Home Office

The 2010/11 British Crime Survey

(England and Wales)

Technical Report
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Content

1. Background

1.1 Introduction to the British Crime Survey

The British Crime Survey (BCS) is a well-established study and one of the largest social research surveys conducted in England and Wales. The survey was first conducted in 1982 and ran at roughly two yearly intervals until 2001, when it became a continuous survey[1]. The survey is carried out for the Home Office, and is managed by a team of researchers in the Home Office Statistics Unit. They develop each survey in collaboration with an external research organisation. Since 2001 BMRB Social Research (now TNS-BMRB*)* has been the sole contractor for the survey.

Since the survey became continuous in 2001 there have been few significant changes to the design of the survey. Where changes have been incorporated these have been described in detail in the relevant technical reports. The most significant changes to the design of the survey have been:

- Increase of the core sample size from 37,000 to 46,000 to allow a target of at least 1,000 interviews in each Police Force Area (2004-05 technical report)
- Changes to the clustering of sample for interview (2008-09 technical report)
- Removal of the requirement for an additional boost of 3,000 interviews with non-white respondents
- Removal of the requirement for an additional boost of 2,000 interviews with respondents aged 16 to 24
- Extension of the survey to cover young people aged 10 to 15 (2009-10 technical report)

In 2010-11 the total core sample size was the same as in the previous year, with approximately 46,000 core adult interviews being conducted across the year. The survey was designed to achieve a minimum of around 1,000 core interviews in each Police Force Area in England and Wales. In addition, the survey aimed to interview a nationally representative sample of 4,000 children aged 10 to 15.

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

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

Respondents are asked directly about their experience of crime, irrespective of whether or not 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.

Crime statistics (including both the BCS and police recorded crime statistics) have recently been subject to a number of reviews;

- Crime Statistics: User Perspectives, Report No.30 Statistics Commission, September 2006
- Crime Statistics: An independent review, November 2006
- Overcoming Barriers to Trust in Crime Statistics: England and Wales, UK Statistics Authority, May 2010
- National Statistician's Review of Crime Statistics: England and Wales, June 2011

Following crime statistics reviews and feasibility work (Pickering et al., 2008[2]) the BCS was extended to include 10 to 15 year olds from January 2009. The first results for this age group were published in June 2010 (Millard and Flatley, 2010[3]) as experimental

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[2] **Pickering, K., Smith, P., Bryson, C. and Farmer, C.** (2008) British Crime Survey: options for extending the coverage to children and people living in communal establishments. Home Office Research Report 06. London: Home Office.

[3] **Millard, B. and Flatley, J.** (2010) Experimental statistics on victimisation of children aged 10 to 15: Findings from the British Crime Survey for the year ending December 2009. Home Office Statistical Bulletin 11/10.

statistics. Estimates of victimisation against children from the 2009/10 and 2010/11 BCS are presented within the 2010/11 annual crime statistics.[4]

The BCS has become a definitive source of information about crime; the survey collects extensive information about the victims of crime, the circumstances in which incidents occur and the type of offenders who commit crimes. In this way, the survey provides information to inform crime reduction measures and to gauge their effectiveness.

1.2   The BCS extension to 10 to 15 year olds

The extension of the survey to include people aged 10 to 15 followed recommendations made by the Smith Review[5]. The main rationale for extending the coverage of the BCS is to provide estimates of victimisation levels among 10 to 15 year olds so that their needs can be part of policy consideration and service delivery.

An extensive testing and development phase was undertaken prior to the launch of the survey which is described in detail in the development report[6].

In summary the development phases undertaken were:
- Qualitative research to explore young people's understanding of crime and victimisation
- Cognitive piloting of the questionnaire with young people
- Small scale test encompassing 20 interviewer points to test fieldwork procedures
- Split sample experiment to assess the impact of the 10 to15 year old survey on the main survey

In addition the Home Office conducted an external consultation to consult with stakeholders about the most appropriate age range to include in the survey.

The live survey launched in January 2009.

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[4] Chaplin, R, Flatley, J and Smith, K. (2011) *Findings from the British Crime Survey and police recorded crime (First Edition)* Crime in England and Wales 2010/11. London: Home Office.

[5] http://webarchive.nationalarchives.gov.uk/20110220105210/rds.homeoffice.gov.uk/rds/pdfs06/crime-statistics-independent-review-06.pdf

[6] Extending the British Crime Survey to children: a report on the methodological and development work

1.3   Outputs from the BCS

The data arising from the BCS are routinely published by the Home Office's Statistics Unit. These reports include:

- A statistical bulletin based on BCS interviews carried out in the previous financial year, which is published in July following the end of each financial year. This bulletin contains estimates from both the BCS and police-recorded crime figures. The latest of these reports covering the period 2010-11 was published in July 2011[7].
- Shorter statistical updates produced on a quarterly basis, focusing specifically on victimisation rates and trend patterns.
- Three Supplementary bulletins, covering topics in the annual volume in more detail, based on the 2009-10 BCS:
    - Public perceptions of policing, engagement with the police and victimisation
    - Homicide, Firearm Offences and Intimate Violence:
    - Children's experiences and attitudes towards the police, personal safety and public spaces.
- An annual bulletin covering drug misuse as reported on the 2010-11 BCS.

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

As well as published reports the BCS data are made available through the UK Data Archive at the University of Essex (http://www.data-archive.ac.uk/). The Economic and Social Data Service (http://www.esds.ac.uk/) provides additional support to users of BCS data.

Since considerable emphasis is given in the course of conducting the interview to assure respondents that the information they provide will be held in confidence the data set does not identify the location of the sampled areas and this information is not

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[7] **Chaplin, R., Flatley, J. and Smith, K. (Eds.)** (2011) *Crime in England and Wales 2010/11: Findings from the British Crime Survey and police recorded crime*. Home Office Statistical Bulletin 10/11. London: Home Office.

released to the Home Office by TNS-BMRB. In addition Special Licence low-level geographic data for BCS is also available.

The BCS is a complex study with data organised at different levels (households, individuals, and incidents) and it has numerous sub-samples that are 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 supplied to the Home Office, and are not documented in this report. Further information is available from the UK Data Archive or the Economic and Social Data Service (http://www.esds.ac.uk/).

The Home Office produces a user guide for those interested in understanding BCS data which contains further detail on the content and structure of the data[8].

1.4   Structure of the technical report

This report documents the technical aspects of the 2010-11 BCS. The analysis in this report relates to the total sample that was issued in the financial year 2010-11, irrespective of when interviews actually took place. The distinction between issued sample and achieved sample is explained in more detail in section 2.2 of the report.

The sample design is set out in Chapter 2. Data collection is the major task for the organisation commissioned to conduct the BCS and forms the central part of this report. Chapter 3 covers the content and development of the questionnaire, while Chapter 4 examines the fieldwork. Chapter 5 gives details of the tasks that are involved in preparing the data for analysis, including the coding and offence classification and Chapter 6 covers the preparation and delivery 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.

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[8] For the most recent User Guide see http://www.homeoffice.gov.uk/publications/science-research-statistics/research-statistics/crime-research/user-guide-crime-statistics/user-guide-crime-statistics?view=Binary

2.   Sample Design

2.1   Introduction

The core sample design of the British Crime Survey has remained largely unchanged between 2009-10 and 2010-11. A revised sample design was previously introduced to the survey in 2008-09 and full details of the rationale for the revised design and the design itself are included in the 2008-09 technical report. The key features of the 2010-11 design were as follows:

- A sample size of approximately 46,000 interviews per year with adults aged 16 and over resident in households in England and Wales;
- A minimum of around 1,000 interviews per year in each of the 42 Police Force Areas[9]. This required a degree of over sampling in less populous Police Force Areas;
- A partially clustered design with different levels of clustering being used in different population density strata in an effort to reduce PSU-level cluster effects;
- Fieldwork was conducted on a continuous basis with the sample being allocated to provide nationally-representative estimates on a quarterly basis; and
- The sample was front loaded within each quarter to reduce the spill over of cases which are issued in one quarter but are interviewed in the next.

2.2   Target issued and achieved sample in Police Force Areas

A requirement of the core sample design was to achieve around a minimum of 1,000 interviews in each Police Force Area. The design which meets this requirement at minimum cost is one which delivers an equal sample of 1,000 interviews in each of the 42 Police Force Areas, giving an overall national sample of 42,000 interviews per year. However, such a design would result in a large range of sampling fractions (and hence design weights) within PFAs, leading to a reduction in the precision of whole sample estimates. It was therefore decided to adopt a design that boosted the sample size in

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[9] For sampling purposes the City of London Police are combined with the Metropolitan Police.

smaller PFAs but without reducing it in the larger PFAs compared to what it had been on previous surveys.

This broad approach to over sampling in less populous PFAs is the same one that has been adopted on the BCS since 2004-05 when the survey increased in sample size from 37,000 to 46,000. In 2008-09 the process was made slightly more systematic by allocating issued sample to the larger Areas in proportion to their population and this approach was repeated in 2009-10 and in 2010-11. With this approach the overall design effect was calculated at 1.17 using the standard formula that ignores between strata differences in element variance[10].

Full details about the extent of over sampling within each PFA is contained in the 2008-09 Technical Report. The actual number of interviews achieved and the response rate for each PFA in 2010-11 is shown in Table 4.12.

2.3   A partially clustered sample

The partially clustered sample design involves different sampling plans for each of three population density strata in an effort to reduce PSU-level cluster effects. The sample plans are defined as follows:

- In the *most densely populated* areas of each PFA an unclustered sample of addresses is drawn (Stratum A);

- In areas of *medium population density* a two-stage design is employed, first sampling Medium Layer Super Output Areas (MSOAs) as the primary sampling units and then selecting 32 addresses within each PSU (Stratum B); and

- In areas of *low population density* a three-stage design is employed by first sampling Medium Layer Super Output Areas (MSOAs), then selecting 2 Lower Level Super Output Areas (LSOAs) within each sampled MSOA as the primary sampling units, and finally selecting 16 addresses within each PSU (Stratum C).

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[10] Formula is $(\Sigma n_h W_h)^2 / \Sigma n_h W^2_h$, where n_h = target sample size in PFA h and W_h = number of PAF delivery points in PFA h as a proportion of the total number of PAF delivery points in England and Wales.

2.4   Sampling of addresses

A different procedure for sampling addresses was adopted in each density stratum. All addresses were selected from the small-user Postcode Address File (PAF).

Sampling of addresses in the unclustered Stratum A

Within each PFA all the addresses allocated to unclustered stratum A were sorted using the ONS reference for the associated LSOA. Addresses were then sampled systematically using the PFA-level sampling fraction and a random start.
A geographic software system was then used to ‚batch' together sampled addresses into efficient fieldwork assignments. In doing this certain parameters were set concerning the maximum geographic diameter of a batch area and the number of addresses per batch. The aim was to achieve assignments of a manageable geographical size that contained as close as possible to 32 addresses.

Census-derived and other government data were added to each batch using a weighted average of component LSOAs. This is best illustrated using an example. If a batch contained 8 addresses from LSOA 1, 16 from LSOA 2, and 9 addresses from LSOA 3 and the crime index values for each LSOA were 20, 30, and 40 respectively, the batch level crime index value would be:

$$(20*(8/33)) + (30*(16/33)) + ((40*(9/33)) \text{ or } 30.3$$

These batch-level data allowed a representative sample of batches to be allocated to each fieldwork quarter using standard stratification methods.

Sampling addresses in mid-clustered Stratum B

Before sampling, MSOAs in mid-cluster stratum B areas were stratified in the master database to ensure a representative sample. In England, mid-cluster MSOAs in each PFA were sorted by the crime and disorder deprivation index and split into three equal-sized sub-strata. In Wales, mid-cluster MSOAs in each PFA were sorted by population density and split into three equal-sized sub-strata.

These variables were selected after an analysis of BCS data from 2008-10.

MSOAs were sampled with a probability proportionate to the number of PAF delivery points[11], using a systematic method and a random start.

32 addresses were selected from each sampled MSOA. Addresses were sorted by postcode before a systematic 1 in *n* sample was drawn with a random start.

Sampling addresses in tightly clustered Stratum C

A sample of MSOAs was drawn in each tight-clustered stratum C as described for the mid-clustered strata. However, instead of a sample of addresses being drawn within each sampled MSOA, a pair of LSOAs was first selected.

Within each sampled MSOA, the component LSOAs were sorted using the ONS reference number. Two LSOAs were sampled in each MSOA with a probability proportionate to the number of PAF delivery points, using a systematic method and a random start.

Sixteen addresses were selected from each sampled LSOA. Addresses were sorted by postcode before a systematic 1 in n sample was drawn with a random start.

2.5   Stratification

The selection of PSU-level stratification variables was refined after an analysis of BCS data from April 2003 through to March 2006.

The same stratification was used in 2010-11 as was applied in 2009-10. This required the sample to be stratified by:
- PFA (level 1)
- Density cluster type (level 2)
- Three-band version of the „crime and disorder' deprivation index (level 3) – England only
- Three-band version of population density (level 3) – Wales only

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[11] In England and Wales, one delivery point equals one address in 97% of cases.

2.6 Allocation of sample to fieldwork quarters and months

Primary sampling units (mid and tight clustered strata) and fieldwork batches (unclustered strata) were systematically allocated to each fieldwork quarter to ensure that each quarter was a representative sample of the whole.

The sampled PSUs/batches in each cluster stratum were sorted using their original stratification values and tagged with a ‚fieldwork quarter' label via the ‚snaked' allocation system: Q1-Q2-Q3-Q4-Q4-Q3-Q2-Q1-Q1-Q2 etc. but with a random start (e.g. ‚Q3').

A similar system was used to allocate sampled PSUs/batches to a specific issue month within the relevant quarter. However, rather than allocating PSUs/batches equally between months within each quarter the sample was slightly frontloaded within each quarter. This was done to try and increase the proportion of interviews that are actually carried out during the quarter of issue, rather than being carried out in the quarter after issue. Thus, approximately 40% of the sample was allocated to month 1 of each quarter, 35% to month 2 and 25% to month 3.

2.7 Sampling of adults

At each sampled address, interviewers were asked to randomly sample one dwelling unit in those rare cases where more than one is associated with a single address. This was done by listing all eligible dwelling units in flat or room number order (e.g. Flat A, Flat B etc), or if no numbering scheme were present, listing dwelling units from bottom to top of building, left to right, front to back and then selecting a dwelling unit by a random (Kish grid based) approach.

Once the dwelling unit was selected, interviewers were asked to randomly sample one normally-resident[12] individual aged 16 or over. This was done by listing all eligible people in the household in alphabetical order of first name and then selecting one for interview by a random (Kish grid based) approach. Once the selection of an individual had been made no substitutes were permitted.

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[12] An individual is ‚normally resident' if this is his/her only residence or he/she spent more than six of the last twelve months living at this address.

2.8 Sampling of 10 to 15 year olds

The methodological review commissioned by the Home Office recommended that the sample of children to be included in the survey should be obtained through identifying children in households already selected for the core BCS. The review also recommended that no more than one child was interviewed in each household.

The 2009-10 survey was the first full year of the survey to include interviews with 10 to 15 year olds. The aim was to conduct around 4,000 interviews annually with children aged between 10 and 15 years old. Screening for 10 to 15 year olds was conducted at each sampled address and where possible a second interview was conducted at the address with a 10 to 15 year old.

2.8.1 10 to 15 year old sample

Identification of 10 to 15 year olds to take part in the survey was conducted in a very similar way to the procedures that were previously used to conduct the boost survey with 16 to 24 year olds (see the 2008/09 BCS technical report, volume 1). Screening was conducted at all core sample addresses where a productive outcome was achieved. The aim was to achieve a sample of 4,000 interviews with 10 to 15 year olds for the 2010-11 survey.

If more than one eligible child was identified, one child was selected at random to take part in the interview. In order to achieve the target number of interviews an interview was always attempted where only one eligible child was identified. This differs from the approach taken in 2009/10 where, in households with only one 10 to 15 year old present, the child was only eligible to be interviewed in 87.5% of cases. Whilst adjusting the eligibility criteria in households where there was only one eligible child improved the precision of the estimates it was not possible to achieve the required number of interviews without raising this to 100% in 2010/11.

3. Questionnaire Content and Development

3.1 Structure and coverage of the questionnaire

The BCS questionnaire for the adult survey has a complex structure, consisting of a set of core modules asked of the whole sample, a set of modules asked only of different sub-samples, and self-completion modules asked of all 16-59 year olds. Within some modules there is often further filtering so that some questions are only asked of even smaller sub-samples. With the exception of the victimisation module, the modules included in the survey may vary from year to year.

The 2010-11 BCS questionnaire consisted of the following sections:
- Household Grid
- Perceptions of crime
- Screener questionnaire
- Victimisation Modules for incidents identified at the screeners (up to a maximum of six)
- Performance of the Criminal Justice System
- Mobile phone and bicycle crime
- Experiences of the police (Module A)
- Attitudes to the Criminal Justice System (Module B)
- Crime prevention and security (Module C)
- Ad-hoc crime topics (Module D)
- Plastic card fraud
- Anti social behaviour
- Road safety and traffic module
- Demographics and media
- Self-completion module on drug use and drinking
- Self-completion module on domestic violence, sexual victimisation and assault

The basic structure of the core questionnaire is shown in Figure 3.1, while the sub-set of respondents who were asked each module of the questionnaire (see section 3.5) is shown in Table 3.1. The complete questionnaire is documented in Appendix D of Volume 2. In this chapter a brief description of each section or module of the questionnaire is outlined.

Figure 3.1   Flow Diagram of the 2009-10 BCS Core Questionnaire
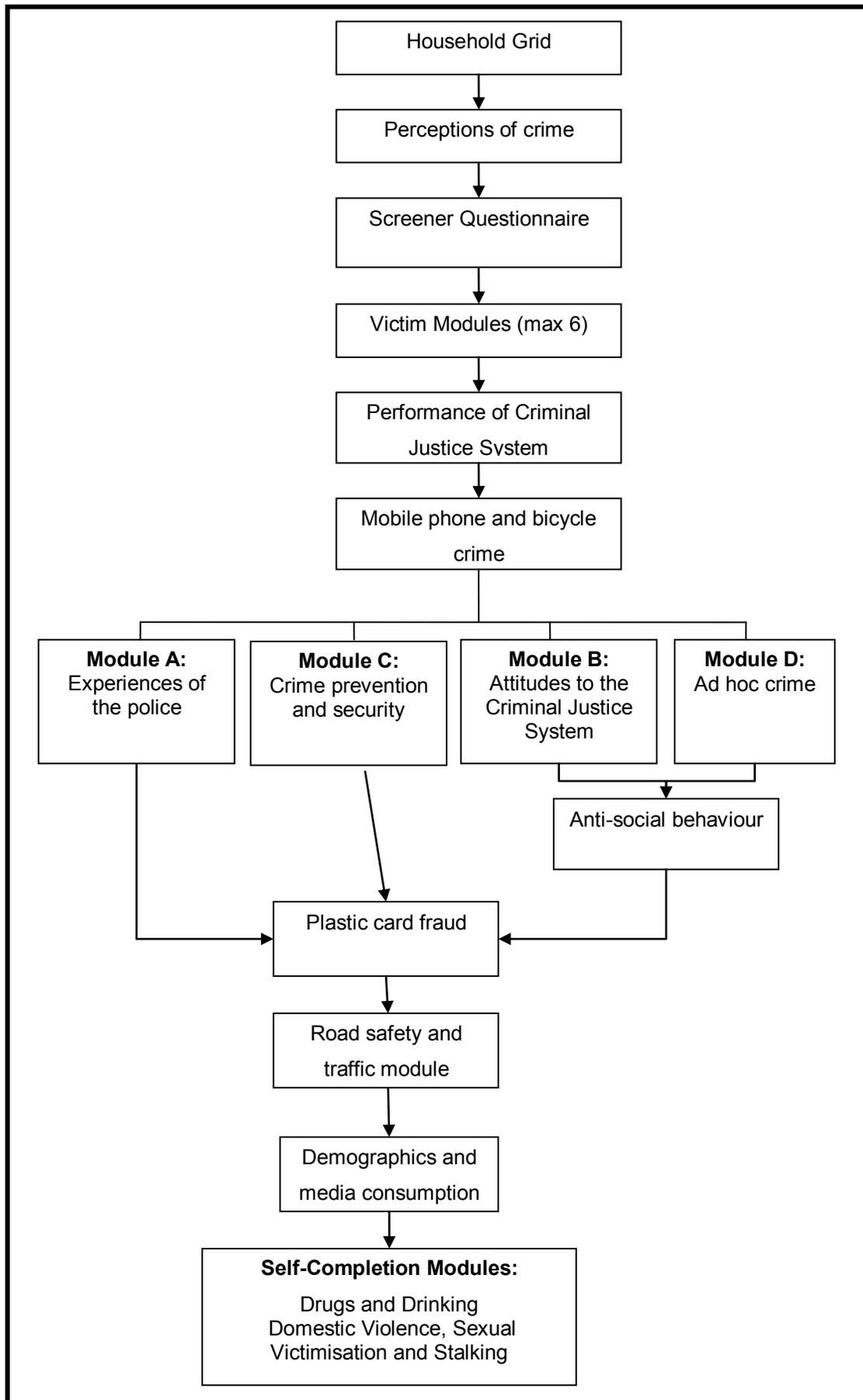
Table 3.1   Modules of the 2010-11 BCS questionnaire and sub-set of respondents who were asked each module

Questionnaire module	Core sample
Household box	All
Perceptions of crime	All
Screener questionnaire	All
Victimisation Modules	All victims
Mobile phone and bicycle theft	All
Performance of the Criminal Justice System	All
Module A	Random 25%
Module B	Random 25%
Module C	Random 25%
Module D	Random 25%
Anti social behaviour	Random 50%
Plastic card fraud	All
Road safety and traffic	All
Demographics and media consumption	All
Drugs and Drinking	All aged 16-59
Inter-Personal Violence	All aged 16-59

3.1.1   Household Grid

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

The Household Grid was also used to establish the Household Reference Person (HRP)[13] which is the standard classification used on all 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.

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

- 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.

3.1.2 Perceptions of crime

The Household Grid was followed by a series of attitudinal questions which asked respondents their perceptions about particular aspects of crime and anti-social behaviour. This module of questions included both long-standing questions as well as questions first introduced on the 2009-10 survey.

Long-standing topics covered in this module included:

- How long respondents had lived in their local area;

- What respondents felt were the main causes of crime (Module B respondents only);

- Respondents' perceptions of changing crime levels for the country as a whole and in their local area;

- How much crime and fear or crime affected respondents quality of life (Module D respondents only);

- How safe respondents felt when walking in their local area and when at home;

- How worried they were about being the victim of particular types of crime (Module C respondents only);

- How respondents thought crime rates in their local area had changed over time (Module C respondents only);

- How much of a problem they perceived particular aspects of anti-social behaviour to be;

- How often their home was left unoccupied and how often they went out; and

- How often they visited a pub or bar

In October 2009, additional questions on trust in official statistics were added to the module.

3.1.3 Screener questions

Following the questions on perceptions of crime, all respondents were asked whether they had experienced certain types of crimes or incidents within a specified reference period, namely the last 12 months. The 12 month reference period changed each month throughout the fieldwork year. For example interviews conducted in July 2010 would refer to "*since the 1st of July 2009".* This means that in practice the 12 month reference period at the time of interview consists of the last 12 full calendar months, plus the current month (i.e. slightly more than 12 months).

Questions were designed to ensure that all incidents of crime within the scope of the BCS, including relatively minor ones, were mentioned. The screener questions deliberately avoided using terms such as ‚burglary', ‚robbery', or ‚assault', all of which have a precise definition that many respondents might not be expected to know. The wording of these questions has been kept consistent since the BCS began to ensure comparability across years.

To try and encourage respondents to recall events accurately, a life event calendar was offered 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 which can be grouped into four main categories:

- All respondents who lived in households with a vehicle or bicycle were asked about experience of vehicle-related crimes (e.g. theft of vehicle, theft from vehicle, damage to vehicle, bicycle theft);
- All respondents were asked about experience of property-related crimes in their current residence;
- 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); and
- 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 questions are also designed to ensure that the respondent does not mention the same incident more than once. At the end of the screener questions, the interviewer is shown a list of all incidents recorded and is asked to check with the respondent that all incidents have been recorded and nothing has been counted twice. If this is not the case, the respondent has an opportunity to correct the information before proceeding.

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

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

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

3.1.4 Victimisation Modules

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

Identification and ordering of incidents for Victimisation Modules

In 2010-11, 77% of core sample respondents did not report any victimisation over the reference period, meaning that no Victimisation Modules had to be completed as part

of the interview. This is the same proportion of respondents who did not report any victimisation in the 2009-10 survey.

Where a respondent had experienced one or more incidents in the reference period, the CAPI programme automatically identified the order in which the Victimisation Modules were asked. This meant that the interviewer had no discretion about the selection or order of the modules[14]. The priority ordering used by the computer was as follows:

- According to the type of crime. Victimisation Modules 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 Modules were asked about the most recent incident first and worked backwards chronologically.

If six or fewer incidents were identified at the screener questions then a Victim Module was completed for all of the incidents reported. The first three Victimisation Modules contain all the detailed questions relating to each incident („long' modules). The second three Victim Modules were „short' modules, containing fewer questions to minimise respondent burden.

If the respondent had experienced more than six incidents in the reference period, only six Victimisation Modules 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 Module) for the crimes or incidents that tend to be more common (e.g. criminal damage to vehicles).

In the 2010-11 survey, a total of 15,012 Victim Modules were completed on the core sample and 22.8% of all respondents reported at least one incident (see Table 3.2).

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[14] In the case of the incidents of sexual victimisation or domestic violence, the interviewer had an option to suspend the Victimisation Module, 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).

Table 3.2 shows that 16% of all core respondents completed one Victimisation Module, while only 1% of all respondents completed four or more modules. Among respondents who reported at least one crime, seven in ten (72%) experienced only one crime in the reference period and so completed a single Victimisation Module. Only 4% of respondents who had been the victim of crime completed four or more Victim Modules.

Table 3.2   Number of respondents who completed Victimisation Modules by sample type, 2010-11 BCS

	Core sample		
	N	% of all respondents	% of victims
Non victims	35,803	77.2	
Victims[1]	10,570	22.8	
No. of Victim Modules[2]			
1	7,631	16.5	72.2
2	1,917	4.1	18.1
3	623	1.3	5.9
4	231	0.5	2.2
5	75	0.2	0.7
6	93	0.2	0.9
Bases:		*46,380*	*10,570*

1 Victims refers to the number of respondents who completed at least **one** Victimisation Module
2 The number of Victimisation Modules is shown both as a percentage of all respondents who were victims of crime and as a percentage of all respondents.

Defining a 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 Victimisation Module was completed in relation to the most recent incident in the series.

There are two practical advantages to this approach of only asking about the most recent incident where a series of similar incidents has occurred. First, since some

(although not all) incidents classified as a series can 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 Victimisation Modules on incidents which <u>may</u> be less serious.

In 2010-11, 84% of all Victimisation Modules related to single incidents and 16% related to a series of incidents. This split between single and series incidents was broadly the same as previous surveys.

In the rare cases where a respondent has experienced a mixture of single incidents and a series of incidents the interview program has a complex routine which handles the sequence of individual and series incidents and allows the priority ordering of the Victimisation Modules 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 <u>section 7</u>).

Content of Victimisation Module

The Victimisation Module is the key to the estimate of victimisation and collects three vital bits of information:

- <u>The exact month(s) in which the incident or series of incidents occurred.</u>
  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 Victimisation Module 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.

- <u>An open-ended description of the incident where the respondent describes exactly what happened in their own words.</u> The open-ended description is vital to the accurate coding of offences that takes place back in the office. Short, ambiguous or inconsistent descriptions can often make offence coding difficult. At the end of each Victimisation Module, the original open-ended description that the interviewer had entered at the start of the Victimisation Module is re-

capped, along with the answers to some of the key pre-coded questions. By presenting this information on a single screen, interviewers have the chance to confirm with respondents that the information was correct and consistent. If the respondent and/or interviewer wish to add or clarify any information they then have the opportunity to do this.

- <u>A series of key questions used to establish important characteristics about the incident</u>, such as where and when the incident took place; 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 key questions within the Victimisation Module have remained largely unchanged from previous years of the survey to ensure comparability over time.

3.1.1   Reference dates

In the questionnaire, program reference dates were automatically calculated based on the date of interview and appropriate text substitution was used to ensure that the questions always referred to the correct reference period.

Because the 12 month reference period changed each month throughout the fieldwork year, this meant that some date-related questions in the Victimisation Module had different text each month to reflect this changing reference period. Thus, for example, any interviews conducted in July 2010 would use the reference period *"since the first of July 2009"*. 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 months). This fact is taken into account when the victimisation rates are estimated.

3.1.2   Performance of the Criminal Justice System

All respondents were asked a number of questions about the performance of both the Criminal Justice System (CJS) as a whole, as well as about the individual agencies that make up the CJS.

The first set of questions in this module relate to respondents' perceptions about the effectiveness and fairness of the CJS. Individual questions relating to the police, the

courts, the CPS, the probation service and the prison service were asked, as well as questions about the CJS as a whole. These questions were added to the survey in October 2007 after being extensively tested[15].

The second set of questions is about confidence in the local police. As well as a general question about perceptions of how good a job the local police are doing, there are also questions related to specific aspects of local policing.

Finally, the module includes a number of questions related to respondents' confidence in the different local agencies involved in tackling crime and anti-social behaviour.

3.1.3   Mobile phone and bicycle crime

Although mobile phones stolen from the respondent should be identified in the Victimisation Module, personal thefts from other members of the household 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, who the phone had been stolen from. Respondents were asked to include incidents where mobile phones stolen had been stolen from children in the household. A similar set of questions, referring to bicycle theft from any members of the household, were added in 2009-10. These questions were added to enable cross checks across the adult and 10 to 15 year old data to identify any double counting of incidents.

3.1.4   Part-sample modules (A-D)

Respondents were randomly allocated to one of four modules (see section 3.5. for how this was done) meaning that approximately 11,500 respondents were asked each module. The random allocation maintains a representative sub sample in each of the modules.

Module A: Experiences of the police

Module A included topics such as:

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[15] Maxwell C. *et. al*. (2008) Fairness and effectiveness in the Criminal Justice System: development of questions for the BCS

- whether or not respondents are serving police officers or had any contact with the police;

- where they obtain details about their local police force;

- whether or not they had been stopped by the police either in a vehicle or on foot;

- if so, the reason given for being stopped and the nature of the contact;

- whether respondents had made a complaint about the police and if so how they felt their complaint had been dealt with; and

- vicarious contact with the police (added in 2009-10 survey).

In 2009-10 a number of extra questions were added to this module about the policing pledge, neighbourhood policing and awareness of local crime maps.
The questions covered:

- Whether respondents had noticed any change in how often police or police community support officers are seen on patrol in the local area

- Whether respondents know how to contact the local police about policing, crime or anti-social behaviour issues

- Awareness of the neighbourhood policing team

- Whether they have heard about anyone who has had a bad experience with the police and where they heard it from

- Whether seen, read or heard any information about the local police and if so where this was seen

- Whether heard of local crime maps and whether looked or used the maps

Module B: Attitudes to the Criminal Justice System

This module included questions that had mainly been asked in previous years. Topics covered in this module included:

- perceived leniency or toughness of the CJS;

- opinions as to what the CJS should do to improve confidence;

- attitudes to the type of sentence appropriate for different types of offenders under particular circumstances;

- attitude to sentencing policy, including what respondents thought sentences should be for particular crimes and what they thought they actually were;

- awareness and perceived effectiveness of Community Payback (previously known as community service);

- experiences of the CJS; whether respondents have worked for CJS, have been arrested, been a juror, a victim in a case, etc; and
- attitudes to aspects of the Youth Justice System.

Module C: Crime prevention and security

Topics covered in this module vary from year to year. In 2010-11 the main focus was on home and vehicle security measures. Other topics covered in this module included.

- Neighbourhood watch
- personal security measures

Questions on home security included some questions on security measures fitted to the home (e.g. burglar alarms, window locks, type of door locks, etc.) and regularity of use, as well as action taken when a stranger comes to the door.

Questions on Vehicle security included questions on security measures fitted to the vehicle(s) (e.g. alarm, immobiliser) and action taken to reduce likelihood of theft of an item from a car (e.g. always locking doors, removing all/part of the radio, cassette or CD player or satellite navigation system).

In addition some new questions were added in 2010-11 regarding personal security. These included: Behavioural action taken in the last five years to avoid becoming a victim of crime and the reasons for improving or not changing behaviour over the last five years.

Module D: Ad hoc crime

This module was broadly similar to previous surveys and contained a wide variety of questions. These included:

- worry about gun crime and terrorism; and
- concerns about being the victim of certain crimes;
- E-crime – including use of the internet, security concerns when using the internet and experiences of E-crime.

3.1.5   Plastic card fraud

This module is intended to provide a measure of the extent of plastic card fraud. This type of crime is not covered in the Victimisation modules (though the physical theft of any plastic card would be covered). The module has been on the survey in August 2007 and covers:

- whether respondent has had a plastic card used without their permission;
- whether respondent has had money taken from a bank or building society account without their permission and the amount stolen;
- reporting of plastic card fraud; and
- measures taken to try and prevent card fraud.

3.1.6 Anti-social behaviour module

This module includes some general questions on anti-social behaviour. These relate to how effective respondents felt the authorities were in tacking anti-social behaviour and how informed respondents felt about what was being done locally to tackle problems.

Questions relating to how big a problem respondents felt parents' not taking responsibility for the behaviour of their children was and people not treating other people with respect and consideration in their local area were also included.

3.1.7 Road safety and traffic module

For the first 6 months of the 2010-11 survey, until the end of September 2010, a module was added to the survey including questions about experiences of road accidents and problems with speeding traffic in the area (at the request of the Department for Transport).

Questions included:

- Whether been in a road accident in the last three years and whether injured in any road accident in the last three years and how many times this had happened
- How respondent was travelling at the time of the accident (in the car, as a cyclist, pedestrian, motorcyclist etc)
- Whether the police attended the incident and whether the incident was reported to the police
- Why speeding traffic is a problem in the area
- What types of road speeding traffic is a problem on and the sorts of problems caused by it

- How much the respondent is affected by speeding traffic
- How many miles the respondent has driven in the last 12 months

3.1.8 Demographics and media consumption

This section collected additional information on the respondent and the Household Reference Person (where this was not the same as the respondent).   Questions included:
- health condition;
- employment details;[16]
- educational attainment and qualifications;
- nationality, country of birth and religion (of respondent and HRP);
- ethnicity;
- housing tenure; and
- household income.

This section also covered media consumption habits. Questions asked included:
- daily and preferred readership;
- amount of TV watched.

3.1.9 Self – completion modules

The self-completion modules are asked of respondents aged 16 to 59 years of age. The self completion modules are 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 accordingly. 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; in these cases, respondents were only asked the modules on drug use and drinking (not the module on domestic violence, sexual assault and stalking).

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

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

Self-completion module: Illicit drug usage

The module covers a total of 19 drugs plus 3 more general questions to capture use of any other substances. The drugs included are:

- Amphetamines
- Methamphetamine
- Cannabis
- Skunk
- Cocaine powder
- Crack cocaine
- Ecstasy
- Heroin
- LSD/Acid
- Magic Mushrooms
- Methadone
- Semeron
- Tranquilizers
- Amyl Nitrate
- Anabolic steroids
- Ketamine
- Unprescribed unknown Pills or powders
- Smoked any substance (excluding tobacco)
- Any other drug

The list of drugs included a drug that did not exist (Semeron) to attempt to identify instances of over reporting.

Questions asked included:

- whether ever taken illegal drugs;
- whether taken illegal drugs in last 12 months;
- whether taken illegal drugs in last month;
- frequency of drug use;
- circumstances when last took drugs;
- whether taken any legal or formerly legal highs in the last 12 months; and

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

In October 2009 questions were added to the survey to record whether the respondent had taken legal highs in the last 12 months. In the 2010/11 survey a number of drugs that were formerly legal highs became illegal and so the question wording was amended, where appropriate, to reflect this. A list of the legal highs and formerly legal highs asked about is shown below:

Legal highs included in the 2010/11 survey
- Khat
- Mephedrone

Former legal highs included in the 2010/11 survey
- Liquid E
- Legal E
- Spice

Self-completion module: Domestic violence, sexual victimisation and stalking module

The module was largely based on the module first developed in 2001 (and modified in 2004-05) to measure prevalence of domestic violence, sexual victimisation, and stalking.

Following a review of the questions contained in the interpersonal module, the questions were re-developed to help improve userability. In 2010/11 a split sample experiment was carried out to test the impact, if any, that the new question wording had on prevalence estimates.[17]

The descriptions of types of abuse that respondents are asked about were kept as consistent as possible between the current and alternative sets of questions, and the order in which each type of abuse is asked about was also retained.

In general, in the question set used in previous years respondents were presented with a list of behaviours that constitute abuse and asked to choose which, if any, they had experienced in the last year and since the age of 16. In the alternative question set,

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[17] Hall, P and Smith, K. (2011) *Analysis of the 2010/11 British Crime Survey Intimate Personal Violence split- sample experiment. London: Home Office*

respondents were asked if they had experienced each of these behaviours in turn and asked to respond „yes' or „no'.

Both sets of the 2010-11 questions on inter-personal violence covered the following topics:

- experience of domestic violence by either a partner or by another family member since age 16 and in the last 12 months;
- experience of less serious sexual assault since age 16 and in the last 12 months;
- experience of serious sexual assault since age 16 and in the last 12 months; and
- experience of stalking since age 16 and in the last 12 months.

Those who had been subjected to serious sexual assault since the age of 16 were asked supplementary questions about the nature of the sexual assault. The questions covered:

- frequency of incidents;
- whether the police came to know or not;
- whether drugs or alcohol were involved;
- whether respondent suffered any injuries or sought any medical help; and
- whether respondent had to take any time off work.

The module also includes a question on the respondent's sexual orientation (this is not asked if the self-completion module is administered by the interviewer).

3.2   Structure and coverage of the 10 to 15 year old survey

An extensive development and testing phase was undertaken prior to the launch of the 10 to 15 survey, the results of which have been documented separately in the development report published in 2010.[18]

The questionnaire for 10 to 15 year olds covered:

- Schooling and perceptions of crime
- Crime screener questions – personal incidents only
- Victimisation module
- Perceptions of and attitudes towards the police

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[18] Extending the British Crime Survey to children: a report on the methodological and development work

- Anti-social behaviour
- Crime prevention and security
- Self completion module
    - Use of the internet
    - Personal safety
    - School Truancy
    - Bullying
    - Street gangs
    - Drinking behaviour
    - Cannabis use
    - Verification questions
- Demographics

3.2.1   Radom allocation to sub-sample modules

There were three part-sample modules within the 10 to 15 year old survey, to which respondents were randomly allocated using an algorithm in the CAPI script.   This method of randomly allocating respondents to different modules ensures that the process is strictly controlled, that each part-sample remains representative of the survey population.

Table 3.3   Modules of the 2010-11 BCS questionnaire for the 10 to 15 survey and sub-set of respondents who were asked each module

Questionniare module	Proportion of sample	Module
Schooling and perceptions of crime	All	
Screener questionnaire	All	
Victimisation modules	All victims	
Perceptions of and attitudes towards the police	Random 33%	A
Anti-social behaviour	Random 33%	B
Crime prevention and security	Random 33%	C
Use of the internet	Random 33%	C
Personal safety	All aged 13-15	
School truancy	All	

Bullying	Random 33%	B
Street gangs	Random 33%	A
Drinking behaviour	All	
Cannabis use	All	
Verification questions	All	
Demographics	All	

3.2.2 Schooling and perceptions of crime

This module includes questions about whether the respondent attends school and if so what school year they are in (school year is used later to help respondents recall exactly when incidents of crime took place).

A small number of questions are included about the respondent's perception of crime in their local area and whether they believe the level of crime has changed in the last few years.

3.2.3 Screener questionnaire

All respondents were asked whether they had experienced certain types of crimes or incidents within the last 12 months. The screener questions deliberately avoided using terms such as 'burglary', 'robbery', or 'assault', all of which have a precise definition that many respondents might not be expected to know.

10 to 15 year olds were not asked about household incidents as these would have been covered in the interview with the adult household member. The 10 to 15 year olds were asked:

- Whether anything had been stolen from them
- Whether anyone had deliberately damaged their property
- Whether anyone had deliberately kicked, hit, pushed or been physically violent towards them in any other way
- Whether they had been hit or threatened with a weapon
- Whether they had been threatened in any other way

3.2.4 Victimisation modules

All incidents identified at the screener questions are followed up in more detail in the victimisation module. Incidents are covered in specific priority order:
- According to the type of crime
- Chronologically within each type of crime – If a respondent reported more than one type of incident of the same crime type, victim modules were asked about the most recent incident first and worked backwards chronologically

- Up to 6 mini victim forms completed with a maximum of four full victim forms

The 10 to 15 survey includes a mini victim form which is a short sub-set of questions used to identify low level incidents which were not subject to detailed questions. Respondents completed a mini victim form if the incident is classified as a „relatively minor' incident. An incident is classified as relatively minor if all of the following apply:
- Incidents happened at school, where,
- The offender was a pupil at the victim's school, and,
- The offender did not use or threaten to use a weapon, and,
- The victim was not physically hurt in any way, and,
- Nothing was taken with the intention of taking it and not giving it back.

As with the core survey the victimisation module collects the key information required for classification of offences;
- The exact month in which the incident took place
- An open ended description of the incident
- Series of key questions to establish important characteristics of the incident

3.2.5 Perceptions of and attitudes towards the police

Respondents were asked their opinion about the police in their area and whether they agreed or disagreed with a number of statements about the police in the area. Questions were also asked about whether the respondent knew any police or police community support officers (PCSOs), whether they had had any contact with police or PCSOs, who initiated the contact, reasons for contact and how satisfied they were with the contact.

3.2.6 Anti-social behaviour

This module included questions about whether respondents felt teenagers hanging around on the streets were a problem in the area, whether they themselves hung around on the streets and where they tended to hang around with friends. It also included questions about whether the respondent had been asked to move on from an area and if so by whom and for what reason. The module also included some questions about the types of activities available for young people in the area.

3.2.7 Crime prevention and security

Respondents were asked about when they go out in evening, whether they travel on public transport and if so how often and at what time of day. Questions were also included about whether they owned a mobile phone, MP3 player, games console or bike, and if so what precautions they took to protect these items.

3.2.8 Self completion modules

A number of modules contained particularly sensitive questions and were therefore included in the self completion section so that respondents did not have to tell the interviewer their answers. As in the core survey, practice questions were included so that the interviewer could explain to the respondent how to use the computer.

Use of the internet - respondents were asked whether they had used the internet in the last 12 months and if so what they used the internet for.

Personal security – these questions were only asked of respondents aged 13 or over and covered whether they carried a personal alarm with them, whether the respondent knew anyone who carried a knife, whether they themselves carried a knife and if so why they did so.

School truancy – Three questions were asked covering whether the respondent had missed school without permission in the last 12 months, how many times they had missed school without permission and whether they had been suspended or excluded from school.

Bullying – This module asked whether the respondent had been bullied and where this was the case some follow up questions were asked about the nature and extent of the bullying.

Street gangs – This module included a definition of a street gang as;
Groups of young people who hang around together and do all of these things:
- *commit violent crimes together and;*
- *Spend a lot of time in public places; and*
- *usually have a name, an area or territory, a leader, or rules.*

Respondents were asked how much of a problem they believed street gangs to be in the country as a whole and in their local area. They were also asked whether they knew anyone who was a member of a street gang and whether they themselves were a member of a street gang.

Drinking behaviour – This module included questions about the respondent's perception of drinking behaviour among people their age, whether they had ever drunk alcohol, whether they had ever been drunk, and how often they had been drunk.

Cannabis use – Respondents were asked whether they had ever tried cannabis, how often they had tried it and whether they had felt stoned.

Verification questions – Two of the crime screener questions were repeated in the self completion section to explore whether respondents would give different answers if they did not have to say the answer out loud. The two screener questions included for verification were whether the respondent had been hit, kicked, pushed or assaulted in any other way and whether anyone had hit them or threatened them with a weapon. In addition, respondents were asked whether they told the truth on all questions the interviewer asked them and whether they told the truth in the self completion section.

3.2.9   Demographics module

The demographics module included questions regarding nationality, religion and whether the respondent had a disability or suffered from a long term illness.

3.3   Life event calendar

To aid respondent recall the BCS makes use of a life event calendar. 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 F in Volume 2 has an example of the calendar used on the 2010-11 core survey and appendix G has an example of the life events calendar used on the 2010-11 10 to 15 year old survey.

3.4   Questionnaire development

Since most of the questions on the 2010-11 BCS had been included in previous years of the survey, it was decided to concentrate piloting efforts primarily on new questions.

The piloting was conducted in two rounds and was carried out in central urban locations to maximise the efficiency of the process. Interviewers carried out in-street recruitment according to broad quotas in town centres, while TNS-BMRB researchers carried out the cognitive interviewing using paper questionnaires. All researchers worked to the same probe guide and interviews were recorded.

The first round of piloting was conducted using cognitive testing. Cognitive testing uses probing 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. In total 27 cognitive interviews were conducted at stage one.

Following the first round of testing the questions were revised and a **second round** of cognitive testing was carried out. The second round of piloting was conducted in respondents homes in order to better represent the conditions that would occur in a main interview. Respondents were pre-recruited by experienced BCS interviewers and the actual cognitive interview was conducted by a member of the TNS-BMRB research team. A total of 19 cognitive interviews were conducted at stage two.

All respondents were given a £5 high street voucher to thank them for taking part in the pilot.

The main question areas covered in the 2010-11 piloting were as follows:

- Trust in official figures: Including crime figures specifically
- Personal security: Actions taken to reduce chance of being a victim, whether behaviour has changes over the last two years
- Awareness of and attitudes towards asset recovery
- Anti-social behaviour: How much of a problem please using and/or dealing drugs is in the respondents local area
- E-crime: experiences of E-crime, security measures taken when using the internet
- Attitudes to alcohol and drug behaviour

The full pilot reports of the 2010-11 survey can be found in Appendix L of Volume 2

3.5   Final questionnaire and revisions

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 TNS-BMRB researchers and Home Office research staff and can be found in Appendix D of Volume 2.

3.6 Allocation of sample within CAPI

In the 2010-11 survey the unique serial number entered by interviewers into the computer had to be capable of the following:

- to randomly allocate respondents to one of four part-sample modules (and within each module to further allocate respondents into a sub-sample)
- to distinguish between a core sample respondent and a 10 to 15 year old 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 10 to 15 year old interview (screen number 8). Various checks were incorporated into the questionnaire to minimise the chances of errors being made by interviewers when entering the serial and screen numbers.

Allocation of respondents to each part-sample module was done on the basis of the address number, using an algorithm based on division of the address number by 8 as shown in Table 3.4. The allocation to a particular Module was done automatically at the start of the interview by the CAPI programme when the interviewer entered the serial number.

Since each sample point contained 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 3.4   Allocation of interviews to modules

Address Numbers	Remainder divided by 8	Allocated module
01/09/17/25	1	A1
02/10/18/26	2	B1
03/11/19/27	3	C1
04/12/20/28	4	D1
05/13/21/29	5	A2
06/14/22/30	6	B2
07/15/23/31	7	C2
08/16/24/32	8	D2

In the event this method of randomly allocating respondents to different sub-modules ensures that the process is strictly controlled, that each part-sample remains representative of the survey population and results in an even allocation across the year. Table 3.5 shows the actual proportion of respondents allocated in 2010-11 to the different sub-modules against the target.

Table 3.5   Achieved allocation of respondents to modules against target, 2010-11 BCS

Module	Target allocation	Achieved allocation
A1	12.5%	12.5%
B1	12.5%	12.5%
C1	12.5%	12.6%
D1	12.5%	12.5%
A2	12.5%	12.7%
B2	12.5%	12.2%
C2	12.5%	12.8%
D2	12.5%	12.1%

3.7   Features of Quancept used in the BCS

3.7.1   Don't Know and Refusal Keys

In the Quancept script, Don't Know and Refused are special codes for questions where these are not defined explicitly as response categories. In these cases, 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 but at most questions they did not appear on the screen to try and ensure that interviewers did not over use these options. In the paper questionnaire in Appendix D of Volume 2, Don't Know and Refused are only shown if they were designated response categories and actually appeared as an option on the screen.

3.7.2   Different question types

The vast majority of questions were pre-coded, meaning that a list of answer categories appears on the laptop screen and the interviewers enter the appropriate numeric code. Questions were either single response (i.e. only one code can be entered) or multi-response (i.e. more than one code can be entered). In the latter case, entered answers are separated by spaces. In multi-response questions it is possible to allow a combination of either multi-response or single response options at the same question. For example the following codes were always single coded even if contained within a multi-response question: None of these, Don't know and Refused. In the case of numeric questions, where an actual value is required, the interviewer simply types in the appropriate number.

Many pre-coded questions had an „Other –specify' option, and if this option was selected by a respondent, the interviewer would simply type in the answer given. In all these questions, the answers were later examined by specialist TNS-BMRB 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 is used for the self-completion module which allows respondents to use single keystrokes instead (F2 for forward, F1 for backward).

3.7.3   Logic and consistency checks

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

- An example of a hard check is to make sure that every household has someone coded as the Household Reference Person; until this is done the interviewer cannot move forward.
- An example of a soft check is to check the value of stolen items that appear low (for example, a vehicle). In this case the interviewer will be prompted to check with the respondent whether the value entered is correct or not, and has the option either to change the original answer or leave it as it is.

A full list of all the logic and consistency checks in the 2010-11 questionnaire can be found in Appendix K of Volume 2.

3.7.4   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 2010 would use the reference period *"since the first of July 2009".*

- Second, some code frames consisted of particular time periods (e.g. months or quarters) which changed on a month by month basis. With these type of questions the Quancept script was programmed to allow the whole reference period covered by the questionnaire (that is, from April 2009 to June 2011 – a total of 27 months). However, interviewers only saw on screen the sub-set of codes that were appropriate to the correct reference period (i.e. 13 calendar months) for the month they were interviewing in.

Since some questions use these constantly rotating code frames based upon date of interview it is impossible to label these variables in any meaningful way in the SPSS data file. A list of these questions and the appropriate code frames that actually appeared on screen depending upon the month of interview can be found in Appendix H 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 2010-11 survey attended one of two types of briefings during the year. Interviewers who had not previously carried out a BCS assignment were required to attend a full day face-to-face briefing before they could work on the survey (211 interviewers). Fifteen full briefings were held throughout 2010-11 as required.

Interviewers new to the survey were also asked to attend a half-day briefing about six months or so after they had finished their first BCS assignment. This was an opportunity for these interviewers to seek clarification about any field procedures they were unsure about; to share experiences and good practice amongst each other; and generally to provide new interviewers with a supportive environment for developing their skills.

All briefings were presented by TNS-BMRB researchers and field staff working on the survey; where possible briefings were also attended by Home Office research staff.

Each briefing covered the following topics:
- some background to the BCS and how the information is used by the Home Office;
- details about sampling and fieldwork procedures and advice on how to obtain high response rates;
- an introduction to the Address Contact Sheet and how to carry out the selection procedures;
- an introduction to the BCS questionnaire. The primary purpose of this part of the briefing was not to cover every single question in the survey but to cover the broad structure of the questionnaire and provide key pointers on how to collect accurate and comprehensive information from the screener questions and the

Victimisation Module. Additionally, this part of the briefing looked at how interviewers should approach the self-completion sections of the questionnaire.

- 10 to 15 sample: an explanation of the screening and selection procedures for 10 to 15 year olds; the field documents (leaflets, parental information cards, etc.); a discussion of the consent procedures to be used on the survey; and going through the questionnaire, including the use of CASI and audio-CASI.

In addition to this face-to-face briefing, before starting their BCS assignment 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.

It is normal practice to brief experienced BCS interviewers at least once a year, holding a half-day „refresher' briefing; for this survey year the refresher briefings were held in August and September 2010.

These refresher briefings covered:
- Additional background information about the survey, including an update on the latest results published
- Update on response rate and levels of achievement across the country
- Recent changes to the questionnaire
- Data security
- Hints and tips on improving response among 10 to 15 year old respondents

A total of 28 refresher briefings were attended by 362 interviewers in 2010-11.

4.2   Supervision and quality control

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

A total of 354 BCS assignments, 16% of all BCS assignments allocated in 2010/11, were supervised.   Assignments supervised tended to be those assigned to less experienced interviewers. Interviewers new to random probability sample surveys were also accompanied on the first day of their BCS assignment by a supervisor.

Fourteen percent of addresses where an interview was achieved were re-contacted, to verify that the interviewer had contacted someone at the address and whether or not an interview had resulted (6,263 addresses). Addresses for this „back checking‟ process were selected on the basis of TNS-BMRB's standard field quality procedures, whereby all interviewers have their work checked at least twice a year. A total of 461 separate BCS assignments were back checked during the year.

Validation was carried out mainly by telephone. Where no telephone number was available a short postal questionnaire was sent to the address to collect the same information.

4.3   Fieldwork dates and fieldwork management

During 2010-11 the survey was managed on a monthly basis. As mentioned in Section 2.6, it was decided to frontload the sample on a quarterly basis rather than issuing an even number of assignments each month. Thus, approximately 210 assignments were issued at the start of the first month of each quarter, 180 assignments were issued at the start of the second month, and 140 assignments were issued at the start of the third month. The aim of this approach was to try and get a balance between reducing the proportion of interviews where sample was issued in one quarter but the interview was conducted in the following quarter and maintaining a relatively even flow of interviews throughout the year.

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. Interviewers had until the end of the calendar month to cover all the addresses in their assignment and report final outcomes.

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

In total across the year, 15,482 addresses were re-issued on the core sample, which represented 23% of the original sample. Of these 5,685 addresses were issued for a second time (8% of all addresses), and 1,569 (just over 2% of addresses) were issued for a third time. Just 71 addresses were issued a fourth time. Of all the addresses re-issued, 18% were converted into productive outcomes at some stage. Addresses where the original outcome had been a refusal were less likely to be converted than those that had been a non-contact or some other unproductive outcome (e.g. broken appointment, away, etc.). Overall, the impact of the re-issue process was to increase the response rate on the core sample from 68.1% after the initial issue to the final response rate of 75.5% (see section 4.7.1).

Because of this time lag between addresses being issued and interviews being achieved, the time period covered by the 2010-11 issued sample and the time period covered by the 2010-11 achieved sample are different. Although the sample for the survey was issued between April 2010 and March 2011, the actual fieldwork dates during which interviews were achieved ran from April 2010 to June 2011. As already explained this means that for each quarter of the year not all interviews were actually achieved in the quarter of issue. Approximately 84% of interviews were achieved in the same quarter as they were issued, with 16% 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. June, September, December and March).

The questionnaire used in the field was aligned to the survey year, rather than being aligned to the sample issue. Before 2008-09, the exact questionnaire used for any individual interview depended upon the period in which the sample was issued which caused problems at the analysis stage.

In 2010-11 all interviews carried out between 1st April 2010 and 31st March 2011 were therefore done with the 2010-11 questionnaire, irrespective of the time period in which the sample was issued. The advantage of this is that the questionnaire is in line with the way in which the data are reported. This was also the case in October when mid-year changes to the questionnaire were introduced.

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

4.4 Fieldwork procedures and documents

All assignments in the clustered part of the sample consisted of 32 addresses. As part of the process to batch up the unclustered part of the sample into manageable fieldwork assignments an attempt was made to make assignments of 32 addresses wherever possible. However, in practice this was not always possible and so assignment sizes did vary. In 2010-11, 65% of assignments consisted of 32 addresses; 78% had between 30 and 34 addresses. The largest assignment consisted of 40 addresses, while the smallest assignment consisted of 5 addresses.

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 TNS-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 1,474 people, representing around 2% of addresses issued, opted out of the survey by contacting either TNS-BMRB or the Home Office.

Included with the advance letter was a 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.

A leaflet was also specifically designed for the 10 to 15 year olds that explained in relatively simple terms what the survey was about. This leaflet was not sent to households in advance and was rather handed out by the interviewer in eligible household, usually after conducting the core survey. Much of the detailed information about the survey was omitted from this leaflet on the basis that the 10 to 15 year olds would also have access to the original household letter and leaflet about the survey.

Examples of the advance letters used can be found in Appendix A and a copy of the leaflets (including the leaflet designed for 10 to 15 year olds) can be found in Appendix B of Volume 2.

4.4.2 Address Contact Sheets (ACS)

Interviewers were issued with a paper Address Contact Sheet (ACS) for each sampled address. This was the key document that allowed 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.

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 ACS are as follows:

- To allow interviewers to record the days and times that they 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 was a complete record of outcomes for each address. Although these outcomes were recorded by interviewers on the paper ACS, they were also reported electronically to Head Office on a daily basis so that overall progress could be monitored and managed.
- To allow the interviewer to carry out any selection procedures where required and record the details. Where an interviewer found more than one dwelling unit at an address they had to carry out a procedure to randomly select one dwelling unit for interview. Similarly, where more than one eligible adult was found at an address, interviewers had to randomly select one person for interview.
- To allow the interviewer to carry out the screening process for the 10 to 15 year olds survey the ACS had step by step instructions for interviewers and also allowed them to record the screening outcomes for every address. As with the final response outcomes, all screening outcomes were 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 was collected by interviewers based on their own observations and, as such, was 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 was recorded by interviewers on the back page of the ACS. Interviewers returned this information by completing a short CAPI survey for each address as part of their end of day administration procedures. The data was added to the annual data file at a later stage.

Examples of the Address Contact Sheets can be found in Appendix C of Volume 2.

4.5 Fieldwork procedures and documents for the 10 to 15 survey

All respondents for the 10 to 15 survey were selected from households already selected to take part in the core survey. Screening was only carried out in households where a successful adult interview was achieved. In most cases screening was conducted only on completion of the adult interview but in some cases screening was carried out before the adult interview had taken place.

Where a 10 to 15 year old was identified in a household, interviewers were required to obtain the permission of a parent or guardian to interview the child before starting the survey. Permission was recorded in writing on the address contact sheet. In some cases the adult respondent may not have been the parent or guardian of the child (for example an older sibling may have been interviewed in the core survey if they were aged 16 or over). In these cases interviewers were not able to obtain permission to interview the child from the core respondent and would therefore have to make contact with the parent or guardian to obtain permission.

Interviewers were provided with a parental information card which gave details of the nature and content of the survey and was to be presented to parents or guardians when they were asked for permission for the child to take part.

Once parental permission was obtained interviewers were instructed to ensure that the 10 to 15 year old also gave their consent to participate in the survey and that they understood what the survey would be about.

4.6   Presence of others during the interview

During the interviewer briefing sessions emphasis was given about trying, wherever possible, to conduct the interview in private. This generally helps to make the interview run more smoothly, but it also might encourage some respondents to mention certain incidents or events, which they might be embarrassed or worried of talking about in front of others.

Privacy during the interview is a particular concern for respondents who have experienced domestic violence or sexual assault. Where respondents had experienced such incidents in the last 12 months, interviewers had the option of suspending the Victimisation Module (simply by skipping over it) if they felt it was inappropriate to continue with the questions because of the presence of others in the room. This procedure meant that the interviewer could complete the rest of the questionnaire, rather than having to abandon the whole interview. During 2010-11, a total of 17 Victimisation Modules were suspended by interviewers for this reason.

Although it is preferable for the interview to be conducted with no-one else present, there are also some situations where the presence of others might improve the accuracy of the information collected. This is particularly the case for incidents of vehicle crime or property crime, where the respondent may not have been personally present, reported the incident to the police, etc. Additionally, in many cases it is simply not be possible for the interview to be conducted without others present in the room.

4.6.1   Presence of others during the adult 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 whether or not anyone else was present in the room during the initial screener questionnaire, when respondents are giving details about their experiences of crime.

Table 4.1   Presence of others during the screener questionnaire, 2010-11 BCS

	Core sample
	%[19]
No-one present	71
Child(ren) under 16	8
Spouse/partner	17
Other adult	8
Base: All adult respondents	*46,380*

In 2010-11, seven out of ten (71%) adult respondents were interviewed with no-one else other than the interviewer being present. Where someone else was present, the people most commonly there were the respondent's spouse or partner (17%).

There was little difference between men and women as to whether they completed the interview with no-one else being present (72% of men and 70% of women).
Asian respondents, and in particular Asian women, were less likely than respondents from other ethnic groups to have done the screener questionnaire with no-one else present; 57% of Asian respondents completed the screener with no-one else present.
Only 51% of female Asian respondents were interviewed with no-one else present, compared with 64% of Asian men.

However, any patterns by age or ethnicity will also be influenced by household composition. Table 4.2 shows the information from the previous table with single person households identified separately.

Not surprisingly this shows that the vast majority of respondents interviewed in single person households were interviewed with no-one else present. The majority of respondents living in households with more than one person were also interviewed with no-one else present, although around four in ten respondents were interviewed with someone else present.

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[19] Percentages add up to more than 100% because respondents could give more than one answer.

Table 4.2   Presence of others during the screener questionnaire by household size and sample type, 2010-11 BCS

	Single person household	More than one person household
	%	%
No-one present	93	62
Child(ren under 16	1	10
Spouse/partner	*	24
Other adult	6	8
Bases: All adult respondents	*12,711*	*33,669*

Percentages add to more than 100% because respondents could give more than one answer

The impact of the presence of others during the interview on the information given in the survey is not known as there is no way of knowing what the respondent might have said if they had been alone. Table 4.3 shows the proportion of respondents who reported being a victim of crime by who was present during the screener survey. Respondents whose spouse or partner was present were less likely to report victimisation. However, in cases where children under 16 were present or another adult was present respondents appeared to be more likely to report having been a victim of crime.

It is likely however that other demographic factors may be influencing this such as age, gender, social behaviour etc.

Table 4.3   Reporting of victimisation by who else present during the screener questionnaire

		Victim	Non Victim	Base
No-one present	%	25	75	*20,850*
Children under 16	%	30	70	*3,503*
Spouse/partner	%	20	80	*7,953*
Other adult	%	31	69	*2,748*
All households with more than 1 person	%	25	75	*33,669*

Base: All with more than one person in the household

4.6.2   Presence of others during the self-completion and assistance given

For those who did the self-completion, the presence of others during this part of the interview was also recorded. Table 4.4 shows that almost three-quarters of adult respondents (73%) who did the self-completion did so when no-one else was present. Around one in ten respondents (9%) who completed the self-completion did so when children were present in the room.

Table 4.4   Whether anyone else was present or not during the self-completion by sample type, 2010-11 BCS

	Core sample
	%
No-one else	73
Spouse/partner/girlfriend/boyfriend	12
Child(ren) under 16	9
Other household member (adult)	6
Someone else	3
Bases: All adult respondents who did the self-completion	*27,294*

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

Where anyone else was present in the room 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. For example, interviewers might try to ensure that the respondent was sitting with the screen facing a wall or was 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. In cases where someone else was present during the self-completion, it was not common for others to become involved in answering the questions (11%). In 5% of interviews someone else looked at or read the self-completion with the respondent, while in another 6% of interviews the respondent discussed the self-completion with other people.

Respondents aged 45-59 (15%), Asian respondents (23%), and Black respondents (14%) were more likely than average to have had someone else involved in answering the questions, either by looking at or reading the questions, or by discussing the questions.

Table 4.5 shows the amount of assistance that interviewers gave to respondents on the self-completion section. The vast majority of respondents who answered the questions (82%) used the laptop on their own without any help from the interviewer while about one in six respondents (18%) required some form of assistance with the self-completion. .

Respondents aged 45-59 (24%), Asian respondents (29%) and Black respondents (27%) were the most likely to have sought some help with the self-completion. This was primarily because these respondents were more likely to have asked the interviewer to complete the self-completion for them, rather than using the computer themselves.

Table 4.5   Amount of assistance given by interviewers with the self-completion questionnaire by sample type, 2010-11 BCS

	Core sample
	%
All done by respondent	82
Help given with one or two questions	2
Help given with more than one or two questions, but less than half	1
Help given with more than half, but not all	*[20]
Help given with all/nearly all	1
Completed by interviewer	14
Base: All adult respondents who did the self-completion	*27,295*

4.7   Length of interview

4.7.1   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

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[20] * Less than 0.5 per cent but more than 0

range 15 minutes to 180 minutes. On the 2010-11 survey, around 99% of interviews had a valid time within these ranges and are included in the analysis below.

4.7.2   Overall length of interview

The average (mean) core interview length during 2010-11 was 51 minutes. This is broadly the same length compared with recent years but has increased by 5 minutes since 2002 when the average length was 46 minutes. Table 4.6 shows the average interview length for the core sample since 2002-03.

Table 4.6 Average interview length over time

Survey Year	Average time (minutes)
2002-03	46
2003-04	46
2004-05	48
2005-06	48
2006-07	49
2007-08	48
2008-09	49
2009-10	49
2010-11	**51**

The main influence on core interview length was whether or not the respondent had been a victim of crime or not. The average interview length for non-victims was 47 minutes compared to 66 minutes for victims of crime.

The average length of interview by number of Victimisation Modules completed is shown in Table 4.7 below. Naturally, interview length was strongly related to the number of Victimisation Modules completed by the respondent, with those completing 4 or more modules (3.8% of victims) having an average interview length of 94 minutes.

Table 4.7   Average time of interview by number of Victimisation Modules, 2010-11 BCS

Number of Victimisation Modules	Average time (minutes)
Non victims	**47**
All victims	**66**
1	60
2	73
3	85
4 or more	94
All adult respondents	**51**

Most interviews took between 30 and 60 minutes, with 63% of all respondents completing the survey in this time. Just over one in eight (11%) completed the survey in less than 30 minutes, while 5% of respondents took 90 minutes or more.

Respondents aged 60 or over had a shorter average interview time compared with those aged under 60 (46 minutes and 54 minutes respectively), reflecting the fact that those aged 60 or over did not do the self-completion part of the interview and also that older people are less likely to be victims of crime.

4.7.3   Length of Victimisation Modules

As mentioned above the average length of the core survey is affected primarily by the number of Victimisation Modules completed by a respondent, with the average interview time for non-victims being 47 minutes compared with 66 minutes for victims of crime.

Table 4.8 shows that long Victimisation Modules (1-3) averaged about 8 to 11 minutes per module, while short Victimisation Modules (4-6) averaged 4 to 5 minutes per module. The time taken to complete the first Victim Module was greater than for modules two or three, suggesting that respondents speed up as they go through each subsequent module. This pattern has been evident in all previous surveys.

Table 4.8   Average time of each individual Victimisation Module, 2010-11 BCS

Victim Module number	Average time (minutes)
Victim Module 1	11.2
Victim Module 2	9.6
Victim Module 3	8.3
Victim Module 4	4.6
Victim Module 5	4.5
Victim Module 6	4.0

4.7.4   Length of part-sample modules

Because the BCS survey is highly filtered each respondent only complete a certain number of modules. Table 4.9 below shows the average time taken for each of the part-sample modules based only on those respondents who were asked the module.

Table 4.9   Average time of different survey modules, 2010-11 BCS

Part-sample module	Average time (minutes)
Module A	5.7
Module B	8.2
Module C	4.5
Module D	4.8
Drugs and drinking self-completion	5.2
Inter-personal violence self-completion	3.9

The overall timings of the self-completion are masked by the fact that all those who are not eligible for the self-completion (i.e. those aged 60 years or over) and those who refuse the self-completion have an average time of zero. Considering only those respondents who actually did the self-completion sections, the average time of the Drugs and Drinking module was 5 minutes, while the average time of the Inter-Personal Violence module was 4 minutes.

Just over half (54%) of respondents who completed the Drugs and drinking self-completion module did it in less than 5 minutes; 4% of respondents took more than 10 minutes to complete it. For the Inter-personal violence module, 80% of those who completed it took less than 5 minutes, and 4% took more than 10 minutes.

4.7.5 Length of the 10 to 15 year old interview

As with the core survey timing stamps were present throughout the 10 to 15 year old survey questionnaire to measure the interview length. Some unusually short or long interview times were removed. Any times of less than 8 minutes or more than 120 were removed.

The average interview length of the 10 to 15 year old survey was 20 minutes

Table 4.10 shows the average interview length by type of respondent. The average (mean) interview length of the 10 to 15 year old survey during 2010-11 was 20 minutes. As is the case with the core interview respondents who report having been a victim, of at least one crime, have a longer average interview length, 29 minutes compared with 16 minutes for non-victims. No changes were made to the 10 to 15 year old questionnaire between 2009-10 and 2010-11 and the interview length remained consistent between the two survey years.

Table 4.10   Average time of the 10 to 15 year old interview, 2010-11 BCS

	Average time (minutes)
Average interview length	**20**
Victims	29
Non-victims	16

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

4.8.1   Overall core response rates

The full response rate analysis for the 2010-11 issued core sample is shown in Table 4.11. One in ten issued addresses (10.5%) was identified as not being an eligible residential address (known as deadwood). The most common type of deadwood was empty or vacant residential properties, which accounted for 6% of all issued addresses.

Interviewers made contact with either the selected respondent or a responsible adult at 97% of eligible addresses, meaning a non-contact rate just under of 3%. There were

two types of non-contact. The most common (2.5% of eligible addresses) was where no contact was made with anyone at the address despite repeated calls over a lengthy fieldwork period. 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 had on the overall response rate is minimal. The remaining addresses classified as non-contact (0.2% of eligible addresses) were where contact was made with someone at the address, but no contact was made with the person selected for interview.

At eligible addresses the most common reason for not getting an interview was due to a refusal, which accounted for 17% of all eligible addresses. The most common types of refusal were where the person selected for interview refused to take part in the survey (8%), and where no information about the household was given meaning that the person selection could not be carried out (4%). Proxy refusals (someone refusing on behalf of the selected respondent) and refusals directly to Head Office were less common (see table 4.11).

A further 4% of eligible addresses were categorised as unproductive for other reasons including broken appointments, people who were ill or away during the period of the survey and people who had inadequate English to complete the survey.

Combining all the different types of unproductive addresses gave a final response rate of 75.5% for the 2010-11 survey. The response rate was similar to the previous year. In fact, response to the BCS has been broadly stable since 2001-02. Reasons for non-response were also broadly similar to previous surveys.

During the whole of 2010-11 a booklet of six first class stamps was sent with the advance letter as a „thank you' to people for taking part in the survey[21].

4.8.2   Performance against targets

Overall 46,380 interviews were achieved in 2010-11 against a target of 46,000 which is a gain of 380 interviews. The target response rate for the 2010-11 survey was 76% and the response rate achieved was 75.5%.

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21   See Grant C. et. al. (2006) 2004/5 British Crime Survey (England and Wales) Technical Report (London: BMRB) for details of experiment carried out on BCS to test the impact of stamps on overall response rates.

Table 4.11   Core sample response rate and non-response outcomes,
2010-11 BCS

	N	% of issued addresses	% of eligible addresses
Total addresses issued	**68,573**	**100.0**	
Addresses not traced/inaccessible	432	0.6	
Not built/ does not exist	85	0.1	
Derelict/ demolished	264	0.4	
Empty/vacant	3,991	5.8	
Second home/not main residence	850	1.2	
Business/ industrial	1,056	1.5	
Institution/communal establishment	179	0.3	
Other deadwood	315	0.5	
Total ineligible addresses	**7,172**	**10.5**	
Total eligible addresses	**61,401**	**89.5**	**100.0**
No contact with anyone in household	1,534	2.2	2.5
No contact with selected respondent	147	0.2	0.2
Total non contact	**1,681**	**2.5**	**2.7**
Office refusal	1,474	2.1	2.4
Refused all information	2,701	3.9	4.4
Personal refusal	5,187	7.6	8.4
Proxy refusal	802	1.2	1.3
Contact made, no specific appointment	428	0.6	0.7
Total refusal	**10,592**	**15.4**	**17.3**
Broken appointment	624	0.9	1.0
Temporarily ill/incapacitated	192	0.3	0.3
Physically or mentally unable	768	1.1	1.3
Away/ in hospital	361	0.5	0.6
Inadequate English	349	0.5	0.6
Other unsuccessful	454	0.7	0.7
Total other unsuccessful	**2,748**	**4.0**	**4.5**
Total unproductive	**15,021**	**21.9**	**24.5**
Full interviews	46,332	67.6	75.5
Partial interviews	48	0.1	0.1
Total interviews	**46,380**	**67.6**	**75.5**

4.8.3 Core response rates by Government Office Region

Table 4.12 shows the different response rates and reasons for non-response achieved by Government Office Region in 2010-11. This shows that across most regions the response rate was broadly similar, ranging from 81% in North East to 74% in East of England. Only in London was response to the survey noticeably lower, with a final response rate of 69%. The lower response rate achieved in London was due to a slightly higher than average refusal rate (19%), and non-contact rate (6%) compared with other regions. Lower response rates in London are a problem that is common to most major surveys, although the response achieved in London has improved over recent years.

Table 4.12 Core sample response rates and non-response by Government Office Region, 2010-11 BCS

	Percentage of eligible addresses:			
	Non-contact	Refusal	Other unproductive	Achieved interviews
	%	%	%	%
North East	2.2	13.3	3.6	80.9
North West	3.0	16.8	4.3	76.0
Yorkshire & The Humber	2.7	18.0	4.3	75.1
East Midlands	2.5	16.6	5.0	76.0
West Midlands	2.2	16.6	4.6	76.6
East of England	2.1	19.5	4.1	74.3
London	5.6	19.1	6.1	69.3
South East	1.7	17.2	3.6	77.6
South West	2.0	17.2	4.5	76.3
Wales	3.8	16.2	4.7	75.3

4.8.4 Core response rate by Police Force Area

As outlined in section 2.2 the aim was to achieve around 1,000 interviews in each Police Force Area, with larger sample sizes in the most populous Areas. In order to achieve this sample size within each PFA the amount of sample issued was based on actual average deadwood rates and response rates over the period 2008-2010.

Table 4.13 below shows the actual number of interviews achieved in each PFA and the response rates. This shows that in a number of Areas the target number of achieved interviews exceeded 1,000, while in other areas the number of achieved interviews fell slightly short. This is explained simply by the fact that the actual eligibility and

response rates achieved in certain Areas in 2010-11 were slightly different (either higher or lower) from the figures used to estimate the amount of sample to issue.

Table 4.13   Core sample achieved interviews and response rates by Police Force Area, 2010-11 BCS

PFA	Number of interviews		Response rate %
	Target N	Achieved N	
Avon & Somerset	1,000	975	77.5
Bedfordshire	1,000	981	74.1
Cambridgeshire	1,000	975	74.6
Cheshire	1,000	1,039	80.0
Cleveland	1,000	1055	78.7
Cumbria	1,000	1024	77.5
Derbyshire	1,000	975	77.3
Devon & Cornwall	1,000	992	73.7
Dorset	1,000	1,056	75.2
Durham	1,000	1,043	80.9
Dyfed Powys	1,000	893	75.4
Essex	1,000	1,026	76.1
Gloucestershire	1,000	957	73.7
Greater Manchester	1,425	1,370	72.3
Gwent	1,000	1004	75.3
Hampshire	1,000	1,013	79.6
Hertfordshire	1,000	1022	71.2
Humberside	1,000	1014	75.1
Kent	1,000	1029	81.0
Lancashire	1,000	1,040	76.6
Leicestershire	1,000	996	73.3
Lincolnshire	1,000	1,039	79.4
Merseyside	1,000	949	75.1
Metropolitan	3,900	4,216	69.3
Norfolk	1,000	963	72.8
North Wales	1,000	993	77.6
North Yorkshire	1,000	1,017	75.8
Northamptonshire	1,000	974	72.6
Northumbria	1,000	1,070	83.1
Nottinghamshire	1,000	1,069	77.3
South Wales	1,000	955	73.2
South Yorkshire	1,000	954	77.6
Staffordshire	1,000	939	72.6
Suffolk	1,000	956	77.5
Surrey	1,000	1,042	77.0
Sussex	1,000	1,018	76.4
Thames Valley	1,125	1,151	74.6
Warwickshire	1,000	1,059	81.6
West Mercia	1,000	1,009	77.8
West Midlands	1,375	1,407	74.9
West Yorkshire	1,175	1,116	72.4
Wiltshire	1,000	1,005	81.6

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

Since large administrative areas such as Government Office Regions contain a variety of different types of area it is useful to examine response to the survey broken down by area type. Table 4.14 shows the response rates and reasons for non-response by different types of area, showing that overall response rates tended to be lower in areas categorised as inner city compared with non inner city areas (72% and 76% respectively). This difference in response rate explains why 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 7.2.2).

Similarly, the response rate in urban areas was lower compared with that achieved in rural areas (74% and 79% respectively). Response also varied significantly by ACORN[22] Category, being highest in areas classified as „Wealthy Achievers' (78%) and lowest in areas classified as „Urban Prosperity' (70%). There was similar variation in response by Output Area Classification, ranging from 80% in „Countryside' Areas to 68% in „City living[23].

Looking at the differences in response rates by types of area shows how most of the response differential is due to variation in the non-contact rate, while the refusal rate tends to be fairly consistent. Thus, while the refusal rate varied between 15% and 18% in the different types of areas shown in Table 4.14, the non-contact rate varied from 1% to 8%.

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[22] For details of ACORN categories please see: http://www.caci.co.uk/acorn-classification.aspx/
[23] For details of Output Area Classification see http://areaclassification.org.uk/

Table 4.14   Core sample response rates and non-response by types of area, 2010-11 BCS

	Percentage of eligible addresses:			
	Non-contact	Refusal	Other unproductive	Achieved interviews
	%	*%*	*%*	*%*
Inner city[1]	5.1	16.2	6.5	72.2
Non-inner city	2.5	17.4	4.3	75.9
Urban[2]	3.1	17.6	4.9	74.4
Rural	1.7	16.0	3.2	79.1
ACORN Category				
Wealthy Achievers	1.6	17.0	3.0	78.4
Urban Prosperity	6.2	17.7	6.3	69.8
Comfortably Off	2.0	17.8	4.1	76.1
Moderate Means	3.4	17.1	5.4	74.1
Hard Pressed	3.3	16.9	5.5	74.4
Output Area Classification				
Blue Collar Communities	2.1	16.9	4.5	76.5
City Living	6.9	18.8	6.0	68.4
Countryside	1.5	15.4	3.0	80.1
Prospering Suburbs	1.4	18.1	3.2	77.2
Constrained by Circumstances	3.6	17.0	5.6	73.9
Typical Traits	2.8	17.9	4.3	75.0
Multicultural	5.5	16.5	8.1	69.9

[1] Inner city is based on the BCS definition that has been used for many years. See section 7.2.2 for more details.

[2] This is based on the ONS definition of urban-rural areas, where urban is classed as „urban –sparse' and „urban –less sparse' and all other areas are classed as rural

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

Table 4.15 shows how response rates on the 2010-11 survey varied according to the type of property, ranging from 81% among detached and semi-detached houses to 72% among flats.

The differential response rates achieved at different types of flats shows the impact on response rates of two particular aspects of flats, namely whether or not a property has a communal entrance and whether or not the communal entrance is lockable (e.g. controlled entry phone system). Not surprisingly, flats with communal entrances that had controlled entry systems were the most difficult type of property for interviewers to gain response. In 2010-11, the response rate at these types of property was 69% compared with 78% for flats with their own (non-communal) entrances. Flats with locked entrances had a higher than average level of non-contact (8%). This highlights the difficulty faced by interviewers in trying to gain an interview at an address where they are unable to make direct face-to-face contact with people, often having to communicate via intercom systems.

Table 4.15   Core sample response rates and non-response by types of property (recorded by interviewers), 2010-11 BCS

	Percentage of eligible addresses:			
	Non-contact	Refusal	Other unproductive	Achieved interviews
	%	%	%	%
Detached/semi-detached house	1.3	14.0	3.5	81.2
Terraced house	2.6	14.9	5.1	77.4
Maisonette	3.8	13.6	4.7	77.8
Flats with:				
Own entrance	3.7	12.7	5.8	77.8
Non-lockable communal entrance	2.3	17.9	3.3	76.4
Lockable communal entrance	7.5	16.5	7.2	68.9
All types of flat	*6.3*	*15.5*	*6.8*	*71.5*

Taken together these figures go some way to explain the lower than average response rate in London, although there are clearly other factors involved as well. For the country as a whole, flats represented only 14% of the issued eligible sample, while flats with locked communal entrances represented 10% of the issued eligible sample. However, in London these types of properties represented 37% and 28% of the issued eligible 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 and the greater difficulties faced by interviewers in making contact.

Apart from the actual type of property, 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. These might be considered to be an indication of the degree of physical disorder within a particular area, although these observations are clearly open to a high degree of subjectivity. Table 4.16 shows that there was some association between interviewer observations and the final response rate: response rates were highest in areas that had a low level of physical disorder and lowest in the areas that had the highest levels of physical disorder.

Table 4.16   Core sample response rate by evidence of physical disorder (recorded by interviewer), 2010-11 BCS

	Very common	Fairly common	Not very common	Not at all common
How common is…	**%**	**%**	**%**	**%**
Litter or rubbish lying around	74	76	77	81
Vandalism, graffiti or damage to property	78	76	76	80
Homes in poor condition or run down	75	76	77	80

4.9   Response to the self-completion questionnaire

The last part of the core questionnaire involved a self-completion module which was asked of all respondents aged 16-59. In 2010-11 there were two self-completion modules on the survey:

- Use of illicit drugs and drinking behaviour
- Experience of domestic violence, sexual victimisation, and stalking.

Although respondents were encouraged to use the computer themselves, if they did not want to use it for some reason, interviewers were allowed to administer the modules provided that no-one else was present in the room. Where the self-completion part of the survey was administered by the interviewer the domestic violence, sexual victimisation and stalking modules were not completed, since these questions were considered too sensitive to be read out by the interviewer.

Table 4.17 shows that 92% of eligible respondents in the core sample answered the self-completion module, with 79% of them entering their answers directly in to the laptop themselves and 13% asking the interviewer to enter their answers for them.

Table 4.17   Response to the self-completion module, 2010-11

	Core sample
	%
Refused	8
Completed by interviewer	13
Accepted by respondent	79
Overall self-completion response	*92*
Base	*29,582*

Table 4.18 shows how response to the self-completion questionnaire varied according to the demographic characteristics of adult respondents.

There was no difference between men and women in terms of response to the self-completion. Older respondents were slightly more likely than younger respondents to refuse to complete the self-completion questions (8% of 45-59 year olds compared with 5% of 16-24 year olds). More noticeable, however, was the fact that older respondents were more likely than younger ones to ask the interviewer to enter their answers for them (17% of 45-59 year olds compared with 8% of 16-24 year olds).

Some of the most noticeable differences were between respondents from different ethnic groups. Only 6% of White respondents refused to do the self-completion compared with 22% of Asian and 17% of Black respondents. Asian respondents were more likely than White respondents to ask the interviewer to enter their answers for them (17% of Asian respondents compared with 13% of White respondents).

There were also some differences by socio-economic classification, with respondents from routine and manual occupations being less likely than those from managerial and professional occupations to answer the self-completion (91% and 95% respectively). Respondents from routine and manual occupations were also more likely than those from managerial and professional occupations to ask the interviewer to enter their answers for them (18% and 9% respectively).

Table 4.18   Response to the self-completion questionnaire by socio-demographic characteristics of respondents (core sample), 2010-11 BCS

	Refused	Completed by interviewer	Accepted by respondent[1]	*Overall self-completion response*	*Bases:*
	%	*%*	*%*	*%*	*N*
Sex					
Male	8	13	79	*92*	*13,484*
Female	8	13	79	*92*	*16,098*
Age					
16-24	5	8	88	*95*	*3,857*
25-34	8	11	81	*92*	*6,422*
35-44	8	12	80	*92*	*7,881*
45-59	8	17	75	*92*	*11,422*
Ethnicity					
White	6	13	81	*94*	*26,299*
Mixed	9	17	74	*91*	*317*
Asian	22	17	62	*78*	*1,471*
Black	17	16	67	*83*	*875*
Other ethnic group	17	15	68	*83*	*574*
NS-SEC					
Managerial & professional	5	9	86	*95*	*10,449*
Intermediate occupations	8	12	80	*92*	*5,804*
Routine & manual	9	18	74	*91*	*10,325*
Unclassified	12	13	74	*88*	*3,004*
Total	**8**	**13**	**79**	**92**	*29,582*

[1] Respondent used the laptop on their own

Table 4.19 shows the reasons given by respondents either for refusing the self-completion module or for asking the interviewer to enter their answers for them.

Running out of time was the most common reason cited for respondents refusing to complete the self-completion (mentioned by 56%). A dislike of computers was the most common reason why respondents asked the interviewer to enter their answers for them (mentioned by 36%).

Table 4.19   Reasons for refusing self-completion questionnaire or for completion by interviewer (core sample), 2010-11 BCS

	Refused	Completed by interviewer	Total
	%	%	%
Don't like computers	13	36	28
Ran out of time	56	28	38
Language problems	10	6	8
Couldn't be bothered	6	10	8
Children in room	9	9	9
Disability	3	4	4
Eyesight problems	2	3	3
Could not read/write	2	2	2
Confidentiality worries	3	*	1
Other people in room	3	2	2
Objected to study	2	*	1
Other reasons	8	11	10
Bases:	*2,237*	*3,880*	*6,117*

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

Table 4.20 shows the reasons given by people who refused the self-completion or who had the interviewer enter their answers for them broken down by age and ethnic group. This shows that older respondents were more likely than younger respondents to cite that this was due to due to a dislike of computers (mentioned by 40% of 45-59 year olds compared with 10% of 16-29 year olds).

Non-white respondents were more likely than white respondents to mention language problems. And this was given as a reason by 28% of Asian respondents and 9% of Black respondents.

Table 4.20   Reasons for refusing self-completion questionnaire or for completion by interviewer by age and ethnic group (core sample), 2010-11 BCS

	Age			Ethnic group				
	16-29	30-44	45-59	White	Mixed	Asian	Black	Other
	%	%	%	%	%	%	%	%
Ran out of time	46	41	32	38	37	37	43	30
Don't like computers	10	20	40	30	25	18	23	16
Children in room	18	14	2	9	10	11	10	5
Couldn't be bothered	9	8	9	8	13	6	11	8
Language problems	11	11	4	4	7	28	9	41
Disability	4	3	5	4	5	1	3	2
Eyesight problems	1	2	5	3	1	2	2	2
Could not read/write	3	2	2	2	1	3	2	4
Confidentiality worries	2	2	3	2	0	2	4	3
Other people in room	4	2	2	2	4	2	2	2
Objected to study	1	1	1	1	1	1	2	0
Other reasons	8	10	11	10	10	8	8	8
Bases:	*1,018*	*2,201*	*2,898*	*4,991*	*83*	*564*	*291*	*181*

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

4.10   Full and Partial Interviews

For a core interview to be regarded as valid, respondents had to answer to the end of the screener questions. Any interview which was abandoned before the end of the screener questions was not regarded as useable and was not put on the data file.

An interview was counted as a full interview for the core sample if the respondent completed to the end of the demographics module. If the interview was stopped before the end of the demographics module it was coded as a partial interview. Full and partial interviews were recorded separately in the field figures. In 2010-11, 99.9% of interviews achieved on the core sample were full interviews and only 0.1% (n=48) were partial interviews.

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. The BCS counts crime according to the victim's account of events, rather than requiring criminal intent to be proven. This is reflected in how the police record crimes under the National Crime Recording Standard using the Counting Rules[24].

In order to classify offences, detailed information is collected about the incidents reported by respondents in the Victimisation Modules. Once the data are returned to the office, all Victimisation Modules are reviewed by specially trained coders in order to determine whether what has been reported represents a crime or not and, if so, what offence code should be assigned to the crime.

Apart from some minor changes, the code frame and the instructions to coders for the core survey have remained stable since 1982. The operational procedures used for assigning codes on the 2010-11 survey have been in place since 2001.
The coding manual itself is reviewed on an annual basis and was significantly revised in 2010 to incorporate the instructions for coding offences against 10 to 15 year olds.

During 2010-11, the Offence Coding System consisted of the following steps:
- For each Victimisation Module a paper-based summary was produced.
- In addition to these paper-based summaries the coders used a specially developed computer assisted questionnaire to help them arrive at a final offence code for each Victimisation Module.
- A supervisor checked any codes that the original coder was uncertain about. Additionally, 5% of codes where the coder was certain of the outcome were also checked as a further quality check. These are systematically selected from all cases that have been coded (i.e. every n*th* case) in a particular period.
- Researchers at the Home Office checked:
  - Any codes that TNS-BMRB were uncertain about
  - Certain types of incident that were automatically referred (e.g. arson)

o   A proportion (5%) of certain codes as part of a quality control check

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

Figure 5.1   British Crime Survey Offence Coding Flowchart
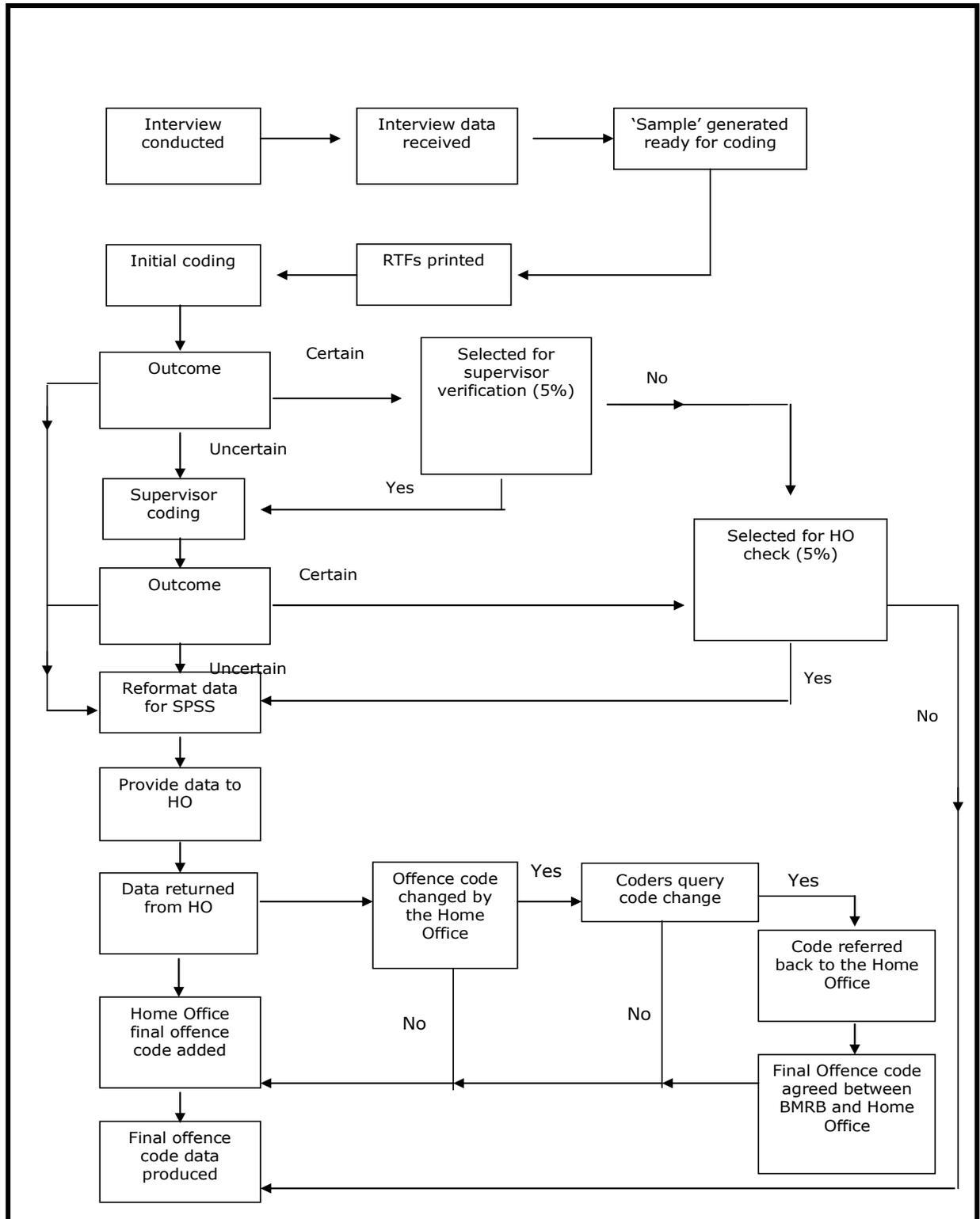
5.1.1   The automatically generated offence code

In 1996 a programme was introduced that automatically generated an offence code based on the answers to a number of pre-coded variables in the Victimisation Module. The programme that was used for the 2010-11 survey was the same as that used on the survey since 2001.

An automatic code cannot be generated in all cases, and in 2010-11 no automatically generated code was produced for just over a quarter (27%) of Victimisation Modules due to missing codes or 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 2010-11 survey for Victimisation Modules where a code was automatically generated, it was the same as the final offence code in 73% of cases.

5.1.2   The coding task

Coders are provided with a paper-based print out of the key variables from each Victimisation Module 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 I 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 Victimisation Module, 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 but was revised in 2010 to incorporate the coding guidelines for the 10 to 15 year old survey. The manual 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 I 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 Victimisation Module which the coder is uncertain about is automatically referred to their supervisor for checking. In addition, the supervisor checks 5% of codes which coders were certain about.

5.1.3   Home Office coding

All cases where the coders are uncertain about the correct code to assign are automatically referred to the Home Office.

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

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

Researchers at the Home Office coded each of the Victimisation Modules sent to them (using the paper-based document) and returned the spreadsheet with their code and any comments added. 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 TNS-BMRB coders had marked as "certain". If the TNS-BMRB coders disagreed with such a coding decision, this was fed back to both TNS-BMRB researchers and Home Office researchers for further consideration and discussion.

In total 1,468 cases were sent to the Home Office for checking as part of the 2010-11 survey, which represented about 10% of all Victimisation Modules.

Of the Victimisation Modules sent to the Home Office:

- 24 were code 01s which were automatically referred to Home Office. This covers cases of aggravated burglary, duplicate cases and cases where the Victimisation Module was invalid;

- 156 were code 02s (cases where the TNS-BMRB coder was not certain about the code) which were also automatically referred to the Home Office for checking.

- 603 were part of the quality control check.

- 686 were related Victimisation Modules. To ensure that those checking offence codes had complete information all the Victimisation Modules belonging to an individual respondent were sent to the Home Office, rather than just the single Module under consideration.

Of the 1,469 Victimisation Modules sent to the Home Office 99 cases had their code changed by the Home Office, representing 7% of all cases sent. This level of change was fairly static across the survey year suggesting a degree of stability in the offence coding process.

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

- in 5 cases offences were coded for referral to the Home Office; as this is not a valid code this was changed in all cases;

- in 4 cases where the module was judged to be invalid by TNS-BMRB coders no codes were changed;

- in 15 cases referred as duplicates, 3 (20%) were changed by the Home Office;

- in 156 cases where TNS-BMRB coders were uncertain, 37 (24%) were changed by the Home Office;

- in 603 cases sent for quality control 20 (3%) were changed by the Home Office; and

- in 686 related cases, 34 (5%) were changed by the Home Office.

In all cases where the Home Office changed a code that TNS-BMRB coders or supervisors had been certain about, this was double checked and verified by TNS-

BMRB upon return of the coding from the Home Office. Where TNS-BMRB did not agree with the Home Office decision cases were referred back to the Home Office for re-checking. Of the 99 cases changed by the Home Office, 36 were referred back for re-checking. In 17 cases the original TNS-BMRB code was deemed to be correct and was re-instated as the final code and in 17 cases the Home Office code was deemed to be correct. For the remaining 2 cases a different code was decided upon after further discussion. After all queries had been resolved 82 cases were changed by the Home Office, representing 6% of all cases sent.

5.1.4   Final Offence Code

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

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

The consistency checks carried out are as follows:

- Assaults where no force or violence was recorded as having been used
- Burglary where entry to the property was recorded to be authorised
- Car thefts where no car was recorded as being stolen, or where the police were not informed
- Sexual assaults where there was no sexual element to the assault recorded
- Snatch thefts where the item stolen was not recorded as being held or carried
- Other thefts where the item stolen was recorded as being held or carried
- Wounding where no injury was recorded as being sustained
- In scope offences where the offender was perceived by victim to be mentally ill
- Thefts where nothing has been recorded as having been stolen
- Vandalism where no damage has been recorded
- Threats where no threat has been recorded

All cases that fail these checks are examined individually by a researcher and, if changes are required the revised code is reviewed by a coding supervisor, Where clear anomalies in the data do exist it is up to the judgment of the researchers to decide which bits of information should be prioritised in arriving at the final agreed offence code. In such cases, greater credence tends to be given to a good verbatim description of the incident over the answers to specific pre-coded questions where for example anomalies may be a result of interviewer mis-keying.

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   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 Ascribe, a Windows based coding package.

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.

5.3   Coding of occupation and socio-economic classification

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

Occupations were coded using the Standard Occupational Classification 2000 (SOC2000). All occupational coding was done centrally by specialist coders once the data were returned by interviewers. Coding was done using CASCOT, a package widely used to code occupation, with coders using the manuals for reference.

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

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

5.4   Data processing on the 10 to 15 survey

The offence coding system used for the 10 to 15 year olds survey was based on the system designed for the core survey but was adapted to be suitable for the types of incidents experienced by 10 to 15 year olds. Full details of the development of the coding system can be found in the Development report.

The main difference between the core and 10 to 15 year old coding is the use of summary offence codes. These a codes are applied to low level incidents where only summary information is collected through the mini victim form rather than full and detailed information that is collected in the full victim form.
These summary codes are:

      Code 116 – Aggressive behaviour

      Code 117 – Attempted aggressive behaviour

      Code 146 – Theft with aggressive behaviour

      Code 147 – Attempted theft with aggressive behaviour

      Code 166 – Theft

      Code 167 – Attempted theft

      Code 186 – Damage to property

      Code 187 – Attempted damage to property

      Code 196 – Intimidation/coercion

5.5   Home office coding for 10 to 15 year old survey

As with the core survey all cases which the coders are uncertain about are referred to the Home Office for further verification. In addition 20% of all codes which TNS-BMRB were certain about were selected and sent to the Home Office for quality control checking. This is a higher proportion of cases than is sent for the core survey which reflects the fact that the offence coding system has recently been developed and requires additional quality checks to ensure all scenarios have been covered in the guidance.

In total 614 cases were sent to the Home Office for checking as part of the 2010-11 10 to 15 year olds survey, which represented around 36% of all victimisation modules.

Of the victimisation modules sent to the Home Office:

- 3 were automatically referred to the Home Office. This covers cases including any sexual element, duplicate cases and cases where the victimisation module was invalid.
- 70 cases where the TNS-BMRB coder was not certain about the code
- 264 were part of the quality control check
- 277 were related victimisation modules

Of the 614 victimisation modules referred to the Home Office 57 had their code changed by the Home Office, representing 9% of all cases sent. This is a higher percentage than for the core survey and reflects the fact that the coding system for the 10 to 15 survey had been newly developed and queries were still being raised across the coding teams as to the accurate code to be applied in certain cases. The codes changed by the Home Office according to the categories outlined were as follows:

- In 10 cases offences were coded for referral to the Home Office; as this is not a valid code this code was changed in all cases
- In 3 cases referred as duplicates no cases were changed
- Of the 70 cases where TNS-BMRB coders were uncertain 23 (33%) were changed
- Of 70 cases sent as part of the quality control check 23 had their codes changed (5%)
- Of the 277 related forms 20 (7%) had their codes changed.

In all cases where the Home Office changed a code the code was reviewed by the TNS-BMRB coders. In total 34 cases were referred back to the Home Office with queries regarding the change made and in 18 cases the original TNS-BMRB code was restored. After all queries had been resolved 39 cases were changed by the Home Office, representing 6% of all cases sent, this is a marked improvement on the first year of the coding for the 10 to 15 year old survey when 18% of cases sent were changed.

5.5.1   Final offence code

The SPSS set delivered to the Home Office includes all the offence codes that have been given to each victimisation Module at every stage of the coding process. It also includes an additional variable „Offclass' which defines whether an incident is classified as a „relatively minor' incident or as a „relatively serious' incident. The flowchart used for classification of offences in 2010/11 is included below.   This classification is not part of the coding process but is derived in SPSS based on answers to a small set of questions coded by the coders covering:

- Whether there was INTENTION to steal, hurt or damage
- Whether the victim knew the offender
- The level of any hurt inflicted or cost of items stole or damaged[25]

The same consistency checks as are run on the adult data are run on the 10 to 15 data to check the offence code. In addition checks are run to ensure that any serious offence codes (such as wounding etc) have not been classified as relatively minor offences and that summary or full offence codes have been applied correctly to mini and full victim forms respectively.

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[25] The guidelines for defining the level of hurt inflicted or cost of any damage or theft are included in the coding manual in Volume II (Appendix H, pages 9 and 10).

Flowchart for classifying 10 to 15 year old incidents as included or excluded from crime count -Perpetrator known and not know to victim
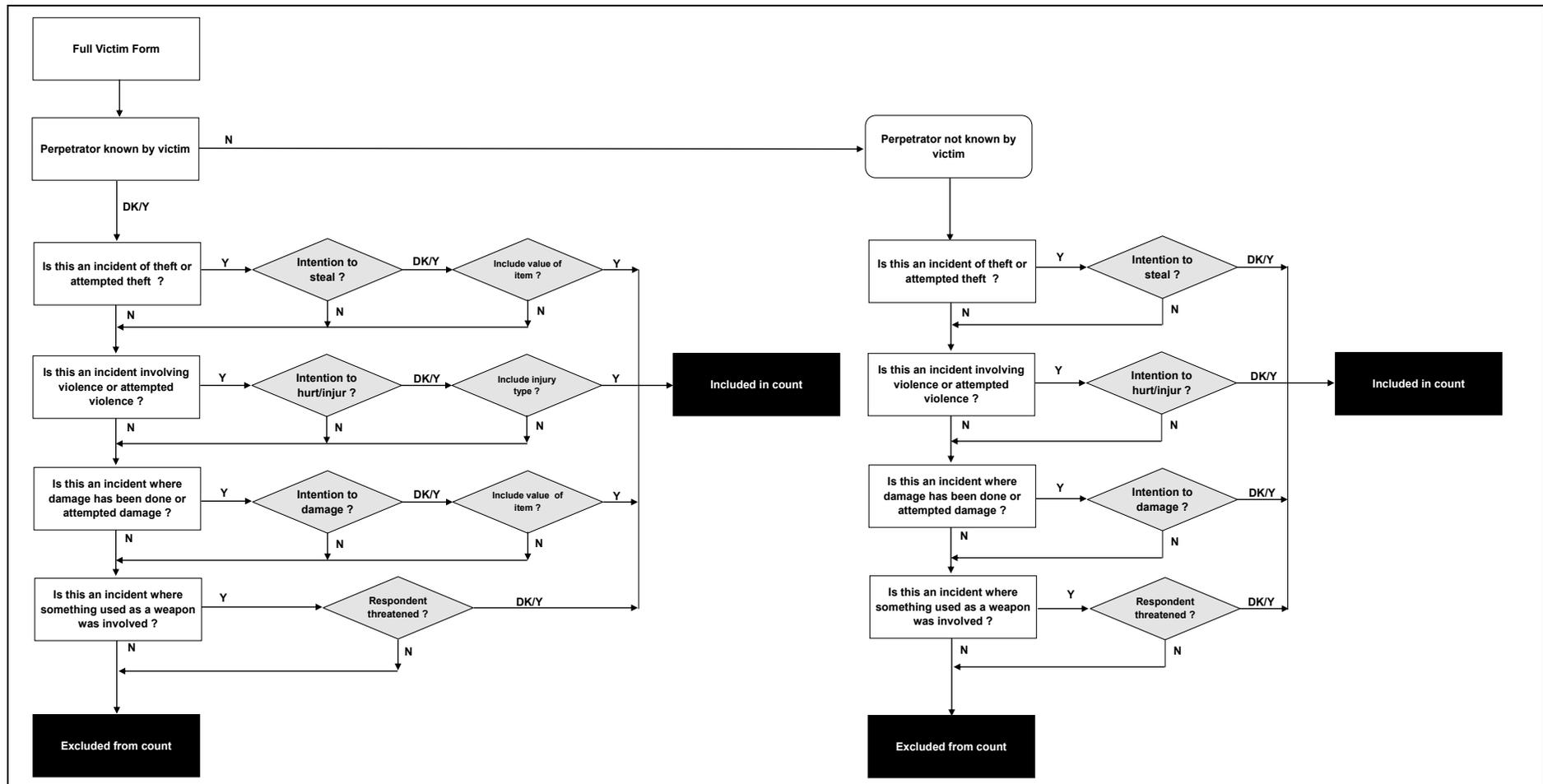
5.6 Coder reliability test (2010/11)

The coder reliability test measures the consistency of offence coding between individual coders. Since 2001 the coder variability test has been conducted three times in 2002, 2004 and 2010. Coders from the Home Office and TNS-BMRB take part in the test.

Coders are each required to code the same 100 cases and the codes assigned by each are compared. The test using a Kappa score on a scale of 0-1 to measure consistency between coders where a score 1 represents a perfect match for all coders.

For the adult offence coding a consistently „excellent' score has been achieved in all three tests (from 0.82 in 2002, to 0.84 in 2004 and 2010). The 10 to 15 survey was included in the test for the first time in 2010 achieving a score of 0.72 across all coders (this figure was unsurprisingly lower following the recent introduction of the survey and development of the coding framework).

5.6.1 Summary

Coders from TNS-BMRB and the Home Office were compared to assess overall levels of agreement.

When under „test' conditions, the agreement was found to be „excellent' with a score of 0.84 among the adult cases, and a „good' score of 0.72 among the 10 to 15 year old cases.

Overall, for adult cases examined as part of their day to day process, agreement was found to be excellent, averaging a score of 0.81 across all the coders.

For 10 to 15 year old cases, examined as part of their day to day process, the overall score was lower at 0.68, but is still considered good, especially taking into account its recent introduction.

5.6.2 Method

One hundred adult victim forms and 100 child victim forms were selected from interviews carried out between April and June 2009.

The 100 forms were randomly selected from all interviews conducted between April and June 2009. Prior to selection, the list of victim forms was stratified by final offence code to ensure that the 100 cases selected had crimes types in similar proportions to the population. However, duplicate forms (those coded 02) were excluded from the sample (as to assess these, coders would need access to all other Victim Forms recorded for that respondent, which would have increased the scope and time required for this exercise).

One case was excluded from the child selected cases as the victim form was blank leaving 99 cases to be coded.

For the TNS-BMRB coders, the coding was investigated for two approaches. The first approach was to look at the variability when the coders assigned a code using the process as would normally be applied on a day to day basis, including referrals to the Home Office where appropriate. The second approach was under „test' conditions, where they were asked not to refer cases to the Home Office. In both methods coders were asked not to confer with each other and to assign the final offence code independently.

The results from both approaches are examined for both the adult and 10 to 15 codes.

For the adult cases, the coding was carried out by 5 Home Office coders, 7 coders on behalf of TNS-BMRB and 1 Auto-coder (automated coding system).

For the 10 to 15 survey, the coding was carried out by 5 Home Office coders, 6 coders on behalf of TNS-BMRB and 1 Auto-coder (automated coding system).

The variability of coders is determined by an agreement index – Kappa, which is explained here in more detail.

5.6.3 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 to assess each individual coder. This agreement measure will be between 0 and 1; 1 would correspond to a pair of coders giving every case the same code whereas a score of 0 would indicate no cases had been identically coded by the two coders.

The formula for the kappa score is given as:

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

where p0 is the observed proportion of occasions where the two coders agreed, and pe 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 1 below gives an illustrative example. Consider the following table of where two coders have 100 answers to assign to 5 different codes.

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

	CODE	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

So, for example, there were 15 cases where coder A and coder B agreed that code 1 was the correct code to use. There were another 6 cases where coder A thought that

code 1 was appropriate but coder B used code 2. The total correct proportion of agreement (p0) is the sum of the diagonal counts divided by the total. In this case it is 63/100, or .63.

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

The kappa score would be calculated as:

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

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

Table 5.2: Kappa agreement scores

Kappa Value	Level of Agreement between coders
Less than 0.40	**Poor**
0.40 – 0.75	Fair to Good
Greater than 0.75	Excellent

5.6.4 Kappa scores for this test

Kappa scores were calculated separately for adult cases and 10 to 15 survey cases. The scores are shown for various coder groupings:

- All individual coders against each other (excluding the autocoder)
- Home Office individuals against each other
- Home Office individuals against TNS-BMRB average (excluding autocoder)
- TNS-BMRB individuals against each other (excluding autocoder)
- TNS-BMRB individuals against Home office average (excluding autocoder)
- All individual coders against each other (including the autocoder)

For illustrative purposes the last score includes the auto-coder, and confirms its poor performance as a coding tool.

They were firstly investigated using the „process' approach, which compared the codes assigned as they would have been assigned under the normal rules of the coding process. This means that as a coder assigns a case, if they are unsure, the case will be referred to a supervisor, and if necessary on to the Home Office.

They were also assessed under „test' conditions where all coders were advised not to confer, and not to refer any cases to supervisors or to the Home Office. This only applies to those in TNS-BMRB.

For the Adult cases, the TNS-BMRB coders are labelled A2 – A8, and the Home Office coders are labelled HA9 to HA13.

For the 10 to 15 survey cases, the TNS-BMRB coders are labelled Y2 – Y7, and the Home Office coders are labelled HY8 to HY12.

NB. The adult and 10 to 15 survey coding experiments have been treated separately, and so Coder number A3 does not necessarily correspond with coder number Y3.

5.6.5   Process conditions variability

For the adult cases, the overall score excluding the auto-coder was 0.81. This is considered a high score, and shows a high level of agreement, beyond what may arise by chance.

All but one coder scored above 0.79, indicating strong levels of agreement. One coder scored lower, at around 0.71, which is still judged to be a good score. (When this coder is removed, the level of consistency increases from 0.81 to 0.82.)

It should be noted that in testing the process there were a number of cases assigned a code 01 ‚Refer to Home Office' by TNS-BMRB coders which is not a valid code for Home Office coders. In comparing the results therefore across both organisations there was inevitably no consistency in coding across these cases as the TNS-BRMB code was not available to Home Office coders to use.

The auto-coder was included for one set of comparisons to re-assess its use as a means of coding. This shows a low level of consistency with the other coders, and demonstrates its poor performance as a sole coding tool.

Excluding the auto-coder, there is also a high level of internal consistency among TNS-BMRB and the Home Office.

Looking at the consistency between the two organisations, the scores also show high levels of agreement between them.

For the 10 to 15 survey cases, the overall score is lower at 0.68.

5.6.6   Test conditions variability

Coders were also assessed under ‚test' conditions where all coders were advised not to refer any cases to the Home Office[26]. This only applies to those in TNS-BMRB, and as such Home Office score are not reported on their own in this section.

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[26] In reality where coders are unsure of a code after discussion they have the option to assign a code 01 ‚refer to Home Office'. This option was removed for the test using ‚test' conditions.

For the Adult cases, the overall score excluding the auto-coder is 0.84. Scores are still high among TNS-BMRB for the Adult cases, when assessed under „test' conditions.

For the 10 to 15 survey, scores are better at an overall average of 0.72.

5.6.7 Conclusions

Both the adult and 10 to 15 coding shows a good level of agreement among coders. The 10 to 15 scores are lower, and this reflects the fact that the 10 to 15 coding had recently been introduced at the time the test was completed and the coding scheme itself for 10 to 15 year olds was still in development. Since the variability test was conducted further changes have been made to the way in which 10 to 15 year old offences are coded.

The adult score has remained consistently high in all three variability tests conducted with a score of 0.84 being achieved for the last two tests. This is an „excellent' score however analysis of the inconsistencies in the coding highlighted some issues that could be addressed through additional briefing of the coders or updating the coding instructions. These inconsistencies have been explored in more detail below.

5.6.8 Qualitative Analysis of inconsistent coding

This section looks in more detail at cases where there were inconsistencies in the codes applied. It does not attempt to look at every single cases but has picked out those where inconsistency might not be expected (for example „theft of a pedal cycle' should be relatively straightforward to code'), cases where there are high levels of inconsistency or cases where there may be low levels of inconsistency but the code is so common that it is useful to explore any inconsistency that does exist.

The modal code is the code most commonly assigned to a case across all coders taking part in the test. Table 5.3 looks at the frequency at which the modal code was applied across the coders. Overall the Kappa scores show that consistency of coding is good and this is reflected in the fact that for adult cases 56 out of 100 cases were assigned the same code by all coders who took part in the variability test. For 18 cases in the adult survey the modal code was applied by 11 out of 12 coders.

Table 5.3 Number of times modal code applied across all coders

Number of times modal code used	Number of adult cases	Number of 10 to 15 cases
12	56	n/a
11	18	41
10	6	20
9	10	10
8	3	7
7	4	5
6	2	6
5	0	8
4	0	1
3	1	1
Total	100	99

Table 5.4 shows for each modal code assigned how many cases that particular offence code was assigned to and the average number of codes assigned for each case across all coders who took part in the variability test. Thus the closer the average score is to 1 the less variation was seen across all coders for that code. For example code 12 (Other wounding) was the modal code applied in 3 separate cases but where this was the modal code there was a fairly high degree of disagreement among the coders with an average of 3.33 different codes applied to each case across the 12 coders.

The highest average is 4 codes applied to a case where the modal code was 54 (however there was only one case).

Table 5.4 Modal codes used by number of times and average number of codes assigned to each case.

Modal code	Number of cases	Average number of codes assigned
12	3	3.33
13	5	1.20
31	1	1.00
41	2	2.00
43	1	1.00
44	1	1.00
45	1	1.00
50	1	3.00
51	2	2.50
52	3	1.33
53	2	3.00
54	1	4.00
58	2	1.50
60	1	1.00
61	9	1.22
62	1	1.00
64	5	1.40
65	8	1.00
67	8	1.75
69	1	2.00
71	4	1.50
81	3	1.67
82	14	1.50
83	3	2.33
84	4	1.75
86	1	1.00
87	3	1.33
89	1	3.00
91	6	1.17
93	3	1.33

The most common modal code was Code 82 „Criminal damage to a motor vehicle'
which was applied to 14 cases. Code 61 „theft of a car' was coded for 9 cases and
codes 65 „theft from outside dwelling' and 67 „other theft' for 8 cases each.

Where there were discrepancies between codes these cases have been explored in
more detail below.

Theft of a pedal cycle – Code 64

Codes applied (64, 58, 46)

This would appear to be a very straightforward code where there should be hardly any variation in the coding yet in two out of 5 cases one of the coders had assigned a different code. In one case a code 58 ‚Burglary from non-connected outhouse' was assigned. However in this case the bicycle was the only item stolen from the outhouse and the guidance states that this should therefore be coded as theft of a bicycle.

The second case has been assigned a code 46 which is a non-existent code. This is a case where the digits have been transposed. This is not possible to do using the TNS-BMRB CATI coding system as codes are assigned through the CATI coding script and not manually typed in. In this particular case the code was assigned by a Home Office coder and therefore this could happen on ‚live' coding. However all cases that are changed by the Home Office are reviewed by TNS-BMRB coders before being changed and therefore this case would have been identified in the existing checking procedures.

Conclusion – No further action required

Code 12 'Other wounding'

20781501 – all code 12
41191302 – code 12 and 13
40931703 – Codes applied 12, 89, 19, 21, 93, 13

Code 12 was the modal code used in 3 cases. In only one out of the three cases all 12 coders assigned the same code. In the second case 9 coders assigned a code 12 and 3 assigned a code 13. In this case the victim was kicked in the face and suffered minor bruising and cuts but did not require any medical attention. The manual states that the injuries required to assign a code 12 would be substantial bruising, cuts etc. There has generally been some disparity around the definition of cuts and scratches (scratches would not be sufficient for a code 12 to apply).

In the third case seven different codes were applied. It was difficult to establish with any confidence the extent of the violence used in the case and who violence was used against. The description read "one of the brothers was having a disagreement

with one of the drinkers in the pub, it resulted in him hitting him over the head with a glass which shattered everywhere, i went to the aid of the chap and was told in an impolite manner to leave him alone, or else".

Later on in the form the victim says that violence was used against someone else but this is followed by a contradiction when the victim says that they themselves were injured. If it is accepted that the respondent was injured then it would seem a code 12 should apply (the injuries are described as scratches and cuts. However if the respondent was not injured personally then a threat code might apply as the respondent was threatened in the incident.

Conclusion – Re-iterate to coding team the need to look for an in scope code before coding the incident as out of scope.

Code 54 – Possible attempted burglary

16392503 – Codes applied 54, 96, 53 and 73

Code 54 was only applied to one case but in this instance four different codes were applied. Code 54 was used by 8 out of 12 coders.

In this instance there was evidence of an intruder in the garden but little evidence to suggest that an actual break in was attempted. The code 96 should only be used as a last resort if there is no suitable offence code and it should not have been used for this case.

Conclusion – Re-iterate to coding team the need to look for an in scope code before coding the incident as out of scope.

Code 50 'Attempted burglary to non-connected domestic garage/outhouse

20700901 – 50, 72, 57

Code 50 was applied to one case in the test. Seven out of 12 coders applied code 50 to this case. There was an attempted break in to a garage to steal a scooter. If the attempt had been successful and the scooter the only item stolen the code would have been a code 62 „Theft of a motorbike, motorscooter or moped'. However as the

attempt was unsuccessful it seems that the attempted burglary code should take priority over the attempted theft of the scooter.

Conclusion – Clarify guidance for priorities for attempted burglaries to garages where the attempted theft is of cars, motorbikes or pedal cycles.

Code 53 'attempted burglary in dwelling'

41420401 – Codes 53, 54, 96
21910102 – Codes 53, 51, 84

Code 53 was applied in two cases. In the first case nine out of 12 coders applied code 53, in the second case 10 out of 12 applied code 53. In one instance a code 96 was applied but there was enough evidence in the form for a valid offence code to be used. The difference between applying code 53 and 54 is a judgement based decision on the level of evidence that an attempted burglary took place.

In the second case a window was prised open and coders have used their judgement as to whether any part of the offender's body would have got inside the property or not. In one case a code 84 was applied but the priority should have been with the burglary codes.

Conclusion – One (TNS-BMRB) coder has not consistently applied burglary codes where applicable. Re-iterate the priorities around burglary and theft codes.

Code 89 ' Other criminal damage outside the survey's coverage

31203001 – Code 89, 86 and 85

Code 89 was the modal code used in one case in the variability test. The damage in this case was not to property that belonged to the respondent (a lamp post outside the home) and therefore the incident was not in scope.

Conclusion – Two HO coders had applied in scope codes to this incident. Re-iterate the need to check whether the incident is in scope.

Code 51 'Burglary in a dwelling (nothing taken)

21832602 Codes 19, 51, 53
22061601 – Code 51

The modal coder for ref 21832602 was 51. Code 19 was applied in one instance because the aggression was directed against another household member. The entry to the home would have taken priority in this case and a burglary code would apply. As the offender actually entered the property an ‚attempt' code is not appropriate.

Conclusion - Re-iterate the priorities around burglary and theft codes. Emphasise the need to check carefully whether the offender actually entered the property.

Code 83 'Criminal damage to the home (£20 or under)

20300102 Codes applied 83, 87
30380501 Codes applied 83, 85
40692501 Codes applied 83, 85
30812202 Codes applied 83, 84

Code 83 was the modal code applied in 4 cases. In two cases it was applied by 9 out of 12 coders and in two cases by 11 coders. Where code 83 was not applied coders used either code 87 ‚Possibly criminal/possibly accidental damage/nuisance with no damage), code 85 ‚Other Criminal damage (£20 and under)' or code 84 ‚Criminal damage to the home (over £20).

Where codes of 83 and 87 were applied the respondent's wall was graffitiied. It can be unclear with graffiti whether or not this can be cleaned by the respondent themselves (in which case a criminal damage code would not apply).

Where codes 83 and 85 were applied, in both cases the respondent's fence was damaged. The boundaries of the home extend to the garden for criminal damage and this code should therefore have been criminal damage to home and not ‚other criminal damage'. The code 85 was applied by a different coder for both cases suggesting that each coder was aware of the boundary lines (and applied this correctly in one case), but then failed to apply this correctly in another case.

Where codes 83 and 84 were coded together the respondent had been unable to estimate the cost of the damage and the coding inconsistencies are therefore a result of the coders having to estimate the cost of the damage. The final offence code applied in this case was code 84. A check question has been added to the questionnaire to confirm whether the damage was over or under £20. This variable needs to be included on the RTF.

Conclusion- Update coding manual to include more guidance about when to code graffiti as criminal damage. Update RTF to include variable TotDamDK.

Code 41 'Robbery'

30500201 – Codes applied 41 , 55, 67
40981701 – Code applied 12

Code 41 was the modal code applied in two cases. Where codes 41, 55 and 67 were applied to the same case the description read „my ex hit me with fists and threatened to kill me in my house'. The incident happened in the home but the offender had a right to be there so a burglary code would not be appropriate in this case. The decision as to the correct code here depends on whether the violence is perceived to be in furtherance of the theft or whether the theft should be treated as an incident in its own right. If the violence is seen as being in furtherance of theft then a robbery code would apply, if not the theft code should apply (as the incident took place in the respondents home this would be code 55 „Theft from inside a dwelling'.

Conclusion – No further action required, in these cases the coders have to base the decision on their judgment and experience.

Code 69 'Other theft/attempted theft falling outside the survey's coverage'

30361101 Codes applied 69 and 65

Code 69 was the modal code applied in one case. Ten out of twelve coders applied a code 69 with two coders using code 65. The property stolen from outside the house did not belong to the respondent or their household so this case should have been coded as out of scope.

Conclusion – No further action required

Code 67 'Other Theft'

21000901 – Code 67, 44

30541405 – Code 67, 69, 59

98352901 Code 67, 96

20780601 Code 67, 57

40062201 – Code 67, 69

Code 67 was the modal code assigned in eight cases. For ref: 21000901 the respondent's bag was taken from a shopping trolley but it was unclear whether this had been attended by the respondent at all times. The codes 67 or 44 ‚other theft from the person' reflect the coders judgement as to whether the item was being held at the time (i.e. whether the trolley was being held). Where codes 67 and 69 were coded together the incidents refer to theft of work tools. It is unclear whether these are owned personally by the respondent or whether they belong to the employer. The coding consensus appears to be that these should be coded as belonging to the respondent unless there is evidence to the contrary.

The one case where codes 67 and 96 were applied referred to an incident where the respondents bag was left unattended and someone took it and returned it to the respondent the next day. Code 96 was applied because there was no intention to steal the bag but according to the coding guidance as the bag was taken at first this would count as a theft. This happens so rarely that there seems little need to update the guidance to reflect this.

Conclusion – amend guidance in the coding manual regarding classifying work tools as in scope if they belong to the respondent.

Code 81 'Criminal damage to a motor vehicle (£20 or under)

Where code 81 was the modal code and there were discrepancies between codes these tended to be between the cost of the damage (whether it was more or less than £20). These discrepancies would be reduced by including the variable Totdamdk on the RTF.

Conclusion – Include Totdamdk on the RTF

Code 71 'Attempted theft of/from car/van'

21423003 – code 71, code 82

Where code 71 was the modal code and there were conflicting codes applied these tended to be discrepancies between whether the damage was an attempt to steal the car or purely criminal damage.

Conclusion – No further action required

Code 93 'Other threat or intimidation made against, but not necessarily to respondent'

Where code 93 was the modal code and other codes were applied these tended to be differences between whether a code 91 „Threat to kill/assault made against but not necessarily to the respondent' or code 93 should apply.

Conclusion – no further action required

Code 13 'Common assault'

Where this was competing with other codes these were code 12 where there was uncertainty about the level of injury.

Conclusion – no further action required

5.6.9 10 to 15 suvey coding

The following analysis explores inconsistencies within the under 16s coding of offences. The overall Kappa score was lower for the under 16s coding than for the adult coding.

Eleven coders took part in the variability test for the 10 to 15 year olds survey. Table 5.3 shows the modal code applied, the number of times it was applied as the modal code and the average number of codes applied for each modal code.

Table 5.5 Modal codes used by number of times and average number of codes assigned to each case.

Modal code	Number of cases	Average number of codes assigned
2	1	3.00
11	1	3.00
12	2	2.50
13	27	1.44
21	3	1.67
35	1	3.00
41	2	4.00
42	4	4.25
43	1	3.00
44	1	1.00
55	1	2.00
64	3	1.67
65	1	3.00
67	10	1.80
91	1	3.00
96	3	3.00
116	18	1.33
147	1	4.00
166	3	2.67
167	1	4.00
186	3	1.34
196	9	2.44

806	2	2.00
Total	99	

Code 64 – Theft of a pedal cycle

Ref 20762781 - Codes applied 64, 166

Ref 21812181 – Codes applied 64, 58

Ref 30601281 - Codes applied 64

In one case a code 166 was applied by a TNS-BMRB coder. The incident was recorded on a long victim form and should therefore not have been assigned a summary code.

In another case the bicycle was stolen from a shed but as the bike was the only item taken the correct code should have been code 64 ‚theft of a bicycle'. In both cases where the incorrect code was applied the guidance in the manual is already very explicit as to the code that should apply.

Conclusion – no further action required

Code 42 – Attempted robbery

Ref 20200181 – Codes applied 42, 45, 93

Ref 30170281 – Codes applied 41, 42, 45, 93

Ref 31161681 – Codes applied 12, 42, 45, 13

Ref 96632682 – Codes applied 42, 45, 73, 41

Where the modal code was attempted robbery there was a significant degree of variation among the codes applied. The maximum number of cases the modal code was applied to was seven out of 11 cases.

In the first case the respondent was threatened on the way home and thought there had been an attempt to steal a mobile phone. The description is unclear and the threats and attempted threat are implied rather than directly stated. There does seem to be an argument for any of the three applied codes being correct.

In the second case the respondent stated that property was stolen in the closed questions but that nothing was stolen in the description. It appears that the theft

code might be a mis-code but there is no clear evidence of this. Irrespective of whether the items were stolen or not it is also unclear from the description the extent to which force was used in the attempted theft and whether a robbery code should therefore apply rather than a threat code or a theft code.

In the third case (ref 31161681) the description referred only to the violence with no mention of the attempted theft. However the attempted theft was coded in the closed questions which would mean that the correct code should probably be a robbery code.

In the fourth case (ref 96632682) the description is again fairly unclear as to the extent of force used with the theft. The respondent states that the offender attempted to snatch their bike away. This could arguably be coded as an attempted snatch theft or attempted robbery. The lack of direct force or threats would suggest that this should be coded as an attempted snatch theft.

Conclusion – There are issues with the clarity of the description here. In the adult coding attempted robberies are fairly clear cut but the 10 to 15 year olds seem to be more likely to be victims of intimidation with theft. Although the descriptions are not clear this is a function of the incident not being clear cut rather than poor descriptions. It might help to include further guidance about the level of threat/intimidation required for a robbery code to apply.

Code 41 - Robbery

Ref 31670583 – Codes applied 13, 41, 67, 43
Ref 20651081 – Codes applied 42, 41, 43, 67

In the first case the description did not refer to any force or violence but the closed ended questions referred to force being used and therefore a robbery code would seem to be the most appropriate.

In the second case the respondent had property stolen. Someone else was attacked with a weapon in the incident. The presence of the weapon could be perceived to be an implied threat. Alternatively as the respondent was not actually personally threatened this incident could have been coded as another type of theft. It may help to clarify the guidance on p38 of the manual (para 4A) to state that violence against another person can count as an implied threat.

Conclusion – Amend coding manual paragraph 4A p38 to clarify guidance around threats in robbery situations.

Code 13 – Common assault

21210682 – Codes applied 13, 21

22011781 – Codes applied 13, 43, 96

22051983 – Codes applied 13, 12

40612281 – Codes applied 13, 67, 57

84312081 – Codes applied 13, 92

20863081 – Codes applied 13,116

Common assault was the modal code applied in 27 cases. There was little variation in the coding in cases where code 13 was applied with an average of 1.44 codes applied. In 17 of these cases the same code (13) was applied by all eleven coders.

In some of these cases with conflicting codes the discrepancy has arisen because there were two descriptions on the victim form referring to two different incidents and some coders have applied the code for the first description while others have applied the code for the second description.

This reflects initial problems with the interviewers understanding of the purpose of the mini description dual descriptions are being less much less frequently.

 In another case the incident took place inside the respondents garage which has led to some coders assigning a burglary code. It may be useful to clarify the coding guidance as to whether burglary to an outhouse should take priority over assault codes (or whether this only applies to burglary of a dwelling).

In other cases one Home Office coder has applied a summary code to cases completed on long victim forms. These codes are not valid for long forms so should not have been applied. This has been covered in more detail since the variability test was completed and I don't think any further action is required.

Conclusion – Amend guidance for burglary codes to include garages and outhouses

Code 67– Other theft

This code was applied in ten cases with little variation in the codes assigned (average of 1.80 codes per case). Where there was variability in the coding this tended to be between thefts from the person and other theft where coders have made different decisions as to whether the respondent was holding the items at the time of the theft. These tended to be similar situations to those seen in the adult survey (for example items being stolen from bags when it is unclear whether the bag was being held).

Conclusion – Amend victim form to include a check question to confirm whether the bag was being held at the time.

5.7 Process variability

5.7.1 Adults

Table 5.6 Kappa scores for the various combinations of coders for adult cases under 'process' conditions

	Over-all	Auto-coder	A2	A3	A4	A5	A6	A7	A8	HA9	HA10	HA11	HA12	HA13
All vs All (excl. autocoder)	0.81	-	0.82	0.83	0.82	0.79	0.79	0.81	0.81	0.82	0.81	0.85	0.72	0.84
HO coders compared with each other	0.81	-	-	-	-	-	-	-	-	0.83	0.82	0.85	0.72	0.85
HO coders compared with TNS-BMRB average (excl. autocoder)	-	-	-	-	-	-	-	-	-	0.82	0.80	0.86	0.72	0.84
TNS-BMRB coders compared with each other (excl. autocoder)	0.81	-	0.82	0.83	0.82	0.79	0.79	0.82	0.81	-	-	-	-	-
TNS-BMRB coders compared with HO average (excl. autocoder)	-	-	0.83	0.84	0.82	0.79	0.78	0.80	0.82	-	-	-	-	-
All vs All (incl. autocoder)	-	0.56	0.80	0.81	80	0.77	0.76	0.79	0.79	0.80	0.79	0.83	0.71	0.82

5.7.2   10 to 15 survey

Table 5.7 Kappa Scores for various combinations of coders for 10 to 15 survey cases under 'process' conditions

	Over-all	Auto-coder	Y2	Y3	Y4	Y5	Y6	Y7	HY8	HY9	HY10	HY11	HY12
All vs All (excl. autocoder)	0.68	-	0.74	0.67	0.70	0.68	0.62	0.65	0.71	0.64	0.71	0.68	0.68
HO coders compared with each other	0.70	-	-	-	-	-	-	-	0.73	0.67	0.71	0.70	0.68
HO coders compared with TNS-BMRB average (excl. autocoder)	-	-	-	-	-	-	-	-	0.70	0.62	0.71	0.66	0.67
TNS-BMRB coders compared with each other (excl. autocoder)	0.68	-	0.72	0.69	0.70	0.68	0.64	0.66	-	-	-	-	-
TNS-BMRB coders compared with HO average (excl. autocoder)	-	-	0.75	0.66	0.69	0.68	0.61	0.65	-	-	-	-	-
All vs All (incl. autocoder)	-	0.21	0.68	0.63	0.65	0.64	0.59	0.61	0.66	0.60	0.66	0.63	0.63

5.8 Test variability

5.8.1 Adult cases

Table 5.8. Kappa scores for the various combinations of coders for adult cases under 'test' conditions.

	Over-all	Auto-coder	A2	A3	A4	A5	A6	A7	A8	HA9	HA10	HA11	HA12	HA13
All vs All (excl. autocoder)	0.84	-	0.84	0.86	0.84	0.83	0.86	0.89	0.84	0.84	0.83	0.87	0.74	0.86
HO coders compared with each other	0.81	-	-	-	-	-	-	-	-	0.83	0.82	0.85	0.72	0.85
HO coders compared with TNS-BMRB average (excl. autocoder)	-	-	-	-	-	-	-	-	-	0.85	0.83	0.88	0.75	0.87
TNS-BMRB coders compared with each other (excl. autocoder)	0.86	-	0.86	0.87	0.85	0.85	0.88	0.90	0.84	-	-	-	-	-
TNS-BMRB coders compared with HO average (excl. autocoder)	-	-	0.83	0.85	0.82	0.81	0.84	0.87	0.83	-	-	-	-	-
All vs All (incl. autocoder)	-	0.56	0.82	0.83	0.81	0.81	0.83	0.86	0.81	0.82	0.80	0.84	0.73	0.83

5.8.2   10 to 15 survey Cases

Table 5.9 Kappa scores for the various combinations of coders for 10 to 15 survey cases under 'test' conditions

	Over-all	Auto-coder	Y2	Y3	Y4	Y5	Y6	Y7	HY8	HY9	HY10	HY11	HY12
All vs All (excl. autocoder)	0.72	-	0.77	0.71	0.73	0.74	0.77	0.68	0.74	0.67	0.74	0.71	0.69
HO coders compared with each other	0.70	-	-	-	-	-	-	-	0.73	0.67	0.71	0.70	0.68
HO coders compared with TNS-BMRB average (excl. autocoder)	-	-	-	-	-	-	-	-	0.76	0.66	0.75	0.71	0.70
TNS-BMRB coders compared with each other (excl. autocoder)	0.76	-	0.79	0.74	0.76	0.75	0.79	0.71	-	-	-	-	-
TNS-BMRB coders compared with HO average (excl. autocoder)	-	-	0.75	0.69	0.71	0.73	0.75	0.65	-	-	-	-	-
All vs All (incl. autocoder)	-	0.18	0.71	0.66	0.68	0.69	0.71	0.63	0.68	0.62	0.68	0.66	0.64

6.   Data Output

6.1   Introduction

The main outputs provided to the Home Office are SPSS data files that are delivered on a quarterly basis. Separate data files are provided for the core sample and the 10 to 15 survey sample. For each type of sample, two data files are provided: the Non Victim File and the Victim File.

The **Non Victim File (NVF)** is produced at the level of the individual respondent and contains all questionnaire data and associated variables, except for information that is collected in the Victimisation Modules. Data for both victims and non-victims are included on the Non Victim File.

The **Victim File (VF)** is produced at the level of the individual incident and contains all the data collected in the Victimisation Modules. Thus, an individual respondent who reported three crimes and completed three Victimisation Modules would have three separate records in the Victim File. All generated Victimisation Modules were included on the file, including cases where the module either had been suspended or where 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 modules that fall into these categories.

6.2   Delivery of data output

During 2010-11 data files were supplied to the Home Office on a quarterly basis. Data was supplied on a 12 month rolling basis, meaning that each new data delivery was updated by adding the newest quarter of data and deleting the oldest quarter of data.

In addition to the achieved sample, a data file of the entire 2010-11 issued sample was supplied to the Home Office alongside the annual April 2010-March 2011 data file. This contained information on every issued address such as the final outcome, the screening outcomes, the observational data collected by interviewers, sample variables and geo-demographic variables.

Data was delivered to the Home Office five weeks after the end of each quarterly fieldwork period. Each quarterly data delivery included interviews that were **achieved** in each specific 12 month period, rather than those that were **issued** in a specific time period. Thus, the four sets of quarterly data files delivered in 2010-11 covered all the relevant interviews achieved in the following periods:

- July 2009 – June 2010
- October 2009 – September 2010
- January 2010 – December 2010
- April 2010 – March 2011[27]

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 J 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 C in Volume 2 for complete listing). Observational variables were only supplied on the main annual data set (due to the way in which the data are processed) as well as being supplied on the issued sample file mentioned in section 6.2.
- **Coding variables** (NVF and VF). On the Non Victim File, SOC2000 codes are included for both the respondent and the Household Reference Person. Additionally, NS-SEC for both the respondent and the Household Reference Person are included. On the Victim File, a full set of offence codes are attached as outlined in section 5.1.4.
- **Derived variables** (NVF and VF). Many derived variables were also added to the file. These consisted primarily of 2 types:

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[27] The April 2010 – March 2011 data file is the data on which the 2010-11 annual crime figures are based and is the basis of the file deposited by the Home Office at the UK Data Archive.

- **Flag variables** that identify, for example, the type of sample, the part-sample module split and sub-split, the date of interview, the month of issue, whether a partial or full interview, whether a victim or non-victim, etc. On the Victim File, flag variables include whether the record was a Long or Short Victimisation Module, 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 2010-11 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	1-2	1-11
Area point number	3-6	1000-9999
Address number	7-9	01-40
Screen number[28]	9	0-9

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[28] Screen numbers are used to identify the type of sample. „0' indicates a core sample case and „8' indicates an interview with a 10 to 15 year old.

On the Victim File, where each individual case or record represents a Victimisation Module or incident, the unique case identifier (MATCH) is a 10-digit number, which is identical to ROWLABEL with the addition of the Victimisation Module number:

	Column position	Values
Year of issue	1-2	1-11
Area point number	3-6	1000-9999
Address number	7-8	01-40
Screen number	9	0-9
Victimisation Module number	10	1-6

6.4.2   Naming conventions

Variable names were kept the same as on the previous surveys wherever possible. Consistency is particularly important on a continuous survey where data from one survey year is combined with data from a previous survey year as described in section 6.2. However, this means it is also important to systematically document changes to questions over time to avoid confusion amongst users. For example, small changes to a question from one year to the next (such as adding an extra code to the code frame) can create the possibility of wrongly merging data that appears similar but, in fact, is not. To avoid such situations, the variable names on the 2010-11 data file were changed to reflect any variables where such changes had been introduced between 2009-10 and 2010-11 (see Table 6.1).

Table 6.1   Changes in variables between 2009-10 and 2010-11 survey

Non Victim File		
2009-10 variable	**2010-11 variable**	**Reason for change**
MTHMOVE	MTHMOVE	Change of code frame
COMPAY	COMPAY1	Change of question wording
COMPAY2	COMPAY2A	Change of question wording
CRY	CRY2	Change of code frame
HRPCRY	HRPCRY2	Change of code frame
Victim File		
2009-10 variable	**2010-11 variable**	**Reason for change**
MTHRECIN	MTHRECIN	Change of code frame
MTHINC2	MTHINC2	Change of code frame
ELSEWHER	ELSEWHR2	Change of code frame
TYPSEC2A-N	TYPSEC3A-N	Change of question wording and code frame
WHATST5A-UU	WHATST6A-VV	Change of code frame
YMBNRP2A-I	YMBNRP3A-L	Change of code frame

6.4.3   Labelling variables

The changing nature of the 12-month reference period over the course of the year creates a difficulty in labelling certain variables. In the Quancept script, dates were automatically calculated based on the date of interview and appropriate text substitution was used to ensure that the question always referred to the correct period. In the SPSS data files, which contain data from interviews achieved over the whole year, it is difficult to attach meaningful labels to certain variables since the label is different each month depending upon the month of interview. This issue affects the following variables (all on the Victim File):

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

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 2010-11 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 were created as a set of variables equal to the maximum number of answers that could be given. The first variable held the first answer given by the respondent; the second variable held the second answer given, and so on.

After discussions with the Home Office it was agreed from 2001 onwards to present multiple response variables differently from previous years. 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)

6.1 Data output on the 10 to 15 survey

The data for the 10 to 15 survey is delivered to the Home Office to the same quarterly timetable as the core survey data. As with the core data two data files are supplied, the Non Victim File and the Victim File.

7. Weighting

7.1 Overview of weighting

The following weights have been calculated for the 2010-11 BCS data:

- A household weight for the core sample
- An individual adult weight for the core sample

In addition to these weights, the Home Office apply additional calibration weights once they receive the data so that the data reflect the population profile by age and sex within Government Office Region (see section 7.4).

There are three main reasons for computing 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 smaller Police Force Areas, the selection of one dwelling unit at multi-household addresses, the selection of one adult in each household, and the inclusion of a single Victimisation Module 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.

As outlined above a variety of different weights were computed to meet the different analysis requirements. The 2010-11 weighting schedule was broadly similar to the weighting schedule applied on previous surveys.

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.

In 2009-10 the Home Office commissioned TNS-BMRB to carry out analysis of non response in the BCS to explore the various components of non-response and what influences them and to recommend a new weighting strategy based on the findings. Please refer to the 2009-10 technical report for further details.[29]

7.2   Component weights

The weights constructed for the 2010-11 BCS sample were based on a number of key component weights. The following conventions have been used for the components that made up the final weights:

- w_1 : weight to compensate for unequal address selection probabilities in each PFA;
- 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)

Under the survey design introduced in 2008-09 the address sampling probability is a function of the Police Force Area, the cluster stratum and, in a few cases, the number of addresses sampled within the PSU. These can be explained as follows:

1. **Police Force Area**: As described in Chapter 2, addresses were disproportionately sampled in Police Force Areas to ensure a minimum of 1,000 achieved interviews in each Area regardless of the population size. Consequently the basic sampling fraction applied within each PFA varies significantly between different Areas;

2. **Cluster stratum**: As already explained in Chapter 2 all addresses were allocated to one of three cluster strata. While the intention was to allocate proportionately, the requirement to sample whole number PSUs within cluster strata B and C lead to a tiny level of between-strata variation in address sampling probabilities. This could have been corrected by altering the number of addresses selected within each sampled PSU, but this was not done. Instead a standard number of addresses (32) were issued in each PSU sampled from strata B and C; and

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[29] British Crime Survey Technical Report 2009-10 TNS BMRB:London

British Crime Survey 2010-11 Technical Report

3. **The number of addresses within the PSU**: A small number of very large PSUs had a computed sampling probability greater than 1. This is because the size of the PSU (as measured by the PAF address count) was larger than the selection interval, meaning they had a 100% chance of selection. In this situation the PSU sampling probability was capped at 1 but the number of addresses sampled within these PSUs was not increased to compensate for this. This introduced another slight variation in address sampling probabilities. Only a handful of PSUs were affected by this.

While the above represents a full explanation of the address sampling probability it is only the Police Force Area which actually introduces any significant variation in probabilities. Factors 2 and 3 above only introduce extremely minor variations in probabilities within each PFA. Consequently, it is probably easiest to think of w_1 as the Police Force Area weight, which compensates for different selection probabilities between Areas.

7.2.2   Inner city weight (w_2)

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

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

The definition of inner city or non-inner city has been kept consistent since it was first used on the BCS and is based on 1981 census data. Details of how the inner city weight is constructed can be found in the 2006/07 BCS technical report volume 1.

7.2.3   Dwelling unit weight (w_3)

At addresses which had more than one dwelling unit, the interviewer made a random selection of one dwelling unit. The dwelling unit weight is therefore simply the

number of dwelling units identified at the address. In over 99% of cases, the dwelling unit weight was 1.

7.2.4 Individual weight (w_4)

At dwelling units that had more than one eligible adult, the interviewer made a random selection of one adult. Thus, the probability of any one individual being selected was inversely proportional to the number of adults in the household. The individual weight is therefore simply the number of adults in the household.

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[30].

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:

wtm2hhu= $w_1 * w_2 * w_3$

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[30] Although the number of incidents is capped at 5 for weighting purposes, the actual number of reported incidents in each series (uncapped) is also supplied on the data file

wtm2inu= $w_1 * w_2 * w_3 * w_4$

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

Finally, the weights were scaled to a notional sample size of 11,500 interviews per quarter. Although an approximately equal number of addresses were issued each quarter during 2010-11, the number of interviews actually achieved per quarter varied to some extent. Thus, for analyses based upon a 12 month period, the weights were constructed to adjust for differences in sample size by equalising the quarterly achieved sample sizes.

The final scaled weights were called **wtm2hhs** and **wtm2ins** respectively.

7.4   Weighting on the 10 to 15 survey

A new approach to non-response weighting was explored on the adult survey (see the 2009-10 technical report volume 1). While the change in weighting is being evaluated for use on the core survey, this approach to non-response weighting was adopted for the 10 to 15 year old survey as there is no existing time series.

The variables that were found to be significantly associated with non-response were included in the final model which used logistic regression to obtain the probability of response based on the following variables:

- whether sampled child had mobile phone stolen (no phone; has phone-not stolen; has phone-stolen)
- length of adult interview (banded <1h30, 1h30+)
- Main newspaper readership (broadsheet, Tabloid, other/no main paper, none)
- Whether Adult accepted self completion (Yes, No)
- How confident are you that the police are effective at catching criminals
- Number of adults in the household (1,2,3,4,5+)

- Age of child sampled

The following were not significant, but were included for completeness:
- Whether adult is a victim of crime
- Sex of sampled child.

7.4.1   Creating the final weights for the 10 to 15 year old survey

There were several steps to creating the final weight for the 10 to 15 survey. The non-response weight that incorporates the design weight for the number of eligible children in the household is based on responding households. The household non-response weight from the core adult file is multiplied by the child non-response weight to give an overall unscaled and untrimmed child weight. This was capped at the 99th percentile so as to reduce the impact of any unusual, large weights, and then scaled so that the weighted sample size matched that of the achieved sample size. Full details of the non response analysis can be found the 2009-10 technical report volume 1.

7.5   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 technique[31].

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.

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

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

8.   Comparing key survey variables with the population

The achieved sample was weighted in order to be representative of the population living in private households in England and Wales. A series of comparisons are presented in the following tables, showing to what extent the 2010-11 BCS achieved core sample reflected the population as a whole, after applying the appropriate design weights and before final calibration weighting.

Table 8.1 shows the regional distribution of the adult population aged 16 years or over in England and Wales by Government Office Region compared with the mid-2010 population estimates. This shows that the regional profile of the weighted sample was broadly in line with the population figures. The main discrepancy in the achieved sample was the under-representation of respondents in London compared with the population estimates. This reflects the lower response rates achieved in London as already noted.

Table 8.1   Comparison of the BCS core achieved sample compared with the population by Government Office Region, 2010-11 BCS

Government Office Region	Weighted Core Sample[1]	Mid-2010 population estimates[32]	Difference (sample – population)
	%	%	%
North East	5.3	4.7	+0.6
North West	13.0	12.6	+0.4
Yorkshire & The Humber	9.2	9.6	-0.4
East Midlands	8.2	8.1	+0.1
West Midlands	10.2	9.9	+0.3
East of England	10.6	10.6	0.0
London	12.8	14.2	-1.4
South East	15.7	15.4	+0.3
South West	9.5	9.5	0.0
Wales	5.5	5.4	+0.1
Bases:	*45,740*	*55,240,475*	

[1] Prior to the calibration weights applied at a later stage by the Home Office.

Source: Mid-2010 Population Estimates, Office for National Statistics

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[32] Adults aged 16 and over.

Table 8.2 shows similar comparisons between the achieved core sample in relation to the mid-2010 population estimates for England and Wales by sex and age. This shows that the survey slightly under represented men, those aged under 35, and those aged over 85 (especially women). The profile of the survey by sex and age was very similar to the previous year. 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, as already mentioned 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 so that the age and sex profile of survey respondents matched population estimates within each GOR (see section 7.4).

Table 8.2   Comparison of the BCS achieved core sample with the population by sex and age, 2010-11 BCS

	Weighted Core Sample[1]	Mid-2010 population estimates	Difference (sample - population)
	%	%	%
Men			
16-19	5.6	6.6	-1.0
20-24	6.9	8.9	-2.0
25-34	14.3	16.7	-2.4
35-44	16.6	17.8	-1.2
45-54	17.8	17.0	+0.8
55-64	16.7	14.5	+2.2
65-74	12.8	10.4	+2.4
75-84	7.5	6.1	+1.4
85 and over	1.7	1.9	-0.2
Bases:	*21,609*	*21,948,600*	
Women			
16-19	4.9	5.9	-1.0
20-24	6.5	8.1	-1.6
25-34	14.5	15.5	-1.0
35-44	17.7	17.2	+0.5
45-54	18.2	16.6	+1.6
55-64	16.8	14.4	+2.4
65-74	12.0	10.9	+1.1
75-84	7.3	7.7	-0.4
85 and over	2.2	3.7	-1.5
Bases:	*24,131*	*22,977,500*	
All men	47.2	48.9	-1.7
All women	52.8	51.1	+1.7
Bases:		*44,926,100*	

[1] Prior to the calibration weights applied at a later stage by the Home Office.

Source: Mid-2010 Population Estimates, Office for National Statistics

Erratum

Amendments

Page 58, Section 4.7.5 – the section on 'Length of the 10 to 15 year old interview' has been added to the report under 4.7 'Length of interview' as it was omitted at time of publication.