

2002-3 British Crime Survey (England and Wales)

Technical Report Volume I

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1. Background

1.1 Introduction to the British Crime Survey

The British Crime Survey (BCS) is now a well-established study, one of the largest social research surveys conducted in England and Wales. The 2002-3 BCS was the second year the survey has been conducted using the new design parameters introduced in 2001.

The survey is carried out for the Home Office, and is managed by a team of researchers in the Research, Statistics and Development Directorate. They develop each survey in collaboration with an external research organisation. In 2002-3, *BMRB Social Research* were the sole contractors for the survey.

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 now relates 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.

Members of the public 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.

The data arising from the BCS are mainly reported by the Home Office's Measuring and Analysing Crime Programme. These reports now include:

- A full statistical bulletin based on BCS interviews in the 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 2003, and can be found at:
<http://www.homeoffice.gov.uk/rds/pdfs2/hosb703.pdf>
- A supplementary bulletin covering topics such as confidence in the Criminal Justice System, Worry about crime and Anti-Social behaviour. This can be found at
<http://www.homeoffice.gov.uk/rds/pdfs2/hosb0204.pdf>
- 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),
- Brief Research Papers dealing with specific topics.

For more details on all RDS publications, see: <http://www.homeoffice.gov.uk/rds/bcs1.html>

¹ Simmons J and Dodd T (Editors) Crime in England and Wales 2002/3 Home Office Statistical Bulletin 07/02

1.2 Structure of the technical report

This report documents the 2002-3 British Crime Survey (England and Wales). The report covers the total sample that was issued in the financial year 2002-3, irrespective of when interviews actually took place. It should be noted that the shift between 2001 and 2002 from calendar year to financial year means that information from one period of fieldwork (the first quarter of 2002) is not covered in either the 2001 Technical Report or in the 2002-3 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 is the central part of this report, in terms of the questionnaire and fieldwork. This is covered in Chapter 3 (Questionnaire) and Chapter 4 (Fieldwork). Chapter 5 and 6 give details of the tasks that are involved in 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 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 organisations.

2. Sample design

2.1 Introduction

Following a methodological review², 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 they had been asked about 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 to either survey A, which used the old reference period, or to survey B which used the new reference period³.

Subsequent analysis undertaken by Peter Lynn (Professor of Survey Methodology in the Institute of Social and Economic Research at the University of Essex) has 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 easily. A full report of the work to investigate changes to the BCS design is due to be published in the near future.

The design of the 2002-3 survey was largely the same as that introduced for 2001 and the rest of this chapter briefly outlines the main elements of this design.

2.2 Sample size and structure

The 2002-3 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. Neither did it cover the experiences of those aged under 16.

The 2002-3 survey was also designed to be representative over time, with each quarter of issued sample being fully representative.

Over the whole year the aim was to achieve approximately 37,000 interviews as the core sample. Additionally, the survey was designed to achieve a boost sample of 3,000 interviews with individuals from non-white groups identified through focused enumeration (see [section 2.8](#)), and a boost sample of 1,500 interviews with 16 to 24 year olds identified through screening at core addresses (see [section 2.9](#)).

In addition to representing the above populations, the design of the 2002-3 survey also ensured that:

- at least 600-700 core sample interviews were conducted in each Police Force Area (PFA); and
- 50% of the primary sampling units (PSUs) used on the 2002-3 survey had been rotated forward from the 2001 sample. This was done in order to improve the precision of year on year comparisons.

² Lynne P and Elliot D (2000) *The British Crime Survey : A Review of Methodology* (London : National Centre)

³ 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)

2.3 Sample frame

The small user Postcode Address File (PAF) was used as the sample frame. PAF is generally accepted as being the best general population sampling frame in Britain. It has the best coverage of both residential addresses and of the private household population of individuals, and what non-coverage it has is less concentrated in particular population sub-groups. 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.

2.4 Stratification

As mentioned above, one of the survey requirements was a design that achieved at least 600-700 core sample interviews per Police Force Area (PFA)⁴. If PSUs were simply selected with probability proportional to size then the minimum number of interviews would not be achieved in the smaller PFAs. Consequently the survey had to be designed to over sample in the smallest PFAs to ensure the minimum number of interviews was achieved. This means that the data have to be weighted to remove the effect of differences in the probability of selection of addresses (see [section 7](#)).

As well as stratifying disproportionately by PFA, the sample was stratified by other socio-demographic variables in order to maximise the precision of estimates. The stratifiers used in 2002-3 were population density and the proportion of household heads in non-manual occupations.

During 2001 a small-scale exercise was undertaken to examine whether the stratifiers used on the BCS were the most efficient ones available. This was done using regression techniques to examine the relationship between key dependent variables related to victimisation (aggregated to PSU level) and potential stratifiers. As well as the existing stratifiers a range of other potential stratifiers were considered derived from both the 1991 Census and the ODPM's Indices of Deprivation.

Using regression it was possible to identify which combinations of potential stratifiers gave the best predictions of victimisation rates at the PSU level. All other things being equal, these variables would be the best ones to use as stratifiers.

The results of the regression analysis showed that the existing stratifiers seemed to be as good as any others and, consequently, there seemed little reason to change them for the 2002-3 survey. However, it was recommended that this exercise be repeated once the 2001 Census variable became available.

2.5 Clustering

Whole postcode sectors were used as the primary sampling units (PSUs) and 32 addresses were issued per PSU. Although issuing a smaller number of addresses in each PSU would be 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.

The only exception to this was in PSUs where the proportion of non-white households exceeded 20% (based on the 1991 Census), where only 16 addresses were issued. This was done to try and limit the variation in interviewer assignment sizes which could arise from the focused enumeration procedures used to generate the non-white boost sample (see [section 2.8](#)). 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.

2.6 Rotation of sectors

A requirement of the 2002-3 survey was that the sample design should ensure that approximately 50% of all PSUs should be rotated forward from the 2001 survey. This was implemented in order to increase the

⁴ There are 43 Police Force Areas in England and Wales, with each PFA being roughly the same as a county.

precision of year on year estimates of change. Where PSUs were rotated forward from the previous year a fresh set of addresses were selected.

Since 2002-3 was the first year that rotation of PSUs was implemented on the BCS it was done simply by sorting the 2001 sample of PSUs into stratification order and then selecting every other point. Wherever possible, the aim was to rotate PSUs forward by exactly 12 months (i.e. if a PSU was issued in July 2001, the aim would be to issue it again in July 2002). In practice, it was not always possible to allocate rotated points to exactly the same month over the 2 years but in all cases rotated points were allocated to the same quarter.

In total, 905 out of the 1,803 PSUs in the 2002-3 sample were rotated forward from the 2001 survey.

In essence, the 2002-3 sample consisted of two different samples, namely the sample of rotated PSUs (“the rotated sample”) and the sample of fresh PSUs selected for the first time in 2002-3 (“the fresh sample”). Since the two parts were selected independently of each other and the fresh sample was selected from the universe of PSUs this meant that a small proportion of areas in 2002-3 were selected twice (that is, the same PSU was rotated forward from 2001 **and** was also selected as part of the fresh sample).

In fact, in 2002-3 136 PSUs were duplicated points. Where this situation arose the rotated and the fresh PSU were treated entirely separately in terms of each having their own assignment number and, in most cases, being 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).

2.7 Procedures for selecting the sample

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.

All PSUs were then sorted into Police Force Area⁵. Additionally, they were flagged as being either ‘high’ or ‘low’ non-white concentration based on the 1991 Census. Areas of high non-white population were defined as those where 20% or more of households were of non-white origin, while all other areas were defined as being of low non-white population.

All PFA’s were designated as ‘large’ or ‘small’ PFA’s depending upon whether a minimum sample of 650 interviews could be achieved based on drawing a sample with probability proportional to size. In total, there were 26 ‘small’ PFA’s that required over sampling and these were each treated as separate strata. The remaining 16 ‘large’ PFA’s were treated as a single stratum.

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). High non-white PSUs were duplicated for reasons outlined in section 2.5. Within each density stratum, PSUs were ordered by proportion of households with a non-manual household head. 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.

Within each PSU, 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.

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.

⁵ City of London and Metropolitan were treated as a single PFA.

Individuals aged 16+ in the selected households (and in eligible non-white households in the non-white boost sample) 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.

2.8 Non-white boost sample

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 analyses⁶, 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 the first place. In previous years of the BCS, two different methods have been used to achieve a boost sample. First, by issuing a pre-selected sample in areas that are known to have a high proportion of non-white households and doing direct face-to-face screening. And second, by using a method known as focused enumeration, whereby interviewers screen addresses that are adjacent to the core sample address for eligible respondents.

In the 2002-3 survey it was decided to use only focused enumeration. This was 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 adjacent addresses by contacting a responsible adult at either the core sample address or one of the identified adjacent addresses and asking (i) about the ethnic origins of those living at the address and (ii) about the ethnic origins of those living at the other (adjacent) addresses. The method has taken a number of forms since it was devised⁷, and the version used on the BCS is one variant of the basic methodology.

In practice, the method used on the 2002-3 BCS was as follows:

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

⁶ In 2001, the core sample contained 1,971 respondents who defined themselves as non-white.

⁷ See, for example, Smith P and Prior G (1997) *The Fourth National Survey of Ethnic Minorities* : Technical Report (London : SCPR)

- wherever possible, interviewers used the contact at the core sample address to establish whether anyone lived at the two addresses either side who they 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 largely 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.

Calculating the number of addresses that needed to be screened in order to achieve a sample of 3,000 respondents over the whole year was complex, especially considering that information on non-white population comes from the 1991 Census which is now 10 years out of date. During the 2001 survey the estimates on which the screening procedures were based turned out to be inaccurate, meaning that the proportion of addresses used for screening changed over the period of the survey. Specifically, the proportion of addresses being screened was set too low to achieve 3,000 interviews and so this had to be increased in the second half of the year

In 2002-3 it was decided to start by screening at 100% of addresses⁸. By the third quarter of the year it was clear that this volume of screening would deliver far in excess of the required number of interviews. Consequently the proportion of core sample addresses being screened was cut to 50% in the last quarter of 2002, and no screening at all was carried out in December.

Based on the experience of 2001 and 2002, it was decided that screening at 75% of addresses was probably the best level to ensure that the required number of interviews would be achieved evenly throughout the year. Consequently from January 2003 the level of screening was set at 75% of all core sample addresses.

The pattern of screening throughout 2002-3 is summarised below:

- March 2002-September 2002 100% of core sample addresses screened
- October 2002-November 2002 50% of core sample addresses screened
- December 2002 No screening
- January 2003-March 2003 75% of core sample addresses screened

Because of this change in the volume of screening throughout the year the pattern of achieved interviews on the non-white boost sample is uneven over the whole year. The change in the volume of screening is accounted for in the weighting (see [section 7](#)).

Further analysis of the 2001 and 2002-3 data is currently being carried out to examine the efficacy of the BCS variant of focussed enumeration as a screening method. Details of this will be published in the next BCS Technical Report.

The number of addresses screened at, the number of respondents identified as eligible and the number of interviews achieved over the whole year are shown in Table 2.3. Over the whole year 3.9% of addresses screened 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 around 4% at addresses that were first to the left and

⁸ In areas identified as having a very low proportion of non-white households (0.6% or less) screening was carried out at only 50% of addresses

right of the core sample address compared to an identification rate of around 3.5% at addresses that were second to the left and right of the core sample address.

Table 2.1 Yield of interviews from 2002-3 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	37,680	1,641	4.4	116	7.1	1,525	4.0	783	51.3
2	37,680	1,463	3.9	124	8.5	1,339	3.6	690	51.5
Right 1	37,680	1,719	4.6	101	5.9	1,618	4.3	816	50.4
2	37,680	1,450	3.8	98	6.8	1,352	3.6	645	47.7
Total	150,720	6,273	4.2	439	7.0	5,834	3.9	2,934	50.3

2.9 Youth Boost sample

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) to be carried out. As with previous years, this boost was only conducted for part of the survey year between August 2002 and March 2003. The aim was to achieve a sample of 1,500 respondents aged 16 to 24. The 'youth questionnaire' covered fewer topics than the main questionnaire and consequently average interview length was considerably shorter.

A separate screening exercise was developed 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 or non-white boost 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 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, 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 2002-3 can be found in [section 4.9](#).

3. Questionnaire Content and Development

3.1 Structure and coverage of the questionnaire

The 2002-3 BCS questionnaire comprised 10 main sections as follows:

- Household Grid and Main questionnaire
- Screener questionnaire which identified respondents' experience of victimisation within the reference period
- Victim Forms for any incidents identified at the screeners (up to a maximum of six)
- Module on mobile phone theft
- Module on the performance of the Criminal Justice System
- Follow-up modules (A-D) covering different crime-related topics
- Technology crimes module
- Fires module
- Demographic module
- Self-completion modules on drug use, drinking and stolen goods

The basic structure of the questionnaire is shown in Figure 3.1. This also shows what proportion of the sample was allocated to each different 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.

Figure 3.1 Flow diagram of the 2002-3 BCS Questionnaire

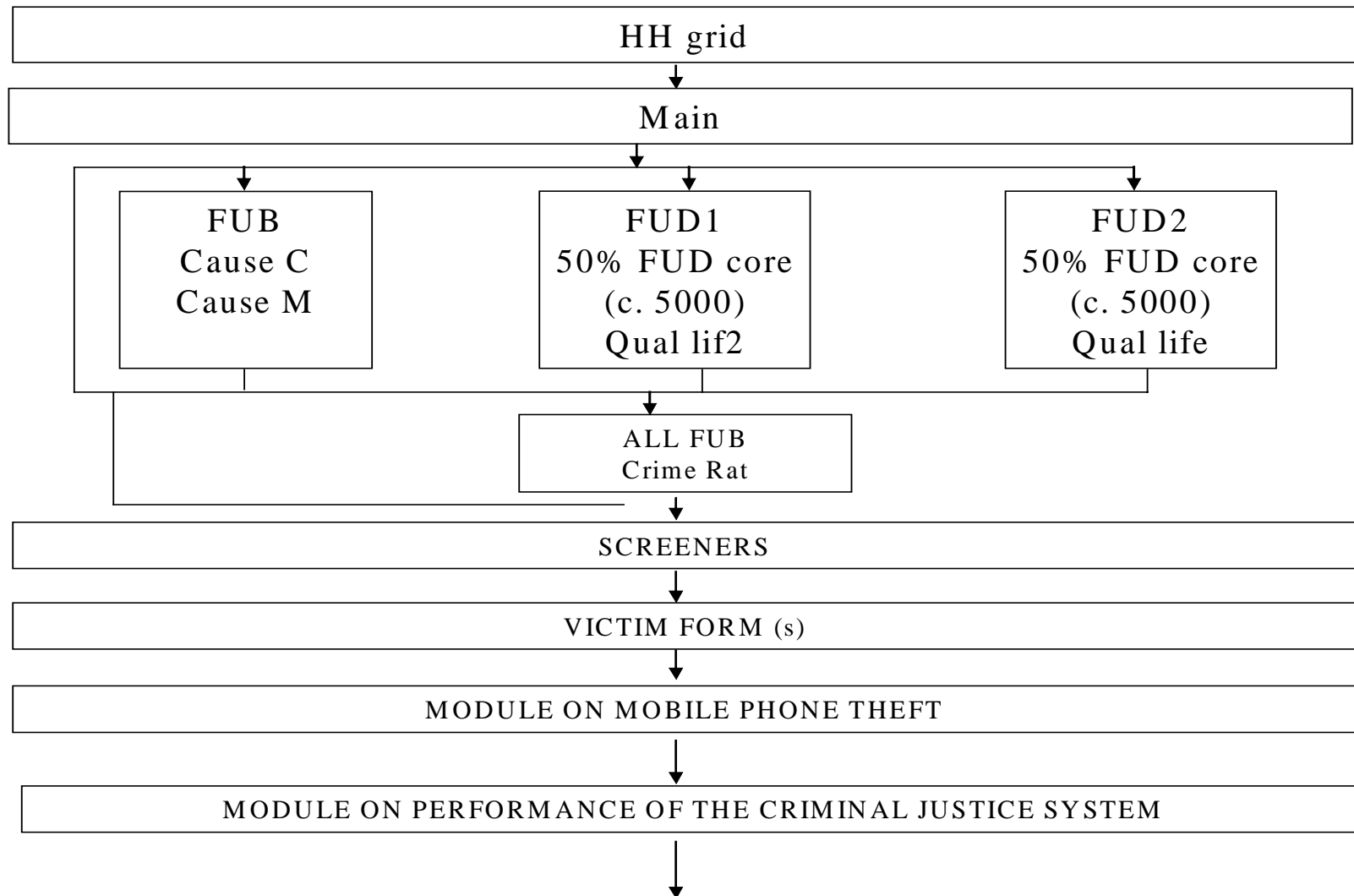
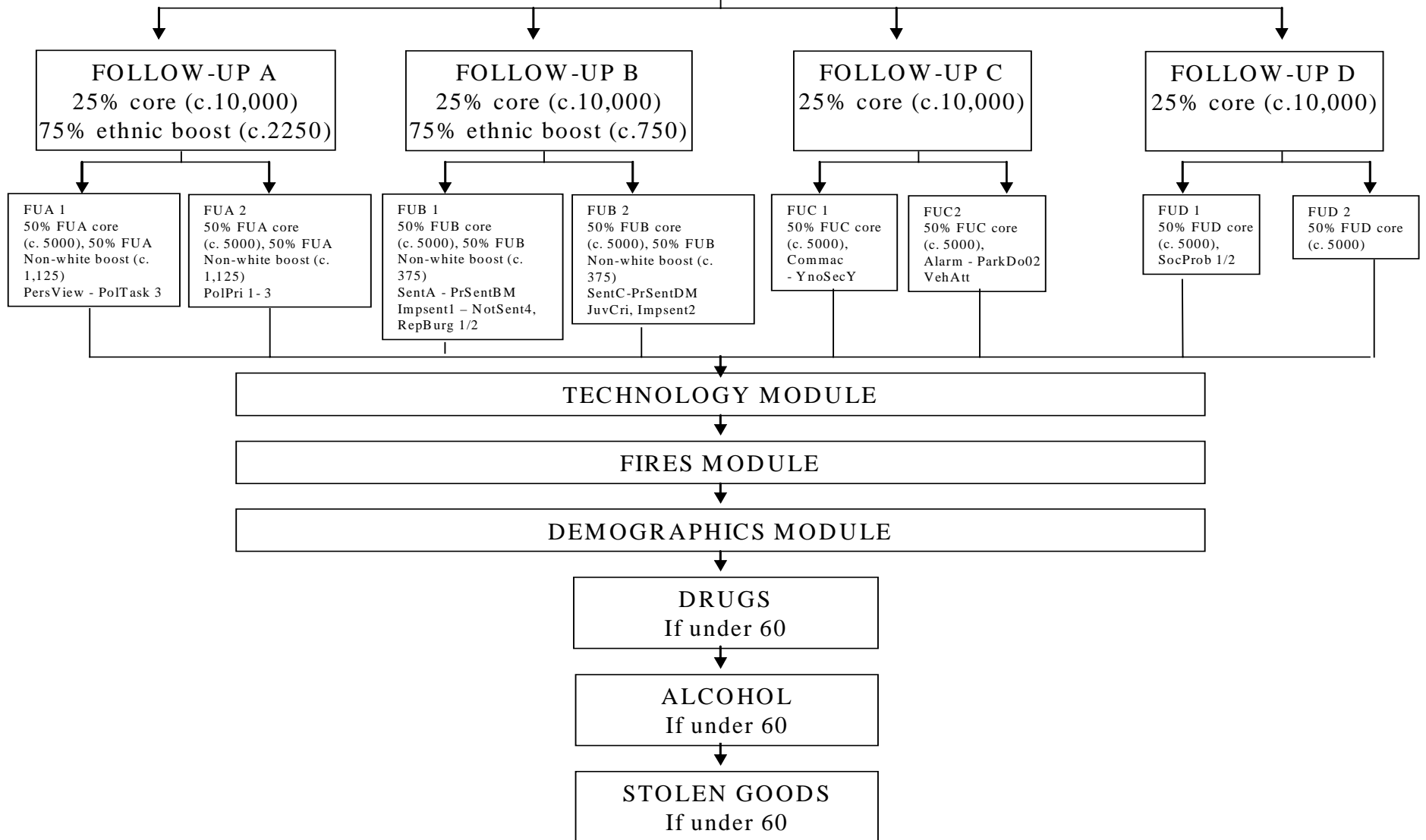


Figure 3.1 cont. Flow diagram of the 2002-3 BCS Questionnaire



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 were collected.

The Household Grid was also used to establish the **Household Reference Person**⁹. 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. Many of these questions relate to respondents' own local area, such as how long respondents had lived in their local area, what they thought were the main problems in their area, how safe they felt, and how often they went out.

A few of the questions in the Main questionnaire were only asked of a random sub-sample of respondents (e.g. main causes of crime, how crime/fear of crime affects quality of life, and how crime rates have changed over the past two years).

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](#)).

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

- All respondents living in households with a vehicle or bicycle during the reference period 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. 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 a precise definition 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

⁹ Prior to 2001 all previous surveys collected details of the Head of Household.

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 resident in the household has experienced an incident 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.

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, which has been kept consistent since the start of the BCS.

3.1.3.1 Identification and ordering of incidents for Victim Forms

In 2002-3, 71% of respondents did not report any victimisation over the reference period, meaning that no Victim Forms had to be completed. This is a slightly higher proportion of respondents compared with the 2001 survey, when 69% of respondents did not report any victimisation.

Where a respondent had experienced one or more incidents in the reference period, the computer 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 Forms¹⁰.

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 2002-3, a total of 17,828 Victim Forms were completed on the core and non-white boost sample and 29% of 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 (32% and 28% respectively).

¹⁰ 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).

Among victims, about two-thirds of respondents (67%) had experienced one crime in the reference period and so had completed only 1 Victim Form. Only about one in five (5%) respondents who had been the victim of crime completed 4 or more Victim Forms.

Table 3.1 shows that just under one in five (19%) of all respondents completed 1 Victim Form, while only 1% of all respondents completed 4 or more Victim Forms.

Table 3.1 Number of respondents who completed Victim Forms

	Core sample		Non-white boost sample		Total	
	N	%	N	%	N	%
None (Non Victim)	26,745	71.5	2,008	68.4	28,753	71.3
One or more (Victim)	10,650	28.5	926	31.6	11,576	28.7
Number of Victim Forms completed:						
1	7,157	19.1	604	20.6	7,761	19.2
2	2,216	5.9	193	6.6	2,409	6.0
3	748	2.0	67	2.3	815	2.0
4	273	0.7	32	1.1	305	0.8
5	120	0.3	12	0.4	132	0.3
6	136	0.4	18	0.6	154	0.4

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. In 2002-3, 82% of all Victim Forms related to single incidents and 18% related to a series of incidents.

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 the rare cases where a respondent has experienced a mixture of single incidents and a series of incidents the Quanquest 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 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 2002-3 sample 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.

With this in mind a change was made to the 2002-3 Victim Form compared with previous surveys. At the end of each Victim Form, the original open-ended description that the interviewer had entered at the start of the Victim Form was re-capped, along with the answers to some of the key pre-coded questions. By presenting this information on a single screen, interviewers had the chance to confirm with respondents that the information was correct and consistent. If the respondent and/or interviewer wished to add or clarify any information they then had 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.

3.1.4 Module on mobile phone theft

To reflect this new area of crime concern, a module on mobile phone theft was first included on the survey from July 2001. 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, details of the incident.

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 Module on performance of the Criminal Justice System

This short module asked all respondents about their confidence in the Criminal Justice System, and 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) are doing.

3.1.6 Follow-up modules

Respondents were randomly allocated to one of four follow-up modules (see [section 3.5](#) for how this was done). Core sample respondents were allocated equally to each follow-up, meaning that approximately 9,250 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 Follow-up A and approximately 750 respondents were asked Follow-up B).

3.1.6.1 Follow-up A: Contact with and attitudes towards the police

In 2002-3, Follow-up 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 respondents knew anyone in the police or had any contact with the police
- whether 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
- attitudes to the police
- what respondents thought police priorities should be
- how often respondents saw police officers in their own local area

In addition to this a few questions were asked about the work of the prisons service for 6 months of the survey (from January 2002-June 2002).

3.1.6.2 *Follow-up B: Contact with and attitudes towards 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:

- knowledge of sentencing practices
- what people felt the purpose of sentencing should be
- attitudes 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 *Follow-up C: Crime prevention and security and witness intimidation*

Topics covered in this module included:

- community action
- knowledge of Neighbourhood Watch
- knowledge of local crime partnerships
- home, personal and vehicle security
- attitudes to vehicle security

In 2002-3, follow up C also included questions about whether respondents had witnessed specific types of incidents (vandalism, theft from a vehicle, serious fight or assault) and, if so, whether they had experienced any harassment or intimidation from the offenders. These questions were similar to questions that were last asked on the 1998 BCS.

3.1.6.4 *Follow-up D: Ad hoc crime*

This follow-up module was broadly similar to the 2001 survey and contained quite a wide variety of questions. These included:

- role of victims in the Criminal Justice System
- concern about crime
- attitudes to the local community
- involvement in community activity/ voluntary activities
- experience of anti-social behaviour

3.1.7 Technology crimes

In 2002-3 a new module was developed to focus on the area of technology crime. Although this is a growing area of crime it is one that has never been covered on the BCS before. The module was asked of a random sub-set of respondents (those routed to FUA and FUC). The main areas covered by this module included:

- use of credit cards and worry or experience of credit card fraud
- attitudes and concerns about shopping on the Internet
- experience of computer viruses, hacking, and accessing offensive or inappropriate material on the Internet.
- knowledge of measures to prevent these types of incidents

3.1.8 Fires module

Respondents were asked whether they had experienced any domestic fires in the last year. For the small proportion of respondents who had experienced a fire, there were a number of follow-up questions relating to how and where it started, how it was discovered, who put it out and any damage or injuries caused. These questions were included on the BCS partly because the Home Office had policy responsibility in this area during the time of the survey, but also because of their relative rarity a very large sample is required to provide a satisfactory base for analysis of different types of domestic fires.

Towards the end of 2002 responsibility for fires moved from the Home Office to the ODPM as a result of re-organisation, although the questions were left on the survey until the end of the 2002-3 survey year.

3.1.9 Demographics module

This section collected additional information on the respondent and their household. Questions included:

- general health, including smoking and drinking behaviour
- employment details. Where the respondent was not the Household Reference person occupation details were also collected about the HRP
- educational attainment and qualifications
- ethnicity¹¹
- housing tenure
- household and personal income.

3.1.10 Self – completion modules

The self-completion modules were only asked of respondents aged under 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.

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

3.1.10.1 Drugs

The module on knowledge of and use of drugs remained virtually unchanged from previous years of the survey.

Questions about whether respondents had ever heard of certain types of drugs were dropped and questions asking if they had ever taken a variety of different drugs had a 'Never heard of it' category added (in previous surveys most respondents had heard of all the drugs listed except the made up drug Semeron). If respondents had ever taken any types of drugs, respondents were then asked whether they had taken them in the last year or the last month.

In 2001, additional questions were added to this module asking those who had taken drugs at what age they first took them and how easy they thought it was to get particular drugs. These additional questions were only asked of respondents aged 16 to 24.

¹¹ In the 2001 survey the ethnicity question was changed from previous surveys to be consistent with the 2001 Census question on ethnicity.

In 2002-3, the questions on ease of access were dropped after 6 months. In their place, a new set of questions asking about frequency of drug use were added for those who had taken drugs in the last 12 months.

3.1.10.2 *Drinking*

In 2002-3, some new questions on drinking behaviour 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
- types of drinks
- where and who with
- drink-related behaviour

3.1.10.3 *Stolen Goods*

A module on stolen goods was asked of a random sub-set of respondents (those routed to FUB and FUD). This was based on a module that had last been asked on the BCS in 1994. The main topics covered included:

- Ownership and recent purchase of a variety of consumer durables
- How such goods had been bought
- Whether respondents had been offered goods they believed to be stolen
- Whether they had actually bought goods they believed to have been stolen

In addition to these questions a few new questions were added about the purchase of cigarettes and whether respondents had ever been offered or bought cigarettes that they believed to have been smuggled into the country.

3.2 *Life event calendar*

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 knowing about incidents, especially in relation to household crimes which might not have involved them personally.
- Respondents remembering an incident but placing it wrongly in time either by remembering an incident as happening earlier than it actually did (backwards telescoping) or later than it actually did (forward telescoping).
- 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 2002-3 survey.

3.3 Questionnaire development

Since most of the questions on the 2002-3 BCS had been included in previous years of the survey, it was decided to concentrate piloting efforts only on new questions. Details of the questions that were piloted for the 2002-3 survey can be found in [Appendix J](#) of Volume 2. The main areas covered in the 2002-3 piloting were:

- Questions on reassurance and policing priorities
- Additional questions on home security measures
- Technology crimes
- Self-completion alcohol 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 late October and early November 2001. 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 four interviewers and four researchers worked on each round of the pilot and a total of 40 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 at least half of

the respondents had experienced some sort of crime in the previous twelve months. To make it easier to find such respondents, all the areas used for the pilot were high crime areas.

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

3.3.2 Piloting of the Technology module

Although many of the questions on the new Technology module were included on the main piloting, the pilot did not specifically seek out respondents who were users of the Internet. Consequently, the number of respondents who actually had access to the Internet and so were asked the detailed questions was relatively small. Because of this it was decided to further develop the questions by placing a draft module on BMRB's weekly Omnibus Survey. This was an easy and cost effective way of talking to a large sample of people who use the Internet on a regular basis. Although such a method did not allow the questions to be tested as such, by using open-ended questions it did allow comprehensive code frames to be developed for many of the questions.

3.4 Final questionnaire and revisions

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

In the 2002-3 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 follow-up 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 follow-up 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 Follow-up 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 follow-up modules

Address Number	Remainder divided by 8	Follow-up module	
		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

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, answers are entered 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 a '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. First, **hard checks**, where the interviewer was not able to move on to the next question until the discrepancy had been resolved. And, second **soft checks** where the interviewer was asked to confirm that the information entered at a specific question was correct but was allowed to pass on to the next question.

A full list of all the logic and consistency checks in the 2002-3 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 2002 would use the reference period "*since the first of July 2001*". 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 January 2001 to June 2003 – a total of 30 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 for both Type A and Type B sample 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

All interviewers working on the 2002-3 survey attended one of two types of briefings during the year:

All interviewers who had not previously done 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 2002-3 as required. In total 18 full briefings of new interviewers were held and 234 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:

- Background to the BCS and how the information is used by the Home Office
- Details about sampling and fieldwork procedures and techniques on how to obtain high response rates
- Explanation of the screening procedures used on the non-white boost sample
- Details of certain questions and topics covered in the interview and instructions on how to approach the self-completion sections of the interview.

In addition to a face-to-face briefing, before starting a BCS assignment for the first time all interviewers had to watch a video briefings that provided further details about the procedures used for the youth boost sample. 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 in 2001 were required to attend a refresher briefing. In total 20 half-day refresher briefings were held in March and April 2002 and 271 interviewers attended these events. Since the survey had only changed slightly between 2001 and 2002-3 the objectives of these meetings were different from the initial briefings. Although they did provide an opportunity to tell interviewers about changes to the questionnaire, the primary objectives were to provide feedback to interviewers on how the survey had gone in 2001; 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.

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:

- Details on the 2001 BCS survey results and how these had been reported in the media
- Analysis of 2001 response rates and discussion about how response rates could be improved
- Discussion of the questionnaire and particular areas of the questionnaire that interviewers found difficult
- Detailed discussion about the collection of open ended descriptions in the Victim Form, including examples of good and bad descriptions

4.2 Supervision and quality control

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, 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, whether or not an interview had resulted. In total, 4,247 respondents were re-contacted to verify that the interviewer had contacted someone, and whether or not an interview had resulted. These back checking procedures were mainly carried out by telephone.

4.3 Fieldwork dates and fieldwork management

During 2002-3 the survey was managed on a monthly basis. Approximately 150 assignments were issued to interviewers at the start of each month, with fieldwork normally starting on the first Monday 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.

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 reissued unless there was a specific reason not to or it would not have been cost effective (e.g. only one address in an assignment). Re-issued addresses were generally given to a supervisor or senior interviewer. Once the first reissue 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, 12,248 addresses were re-issued on the core sample, which represented 22% of all the original sample. A further 11% of addresses were issued for a second time, and 3% of addresses were issued for a third time. Of all the addresses re-issued, 29% were converted into productive outcomes. 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 68.6% after the initial issue to the final response rate of 74.4% (see [section 4.7.1](#)).

The nature of the re-issue system means that each fieldwork period lasted approximately 3 months. This meant that for sample issued in January, fieldwork was carried out until the end of March, while sample issued in February was in the field until the end of April, and so on. Due to the data delivery requirements there was a non-moveable cut-off point at the end of each quarter by which fieldwork for the preceding quarter had to be finished.

Because of this time lag between addresses being issued and interviews being achieved, the time period covered by the 2002-3 **issued sample** and the time period covered by the 2002-3 **achieved sample** are different. Although sample for the survey was issued between April 2002 and March 2003, the actual fieldwork dates over which interviews were achieved ran from April 2002 to June 2003. 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, December).

Details about how issued sample and achieved sample relate to data output can be found in [section 6.2](#).

4.4 Fieldwork procedures and documents

In most cases an interviewer assignment consisted of 32 issued addresses. 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 more 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 715 people, representing less than 2% 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 was also a similar letter 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 a potentially 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 no screening](#) and [Main sample with non-white screening](#)) and the [non-white](#) and [youth](#) Boost Sample ACS can be found in Appendix C of Volume 2.

4.5 Presence of others during the interview

In briefing interviewers, emphasis was placed on trying to conduct the interview in private. It was felt that this would not only make the interview run more smoothly, it might also prevent some respondents from not mentioning certain incidents, which they might be embarrassed or worried of talking about in front of others.

This was a particular concern for respondents who had experienced domestic violence or sexual assault. Where respondents had experienced such incidents in the last 12 months interviewers had the option of suspending the Victim Form (simply by skipping over it) if they felt it was inappropriate to continue with the questions due to the presence of others in the room. This procedure meant that the interviewer could complete the rest of the interview. During 2002-3 a total of 12 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 4.1 shows the conditions under which interviews were conducted for the 2002-3 survey.

Table 4.1 Whether anyone else was present during the screener questionnaire

	Core sample	Non-white boost sample	Total
	%	%	%
No-one present	70	57	69
Children under 16	8	18	9
Spouse/partner	17	17	17
Other adult	8	17	8
Base: (All) ¹²	37,395	2,934	40,329

In more than two-thirds of interviews (69%), the respondent was interviewed without anyone 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 (18% and 8% respectively) and with other adults present (17% and 8% respectively).

Looking at the figures by sex and age shows that on the core sample male and female respondents were just as likely to have done the interview with no-one else being present (71% of men and 69% of women). However, on the non-white boost sample female respondents were significantly less likely than male respondents to have done the interview with no-one else present (63% of men and 51% of women). Respondents aged 16 to 24 were less likely than average (61%) to have done the interview with no-one else present, with almost a third (33%) having done the interview with some other adult present.

¹² 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 over seven out of ten (72%) interviews the self-completion was done with no-one other than the respondent and interviewer present. As with the screener questions, it was more common for respondents from the core sample to complete the self-completion with no-one else present compared with respondents from the non-white sample (72% and 65% respectively).

Table 4.2 Whether anyone else was present during the self-completion questionnaire

	Core sample	Non-white sample	Total
	%	%	%
No-one else	72	65	72
Children under 16	9	13	9
Spouse/partner	13	13	13
Other adult	9	14	10
<i>Base (all who completed self-completion))¹³</i>	24,226	2,215	26,441

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 85% of interviews where someone else was present, the respondent completed the self-completion section entirely on their own. In 7% of interviews someone else actually looked at or read the self-completion with the respondent, while in another 7% of cases the respondent discussed the self-completion with other people.

Table 4.3 shows the amount of assistance that interviewers gave to respondents on the self-completion section. This shows that almost one in seven (14%) respondents who did the self-completion asked the interviewer to complete the self-completion for them. Respondents from the non-white boost sample were more likely to choose this option than respondents from the core sample (24% and 13% respectively).

However, the vast majority of respondents (83%) 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 (66% and 83% respectively).

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, where those who had asked the interviewer to do the self-completion for them 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, over half (51%) 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.

¹³ Percentages add up to more than 100% since more than one answer could be coded.

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

	Core sample	Non-white sample	Total
	%	%	%
All done by respondent	83	66	82
Help given with one or two questions	2	5	3
Help given with more than one or two questions, less than half	0.5	1	0.5
Help given with more than half, but not all	0.5	1	0.5
Help given with all/nearly all	1	3	1
Completed by interviewer	13	24	14
<i>Base (all who completed self-completion)</i>	<i>24,226</i>	<i>2,215</i>	<i>24,441</i>

4.6 Length of interview

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. During the 2002-3 survey 48,948 interviews out of 50,826 had a time within these ranges and are included in the analysis below¹⁴.

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.

4.6.2 Overall length of interview

The average (mean) length of the interview during 2002-3 was **45 minutes**. The main influence on length was whether or not the respondent was a victim of crime or not. The average interview length for **non-victims** was **38 minutes** compared to **61 minutes** for **victims**. The average length of core sample interviews was **46 minutes**, while the average length of the non-white boost sample interviews was **50 minutes**. The average length of the youth boost sample interviews was **25 minutes**¹⁵.

¹⁴ The timing analysis is actually based on the whole period for which the 2002-3 questionnaire was in the field, that is from January 2002 until March 2003. Therefore, the number of interviews represents a total of five quarters data rather than just four quarters as used elsewhere in the report.

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.

The average length of interview by number of Victim Forms is shown in Table 4.4 below.

Table 4.4 Length of interview by number of Victim Forms

Number of Victim Forms	Average time (minutes)
Non victims	38
All victims	61
1	55
2	68
3	80
4 or more	91
All respondents	45

The 2002-3 average interview time was slightly shorter than the 2001 survey (45 minutes compared with 47 minutes). This was due to a combination of factors including a slightly shorter questionnaire; a slight fall in reported crimes meaning that a larger proportion of respondents were non-victims and so had a shorter interview; and the increased familiarity of the interviewers with the questionnaire which is likely to have increased the speed of their administration of the 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.

Table 4.5 Average time for each section of the 2002-3 questionnaire

Questionnaire section	Average time (minutes)
Household Box	4.7
Main questionnaire	6.1
Screeners questions	2.9
Victim form ¹⁶	5.8
Mobile phones/Criminal Justice System	3.6
Follow-up module ¹⁷	8.2
Technology	2.2
Fires	0.5
Demographics	6.5
Drugs and Drinking ¹⁸	2.0
Stolen Goods	1.1
End of interview admin.	1.4
Average time	45

4.6.4 Length of victim forms

As mentioned above the average length of the questionnaire is affected primarily by the number of Victim Forms completed by a respondent with the time for non-victims being, on average, 38 minutes compared to 61 minutes, on average, for victims.

Although the average time taken to complete the victim forms was only 5.8 minutes, this figure is skewed by the fact that non-victims take no time to complete this section. Therefore, a more meaningful time can be obtained by looking at the average time taken to complete each victim form by those who completed each one.

Table 4.6 shows that long victim forms averaged about 12.1 minutes per form, while short victim forms averaged 5.1 minutes per form. Table 4.6 also shows that the time taken to complete the first Victim Form

¹⁶ This is an average time across all respondents, with non-victims having a time of 0.

¹⁷ This represents an average time across all the follow-up modules.

¹⁸ This is an average time across all respondents. Those who either refused the self-completion or were not eligible (those aged 60 or over) would have a time of 0

was greater than for forms two or three. This was exactly the same pattern that was seen in the 2001 survey.

Table 4.6 Average time taken for each Victim Form

Victim Form number	Average time (minutes)
Victim Form 1	14.7
Victim Form 2	11.3
Victim Form 3	10.3
Victim Form 4	4.8
Victim Form 5	4.1
Victim Form 6	6.5

4.6.5 Length of follow-up modules

Table 4.7 below shows the average time taken for each of the follow up modules based only on those who actually answered the module.

Table 4.7 Average length of each follow up module

Follow-up module	Average time (minutes)
Follow-up A	8.5
Follow-up B	8.7
Follow-up C	8.4
Follow-up D	7.0

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 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 3.3 minutes and the average time of the Stolen Goods module was also 3.3 minutes.

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

4.7.1 Overall core response rates

The full response rate analysis for the issued core sample for 2002-3 is shown in Table 4.8.

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 (5%) and business or industrial premises (1%). The total proportion of addresses that were identified as being deadwood was similar to that identified in the 2001 survey and therefore continued the pattern over the past few years, which have shown a decline in the proportion of deadwood addresses (in 1992, 12% of issued addresses were out of scope).

At eligible addresses the most common reason for not getting an interview was because of a refusal, which accounted for 14% of all issued eligible addresses. The most common type of refusal was after the person selection had been made, accounting for 10% of the eligible sample compared to 4% 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 6% 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 5% of issued eligible addresses were categorised as unproductive for other reasons including broken appointments, people who were ill or away during the survey period, and people who had inadequate English to complete the survey.

Table 4.8 2002-3 Core sample response rate

	N	%
Total addresses issued	54,512	100
Addresses not traced	570	1.0
Not built/ does not exist	72	0.1
Derelict/ demolished	283	0.5
Empty	2,506	4.6
Business/ industrial	620	1.1
Institution	139	0.3
Other deadwood	91	0.2
Total ineligible addresses	4,281	7.9
Total eligible addresses issued	50,231	100
No contact made with household	2,795	5.6
No contact made with selected respondent	344	0.7
Total non contact	3,139	6.2
Office refusal	715	1.4
Refused all information	1,379	2.7
Personal refusal	4,375	8.7
Proxy refusal	811	1.6
Total refusal	7,280	14.5
Broken appointment	700	1.4
Ill/incapacitated	567	1.0
Away/ in hospital	630	1.2
Inadequate English	154	0.3
Other unsuccessful	366	0.7
Total other unsuccessful	2,417	4.8
Total unproductive	12,836	25.6
Achieved interviews	37,395	74.4

The final response rate of 74% represents an increase in response of about 1.5% percentage points compared with the 2001 survey. This was achieved primarily through a small reduction in the proportion of non-contact outcomes over the two years.

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 2002-3 survey the response rate in areas categorised as inner city was 67% 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 almost identical (15% and 14% respectively) and the differential non response was almost entirely due to the non-contact rate in inner city areas being almost twice that in non-inner city areas (11% and 6% 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 61%. As with inner city areas, this was primarily due to a much higher than average non-contact rate (15%). Lower response rates in London is a problem that is common to most major surveys.

Table 4.9 2002-3 Core sample response rate by Government Office Region

GOR	Response rate (%)
North East	76
North West	79
Yorkshire & Humberside	76
East Midlands	75
West Midlands	75
East of England	72
London	61
South East	75
South West	79
Wales	80

4.7.3 Core response rates by 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 are 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 2002-3 survey varied according to the type of property, ranging from 80% response among addresses identified as detached or semi-detached houses to 63% among addresses identified as flats.

Table 4.10 2002-3 Core sample response rate by type of property

Property	Response rate (%)
Detached or semi-detached houses	80
Terraced houses	75
Maisonettes	70
Flat with own entrance	70
Flat with non-lockable communal entrance	64
Flat with lockable communal entrance	60
All types of flat	63

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 (e.g. controlled entry phone system) or not. Flats with communal entrances that have controlled entry are the most difficult type of property to gain response. In 2002-3 the response rate among these types of property was 60%. This lower than average response rate was again due primarily to the relatively high level of non-contact at these type of properties (17%).

Taken together these figures go a long way to explaining the lower than average response rate in London. For the country as a whole flats represented only 14% of the issued sample, while flats with communal entrances that have controlled entry represented 8% of the issued sample. However, in London these types of properties represented 39% and 27% 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.

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 2002-3 Core sample response rate by area characteristics

	Very common	Fairly common	Not very common	Not at all common
	%	%	%	%
Litter or rubbish lying around	70	73	75	79
Vandalism, graffiti or damage to property	74	73	73	78
Homes in poor condition or run down	74	69	74	78

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

Table 4.12 shows the screening outcomes and the response rates for the 2002-3 non-white boost sample. Of the 139,815 addresses screened over the year where a valid outcome was obtained (i.e. excluding those where no information was obtained or the screening was not done) only 4.2% of households had an eligible respondent.

Among households identified as containing an eligible respondent a response rate of 50% was achieved. Although refusal rates were slightly higher compared with the core sample (19% and 14% respectively), the main reason for the lower response rate on the non-white boost sample was a significantly higher non-contact rate (17% compared with 6% on the core sample).

This can be explained partly by the nature of the population. The non-white population tends to be concentrated in inner city areas and especially in London, where non-contact rates tend to be higher. It can also be explained partly by the nature of the methodology since eligible households tend to be identified later in an assignment and so interviewers have, on average, less time to make repeated calls.

Table 4.12 2002-3 Non-white boost sample screening outcomes and response rate

	N	%
Total addresses issued	150,720	100
No non-white adults at address	133,545	88.6
Information not obtained at address	2,984	2.0
Unable to identify address for screening	7,839	5.2
Screened address part of core sample	79	0.1
Total ineligible addresses	144,447	95.8
Total eligible addresses identified	6,273	100
Address subsequently identified as non-eligible	397	36.3
Other deadwood	42	0.7
Total ineligible addresses	439	7.0
Total eligible addresses	5,834	100
No contact made with household	943	16.2
No contact made with selected respondent	148	2.5
Total non contact	1,091	17.4
Office refusal	19	0.3
Refused all information	350	6.0
Personal refusal	543	9.3
Proxy refusal	170	2.9
Total refusal	1,082	18.6
Broken appointment	231	4.0
Ill/incapacitated	27	0.5
Away/in hospital	116	2.0
Inadequate English	315	5.4
Other unsuccessful	38	0.7
Total other unsuccessful	727	12.5
Total unproductive	2,900	49.7
Total achieved interviews	2,934	50.3

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 77% of the total eligible addresses were identified in just eight out of the 42 Police Force Areas, with London accounting for almost half (47%) 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	2,761	47.1	1,349	46.0
West Midlands	647	11.1	348	11.9
West Yorkshire	286	4.9	117	4.0
Leicestershire	243	4.2	114	3.9
Thames Valley	197	3.4	107	3.6
Greater Manchester	192	3.3	98	3.3
Bedfordshire	181	3.1	76	2.6
All other PFA's	1,327	22.9	725	24.7
Total	5,834	100	2,934	100

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

Table 4.14 shows the response rates for the youth boost sample. All core sample addresses issued between August 2002 and March 2003 included screening for 16 to 24 year olds. At just over one in five addresses (22.5%) 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 sample¹⁹. At addresses where screening was carried out, an eligible respondent was identified at 7.2% of addresses.

The overall response rate achieved on the youth boost sample was 75%. The level of non-contact and refusal was broadly in line with what was achieved on the core sample.

¹⁹ 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.

Table 4.14 2002-3 Youth boost sample screening outcomes and response rate

	N	%
Total addresses issued	35,936	100
No screening attempted	8,077	22.5
Total screened addresses	27,859	100
Core sample respondent aged 16-24	1,877	6.7
No 16-24 adult at address	23,662	84.9
All information refused	324	1.2
Total ineligible addresses	25,863	92.8
Total eligible addresses	1,996	100
No contact made with selected respondent	109	5.5
Total non contact	109	5.5
Office refusal	4	0.2
Personal refusal	132	6.6
Proxy refusal	147	7.4
Total refusal	283	14.2
Broken appointment	30	1.5
Ill/incapacitated	14	0.7
Away/in hospital	39	2.0
Inadequate English	11	0.6
Other unsuccessful	17	0.9
Total other unsuccessful	111	5.6
Total unproductive	503	25.2
Total achieved interviews	1,491	74.7

4.10 Response to the self-completion questionnaire

The self-completion questionnaire was presented to respondents at the end of the interview. In 2002-3 it included three modules, knowledge of and exposure to illegal drugs, drinking behaviour, and Stolen Goods (asked of only half the sample).

Table 4.15 shows that on the core sample more than 95% of eligible respondents accepted the self-completion. 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 1% of respondents from the core sample refusing the self-completion due to language problems compared with 13% of respondents from the non-white boost sample.

For respondents who completed the self-completion, about one in eight (12%) of the core sample and about one in five (21%) of the non-white boost sample asked the interviewer to administer it for them.

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	1,041	4	353	14	24	1
Completed by interviewer	3,044	12	528	20	56	4
Completed by respondent	21,184	84	1,687	66	1,411	95
Overall self-completion response	24,228	96	2,215	86	1,467	99
<i>Base (All 16-59 year olds):</i>	<i>25,269</i>		<i>2,568</i>		<i>1,491</i>	

Response to the self-completion showed a noticeable improvement between the 2001 survey and the 2002-3 survey. This may have been due to the fact that the content of the self-completion was significantly different between the two surveys, with the 2002-3 self-completion being shorter and simpler. However, the proportion of respondents who asked the interviewer to do the self-completion increased between 2001 and 2002-3, especially on the non-white boost sample.

Table 4.16 below shows how response to the self-completion questionnaire varied according to the demographic characteristics of respondents. This 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 (16% of 45-59 year olds compared with 10% 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 15% refused the self-completion and 23% asked the interviewer to do it for them.

When broken down by these demographic characteristics there were no obvious differences in response between respondents from the core sample and respondents from the non-white boost sample.

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

	Completed by respondent	Completed by interviewer	Refused	Base
	%	%	%	N
Sex				
Male	83	12	5	12,626
Female	82	13	5	15,211
Age				
16-29	86	10	4	6,398
30-44	83	12	5	12,004
45-59	79	16	5	9,431
Ethnicity				
White	85	12	3	23,544
Mixed	80	11	9	322
Asian	62	23	15	2,090
Black	70	20	10	1,285
Other ethnic group	69	16	15	592
Total	82	13	5	27,837

Table 4.17 shows the reasons given by respondents either for refusing the self-completion questionnaire or for asking the interviewer to do it for them. This shows that a dislike of computers (50%) was the most common reason why respondents asked the interviewer to do it for them, while running out of time (48%) was the most common reason given for refusing to do it. Language problems was a reason given by 18% of respondents who refused the self-completion and 7% of those who asked the interviewer to do it for them. Among Asian respondents 39% 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	15	50	40
Ran out of time	48	20	28
Couldn't be bothered	5	12	10
Language problems	18	7	10
Children present/caring for children	6	9	8
Could not read/write English	5	3	4
Eyesight problems	3	4	4
Other disability	4	5	4
Other people in room	3	1	2
Other reasons	4	4	4
<i>Base (N)²⁰</i>	<i>1,394</i>	<i>3,572</i>	<i>4,966</i>

4.11 Full and Partial Interviews

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 2002-3 there were 37,337 full and 58 partial interviews achieved on the core sample and 2,903 full and 31 partial interviews achieved on the non-white boost sample.

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 2002-3 there were 1,467 full and 24 partial interviews achieved on the youth boost sample.

²⁰ Percentages add up to more than 100% since more than one answer could be coded at this question

5. Data Processing

5.1 Offence coding

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

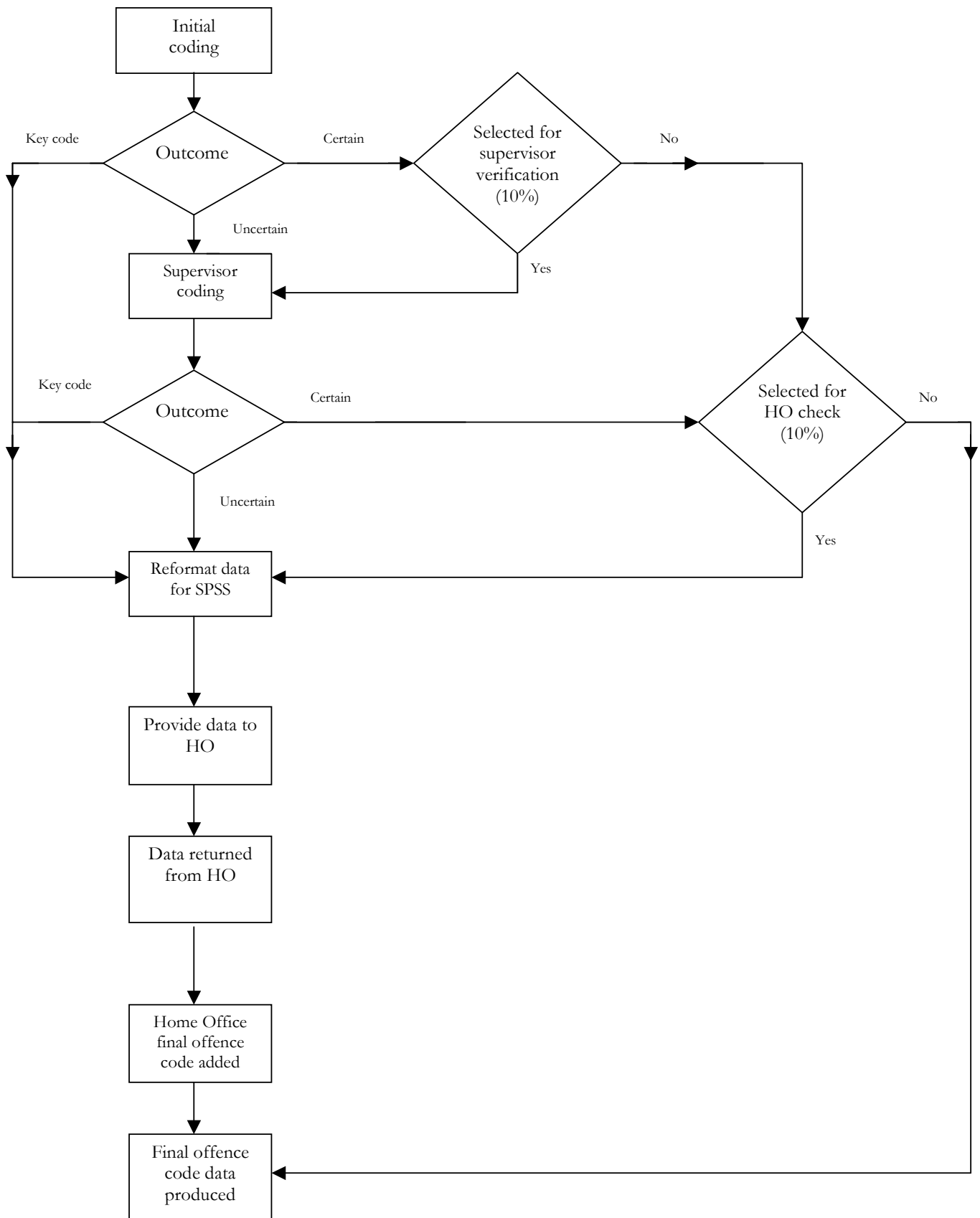
In 2001, new operational procedures were introduced for coders, although the code frame and the way any given code was reached remained consistent with previous waves.

During 2002-3, the Offence Coding System consisted of the following steps:

1. An offence code was generated automatically, based on the answers given to a number of pre-coded variables in the Victim Form.
2. Coders used a specially developed questionnaire to produce an offence code for each Victim Form. The coders also had to record for each case how certain or uncertain they were about the code.
3. A supervisor checked any codes that the original coder was uncertain about, plus at least 10% codes where the coder was certain of the outcome as a quality check. During 2002-3 this quality check was reduced to 5% of all certain codes.
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 check

The result of this process was that every Victim Form had a final outcome 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 BCS 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 2002-3 survey was identical to that used in the 2001 survey.

An automatic code cannot be generated in all cases, and in 2002-3 no automatically generated code was produced for about a third (33%) 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 2002-3 survey for Victim Forms where a code was automatically generated, it was the same as the final offence code in 76% 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 10% 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.

For the first part of the year 10% of codes which BMRB were certain about were randomly selected to go to the Home Office for quality control checking. However, mid way through the year it was decided to reduce this quality check to 5% of certain codes due to the experience built up by the BMRB coders.

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 incident, 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 added and any comments. These codes were then 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.

5.1.4 Offence coding checks in 2002-3

In total 4,936 cases were sent to the Home Office for checking as part of the 2002-3 survey. Since the quality check was reduced from 10% to 5% of cases in the middle of the year the volume of cases being sent to the Home Office dropped off over the period of the survey

Of the Victim Forms sent to the Home Office:

- 360 were code 01s which were automatically referred to Home Office. This covers cases of arson, cases where the offender was thought to be mentally ill, and cases where the offender was believed to be a police officer.
- 207 were code 02s (suspected duplicate cases) which were also automatically referred to the Home Office for checking.
- 59 were cases which either BMRB coders or supervisors were uncertain about.
- 1,843 were part of the quality check.
- 2,467 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 4,936 Victim Forms sent to the Home Office 659 cases had their code changed by the Home Office, representing 13% 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 299 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 breakdown of codes changed by the Home Office according to the categories outlined above were as follows:

- Of 59 cases where BMRB was uncertain 19 (32%) were changed.
- Of 207 duplicates, 15 (4%) were changed
- Of 1,843 sent for quality control 96 (5%) were changed
- Of 2,467 related cases 169 (7%) 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 coders and researchers did not agree with the Home Office decision these were referred back again for re-checking. Of the 265 cases that BMRB had originally been certain about and the Home Office had changed, 100 were referred back for re-checking. In 65 cases, the original BMRB code was deemed to be correct and was reinstated as the final code.

5.1.5 Final Offence Code

The SPSS data set 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 done using a priority ordering system whereby the Home Office code takes priority over the supervisor, which 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.

The 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. 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.

5.2 Coder reliability experiment

As part of the original contract BMRB agreed to carry out a coder reliability experiment after a suitable period to assess the reliability of coders who worked on the offence coding. This was carried out during 2002-3 and involved not only BMRB coders but also researchers at the Home Office who were involved in the offence coding checking system outlined above.

In total 100 Victim Forms were selected from interviews carried out in the 3rd quarter of 2001. Eight BMRB coders and five Home Office researchers took part in the experiment, representing all but one of the coders who worked on the study at the time of the experiment.

The 100 forms were randomly selected from all forms coded in Qtr 3 2001. Prior to selection, the list of Victim Forms was stratified by final offence code to ensure that the 100 cases selected had crime types in similar proportions to the population. However, duplicate forms (those coded 02) were excluded from the sample. To assess these, coders would have needed access to all other Victim Forms recorded for that respondent, which would have increased the scope and time required for the exercise.

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 BMRB coders using the computerised coding system alongside the manual and Home Office researchers using the paper records.

All those taking part in the experiment had from late April to early July 2002 to complete the task.

At the end of the experiment all 13 coders had coded all 100 cases. Three cases were coded 01 by the BMRB coders (i.e. automatic referral to the Home Office) and these cases were excluded from the subsequent analysis. Consequently the results presented below are based on the remaining 97 cases.

Given the large number of codes available, and the small-scale nature of this experiment, it was not possible to gauge reliability of commonly used codes. We have calculated reliability of coders, overall, by organisation and individually. We have also carried out a more qualitative analysis of cases where there was a great deal of disagreement in order to ascertain the issues that appear to cause coders problems in coming to an agreed final outcome code.

Overall, the results of the experiment were encouraging and suggested a high degree of coder reliability. All 13 coders agreed in 53 of the 97 cases (55%), and in a further 16 cases 12 of the 13 coders agreed. This means that in 71% of all cases coded at least 12 out of 13 coders arrived at the same final offence code.

Details of both the statistical analysis and the qualitative assessment carried out are given below.

5.2.1 Coders' agreement index - Kappa

The index kappa is used to assess the agreement of two coders and can be averaged over all possible pairs of coders in order to assess each individual coder. This agreement measure will be between 0 and 1, where 1 corresponds to a pair of coders giving every case the same code and 0 corresponds to no cases having been given the same code by the pair of coders²¹.

²¹ Kalton G and Stowell R (1978) A Study of Coder Variability Methodological Working Report No. 17 (London: SCPR)

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 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 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					Total
		1	2	3	4	5	
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	13	100

With this example there are 15 cases where coder A and coder B agreed that code 1 was the correct code to use. There were another 6 cases where coder A thought that code 1 was appropriate but coder B used code 2. The total proportion of agreement (p_0) is the sum of the diagonal counts divided by the total. In this case 63/100, or .63.

However, given the distribution of codes used by the coders, (i.e. the marginal totals in Table 5.1), p_e can be calculated as $(22 \times 35 + 17 \times 23 + 38 \times 26 + 10 \times 7 + 13 \times 9) / 10000 = .2336$.

The kappa score is then 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 was done using the following guide:

- Less than 0.4 = poor
- 0.4-0.75 = fair to good
- More than 0.75 = excellent

In terms of the actual experiment, Kappa scores were calculated for various groupings of coders to assess the following:

- reliability **within** organisations, that is across the 8 BMRB coders and across the 5 Home Office coders.
- reliability **between** organisations, that is BMRB coders average agreement with the Home Office coders and the Home Office coders average agreement with the BMRB coders.
- reliability across all 13 coders **in total**.

For all of these comparisons, the level of agreement was excellent, with all coders scoring over 0.75 – which as table 2 shows is an excellent level of agreement beyond chance.

Looking firstly as reliability within organisations, Table 5.2 below shows the level of agreement within both organisations was excellent, with all coders scoring above 0.75, indicating a level of agreement that can be classed as excellent.

Table 5.2 Kappa Scores comparing coders within each organisation

BMRB Coder	<i>Overall</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
Kappa score	0.84	0.84	0.86	0.84	0.85	0.86	0.82	0.82	0.80
Home Office Coder	<i>Overall</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>			
Kappa Score:	0.82	0.79	0.82	0.83	0.84	0.80			

These scores show that both BMRB and the Home Office had a very high level of internal consistency in coding. For BMRB the individual coder scores were examined in relation to experience and training. However, differences in reliability showed no obvious relationship with the degree of experience or training, which is perhaps unsurprising given that the differences in reliability were minimal.

Table 5.3 shows the Kappa scores when comparing coders between the two organisations. Overall, the level of agreement between coders across organisations was again excellent with all coders achieving a Kappa score of over 0.75. However, it was noticeable that the Kappa scores were, on average, slightly lower than before indicating slightly less reliability between organisations.

Table 5.3 Kappa Scores comparing coders between each organisation

BMRB Coder	<i>Overall</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
Kappa score	0.80	0.80	0.82	0.82	0.81	0.82	0.81	0.80	0.76
Home Office Coder	<i>Overall</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>			
Kappa Score:	0.80	0.77	0.84	0.85	0.81	0.78			

Finally, the Kappa score were calculated for all 13 coders compared with each other. Table 5.4 shows that again the level of agreement was high with all coders being rated as excellent.

Table 5.4 Kappa Scores comparing all coders with each other

BMRB Coder	<i>Overall</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
Kappa score	0.82	0.82	0.84	0.83	0.83	0.84	0.81	0.82	0.78
Home Office Coder		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>			
Kappa Score:		0.77	0.83	0.83	0.82	0.79			

Although this was a small-scale experiment, it indicated that overall reliability for the offence coding was high both within organisations and across organisations. However, it also indicated that some degree of variability does exist in the offence coding process and it is possible this may affect some types of offences more than others. Although it was not possible to carry out statistical analysis for individual offence codes due to the small nature of the experiment, we did carry out some more qualitative assessment of the areas where there was most disagreement among coders.

5.2.2 Qualitative analysis of areas where coders disagreed

Examining those cases where there was most disagreement among coders suggested that particular offences to focus on were criminal damage and assault, while thefts seemed to cause fewer problems.

The breakdown of the 97 offences used in the experiment was as follows:

- Assault (inc. sexual assault) (codes 1*, 2* and 3*) 9
- Robbery and theft from a person (codes 4*) 5
- Burglary and theft from a dwelling (codes 5*) 12
- Thefts (and attempted thefts) (codes 6* and 7*) 39
- Criminal damage (codes 8*) 25
- Threats (codes 9*) 7

To focus the analysis it was decided to concentrate on the 13 cases where fewer than 9 coders had agreed. The breakdown of these 13 cases by offence type are shown below²²:

- Assault 3
- Robbery or theft from a person 2
- Burglary or theft from a dwelling 4
- Theft 4
- Criminal damage 6
- Threats 1

On the basis of this, it appeared that thefts seemed to have caused coders the least problem, with only 10% of cases (4 out of 39) causing some problems. By contrast, criminal damage (6 out of 25) and assaults (3 out of 9) seemed to have a lower rate of agreement than might be expected.

Having looked at these cases in detail a number of issues seemed to emerge that could be addressed through training or more clarification in the coder instructions, thereby improving reliability even further in the future. Some of the most important issues to emerge included

- how to distinguish between a theft and criminal damage where an item has been physically removed (e.g. a badge being removed from a car or a doorbell being removed from a front door);
- how to distinguish between criminal damage and accidental damage. This is particularly difficult for vehicles when the damage is often done when the owner is not present (e.g. minor scratches on a car or a dent in a car which may be due to vandalism or may be accidental);
- how to distinguish between an actual crime and an attempted crime. This particular issue is one that can be confusing for both assaults and thefts. In the case of assaults the issue of whether there was any physical contact between the respondent and the offender is sometimes not clear and the definition of what constitutes a ‘weapon’ can also be problematic. In the case of thefts the nature of any force or violence used is often problematic, especially if it is not clear whether this was in furtherance of the theft or not. The issue of what constitutes ‘holding or carrying’ an item can also sometimes be unclear in order to distinguish snatch thefts.

All these issues, plus some more minor issues, were discussed in detail by BMRB researchers and the Home Office and some modifications were made to the coding instructions to clarify some of these areas immediately.

5.3 Other coding

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 QWINCODE, part of the Quancept 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 2002-3 survey to develop or code any questions from verbatim answers given by respondents.

5.4 Coding of occupation and social class

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.

²² This comes to more than 13 because of coder disagreement, that is each case had more than one offence code assigned to it.

Occupations were coded using the Standard Occupational Classification 2000 (SOC2000). All occupational coding was done centrally once the data were returned by interviewers.

In addition to coding SOC2000, the old SOC1990 codes were also recorded using Volume 2 of the Standard Occupational Classification 2000. This contains a look-up table that allows SOC2000 codes to be matched to their SOC1990 equivalents.

As well as occupation codes, social class for all respondents and Household Reference Persons was added to the file. The new social class categories –NS-SEC – 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. Additionally, the old Socio-Economic Group (SEG) was derived using another algorithm based on Volume 3 of the Standard Occupational Classification 1990.

Details of the NS-SEC and SEG categories can be found in [Appendix H](#) of Volume 2.

6. Data Output

6.1 Introduction

The main output from the British Crime Survey are two SPSS data files that are delivered to the Home Office on a quarterly basis.

One file, the **Non Victim File (NVF)**, is produced at the level of the individual respondent and contains all the questionnaire data, except for that collected in the Victim Forms. 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**. 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.

During 2002-3 data from the core sample only was analysed on a 12 month rolling basis for each quarter. Data from the non-white boost sample was supplied on a quarterly basis for reference, although this was only weighted and analysed annually. In fact, a separate data file containing **all** non white respondents, whether from the core sample or the non-white boost sample, is supplied to the Home Office separately. Similarly, data for all 16 to 24 year olds, whether from the core sample or the youth boost sample, was supplied annually as a separate data file.

In addition to the achieved sample, a data file of the entire 2002-3 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.

6.2 Delivery of data output

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.

Because of the need to deliver data quickly after the end of a quarter this meant that interviews were included on each quarterly file that came from issued sample that had not yet been exhausted. As such with each delivery of data, the most recent quarter of data represented preliminary data in terms of the issued sample and in terms of the weighting.

Initially during 2002-3 each quarterly delivery consisted of two quarters data, the preliminary data from the most recent quarter and the final data from the preceding quarter. However, towards the end of the year it was agreed that a full 12 months data should be delivered each quarter to create a 12 month rolling data file that is updated on a quarterly basis.

Due to the continuous nature of the survey, data from different questionnaires were supplied as part of the same data files. Thus, the first quarter of 2002-3 included data from cases issued as part of the 2001 sample as well as cases issued as part of the 2002-3 sample. Similarly, some data from the last quarter of 2002-3 will be included in the first quarter of the 2003-4 data set.

Due to the shift from the calendar year to the fiscal year that took place over the course of the year, the 2002-3 survey actually lasted for 5 quarters and so there were 5 data deliveries.

6.3 Content of SPSS data file

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 an annual basis.
- **Coding variables** (NVF and VF). On the Non Victim File, SOC2000 and SOC1990 codes are included for both the respondent and the Household Reference Person. Additionally, NS-SEC and SEG 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:
 - **Flag variables** that identify, for example, the type of sample (Core, Non-white or Youth boost), the follow-up module split and follow-up module 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.
 - **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

In creating the 2002-3 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

Where appropriate, variable names were kept the same as previous surveys. 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 2002-3 data file was changed to reflect this. Thus, for example, variables which were different in 2002-3 compared with 2001 included WHYHAP2 (previously WHYHAPP), WHERIN2 (previously WHERINT), TIMEVIC2 (previously TIMEVIC) and WHENVIC2 (previously WHENVICT). In all these cases the questions in 2002-3 were the same as those in 2001, 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, 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 2002-3 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 by the respondent, 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) |

This practice of defining multiple response variable was maintained on the 2002-3 data files.

7. Weighting the Data

7.1 Reasons for weighting

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 individual 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.

For the 2002-3 British Crime Survey, a variety of different weights were computed to meet the different analyses requirements. 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

Although a variety of weights were calculated for the 2002-3 BCS, they 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 component weights:

- w_1 : weight to compensate for unequal address selection probabilities;
- w_2 : inner city versus non inner-city non-response weight;
- w_3 : dwelling unit weight;
- w_4 : individual selection weight;
- $numinc$: series of incidents weight

7.2.1 Police Force Area weight (w_1)

As already described in chapter 2, small PFAs were over sampled to ensure a minimum of 600-700 interviews. It was therefore necessary to down-weight these PFAs and up-weight the large ones to correct for the differences in selection probabilities of addresses.

As outlined in [section 2](#), addresses selected in the 2002-3 sample were selected in two different ways, addresses selected in PSUs rotated forward from 2001 (the rotated sample) and addresses selected in PSUs chosen for the first time in 2002-3 (the fresh sample). Since the rotated sample and the fresh sample were drawn independently from each other, any eligible address could have been selected in either sample. Therefore, in computing w_1 for each address it is necessary to take account not only of the probability associated with the method by which an address was actually sampled but also the probability associated with the method by which it might have been selected but was not. In other words, w_1 was constructed by taking account of both the rotated sample address selection probability and the fresh sample address selection probability.

W_1 was computed on a quarterly basis for each PFA. All the 'small' PFAs were treated as stratum in their own right, while all the large PFAs formed a single stratum.

W_1 was computed by the following steps:

First, the rotated sample address selection probability was calculated separately for each quarter in each PFA stratum as follows²³.

$$p_{1i} = n_i^g / N_i$$

where,

- N_i was the total number of delivery points in PFA stratum i taken from the 2001 Postcode Address File (i.e. the sample frame from which the original 2001 sample was drawn); and
- n_i^g was the total number of addresses issued in the 2001 quarter g sample in stratum i (where g takes the value 1, 2, 3, or 4).

Second, the fresh sample address selection probability (PADFRESH) was calculated separately for each quarter in each PFA stratum as follows:

$$p_{2i} = n_i^g / N_i$$

where,

- N_i was the total number of delivery points in PFA stratum i taken from the **2002** Postcode Address File (i.e. the sample frame from which the original 2002 sample was drawn); and
- n_i^g was the total number of addresses issued in the 2002-3 quarter g sample in stratum i in the **fresh sample only (where g takes the value 1,2,3 or 4)**.

Finally, having calculated the two probabilities for each address the value for w_1 was calculated as:

$$W_1 = 1 / (p_{1i} + p_{2i})$$

7.2.2 Inner city weight (w_2)

In some previous years of the BCS, inner city areas were over sampled. However, the ‘inner city’ weight applied in previous surveys compensated not only for this difference in selection probabilities but also for the differential response rates between inner city and non-inner city areas. Therefore, to be consistent with previous years of the BCS it was necessary to continue applying a weight to correct for differential response rates. 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 equal to 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

²³ The rotated sample address selection probability also took into account the fact that in 2002-3 an even number of PSUs were issued each quarter, even although there was not an even distribution of PSUs by quarter in 2001 due to the spliced design. This was done by applying a PSU adjustment factor which was simply the number of rotated PSUs divided by the total number of PSUs in each quarter in each stratum i

household. The individual weight is therefore simply equal to 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

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:

$$\mathbf{Wtm2hhu} = w_1 * w_2 * w_3$$

$$\mathbf{Wtm2inu} = w_1 * w_2 * w_3 * w_4$$

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 9,250 interviews per quarter.

Although an approximately equal number of addresses were issued each quarter during 2002-3, the number of interviews actually achieved per quarter inevitably varied to some extent. Consequently, although the survey is ultimately designed to achieve a notional number of core interviews each quarter (i.e. 9,250), there will always be a degree of variation around this. Thus, for analyses based upon a 12 month period, the weights were constructed to adjust for quarterly 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

The 2002-3 non-white sample comprised all non-white respondents who were interviewed between the start of April 2002 and the end of March 2003, 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. 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.

The basis of the non-white weighting was the component weights calculated for the core sample. As explained in [section 2](#) of Volume 1, the proportion of addresses at which focused enumeration was carried out during 2002-3 varied across the year. This had to be taken account of when computing the w_1 component weight.

Over the period all PSUs were classified into one of three strata:

- Those where the proportion of non-white households was less than or equal to 0.6% (stratum x);
- Those where the proportion of non-white households was greater than 0.6%, but less than 20% (stratum y);
- Those where the proportion of non-white households was 20% or more (stratum z).

The reason why the volume of screening was altered over the period of the survey is explained in [section 2.8](#). In summary, the history of non-white screening during 2002-3 was as follows:

January to September 2002

In stratum x, 50% of core addresses were used as the basis for screening.
 In stratum y and stratum z, 100% of core addresses were used as the basis for screening.

October and November 2002

In all strata (x, y and z), 50% of core addresses were used as the basis for screening.

December 2002

No screening

January to March 2003

In stratum x and stratum y, 75% of core sample addresses were used as the basis for screening
 In stratum z, 100% of core sample addresses were used for screening

In calculating w_{1em} the first step was to start with the w_1 weight derived for the core sample address. This unscaled weight was then scaled as follows:

$$W1_s = w1_u / \text{mean value across the whole sample of } w1_u$$

Once the scaled core address weight was calculated the difference in the screening across the survey year outlined above had to be taken into account. This was done by weighting the 2002-3 issued core sample by $w1_s$ and calculating the total number of addresses issued in different strata at different times of the year as shown in the table below.

Table 7.1 Total number of addresses in different strata over 2002-3

	Stratum z		Stratum y		Stratum x	
	PSUs with non-white population $\geq 20\%$		PSUs with non-white population $< 20\%$ & PSUs with non-white population $> 0.6\%$		PSUs with non-white population $\leq 0.6\%$	
	No. of core addresses	No. of screened addresses	No. of core addresses	No. of screened addresses	No. of core addresses	No. of screened addresses
Jan-Sep 2002	g	$g*5$	k	$k*5$	O	$o*3$
Oct-Nov 2002	h	$h*3$	l	$l*3$	p	$p*3$
Dec 2002	i	i	m	m	q	q
Jan-Mar 2003	j	$j*5$	n	$n*4$	r	$r*4$
Total	A	B	C	D	E	F

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, for example, in stratum z, if the proportion of screening is 4 adjacent addresses at 100% of issued core addresses, the number of screened addresses is equal to:

$$100\% \times (4 \times \text{no. of core addresses}) + \text{core address} = 5 \times \text{no. of core addresses}$$

Similarly, if the proportion of screening is 4 addresses at 50% of issued core addresses, the number of screened addresses is equal to:

$$50\% \times (4 \times \text{no. of core addresses}) + \text{core address} = 3 \times \text{no. of core addresses}$$

The non-white address weight was then calculated as follows for addresses in each of the different strata:

$$W1_{em} = (A*w1_s)/B \text{ for PSUs in stratum w}$$

$$W1_{em} = (C*w1_s)/D \text{ for PSUs in stratum x and stratum y}$$

$$W1_{em} = (E*w1_s)/F \text{ for PSUs in stratum z}$$

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

The dwelling unit weight (w_{3em}) 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 (w_{4em}) 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:

$$EMW_{thhu} = w_{1em} * w_{3em}$$

$$EMW_{tinu} = w_{1em} * w_{3em} * w_{4em}$$

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

The 2002-3 young people sample comprised all respondents aged 16 to 24 who were interviewed between the start of April 2002 and the end of March 2003, 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.

Since Youth Boost screening did not take place for the whole of 2002-3, the young person weight ($ypwtu$) was calculated in two different ways depending on the month the address was issued in and whether youth boost screening was in operation or not.

If a case was issued between April 2002 and July 2002 (i.e. no youth boost screening carried out), the weight was calculated as:

$$ypwtu = w_{tm2hhf} * n$$

where, n was the number of adults in the household

If the case was **issued** between August 2002 and March 2003 (i.e. youth boost screening carried out), the weight was calculated as:

$$ypwtu = w_{tm2hhf} * r$$

where, r was the number of individuals aged between 16 and 24 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

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 technique²⁴.

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 this new system of weighting.

²⁴Calibration 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 in private households in England and Wales. A series of comparisons is presented in the following tables, showing to what extent the achieved 2002-3 BCS sample reflected the population as a whole, both before and after applying the appropriate weights.

The regional distribution of the adult population aged 16 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, reflecting the lower response rates achieved here. The proportion of the achieved sample achieved in London was still about 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 2002-3 BCS achieved sample by Government Office Region compared with the population

Government Office Region	Weighted Core Sample ²⁵ %	Mid-Year 2002 population estimates (16+) %	Difference (Weighted core % less population %)
North East	5.1	4.8	+0.3
North West	13.6	12.8	+0.8
Yorkshire & Humberside	9.3	9.5	-0.2
East Midlands	8.2	8.0	+0.2
West Midlands	10.1	10.0	+0.1
East of England	10.3	10.3	0
London	12.0	14.1	-2.1
South East	15.4	15.3	+0.1
South West	10.0	9.6	+0.4
Wales	6.0	5.6	+0.4
<i>Base(All)</i>	<i>37,395</i>	<i>42,056,500</i>	

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 at both ends of the age range. Those under 35 and those aged 75 or over were slightly under represented in the achieved sample compared to the population. Overall, men were also under represented in the achieved 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.

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 2002-3 BCS achieved sample compared with the population

	Weighted Core Sample %	Mid-Year 2000 population estimates (16+) %	Difference (Weighted core % less population %)
Age Group			
16-19	5.5	6.2	-0.7
20-24	6.5	7.6	-1.1
25-34	15.7	17.5	-1.8
35-44	19.5	18.9	+0.6
45-54	17.1	16.1	+1.0
55-64	15.6	13.8	+1.8
65-74	11.8	10.4	+1.4
75-84	6.9	7.1	-0.2
85 and over	1.4	2.4	-1.0

²⁵ Prior to the calibration weighting applied by the Home Office

Sex			
Male	47.0	48.3	-1.3
Female	53.0	51.7	+1.3
<i>Base::</i>	<i>37,395</i>	<i>42,066,400</i>	

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, as were non-white households. All these again reflect differential response rates on the survey.

Table 8.3 Other characteristics of 2002-3 BCS achieved sample compared with the population

	Weighted Core Sample	2001 Census estimates	Difference (Core sample % less population %)
	%	%	%
Tenure			
Owners	70.0	69.0	+1.1
Social rented sector	19.4	19.0	+0.4
Private rented sector	10.6	12.0	-1.4
Car availability			
None	24.8	26.8	-2.0
One	43.2	43.8	-0.6
Two or more	32.0	29.4	+2.6
Ethnic Group (Grouped)			
White	93.0	92.1	+0.9
Mixed	0.5	1.2	-0.7
Asian	3.6	4.0	-0.4
Black	1.8	2.0	-0.2
Other	1.1	0.8	+0.3
<i>Base: All</i>	<i>37,395</i>		