates on the 2004-5 survey varied according to the type of property, ranging from 81% for caravans and mobile homes and 80% response among addresses identified as detached or semi-detached houses to 65% among addresses identified as flats.

Table 4.10 2004-5 Core sample response rate by type of property

Property	Response rate (%)
Detached or semi-detached houses	80
Terraced houses	76
Maisonettes	69
Caravan/mobile home	81
Flat with own entrance	69
Flat with non-lockable communal entrance	69
Flat with lockable communal entrance	62
All types of flat	**65**

The table also shows the impact of two particular aspects of flats on response, namely whether a property has a communal entrance or not and whether the entrance to the communal entrance is lockable or not (e.g. controlled entry phone system). Flats with communal entrances that had controlled entry systems were the most difficult type of property to gain response. In 2004-5, the response rate at these types of property was 62% compared to 69% for flats with their own (non-communal) entrances. Not surprisingly, this lower response rate was due primarily to the relatively high level of non-contact (14%). This illustrates the difficulty faced by interviewers in trying to gain an interview at an address where they are unable to make direct face-to-face contact with people, often having to communicate via intercom systems.

Taken together these figures go some way to explain the lower than average response rate in London, although there are clearly other factors involved as well. For the country as a whole, flats represented only 12% of the issued sample, while flats with communal entrances that have controlled entry represented 7% of the issued sample. However, in London these types of properties represented 33% and 22% of the issued sample respectively. Therefore, one important reason for the lower response rate in London and inner city areas in general is the composition of the housing stock.

Apart from the actual type of property, interviewers were also asked to make an assessment about the condition of each property that was sampled. Results suggest that the better the condition of the sampled property the more likely an interviewer was to obtain an interview. Thus, among sampled properties assessed as being in 'very good' condition the response rate was 81%, compared to 74% among properties assessed as being in 'neither good or bad' condition and 65% among properties assessed as being in 'very bad' condition. This pattern held true across all types of property (i.e. the response rate among both houses and flats assessed as being in 'very good' condition was higher than among those assessed to be in 'very poor' condition). In addition to recording the state of the property interviewers were asked to record whether the house or flat was in better or worse condition than other properties in the area. The response rate for properties judged to be in better condition than others in the area was 81% compared with 71% for those in a worse condition.

Interviewers were also asked to record their general observations about the area immediately surrounding each issued address with respect to a number of characteristics including how common rubbish or litter was, how common vandalism and graffiti was and how common run down houses were. Although these observations were clearly open to a high degree of subjectivity, Table 4.11 below shows that the overall response

rates tended to be higher among issued addresses where the interviewer had recorded these types of disorder as being not at all common.

Table 4.11 2004-5 Core sample response rate by area characteristics

	Very common	Fairly common	Not very common	Not at all common
	%	%	%	%
Litter or rubbish lying around	72	73	75	79
Vandalism, graffiti or damage to property	73	73	74	78
Homes in poor condition or run down	71	70	75	79

4.8 Response rates and reasons for non-response: Non-white boost sample

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Table 4.12 shows the screening outcomes and the response rates for the 2004-5 non-white boost sample. Of the total addresses issued for screening, 6% were not screened primarily because the interviewer was unable to identify an adjacent address for screening, or because no information could be obtained on a household despite every effort being made. Of the 180,285 addresses screened over the year where a valid outcome was obtained only 4% of households had an eligible respondent.

Among households identified as containing an eligible respondent a response rate of 54% was achieved. Although refusal rates were slightly higher compared with the core sample (19% and 15% respectively), the main reason for the lower response rate on the non-white boost sample was a significantly higher non-contact rate (16% compared with 5% on the core sample). This higher level of non-contact is probably partly explained by the fact that the non-white boost sample is concentrated in London and inner city areas, where non-contact rates tend to be higher for all groups. For example, in the 2004-5 survey the non-contact rate in London for the core sample was 14% compared to 19% for the non-white boost sample. However, the higher non-contact rate on the boost sample may also be partly explained by the nature of the methodology, which means that interviews sometimes do not identify eligible households until part way through their assignment and so have less opportunity to make repeated calls.

Table 4.12 2004-5 Non-white boost sample screening outcomes, response rate and non-response breakdown

	N	%
Total addresses issued	**192,480**	**100**
Information not obtained at address	2,783	1.4
Unable to identify address for screening	9,216	4.8
Screened address part of core sample	196	0.1
Addresses not screened	**12,195**	**6.3**
Total addresses screened	**180,285**	**100**
No non white adults reported at address	172,738	95.8
Total eligible addresses identified	**7,547**	**100**
Address subsequently identified as non-eligible	368	4.9
Other deadwood	124	1.6
Total ineligible addresses	**492**	**6.5**
Total eligible addresses	**7,055**	**100**
No contact made with household	955	13.5
No contact made with selected respondent	161	2.3
Total non contact	**1,116**	**15.8**
Office refusal	24	0.3
Refused all information	502	7.1
Personal refusal	631	8.9
Proxy refusal	149	2.1
Total refusal	**1,306**	**18.5**
Broken appointment	175	2.5
Temporarily ill/incapacitated	17	0.2
Physically or mentally unable	36	0.5
Away/in hospital	104	1.5
Inadequate English	320	4.5
Other unsuccessful	148	2.1
Total other unsuccessful	**800**	**11.3**
Total unproductive	**3,222**	**45.7**
Achieved interviews	**3,833**	**54.3**

To illustrate the extent to which the non-white population is concentrated in particular areas, Table 4.13 shows the proportion of total eligible address and achieved interviews by Police Force Area. This shows that 75% of the total eligible addresses were identified in just eight out of the 42 Police Force Areas, with London accounting for 44% of all eligible addresses and the West Midlands a further 11%. The pattern for achieved interviews was broadly similar.

Table 4.13 Proportion of Non-white boost sample eligible addresses and achieved interviews by Police Force Area

Police Force Area	No. of eligible addresses identified (n)	Proportion of total (%)	No. of achieved interviews (n)	Proportion of total (%)
Metropolitan	3,073	43.6	1670	43.6
West Midlands	746	10.6	409	10.7
Leicestershire	366	5.2	207	5.4
Bedfordshire	327	4.6	160	4.2
Greater Manchester	257	3.6	129	3.4
West Yorkshire	198	2.8	122	3.2
Thames Valley	178	2.5	105	2.7
Hertfordshire	145	2.1	68	1.8
All other PFAs	1,765	25.0	963	25.1
Total	**7,055**	**100**	**3,833**	**100**

The fact that the non-white population is so concentrated in a small number of areas means that the actual workload of the non-white boost is also relatively concentrated in these particular areas. Thus, across all issued assignments in the 2004-5 survey the average number of eligible non-white households identified was only 3.2, while the average number of non-white boost interviews across all assignments was only 1.7. However, these average figures hide the fact that in almost 60% of assignments no non-white boost interviews were conducted.

4.9 Response rates and reasons for non response: Youth boost sample

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Table 4.14 shows the response rates for the youth boost sample. All core sample addresses issued between April 2004 and January 2005 included screening for 16 to 24 year olds. As already mentioned youth screening was not carried out in February or March 2005 because the target number of interviews had already been achieved earlier in the year.

At one in five addresses (19%) no screening was actually carried out because the core address was deadwood, a non-contact, or a refusal by the selected respondent on the

core sample[16]. At addresses where screening was carried out, an eligible respondent was identified at 8% of addresses.

The overall response rate achieved on the youth boost sample was 74%. The level of non-contact and refusal was broadly in line with what was achieved on the core sample.

Table 4.14 2004-5 Youth boost sample screening outcomes and response rate

	N	**%**
Total addresses issued	**56,544**	**100**
No screening attempted	10,777	19.1
Total screened addresses	**45,767**	**100**
Core sample respondent aged 16-24	3,481	7.6
No 16-24 adult at address	37,891	82.8
All information refused	735	1.6
Total ineligible addresses	**42,107**	**92.0**
Total eligible addresses	**3,660**	**100**
No contact made with selected respondent	164	4.5
Total non contact	**164**	**4.5**
Office refusal	25	0.7
Personal refusal	263	7.2
Proxy refusal	217	5.9
Total refusal	**505**	**13.8**
Broken appointment	55	1.5
Temporarily ill/incapacitated	7	0.2
Physically or mentally unable	31	0.8
Away/in hospital	93	2.5
Inadequate English	13	0.4
Other unsuccessful	89	2.4
Total other unsuccessful	**288**	**7.9**
Total unproductive	**957**	**26.1**
Achieved interviews	**2,703**	**73.9**

[16] Interviewers were instructed not to carry out screening at households where the core sample selected respondent refused either in person or by proxy. This was done to maximise the chances of a core sample interview being achieved at a reissue stage.

4.10 Response to the self-completion questionnaire

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The self-completion questionnaire was presented to respondents at the end of the interview. In 2004-5 the self-completion module consisted of exposure to illegal drugs and drinking behaviour and experience of inter-personal violence, with a specific focus on partner violence.

Table 4.15 shows that on the core sample more than 95% of eligible respondents accepted the self-completion. However, respondents in the non-white boost sample were less likely to do the self-completion, with 86% of eligible respondents completing it. The lower response rate among the non-white boost sample was primarily due to language problems, with only 11% of respondents from the core sample refusing the self-completion due to language problems compared with 32% of respondents from the non-white boost sample.

For respondents who were asked to complete the self-completion, about one in eight (11%) of the core sample and about one in five (19%) of the non-white boost sample asked the interviewer to administer it for them. As seen in section 4.5.2 a small proportion of respondents who accepted the self-completion, did require some degree of assistance from the interviewer.

As might be expected, response to the self-completion among the youth boost sample was high, with 95% of respondents doing the self-completion themselves and a further 4% asking the interviewer to complete it for them.

Table 4.15 Response to self-completion questionnaire by type of sample

	Core sample		Non-white sample		Youth sample	
	N	**%**	**N**	**%**	**N**	**%**
Refused	1,286	4.2	476	13.9	30	1.1
Completed by interviewer	3,321	10.7	662	19.4	99	3.7
Accepted by respondent[1]	26,314	85.1	2,276	66.7	2,574	95.2
Overall self-completion response	**29,635**	**95.8**	**2,938**	**86.1**	**2,673**	**98.9**
Base (All 16-59 year olds):	*30,921*		*3,414*		*2,703*	

Table 4.16 below shows how response to the self-completion questionnaire varied according to the demographic characteristics of respondents. This table is shown for the core sample and non-white boost sample combined because there were no obvious differences between the two samples in terms of how the self-completion was done when examined by basic demographic characteristics.

The table shows that there was little difference by gender or by age in terms of the proportion of respondents who completed or refused the self-completion questionnaire. However, older respondents were slightly more likely to ask the interviewer to complete the section for them (15% of 45-59 year olds compared with 8% of 16-29 year olds). The largest differences were among respondents from different ethnic groups, with non-white respondents being more likely than white respondents to refuse to do the self-completion and more likely to ask the interviewer to do it for them. This was especially

noticeable among Asian respondents, where 14% of respondents refused the self-completion and a further 20% of respondents asked the interviewer to do it for them.

Since more than 95% of respondents on the youth boost sample accepted the self-completion there were not any obvious differences by demographic characteristics.

Table 4.16 Response to the self-completion questionnaire by demographic characteristics – combined core and non-white boost sample

	Accepted by respondent	Completed by interviewer	Refused	Base
	%	%	%	*N*
Sex				
Male	84	12	5	*15,539*
Female	83	12	5	*18,796*
Age				
16-29	87	8	5	*7,801*
30-44	84	11	5	*14,542*
45-59	80	15	5	*11,958*
Ethnicity				
White	87	10	3	*28,412*
Mixed	82	13	5	*472*
Asian	66	20	14	*2,695*
Black	70	18	13	*1,795*
Other ethnic group	64	20	16	*950*
Total	**83**	**12**	**5**	***34,335***

Table 4.17 shows the reasons given by respondents either for refusing the self-completion questionnaire or for asking the interviewer to help them. This shows that a dislike of computers (40%) was the most common reason why respondents asked the interviewer for help, while running out of time (49%) was the most common reason given for refusing to do it. Language problems were a reason given by 17% of respondents who refused the self-completion and 9% of those who asked the interviewer to do it for them. Among Asian respondents 34% of those who either refused or had the interviewer do it for them, did so because of language problems.

Table 4.17 Reasons for refusing self-completion questionnaire or for completion by interviewer –combined core and non-white boost sample

	Refused	Completed by interviewer	Total
	%	%	%
Don't like computers	14	40	32
Ran out of time	49	23	31
Couldn't be bothered	5	10	8
Children present/caring for children	8	8	8
Language problems	17	9	11
Other disability	3	4	4
Could not read/write	4	4	4
Eyesight problems	2	4	3
Worried about confidentiality	5	<0.5	2
Objected to study	2	<0.5	1
Other people in room	2	1	1
Other reasons	8	9	9
Base (N)[1]	*1,720*	*3,983*	*5,703*

[1] Percentages may add up to more than 100% since more than one answer could be coded at this question

4.11 Full and Partial Interviews

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An interview was only counted as a full interview for the core sample and the non-white boost if the respondent had completed to the end of the demographic section of the questionnaire. Anything less than this was returned as a partial interview. Full and partial interviews were recorded separately in the field figures. In 2004-5, 99.9% of interviews achieved on the core sample were full interviews and only 0.1% (44 interviews) were partial interviews. On the non-white boost sample 99.2% of interviews achieved were full interviews and 0.8% (29 interviews) were partial interviews.

On the youth boost sample the respondent had to complete the survey to the end of the questionnaire (including the self-completion) for it to count as a full interview. Anything less than this was returned as a partial interview. In 2004-5, only 1.1% (30 interviews) of interviews achieved on the youth boost sample were classified as partial interviews.

4.12 Experiment to improve response rates

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Over the last 20 years or so response rates on the BCS have shown a general decline. This is a phenomenon common to all large-scale government surveys and has been a concern to researchers for some time[17]. The highest response rate (83%) was achieved in 1996, and since 2000 the response rate has remained fairly stable at around 74%. Numerous studies and experiments have been carried out looking at the impact of incentives on survey response rates[18].

[17] See for example Martin J. and Matheson J. (1999) *Responses to declining response rates on government surveys*, Survey Methodology Bulletin, 45, Office for National Statistics

[18] For a recent review of the literature on using incentives on surveys see Simmons and Wilmot (2004) *Incentive Payments on Social Surveys a Literature Review*, Survey Methodology Bulletin, 53, 1/04 (London: ONS)

In an attempt to look at ways of improving the response rate on the BCS an incentive experiment was carried out during the first six months of the 2004-5 survey. This involved sending a booklet of six first class stamps with the advance letter as a 'thank you' to people for taking part in the survey. Previous experiments have suggested that using stamps as an incentive is a relatively low cost way of improving the response rate on a survey[19].

4.12.1 Design of the experiment

All addresses selected as part of the issued sample between April and September 2005 were randomly allocated to one of two groups. Allocation was done within each PSU, so that half of the addresses were allocated to the intervention sample and half to the control sample. All addresses in the experimental group were sent a gift of a booklet of six first class stamps as a thank you for their time. These stamps were sent with the advance letter and were unconditional on whether someone took part in the survey or not. Apart from an additional single line in the advance letter saying "A*s a gesture of our appreciation for your time, please find enclosed a book of postage stamps"*, the advance letter sent to respondents in the experimental group was identical to the letter sent to those in the control group who did not receive the stamps.

Although interviewers were informed that the experiment was taking place, they did not know which addresses in their assignment had or had not received the incentive and they were told not to mention the stamps on the doorstep unless it was spontaneously mentioned by the respondent.

4.12.2 Analysis of results

In analysing the results it is important to look not only at the overall response rates achieved in the two samples but also the contact rate and the co-operation rate. The contact rate is the proportion of eligible addresses where contact is made with someone in the household, while the co-operation rate is the proportion of respondents who are contacted who are actually interviewed. It would be anticipated that an incentive is more likely to have an effect on the co-operation rate rather than the contact rate.

The process by which addresses that are initially non-productive are re-issued to other interviewers has already been described in section 4.3. Because fieldwork is managed in this way it is more important when considering the impact of the incentive to look at the initial or original survey outcome before the re-issue process, rather than the final outcome after the re-issue process. This is because the original outcome will be a lot closer in time to the sending of the incentive compared with the final outcomes, and therefore might be expected to be a truer reflection of the impact of the incentive. Furthermore, since re-issues are generally done by more senior and experienced interviewers compared with original assignments, the impact of different interviewers could potentially confound the results.

[19] McConaghy, M and Beerten R (2003) *Influencing response on the Family Resources Survey by using incentives* in Survey Methodology Bulletin, 51, January 2003 (London: ONS)

4.12.3 Results of the experiment

Table 4.18 shows the initial contact, co-operation and response rates of the experiment and control groups. This shows that while the incentive made no difference to the contact rate, respondents who received the incentive were more likely to co-operate than those who did not (77.6% vs. 74.8%, $p<0.01$). This was also reflected in the overall response rate (69.5% vs. 66.8%, $p<0.01$).

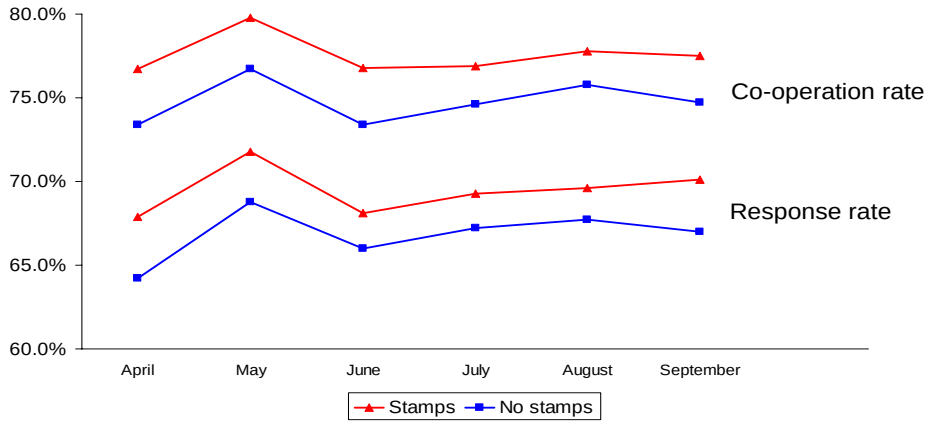
Table 4.18 Summary of original outcome measures by whether received incentive or not

	No stamps	Stamps	Total
	%	*%*	*%*
Contact rate	89.4	89.6	89.5
Co-operation rate**	74.8	77.6	76.2
Response rate**	66.8	69.5	68.1
Base (n)	*16,904*	*16,904*	*33,808*
** significance p<0.01			

One consequence of the improved co-operation rate at the initial outcome should be a reduced need to re-issue addresses in order to obtain an interview. In fact, over the six month period of the experiment 21.8% of all sample addresses were reissued at least once. However, the number of addresses re-issued in the experiment group was significantly less than the number issued in the control group (20.6% vs. 22.9%, $p<0.01$).

Figure 4.1 below shows the difference between the experiment and control groups based on month of issue across the period of the experiment. This shows that although both the co-operation rate and the overall response rate varied on a month by month basis, the group receiving the stamps had a higher initial co-operation rate and response rate than the group that did not receive the incentive across every month. All differences were statistically significant at the 95% in each month except for August 2005.

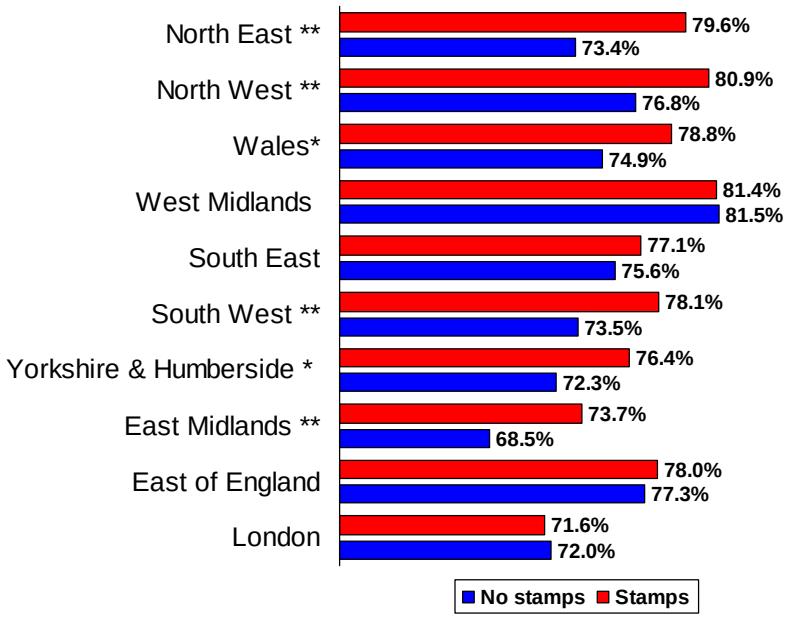
Figure 4.1 Original co-operation and response rates by month of issue



It is also useful to look at how the effects of the incentive varied by region. Figure 4.2 below shows the initial co-operation rate for the experiment and control group by Government Office Regions. This shows that in all regions the initial co-operation rate was either the same as or higher in the experiment group compared with the control group.

However, in terms of significant differences between the control and intervention sample, the incentive seemed to have the biggest effect in the North and West? of the country, with significant differences being recorded in the North East, the North West, Yorkshire & the Humber, the South West and Wales. In London, the South East and the East of England there were no significant differences in co-operation rates between the two groups. Interestingly, this is exactly the opposite pattern reported on the FRS split sample experiment, which found that stamps had the greatest effect on co-operation in London and the South East[20].

Figure 4.2 Original co-operation rates by Government Office Region

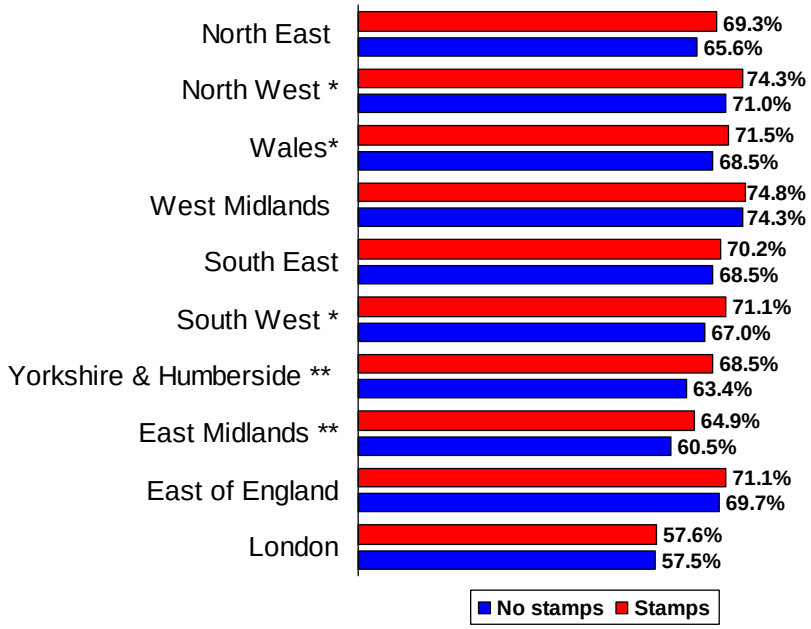


* significance p<0.05, ** significance p<0.01

[20] McConaghy, M and Beerten R (2003) Influencing response on the Family Resources Survey by using incentives, Survey Methodology Bulletin, 51, January 2003. London: ONS

Figure 4.3 shows the same comparison for the overall response rate by GOR. This shows roughly the same pattern as the co-operation rate in terms of differences between the experiment and control group.

Figure 4.3 Original response rates by Government Office Region



* significance p<0.05, ** significance p<0.01

As explained earlier it is more useful to analyse the results according to the outcomes obtained at the original issue, rather than according to the final outcomes obtained after all re-issues. However, the analysis done by original outcomes was repeated for final outcomes after the re-issue process was exhausted. Table 4.19 below shows that the differences between the experiment and control group in terms of initial co-operation and response rate are broadly maintained with the final outcomes, although the difference is smaller. This is important because it suggests that the benefits of incentives persist and are not eliminated as a result of re-issuing.

Table 4.19 Summary of final outcome measures by whether received incentive or not

	No stamps	Stamps	Total
	%	*%*	*%*
Contact rate	94.4	94.6	94.5
Co-operation rate**	78.1	80.2	79.2
Response rate**	73.8	75.8	74.8
Base (n)	*16,904*	*16,904*	*33,808*
**significance p<0.01			

To ensure that offering incentives did not increase any response bias into the sample the characteristics of the two groups were examined across a range of socio-demographic measures as well as some key crime estimates. Incentives might increase response bias by encouraging more of the sorts of people who are already over represented in the sample to take part, while having no impact on the response among groups who are already under represented.

Table 4.20A Comparing the sample of respondents who received stamps with the sample who did not receive stamps

	Stamps	**No stamps**
	%	*%*
Sex		
Male	44.2	44.5
Female	55.8	55.5
Age		
16-24	8.4	8.2
25-44	33.9	34
45-64	31.6	31.5
65-74	14	13.9
75+	12.1	12.4
Ethnicity		
White	93.9	94.2
Mixed	0.5	0.6
Asian	2.5	2.6
Black	1.9	1.6
Other	1.2	0.9
NS-SEC		
Higher occupations	31.8	31
Intermediate occupations	19.6	19.7
Lower occupations*	39.6	41
Never worked/unclassified	9	8.3
Tenure		
Owners	72.1	72.4
Social rented	18	17.6
Private rented	9.9	10
Car ownership		
None	22.6	22.4
One	42.9	43
Two or more	34.4	34.5
Base (N)	*11,480*	*11,780*
*significance $p<0.05$, **significance $p<0.01$		

Table 4.20B Comparing the sample of respondents who received stamps with the sample who did not receive stamps

	Stamps	No stamps
	%	*%*
Income		
Under £2,500	2.2	2.4
£2,500 - £4,999	6	5.8
£5,000 - £9,999	16.3	16.6
£10,000 - £14,999*	13.6	12.6
£15,000 - £19,999	10.5	10.6
£20,000 or more	51.5	52
Number of adults		
One**	33.9	31.9
Two**	50.9	53
Three or more	15.2	15.1
Victimisation rates		
Personal crimes	5.9	5.7
Household crimes	20.8	21.1
Anti-social behaviour		
Perception of high level of ASB	15.1	15.1
Fear of crime		
Burglary	11.3	10.8
Car crime	11.8	11.4
Violence	14.5	14.5
Base (N)	*11,480*	*11,780*
*significance p<0.05, **significance p<0.01		

5. Data Processing

5.1 Offence coding

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The BCS Offence Coding System was developed for the 1982 BCS to match as closely as possible the way incidents were classified by the police. This involves collecting detailed information about incidents reported by respondents in the Victim Form part of the questionnaire. Once the data is returned to the office, all Victim Forms are reviewed by specially trained coders in order to determine whether what has been reported represents a crime or not and, if so, what offence code should be assigned to the crime.

Apart from some minor changes, the code frame and the instructions to coders have remained stable since 1982.

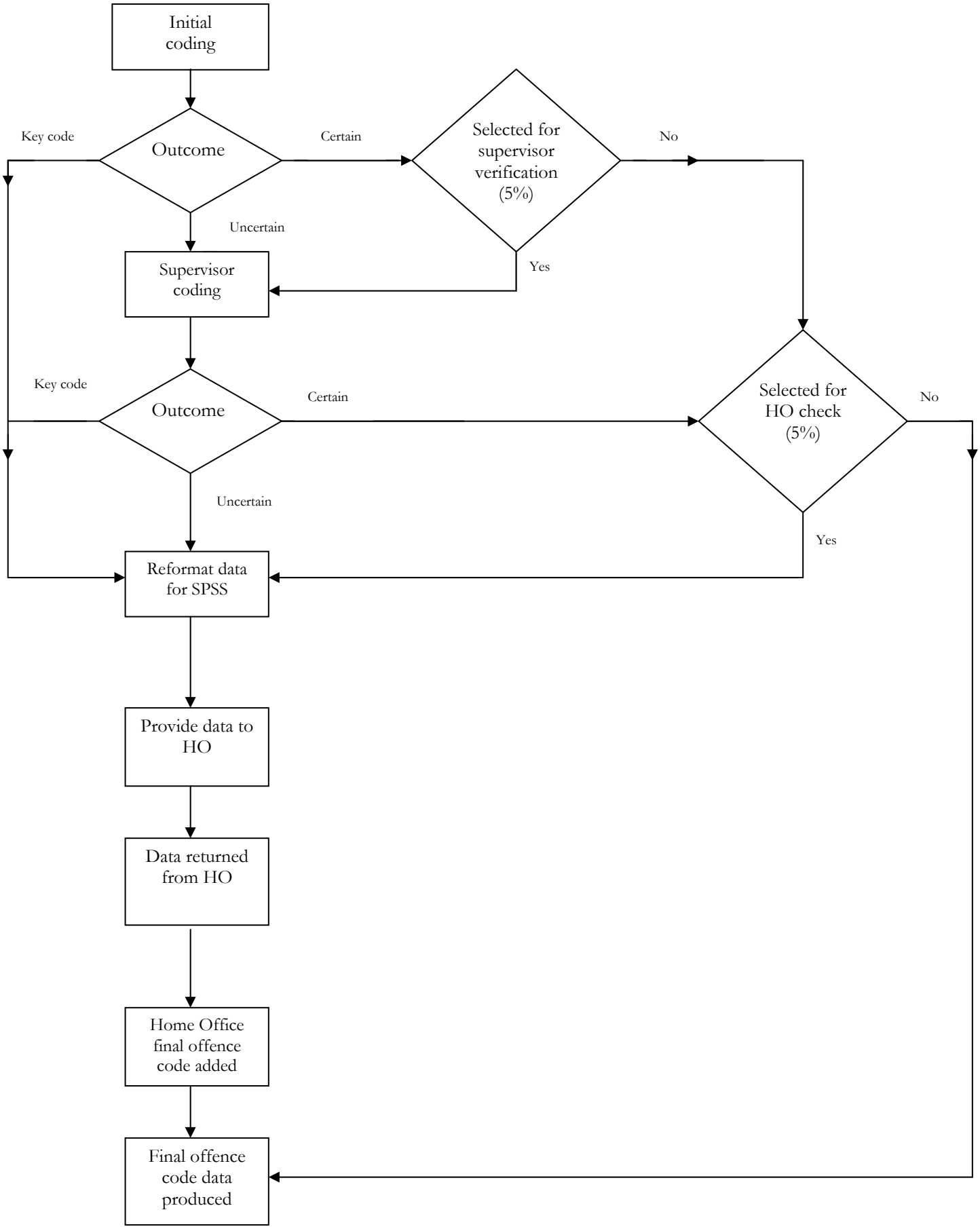
In 2001, new operational procedures were introduced for coders, although the code frame and the way any given code was reached remained consistent with previous rounds of the survey.

During 2004-5, the Offence Coding System consisted of the following steps:

1. For each Victim Form a paper-based summary was produced. This represented the key information from the CAPI questionnaire, including the verbatim description, which coders needed to enable them to assign an offence code.
2. In addition to these paper-based summaries the coders used a specially developed CATI questionnaire to help them arrive at a final offence code for each Victim Form. The questionnaire is written in a way that allows coders to arrive at a particular offence code by answering a series of questions using the information they have available on the paper-based summary. Additionally coders have a full reference manual (see Appendix G). It should be stressed however, that the CATI questionnaire is simply a tool to help coders arrive at a final offence classification. The final decision ultimately relies on the skill and judgement of the coder.
3. A supervisor checked any codes that the original coder was uncertain about. Additionally, 5% of codes where the coder was certain of the outcome were also checked as a further quality check. These are systematically selected from all cases that have been coded (i.e. every n*th* case) in a particular period.
4. Researchers at the Home Office checked:
    - Any codes that BMRB were uncertain about
    - Certain types of incident that were automatically referred (e.g. arson)
    - A proportion of certain codes as part of a quality control check

The result of this process was that every Victim Form had a final offence code assigned to it. A flow chart of the Offence Coding System is shown in Figure 5.1 and the offence coding system is explained in more detail below.

Fig. 5.1 British Crime Survey Offence Coding Flowchart



5.1.1 The automatically generated offence code

In 1996 a programme was introduced that automatically generated an offence code based on the answers to a number of pre-coded variables in the Victim Form. The programme that was used for the 2004-5 survey has remained identical since being introduced in the 2001 survey.

An automatic code cannot be generated in all cases, and in 2004-5 no automatically generated code was produced for about three in ten (31%) of all Victim Forms (due to missing codes or to some inconsistency between the different variables used). Irrespective of the suggested automatic code, the coder has the responsibility of producing an offence code, and coders are instructed to see the generated code as only a starting point.

On the 2004-5 survey for Victim Forms where a code was automatically generated, it was the same as the final offence code in 75% of cases.

5.1.2 The coding task

Coders are provided with a paper-based print out of the key variables from each Victim Form and this information forms the basis of the coding. This document also provides coders with the offence code that had been generated by the automatic generation programme. An example of this paper form can be found in Appendix G in Volume 2.

Coders used a specially designed computer assisted questionnaire to carry out the coding. The questionnaire asked the coders certain questions about the nature of the offence. The questionnaire takes account of the major rules that apply to offence coding (such as the priority of codes), and by answering the questions on the basis of the information provided in the Victim Form, the coders reach an offence code.

All coders were personally briefed about the offence coding. The coders were also provided with a coding manual. This manual is similar to the one used in previous years of the BCS and contains all the rules that govern offence coding. The manual also provides flow-charts that show how the coding questionnaire works, so that coders can see how they reached a particular offence code on the basis of the answers that they input. A copy of this manual is provided in Appendix G in Volume 2.

When the coder reaches an offence code, they can say whether they are certain or uncertain that this is the right code. Any Victim Forms which the coder is uncertain about are automatically referred to their supervisor for checking. In addition, the supervisor checks 5% of codes which coders were certain about.

5.1.3 Home Office coding

Victim Forms were referred to the Home Office research team if the incident involved:

- deliberate damage by fire
- the police as offenders
- the offender being mentally ill

The Home Office was also sent all offence codes that the supervisors were unsure about.

In 2004-5, 5% of codes which BMRB were certain about were selected to go to the Home Office for quality control checking. These were selected in a systematic fashion by selecting every n*th* case in each two-week time period.

A list of Victim Forms to be checked by researchers at the Home Office was sent every two weeks. This consisted of an Excel spreadsheet that contained the serial number of each Victim Form, the code that the coder (and supervisor if applicable) had given the incident, how certain the coder (and supervisor) was about the coding, and any notes that the coder added about why they were uncertain. An electronic version of the paper-based document providing the key variables from the Victim Form was also provided.

Researchers at the Home Office coded each of the Victim Forms sent to them (using the paper-based document) and returned the spreadsheet with their code and any comments added. These codes were than manually added into the coding file (so that the coders could see the changes that had been made).

Particular attention was paid to cases where the Home Office changed a code that BMRB coders had marked as "certain". If the BMRB coders disagreed with such a coding decision, this was fed back to both BMRB researchers and Home Office researchers for further consideration and discussion.

In total 2,940 cases were sent to the Home Office for checking as part of the 2004-5 survey, which represented about 6% of all Victim Forms.

Of the Victim Forms sent to the Home Office:

- 548 were code 01s which were automatically referred to Home Office. This covers cases of arson, cases where the offender was reported to be mentally ill by the respondent, and cases where the offender was believed to be a police officer.
- 49 were code 02s (suspected duplicate cases, or cases where the BMRB coder was not certain about the code) which were also automatically referred to the Home Office for checking.
- 914 were part of the quality control check.
- 1429 were related Victim Forms. To ensure that those checking offence codes had complete information all the Victim Forms belonging to an individual respondent were sent to the Home Office, rather than just the single Victim Form under consideration.

Of the 2,940 Victim Forms sent to the Home Office 571 cases had their code changed by the Home Office, representing 19% of all cases sent. However, this included all of the code 01's which had to be changed to a valid offence code. When these cases are removed, a total of 181 Victim Forms sent to the Home Office had their codes changed, representing only 6% of all cases sent. This level of change was fairly static across the survey year suggesting a degree of stability in the offence coding process.

The codes changed by the Home Office according to the categories outlined above were as follows:

- in 49 cases where BMRB was uncertain or duplicates were identified 18 (37%) were changed
- in 914 cases sent for quality control 55 (6%) were changed

- in 1,429 related cases 108 (8%) were changed

In all cases where the Home Office changed a code that BMRB coders or supervisors had been certain about, this was double checked and verified by BMRB upon return of the coding from the Home Office. Where BMRB did not agree with the Home Office decision cases were referred back to the Home Office for re-checking. Of the 162 'certain' cases changed by the Home Office, 28 were referred back for re-checking. In 20 cases the original BMRB code was deemed to be correct and was re-instated as the final code and in six cases the Home Office code was deemed to be correct. For the remaining two cases a new different code was decided upon after further discussion.

5.1.5 Final Offence Code

The SPSS data set delivered to the Home Office includes all the offence codes that have been given to each Victim Form at every stage of the coding process. This allows a complete history of each case to be maintained at all times. The final offence code is derived using a priority ordering system, whereby the Home Office code takes priority over the supervisor, who takes priority over the coder. The variables on the data set are:

OFFSUG	Suggested offence code (generated by computer)
VOFFENCE	Code assigned by the original coder
SOFFENCE	Code assigned by the supervisor
FINLOFFC	Code assigned by the Home Office research team
OFFENCE	Final offence code

5.1.6 Checks on final offence code

During the creation of the SPSS data sets some further consistency checks are run on the final offence codes, checking these against key pre-coded variables in the Victim Form. The purpose of this is to highlight cases where some of the pre-coded data seems potentially anomalous with the final offence code. Such anomalies can arise because sometimes the information reported by the respondent is not consistent. In particular, there may be inconsistencies between the verbatim description of the incident and subsequent pre-coded questions. While interviewers are carefully briefed to try and be aware of such inconsistencies arising during the interview it is inevitable that some will be missed. Furthermore, consistency checks within the actual questionnaire script to try and pick up anomalies are not possible when a verbatim description is involved.

The consistency checks carried out are as follows:

- Assaults where no force or violence was used
- Burglary where entry to the property was authorised
- Car thefts where no car was listed as being stolen, or where the police were not informed
- Sexual assaults where there was no sexual element to the assault
- Snatch thefts where the item stolen was not being held or carried
- Other thefts where the item stolen was being held or carried

All cases that fail these checks are examined individually by a researcher and, if necessary, are referred to the Home Office. Where clear anomalies in the data do exist it is up to the judgment of the researchers to decide which bits of information should be prioritised

in arriving at the final agreed offence code. In such cases, greater credence tends to be given to a good verbatim description of the incident over the answers to specific pre-coded questions.

Experience of running these checks shows that most flagged cases do have the correct offence codes, but a few may be amended each quarter as a result of this additional check.

5.1.7 Coding reliability test

In 2004 a coder reliability experiment was conducted to measure the consistency of coding within the BMRB coding team, and between these BMRB coders and the Home Office. This was a repeat of an exercise that was last conducted in 2002. It was carried out as part of the transfer of the BMRB coding team from its Ealing Office to its Warwick Office.

The experiment was conducted under strict conditions to ensure no contamination. 100 Victim Forms were systematically selected from real Victim Forms that had previously been coded as part of the October 2003 survey. Because of the changes to the coding team none of the coders involved in the experiment had worked on the original October 2003 survey and so had no chance of remembering any case.

Prior to selection, the list of Victim Forms was stratified by final offence code to ensure that the 100 cases selected had crimes types in similar proportions to the population. However, duplicate forms (those coded 02) were excluded from the sample (as to assess these, coders would need access to all other Victim Forms recorded for that respondent, which would have increased the scope and time required for this exercise).

Nine BMRB coders, two BMRB researchers, and nine researchers from the Home Office took part in the experiment. Coders were told to code the forms in isolation, and not to confer. None of the standard supervision took place. However, apart from these changes coders worked in their standard way, with the BMRB coding team using the computerised coding system alongside the manual. The two BMRB researchers used the manual, as did the Home Office researchers. The experiment was carried out in late August and September 2004 (since all those involved had to fit in the experiment around their normal work).

Thus, at the end of the experiment, all 20 coders had coded all 100 cases. Six cases had been coded 1 by (at least some of) the BMRB coders (i.e. they should be referred to the Home Office). When analysing across both organisations these cases were excluded.

Given the large number of codes available, and the small-scale nature of this experiment, we have not been able to gauge reliability of commonly used codes. We have just calculated the reliability of coders overall.

Overall, reliability seemed, at first glance, good. All 20 coders agreed for over half of the cases (49 of the 94 cases) and a further 12 cases (65%) had 19 of the 20 coders reaching the same consensus.

The index Kappa is used to assess the agreement of two coders and can be averaged over all possible pairs of coders to assess each individual coder. This agreement measure will be between 0 and 1; 1 would correspond to a pair of coders giving every case the same

code, whereas a score of 0 would indicate no cases had been identically coded by the two coders.

The formula for the Kappa score is given as:

$$\kappa = \frac{p_0 - p_e}{1 - p_e}$$

where p_0 is the observed proportion of occasions where the two coders agreed, and p_e is the expected proportion of correct codes given the distributions the two coders assigned to the cases. The formula acknowledges that it is possible for there to be chance agreement between coders and examines the level of agreement present which is over-and-above that expected by chance. The numerator is the difference between observed agreement and chance agreement, and the denominator is the maximum value that this difference (between observed and chance agreement) could be, given the distribution of codes used.

Table 5.1 below gives an illustrative example. Consider the following table of where two coders have 100 answers to assign to 5 different codes.

Table 5.1: Example of the calculation of the Kappa agreement score

		Coder A					
	CODE	1	2	3	4	5	Total
Coder B	1	15	3	13	0	4	35
	2	6	12	2	3	0	23
	3	1	0	23	1	1	26
	4	0	2	0	5	0	7
	5	0	0	0	1	8	9
	Total	22	17	38	10	3	100

So, for example, there were 15 cases where coder A and coder B agreed that code 1 was the correct code to use. There were another six cases where coder A thought that code 1 was appropriate but coder B used code 2. The total correct proportion of agreement (p_0) is the sum of the diagonal counts divided by the total. In this case it is 63/100, or .63.

However, given the distribution of codes used by the coders, (i.e. the marginal totals in table 1), p_e can be calculated as (22x35 + 17x23 + 38x26 + 10x7 + 13x9)/10000 = .2336.

The Kappa score would be calculated as:

$$\kappa = \frac{p_0 - p_e}{1 - p_e} = \frac{0.63 - 0.2336}{1 - 0.2336} = 0.517$$

Once the Kappa scores have been calculated they need to be interpreted. This can best be done using the following table.

Table 5.2 Kappa agreement scores

Kappa Value	Level of coder agreement
Less than 0.4	Poor
0.4 – 0.75	Fair to Good
More than 0.75	Excellent

We calculated Kappa scores for various groupings of coders as follows:

- the reliability **within** the two organisations, that is separately across the 11 BMRB coders and across the 9 Home Office coders

- the reliability **between** organisations, that is BMRB's average agreement with the Home Office codes and the Home Office's average agreement with the BMRB codes; and

- the reliability across all 20 coders in total

For all of these comparisons, the level of agreement was excellent, with all coders scoring over 0.8, which can be regarded as an excellent level of agreement beyond chance. Scores for the three different types of comparisons are shown in Tables 5.3 -5.5 below.

Table 5.3 shows that both BMRB and the Home Office had a very high level of internal consistency in coding. All coders scored 0.8 or higher (excellent rating), indicating that within each organisation there was a great deal of consistency in the way offences were coded.

Table 5.3 Kappa Scores within each organisation

BMRB coders compared with each other												
Coder	1	2	3	4	5	6	7	8	9	10	11	Overall
Kappa	0.81	0.82	0.84	0.82	0.86	0.86	0.81	0.83	0.84	0.85	0.85	0.84
Home Office coders compared with each other												
Coder	1	2	3	4	5	6	7	8	9			Overall
Kappa	0.83	0.82	0.80	0.86	0.84	0.85	0.83	0.80	0.82			0.83

Table 5.4 examines the consistency between the two organisations. This is an equally important test since inconsistency may be introduced into the process through some form of organisational bias. To do this the codes for each coder in one organisation were compared with the codes given by the coders in the other organisation.

There was slightly less consistency when coders in the two organisations were compared to each other. This is perhaps not unexpected, especially since the BMRB coders and Home Office coders were not using exactly the same tools to carry out the coding exercise. However, the Kappa scores are still very high (all over 0.8), indicating an excellent level of consistency.

Table 5.4 Kappa Scores for each organisation compared with the other

BMRB coders compared with Home Office coders												
Coder	1	2	3	4	5	6	7	8	9	10	11	Overall
Kappa	0.80	0.80	0.83	0.83	0.83	0.84	0.80	0.80	0.82	0.86	0.85	0.82
Home Office coders compared with BMRB coders												
Coder	1	2	3	4	5	6	7	8	9			Overall
Kappa	0.83	0.82	0.82	0.85	0.82	0.85	0.82	0.80	0.82			0.83

Finally, the results from all 20 coders were compared to each other, irrespective of organisation. Table 5.5 shows that again, there was a very high level of agreement, with no coder scoring less than 0.82. The overall score of 0.84 is high, and indicates that the offence coding is being carried out in an extremely consistent manner by all the coders involved.

Table 5.5 Kappa Scores for all coders compared with each other

BMRB coders compared with all others												
Coder	1	2	3	4	5	6	7	8	9	10	11	
Kappa	0.82	0.82	0.84	0.83	0.85	0.86	0.81	0.83	0.84	0.86	0.86	
Home Office coders compared with all others												
Coder	1	2	3	4	5	6	7	8	9			Overall
Kappa	0.83	0.82	0.82	0.86	0.83	0.85	0.83	0.81	0.82			0.84

Although this is just a small-scale experiment, it indicates that overall reliability for the offence coding is high, not only within each organisation but also between organisations.

5.2 Other coding

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In addition to the Offence coding, coders also looked at all questions where an "other – specify" had been given as an answer. The aim of this exercise, commonly known as back coding, was to see whether the answer given could actually be coded into one of the original pre-coded response options. Coding was done in Verbastat, part of the Quantime suite of programmes.

Coders were provided with the code frames used in the questionnaire as a starting point. Since most of the questions have been used in previous years of the survey, the code frames were already well developed and there was little need to add new codes to the frames. However, if the coding supervisor felt an extra code was needed, this was flagged up to researchers who approved any changes before they were implemented.

Since the BCS tends to have no fully open-ended questions there was no requirement on the 2004-5 survey to develop or code any questions from verbatim answers given by respondents.

5.3 Coding of occupation and social class

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Occupation details were collected for all respondents, either relating to their current job or to their last job if the respondent was not currently employed but had worked at some time in the past. Occupational details of the Household Reference Person were also collected, if this was not the same person as the respondent.

Occupations were coded using the Standard Occupational Classification 2000 (SOC2000). All occupational coding was done centrally by specialist coders once the data were returned by interviewers. Coding was done in an electronic database, with coders using the manuals for reference.

As well as occupation codes, NS-SEC was added to the file for all respondents and Household Reference Persons. NS-SEC categories were derived automatically using an algorithm which was developed from the documentation provided by ONS. Both the NS-SEC operational categories and the NS-SEC analytical categories were derived.

Details of the NS-SEC categories can be found in Appendix H of Volume 2.

6. Data Output

6.1 Introduction

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The main output provided to the Home Office is two SPSS data files that are delivered on a quarterly basis.

One file, the **Non Victim File (NVF)**, is produced at the level of the individual respondent and contains all questionnaire data, except for that collected in the Victim Forms. Interview data for *victims* and *non-victims* are both included. Interviews where interviewers had reached the end of the main demographic section were classified as **full interviews**; while anything less than this were classified as **partial interviews** (see section 4.7.1). Interviews where the interviewer did not reach the end of the screener questions were regarded as unusable interviews and not included on the SPSS data files.

The second file, the **Victim File (VF)**, is produced at the level of the individual incident or crime and contained all the data collected in the Victim Forms. All generated Victim Forms were included on the file, including cases where the Victim Form has either been suspended or the reference period was out of scope. Although such records contain no information and are not used for analysis, it is useful to keep these on the file to monitor the number of Victim Forms that fall into these categories.

6.2 Delivery of data output

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During 2004-5 data files were supplied to the Home Office on a quarterly basis for each of the three types of sample (core, non-white and youth sample). Data was supplied on a 12 month rolling basis, meaning that each new data delivery was updated by adding the newest quarter of data and deleting the oldest quarter of data. The non-white data file consisted of all relevant non-white respondents, whether from the core sample or the non-white boost sample, while the youth data file consisted of all relevant 16-24 year old respondents, whether from the core sample or the youth boost sample.

In addition to the achieved sample, a data file of the entire 2004-5 issued sample was also supplied to the Home Office. This contained information on every issued address such as the final outcome, the screening outcomes, the observational data collected by interviewers, sample variables and geo-demographic variables.

Data was delivered to the Home Office approximately six weeks after the end of each quarterly fieldwork period. Each quarterly data delivery included interviews that were **achieved** in a specific time period, rather than those that were **issued** in a specific time period. Thus, the four main data files delivered for 2004-5 covered all interviews achieved in the following periods:

- April 2004 – March 2005
- July 2004 – June 2005
- October 2004 – September 2005
- January 2005 – December 2005

Each quarter a full 12 months data file was supplied to the Home Office. This was done on a rolling basis meaning that each quarter the oldest quarter of data was removed and a new quarter of data was added.

Due to the continuous nature of the survey and the fact that data files are based on achieved and not issued sample, data from different questionnaires were supplied as part of the same data files. Thus, the first quarter of 2004-5 included data from cases issued as part of the 2003-4 sample as well as cases issued as part of the 2004-5 sample. Similarly, some data from the last quarter of 2004-5 will be included in the first quarter of the 2005-6 dataset.

6.3 Content of SPSS data file

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The SPSS data files delivered to the Home Office contain various types of variables. The main types of variables contained on the files are:

- **Questionnaire variables** (NVF and VF).
- **Geo-demographic variables** (NVF only). All interviews had a set of pre-specified geo-demographic variables attached to them (see Appendix H in Volume 2 for complete listing).
- **Observational variables** (NVF only). All interviews had the observational data collected by interviewers on the Address Contact Sheets attached to them (see Appendix H in Volume 2 for complete listing). Due to the way in which the Observational data was processed it was difficult to do this on a quarterly basis. Consequently it was agreed that Observational variables only be supplied on the main data set on an annual basis, as well as being supplied on the issued sample file mentioned in section 6.2.
- **Coding variables** (NVF and VF). On the Non Victim File, SOC2000 codes are included for both the respondent and the Household Reference Person. Additionally, NS-SEC for both the respondent and the Household Reference Person are included. On the Victim File, a full set of offence codes was attached as outlined in section 5.1.5.
- **Derived variables** (NVF and VF). Many derived variables were also added to the file. These consisted primarily of 2 types:
  1. **Flag variables** that identify, for example, the type of sample (Core, Non-white or Youth boost), the part-sample module split and sub-split, the date of interview, the month of issue, whether a partial or full interview, whether a victim or non-victim, etc. On the Victim File, flag variables include whether the record was a Long or Short Victim Form, whether it was a Series or a Single incident, and whether it was inside or outside the reference period.
  2. **Classificatory variables** derived from the data. These included standard classifications such as ONS harmonised variables, banded age groups, ethnic groups, income groups, etc.
- **Weighting variables** (NVF only).

6.4 Conventions used on SPSS Data Files

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In creating the 2004-5 data files great attention was paid to ensuring as much consistency as possible was maintained with previous years of the survey.

6.4.1 Case identifier

The case identifier was required to be similar to that used on previous years of the survey but also had to be designed to meet the requirements of a continuous survey.

On the Non-Victim File, where each individual case or record represents an individual respondent, the unique case identifier (ROWLABEL) is an 8-digit number constructed as follows:

	Column position	**Values**
Year of issue	1	1-9
Area point number	2-5	1000-9999
Address number	6-7	01-99
Screen number	8	0-9

On the Victim File, where each individual case or record represents a Victim Form or incident, the unique case identifier (MATCH) is a 9-digit number, which is identical to ROWLABEL with the addition of the Victim Form number:

	Column position	**Values**
Year of issue	1	1-9
Area point number	2-5	1000-9999
Address number	6-7	01-99
Screen number	8	0-9
Victim Form number	9	1-6

6.4.2 Naming conventions

Variable names were kept the same as on the previous surveys wherever possible. For some questions, small changes to the code frame (such as the adding of an extra code) meant that questions which appear similar to previous years are not in actual fact identical. In such situations, the variable name on the 2004-5 data file was changed to reflect this. Examples of variables which were different in 2004-5 compared with 2003-4 included DISQUL2 (previously DISQUAL), DRNK2EXP (previously DRNKEXP), DRNK2FRQ (previously DRNKFRQ) and HRPCRYO2 (previously HRPCRYO). In all these cases the questions in 2004-5 were the same as those in 2003-4 but the coding frame had changed between surveys.

6.4.3 Labelling variables

The changing nature of the 12-month reference period over the course of the year creates a difficulty in labelling certain variables. In the Quancept script, dates were automatically calculated based on the date of interview and appropriate text substitution was used to ensure that the question always referred to the correct period. In the SPSS data files, which contain data from interviews achieved over the whole year, it is difficult

to attach meaningful labels to certain variables since the label is different depending upon the month of interview. This issue affects the following variables (all on the Victim File):

- DATESERA-DATESERH
- NQUART1-NQUART5
- QTRRECIN
- QTRINCID

Details of how the code frames for these specific questions relate to the month of interview can be found in Appendix F of Volume 2.

6.4.4 Don't Know and Refused values

The convention for Don't Know and Refusal codes used in the most recent surveys was maintained on the 2004-5 data. This meant that on the SPSS file the code for Don't Know was '9' for code frames up to 7, '99' for code frames up to 97, and so on. The code for Refused was 8, 98, and so on. Since these are standard codes used throughout the SPSS files, Don't Know and Refused codes are not labelled.

6.4.5 Multiple response variables

Prior to the 2001 survey, multiple response variables have been created as a set of variables equal to the maximum number of answers that could be given. The first variable holds the first answer given by the respondent; the second variable holds the second answer given, and so on.

After discussions with the Home Office it was agreed from 2001 onwards to present multiple response variables differently from previous years. Instead, multiple response variables were set up as a set of variables equal to the total number of answers possible (including Don't Know and Refused). Each variable was then given a value of '0' or '1' depending on whether the respondent gave that particular answer or not. To denote this change all multiple response variables in 2001 were all named with a letter suffix, rather than the number suffix that was used in previous years of the survey.

An example of a multiple response variable where there are seven possible answer categories, and so seven separate variables, is shown below:

AGEOFFA-
AGEOFFG [ASK IF NumOff IN (2..4)]

How old were the people who did it? Would you say they were…READ OUT
CODE ALL THAT APPLY

1.	children under school age	(AGEOFFA)
2.	children of school age	(AGEOFFB)
3.	people aged between 16 and 23	(AGEOFFC)
4.	people aged between 25 and 39	(AGEOFFD)
5.	or people aged over 40?	(AGEOFFE)
	Don't Know	(AGEOFFF)
	Refused	(AGEOFFG)

7. Weighting the data

7.1 Reasons for weighting

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There are three main reasons for calculating weights on the BCS:

- To compensate for unequal selection probabilities. In the BCS, different units of analysis (households, individuals, instances of victimisation) have different probabilities of inclusion in the sample due to factors such as over sampling of small PFA's, the selection of one dwelling unit at multi-household addresses, the selection of one adult within a dwelling, and the inclusion of a single victim form to represent a series of similar incidents.
- To compensate for differential response. Differential response rates can arise both between different geographic units (e.g. differences in response between inner city and non-inner city areas) and between different age and gender sub-groups.
- To ensure that quarters are equally weighted for analyses that combine data from more than one quarter.

A variety of different weights were computed to meet the different analysis requirements. The 2004-5 weighting schedule was broadly similar to the weighting schedule applied on the 2003-4 survey.

All weights include a component to compensate for unequal selection probabilities, while weighting components to compensate for differential response and to equally weight quarters are included in some weights but not in others. Weights were calculated separately for the core sample, the non-white sample and the youth sample.

7.2 Component weights

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The weights constructed for the 2004-5 BCS sample were all based on a number of key component weights. In constructing all the different weights for the core sample, the non-white sample and the youth sample the following conventions have been used for the components that made up the final weights:

- w1 : weight to compensate for unequal address selection probabilities in each PFA;
- w2 : inner city versus non inner-city non-response weight;
- w3 : dwelling unit weight;
- w4 : individual selection weight;
- numinc : series of incidents weight

7.2.1 Police Force Area weight (w_1)

As already described in Chapter 2, addresses were disproportionately sampled across Police Force Areas to ensure a minimum of 1,000 achieved interviews in each. It was therefore necessary to apply a weight to correct for the unequal address selection probabilities in different PFAs.

As also outlined in Chapter 2, addresses selected in the 2004-5 sample were selected from two different types of PSU, those that had been rotated forward from 2003-4 (the

'rotated sample') and those that were selected afresh in 2004-5 (the 'fresh sample'). Since the rotated and fresh samples were drawn independently from each other, any eligible address could theoretically have been selected in either sample[21]. Therefore, in computing w1 for each address it was necessary to take account not only of the probability associated with the method by which an address was actually selected, but also the probability associated with the method by which it might have been selected but was not. In other words, w1 was constructed by taking account of both the rotated sample address selection probability and the fresh sample address selection probability.

The PFA weight was computed on a quarterly basis for each Police Force Area as follows:

1. The rotated sample address selection probability (known as PADROT) was calculated separately for each quarter in each PFA as follows:

   $$p_{1i} = n_t^g{}_i / N_{1i}$$

   where N_{1i} was the total number of delivery points in PFA stratum *i* taken from the 2003-4 Postcode Address File (i.e. the sample frame from which the 2003-4 sample was drawn); and $n_t^g{}_i$ was the **total** number of addresses issued in the 2003-4 quarter g sample in stratum *i* .

2. The fresh sample address selection probability (known as PADFRESH) was calculated separately for each quarter in each PFA as follows:

   $$p_{2i} = n_f^g{}_i / N_{2i}$$

   where N_{2i} was the total number of delivery points in PFA stratum *i* taken from the 2004-5 Postcode Address File (i.e. the sample frame from which the 2004-5 sample was drawn); and $n_f^g{}_i$ was the total number of addresses issued in the 2004-5 quarter *g* sample in stratum *i* in the **fresh sample only**.

3. Having calculated the two probabilities for each address the value for w1 was calculated as:

   $$w_1 = 1/(p_{1i}+p_{2i})$$

[21] In practice where a PSU was selected in both the rotated sample and the fresh sample, the addresses were selected together, making it impossible for t he same address to be drawn twice.

7.2.2 Inner city weight (w_2)

In some previous rounds of the BCS, inner city areas were over sampled meaning that an inner city weight was applied. Historically this weight compensated not only for the difference in selection probabilities but also for the differential response rates between inner city and non-inner city areas.

To be consistent with previous survey years the practice of applying a weight to correct for differential response rates between inner city and non-inner city areas has continued. In essence, the inner city weight is simply the reciprocal of the achieved response rate in inner city and non-inner city areas (after weighting by w_1).

The definition of inner city or non-inner city has been kept consistent since it was first used on the BCS and is based on 1981 census data. Details of how the inner city weight is constructed can be found in previous BCS Technical Reports.

7.2.3 Dwelling unit weight (w_3)

At addresses which had more than one dwelling unit, the interviewer made a random selection of one dwelling unit. The dwelling unit weight is therefore simply the number of dwelling units identified at the address. In over 99% of cases, the dwelling unit weight is 1.

7.2.4 Individual weight (w_4)

At dwelling units that had more than one eligible adult, the interviewer made a random selection of one adult. Thus, the probability of any one individual being selected was inversely proportional to the number of adults in the household. The individual weight is therefore simply the number of adults in the household. In the case of the non-white sample, w_4 is equal to the number of eligible adults in the household (i.e. non-white adults only).

7.2.5 Series weight (numinc)

This weight is applied when estimating victimisation rates. For single incidents numinc is always 1. For series incidents, where only details are collected about the most recent incident in the series, the weight equals the number of incidents in the series that fall within the reference period, subject to a maximum limit of 5.

In estimating victimisation rates, the household or individual weights are multiplied by the numinc weight, according to which offence classification code has been assigned to the incident(s).

7.3 Core sample weights

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The main units of analysis used on the BCS are households, individuals, and incidents of victimisation. Different weights are used depending upon the unit of analysis. In particular, some crimes are considered household crimes (e.g. burglary, vandalism to household property, theft of and from a car) and therefore the main unit of analysis is

the household, while others are personal crimes (assault, robbery, sexual offences) and the main unit of analysis is the individual.

For the core sample two weights were constructed to take account of this difference, namely the **core household weight** and the **core individual weight.** These were calculated as follows:

wtm2hhu= $w_1 * w_2 * w_3$

wtm2inu= $w_1 * w_2 * w_3 * w_4$

Once the unscaled weights had been calculated the frequencies were examined and extreme values were capped where necessary. Although capping of extreme weights may introduce a small amount of bias this is more than compensated for by the improvement in precision that results. The capped weights were called **wtm2hhf** and **wtm2inf** respectively.

Finally, the weights were scaled to a notional sample size of 11,500 interviews per quarter. Although an approximately equal number of addresses were issued each quarter during 2004-5, the number of interviews actually achieved per quarter inevitably varied to some extent. Thus, for analyses based upon a 12 month period, the weights were constructed to adjust for differences in sample size by equalising the quarterly achieved sample sizes. The final scaled weights were called **wtm2hhs** and **wtm2ins** respectively.

7.4 Non-white sample weights

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The 2004-5 non-white boost sample consisted of all non-white respondents who were interviewed between the start of April 2004 and the end of March 2005, irrespective of whether the respondents were interviewed as part of the core sample or as part of the non-white boost sample. Both household and individual weights were computed for the non-white sample.

The basis of the non-white weights was the component weights calculated for the core sample. In addition, to the design weights a non-response multiplier was added to the weights. This was designed to adjust the ethnic group, age and sex distribution of the achieved sample using Labour Force Survey data.

For most of the year (April 2005 – January 2005), 75% of core sample addresses in each assignment were screened for non-white adults. However, a small adjustment was made to the procedure in the last two months of the year (February and March 2005) when only 50% of core sample addresses were screened. This adjustment was made because the target of 3,000 non-white boost interviews had already been achieved. This adjustment in the volume of screening during the survey year needs to be taken account of when constructing the non-white weights (see below).

In calculating $w1_{em}$ the first step was to start with the w1 weight derived for the core sample address. This unscaled weight was then scaled as follows:

$w1_s = w1_u$/mean value across the whole sample of $w1_u$

Once the scaled core address weight was calculated the difference in the volume of screening over the year was taken into account. This was done by weighting the 2004-5 issued core sample by $w1_s$ and calculating the total number of addresses issued (or screened) as shown in the table below.

Table 7.1 Total number of addresses issued and screened in 2004-5

	No. of core addresses issued	No. of screened addresses
Apr 2004 – Jan 2005	*i*	*i**4
Feb-Mar 2005	*j*	*j*3*
Total	**A**	**B**

The above table takes account of the fact that the weights are applied to all non-white respondents identified from both the core sample and the non-white boost sample.

Thus, where the proportion of screening was 4 adjacent addresses at 75% of issued core addresses, the number of screened addresses was equal to:

75% x (4 x no. of core addresses) + core addresses = 4 x no. of core addresses

Similarly, where the proportion of screening was 4 adjacent addresses at 50% of issued core addresses, the total number of screened addresses was equal to:

50% x (4 x no. of core addresses) + core addresses = 3 x no. of core addresses

The non-white address weight was then calculated as follows:

$w1_{em} = (A*w1_s)/B$

No inner city weight was applied to the non-white weighting.

The dwelling unit weight ($w3_{em}$) was computed in the same way as the core sample. For core sample addresses this was defined as the number of dwelling units at the address; and for non-white boost addresses this was defined as the number of dwelling units at the address containing one or more eligible non-white individuals.

The individual selection weight ($w4_{em}$) was also calculated in the same way as the core sample. For core sample addresses this was defined as the number of adults in the household, while for non-white boost addresses this was defined as the number of non-white adults in the household.

Once all these components had been calculated a household weight and individual weight for the non-white sample were then computed in exactly the same way as the core sample, as follows:

emwthhu = $w1_{em}*w3_{em}$

emwtinu = $w1_{em}*w3_{em}*w4_{em}$

Before the design weights were capped and scaled an attempt was made to compensate for differential non-response among different age and sex sub-groups within each ethnic group. This was done by matching the profile of the achieved sample to the profile of the Labour Force Survey. Once this had been done, the weights were then capped and scaled so that the weighted and unweighted sample sizes across the whole year were equalised.

7.5 Youth weights

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The 2004-5 young persons sample comprised all respondents aged 16 to 24 years who were interviewed between the start of April 2004 and the end of March 2005, irrespective of whether the respondents were interviewed as part of the core sample or as part of the youth boost sample. For the youth data only an individual weight was computed. As with the non-white sample, the basis of the youth weighting was the core sample weights.

In terms of computing a youth weight all respondents came from households that were selected as part of the core sample. This meant that the main household weight (unscaled and uncapped) calculated for the core sample was applied to the youth sample as the starting point for the youth weights.

As with the non-white boost, an adjustment was made to the Youth screening procedures part way through the year due to the target of 2,000 interviews already being met. In fact no Youth screening was carried out for sample issued in February or March 2005. This adjustment in the volume of screening during the survey year needs to be taken account of when constructing the weights for the youth file (see below). The effect of this is that cases from February and March had larger weights than average, thus meaning there would be a slight reduction in the precision of estimates.

For all interviews (whether from the core sample or the boost sample) carried out as part of the April 2004-January 2005 issued sample, the youth boost weight was calculated as follows:

ypwtu = wtm2hhf * r

where, r was the number of adults aged between 16 and 24 years in the household.

For all interviews carried out as part of the February or March 2005 issued sample (i.e. core sample only), the youth boost weight was calculated as follows:

ypwtu = wtm2hhf * n

where, n was the number of adults in the household.

Once the unscaled weight was created the distribution of weights were examined and extreme values capped where necessary (ypwtf). Finally, the weights were scaled to ensure the weighted and unweighted sample sizes were the same (ypwts).

7.6 Calibration Weights

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From 2001 onward the Home Office have calculated and applied additional calibration weights to counter the effect of differential response rates between age, gender and

regional sub-groups. Results for BCS surveys from 1996 onwards have all been re-weighted using this technique[22].

Calibration weighting is designed to make adjustments for known differentials in response rates between different age by gender subgroups and households with different age and gender composition. For example, a 24 year old male living alone may be less likely to respond to the survey than one living with a partner and a child. The procedure therefore gives different weights to different household types based on their age and sex composition in such a way that the weighted distribution of individuals in the responding households matches the known distribution in the population as a whole.

The effects of applying these weights are generally low for household crime, but are more important for estimates of personal crime, where young respondents generally have much higher crime victimisation rates than average, but also lower response rates to the survey. However, crime trends since the 1996 survey have not been altered to any great extent by the application of calibration weights.

[22]Calibration weights are applied to the data by the Home Office after the application of the design weights.

8. Comparing key survey variables with the population

The achieved sample was weighted in order to be representative of the population living in private households in England and Wales. A series of comparisons are presented in the following tables, showing to what extent the 2004-5 BCS issued sample reflected the population as a whole, after applying the appropriate design weights.

The regional distribution of the adult population aged 16 years or over by Government Office Region is shown in Table 8.1. This shows that the main discrepancy in the achieved sample was the under-representation of London compared to the population distribution, reflecting the lower response rates achieved here. The proportion of the achieved sample achieved in London was around 2% less than might be expected. Consequently many of the other regions were slightly over represented compared with their population distribution.

Table 8.1 Distribution of the 2004-5 BCS issued sample by Government Office Region compared with the population

Government Office Region	Weighted Core Sample[23]	Mid-Year 2004 population estimates (16+)	Difference (Weighted core % less population %)
	%	%	%
North East	5.0	4.8	+0.2
North West	14.0	12.8	+1.2
Yorkshire & Humberside	9.7	9.5	+0.2
East Midlands	8.0	8.1	-0.1
West Midlands	10.4	10.0	+0.4
East of England	10.5	10.3	+0.2
London	11.8	14.0	-2.2
South East	15.3	15.3	0
South West	9.8	9.6	+0.2
Wales	5.5	5.6	-0.1
Base(All)	*46,810*	*42,718,900*	
Source: Mid-2004 Population Estimates, Office of National Statistics			

Table 8.2 shows similar comparisons between the achieved sample and the population in relation to age and sex distribution. The key feature here was a slight under representation of people aged less than 35 years. Men were also under represented in the sample compared with the population. All of these patterns are fairly common in large scale surveys and reflect the slightly lower response rates achieved among these particular groups[24].

[23] Prior to the calibration weighting applied by the Home Office

[24] A study examining the characteristics of non-respondents to the BCS using linked data from the 2001 Census was carried out by ONS. The report is due to be published on the Home Office Website in March 2006.

Although not reported here, the age and sex distribution of the achieved sample are further corrected by the Home Office at the analysis stage through the application of calibration weights (see section 7).

Table 8.2 Age and sex distribution of 2004-5 BCS achieved sample compared with the population

	Weighted Core Sample	Mid-Year 2004 population estimates (16+)	Difference (Weighted core % less population %)
	%	%	%
Age Group			
16-19	5.7	6.5	-0.8
20-24	6.3	7.9	-1.6
25-34	14.8	16.6	-1.8
35-44	19.5	19.1	+0.4
45-54	17.0	15.8	+1.2
55-64	15.8	14.3	+1.5
65-74	12.1	10.4	+1.7
75-84	7.3	7.2	+0.1
85 and over	1.5	2.3	-0.8
Sex			
Male	47.2	48.4	-1.2
Female	52.8	51.6	+1.2
Base:	*46,810*	*42,718,900*	
Source: Mid-2004 Population Estimates, Office of National Statistics			

Other comparisons between the achieved sample and the population are summarised in Table 8.3. This shows that private rented households and households with no cars were slightly underrepresented in the achieved sample. Similarly, single person households were slightly underrepresented. As with the age and sex distribution these small differences probably reflect differential response rates on the survey.

Table 8.3 Other characteristics of 2004-5 BCS achieved sample compared with the population

	Weighted Core Sample	2001 Census estimates	Difference (Core sample % less population %)
	%	%	%
Tenure			
Owners	70	69	+1
Social rented sector	19	19	0
Private rented sector	11	12	-1
Car availability			
None	24	27	-3
One	43	44	-1
Two or more	33	29	+4
Household size			
One person household	27	29	-2
Two person household	36	35	+1
Three person household	15	15	0
Four + person household	22	21	+1
Ethnic Group (Grouped)			
White	91.3	92.1	-0.8
Mixed	0.7	1.2	-0.5
Asian	4.1	4.0	+0.1
Black	2.2	2.0	+0.2
Other	1.7	0.8	+0.9
Base: All	*46,810*		
Source: 2001 Census, Office of National Statistics			

2004-5 British Crime Survey (England and Wales)

Technical Report
Volume I
Appendices

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Appendices

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Four types of address contact sheets were used:

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Main sample with non white screening

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Key information on the British Crime Survey drug module

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Some key information on the methodology

All of the information on the BCS methodology can be found in the technical reports. In addition to detailing all of the questions asked in the survey and the routing, the reports also describe how the data is collected, how the weights are constructed, the sample sizes, response rates etc. You should always consult the technical reports when conducting any analysis as the responses/routing may change.

Sampling frame

From 1992 Postcode Address File (previously Electoral Register).

Data collection

From 1994 CAPI/CASI (previously PAPI).

In 2001 the BCS moved from biennial to continuous annual sampling. This had very little impact on the drug module.

Weighting

	1996 onwards
Household weight	Hhdwgt
Individual weight	Indivwgt
Youth boost individual weight	Indivyb

Sample sizes and response rates

	Core total	Core (16-59) drugs total	Core and YB drugs 16-24 only	Response rate%
1996	16,337	10,940	**1,475**	83
1998	14,937	9,984	**1,295**	79
2000	19,398	13,018	**1,517**	74
2001/02	32,787	20,146	**2,519**	74
2001/02 Youth Boost			**1,536**	72
2002/03	36,450	23,586	**2,986**	74
2002/03 Youth Boost			**1,306**	75
2003/04	37,891	24,422	**3,097**	74
2003/04 Youth Boost			**2,332**	75
2004/05	46,810	28,509	**3,634**	75
2004/05 Youth Boost			**2,653**	74

Key things to note about the youth boost:

- In 2001/02 it was conducted in the second half of 2001 (although there was some run over into early 2002). A similar method was used in 2002/03. From 2003/04 the youth boost was conducted continuously (over 12 months as opposed to 6)

- The process of collecting the data is called the youth boost, however the data is held as a youth file. This means all young people (16-24) from both the core and boost samples in one data set.

- Respondents in the youth boost are not asked about household victimisation (would mean double counting – as main respondent is asked about this).

- They also have a shortened demographic section (as the information will be on the main interview).

Questions in the drug module

Since the introduction of the drug module in 1992 there have been relatively few changes made to the questions asked.

From 1994 data on drug use was collected by CAPI/CASI.

1996 module:

In 1996, respondents answered Yes/No to the following questions:

- Have you ever HEARD of X?

With the range of responses Yes/No/Don't want to answer, respondents were asked:

- Have you EVER taken X?
- Have you taken X in the LAST YEAR?
- Have you taken X in the LAST MONTH?

Respondents are routed out accordingly, for example you will only be asked if you have taken X in the LAST YEAR, if you respond positively to having EVER taken (obviously you would also have said that you had HEARD of X).

Respondents were also asked: 'Have you injected or had someone else injected you with any drug not prescribed by a doctor?'.

1998 module:

The 'inject' question that was introduced in 1996 was dropped.

2000 module:

Replica of 1998 module.

2001/02 module:

There were several changes made to the questions in this sweep.

- The 'ever HEARD' question was dropped and put in as a response in the 'EVER taken' question. So now when asking 'Have you EVER taken X?' the responses available were Yes/No/Never heard of it/Don't want to answer (obviously no need to ask this for the taken anything unknown questions).
- The 'taking anything else that you thought was a drug' changed to 'taking anything else that you knew or thought to be a drug'.

There was also two new sets of questions introduced asked only of 16-24 year olds (core & boost), concerning 'age when first used X?' and 'how easy to get hold of any illegal drugs/X?'. Responses for the ease of access questions were in the form of a Likert Scale – ranging from 'very easy' to 'impossible' (as well as usual refusal categories).

2002/03 module:

The questions on ease of access to illegal drugs were dropped after June 2002. In their place, a new set of questions asking about frequency of drug use were added for 16-24 year olds who had taken drugs in the last 12 months. Respondents were asked: 'How often during the last 12 months have you taken X?', with the responses ranging from 'Every day' to 'Once or twice a year'. The questions on frequency of use were asked in July – December 2002 only.

2003/04 module:

Replica of 2002/03 module with questions on ease of access to illegal drugs excluded and questions on frequency of use included. Also, the questions on age of first use were asked to all those aged 16 to 59, not just 16 to 24 year olds.

2004/05 module:

Questions on age of last use of each drug were added for all those aged 16 to 59 who had ever taken particular drugs.

Names of drugs:

The list of drugs asked about in the BCS has remained relatively consistent. However, over time the street names for drugs tend to change. To reflect this, the BCS has often had to add additional examples to each drug. This is necessary so as to maximise the capture of use.

The table below shows the drugs asked about in each sweep and the list of examples that is used to describe the drug.

There are also questions on:

- Taking pills/powder unknown.
- Smoking something unknown.
- Taking something else they thought (knew) was a drug.

Drug	1996	1998	2000	2001/02	2002/03	2003/04	2004/05
Amphetamines	Speed Whizz Uppers	Speed Whizz Uppers	Speed Whizz Uppers Billy	Speed Whizz Uppers Billy	Speed Whizz Uppers Billy	Speed Whizz Uppers Billy	Speed Whizz Uppers Billy
Cannabis	Marijuana Grass Hash Ganja Blow Draw Skunk	Marijuana Grass Hash Ganja Blow Draw Skunk	Marijuana Grass Hash Ganja Blow Draw Skunk Weed Spliff	Marijuana Grass Hash Ganja Blow Draw Skunk Weed Spliff	Marijuana Grass Hash Ganja Blow Draw Skunk Weed Spliff	Marijuana Grass Hash Ganja Blow Draw Skunk Weed Spliff	Marijuana Grass Hash Ganja Blow Draw Skunk Weed Spliff
Cocaine	Coke	Coke	Coke	Coke	Coke	Coke	Coke
Crack	Rock, Stones	Rock, Stones	Rock, Stones	Rock, Stones	Rock, Stones	Rock, Stones	Rock, Stones
Ecstasy	'E'	'E'	'E'	'E'	'E'	'E'	'E'
Heroin	Smack Skag 'H'	Smack Skag 'H'	Smack Skag 'H' Brown	Smack 'H' Brown	Smack 'H' Brown	Smack 'H' Brown	Smack 'H' Brown
LSD/Acid	LSD/Acid	LSD/Acid	LSD/Acid	LSD/Acid	LSD/Acid	LSD/Acid	LSD/Acid
Magic Mushrooms	Magic Mushrooms	Magic Mushrooms	Magic Mushrooms	Magic Mushrooms	Magic Mushrooms	Magic Mushrooms	Magic Mushrooms
Methadone/ Physeptone	Methadone/ Physeptone	Methadone/ Physeptone	Methadone/ Physeptone	Methadone/ Physeptone	Methadone/ Physeptone	Methadone/ Physeptone	Methadone/ Physeptone
Semeron	Semeron	Semeron	Semeron	Semeron	Semeron	Semeron	Semeron
Tranquillizers	Tranquillizers Temazepam Valium	Tranquillizers Temazepam Valium	Tranquillizers Temazepam Valium	Tranquillizers Temazepam Valium	Tranquillizers Temazepam Valium	Tranquillizers Temazepam Valium	Tranquillizers Temazepam Valium
Amyl Nitrite	Poppers	Poppers	Poppers	Poppers	Poppers	Poppers	Poppers
Anabolic steroids	Steroids	Steroids	Steroids	Steroids	Steroids	Steroids	Steroids
Glues	Glues, Solvents, Gas, Aerosols	Glues, Solvents, Gas, Aerosols	Glues, Solvents, Gas, Aerosols	Glues, Solvents, Gas, Aerosols	Glues, Solvents, Gas, Aerosols	Glues, Solvents, Gas, Aerosols	Glues, Solvents, Gas, Aerosols

Cleaning the drug module data

All cases in the data set are given a survey weight. However, the recently introduced 'calibration weight' adjusts the data for non-response – according to known differentials in age, sex and region (GOR) population totals. Those respondents who fail to give a response to one of these variables will have a missing calibration weight – and therefore are recoded out.

Those people who refuse to take part in self-completion drug module are coded as missing in the dataset.

The BCS drugs dataset also codes as missing those people who reported having taken Semeron. Analysis showed that those people, who said they had used this fake drug, tended to have also said they had taken all other drugs (yes to ever/year/month). It was felt that these people were unreliable, they may have wanted to simply finish the questionnaire as quickly as possible (as the drug questions come at the end of the questionnaire – which in some cases can take up to several hours to complete). Or respondents may have been exaggerating their drug use. If either of these is true – then it has serious implications on the prevalence rates for other drugs – principally rare drugs. This is because those drugs with infrequent use such as heroin, methadone etc have such a low prevalence, that a difference of one or two respondents can greatly effect the overall rate. Alternatively, it may be that the respondents genuinely thought they had taken a drug that may have sounded like Semeron. As there is no way to determine the extent to which any of these are true, it was felt best to code them as missing.

Respondents are screened out as soon as they give a negative response to a question i.e. if they say they haven't ever taken X then they can't have taken X in the last year so they are not asked this questions (the same goes for last month). Therefore if you were to run a frequency on last year prevalence of X – if you haven't brought those people who say they have never taken X into the 'no' reposnse to have taken it in the last year, then you will only get a frequency of last year users as a proportion of ever users.

The process of cleaning the original dataset therefore involves changing the name of the variables, bringing those people who had not taken X ever or in the last year into the 'no' base for taking in the last year and the last month, and recoding non-valid responses into system missing.

Variables for use any drug and use of Class A drugs are also created.

Calibration weighting

The Office for National Statistics (ONS) recommended, as part of a review of the BCS methodology, that the calibration weighting method be adopted in the BCS.

The weighting is designed to make adjustment for known differentials in response rates between different age by gender and regional subgroups. For example, a 19 year old male living in an inner city may be less likely to take part in the survey (more likely to refuse, harder for the interviewer to contact if he works or lives in a block of flats), than an older female with children (who may be more likely to be at home). However, because young males are more likely to have used drugs, resultant data on drug prevalence may be an underestimation. Calibration weighting therefore works by minimising the differences between the weights implied by sampling and the final weights subject to the weighted data meeting the population controls.

Calibration weighting was introduced in 2001 and has been applied back to the 1996 BCS. It is not possible at this stage to apply this weighting to sweeps prior to 1996. This is because the regional component of the calibration weight is based on GOR and pre-1996 the geographical identifier was standard region and they are not comparable.

The population totals that the calibration weighting works on are provided by ONS and are based on estimates from the Labour Force Survey (LFS).

The impact of calibration weighting on the drug estimates has remained relatively constant over consecutive sweeps: on average 'ever use' estimates increase by a 0.5 percentage point, 'year use' by 0.2 and 'month use' by 0.1.