

2008-09 Scottish Crime and Justice Survey: Technical Report

**2008-09 SCOTTISH CRIME AND JUSTICE
SURVEY:
TECHNICAL REPORT**

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SCJS publications

The 2008-09 Scottish Crime and Justice Survey: First Findings was published on October 27th 2009. Three further supplementary reports on the subjects of partner abuse, sexual victimisation and illicit drug use have subsequently been published.

As the SCJS carries national statistics accreditation, publication dates are pre-announced and can be found via the UK National Statistics Publication Hub:

<http://www.statistics.gov.uk/hub/index.html>

Copies of the reports and other SCJS related Scottish Government publications are available from the survey Internet site:

<http://www.scotland.gov.uk/Topics/Research/by-topic/crime-and-justice/crime-and-justice-survey>

For further information about the SCJS and Scottish police recorded crime statistics, please email stuart.king@scotland.gsi.gov.uk or write to: Scottish Crime and Justice Survey, Scottish Government, St Andrew's House – GWR, Regent Road, Edinburgh EH1 3DG.

This report is a National Statistics output produced to the highest professional standards and free from political interference. It has been produced by researchers from the respected independent social research organisation TNS-BMRB working with Scottish Government Researchers in the Justice Analytical Services Division

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1 Background

1.1 Introduction to the Scottish Crime and Justice Survey

The Scottish Crime and Justice Survey (SCJS) is a survey of public experiences and perceptions of crime in Scotland. The survey involves interviews with around 16,000 adults aged 16 or over who live in private residential addresses in Scotland annually, with a continuous fieldwork period from April through to March of the following year. Fieldwork for the 2008-09 sweep of the survey began on 1st April 2008 and finished on the 31st of March 2009, with a target of 1,333 interviews being conducted each calendar month. The survey is conducted face-to-face in-home and is administered by specially trained professional interviewers using Computer Assisted Personal Interviewing (CAPI). The survey also contains a short self-completion section on sensitive topics which respondents answer using Computer Assisted Self Interviewing (CASI).

There have been eight previous surveys of victimisation in Scotland, beginning with the 1982 and 1988 sweeps of the British Crime Survey (BCS) co-ordinated by the Home Office.¹ BCS coverage in Scotland was limited to south of the Caledonian Canal. The first independent Scotland-only survey was commissioned by the Scottish Office in 1993 under the title of the Scottish Crime Survey (SCS) and was followed by repeated sweeps in 1996, 2000 and 2003.² In 2004 the survey underwent both a name change, under the title of the Scottish Crime and Victimisation Survey, and a major methodological change, with a move away from in-home face-to-face interviewing to telephone interviewing. However, the 2006 survey returned to face-to-face interviewing after it was shown that the robustness of the data produced by the 2004 telephone survey could not be substantiated.³

The SCJS is primarily a victimisation survey, in which respondents are asked about:

- property crimes experienced by the *household as a whole* (e.g. housebreaking);
- personal crimes (e.g. theft from a person) which the respondents themselves have experienced.

¹ Further information on the BCS can be found at the Home Office website: <http://www.homeoffice.gov.uk/rds/bcs1.html>

² For more information see the Scottish Government survey website: <http://www.scotland.gov.uk/Topics/Research/by-topic/crime-and-justice/crime-and-justice-survey/background>

³ For more information see Hope (2005). The 2004 SCVS survey contained a face-to-face calibration survey to run in parallel against the main telephone survey, and the 2004 crime estimates were based on this survey rather than the telephone survey.

The statistics produced from victimisation surveys provide a picture of the level of crime in the area covered. Respondents are asked directly about their experience of crime, irrespective of whether or not they reported these incidents to the police (police recorded crime).⁴ These surveys provide a record of peoples' experiences of crime which is unaffected by variations in reporting behaviour of victims or changes in police practices of recording crime. However, the SCJS and police recorded crime figures should be seen as a complementary series, which together provide a more complete picture of crime than could be obtained from either series alone.

The survey uses a victim form questionnaire to collect extensive details about the nature of each incident that respondents report (up to five), such as when and where it occurred and details about the offenders and other relevant information. This allows classification and hence counts of crimes in Scotland.

The SCJS collects information on incidents occurring in the previous 12 months before the month of the date of interview. This time period is referred to as the 'reference period'. Continuous fieldwork throughout the financial year means that the survey reference period varies depending on which month the interview took place, although the reference period covers an equal length of time (12 calendar months) for each respondent. More detail on the implications of this design is provided in section 5.1.

The SCJS only collects data on incidents occurring in Scotland in the reference period – incidents which happened in England and Wales are recorded in the BCS, and incidents which happen abroad are not covered by the survey. Incidents which meet these criteria and which are identified as crimes within the scope of the survey (see section 7.1) are used to produce the 'all SCJS crimes' statistics published in the 2008-09 SCJS First Findings report.⁵

The remit of the SCJS is much wider, however, than a simple victimisation survey. The survey collects socio-demographic information from respondents which allows a picture to be built up about the nature of crime in Scotland and the risks of victimisation among sub-groups of the population. It also collects information on a number of sensitive issues, including the prevalence of illicit drug taking, sexual victimisation and partner abuse (collected via the self-completion element).

⁴ For more information on Police Recorded Crime, see the Scottish Government website: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Crime-Justice/TrendType>

⁵ Scottish Government website: <http://www.scotland.gov.uk/Publications/2009/10/26114015/0>

The SCJS has a quarter-sample modular design (a feature which sets it apart from previous surveys). All 16,000 respondents are asked the main questionnaire, and four randomly assigned groups of 4,000 respondents are asked one of the four modules. This design allows a broader range of other topics to be covered by various sections of the sample, such as:

- experiences of fraud;
- workplace violence;
- civil justice issues;
- concern about crime;
- awareness, knowledge and experience of the criminal justice system, and organisations within it.

All respondents were asked to complete the self-completion questionnaire, though they had the option to refuse (10,974 respondents accepted the questionnaire). Chapter 3 provides more detail on the coverage of the questionnaire.

The SCJS is designed to achieve a minimum effective sample size of 1,000 interviews in the eight Police Force Areas (PFAs) and eight Criminal Justice Authority Areas (CJAAs). This is in part to allow analyses at a sub-national level for the first time. The survey also provides analyses for a number of performance targets for the public sector in Scotland, at a national and a local level. Specifically, it is the main source used by the Scottish Government to measure progress against two of its National Indicators (used to monitor National Outcomes):⁶

- Reduce overall crime victimisation rates by two percentage points by 2011;
- Increase positive public perception of the general crime rate in the local area.

Additionally, the SCJS is used to provide evidence for:

- Criminal Justice Authority Areas (CJAAs);
- The Scottish Policing Performance Framework (SPPF), measuring individual forces' progress against a number of performance indicators;
- The National Criminal Justice Board (NCJB).⁷

⁶ More information including details of the specific indicators, can be found on the Scottish Government's 'Scotland Performs' website at: <http://www.scotland.gov.uk/About/scotPerforms>

⁷ For further details of the NCJB see: <http://www.scotland.gov.uk/Topics/Justice/legal/criminalprocedure/NCJBWeb>

Despite changes in the design of crime surveys in Scotland over time, the wording of the questions that are asked to elicit victimisation experiences have generally been held constant, and certainly most recently from the Scottish Crime and Victimization Survey (SCVS, 2004 and 2006). Care must be taken, however, when comparing different surveys, both those conducted in Scotland and other UK surveys,⁸ and analysts should be careful to read the relevant technical documentation to ensure that like-on-like comparisons are being made. The previous versions of the crime surveys in Scotland have, for example, varied in different ways, for example:

- Data collection technique - from paper to telephone to Computer Assisted Personal Interviewing (CAPI);⁹
- Sample size – from 5,000 interviews to 16,000 interviews;¹⁰
- Sample design - from excluding Highlands and Islands to covering the Highlands and major islands,¹¹ and from representative data at only a national level to producing robust estimates at individual PFAs.

1.2 Outputs from the SCJS 2008-09

The data arising from the SCJS 2008-09 are reported by TNS-BMRB Scotland, who conduct the survey, working with the Scottish Government. These reports include the 2008-09 SCJS First Findings report,¹² as well as three supplementary reports:

- Partner abuse;
- Sexual victimisation and stalking;
- Illicit drug use.

These reports, starting with the 2008-09 SCJS First Findings report, are published around six months after the end of the financial year fieldwork period. Copies of the reports and other SCJS related Scottish Government publications are available from the survey Internet site:

<http://www.scotland.gov.uk/Topics/Research/by-topic/crime-and-justice/crime-and-justice-survey>

⁸ The BCS (<http://www.homeoffice.gov.uk/rds/bcs1.html>) and the Northern Ireland Crime Survey (NICS) (<http://www.csu.nisra.gov.uk/survey.asp8.htm>) are the surveys most used for comparison with the SCJS. (Section 11.3 provides more detail on comparisons with the BCS.)

⁹ The 2004 survey contained a face-to-face calibration survey to run in parallel against the main telephone survey, and the 2004 survey crime estimates were based on this survey rather than the telephone survey.

¹⁰ The exception was in the 2004 survey when the achieved sample size was 3,034.

¹¹ For details of the islands which are not covered, see annex 1.

¹² Scottish Government website: <http://www.scotland.gov.uk/Publications/2009/10/26114015/0>

The survey data and supporting technical documentation, providing information and guidance for users of the survey data, are published on the UK Data Archive at the University of Essex.¹³ There are three separate data files for the SCJS 2008-09:

- Respondent file (RF) (also known as the non-victim form file);
- Victim form file (VFF);
- Self-completion file (SCF).

The survey has also received the UK Statistics Authority's National Statistics accreditation. This accreditation ensures that the survey data is produced to the highest professional standards and free from political interference.¹⁴

1.3 Structure of the technical report

This report documents the technical aspects of the SCJS 2008-09. The analysis in this report relates to the total sample issued in the financial year 2008-09.

The sample design is set out in chapter 2, showing how the Scottish Government's requirements were translated into a detailed specification. Chapter 3 provides a summary of the content and development of the questionnaire, while chapter 4 examines fieldwork procedures and response rates, and chapter 5 the details and practicalities of the interview itself. Chapter 6 provides information on data processing, including the coding and checking of data. Chapter 7 looks at the offence coding process and classifications used. Chapter 8 outlines the design, calculation and application of the weighting required for analyses of the data. Chapter 9 looks at the data outputs, including the structure of the SCJS SPSS data files and conventions used in them. Chapter 10 provides information on statistical significance and confidence intervals for the data and chapter 11 presents guidance for comparing the SCJS data with other sources of data about crime.

Annexes referred to in this report are available as a separate document: Technical Report Annexes.

This report documents the way in which the SCJS was conducted and the survey data produced, and should be read whenever using data from the survey. It is worth emphasising that the SCJS, in common with most victimisation surveys, is a complex study with data organised at different levels (households, individuals, and incidents) and has a number of sub-samples contained within it, including the modular and self-completion samples. Accordingly, considerable effort and expertise is required to analyse the data and to interpret it in a valid manner.

¹³ The UK Data Archive's website is at: <http://www.data-archive.ac.uk/>

¹⁴ The UK Statistics Authority's website is at: <http://www.statisticsauthority.gov.uk/>

The dataset does not contain any indicators which would allow the identification of a particular person or address, and this information is not released to the Scottish Government by TNS-BMRB. Substantial emphasis is given in the course of the interview to assure respondents that the information they provide will be held in confidence.

2 Sample design and selection

2.1 Introduction

The SCJS 2008-09 sample design differed from those of the preceding SCVS and SCS surveys in a number of important respects:

- Firstly, its planned annual sample size of 16,000 interviews was considerably larger, for example the 2006 SCVS had a sample size of 5,000;
- Secondly, the survey design required the equivalent of at least 1,000 simple random sample interviews in each Police Force Area (PFA);
- Lastly, whereas the previous surveys had completely clustered designs, the majority of the SCJS sample was un-clustered; clustering only occurred in the more sparsely populated 'rural' areas of Scotland.

Details of how the design was implemented are given in the following sections.

2.2 Sample design

2.2.1 Survey universe and sample population

The survey universe was defined as all households living in private residential accommodation in Scotland and within those households, all individuals aged 16 or over. All but the smallest inhabited islands were included in the sample universe – annex 1 lists these and notes the exclusion criteria.

The sample design preparation made use of delivery point counts from the Postcode Address File (PAF) after editing (see section 2.3) as approximations to the household populations in each strata.

When the data collected for the survey were weighted, the latest estimates for household and individuals published by the General Register Office for Scotland (GROS) were used instead of the delivery point counts. Details are provided in annex 2 which contains population targets used for weighting and detail on the sources of those data.

2.2.2 Sample size and structure

The target sample size was a total of 16,000 interviews spread across Scotland. A requirement of the specification was that the effective sample in each PFA should be equivalent to a simple random sample of at least 1,000 interviews. A disproportional sample design by PFA area was necessary to meet this stipulation, as PFAs with smaller populations required samples larger than their population proportions.

Sample selection differed between urban and rural areas as defined by the Scottish Government's urban / rural classification.¹⁵ In urban areas the sample was systematically selected within PFA with a fixed interval giving an un-clustered sample. In rural areas, data zones were selected as primary sampling units with probability proportional to population size and the sample was clustered within those areas.

A further stipulation of the specification was that the sample must be spread evenly across the survey year with approximately equal numbers of interviews conducted in each month. TNS extended that requirement to apply not just overall (approximately 1,333 per month), but also, by PFA and by relative crime level as shown by the crime component of the 2006 Scottish Index of Multiple Deprivation (SIMD).¹⁶ In this way the seasonality of crime patterns would be correctly reflected without being affected by inconsistent sample size and structure.

It was stipulated that fieldwork for the year must be completed within the year and that addresses issued for 2008-09 survey sweep could not be carried over into April 2009 or subsequent months.

Experience from surveys similar to SCJS suggested a likely response rate of 60% from eligible addresses in their month of issue rising to 70% overall by reissuing addresses in subsequent months. Those estimates, and the need for equal numbers of interviews per month, required the issue of larger numbers of original addresses in the early months of the survey year than in later months. In the first two months of the fieldwork year (April and May 2008) all interviews were conducted on original addresses, that is those issued for the first time. Thereafter a proportion of interviews conducted in each month were using re-issued sample from an earlier month. In March 2009 re-issued sample accounted for a higher proportion of interviews than in any previous month. Annex 3 provides the numbers of issued addresses and target sample size by month.

2.3 Sample frame

The sample frame for SCJS 2008-09 was the Small User file of the Postcode Address File (PAF) expanded using the multiple occupancy indicator (MOI). PAF is currently the most comprehensive and reliable sample frame available in the UK for surveys of this kind but, in common with all similar sample frames, there are a few issues that need to be addressed. These are outlined below.

Royal Mail issues updates of the PAF file at quarterly intervals but despite this it includes what is often referred to as 'deadwood', that is a number of ineligible addresses and other forms of redundancy. These are properties

¹⁵ Details of the 2007-2008 Scottish Government Urban Rural Classification used in this survey can be found at <http://www.scotland.gov.uk/Resource/Doc/233802/0063988.pdf>

¹⁶ <http://www.scotland.gov.uk/Topics/Statistics/SIMD/>

that are not private residences (for example: small shops, offices and other businesses, and dwellings that have been demolished), or are unoccupied, possibly because they are holiday / second homes. In a few cases it will include some dwellings that are still being built.

Use of the PAF in the Scottish Household Survey (SHS) has shown that ineligible and redundant addresses together account for nine per cent of the total sample frame with some variation by area. In common with usual practice, allowance was made for these by issuing slightly more addresses in the sample than the target response rate would suggest.

The PAF is an address based frame but, as noted above, the MOI field on the file is available allowing the identification of addresses with more than one household. Where the MOI value is three or more it is used to expand the number of addresses in the file to give each household at that address an equal probability of selection in the issued sample. There are some instances where the MOI indicator is incorrect and the number of dwellings differs from that expected. In these rare instances, when interviewers call at those addresses, a random selection of which household to interview is made using an algorithm built into the questionnaire CAPI script (see section 2.8). MOI values of two are not used to expand the PAF addresses as almost all consist of a small business, often a shop, with a flat attached and thus only consist of a single residential address.

Prior to sampling, certain addresses were excluded from the PAF:

- Addresses with an entry in the business field or having a PO Box;¹⁷
- Student halls of residence and military bases where access was not possible.

All other addresses included on the file were extracted to be available for sampling.

Some cases where access is not possible may remain in the file, such as nurses' homes and similar communal establishments. Where they could be identified, these were excluded from the sample in advance, or replaced if sampled.

Other communal establishments such as prisons and hospitals are not usually listed on the PAF as they do not contain private residences.

2.4 Stratification and clustering

Analysis of SCJS 2008-09 was required by Community Justice Authority Area (CJAA) as well as by PFA. Therefore both were used to form strata. There are eight PFAs and eight CJAA's in Scotland. These were combined into eleven mutually exclusive areas, details of which appear in annex 4. Forming the

¹⁷ Apart from the small number of businesses that are not recognised as such when the list is compiled and are treated as deadwood

strata in this way enabled more control of the sample in the largest PFA (Strathclyde) and also allowed representative samples to be selected by CJAA as well as by PFA.

Clustering of a sample increases sampling variation and reduces the effective sample size relative to an un-clustered sample. Whilst un-clustering is theoretically preferable, the relationship between potential gains in sampling efficiency and the additional costs necessary to make those gains is an important factor when designing surveys. Hence consideration must be given to how fieldwork can be carried out to achieve a given level of sample precision in a cost effective manner. This is usually achieved by grouping fieldwork into practicable interviewer assignments resulting in a clustered sample, but giving reduced fieldwork costs.

The design recommended and adopted for SCJS 2008-09 was un-clustered in urban areas and clustered in more rural areas, as defined by the Scottish Government's urban / rural classification. This provides the best compromise between sampling and fieldwork efficiency. For reasons of practicality a rule was agreed for determining whether the sample in a stratum was clustered or un-clustered based on the proportion of its urban component:

- The sample selected in a stratum was to be un-clustered if the urban component of the stratum was 80% or more;
- The sample selected in a stratum was to be clustered if the urban component of the stratum was less than 20%;
- Those strata with values between those noted above retained both clustered and un-clustered parts.

Adding urban / rural classifications to the stratification based on combining PFA and CJAA, as described above, resulted in 19 strata.

Application of the rule above to the strata resulted in a completely clustered sample in the Northern PFA and totally un-clustered samples in the Glasgow and Lanarkshire CJAA's within the Strathclyde PFA. The allocation of strata to un-clustered and clustered samples is given in annex 5.

2.5 Disproportional design

The target sample sizes required in each PFA were determined by its population, estimated design factors related to the partially clustered designs and to weights applied to the data after collection arising from the disproportional sampling and non-response.¹⁸ In particular, they were affected by the requirement that the size in each PFA should yield a sample equivalent to a Simple Random Sample of 1,000 as a minimum. There were also some small adjustments to enable equal sized interviewer assignments to be produced.

¹⁸ Design factors and resulting standard errors are presented in chapter 10 and the weighting used on the survey is described in chapter 8

The requirement to meet the 1,000 minima resulted in a disproportional design whereby the PFAs with the smaller populations were over-sampled relative to their populations and those with the largest populations under-sampled. The latter was because their samples were reduced to maintain the total sample size at 16,000 interviews.

For the calculation of the target sample sizes in each stratum a design factor of 1.05 was assumed for the un-clustered assignments in the sample and 1.30 for the clustered assignments. These assumptions were based on knowledge of design factors in general and on estimated design factors for the 2006 SCVS and the BCS.

The values of the design factors were used to determine the target sample sizes needed to achieve the minimum effective samples of 1,000 required in each PFA. Those new targets were compared with proportional sample values. Where the new targets were more than the proportional values the stratum value was increased to the new target. Values in the other strata were then reduced proportionally to bring the total interviews required back to 16,000.

The final sample numbers for issue were determined by allowing for the target response rate of 70% and an ineligible component within the sample frame of nine per cent. Those values were amended slightly to become multiples of sixteen in the clustered (rural) strata, as sixteen addresses were issued in each clustered point (and 32 in each urban point).

2.6 Sample selection

2.6.1 Un-clustered sample

Various geographic indicators were appended to the addresses in Scotland extracted from the PAF. They included PFA, CJAA, local authority (LA), intermediate geography area, data zone, output area and urban / rural classification. The addresses for the un-clustered (urban) sample were first combined into groups of contiguous data zones which formed final strata within PFA. In those strata, addresses were ordered by postcode within output area within data zone.

The target number of addresses to be sampled for the un-clustered sample in the PFA was allocated to the strata in proportion to their total addresses. Sampling intervals were calculated as total addresses divided by the target and the selected addresses were determined using a fixed sampling interval from a random start point. In detail this requires the selection of a random number less than the sampling interval to determine the first address to be selected; the repeated addition of the sampling interval determined the remaining addresses selected.

The selected addresses were grouped into sets of approximately 32 addresses to form interviewer assignments.

2.6.2 Clustered sample

For the clustered ('rural') sample, data zones were used as the primary sampling units. These were ordered by the census codes for the data zones within intermediate geography area and selected with probability proportional to their populations. The addresses in the selected data zones were ordered by postcode within output area and selection was conducted by a random start and sampling interval method similar to that for the un-clustered selections given above. Sixteen addresses were selected from each data zone to be sampled. Each batch of sixteen formed an interviewer assignment.

2.7 Allocation of assignments by month

The allocation of fieldwork assignments to calendar months was a multi-stage process:

- Classification of assignments into types. These were the combination of urban / rural (un-clustered / clustered), and relative crime levels determined from the crime component of the 2006 Scottish Index of Multiple Deprivation (SIMD);¹⁹
- Calculation of target numbers by month for each assignment type;
- Determination of the months to be used for each assignment type within each local authority (LA);
- Allocation of months to be used for each assignment type within every LA;
- Allocation of specific assignment in each LA to the selected months.

Each of these steps is described below.

2.7.1 Classification of fieldwork assignments

Data for the SIMD are published at the data zone level. Every data zone in Scotland was assigned a crime level quartile according to its ranking in the crime component of the 2006 SIMD. Quartile values were then assigned to each fieldwork assignment.

That was an immediate step for clustered assignments as the selected addresses in each were from single data zones. However, the un-clustered assignments contained addresses selected from several data zones. In those cases the numbers of addresses in each quartile were obtained and an average value derived. Those average quartile levels were then allotted to the assignments.

Therefore, every assignment was classified into one of eight types, (two urbanisation by four crime quartile levels).

¹⁹ Scottish Government website: <http://www.scotland.gov.uk/Topics/Statistics/SIMD/>

2.7.2 Monthly targets

Targets for each assignment type were calculated by month as for the overall targets as described in section 2.2. Those calculations allowed for front loading to yield similar numbers of interviews each month by assignment type.

2.7.3 Months used for each local authority

The determination of the months used for the assignments in each LA was a complex procedure. The aim was to spread the assignments as far as possible across different months by assignment type and overall. The latter was for fieldwork practicality and efficiency. For example, it would not be practical to have several assignments in an LA in one month and none for the next few months. The use of one assignment per month would allow interviewers to work consistently.

The procedure made use of the selection of random numbers to determine the selected months.

For LAs with fewer than twelve assignments, n random (integer) numbers were selected in the range one to 12 (representing the twelve months), where n was the number of assignments in the LA. This ensured the spread across months. In LAs with more than twelve assignments, the first twelve were allocated one per month. The excesses over twelve were determined as for LAs with fewer than twelve assignments.

As the selections built up, the numbers allocated neared the target total values. When the target number of assignments had been reached for a month, further selections for that month were forbidden. This is a further 'without replacement' restriction. As the process continued the possible allocations become more constrained as the total allocations approached the overall target.

2.7.4 Allocation of specific assignments

Random numbers were selected and appended to each assignment within assignment type in each LA. The assignments were then ordered by the values of those random numbers. The assignment with the lowest number was then allocated to the first month selected for that type for the LA. The assignment with the second lowest number was allocated to the second selected month and so on until every assignment was allocated to a month.

2.8 Selection of individuals / dwellings

Only one adult was interviewed in each household. The majority of households contain more than one adult. Hence to avoid any bias in selection the respondent to be interviewed was determined by a random method. That random selection was implemented using an algorithm in the CAPI script. Age and gender details for all household members were collected and one eligible adult was randomly selected as the respondent by the CAPI machine generating a random number denoting the adult to be interviewed.

Once a selection was made, no substitutions were permitted under any circumstances (for example, if the selected person refused to do the interview

but another household member volunteered to be interviewed instead, the interviewer coded the outcome as a refusal and no interview was conducted at the address).²⁰

In the rare instances where an interviewer found more than one dwelling unit at an address (despite the fact that the PAF was expanded by the MOI) the CAPI software randomly selected one unit for interview.

²⁰ However, the address (and details of the respondent who had been selected) may have been re-issued to another interviewer at a later date.

3 Questionnaire content and development

3.1 Structure and coverage of the questionnaire

The SCJS questionnaire has a complex structure, consisting of three elements:

- A repeated **victim form** which collects details about the separate incidents a respondent may have experienced;
- The **main questionnaire** consisting of a set of core modules asked of the whole sample; and a set of **quarter-sample modules**, containing questions on a variety of topics;
- A **self-completion questionnaire** covering sensitive issues (respondents can refuse to answer this section if they do not wish to complete it).

Each of these contains different sections and is inter-related (for example, incidents which have been mentioned already in the victim form are not asked in detail in the self-completion questionnaire). Within some sections there is further filtering so that questions are only asked of small sub-samples (for example, those who have had contact with the police in the last year). It is therefore recommended that data users read the following section on the questionnaire carefully before starting analysis, although data users should also refer to the specific questions being analysed in the actual questionnaire itself.

The SCJS 2008-09 questionnaire consisted, in order, of the following questionnaires / sections / modules:

Main questionnaire (16,000 respondents)

- General views on crime and social issues
- Victim form screener

Victim form (repeated up to five times, based on information from the screeners section)

- Incident details
- Perception of the offender and the incident
- Support and advice received
- Experience of criminal justice system organisations

Full sample modules (16,000 respondents)

- Community sentencing
- Criminal justice system

Quarter-sample modules (4,000 respondents each)

Module A

- Fear of crime
- Workplace violence

Module B

- Criminal justice system organisations

- Insulted / pestered / intimidated

Module C

- Fraud (card and identity)
- Civil justice

Module D

- Civil justice ²¹
- Road safety cameras

Main questionnaire continued (16,000 respondents)

- Demographics

Self-completion questionnaire (completed by 10,974 respondents)

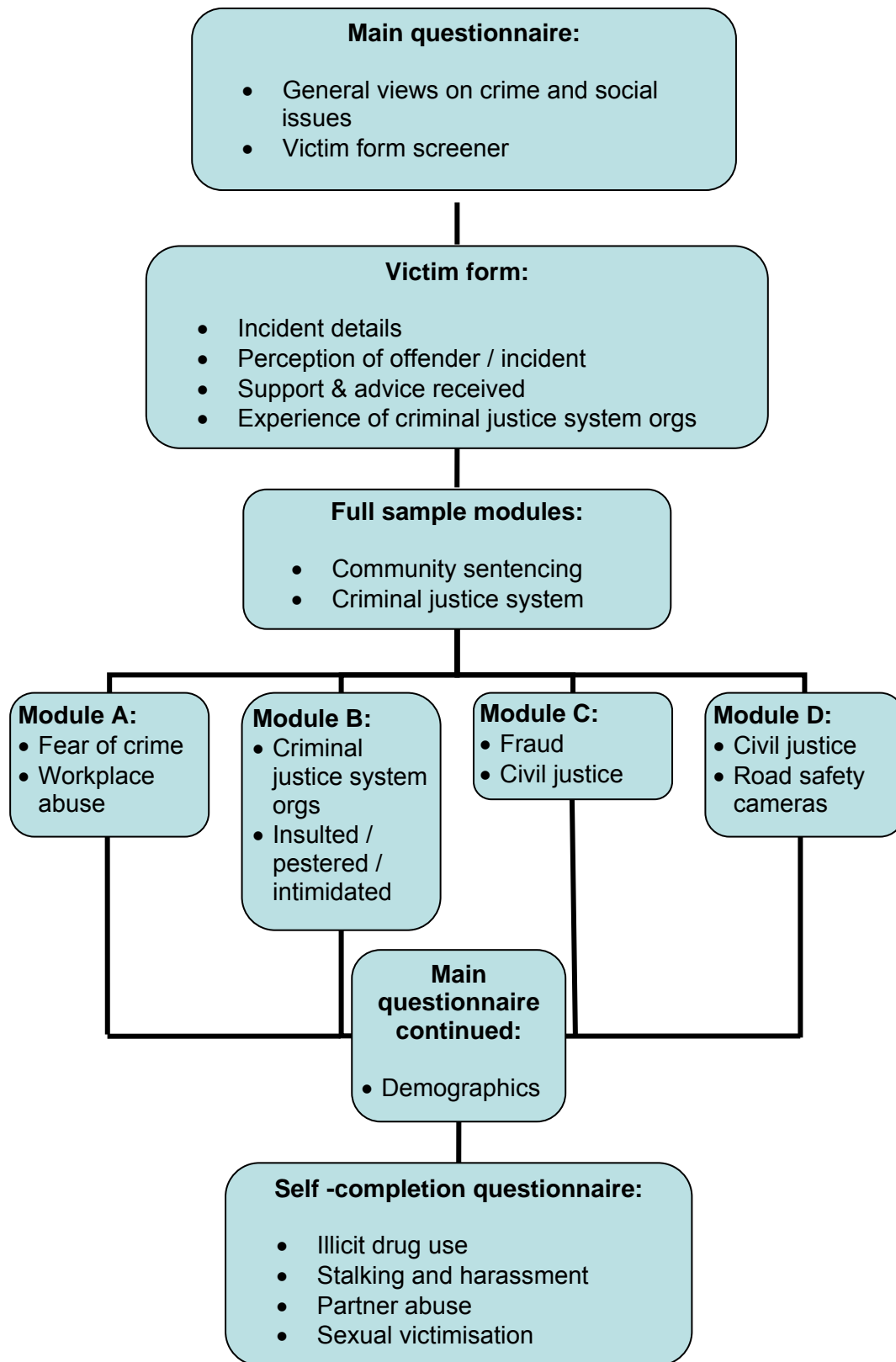
- Illicit drug use
- Stalking and harassment
- Partner abuse
- Sexual victimisation

Before the main questionnaire starts, a series of screener questions are asked on the age and gender of each of the household members at an address. These questions are asked to allow the CAPI software to make a random selection of a household member (aged 16 or over) for interview (see section 2.8). They also instruct the interviewer to ask parental permission if the selected household member is aged 16 or 17 years. The NIPO CAPI software and tablet PCs which TNS-BMRB interviewers use on the survey allows the retention of this data for use in the interview.

The basic structure of the questionnaire is shown in Figure 1 below. The complete questionnaire can be found on the survey website or UK Data Archive as a separate document.

²¹ The civil justice section is asked in both modules C and D.

Figure 1: Questionnaire structure



The structure and content of the SCJS questionnaire was developed from the 2006 SCVS, but includes a number of new features and additional coverage. These are highlighted in the following section, which provides a more detailed description of each section of the questionnaire. This provides users with a fairly comprehensive overview of the questions, although data users should also refer to the full questionnaire before conducting analysis. The complete questionnaire is published as a separate document alongside this technical report.

3.1.1 General views on crime and social issues

The survey begins with a series of attitudinal questions on how important various social issues, including crime, are in Scotland. This is followed by questions about the local area, including how long the respondent has lived in the local area; how much the crime rate has changed; and how safe the respondent feels. The next questions ask respondents how worried they are that specific crimes will happen to them and opinions on how likely they are to be a victim of these crimes. The majority of this section of the questionnaire is asked of all respondents.

3.1.2 Screener questions

Respondents are asked whether they have experienced certain incidents in the reference period. Section 5.1 provides more detail on the reference period.

The screener crime types are separated into three broad groups:

- **Vehicle incidents**, including theft of vehicle, theft from vehicle, damage to vehicle and bicycle theft;
- **Household property incidents**, including whether the home or outbuildings were broken into and things stolen or damaged, or an attempt was made to do so, or whether any property outside of the home was stolen or damaged;
- **Personal incidents**, including whether any personal property was stolen, or an attempt was made to do so, whether any personal property was damaged, and whether the respondent had been a victim of force or violence (including from another household member) or threats.

All respondents are asked a maximum of 17 screener questions.²² The wording of the screener questions has been kept consistent with past surveys. They are designed to ensure that all incidents within the scope of the SCJS, including relatively minor ones, are mentioned. The screener questions deliberately avoid using terms such as burglary, robbery, or assault, all of

²² Questions relating to vehicle incidents are only asked if the household has had use of the relevant vehicle in the reference period, and the question relating to violence from another household member is only asked if there has been more than one adult (aged 16 or over) resident in the household within the reference period.

which have a precise definition that many respondents would not be expected to know. This is consistent with the design of the BCS questionnaire.

The questions are also designed in a way that avoids the respondent mentioning the same incident more than once.²³ At the end of the screener questions, the interviewer is shown a list of all incidents recorded. This is checked with the respondent to ensure that all incidents they have experienced in the reference period have been recorded and nothing has been counted twice. If this is not the case, the information is corrected before proceeding.

The focus of the screener questions switches between incidents experienced by the household and those experienced by the individual respondent; vehicle and household-related incidents include those that have happened to other household members, whilst personal incidents are asked of the respondent only.

- All vehicle and household property incidents are classified in the questionnaire as **household incidents**. 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.
- **Personal incidents** refer to all crimes against the individual and are only asked about things that have happened to the respondent personally (for example a personal assault), and not to other people in the household.²⁴

Responses to the screener questions then trigger the victim form questionnaire if a respondent has experienced at least one incident.

3.1.3 Victim forms

Up to five incidents identified by the screener questions are followed through in much more detail in the victim form questionnaire. The victim form questionnaire is designed to elicit *all* of the details of an incident, irrespective

²³ It is possible that more than one of the incidents may occur at the same time, for example, an incident of theft from a person may also involve the offender using force or violence against the victim. Questions are therefore prefaced with "*Apart from anything you have already mentioned*" to avoid duplicate victim forms as far as possible.

²⁴ To illustrate, if the respondent and another household member were the victims of a combined assault from an offender in the same incident, then the detail of what happened to the other household member would not be recorded (for example they may have been injured in the assault while the respondent was not). 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).

of what incident the victim form was triggered by.²⁵ This then allows the coders to assign the correct crime code to the incident, regardless of what incident mentioned in the screener section triggered the victim form (see section 6.1 for details of the offence coding process).

Respondents are asked to report all incidents that they experienced in the reference period. However, regardless of the number of incidents the respondent reports, the survey only collects detailed information on up to five of these. Incidents are covered in a specific priority order as explained below. This priority order is consistent with previous surveys and the BCS.

3.1.4 Identification and ordering of incidents for victim forms

Where a respondent had experienced more than one incident in the reference period, the CAPI programme automatically determines which of the incidents are followed up with a detailed victim form questionnaire, and the order in which they are asked. Neither the interviewer nor the respondent have any choice about which incidents are followed up with the victim form questionnaire (with the exception of incidents of domestic violence)²⁶ or which order they are asked in. The priority ordering used by the computer is as follows:

1. **According to incident type:** Victim forms are asked in reverse order to the screener questions. Broadly speaking this means that all personal incidents are asked before property-related incidents, which are asked before vehicle-related incidents.
2. **Chronologically within each type of crime:** If a respondent reports more than one incident of the same type, victim forms are asked in chronological order with the most recent incident first.

If a respondent has experienced five or less incidents identified at the screener section, then a victim form questionnaire is asked for all incidents (with the order based on the priority ordering above). If the respondent has experienced more than five incidents in the reference period, only five victim forms are asked (with the incidents and order based on the priority ordering above) and therefore the survey does not collect details about all incidents which a respondent experienced in these cases.

²⁵ For example, if a respondent has answered yes in the screener section to having experienced an incident where something they were carrying was stolen and as part of that same incident they were also deliberately hit by the offender, then the victim form would collect this detail.

²⁶ In the case of the incidents of violence from another household member, the interviewer has an option to suspend the victim form if there is another person present in the room. This is to prevent forcing the respondent to divulge personal and sensitive information which may embarrass or endanger them in front of someone else. In the 2008-09 survey there were nine cases of a victim form being skipped for this reason.

The priority ordering means that the incidents which are not asked about are likely to be incidents that tend to be more common. For example, criminal damage to vehicles is the lowest priority in the victim form order, but one of the most common crimes.

In the SCJS 2008-09, 23% of all respondents reported at least one incident: 15% of respondents completed a single victim form only, while only one per cent completed five victim forms (the maximum allowed). Among those who completed at least one victim form, two thirds (66%) completed only one, and four per cent completed five. In total 5,772 victim forms were completed by 3,619 respondents (see Table 1).

Table 1: Numbers of respondents completing victim forms

Victim forms	Number of respondents	% all respondents	% all with at least one victim form
None	12,384	77	N/A
1	2,374	15	66
2	722	5	20
3	273	2	8
4	115	1	3
5	135	1	4
<i>Base</i>		<i>16,003</i>	<i>3,619</i>

3.1.5 Series of incidents

The screener questionnaire also determines how many times the respondent has experienced a particular incident within the reference period. Most incidents reported represent single incidents. However, in a minority of cases a respondent may have experienced a particular incident a number of times in succession. If more than one incident is reported, the respondent is asked whether they thought that these incidents represented a 'series' or not. A series is defined as:

“the same thing, done under the same circumstances and probably by the same people”.

In common with the BCS, if a respondent regularly experiences incidents where the same thing is done under the same circumstances by the same *type* of people, this is counted as a series of incidents rather than separate incidents.²⁷ This most usually happens in a work situation, where groups such as patients or the general public might be involved.

²⁷ To illustrate, a care worker who was regularly threatened and verbally abused by patients as part of their job, would count these as a series incident. If, however, they were also physically attacked, then this would count as a separate incident (as the incident is of a different type to the cases of threats and verbal abuse).

Where a series of incidents is identified, only one victim form is completed, and this relates to the most recent occurrence of the incident in the series.

In common with other victimisation surveys, such as the BCS, only asking about the most recent incident where a series of similar incidents has occurred yields three practical advantages:

1. Many (although not all) incidents classified as a series tend to be minor incidents (e.g. vandalism). Only asking about the most recent incident avoids asking a respondent the same victim form questions several times over, therefore decreasing the likelihood that the respondent will terminate the interview or refuse to answer repetitive detailed questions about what can be very similar incidents.
2. It avoids using up the limit of five victim forms on incidents which tend to be less serious.
3. Respondent re-call of the incident details is likely to be more accurate for more recent incidents.

In SCJS 2008-09, 78% of all victim forms related to single incidents and 22% related to a series of incidents. This split between single and series incidents is broadly the same as the BCS.²⁸

In rare cases where respondents have experienced a mixture of single incidents and a series of incidents of the same type, the interview program has a complex routine which handles the sequence of individual and series incidents. This allows the priority ordering of the victim forms to be allocated, based on the date of the latest incident in the series.

3.1.6 Content of victim forms

The victim form contains two sections; the first relates to the details of the incident itself, and the second to the follow-up of the incident with regard to support and advice received, contact with the police and the criminal justice system and opinions on what happened.

Incident details

The victim form is key to estimating victimisation in Scotland and collects three vital pieces of information:

1. **The exact month(s) in which the incident or series of incidents occurred.** In some cases, respondents may report an incident in the screener section as having happened within the reference period, which later turns out to be outside it. In such cases, after this has been confirmed, the victim form is simply by-passed and the questionnaire moves on to the next victim form or the next section of the main

²⁸ See page 22 in the 2007-08 BCS Technical Report (Bolling, *et al.* 2008).

questionnaire. Where respondents are unsure about the exact month in which an incident happened, they are asked to narrow it down to a specific quarter (e.g. between nine and 12 months prior to the month of interview).

For incidents that were part of a series, respondents are asked how many incidents occurred in each quarter and the month in which the most recent incident occurred.

In the CAPI questionnaire, reference dates are automatically calculated based on the date of interview and appropriate text substitution is used to ensure that the questions always refer to the correct reference period. Because the 12 month reference period changes throughout the fieldwork year, some date related questions in the victim form have different text each month to reflect this changing reference period.

2. **The respondent's description of the incident.** At the start of the victim form respondents are asked to describe the details of the incident, with the interviewer probing for where it happened, who the victim was, who the perpetrator was and what they did. The interviewer then summarises these in an open-ended text entry. This summary description is vital to the accurate crime coding of incidents when used in combination with the series of pre-coded questions which are also asked about the incident (see section 6.1 for further detail of the offence coding process).

At the end of each victim form, the open-ended description 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 is correct and consistent. If the respondent and / or interviewer wish to add or clarify any information they have the opportunity to do so at this stage.

3. A series of **key questions used to establish important characteristics about the incident.** Examples of the sort of information collected include where and when the incident took place; whether anything was stolen or damaged and, if so, what; the costs of the stolen or damaged items and whether they were insured; 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 scope of the SCJS only includes incidents which happen within Scotland and within the 12 month reference period. For incidents occurring on-line, if the respondent was living in Scotland at the time of the incident, then the incident would be included. If incidents occurred outside of Scotland or the reference period then the victim form questionnaire terminates and the questionnaire moves on to the next victim form or the start of the next part of the main questionnaire.

The questions within the victim form have remained largely unchanged from previous versions of the survey.

The victim form also contains a number of questions which are designed to help explain inconsistent answers which may arise within the questionnaire (for example, if a victim form was triggered because of an incident of theft in the screener questions but nothing is recorded as having been stolen).

Perception of the offender and the incident

Questions include:

- Whether anyone other than the offender was responsible for the incident;
- Whether the respondent themselves used force or were under the influence of drugs or alcohol prior to the incident;
- Details of the prosecution of the offender (if applicable);
- Opinions on what sentence the offender should have received, if any, and whether the respondent considered the incident to be a crime or not.

Support and advice received

Following on from the details of the incident, the respondent is then asked a series of questions about a range of issues relating to its aftermath, including:

- What **advice and support** they would like to have received from various organisations, what they did receive and from whom, and how satisfied they were with it;
- If the **police came to know about the matter**, how they came to know and how satisfied they were with the service from the police handling of the incident;
- Information and assistance received from the **police, Victim Support Scotland and the Witness Service**, and what they would like to have received;
- Satisfaction with the **Procurator Fiscal**;

3.1.7 Community sentencing

This section is the continuation of the main questionnaire and all respondents are asked it. Respondents are asked about what community sentences they are aware of, how they became aware of them, whether the sentences would make an offender less likely to commit a crime in the future, and whether they agree or disagree with a series of statements about community sentences and prisons.

3.1.8 Scottish criminal justice system

The **criminal justice system** in Scotland is defined to respondents as:

“the shared name for all the organisations in Scotland that deal with finding offenders and arresting them, then taking them through the court system and deciding what sentence they are given if they are found guilty”.

Questions are asked of respondents’ level of awareness of the system as a whole and confidence in it via a series of statements about it. Respondents are then asked which of the component organisations that make up the criminal justice system they have heard of, and which they have personally been in touch with. Finally, some of the **responsibilities of local police forces** are read out and the respondent is asked to say **how confident they are in their local police forces’** ability to fulfil them. All respondents are asked the main questions in this section.

3.1.9 Quarter-sample modules (A-D)

Addresses are randomly allocated to one of four modules at the sampling stage.²⁹ Allocations are equal so that one quarter of addresses were allocated to each module. In the final achieved sample this percentage varies slightly due to small differences in response rates between modules (see Table 2).

Table 2: Module sample sizes

Title	Sample size	% all respondents
Module A	4,027	25%
Module B	4,004	25%
Module C	3,980	25%
Module D	3,991	25%

Module A: fear of crime and workplace violence

Fear of crime: The short section on fear of crime includes questions about feeling **safe walking alone after dark**, why respondents feel unsafe, **how common they think various crimes are** and where they have got this impression from. All of these are with reference to the respondent’s local area (that is within a 15 minute walk of the respondent’s home).

Workplace violence: This section asks questions of those respondents who are currently in employment and deal with members of the public as part of their job, either face-to-face or on the telephone. Respondents who deal with the public are asked if they have experienced any **verbal or physical abuse at work**, how often it happens, whether it was reported to the employer,

²⁹ In one case, due to a technical issue in the script, the respondent was not asked any of the four modules.

whether they have received training to deal with aggressive behaviour and the extent to which they worry that abuse at work affects their health.

Module B: criminal justice organisations and insulted / pestered / intimidated

Criminal justice organisations: The section begins with questions about respondents' experience of contacting the **police** in the reference period, including how the contact was made and how many times; for the latest occasion, why the contact was made; satisfaction with the police's handling of the matter and, where applicable, reasons for dissatisfaction. The respondent is then asked the same questions with regard to contact they may have had which was initiated by the police, before a final question asks respondents' opinions of whether or not the police in their local area do a good job. This is followed by questions on the **Procurator Fiscal**, including questions on awareness, contact and satisfaction with contact.

Insulted / pestered / intimidated: Respondents are asked if anyone who is not a member or their household has insulted, pestered or intimidated them in any way in the 12 month reference period, either in person or by some other means, and if so how many times it has happened. A series of follow-up questions are asked, focusing on the latest occasion if there has been more than one. These include: by what means it happened; how many people were involved; how well, if at all, the respondent knew the perpetrators; why it happened; and whether it may have been racially or religiously motivated or related to sectarianism, and if so how.

Module C: fraud and civil justice

Fraud: The fraud section of the questionnaire focuses on two types of fraud; card fraud and identity theft. The section is included to provide a measure of the extent of both card and identity fraud, as incidents of these crimes are not specifically included in the screener questions, and hence would not necessarily be picked up by the survey. Where incidents of this type are recorded in the victim form, some details are transferred to this section to save repeating questions.

Card fraud covers both the unauthorised use of **credit and bank cards** to buy or pay for things or withdraw cash, and the use of **card details** for the same purposes. Respondents who experience this during the 12 month reference period are asked where the cards / details were used, and, if they were used online, where they were living at the time. If the use of cards / details occurred outside of Scotland or the respondent was not living in Scotland at the time the cards / details were used then follow-up questions are not asked.

Various follow-up questions were included to find out more about the incident and, where appropriate, contact with the police in relation to the incident.

The questions on **Identity fraud** relate to someone pretending to be the respondent or using their personal details (including name, address, date of

birth or National Insurance number). It covers their use to do things such as obtain credit, open a bank account, apply for a mobile phone contract or state benefits or for official documents such as a driving licence or passport or to commit some other kind of fraud. If the fraud was not perpetrated in Scotland then the follow-up questions are not asked. The follow-up questions broadly follow the same format as those for card fraud.

Civil justice: This section relates to problems and disputes that the respondent may have experienced in the last three years that can be settled in court.³⁰ The section is carefully introduced to the respondent due to both the extension in the re-call period and the shift towards incidents which relate to civil justice rather than criminal justice:

“I am now going to ask you some questions about different kinds of problems or disputes you might have had in the past 3 years. These are problems that are not directly related to crime but to other issues you might have to deal with in your everyday life. Of course, everyone has problems in their lives from time to time which they deal with. We are particularly interested in problems or disputes you had that you found difficult to deal with or that you could not solve easily.”

Civil justice issues are grouped into four specific types:

1. Those concerning **home, family or living arrangements** (neighbours, family, housing and immigration);
2. Those concerning **health and well-being** (injury because of an accident or medical negligence and mental health issues);
3. Those concerning **money, finances or any good or service paid for** (debt, benefits and faulty goods and services);
4. Those concerning **unfair treatment** (discrimination, unfair treatment by the police and employment related issues).

Respondents are asked how important it was that they solve the problem, and which is the most important (if they have had more than one). For the most important or only problem respondents are asked whether it was resolved or not; if they have solved or are trying or planning to solve the problem they are asked if they are using help and advice from others; if the problem has been solved then they are asked how satisfied they are with the results.

Module D: civil justice and safety cameras

Module D contains a repeat of the civil justice section so that the questions are asked of approximately half the sample in total.

³⁰ The date of the start of the three year period is confirmed to the respondent by an automated calculation in the CAPI software. As with the reference period used in victim forms, the date changes every month.

Safety cameras: Road safety cameras are defined as both speed cameras and red traffic light safety cameras. Respondents are asked how far they agree with the use of each, and whether they agree or disagree with a battery of statements about them.

3.1.10 Demographics module

A variety of demographic information is collected from all respondents (many using Scottish Government harmonised questions), including:

- Newspaper readership;
- Age, gender, marital status, ethnicity, religion and health status;
- Tenure and property type;
- Employment status, including questions to allow Office for National Statistics Socio-Economic Classification (NS-SEC) coding;³¹
- Household income and ability to afford an unexpected expense.

Age and gender of other persons in the household are collected at the interview screening stage (see section 3.1 for details). This information is used to establish the household reference person (HRP).³² This standard classification is used on most government surveys and is based on the following criteria:

1. 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.
2. In households with joint householders (for example, two people's name on the mortgage) the person with the highest income is taken as the HRP.
3. If both householders have exactly the same income, the older is taken as the HRP.

At the end of this section respondents are asked whether they are willing to provide their contact details and survey answers to the Scottish Government or research organisations who are acting on their behalf for the purpose of further research.

³¹ These questions are asked about the respondent only, regardless of whether that person is the household reference person (HRP) or not. This means that the NS-SEC coding refers to the respondent only and not to the HRP.

³² Variable WHRP in the respondent file SPSS data file records which member of the household is the HRP.

3.1.11 Self-completion questionnaire

The self-completion questionnaire is asked of all members of the sample after they have completed the main questionnaire – there are no upper age restrictions.³³ Respondents could, however, refuse to answer the self-completion questionnaire: 69% of respondents to the main survey answered the self-completion questionnaire. Due to the sensitive nature of the topics covered in the questionnaire, it is made clear to respondents that they can refuse to answer any questions they are uncomfortable with (see section 4.6 for further details).

The self-completion questionnaire covers the following topics:

- **Illicit drug use** and availability;
- **Stalking and harassment;**
- **Partner abuse** (including both psychological and physical abuse by a partner);
- **Sexual victimisation.**

Details of incidents recorded in the self-completion questionnaire were not included in the statistics ‘all SCJS crime’ (see section 7.1.2 for details) unless they were mentioned by respondents in the victim form questionnaire.

The SCJS 2008-09 self-completion questionnaire departs from the self-completion questionnaires in previous Scottish crime surveys in two important ways:

1. The definition of partner abuse was extended to include physical, emotional, psychological, sexual and financial abuse by partners;
2. The sexual victimisation questions were added to the self-completion section with the aim of providing valid and reliable estimates of these crimes. Previously these issues were dealt with using one question in the incident screener designed to cover all types of sexual assault. This was removed as a result of the questions being included in the self-completion section. Moving the questions allowed the types of sexual victimisation covered by the self-completion questionnaire to be extended. It also enabled information to be gathered on incidents ever experienced as well as those experienced in the last 12 months.

The questionnaire is completed by respondents on the interviewer’s tablet PC (Computer Assisted Self-completion Interviewing – CASI). This ensures confidentiality when answering sensitive questions or those on illicit behaviour which are contained in the questionnaire. The respondent is asked to follow

³³ This is in contrast to the BCS where the self-completion questionnaire, containing similar topics, is only asked of those aged less than 60 years of age. The 2006 SCVS self-completion questionnaire was also only asked of those aged 16 – 59 years. The decision was taken on the SCJS 2008-09 to include those aged 60 years and over on equalities grounds.

the instructions on the screen of the tablet PC and enters their answers using a pen to tap the touch screen appropriately. A series of practice questions are included before the start of the self-completion module to allow the interviewer to show the respondent the different functions of the computer and screen layouts and formats. If the respondent is unable or unwilling to complete the questionnaire using the computer, but is happy to answer the questions, the interviewer administers the questionnaire on their behalf (see section 5.6.1 for further details).

Interviewer assistance and the presence of others while completing the self-completion questionnaire is recorded by the interviewer (see section 5.6.1).

3.1.12 Illicit drug use

Respondents are asked whether they have ever used 16 types of illicit drugs. While under reporting of illicit behaviour by respondents is by far the main concern on a survey such as this, it is also recognised that some people may report taking particular drugs when they have not actually done so for reasons of bravado or other reasons. Respondents are therefore asked if they have ever taken 'semeron', a fictitious drug. Respondents who have said that have taken semeron are then excluded from the final data outputs and reporting for the drugs section of the questionnaire.³⁴ There were 12 cases of respondents reporting that they had taken semeron in the last year.

Those respondents who have taken drugs in the past are then asked a series of follow-up questions, including:

- Whether they have taken the drug in the last 12 months, and, for those that have, whether they have taken the drug in the last month and, if so, which one they have taken most and how hard it is to get hold of it;
- What drug was the first ever taken, and at what age, and what methods of drug taking they have ever tried;
- Whether they have ever mixed the drug they had used most often in the last month with either alcohol or other drugs, and in the case of the latter which drugs they have mixed with it;
- Whether, in the *last month*, they have felt dependent on the drug taken *most often in the last month* and have tried to cut down but were not able to do so.

The questions are asked in a loop (i.e. "*Have you ever taken <drug name>?*") rather than by selection from a single list of drugs. This approach has been shown to improve survey estimates of illegal drug-taking (Mayhew, 1995).

³⁴ These respondents are, however, retained in the rest of the dataset, including the remainder of the self-completion section.

3.1.13 Stalking and harassment

This section begins with a screener section collecting information about respondents' relationship history and sexual orientation.³⁵

Respondents are then asked about whether they have been stalked or harassed in the 12 month reference period (including confirmation of whether this was via written correspondence, telephone calls, waiting outside or following them). If they have they are asked (for the most recent incident of each type of stalking / harassment, where more than one incident is recalled) who the perpetrator was and what their relationship to the respondent was. The respondent is also asked whether the police came to know about the incident, and if not, why not.

3.1.14 Partner abuse

The questionnaire then turns to the subject of partner abuse. This section is only asked of those who have had a partner at any time since they were 16. It is introduced carefully to ensure that respondents are clear on the coverage of the questions:

“We would now like to ask you some questions about your own relationships with any partners you may have had since you were 16. By partner we mean a boyfriend, girlfriend, husband, wife or civil partner.”

Two questions present a list firstly of types of **psychological abuse** and secondly types of **physical abuse**; respondents were asked if they have ever experienced any of these since they were aged 16, and if so, how many partners perpetrated these acts. If any of these types of abuse have taken place within the 12 month reference period, a series of follow-up questions are asked, the majority about the most recent / only incident in that time, including:

- Where they happened and how many incidents happened since the beginning of the 12 month reference period;
- Whether any children were in the household, whether they saw or heard or were involved or hurt in the incident;
- What physical and psychological consequences were experienced;
- What people or organisations, if any, the respondent informed of the incident;
- Whether the police came to know about the incident and follow-up questions including: satisfaction with the way police dealt with the incident; why they did or didn't report the incident to the police; whether it was reported as a crime; if the report resulted in a prosecution and

³⁵ The sexual orientation question is asked in the stalking and harassment section of the self-completion questionnaire due to the sensitivity of the question.

whether there was a conviction; satisfaction with the police handling of the incident;

- Whether the perpetrator was living with the respondent at the time of the incident and whether they are living with them at the time of the interview;
- Whether the respondent considered what happened to be a crime or not.

At the end of this section, all those who have had a partner since they were 16 are asked whether they consider themselves to have ever been a victim of domestic abuse. The term is not defined to the respondent.

3.1.15 Sexual victimisation

The questionnaire asks about all types of sexual offences. These are categorised into two groups, which can be termed serious sexual assault and less serious sexual assault.³⁶ Serious sexual assault includes:

- Forced sex or attempted forced sex;
- Being forced into another sexual activity or attempts to do this.

Less serious sexual assault includes:

- Indecent exposure;
- Sexual threats;
- Being touched sexually when it was not wanted;

Respondents are reminded that they may skip such sensitive questions via using the 'Don't wish to answer' button at the top of the screen.

Different follow-up questions are asked of respondents depending on the nature of the incident(s) they have experienced and when they experienced them.

Victims of less serious sexual assault (indecent exposure, sexual threats and indecent assault) are asked the following questions for each type of offence they have been the victim of:

- What the relationship was between the respondent and the perpetrator and the gender of the perpetrator, and for the latest incident, whether it happened in Scotland;
- When the incident(s) happened, and how many times they have occurred during the 12 month reference period;

³⁶ The terms 'less serious sexual assault' and 'serious sexual assault' are adopted throughout this report to distinguish between the two types of sexual assault which were asked about separately in the SCJS 2008-09 questionnaire. This is consistent with the practice adopted by the Home Office in reporting of the British Crime Survey. The terms do not relate to the seriousness of the impact on the individual experiencing an incident, as this may vary according to the particular circumstances of an incident.

- Whether the incident was reported to police, how it was reported or if it was not, then the reason why.

For victims of serious sexual assault (rape, attempted rape and other forced sexual activity or where this was attempted) the same follow-up questions are asked for each type of offence they have been the victim of, as well as further questions, including:

- Further details of where the incident happened;
- Physical and psychological injuries received;
- Whether the police came to know about the incident and if they did not why not, who reported the incident, whether it was reported as a crime, if the report resulted in a prosecution and whether there was a conviction, and satisfaction with the police handling of the incident;
- What people or organisations, if any, the respondent informed of the incident;
- Whether they were given alcohol or drugs (or more than they realised) before the incident and whether the perpetrator was under the influence of either.

3.2 Questionnaire development and piloting

Before the SCJS questionnaire was developed, the Scottish Government undertook consultation internally with policy colleagues with an interest in the survey. The CJ-Quest network of the Scottish Centre for Crime and Justice Research (SCJJR)³⁷ conducted an external review of the 2006 SCVS questionnaire (McVie & Norris, 2007). The results of both of these fed into the first draft questionnaire for the SCJS 2008-09.

Following these reviews, the questionnaire was developed jointly by the Scottish Government and TNS-BMRB. Once agreed, extensive piloting was carried out before interviewing started for the 2008-09 survey in April 2008. The piloting involved a number of stages:

- Cognitive question testing;
- Consultation with specialist groups;
- CAPI pilots.

3.2.1 Cognitive question testing

The cognitive question testing was designed to test respondents' understanding of specific questions in the questionnaire identified as potentially ambiguous, difficult to answer, or in some other way problematic during the questionnaire development phase. The majority of questions to be tested were new additions to the survey or were re-worded alternatives to questions used in previous versions of Scottish crime surveys.

³⁷ SCCJR website: <http://www.sccjr.ac.uk/>

The interview method involved taking respondents through a questionnaire, replicating as far as possible sections of the quantitative interview, and asking supplementary information about key questions along the way. The process of cognitive interviewing is similar to conducting a semi-structured, depth interview, and employs both qualitative and quantitative interviewing techniques.

The interview involved:

- Selected questions asked of respondents;
- Respondent instructed to verbalise response (think-aloud) while answering questions (most problematic or important questions);
- Different probes and prompts used by the researcher to encourage provision of more / different information (all key questions of interest).

Interviews were conducted with the general public. The purpose was to achieve a breadth of respondents' views from across the range of different types of individuals that would be interviewed in the SCJS survey.

Interviews were conducted during October 2007. Research staff from TNS-BMRB conducted 45 cognitive interviews over three days in three separate locations in Greater Glasgow and Edinburgh, with 15 interviews in each location. The three locations where interviews were conducted were Central Glasgow, Govan in Glasgow and Wester Hailes in Edinburgh. Locations were chosen to ensure people from different age, gender and socio-economic groups and with different experiences of crime were included in the interviewing (within the constraints of the relatively small numbers of interviews). The interviews were conducted on two weekdays and a Saturday in order to include people of varying employment and work status.

To provide context, accompanying questions within the same section as those being tested were included in the interviews. Due to the number of questions selected for testing, the various sections were combined into three separate cognitive questionnaires, so that each interview would last around 40 – 50 minutes. Five interviews were conducted in each location using each questionnaire; in total each cognitive questionnaire was used in 15 interviews.

When each question from the cognitive interview questionnaire had been tested ten times in Central Glasgow and Edinburgh, the opportunity was taken to test alternative ordering and question wording for some questions in the final interview location.

The results were presented to the Scottish Government in a summary report containing a series of recommendations relating to the tested questions (TNS System Three, 2007a).³⁸

³⁸ TNS-BMRB was previously known as TNS-System Three.

3.2.2 Consultation with specialist groups

The draft self-completion questionnaire sections covering partner abuse and sexual victimisation were discussed with representatives of three organisations concerned with the domestic abuse and sexual victimisation of males and females. The organisations were Rape Crisis, Scottish Women's Aid and the Open Road Project.³⁹

The majority of questions discussed were new additions to the survey or re-worded alternatives to questions used in previous versions of the Scottish Crime or Scottish Crime and Victimisation Survey.

Interviews took place during October 2007. The interview sessions lasted two and a half hours each on average. The question wording was examined and sensitivities and any issues which may potentially disturb or unnecessarily upset a victim of these crimes were highlighted. After all three interviews were conducted, the input from the organisations was discussed and a consensus view was taken on changes to be made. A summary report was provided by TNS-BMRB to Scottish Government (TNS System Three, 2007b).

3.2.3 CAPI pilots

Three CAPI pilots were conducted during the set-up phase.

Initially a small CAPI pilot involving 150 in-home interviews was conducted in parallel with the cognitive interviewing. Principally this was to ensure that the questionnaire script functioned correctly and that the links between the questions and modules were operational. It also allowed early inspection of raw data to check questionnaire routing. Feedback on specific questions was also provided by interviewers conducting the pilot.

Changes arising from the cognitive interviews, the input from specialist groups and the first pilot were incorporated into the questionnaire script. Subsequently, a second, larger CAPI pilot was carried out in January 2008; 800 in-home interviews were conducted in this pilot.

As well as allowing further testing of the script functioning and links between modules, this larger pilot was also used to test question changes from the cognitive interviewing and the first pilot. Interviewer feedback provided suggestions for modifying some questions further. The larger number of interviews also enabled the questionnaire length to be tested. The data collected was used in early testing of the analysis procedures.

A final CAPI pilot, involving 200 interviews conducted in February 2008, was carried out to test two key elements of the survey administration. The first was the initial contact questionnaire, used when contact was made with the household to identify all household members and select a respondent for

³⁹ The Open Road Project is primarily concerned with males involved in prostitution, but also works on Lesbian, Gay, Bi-sexual and Transgendered issues (with LGBT Scotland): <http://www.openroadproject.com/>

interview. The second was the sample management system, including the recording of codes for later reporting of fieldwork outcomes.

3.2.4 Final questionnaire development

The results of the large CAPI pilot, including interviewer feedback, were used to develop the final questionnaire. This took place in parallel with the survey administration of the CAPI pilot.

During the final questionnaire development, decisions were made about the position of victim form screening questions on sexual assault and identity fraud. For the former, the question was cut from the victim form screener section as more comprehensive questions were included in the self-completion questionnaire. Fraud questions were also cut from the victim form screener, and a separate module was set-up for card and identity fraud incorporating a number of follow-up questions based on the victim form. Testing of questionnaire timing resulted in some questions being cut to meet the required average interview length of 40 minutes. It also allowed the positioning of question sets within the quarter-sample modules to be finalised.

Changes required to the survey administration as a result of the final CAPI pilot were incorporated. The questionnaire was fully scripted before the end of March 2008, ready for interviewer briefings before 2008-09 fieldwork started on the 1st of April 2008.

4 Fieldwork

Fieldwork for the SCJS 2008-09 was continuous and took place between the 1st of April 2008 and the 31st of March 2009. This chapter documents all aspects of the data collection process, focusing on:

- Interviewer briefings
- Quality control procedures;
- The management of fieldwork across the survey year;
- Fieldwork procedures and materials;
- Survey response rates for the main and self-completion questionnaires.

4.1 Briefing of interviewers

Interviewers working on the survey attended a two-day survey briefing before the fieldwork started. In total, three full briefings were held in Edinburgh, Glasgow and Aberdeen. All briefings were attended by TNS-BMRB researchers and field staff working on the survey, and Scottish Government staff. Staff from Victim Support Scotland (VSS) also attended the briefings to provide training for interviewers on how to handle sensitive situations where respondents had been the victim of crime.⁴⁰

Each briefing covered the following topics:

- Background to the SCJS and how the information is used by the Scottish Government and associated stakeholder agencies;
- Details about sampling and fieldwork procedures and advice on how to obtain high response rates;
- Instructions on how to carry out the respondent selection procedures;
- An explanation of the self-completion questionnaire and means of encouraging respondents to complete this;
- An introduction to the SCJS 2008-09 questionnaire structure, followed by a detailed run-through of the questionnaire using CAPI machines to familiarise interviewers with it. This section provided key pointers on how to collect accurate and comprehensive information from the screener questions and victim form.

In addition to this comprehensive face-to-face briefing, interviewers were also required to carry out at least two practice interviews before starting their assignments.

⁴⁰ Victim Support Scotland (VSS) is a voluntary organisation dedicated to supporting victims of crime: <http://www.victimsupportsco.org.uk/page/index.cfm>

4.2 Supervision and quality control

In addition to the survey briefings, several methods were used to ensure the quality and validity of the data collection operation.

- All interviewers who had not worked on similar random pre-selected surveys were accompanied by a supervisor on the first day of their assignment.
- Each interviewer was accompanied by a field supervisor at least once in the year as part of the TNS-BMRB performance and development review procedures.
- A minimum of 10% of addresses where a successful interview was obtained were re-contacted ('back-checked') to verify that the interviewer had conducted the interview and that key details they had collected were correct.

In total, 1,942 addresses where an interview was achieved (12%) were re-contacted for validation purposes. Addresses were selected on the basis of TNS-BMRB's overall field quality procedures, whereby all interviewers have their work checked at least twice a year.

Validation was carried out mainly by telephone by trained validators. The checking included asking a small selection of questions from sections of the questionnaire (for example, how long a respondent had lived in the area) as well as seeking confirmation of what questions were asked in order to ensure that no part of the questionnaire was missed (for example, if the respondent was asked to complete the self-completion questionnaire). If validation checks produced discrepancies then these were flagged and action taken according to the level of the discrepancies. In cases where serious discrepancies were raised then interviews were deleted (73 interviews).

Where no telephone number was available, a short postal questionnaire was sent to the address to collect the same information.

Checks were also made to ensure that interviewers had interviewed the household member which the CAPI script had randomly selected for interview (see section 2.8).

4.3 Fieldwork dates and fieldwork management

Survey fieldwork was managed on a monthly basis, with fresh addresses released on this basis. Approximately 1,100 first issue assignments of c.32 (urban) or c.16 (rural) addresses were issued to interviewers at the start of each month, with fieldwork starting on the first day of the new month and closing on the last day.

Interviewers were encouraged to start their assignment as early as possible in the month to minimise the time between respondents receiving the advance letter (see below) and an interviewer calling. Making calls at addresses at the start of the calendar month also helped with the early identification of invalid addresses (second homes, business addresses, vacant properties etc). Interviewers had until the end of the calendar month to cover all the

addresses in their assignment, making a minimum of six or more calls at each address.

Following standard practice on large social surveys, addresses with non-productive outcomes (where an interview was not obtained but could be in future) were re-issued. 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 (see annex 6 for CAPI outcome codes and re-issue criteria).⁴¹ 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, 6,593 addresses were re-issued, which represented 26% of the original sample. Of all the addresses re-issued, 2,538 (38%) were converted into successful interviews. All interviews were conducted in the financial year from the 1st of April 2008 to the 31st of March 2009.

4.4 *Fieldwork procedures and documents*

4.4.1 Advance letter and leaflet

All selected addresses were sent a letter from the Scottish Government in advance of an interviewer calling at the address. Interviewers were responsible for posting the letters a few days in advance of starting their assignment. The letter explained a little about the survey, why the address had been selected and informed the occupiers that an interviewer from TNS-BMRB would be calling in the next few days. The letter also provided a Scottish Government telephone number and email address and a TNS-BMRB telephone number 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 441 people (two per cent of addresses issued) opted out of the survey by contacting either TNS-BMRB or the Scottish Government.

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

Interviewers were also issued with an amended copy of the advance letter to hand to a responsible adult in the household in cases where the household member randomly selected for interview was aged 16 or 17 years old. The letter asked for permission to approach the young person selected for interview. Copies of the advance letter and leaflet can be found in annex 7.

⁴¹ For example, there were only one or two addresses available to re-issue in an assignment in a remote rural area.

Interviewers were also provided with a Victim Support Scotland (VSS) leaflet which provided information about and contact details for VSS and other organisations that provide support for victims of crime.

The interview was not incentivised in any way, and participation was entirely voluntary.

4.4.2 Address contact record

The NIPO CAPI software and tablet PCs used by TNS-BMRB allow the electronic collection and storage of the address contact record.⁴² This dispenses with the need for the traditional paper-based contact sheets, improving fieldwork management and efficiency, and allowing more effective real-time management and monitoring of the sample.

The primary functions of the address contact record are as follows:

- To automatically record the days and times that the interviewer called at an address, and therefore tailor their calling strategy based on this;
- To provide a record of all the outcomes achieved at the address, both at first issue and re-issue;

Interviewers updated the relevant address record every time they made a call to the address, reporting an outcome of each call. This information is crucial in allowing interviewers to manage their own calling strategies for each address and field management staff to manage the survey overall.

4.5 Response rate and reasons for non-response

4.5.1 Overall core response rates

The full response rate analysis for the issued sample is shown in Table 3.

Just over one in ten issued addresses (11%) were identified as not being eligible residential addresses (known as 'deadwood'). The most common type of deadwood was empty or vacant residential properties, which accounted for four per cent of all issued addresses.

Interviewers made contact with either the selected respondent or a responsible adult at 92% of eligible addresses, meaning a non-contact rate of eight per cent. There were three types of non-contact. The most common (six per cent of eligible addresses) was where no contact was made with anyone at the address despite repeated calls over a lengthy fieldwork period (up to 12 calendar months for addresses issued in April 2008). It is possible that some of these addresses were actually empty or vacant and so should have been coded as deadwood. However, the impact that this would have on the overall response rate is minimal. The remaining addresses classified as non-contact were where contact had been made with someone at the address, but no contact was made with the person selected for interview (one per cent of

⁴² Information about the software used is available from: <http://www.niposoftware.com/>

eligible addresses) or where no contact was made with a responsible adult in order to obtain permission to interview a household member aged 16 or 17 years old (less than one per cent of eligible addresses).

Refusals were the most common reason for not obtaining an interview, accounting for 16% of all eligible addresses. The most common types of refusals were where the person selected for interview refused to take part in the survey (seven per cent), and where no information about the household was given meaning that the person selection could not be carried out (six per cent). Proxy refusals (someone refusing on behalf of the selected respondent) and refusals directly to Head Office were less common (one and two per cent respectively). Where the household member selected was below the age of 18 years, interviewers had to obtain permission from a responsible adult (as well as from the respondent) before conducting an interview. The proportion of refusals of this type was below one per cent.

A further five per cent 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 adjusted response rate of 71%.

Table 3: Response rate and non-response outcomes.

Outcome / summary	Sample	% issued	% valid
	25,339	100	
Addresses not traced / inaccessible	541	2.1	
Not built / does not exist	83	0.3	
Derelict / demolished	216	0.9	
Empty / vacant	961	3.8	
Second home / not main residence	359	1.4	
Business / industrial	376	1.5	
Institution / communal establishment	56	0.2	
Other deadwood	166	0.7	
Total ineligible addresses	2,758	10.9	
Total eligible addresses	22,581	89.1	100.0
No contact with anyone in household	1,443	5.7	6.4
No contact with selected respondent	269	1.1	1.2
No contact with responsible adult (U18 interview)	40	0.2	0.2
Total non contact	1,752	7.0	7.8
Office refusal	441	1.7	2.0
Refused all information	1,425	5.6	6.3
Personal refusal	1,487	5.9	6.6
Proxy refusal	304	1.2	1.3
Parental permission refused (U18 respondent)	2	0.0	0.0
Total refusal	3,659	14.4	16.2
Broken appointment	236	0.9	1.0
Temporarily ill / incapacitated	52	0.2	0.2
Physically or mentally unable	227	0.9	1.0
Away / in hospital	202	0.8	0.9
Inadequate English	81	0.3	0.4
Other unsuccessful	369	1.5	1.6
Total other unsuccessful	1,167	4.6	5.2
Total unproductive	6,578	26.0	29.1
Achieved interviews	16,003	63.2	70.9

4.6 Response to the self-completion questionnaire

The final part of the interview involved a self-completion questionnaire containing four sections (see section 3.1.11):

- Illicit drug use;
- Stalking and harassment;
- Partner abuse;
- Sexual victimisation.

Due to the sensitive nature of the questions, respondents were encouraged to enter their answers directly into the tablet PC using a special pen on the touch-screen (Computer Assisted Self Interviewing). Although all respondents were encouraged to use the computer themselves, if they did not want to, interviewers were allowed to administer the questionnaire, showing the respondent the screen and then tapping the answer accordingly.

69% of respondents to the main survey answered the self-completion questionnaire, with 66% of them entering their answers directly in to the

laptop themselves and 33% asking the interviewer to enter their answers for them.

Table 4 compares the profile of respondents to the SCJS 2008-09 who answered the self-completion section of the questionnaire (including those who did so with help) and those who did not answer it:

- Equal proportions of males and females answered the self-completion section (69%);
- The proportions of respondents who answered the self-completion section decreased as age increased (for example, 76% of 16-24 year olds answered the self-completion section compared with 61% of those aged 60 or over);
- The proportion of women who answered the self-completion section was particularly low among those aged 60 or older (41%);
- A higher proportion of victims of crime as identified in the main survey answered the self-completion section than average while the proportion of non-victims was closer to the average (75% of victims and 67% of non-victims compared with 69% for all respondents to the self-completion section);
- A lower proportion of those living in the 15% most deprived areas answered the self-completion section compared with those living in the rest of Scotland (58% and 71% respectively).⁴³

⁴³ Scottish Government website: <http://www.scotland.gov.uk/Topics/Statistics/SIMD/>

Table 4: Percentages of respondents overall and in selected sub-groups who did and who did not answer the self-completion section

	Self-completion	No self-completion
Total sample	69	31
Male	69	31
Female	69	31
16-24	76	24
25-44	73	27
45-59	71	29
60+	61	39
Male 16-24	75	25
Male 25-44	71	29
Male 45-59	69	31
Male 60+	64	36
Female 16-24	77	23
Female 25-44	74	26
Female 45-59	73	27
Female 60+	59	41
Victim	75	25
Non-Victim	67	33
15% most deprived	58	42
Rest of Scotland	71	29

Table 5 shows the reasons given by respondents either for refusing the self-completion questionnaire or for asking the interviewer to enter their answers for them. This shows that a dislike of computers was the most common reason why respondents asked the interviewer to enter their answers for them (mentioned by 61%), while running out of time was the most common reason given for respondents refusing to do it (mentioned by 54%). Only six per cent of respondents refused to do the self-completion questionnaire because of worries about confidentiality.

Table 5: Reasons for self-completion refusal / interviewer completion

Reasons	% Refused	% Interviewer completed	Total
Didn't like computer	19	61	37
Eyesight problems	8	12	9
Other disability	4	4	4
Objected to study	6	0	4
Worried about confidentiality	6	1	4
Could not read / write	1	0	1
Ran out of time	54	7	34
Language problems	2	1	2
Couldn't be bothered	11	24	17
Children present / tending to children	5	2	4
Other people present in room	3	1	2
Old / elderly	1	0	1
No knowledge of subject matter	2	0	1
Other	2	2	2
Not Recorded	2	1	2

5 The Interview

Interviews were conducted face-to-face in-home and were administered by specially trained professional interviewers using Computer Assisted Personal Interviewing (CAPI).

This chapter documents the following issues:

- The survey reference period;
- Computer Assisted Personal Interviewing (CAPI);
- Length of interview;
- Presence of others during the interview.

5.1 *Survey reference period*

Respondents to the SCJS were asked about their experience of crime within a defined period of time known as the 'reference period'. The estimates of incidence and prevalence produced by the survey are based only on incidents which happened in the 12 calendar months prior to the month of interview. For example, in an interview conducted on the 15th of September 2008, the survey statistics would include incidents which the respondent had experienced between 1st September 2007 and the 31st August 2008.⁴⁴ The reference period therefore covered an equal length of time (12 calendar months) for each respondent, irrespective of when they were interviewed during the 12 month fieldwork period.

Due to continuous interviewing across the 12 month fieldwork period, the reference period 'rolled' forward for each consecutive fieldwork month. Compared to the example above, respondents interviewed on the 15th of October 2008 were asked about incidents which occurred in the reference period 1st October 2007 to the 30th of September 2008. The total reference period for interviews conducted from April 2008 through to the end of March 2009 is therefore a 23 month period from April 2007 through to February 2009. This is illustrated in Figure 2 below.

March 2008 is the only month to be included in the reference period for all 16,003 respondents and the crimes collected centre around this month.

⁴⁴ However, despite the fact that these incidents are not included in the analysis, for the sake of simplicity, respondents were also asked about incidents which happened in the period of time between the start of the reference period and the date of interview. In the example above, incidents which occurred in the month of interview (i.e. the 15 days of September 2008) would also be recorded by the interviewer so they were available for future research (even though they would not form part of the statistics). For a period from the months of April through to June 2008 this was not the case, and incidents occurring in the month of interview, including where the latest incident in a series was in the month of interview, were not recorded.

Figure 2: Survey reference period for SCJS 2008-09

Survey reference period:																								
Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Interviews conducted:	
																							Apr-08	
																								May-08
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																								Dec-08
																								Jan-09
																								Feb-09
																								Mar-09

Source: TNS-BMRB research proposal (unpublished), 2007.

In 2002, the BCS similarly moved from a fixed reference period with a sample size of 20,000 to a rolling reference period with a sample size of 40,000. The initial findings of an assessment of the impact of the change in methodology on estimates of crime concluded that:

“the new methodology is not giving rise to crime estimates any greater than those achieved under the old methodology. Indeed, for some categories the change in methodology appears to generate lower estimates” (Kershaw et al, 2001).

5.1.1 Series incidents and the reference period

Where respondents had experienced series incidents, if the most recent incident in the series occurred in the month of interview (that is outside of the reference period), the number of incidents in the series (capped at 5) was reduced by the number of incidents occurring in the month of interview. However, for the months of April through to June 2008, where the latest incident in the series was in the month of interview, no details were collected in the victim form. Therefore, in these months, a small number of series incidents were not recorded.

5.2 Computer Assisted Personal Interviewing

CAPI interviewing has a number of advantages over paper-based interviewing and presents various opportunities for improving the quality of data collected and the efficiency of the survey:

- Plausibility and consistency checks;
- Automated date and text substitution;
- Automated links between questionnaire sections (allowing post-interview data forcing).

The use of tablet PCs and NIPO CAPI software also allows:

- The replacement of the bulk of the traditional paper show cards required for CAPI interviewing.
- The electronic collection and storage of the address contact record (section 4.4.2);
- Automated random respondent selection (and dwelling selection where necessary – see section 2.8);

5.2.1 Plausibility and consistency checks

CAPI has the advantage over paper-based interviewing of allowing plausibility and consistency checks to be incorporated into the interview process, improving data quality. A full list of plausibility and consistency checks are provided in annex 8.

5.2.2 Text substitution and date calculations

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

Text substitution is where different text is read out by the interviewer or displayed on screen at a question depending on answers given to previous questions.

Date calculations were made automatically by the CAPI script for the reference periods and other questions where a specific time period was required (for example, the civil justice questions in modules C and D asked about the three years prior to the month of interview). All of the date variables in the SPSS data files (for example, DATESER variables, QTRRECHIN, and MTHINC2 in the VFF file) are labelled according to the actual month / time period in question.

5.2.3 Don't know and refused codes

Almost every question in the CAPI questionnaire has a 'Don't know' and 'Refused' option. These are displayed at the top of the screen as separate buttons, and therefore not shown to respondents explicitly as part of the pre-code list of answers at each question. For multicode variables in the SPSS data files, the variables relating to the don't know code are named ending '_dk' and for refused '_rf'.

At the start of the self-completion questionnaire, the interviewer showed the respondent where these buttons were located on the screen. The refused option was re-worded as 'Don't wish to answer'.

5.3 Repetition of incident details and data forcing

There are a number of sections / modules in the main and self-completion questionnaire which ask about specific types of incidents that respondents may have already provided detail of in the victim form. This applied to incidents of the following types in the main questionnaire:

- The respondent being pestered, insulted or intimidated (module B);
- Fraud (card and identity – module C).

In the self-completion questionnaire this applied to incidents of:

- Stalking and harassment;
- Partner abuse;
- Less serious sexual assault (including indecent exposure, sexually threatening behaviour, touching sexually when not wanted);
- Serious sexual assault (including forced / attempted forced sexual intercourse and forced / attempted forced other sexual activity).

The CAPI questionnaire is programmed with links between the victim forms and the remainder of the main questionnaire and the self-completion questionnaire. At the start of each of the sections above, the respondent is asked if they have already told the interviewer about the incident earlier in the interview. If they have, then the respondent is asked in which victim form the incident was previously mentioned in. The CAPI questionnaire then automatically skips questions where the relevant information has already been provided in the victim form. This acts to reduce the interview length and prevent frustration on the part of the respondent at having to answer questions they have already been asked. Data is 'forced' into the relevant questions from the victim form at the data processing stage.

Where questions are asked about contact with the police and Procurator Fiscal (module B, criminal justice system organisations), the respondent is asked whether this contact related to an incident detailed in the victim form, and if so, which one.⁴⁵

5.4 Use of show cards

Traditionally in CAPI interviewing, for pre-coded questions where respondents are asked to select an answer from a list interviewers handed respondents a booklet of numbered or lettered 'show cards' on which the pre-coded answers to questions were printed. However, the small and lightweight tablet PCs which TNS-BMRB interviewers used allowed interviewers to easily show respondents the screen rather than using show cards. This helps to improve the accuracy and flow of the interview, ensuring that respondents are concentrating on listening to questions the interviewer is asking rather than

⁴⁵ No questions are skipped where the contact was previously mentioned in the victim form – this is provided for analyst's reference only.

being distracted by reading the show cards or flicking back and forwards through them during the interview.

Show cards are retained for a small number of types of question including the following:

- Repetitive questions using the same pre-codes (e.g. QWORR, a battery of questions on fear of crime);
- Questions with long or complicated pre-code lists (e.g. QDETH asking ethnicity);
- Questions which are not read out by the interviewer because they are on a sensitive topic (e.g. HHLDVIO asking whether the respondent has experienced physical violence from another household member);
- Particularly sensitive questions in the self-completion section if the interviewer is reading them out for the respondent (e.g. the questions on experience of sexual victimisation).

5.5 Length of interview

Automatic 'time stamps' were placed throughout the CAPI script to allow timing of questionnaire sections. Due to various technical issues associated with CAPI systems, it is not always possible to derive meaningful time stamps from every interview.⁴⁶

Since the calculation of interview times is based on automatic time stamps in the CAPI script (rather than an interviewer estimate), they represent the elapsed time from the first question to the last question. They do not include the time during which the interviewer is completing the address contact record, introducing the survey or closing the interview.

The average (mean) length of an interview was 39 minutes. The main influence on interview length was whether the respondent had been a victim of crime (and therefore whether a victim form was completed or not). The average interview length for non-victims was 34 minutes compared to 48 minutes for those completing one or more victim forms. The average length of interview by number of victim forms is shown in Table 6.

⁴⁶ For example, 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 four to five hours.

Table 6: Average length of core interview by number of victim forms.

Number of victim forms	Average interview (minutes)
None	34
Any victim forms	48
1	45
2	56
3	62
4	64
5	79
All respondents	39

As mentioned above the average length of the survey is affected primarily by the number of victim forms completed by a respondent. Table 7 shows that the time taken to complete the first victim form was longer than following ones, suggesting that respondents speed up as they go through each victim form. This pattern is also evident in the BCS.

Table 7: Average victim form length

Victim form	Average time (minutes)
1	10
2	8
3	6
4	5
5	5

5.6 Presence of others during the interview

Interviewers were briefed to aim to conduct the interviews in private with the respondent. This generally helps to make the interview run more smoothly, but it may also encourage some respondents to mention certain incidents or events which they might be embarrassed or worried about 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 and details were being provided as part of the victim form questionnaire,⁴⁷ interviewers had the option of suspending the victim form (simply by skipping over it) if they felt it was inappropriate to continue with the questions 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

⁴⁷ Although specific questions about partner abuse and sexual victimisation were included in the self-completion questionnaire, details of incidents of such a nature could be collected in the victim form questionnaire.

interview. A total of nine victim forms 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 in incidents of vehicle crime or property crime, where the respondent may not have been personally present, or may not have reported the incident to the police, etc. Additionally, in many cases it would simply not be possible for the interview to be conducted without others present in the room.

Information on the presence of others was recorded for the interview overall, and specifically for the crime screener section and the self-completion questionnaire.⁴⁸

5.6.1 Self-completion interview

For those respondents who completed the self-completion questionnaire, as well as the presence of others, the following information was also recorded:

- Whether the interviewer administered the questionnaire;
- Whether the respondent discussed their answers with anyone else, or whether anyone saw their answers as they input them to the PC;
- Whether the respondent required any assistance from the interviewer with the questions, and if so with roughly how many.

The majority of respondents who answered the questions (66%) used the touch sensitive tablet PC on their own without any help from the interviewer. A third of respondents (33%) asked the interviewer to enter their answers for them, and 14% of respondents entered their own answers but asked the interviewer for some degree of help. Respondents aged 60 years or over were most likely to have asked the interviewer to enter their answers for them (a third – 33%). This group were least likely to have completed the section in the first place – see section 4.6).

During interviews where another person other than the interviewer and the respondent were 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. Thus, 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. It was not common for others to become involved in answering the self-completion questions. In 90 per cent of interviews where the self-completion questionnaire was completed, the respondent completed the questions entirely on their own. In six per cent of interviews someone else actually looked, read or completed the self-completion with the respondent,

⁴⁸ This data is available in the SPSS data files on the UK Data Archive (variable names OTHRPERS, WHOPRES and SCOTHPER respectively).

while in another four per cent of interviews the respondent discussed the self-completion questions with other people.

The majority (86%) of respondents completing the self-completion questionnaire themselves completed it with no assistance with the questions from the interviewer. Nine per cent received help with one or two questions and four per cent required help with more than one or two questions.

The average questionnaire length for the self-completion section was eight minutes.

6 Data processing

All data processing was undertaken by TNS-BMRB, including offence coding, standard coding and data checking.

6.1 Offence coding process

The SCJS offence coding system is based on that developed for the 1982 BCS, but tailored for the Scottish justice system. The system is designed to match as closely as possible the way incidents would be classified by the police to aid comparison. This involves collecting detailed information about incidents in the victim form section of the questionnaire. Once the interview data is returned to the office, all victim forms are reviewed by trained coders in order to determine whether what has been reported in the interview represents a crime or not and, if so, what offence code should be assigned to the crime.

TNS-BMRB developed a new offence coding system / procedure for the SCJS, although the principles remain the same as for past Scottish crime surveys. TNS-BMRB worked with Scottish Government to refine this system during the course of the 2008-09 survey and all data for the survey was coded consistently using agreed principles set down in the SCJS coding manual.

The offence coding system consisted of the following steps:

1. For each victim form details of the responses to key questions in the victim form and other relevant parts of the questionnaire were presented to the coder electronically using Ascribe coding software.⁴⁹
2. The coder read the answers to the questions and, consulting the coding manual which provides rules and guidance, assigned an offence code. The coder also completed a certainty record for each victim form which showed whether they were certain that the code assigned was correct, or if they were uncertain (for example in cases where there was no specific guidance in the offence coding manual).
3. A coding supervisor checked all codes that the original coder was uncertain about. Additionally, 10% of codes where the coder was certain of the code assigned were also checked by Scottish Government as a further quality check.
4. Researchers at the Scottish Government (see section 6.1.1) checked:
 - Any codes that TNS-BMRB coders or supervisors were uncertain about, or where a code could not be assigned;

⁴⁹ Ascribe is a Windows-based coding software package which is commonly used on CAPI surveys. The standard Ascribe software was specially amended to deal with the requirements of the SCJS offence coding system.

- 10% of all certain codes as part of a quality control check;
- All cases of duplicate victim forms (where the same incident was mentioned in two separate victim forms).

The result of this process was that every victim form had a final offence code assigned to it, as well as a record of any codes assigned at the intermediate steps as outlined above.

6.1.1 Scottish Government offence coding

As noted in section 6.1, all cases where the TNS-BMRB coders (including supervisors) were uncertain about the correct code to assign were referred to the Scottish Government. In addition to this, 10% of all codes which TNS-BMRB were certain about were sent to the Scottish Government for quality control checking.

Codes to be checked by researchers at the Scottish Government were sent in Excel format each month after fieldwork was completed. Scottish Government researchers were also provided with a separate summary file containing the original coder code and, where applicable, the supervisor code and any notes that the coder or supervisor added about why they were uncertain or where clarification was needed.

Researchers at the Scottish Government then 'blind coded' each of the victim forms sent to them (without referring to the separate summary file) and then returned the summary file with their code and any comments added. These codes were then included in the Ascribe coding system and the coders briefed on why a particular code had been assigned.

Where the Scottish Government changed a code that TNS-BMRB coders had marked as 'certain', a reason for this was provided and the decision discussed further between TNS-BMRB coders and Scottish Government researchers if necessary.

In all cases where the Scottish Government changed a code that TNS-BMRB coders or supervisors had been certain about, this was double checked and verified by TNS-BMRB coding supervisors upon return of the coding from the Scottish Government. Where TNS-BMRB coders did not agree with the Scottish Government a further dialogue was opened with Scottish Government researchers until a conclusion was reached. A log of queries and corresponding decisions and why they were taken was retained and referred to on an ongoing basis. These were used to set precedents for future decisions, and formed the revisions to the offence coding manual for the 2009-10 survey sweep.

In total, 1,393 victim forms were sent to the Scottish Government for checking, representing 24% of all victim forms. This is a relatively high proportion when compared to the BCS, but reflects both the fact that the TNS-BMRB coders and Scottish Government researchers were working on the survey for the first time, and that the coding manual used in previous surveys also required updating as coding proceeded.

6.1.2 Final offence code

The SPSS data files delivered to the Scottish Government include all the offence codes that have been assigned to each victim form at each stage of the coding process.⁵⁰

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 Scottish Government code takes priority over the TNS-BMRB coding supervisor, who takes priority over the original TNS-BMRB coder (where applicable). The variables in the VFF SPSS data file which detail this are:

- VOFFENCE: code assigned by the original coder;
- SOFFENCE: code assigned by the supervisor;
- FINLOFFC: code assigned by the Scottish Government research team;
- OFFENCE: final offence code assigned.

The offence codes for each victim form are also contained in the RF SPSS data file in the VICFORM variables.

6.2 Standard back-coding

In addition to the survey specific offence coding, coders also looked at all questions where an 'Other SPECIFY' had been given as an answer to a pre-coded question. 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.

In addition to the questionnaire code frames, coders were provided with the code frames used in the survey pilot as a starting point. If the coding supervisor felt an extra code was needed, this was flagged up to researchers who approved any changes before they were implemented.

It should be noted that no 'other – specify' questions were present in the self-completion questionnaire as this would place an additional burden on respondents.

6.3 Open-ended coding

There were only three fully open-ended questions in the questionnaire which were not exclusively used for offence coding or National Statistics Socio-Economic Classification (NS-SEC) coding. These were QCOT (in what other ways contacted police), QCRO (what other reason police have contacted respondent for) and QWHY (why respondent has a particular view of police

⁵⁰ This information is available in the final SPSS data files lodged on the UK Data Archive: <http://www.data-archive.ac.uk/>

performance). Code frames were developed by coders and coding supervisors for these questions before being checked by researchers.

6.4 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 four weeks.

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 Computer Assisted Structured CODing Tool (CASCOT),⁵¹ a package widely used to code SOC, with coders using the manuals for reference.

Whilst full SOC codes were coded, the data files only contain a two-digit SOC code to reduce the disclosure risk.

As well as occupation codes, National Statistics Socio-Economic Classification (NS-SEC) was added to the file for all respondents.⁵² NS-SEC categories were derived using documentation provided by the Office for National Statistics (ONS). Both the NS-SEC operational categories and the NS-SEC analytical categories were derived. Details of the NS-SEC categories can be found on the ONS website.⁵³

6.5 Data checking

In addition to the plausibility and consistency checks which were programmed as part of the CAPI script (see section 5.2.1), a number of other checks were undertaken as part of the data processing:

- The raw CAPI data was checked against the unedited data in Quantum (the data processing and tabulation software used) to make sure that no data was missing;
- The unedited data was checked against the data specifications;
- Data was checked before and after coding data was added to ensure consistency;
- Data was checked before and after data forcing to ensure consistency (see section 5.3);
- Data was cross referenced for logic consistency (for example, all victim forms included in the analysis of 'all SCJS crime' had to have an

⁵¹ See University of Warwick website:

<http://www2.warwick.ac.uk/fac/soc/ier/publications/software/cascot/>

⁵² It should be noted that information to allow NS-SEC coding was only collected for respondents, and not specifically the Household Reference Person (HRP).

⁵³ ONS website: <http://www.ons.gov.uk/about-statistics/classifications/current/ns-sec/index.html>

in-scope offence code, occur within the reference period and within Scotland).

The offence coding process included a separate validation process – see section 6.1).

The SPSS data files also had a number of checks carried out on them which were undertaken by the UK Data Archive as part of the deposit process.⁵⁴

⁵⁴ For more information, see the UK Data Archive website: <http://www.data-archive.ac.uk/>

7 Offence codes, survey statistics and crime groups

The offence coding process assigns offence codes to each victim form completed by a respondent (see section 6.1). This chapter examines the offence codes which are used in the analysis and reporting of the survey, and how they are grouped and defined. It also provides information on comparing the SCJS crime statistics to Scottish police recorded crime statistics and the BCS.

7.1 Crime types covered by the survey

7.1.1 Offence codes

The offence coding manual for SCJS 2008-09 contained 63 offence codes. These can be split into three groups: in-scope, out-of-scope codes and non-valid codes.

- **In-scope codes:** these offence codes were used in the calculation of 'all SCJS crime' (see sections 7.1.4 and 7.3.1);
- **Out-of-scope codes:** 13 offence codes related to sexual offences or threats, and so were not included in the 'all SCJS crime' statistics produced by the survey (see section 7.1.2);
- **Non-valid codes:** the offence coding manual also contained 18 codes for classifying incidents recorded in the victim form which were not within the scope of the survey, or where not enough information was collected to make an accurate classification. These 18 codes – termed non-valid – were not used in the calculation of 'all SCJS crime'.

7.1.2 A note on crime types not covered

The SCJS only collects information about incidents which occurred within Scotland (or, if an incident happened online, if the respondent was living in Scotland at the time) and within the reference period (see section 5.1).

In addition, the SCJS does not aim to provide data about all types of crime occurring in Scotland and has notable exclusions:

- Crimes against adults living in circumstances other than private households (for example, adults living in institutions, such as prisons or hospitals, or other accommodation, such as military bases and student accommodation – section 2.3);
- Crimes against children and young people;⁵⁵
- Crimes against businesses;⁵⁶

⁵⁵ The BCS was extended to cover children aged between 10 and 15 years old in 2008. More information can be found on the Home Office BCS website: <http://www.homeoffice.gov.uk/rds/bcs1.html>

- ‘Victimless’ crimes, such as speeding, or crime where the victim cannot be interviewed, such as homicide.

7.1.3 Sexual offences and threats

The SCJS 2008-09 collected information on threats and, where reported, sexual offences, and coders assigned offence codes to incidents of these crimes in the normal way. However, the ‘all SCJS crime’ statistics produced from the survey, including the estimates of incidence and prevalence, do not include these crimes for the reasons below

Very small numbers of **sexual offences** were recorded in the victim form in past Scottish crime surveys. It is accepted that victims are reluctant to disclose information on these sensitive crimes in a face-to-face interview. Any survey estimates for sexual offences produced from the victim form in past surveys have not been sufficiently reliable to report.

Recognising the unreliability of face-to-face interviewing for collecting information about sexual victimisation, the SCJS 2008-09 estimates of crime did not include data on any sexual offences that were recorded in the victim form. Instead, a separate self-completion section was developed for the SCJS 2008-09 (see section 3.1.11). The statistics and analysis from the self-completion survey are reported separately and a separate data file is available on the UK Data Archive.⁵⁷

Following established practice in previous crime surveys in Scotland, **threats**, although assigned an offence code, were not included in the estimates of crime due to the difficulty of establishing whether or not a crime actually occurred (Anderson and Leitch, 1996).

7.1.4 List of in-scope offence codes

The list of the 32 in-scope SCJS offence codes (crimes) which were included in the ‘all SCJS crime’ incidence and prevalence statistics produced from the survey is shown in Table 8. It also shows the crime groups used in the 2008-09 SCJS First Findings report into which each in-scope offence code is grouped.

⁵⁶ The Commercial Victimisation Survey (CVS) conducted for the Home Office provides data on this for England and Wales, but a separate survey is not conducted in Scotland. More information on the CVS is available from the Home Office website: <http://www.homeoffice.gov.uk/rds/business-crime.html>

⁵⁷ SCJS reports and related publications are available on the Scottish Government survey website: <http://www.scotland.gov.uk/Topics/Research/by-topic/crime-and-justice/crime-and-justice-survey>

Table 8: Offence codes included in the estimates of ‘all SCJS crime’ by crime group used in 2008-09 SCJS First Findings report

Code	Description	Crime group
11	Serious assault	Assault
12	Minor assault	
14	Serious assault and fire raising	
15	Serious assault and housebreaking	
21	Attempted assault	
41	Robbery	Robbery
42	Attempted robbery	
43	Snatch theft from the person	Other personal theft (excluding robbery)
44	Other theft from the person	
45	Attempted theft from the person	
67	Other theft	
73	Other attempted theft	
51	Housebreaking in a dwelling (nothing taken)	Housebreaking
52	Housebreaking in a dwelling (something taken)	
53	Attempted housebreaking in a dwelling	
50	Attempted housebreaking to non-connected domestic garage / outhouse	Other attempted theft (including bicycle theft)
55	Theft in a dwelling	
56	Theft from a meter	
57	Housebreaking from non-connected domestic garage / outhouse – nothing taken	
58	Housebreaking from non-connected domestic garage / outhouse – something taken	
64	Theft of pedal cycle	
65	Theft from outside dwelling (excluding theft of milk bottles)	
60	Theft of car / van	
61	Theft from car / van	
62	Theft of motorbike, motor scooter or moped	
63	Theft from motorbike, motor scooter or moped	
71	Attempted theft of / from car / van	
72	Attempted theft of / from motorcycle, motor scooter or moped	
80	Fire raising	Vandalism
82	Vandalism to a motor vehicle	
84	Vandalism to the home	
86	Other vandalism	

7.2 Incidence, prevalence and repeat victimisation

The SCJS produces two key measures of crime: incidence and prevalence. It also provides data on repeat victimisation.⁵⁸

7.2.1 Incidence and incidence rate

Incidence is defined as:

The number of crimes experienced per household or adult.

To calculate incidence, the number of crimes experienced by respondents or their household was aggregated together for each offence code, based on up to five separate victim forms, and on the number of incidents in a 'series' (capped at 5) recorded in those victim forms (section 3.1.5).

The overall incidence was estimated for Scotland using population estimates for the household and adult populations supplied by General Register Office for Scotland (GROS). In the SCJS the number of crimes identified in 2008-09 was grossed by the following 2008 population estimates: 2,331,250 households for household crimes and 4,254,966 adults for personal crimes.⁵⁹

The incidence rate has also been calculated for key crime groups. This is calculated as the gross number of incidents divided by 10,000 to give an incidence rate per 10,000 households (for household crimes) or per 10,000 adults (for personal crimes). The incidence rate enables comparison between areas with differing populations. It is used in the report to compare results obtained from the SCJS 2008-09 and from the BCS 2008-09.

7.2.2 Prevalence rate

Prevalence is defined as:

The proportion of the population who were victims of an offence once or more in the specified period.

Prevalence takes account of whether a household or person was a victim of a specific crime once or more, not the number of times they were victimised. These figures were based on information from the victim form, where respondents and their households are designated as victims. The percentage of households or individuals in the population that is a victim provides the prevalence rate. This equates to the risk of being a victim of crime and is also referred to as the rate of victimisation.

The prevalence rate was calculated according to the nature of the crime. For a crime or group of crimes where respondents were asked whether it had

⁵⁸ Incidence and prevalence statistics from the SCJS 2008-09 are published in the 2008-09 SCJS First Findings report, available on the Scottish Government website;
<http://www.scotland.gov.uk/Topics/Research/by-topic/crime-and-justice/crime-and-justice-survey/publications>

⁵⁹ GROS: <http://www.gro-scotland.gov.uk/statistics/publications-and-data/population-estimates/mid-2008-population-estimates-scotland/index.html>

happened to the household or not, the prevalence rate was calculated as a percentage of the population of households. Of the groups used in the 2008-09 SCJS First Findings report, this included all motor vehicle crime, vandalism, housebreaking and other household theft (including bicycle theft) (see section 7.3 for further details on these crime groups). For a crime or groups of crimes where respondents were personally the victim (rather than the household), the prevalence rate was calculated based on the population of adults. Of the groups used in the 2008-09 SCJS First Findings report, this includes property theft (excluding robbery), assault, robbery and violence.

Where crimes are grouped together in a way that includes both household and personal crime, the prevalence rate was calculated as a percentage of the population of adults. This follows the practice adopted by the BCS and includes the prevalence of crime overall ('all SCJS crime') and the prevalence of property crime.

7.2.3 Repeat victimisation

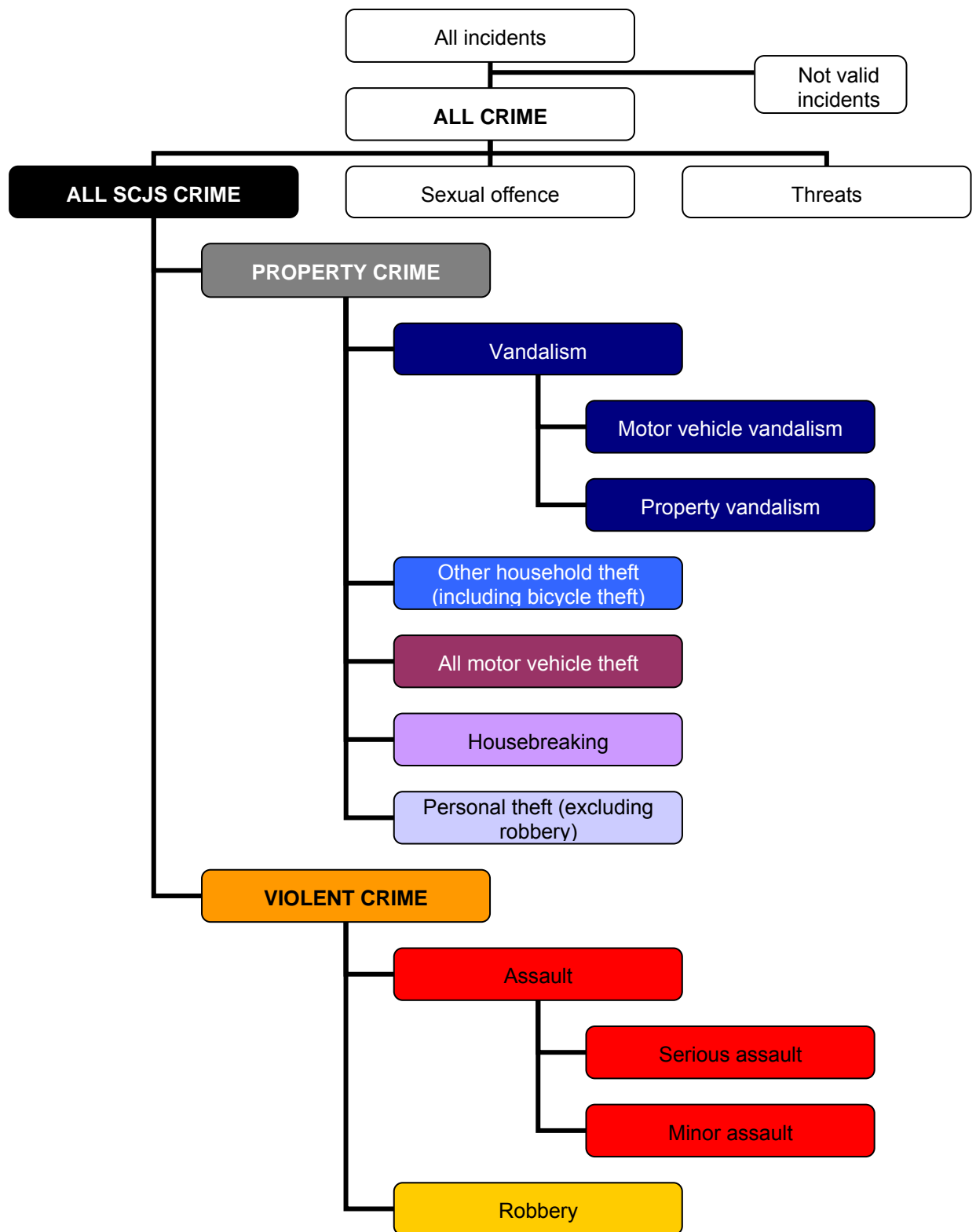
A household or adult is classed as a repeat victim if they are the victim of the same crime more than once in the 12 month reference period. If everyone had only been the victim of one crime in the reference period, incidence and prevalence rates would be the same. Repeat victimisation accounts for differences between incidence and prevalence rates. Higher levels of repeat victimisation mean there is a relatively lower prevalence rate compared with incidence and the average number of crimes per victim (the concentration rate) is relatively high.

The repeat victimisation rate is calculated as a percentage of household or adult victims according to the crime group. Where both household and personal crimes are grouped together, the repeat victimisation rate is calculated as a percentage of the population of adult victims.

7.3 Crime groups

Offence codes were categorised into seven groups which are used in the 2008-09 SCJS First Findings report. These seven groups were further grouped into property crime and violent crime and are shown in Figure 3. This is followed by a more detailed description of the crime groups, corresponding to the order in Figure 3.

Figure 3: Crime groups used: 2008-09 SCJS First Findings report



7.3.1 'All SCJS crime'

This category of crime includes all property crime and all violent crime, and excludes the out-of-scope crimes of threats and sexual offences (see section 7.1).

'All SCJS crime' is used throughout the 2008-09 SCJS First Findings report and all of the other crime groups used in the report are sub-groups of 'all SCJS crime'. Estimates of overall incidence and prevalence are calculated using 'all SCJS crime'.

7.3.2 Property crime

This SCJS 2008-09 crime grouping includes vandalism, other household theft (including bicycle theft), all motor vehicle theft, housebreaking and personal theft (excluding robbery).

Property crime is one of the main crime groups used in reporting the SCJS 2008-09 data (together with violent crime). As property crime includes both household and personal crime, estimates of incidence and prevalence rates are calculated based on the adult population.

7.3.3 Vandalism

Vandalism involves intentional and malicious damage to property (including dwellings and vehicles). In the Criminal Justice (Scotland) Act 1980, vandalism became a separate offence defined as wilful or reckless destruction or damage to property belonging to another person. Cases which involve only nuisance without actual damage (for example, letting down car tyres) are not included. Where criminal damage occurs in combination with housebreaking, robbery or violent offences it is these latter that take precedence.

Vandalism is a sub-group within property crime and forms part of the group known as comparable crime which is comparable to police recorded crime (for further details see section 11.1).

7.3.4 Motor vehicle vandalism

This SCJS 2008-09 crime group includes any intentional and malicious damage to a vehicle such as scratching a coin down the side of a car, or denting a car roof. It does not, however, include causing deliberate damage to a car by fire. These incidents are recorded as fire-raising and therefore are included in vandalism to other property. The SCJS 2008-09 only covers vandalism against vehicles belonging to private households; that is, cars, vans, motor cycles, scooters and mopeds which are either owned or regularly used by anyone in the household. Lorries, heavy vans, tractors, trailers and towed caravans were generally excluded from the coverage of the SCJS 2008-09 as these are usually the property of an employer and not for personal use.

Motor vehicle vandalism, together with property vandalism, is collectively known as vandalism.

7.3.5 Property vandalism

Vandalism to the home and other property involves intentional or malicious damage to doors, windows, fences, plants and shrubs etc. Vandalism to other property also includes arson where there is any deliberate damage to property belonging to the respondent or their household (including vehicles) caused by fire, regardless of the property involved.

Property vandalism and vehicle vandalism together are classed as vandalism.

7.3.6 Other household theft (including bicycle theft)

This term refers to actual and attempted thefts from domestic garages, outhouses and sheds etc. that are not directly linked to the dwelling. The term also includes thefts from gas and electricity prepayment meters and thefts from outside the dwelling (excluding thefts of milk bottles etc. from the doorstep). 'Thefts in a dwelling' are also included in this category; these are thefts committed inside a home by somebody who did not force their way into the home, and who entered through a normal entrance (examples include guests at parties, workmen with legitimate access, people who get in using false pretences, or through a door left open or unlocked). Theft of a bicycle is also included.

Other household theft (including bicycle theft) is a sub-group of property crime. Bicycle theft, one of the crimes within this group, is a component of acquisitive crime used to compare with police recorded crime.

7.3.7 Bicycle theft

This term applies to the theft of bicycles from outside a dwelling. Almost all bicycles were stolen in this way. Bicycle thefts which take place inside the house by someone who is not trespassing at the time are counted as theft in a dwelling (a sub-category of other household theft); and thefts of bicycles from inside the house by a trespasser are counted as housebreaking.

7.3.8 All motor vehicle theft

The SCJS 2008-09 covers three main categories of vehicle theft: 'theft of motor vehicles' referring to the theft or unauthorised taking of a vehicle, where the vehicle is driven away illegally (whether or not it is recovered); 'theft from motor vehicles' which includes the theft of vehicle parts, accessories or contents; and 'attempted thefts of or from motor vehicles', where there is clear evidence that an attempt was made to steal the vehicle or something from it (e.g. damage to locks). If parts or contents of the motor vehicle are stolen in addition to the vehicle being moved, the incident is classified as theft of a motor vehicle. Included in this category are cars, vans, motor cycles, scooters and mopeds which are either owned or regularly used by anyone in the household. Lorries, heavy vans, tractors, trailers and towed caravans were generally excluded from the coverage of the SCJS 2008-09 as these are usually the property of an employer and not for personal use.

.All motor vehicle theft is a sub-group of property crime. Theft of a motor vehicle, one of the crimes within this group, is one of the components of acquisitive crime used to compare with police recorded crime (section 11.1).

7.3.9 Housebreaking

In Scottish law, the term 'burglary' has no meaning, although in popular usage it has come to mean breaking into a house in order to steal the contents. Scottish law refers to this as 'theft by housebreaking'.

Respondents who reported that someone had broken into their home with the intention of committing theft (whether the intention was carried out or not) were classified as victims of housebreaking. Entry must be by forcing a door or via a non-standard entrance. Thus, entry through unlocked doors or by using false pretences, or if the offender had a key, are not housebreaking (these would fall into 'other household theft'). The definition of housebreaking used in SCJS 2008-09 is the same as the definition used in the 2003 and 2006 crime surveys but differs from the definition used in surveys prior to 2003. The definition was changed in 2003 to mirror closely the Scottish police recorded crime definition of domestic housebreaking by including housebreakings to non-dwellings (such as sheds, garages and out-houses which are directly linked to the dwelling).

Housebreaking is a sub-group of property crime and is one of the components of acquisitive crime used to compare with police recorded crime.

7.3.10 Personal theft (excluding robbery)

This group of crime includes snatch theft, actual and attempted 'theft from the person' where the victim's property is stolen directly from the person of the victim, but without physical force or threat of it. It also includes 'actual and attempted other theft' which refers to theft of personal property outside the home where there was no direct contact between the offender and the victim.

Personal theft is included in property crime. It differs from the rest of property crime in that estimates of incidence and prevalence of personal theft are calculated using the adult, rather than the household population.

7.3.11 Violent crime

The coverage of violent crime consists of actual and attempted minor assault, serious assault and robbery. Sexual offences are out-of-scope and not included.

Violent crime is one of the main crime groups used in reporting the SCJS 2008-09 data (together with property crime). It forms part of the group known as comparable crime which is comparable to police recorded crime (for further details see section 11.1).⁶⁰

⁶⁰ Violent crime is referred to as violence when it is included in comparable crime.

Assault

In the SCJS 2008-09, the term assault refers to two main categories:

- Serious assaults (see below);
- Minor assaults, which are actual or attempted assaults resulting in no or negligible injury.

For the purpose of analysis and comparison with police recorded crime statistics these categories have been grouped together and called assault.

Assault is a sub-group of violent crime.

7.3.12 Serious assault

An assault is classified as serious if the victim sustained an injury which lead to an overnight stay in hospital as an in-patient or any of the following injuries whether or not they were detained in hospital: fractures, internal injuries, severe concussion, loss of consciousness, lacerations requiring sutures which may lead to impairment or disfigurement or any other injury which may lead to impairment or disfigurement.

Serious assault is a sub-group within violent crime.

7.3.13 Robbery

This term refers to actual or attempted theft of personal property or cash directly from the person, accompanied by force or the threat of force. Robbery should be distinguished from other thefts from the person which involve speed or stealth.

Robbery is a sub-group of violent crime.

7.3.14 Acquisitive crime

Acquisitive crime consists of three crime categories: housebreaking, theft of a motor vehicle and bicycle theft.

It forms part of the group known as comparable crime which is comparable to police recorded crime (for further details see section 11.1).

7.3.15 Comparable crime

Only certain categories of crime covered by the SCJS 2008-09 are directly comparable with police recorded crime (section 11.1). These categories are collectively referred to as comparable crime. Comparable crime is broken down at various points into the following three broad classifications:

- Acquisitive crime: comprising housebreaking, theft of a motor vehicle and bicycle theft;
- Vandalism: including both vehicle and household vandalism;
- Violence: comprising assault and robbery.

Comparable crime is used when comparing SCJS 2008-09 results with police recorded crime.

7.3.16 Household crimes

For household offences, all members of the household can be regarded as victims. Therefore, the respondent answers on behalf of the whole household in the offence categories of vandalism (to property and vehicles), other household theft (including bicycle theft), all motor vehicle theft and housebreaking.

Estimates of incidence and prevalence rates are calculated based on the household population for all of the household crimes (unless grouped with personal crimes).

7.3.17 Personal crime

Personal crime relates to crimes against the individual and only to the respondents' own personal experience (not that of other people in the household). This applies to the following offence categories: assault, robbery, theft from the person, and other personal theft.

Estimates of incidence and prevalence rates are calculated based on the adult population for all of the crimes defined as personal crime and for groups of crimes including both personal and household crime.

8 Weighting

8.1 Rationale for weighting and methodology employed

There are a number of reasons why weights are calculated for the SCJS sample. These include:

1. Correction of the sample for **unequal probabilities of selection** that arose from various aspects of the sample design. These included:
 - The requirement for a final sample in each Police Force Area (PFA) equivalent to a simple random sample of 1,000. Consequently, PFAs with smaller populations were over-sampled relative to other PFAs;
 - The number of dwellings at an address differed from the number on the PAF sample frame, despite the fact that PAF was expanded by the multiple occupation indicator (MOI).⁶¹ This resulted in an unequal probability of selection;
 - Since only one adult respondent (aged 16 years or over) was selected from each household, the selection probability differed according to the number of adults in the household.

These corrections are known as **design weights** (or design correction weights).

2. **Differing response rates by sub-groups within the sample.** Response rates can differ by household type, age, and gender (for example, a young adult male living alone may be less likely to respond to the survey than one living with a partner and child).

Correction for this is often referred to as **non-response corrections** or, more recently, as calibration weighting.

3. The results from the survey are **reported in terms of the population.** Therefore, an **expansion factor** is required to gross up the sample data to allow the results to be expressed as population values.

8.2 Individual and household weights

The SCJS, like the BCS, technically consists of two highly related, but separate surveys; at various times in the survey the adult being interviewed provides information on behalf of the household as a whole and on behalf of themselves as an individual.

⁶¹ The MOI indicator on PAF identifies addresses with more than one household.

There are three main units of analysis used on the SCJS:

- Households;
- Individuals;
- Incidents of victimisation.

Different weights are used depending upon the unit of analysis. Household and individual weights were constructed for use with variables where the household or individual is the main unit of analysis respectively. Some crimes are considered household crimes (e.g. burglary, vandalism to household property, theft of and from a car – see section 7.3.16) and therefore the main unit of analysis is the household. Similarly, analysis for certain questions in the survey is also conducted at the household level (for example, accommodation type). In these cases the household weight would apply.

Others crimes are considered personal crimes (assault, robbery, sexual offences etc. – see section 7.3.17) where the main unit of analysis is the individual and the individual weight applies. The individual weight would also be used when analysing personal feelings of safety when walking alone in the local area and other questions where the respondent is asked for their personal opinion or information about themselves.

Incident weights are based on the household and individual weights and additionally incorporate an expansion factor reflecting whether incidents in the victim form reflect a single or a series incident (see section 3.1.5). The incident weights should be used for all analysis conducted on the victim form file (VFF) if ‘all SCJS crime’ is being analysed.

The questionnaire included a self-completion section. However, respondents had the option of refusing to complete the section due the sensitive nature of the questions, and so the questionnaire was not completed by all the respondents to the main part of the questionnaire. Some additional weighting was necessary for use when analysing this sub-sample. The self-completion weights were calculated in a similar way to the main individual and household weights but were based only on respondents who had answered the self-completion section of the questionnaire. These are described in section 8.6.

The rationale for weighting, a description of the methodology used and the weighting characteristics are given in the sections below. The variable names used for each weight and their descriptions are presented in section 8.9.

8.3 Weighting method

A two-stage approach to weighting was used for SCJS. The first stage calculated a set of design weights that corrected for the unequal probabilities of selection due to an inaccuracy in the PAF multiple occupancy indicator (MOI) and, for the individual level weights, the adult household size. These design weights were used as pre-weights, or initial weights, at the start of the calibration weighting. Correction for disproportional sampling by PFA was achieved within the calibration weighting.

Calibration weighting is a relatively new name for a practice that has been employed for many years. In outline, the method is to weight sample data to population estimates across a number of variables. This, in effect, corrects for non-response bias and grosses the results up to population levels in the same operation.

A procedure often employed to do this, and used for SCJS, is usually known as 'rim weighting'. The population data are entered as targets for a series of 'rims', each rim relating to a variable or combination of variables, and the sample is weighted to each set of targets in turn. The weights after weighting to the targets of one rim are then input to weighting the next rim. The process continues to weight to each rim in turn until the weights of each component of every rim are consistent within a predefined criterion of the target (population) values. This gives a weighted sample whose profile is the same as the population profile for all of the dimensions included in the weighting rims. It permits weighting to allow for many characteristics when population data are not available for the complete interlinking of the various rim characteristics.

8.4 Household weights

8.4.1 Occupancy Correction – Pre-weight

In some cases the number of dwellings at an address may differ from that shown by the multiple occupancy indicator (MOI) given on the PAF. In those cases a correction was made for the changed probability of selection. The correction applied was the ratio of the actual number of households at the dwelling to the MOI value. The correction was used as a pre-weight to the rim weighting.

8.4.2 Weighting rims

There are two criteria that should be applied to determine the characteristics of rims to be used in calibration weighting:

- They should be characteristics related to the measurement. That is, for SCJS they should be related to levels and type of crime experienced by both households and individuals;
- Robust and up-to-date estimates of the populations should be available for those characteristics.

Statistical modelling has shown that levels of victimisation and crime are related to household type with single parent households being a particularly important group (Kershaw and Tseloni, 2005). Population data available for households in Scotland are limited, however data are published by General Register Office for Scotland (GROS) for four household types:

- One adult, no children;
- One adult, one or more children;
- Two or more adults, no children;
- Two or more adults, one or more children.

As sub-national data from SCJS are to be reported at PFA and Criminal Justice Authority Area (CJAA) levels, the second rim used for household weighting was for the eleven combined PFA / CJAA areas by the household types shown above.

The age group of the head of household has also been shown to be related to levels of crime (Kershaw and Tseloni, 2005). GROS publishes data for households by age of the head of household at the PFA / CJAA level and therefore that classification was used as a rim employed in the weighting.

An additional consideration for SCJS was the correction for the disproportional design across PFAs. A correction would have been applied by PFA. However, because the SCJS sample design was changed for the 2009-10 survey year, a change was also made to the weighting approach for 2008-09 survey to allow comparison. The change in 2009-10 created a disproportional design by local authority (LA) and by urban and rural parts within LA. To give consistency within SCJS across interview years, the decision was made to make the correction for disproportional sampling by urban / rural parts within each LA, rather than by PFA.

Thus, the rims selected for use in the weighting were:

- Household type within PFA / CJAA;
- Age of head of household within PFA / CJAA.
- Urban / rural areas within LA;

The application of these rims in the weighting procedure produced a single household weight for each record. Details of the targets for the components of the household weighting rims, together with their sources, are given in annex 9.

8.5 Individual weights

8.5.1 Variation in selection probabilities – pre-weight

The probability of selection of an adult respondent varied from household to household according to the number of adults aged 16 or over in the household. Respondents in single adult households were certain to be selected whereas those in two adult households would be selected one time in two. Similarly the selection probabilities changed for households containing more than two adults. Weights were applied corresponding to the number of adults in the household to correct for these variations in selection probabilities.

8.5.2 Household characteristics – pre-weights

The characteristics of respondents and their experience of levels and types of crime are related to the characteristics of the households in which they live. For this reason the SCJS 2008-09 household weights were carried forward into the individuals' weighting as part of the individual pre-weights.

The actual pre-weights used in calculating individual weights were the product of an adult's probability of selection and their household weight.

8.5.3 Age and gender

The final stage in calculating individual weights was to ensure that the weighted profile of the adults in the sample was consistent with the population profile for Scotland.

A single age by gender by PFA / CJAA rim was used after applying pre-weights as outlined in section 8.5.2. In previous surveys the age by gender rim was applied at the national level. For the SCJS 2008-09, due to the survey design requirement to produce representative data at the PFA and CJAA level, weighting at the sub-national level was carried out.

This weighting procedure produced a single weight for each adult respondent. Details of the weighting targets and their sources are given in annex 10.

8.6 Self-completion weights

Not all individuals responding to the SCJS survey agreed to complete the self-completion questionnaire. The proportion who did complete this was 69%. If this proportion was consistent across all sub-groups within the total sample there would be no need for re-calculating weights other than to apply a factor to allow for the smaller sample size and gross up the estimates to the population.

Analysis of response across sub-groups highlighted a difference in response to the self-completion section among different groups, with age demonstrating the greatest difference and within age further difference being observed according to gender. The response rate among respondents over 70 years old was 55%. Differences in response relating to whether a respondent was a victim of a crime or not in the main part of the survey were also observed.

In order to correct for this differential response, the weights were re-calculated using the same approach as the main survey. This involved treating the self-completion sample as a separate sample, using the multiple occupancy indicator (MOI) as a pre-weight, calculating households weights and using the product of the household weight, the MOI and number of adults in the household as a pre-weight for the calculation of individual weights, recalculated for the sub-sample.

Before the individual weights were calculated, three sets of rims were assessed, each one within PFA / CJAA. The first set was the same rim used in the calculation of individual weights for the main survey, namely age band within gender by PFA / CJAA. This would correct for the observed difference in response by age within gender. The second rim took account of different response rates relating to whether or not a victim form had been triggered and the third relating to whether the victim form was assigned an offence code that was included in the estimates of SCJS crime.

To assess how effective the resulting weights were in correcting for the non-response bias, estimates were calculated for incidence of crimes reported in

the main part of the survey based on the self-completion sample using the original rim, the original rim plus the second rim and the original rim plus the third rim. These estimates were compared with the original estimates generated from the total sample.

The results from the third set of weights (weighting by age within gender and victims of SCJS crime) introduced very high weights and variability in the data and, hence, this approach was discarded. The differences in the estimates produced using the weights for the remaining approaches fell within the standard errors calculated for the survey.

The introduction of the additional rim relating to whether a victim form had been triggered to allow for non-response bias relating to completion of a victim form appears to have improved the estimates marginally for some crimes, but increased the difference in estimates for others when compared with estimates produced using the original rim only. As there was no strong argument for using one approach in preference to the other, it was agreed with Scottish Government that the least complex weights were used (that is, the first set with only one rim including targets for age within gender).

The weights gross the survey estimates to the population. These have been used in the published reports on illicit drugs use, sexual victimisation and partner abuse providing results from the self-completion sections of the survey.⁶²

8.7 Weighted and unweighted sample profiles

Tables 9 and 10 show the achieved sample profiles for the main and self-completion questionnaires respectively compared to the weighted sample profile. As with all sample surveys, the achieved profile does not exactly match the population profile, despite the strict procedures which are followed to ensure a random sample and respondent selection. Sample surveys are not precisely representative of a cross-section of the population due to a variety of reasons including whether potential respondents were available for interview and their willingness to participate in the survey. In the SCJS 2008-09, the achieved sample under-represented younger adults and over-represented older adults. This pattern is fairly common in large scale social surveys of this type, and calibration weighting was applied to correct for differences in the level of response among groups of individuals on key attributes (section 8.5.3).

⁶² <http://www.scotland.gov.uk/Topics/Research/by-topic/crime-and-justice/crime-and-justice-survey/publications>

Table 9: Main questionnaire unweighted and weighted sample profiles by age and gender

	Unweighted Sample %	Weighted Sample %
Men		
16-24	9.4	15.5
25-34	12.7	15.6
35-44	17.4	18.1
45-54	18.3	17.7
55-64	17.7	15.3
65+	24.5	17.8
Base	7,010	2,032,650
Women		
16-24	7.3	13.6
25-34	12.9	14.3
35-44	18.0	17.9
45-54	16.5	17.2
55-64	17.0	14.7
65+	28.2	22.3
Base	8,993	2,222,350
All Men	43.8	47.8
All Women	56.2	52.2
Base	16,003	4,255,000

The differential response of younger and older respondents to the self-completion section of the questionnaire discussed in section 4.6 brought the unweighted sample profile for the self-completion questionnaire slightly closer to the adult population profile.

Table 10: Self-completion section unweighted and weighted sample profiles by age and gender

	Unweighted Sample %	Weighted Sample %
Men		
16-24	10.2	15.5
25-34	13.0	15.6
35-44	18.3	18.1
45-54	18.1	17.7
55-64	18.3	15.3
65+	22.0	17.8
Base	4,813	2,032,650
Women		
16-24	8.3	13.6
25-34	13.9	14.3
35-44	19.4	17.9
45-54	17.8	17.2
55-64	17.4	14.7
65+	23.1	22.3
Base	6,161	2,222,350
All Men	43.9	47.8
All Women	56.1	52.2
Base	10,974	4,255,000

8.8 Victim Form expansion factor / incident weight

Most victim forms collect details of only a single occurrence of an incident. However, respondents can also experience series of incidents, where the same thing was done under the same circumstances and probably by the same people (see section 3.1.5). In these cases, only one victim form is completed, collecting details of the latest incident only. However, the number of incidents occurring in the reference period is recorded and this number, capped at five incidents, is used in the crime statistics produced from the survey (see section 8.8.2).

Weighted incident values were calculated for each victim form. The values are the products of the appropriate household or individual weight and the number of incidents (the incident count), capped at five, represented by that victim form.⁶³ This is common practice in other victimisation surveys such as the BCS and NCVS.

⁶³ Therefore, a respondent can only have a maximum of 25 incidents included in the survey statistics (five victim forms with five incidents in a series).

This weight should be applied when analysing incident details in the SPSS victim form file (VFF – for example, who the offender was) for SCJS crimes so that data from series incidents are represented in the correct proportion of incidents overall.

8.8.1 Calculating the incident counts

Respondents could complete up to five victim forms. The incident count differed according to the characteristics of each victim form:

- Whether the victim form was valid⁶⁴ and assigned an in-scope offence code included in the ‘all SCJS crime’ definition;
- Whether the victim form represented a single incident or a series of incidents;

The following rules were applied:

1. Where the victim form was not valid or not assigned an in-scope offence code the household or individual weight was multiplied by zero;
2. Where the victim form was for a single incident the appropriate weight was multiplied by one;
3. Where the victim form represented a series of incidents, the appropriate weight was multiplied by the number of incidents represented, up to a maximum of five.

In the cases where the multiplier was zero, the weighted incidents clearly also became zero, effectively removing those cases from weighted analysis of ‘all SCJS crime’. This enabled estimates of the incidence of ‘all SCJS crime’, and of specific types of crimes within that, to be calculated.⁶⁵

8.8.2 Capping the incident counts

The restriction to the first five incidents in a series is applied to ensure that estimates are not affected by a very small number of respondents reporting an extremely high number of incidents and which are highly variable between survey years. The inclusion of all of these incidents could undermine the ability to measure trends consistently (Smith and Hoare, 2009). On the other hand, the practice of capping series incidents has been shown to underestimate the incidence of survey crime (Farrell and Pease, 2007; Planty and Strom, 2007). The convention of capping does not affect estimates of the risk of victimisation.

In the 2008-09 SCJS, 10% of all ‘valid’ victim forms were for a series of more than five similar incidents and four per cent were for a series of more than 10. Property vandalism (12%), assaults (16%) and threats (20%) all had higher

⁶⁴ That is, containing details of incidents which happened within the reference period and in Scotland.

⁶⁵ Chapter 7 provides further information on the definition of ‘all SCJS crime’ and of the different groupings of crime types used in the SCJS 2008-09.

than average percentages of series including more than five similar incidents. Threats are not included in estimates of incidence of ‘all SCJS crime’ (see section 7.1.3) and so the capping of threats does not contribute to the under-estimation of incidence. Estimates involving property vandalism and assault and the crime groups to which they contribute will be most affected by the practice of capping.

8.9 Weighting and expansion variables in SPSS data files

Table 11 lists the weighting variables which are contained in the SCJS 2008-09 SPSS data files.

Table 11: Weighting variables in the SCJS SPSS data files

Weighting variable	File ⁶⁶	Description
WGTGHHD	RF and VFF	Gross household weight (grossed to population)
WGTGINDIV	RF and VFF	Gross individual weight (grossed to population)
WGTGINC_SCJS	VFF	Gross incident weight SCJS crimes (to weight series incidents happening in reference period - capped at 5 – for ‘all SCJS crime’ only)
WGTGHHD_SC	SCF	Self-completion household weight (grossed to population)
WGTGINDIV_SC	SCF	Self-completion individual weight (grossed to population)

When analysing the respondent file (RF) individual weights should be used as respondents are providing details of their own circumstances, experiences, attitudes and opinions. In a small number of cases, respondents are asked to provide information on behalf of the entire household (for example, the way in which the household occupies the accommodation, whether anyone in the household has owned or had regular use of a car, whether there is anyone in the household who require care etc.). These questions are listed in annex 11 and the household weight should be used when analysing these questions.

⁶⁶ Respondent file (RF), victim form file (VFF) and self-completion file (SCF) – see section 9.1 for details.

9 Data Output

9.1 Introduction

The main outputs provided to the Scottish Government are SPSS data files, delivered on an annual basis at the end of the survey. There are three separate files provided:

- Respondent file (RF) (also known as the non-victim form file);
- Victim form file (VFF);
- Self-completion file (SCF).

9.1.1 Respondent file

The **respondent file** (RF) is produced at the level of the individual respondent and contains all questionnaire data and associated variables, excluding information that is collected in the victim form or the self-completion questionnaire. The file also contains additional variables such as geo-demographic variables from the sample data and the derived variables for incidence and prevalence measures. Data for all respondents is provided in the RF file, irrespective of whether they were victims or non-victims.

9.1.2 Victim form file

The **victim form file** (VFF) is produced at the level of the individual incident of crime and contains all the data collected in the victim form. Thus, an individual respondent who reported three separate incidents and completed three victim forms would have three separate records in the victim form file.

All victim forms were included on the file; including cases where the incident was coded as invalid (occurred outside of the reference period or outside of Scotland). These records were not used for analysis and contain very little information, but are retained on the file to monitor the number of incidents out of scope of the survey or for use by researchers analysing crimes outside of the reference period. Similarly, victim forms which were not assigned a valid offence code (and therefore were not used in the production of the 'all SCJS crime' statistics from the survey) are also retained.

9.1.3 Self-completion file

The **self-completion file** (SCF) is produced at the level of the respondent and contains all of the data and associated variables in the self-completion questionnaire (illicit drug use, partner abuse and sexual victimisation) as well as the key demographic variables from the RF file. The file can also be linked to the RF file for analysis purposes.

9.2 Content of SPSS data files

The SPSS data files delivered to the Scottish Government and available on the UK Data Archive contain various types of variables.

The main types of variables contained on the files include:

- **Questionnaire variables** (all files). SPSS variable names correspond to question labels from the questionnaire. Variable names are also repeated in variable labels.
- **Geo-demographic variables** (all files). All cases had a set of pre-specified geo-demographic variables attached to them, including Police Force Area (PFA), Criminal Justice Authority Area (CJAA), National Criminal Justice Board Area (NCJBA),⁶⁷ Local Authority Area (LAA),⁶⁸ Health Board Area (HBA), 2006 Scottish Index of Multiple Deprivation (SIMD)⁶⁹ and 2007-2008 Scottish Government urban rural classification;⁷⁰
- **Coding variables** (RF and VF). On the respondent file, SOC2000 and NS-SEC codes are included for the respondent (see section 6.4). On the victim form file, a full set of offence codes were attached as outlined in section 6.1;
- **Derived variables** (all files). Many derived variables were also added to the file. These consisted primarily of two types:
 - Flag variables that identify, for example, the quarter-sample module allocation, the date of interview, the month of issue, whether a partial or full interview, whether a victim or non-victim etc. On the victim form file, flag variables include whether an incident was valid, whether it was a series or a single incident, whether the respondent had an unmet support need etc;
 - Classificatory variables derived from the data. These included standard classifications such as banded age groups, ethnic groups, income groups, etc;
- **Interviewer and observational variables** (all files). All interviews had a small number of observational data collected by interviewers in the CAPI script;
- **Weighting variables** (all files). See section 8.9 for further information on what these are and how they should be used.

9.3 Conventions used in SPSS data files

In creating the SCJS data files, as much consistency as possible was maintained with the 2006 SCVS to aid comparative analysis. As in SCVS

⁶⁷ For more information on NCJBAs see Scottish Government website: <http://www.scotland.gov.uk/Topics/Justice/legal/criminalprocedure/NCJBWeb>

⁶⁸ Four LAAs were grouped to 'LA unspecified' as populations values were low enough to present a disclosure risk if the specific Local Authority name was provided. These were Clackmannanshire, Eilean Siar, the Orkney Islands and the Shetland Islands.

⁶⁹ Scottish Government website: <http://www.scotland.gov.uk/Topics/Statistics/SIMD/>

⁷⁰ Details of the 2007-2008 Scottish Government Urban Rural Classification used in this survey can be found at: <http://www.scotland.gov.uk/Resource/Doc/233802/0063988.pdf>

2006, SPSS variable names correspond to question labels from the SCJS 2008-09 questionnaire.

9.3.1 Case identifiers

There are two types of case identifiers in the data files: SERIAL and VSERIAL.

The unique identifier SERIAL consists of up to six digits and is present on the respondent file (where each individual case or record represents an individual respondent) as well as the victim form file (where the identifier is no longer unique as respondents can have more than one victim form).

On the victim form file, where each individual case or record represents a victim form or incident, the unique case identifier (VSERIAL) is identical to SERIAL, but with the addition of the victim form number (01 to 05) at the end. This gives each victim form a unique identifier.

9.3.2 Don't know and refused values

Don't know and refused codes are standard on most questions. They have been assigned standard values in SPSS to aid data analysis:

Don't Know: -1
Refused: -2

9.3.3 Multiple response variables

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 and any additional codes added in the back-coding process – see section 6.2). Multiple response variables generally follow the format <question label><_><01> with the underscore denoting a multiple response variable and the number incrementing with each additional variable. Each variable was then given a value of '1' or '0', depending on whether the respondent gave that particular answer or not.

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

QMAGE: How old were the people who did it? Would you say they were ... READ OUT. MULTICODE OK.

1. Under school age (QMAGE_01)
2. Of school age (QMAGE_02)
3. Aged between 16 and 24 (QMAGE_03)
4. Aged between 25 and 39 (QMAGE_04)
5. Aged 40 or over? (QMAGE_05)
6. Don't Know (QMAGE_dk)
7. Refused (QMAGE_rf)

9.4 A note to data users: missing data

From early May to early July 2008 (a period of approximately two months, representing just over 16% of the 12 month fieldwork period) a technical issue with the CAPI software meant that responses to a small number of questions were not saved in the CAPI data collection system. Questions involved were open-ended questions or questions containing an 'Other SPECIFY' option where the interviewer 'wrote-in' respondents' answers using the pen stylus on the touch sensitive screen of their tablet PC (data were normally stored as a bitmap image file).

Annex 12 provides a fuller description of the issue and a short review of its impact based on analysis conducted by TNS-BMRB for the Scottish Government.

Analysis concluded that there was only a minor impact on the data collected for some of the key questions affected or the offence coding process (and therefore the estimates of crime produced by the survey).

10 Confidence intervals and statistical significance

10.1 Introduction

SCJS 2008-09 estimates are based on a representative sample of the population of Scotland aged 16 or over living in private households. A sample, as used in the SCJS, is a small-scale representation of the population from which it is drawn.

Any sample survey may produce estimates that differ from the values that would have been obtained if the whole population had been interviewed (the true population value). The magnitude of these differences is related to the size and variability of the estimate, and the design of the survey, including sample size.

It is however possible to calculate the range of values between which the population figures are estimated to lie; known as the confidence interval (also referred to as margin of error). At the 95 per cent confidence level, when assessing the results of a single survey it is assumed that there is a one in 20 chance that the true population value will fall outside the 95 per cent confidence interval range calculated for the survey estimate. Similarly, over many repeats of a survey under the same conditions, one would expect that the confidence interval would contain the true population value in 95 times out of 100.

Because of sampling variation, changes in reported estimates between survey years or between population subgroups may occur by chance. In other words, the change may simply be due to which respondents were randomly selected for interview.

Whether this is likely to be the case can be assessed using standard statistical tests. These tests indicate whether differences are likely to be due to chance or represent a real difference. In general, only differences that are statistically significant at the five per cent level (and are therefore likely to be real as opposed to chance) are described in the 2008-09 SCJS First Findings report.

10.2 SCJS confidence intervals

Confidence intervals around SCJS estimates are based on sampling variation calculations which reflect the stratified and, in some areas, clustered design of the survey, and also the weighting applied. They are often referred to as complex standard errors (CSEs). The values for these were calculated using the SAS Surveymeans module (<http://www.sas.com>).

Statistical significance for change in SCJS estimates for overall crime cannot be calculated in the same way as for other SCJS estimates. This is because there is an extra stage of sampling used in the personal crime rate (selecting the adult respondent for interview) compared with the household crime rate (where the respondent represents the whole household). Technically these are estimates from two different, although obviously highly related, surveys. The Office for National Statistics (ONS) methodology group has provided an

approximation method to use to overcome this problem. This method is also used by the BCS.

The approach involves producing population-weighted variances associated with two approximated estimates for overall crime. The first approximation is derived by apportioning household crime equally among adults within the household (in other words, converting households into adults). The second apportions personal crimes to all household members (converting adults into households).

The variances are calculated in the same way as for the standard household or personal crime rates (i.e. taking into account the complex sample design and weighting). An average is then taken of the two estimates of the population-weighted variances. The resulting approximated variance is then used in the calculation of confidence intervals for the estimate of 'all SCJS crime'. It is then used in the calculation of the sampling error around changes in estimates of 'all SCJS crime'. This enables the determination of whether such differences are statistically significant.

This method incorporates the effect of any covariance between household and personal crime. By taking an average of the two approximations, it also counteracts any possible effect on the estimates of differing response rates by household size.

If confidence intervals are not provided, then an approximation may be used. The standard error should be calculated assuming a simple random sample and the value multiplied by an appropriate design factor to provide the confidence interval. Design factors will differ for different types of crime and characteristics. Examination of the data indicates that most design factors that have been calculated have values of less than 1.2. This suggests that the use of 1.2 would provide conservative estimates of confidence intervals for most estimates from the survey, including the main and self-completion data.

Table 12 shows the following for the key crime groups:

- The estimates for incidence rates per 10,000 adults / households;
- The 95% confidence intervals;
- The simple random sample (SRS) standard error;
- The complex, or SCJS sample, standard error;
- The design factor.

Table 12: Confidence intervals, standard errors and design factors for key crime groups (incidence rate)

	Rate per 10,000	Confidence intervals	SRS Standard Error	SCJS Standard Error	Design Factor
COMPARABLE WITH POLICE	2,520	191	82	98	1.18
VANDALISM	1,503	128	54	65	1.21
ACQUISITIVE	273	39	19	20	1.04
Housebreaking	109	26	13	13	1.04
Theft of a motor vehicle	32	11	5	6	1.04
Bicycle theft	132	26	13	13	1.03
VIOLENCE	744	97	47	49	1.04
Assault	698	95	46	48	1.04
Robbery	46	18	9	9	1.06
OTHER SURVEY CRIMES					
Theft from a motor vehicle	230	36	18	19	1.03
Attempted theft of / from motor vehicle	37	11	6	6	1.02
Other household theft	610	67	30	34	1.15
Theft from the person	47	13	7	6	0.98
Other personal theft	211	34	18	17	0.98
Serious assault	60	26	14	14	0.99
PROPERTY CRIME	2,911	154	66	86	1.30
Housebreaking	109	26	13	13	1.04
All motor vehicle thefts	299	40	20	20	1.04
Other household thefts including bicycle thefts	741	77	33	40	1.19
Motor vehicle vandalism	784	73	35	37	1.06
Property vandalism	719	88	39	45	1.15
Personal theft excluding robbery	258	38	19	19	1.02
ALL SURVEY CRIME	3,655	241	97	123	1.27

11 Comparing the SCJS with other data sources

11.1 Comparison with police recorded crime

The SCJS provides estimates of the level of crime in Scotland. It includes crimes that are not reported to or recorded by the police, but is limited to crimes against adults resident in households, and also does not cover all crime types (section 7.1). Police recorded crime is a measure of those crimes reported to the police (estimated by the SCJS to be 42% of comparable crime) and then recorded by them as a crime or offence.

Comparison between SCJS crime estimates and police recorded crime is included in the 2008-09 SCJS First Findings report.

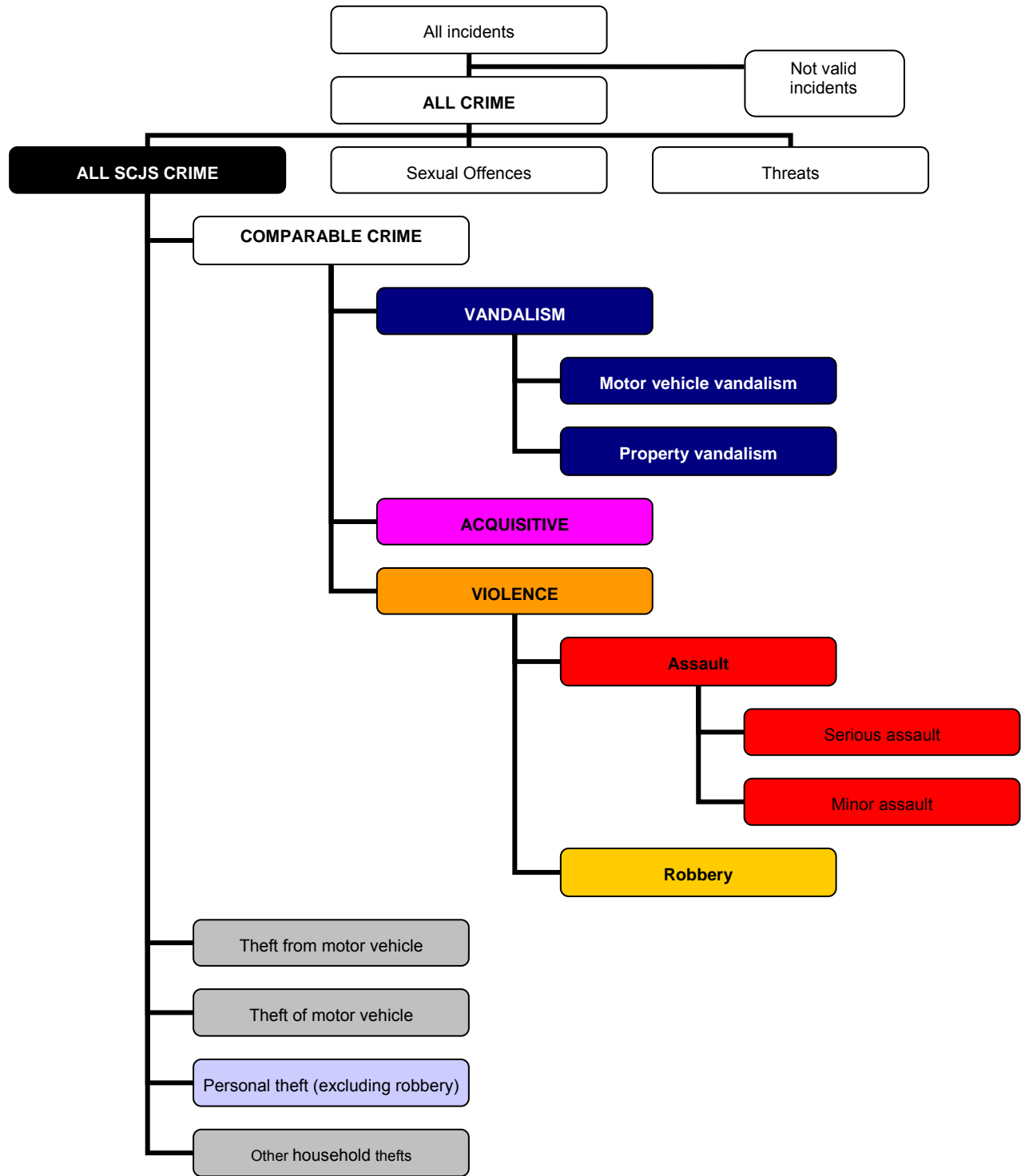
In order to compare the crime rates measured by the SCJS and police recorded crime, a comparable subset of crimes was created for a set of crimes that are covered by both measures. 59% of SCJS crime as measured by the SCJS 2008-09 falls into categories that can be compared with crimes recorded by the police.

It is possible to make comparisons between the SCJS and police recorded crime statistics for six general offence groups: vandalism, housebreaking, theft of motor vehicles, bicycle theft, assault and robbery (section 7.3). These are shown in Figure 4 below. Due to the small numbers of some of these crimes reported in the SCJS these have been grouped into vandalism, acquisitive (including housebreaking, bicycle theft and theft of motor vehicles) and violence (section 7.3).

SCJS 2008-09 crime estimates are based on interviews conducted between April 2008 and March 2009. Interviews have been conducted continuously with respondents being asked about crimes they have experienced in the 12 months prior to the interview. The moving reference period used in SCJS 2008-09 means that the data collected centres around March 2008 and is most closely comparable to a period ending September 2008, six months ahead of the police recorded crime data reported in the 2008-09 SCJS First Findings report (section 5.1 provides more information on the reference period).

To enable comparison, estimates of the total number of comparable crimes in Scotland were obtained by grossing up the number of crimes identified in the SCJS using the General Register Office for Scotland (GROS) 2008 population estimates of households and adults (chapter 8).

Figure 4: Comparable crime groups



11.2 Police recorded crime

Police recorded crime data ⁷¹ relate to crimes committed between April 2007 and March 2008. The figures presented in 2008-09 SCJS First Findings report are those as notified to the Scottish Government and that were contained on the database on the 9th of June 2009.

Various adjustments were made to the recorded crime categories to maximise comparability with the SCJS. In previous crime surveys in Scotland the police recorded crime figures were adjusted further to remove crimes against victims aged 15 or younger and crimes against businesses. In the SCJS 2008-09 the adjustments have not been made for the following reasons:

- This further adjustment came from a Strathclyde police survey from 2002-03 which was before the change to recorded crime practices brought about by the Scottish Recorded Crime Standard so it may not be valid any longer,
- In addition, the adjustment may still be appropriate but given that the data from the SCJS can now be provided at PFA level it is not appropriate to use Strathclyde's adjustment across all forces. Information to undertake this adjustment using local police force sources did not exist at the time of publication.

The decision not to adjust police recorded crime is consistent with established practice on BCS.

11.3 Comparison with the British Crime Survey

The SCJS 2008-09 has a similar structure to the BCS and details of offences are collected in the same way via the victim form questionnaire.

The coding of crimes differs between the SCJS and the BCS which reflects the criminal justice systems in which they operate. One general difference is that the SCJS includes crimes where the offender is mentally ill or a police officer (these crimes are excluded in the BCS estimates).

The SCJS also differs from the BCS in that it priorities assault over other crimes when coding offences. For example, if an incident includes both vandalism and assault, the assault component will be assumed to be more serious unless it is clear that the damage to property was the most serious aspect of the incident. This is not the case with the BCS. In addition, the intent of the offender to cause harm is not taken into consideration in the SCJS and the offence code given relies only on the injuries that the victim received. The intention of the offender is taken into consideration when assigning offence codes for assaults in the BCS.

⁷¹ <http://www.scotland.gov.uk/Publications/2008/09/29155946/0>

The definition of burglary in England and Wales as measured by the BCS and the definition of housebreaking in Scotland as measured by the SCJS differ in two ways:

- The mode of entry;

In Scotland, housebreaking occurs when the offender has physically broken into the home by forced entry or come in the home through a non-standard entry point such as a window. Even if the offender pushed past someone to gain entry to the home, this would not be coded as housebreaking in Scotland.⁷²

Burglary measured by the BCS in England and Wales does not necessarily involve forced entry; a burglar can walk in through an open door, or gain access by deception.

- The intention of the offender;

Burglary from a dwelling in England and Wales as measured by the BCS includes any unauthorised entry into the respondent's dwelling, no matter what incident occurs once the offender is inside. If the offender does not have the right to enter a home, but does so, this will be burglary.

In Scotland, the SCJS records the incident as housebreaking only if there is evidence of either theft from inside the home or an intention to steal in the case of attempted break-ins.

⁷² If a theft occurred in this instance, it would be included in the other household theft count.

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