

Scottish Crime and Justice Survey 2016/17: Technical Report

Neil Grant, Jamie Robertson - Scottish Government

Colin Hockaday - Ipsos Mori, Joe Rose - ScotGen Social Research

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1 BACKGROUND

1.1 Introduction to the Scottish Crime and Justice Survey

1.1.1 Overview

The Scottish Crime and Justice Survey (SCJS) is a survey of public experiences and perceptions of crime in Scotland. The 2016/17 survey is the sixth sweep of the SCJS, with the first being conducted in 2008/09. The survey interviews adults (aged 16 or over) who live in private residential addresses in Scotland.

The main aims of the SCJS are to:

- Enable the Scottish population to tell us about their experiences of, and attitudes to, a range of issues related to crime, policing and the justice system; including crime not reported to the police;
- Provide a valid and reliable measure of adults' experience of crime, including services provided to victims of crime;
- Examine trends, over time, in the number and nature of crimes in Scotland, providing a complementary measure of crime compared with police recorded crime statistics;
- Examine the varying risk and characteristics of crime for different groups of adults in the population.

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)¹. The 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 statistics 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 also provides analyses for a number of performance targets for the public sector in Scotland, at a national and a local level, including [National Indicators](#).²

¹ For more information on police recorded crime, see the Scottish Government website: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Crime-Justice/TrendType>

² 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>

The survey uses a victim form questionnaire to collect extensive details about the nature of each incident that respondents report, 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 calendar months before the month in which the interview takes place. This time period is referred to as the survey reference period. The survey reference period varies depending on the month in which the interview took place, although the reference period covers an equal length of time (12 calendar months) for each respondent.

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 Crime Survey for England and Wales (CSEW, formerly the BCS), and incidents which happen abroad are not covered by the survey (termed non-valid incidents).

Incidents which meet these criteria and which are identified as crimes within the scope of the survey (see [Chapter 9](#)) are used to produce the 'all SCJS crime' statistics which are published in the 2016/17 SCJS Main Findings report.

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

1.1.2 Purpose of the Technical Report and the SCJS User Guide

This report provides a range of technical details on the SCJS. Further information, including background on the survey, accessing and using survey data and examples of analysis are provided in the 2008/09 SCJS User Guide³.

1.1.3 The 2016/17 SCJS Survey: Fieldwork Extension and Response Rate

Fieldwork for the 2016/17 sweep of the survey was originally spread over 12 months to begin on 1st April 2016 and finishing on the 31st of March 2017. However, fieldwork performance was below target during that period and was

³ 2008/09 SCJS User Guide: <http://www.gov.scot/Resource/Doc/933/0117460.pdf>

extended by two months and finished on 31 May 2017. The target sample size for the 2016/17 survey was 6,000 however only 5,567 surveys were completed. The lower survey response rate is examined in Chapter 3 of this report.

1.1.4 History of Crime Surveys in Scotland

Prior to the 2016/17 survey, there have been 13 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.⁴ 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 2003.⁵ In 2004, following an external review, the survey underwent both a name change, under the title of the Scottish Crime and Victimization Survey (SCVS), 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.⁶

The 2016/17 sweep retains the same basic design as the 2008/09 surveys onwards but with changes to the modular sections of the questionnaire as well as the reduction in sample size and fieldwork period. Other minor changes to the SCJS questionnaire were also made. For further details see Chapter 5.

Despite changes in the design of crime surveys in Scotland over time, the wording of the questions that are asked to elicit experiences of victimisation have generally been consistent. Care must be taken, however, when comparing different surveys, both those conducted in Scotland and other UK surveys, and analysts should be careful to read the relevant technical documentation to ensure that like-on-like comparisons are being made.⁷

⁴ Further information on the shared Office for National Statistics and TNS BMRB website: <http://www.crimesurvey.co.uk>

⁵ For more information see the Scottish Government survey website: <http://www.scotland.gov.uk/SCJS>

⁶ For more information see Hope (2005). The SCVS 2004 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.

⁷ An attempt to look at the differences between the Scottish Crime and Victimization Survey (SCVS) and other UK surveys was made by Norris and Palmer (2010).

Figure 1.1: Review of methodological changes to crime surveys in Scotland over time, 2008/09 to 2014/15.

	2008-09	2009-10	2010-11	2012-13	2014-15	2016-17
Survey Company	TNS-BMRB	TNS-BMRB	TNS-BMRB	TNS-BMRB	TNS-BMRB	Ipsos Mori ScotCen
Core Sample	16,003	16,036	13,010	12,045	11,493	5,567
Response Rate	70.9%	70%	67%	67.7%	63.8%	63.2%
Sample frame	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF ⁴
Survey Weights	Incident, Individual, Household	Incident, Individual, Household	Incident, Individual, Household	Incident, Individual, Household	Incident, Individual, Household	Incident, Individual, Household
Self-completion	✓	✓	✓	✓	✓	✓
Reference Period ²	12 months	12 months	12 months	12 months	12 months	12 months
CAPI / PAPI	CAPI	CAPI	CAPI	CAPI	CAPI	CAPI
No of Victim Forms	5	5	5	5	5	5
Cap on series of incidents ³	✓ (5+)	✓ (5+)	✓ (5+)	✓ (5+)	✓ (5+)	✓ (5+)
Sample Type	Stratified sample design, rural areas were clustered.			Single stage unclustered stratified sample design.		
Design Factor	1.5	1.5	1.5	1.3	1.2	1.34
Geographical coverage ²	Scotland (excluding smaller Island Communities)					Sampling frame includes all Islands
Police Force Area (PFA)	✓	✓	✓	✓	✓	✓
Police Division (PD) ¹					✓	✓
Community Criminal Justice Areas (CCJA)	✓	✓	✓	✓	✓	✓

1. Police Division were introduced 1 April 2013; estimates can be derived for pre 2013 data.
2. The SCJS only collects and counts data on incidents occurring in Scotland and in the reference period for crime statistics.
3. The SCJS caps all series of crime that are greater than 5 incidents.
4. PAF – Postal Address File

1.2 Outputs from the SCJS 2016/17

The data collected from the 2016-17 SCJS are reported by the Scottish Government in a number of different formats. Figure 1.2 illustrates the different products and formats for which data produced for the 2016-17 SCJS is available.

Figure 1.2: The 2016-17 SCJS output products

Questionnaire	Main Questionnaire (2016-17, single survey year of data)	Victim Form Questionnaire (2016-17, single survey year of data)	Self-completion Questionnaire (2016-18, two survey years of data will be aggregated together)
Reports	Main Finding Report - 2016-17		The SCJS team will review self-completion reporting strategy in advanced of publishing 2017-18 Main Finding report.
Excel Tables	Full Sample & Crime Prevalence tables, 2016-17	Modules A, B, C & D, 2016-17	Victim Excel Form Table, 2016-17
Data Sets	Main Data Set (2016-17), available from UK Data Service (End User Licence), summer 2018	Victim Form Data Set (2016-17), available from UK Data Service (Special Licence), summer 2018	Self-completion Data Set 2016-18, available from UK Data Service (Special Licence), available summer 2019
Documentation	Technical Report (2016-17)		Further info to be provided in the 2017/18 technical report

All reports are available online in HTML format from the [SCJS publications webpage](#) and there is a pdf version that can be downloaded and printed out. The questionnaire, coding manual and other documentation is provided.

In addition, downloadable excel tables are also available on the SCJS website⁸. Further information on how to read the tables is described in the 'Introduction' worksheets within the table files, and in our video on [YouTube](#) or [Vimeo](#).

⁸ SCJS Publications and datasets: <http://www.gov.scot/Topics/Statistics/Browse/Crime-Justice/crime-and-justice-survey/publications> and <http://www.gov.scot/Topics/Statistics/Browse/Crime-Justice/Datasets/SCJS>

1.3 Structure of the Technical Report

This report documents how the SCJS was designed, the way in which it was conducted and the how the survey data are produced, and should be read when using data from the survey. In common with most victimisation surveys, the SCJS 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.

Chapter 2 sets out the survey **sample design**.

Chapter 3 provides information on **survey response** and fieldwork outcomes.

Chapter 4 sets out the process for creating and applying **survey weights**.

Chapter Error! Reference source not found. provides a summary of the structure and content of the **questionnaire**.

Chapter Error! Reference source not found. examines **fieldwork** procedures and response rates.

Chapter 7 provides the details and practicalities of the **interview** itself.

Chapter 8 provides information on **data processing**, including the offence coding process and checking of data.

Chapter 7 looks at the offence codes, survey statistics and **crime** groups 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 summarises the **data outputs** from the survey including conventions used.

Chapter 11 provides information on **statistical significance** and confidence intervals for the data.

Chapter 12 presents guidance for comparing the SCJS data with **other sources** of data about crime.

The series of 2016/17 SCJS Technical Report Annexes referred to in this report are included at the end of the report.

2 SAMPLE DESIGN AND SELECTION

2.1 Requirements

The sample for the SCJS 2016/17 was designed by the Scottish Government. The sample design was coordinated with the sample designs for the Scottish Health Survey (SHeS) and the Scottish Household Survey (SHS) as part of a survey efficiency project and to allow the samples of the three surveys to be pooled for further analysis.⁹

The SCJS sample was designed to allow reporting at Police Division level. The requirements of the design for the 2016/17 SCJS were to provide an annual sample size of 6,000 for Scotland with a minimum effective sample size of 320 for each of the 14 Police Division's which existed at the start of fieldwork.

2.2 Sample Design and Assumptions

Fieldwork for the SCJS 2016/17 was programmed to run from April 2014 to March 2017. The survey has a single stage unclustered sample design and, as stated above, the annual sample size for Scotland was 6,000.

To deliver the required Police Division precision the minimum effective sample size for each Police Division was set at 320. The first step in calculating the effective sample size for each Police Division was to allocate the overall sample on the basis of household population. For Police Divisions where the first step led to an effective sample size of less than 320, the target was increased to 320, with a corresponding decrease in the Police Divisions where the target effective sample size was greater than 320. In order to estimate the annual target achieved sample size for each Police Division, analysis of design effects from the 2008/09 survey was undertaken, since:

$$\text{Effective sample size} = \frac{\text{Achieved sample}}{\text{Design effect}}$$

As rural areas were clustered in the 2008/09 survey, for the 2016/17 unclustered sample the median design effect from a range of variables for the unclustered parts of Police Division samples were assumed for the entire areas. This allowed the calculation of the target achieved sample size for each Police Division, as shown in Table 2.1.

⁹ Further information on the sample designs and the methodology uses is available here: <http://scotland.gov.uk/Topics/Statistics/About/SurveyDesigns201215>

Table 2.1: Total annual target achieved sample size
SCJS 2016/17

<i>Police Division</i>	Target sample size
Aberdeen City	378
Aberdeenshire and Moray	384
Argyll and West Dunbartonshire	315
Ayrshire	405
Dumfries and Galloway	345
Edinburgh	474
Fife	354
Forth Valley	360
Greater Glasgow	792
Highlands and Islands	361
Lanarkshire	633
Renfrewshire and Inverclyde	363
Tayside	403
The Lothians and Scottish Borders	433
Total	6,000

While the required sample sizes were set at Police Division (PD) level, due to variations in historic response rates and levels of ineligible addresses across PDs and to allow for coordination with the sample selection of the SHS and SHeS, the sample design was implemented using local authorities as stratum. This was done by allocating the target Police Division samples to local authorities proportionate to household population.

The number of addresses to be selected in order to provide the target number of interviews was calculated by:

1. Estimates for response rates for 2016/17 for each local authority were based on the average response rate from the 2008/09 and 2009/10 sweeps of the SCJS, with the conditions that for any local authority the response rate assumption is not below 60% or above 80% and the Scotland level is not below 69%.
2. Estimates for levels of ineligible addresses were calculated at local authority level and based on the average level of ineligible addresses from the Scottish Health Survey, Scottish Household Survey, Scottish Crime and Justice Survey, and Scottish House Condition Survey from 2007 to 2009/10.

Table 2.2 shows the number of selected addresses in each local authority.

Table 2.2: Local authority selected addresses

SCJS 2016/17

<i>Local authority</i>	<i>Selected addresses</i>
Aberdeen City	673
Aberdeenshire	445
Angus	179
Argyll and Bute	288
Clackmannanshire	84
Dumfries and Galloway	534
Dundee City	238
East Ayrshire	199
East Dunbartonshire	144
East Lothian	142
East Renfrewshire	117
Edinburgh City	849
Eilean Siar	66
Falkirk	260
Fife	515
Glasgow City	1,101
Highland	450
Inverclyde	182
Midlothian	118
Moray	165
North Ayrshire	240
North Lanarkshire	482
Orkney	44
Perth and Kinross	231
Renfrewshire	411
Scottish Borders	168
Shetland	43
South Ayrshire	203
South Lanarkshire	445
Stirling	141
West Dunbartonshire	258
West Lothian	250
Total	9,665

2.3 Sample Selection

The Royal Mail's small user Postcode Address File (PAF) was used as the sample frame for the address selection. The advantages of using the PAF are as follows:

- It has previously been used as the sample frame for Scottish Government surveys so previously recorded levels of ineligible addresses can be used to inform assumptions for 2016/17 sample design
- It has excellent coverage of addresses in Scotland
- The small user version excludes the majority of businesses

The PAF does still include a number of ineligible addresses, such as small businesses, second homes, holiday rental accommodation and vacant properties. A review of the previous performance of individual surveys found that they each recorded fairly consistent levels of ineligible address for each local authority. This meant that robust assumptions could be made for the expected levels of ineligible addresses in the sample size calculations.

As the samples for the SHS, SHeS and SCJS are all being selected by the Scottish Government from 2012 onwards, addresses selected for any of the surveys are removed from the sample frame so that they cannot be re-sampled for another survey. This will help to reduce respondent burden. The addresses are removed from the sample frame for a minimum of 4 years.

The sample design specified above was implemented using systematic random sampling to select the addresses from the sample frame. Within strata the addresses ordered by urban-rural classification, SIMD rank and postcode.

2.3.1 *Selecting households at addresses with multiple dwellings*

In a small number of cases, some addresses have only one entry in the PAF but contain multiple dwelling units. Such addresses are identified in the PAF by the Multiple Occupancy Indicator (MOI). To ensure that households within MOI addresses had the same probability of selection as other households, the likelihood of selecting the addresses was increased in proportion to the MOI. For addresses flagged as having multiple dwellings in the PAF the dwelling for interview was randomly selected as part of the sample selection process.

In a small number of cases, the MOI on the PAF is inconsistent with the actual number of dwelling units. When this occurred, the interviewer recorded the number of dwellings and then randomly selected a dwelling unit for interview using their contact sheets. For Ipsos MORI interviewers, the random selection was done via CAPI software built into the Electronic Contact Sheet (ECS) ScotCen interviewers used a Kish grid that formed part of their paper-based contact sheet. To take into account the differential selection probability a correction was made in the survey weighting.

2.3.2 *Selecting individuals within households*

Only one adult (aged 16 or over) was interviewed in each household. To avoid any selection bias in households with more than one adult, the interviewee was determined by random selection, using an algorithm in the CAPI script. The names of all adult household members were collected by the interviewer and one adult was randomly selected as the respondent by the CAPI software.

After a selection was made, no substitutions were permitted under any circumstances (for example, if the selected person refused the interview but another household member volunteered instead, the interviewer could not

interview them and the address outcome was coded as a refusal and no interview was conducted at the address) .

2.3.3 Allocation of sample to different time periods

All the addresses in the sample were grouped into batches for effective fieldwork. The process of batching addresses aimed to minimise the distance to visit each address within each batch, and to equalise the difficulty of working batches by varying the batch size – with more addresses in areas where it is historically harder to get interviews, and less addresses in easier areas. This was based on creating a “probability of interview” percentage by modelling historic SCJS response rate information and appending it to the sample addresses.

Batches were then allocated to a particular fieldwork quarter and month. All quarters had, as far as possible, the same number of batches in each local authority to help ensure that the fieldwork was carried out throughout the year. (Addresses were also randomly assigned a quarter-sample module, split evenly across all addresses – e.g. 25% of addresses were allocated Module A, 25% Module B etc.) Each address was then allocated a random eight-digit ID.

3 SURVEY RESPONSE

3.1 Introduction

This section presents the fieldwork outcomes for the sampled addresses. Survey response is an important indicator of survey quality as non-response can introduce bias into survey estimates. Standardised outcome codes (based on an updated version of those published in Lynn et al (2001)¹⁰) for survey fieldwork were applied across the SHS, SHeS and SCJS. This allows consistent reporting of fieldwork performance and effective comparison between the performance of the surveys.

3.2 Scotland level summary

The following table (3.1) shows a detailed breakdown of the SCJS response for all sampled addresses for Scotland. The addresses of unknown eligibility have been allocated as eligible and ineligible proportional to the levels of eligibility for the remainder of the sample. This approach provides a conservative estimate of the response rate as it estimates a high proportion of eligible cases amongst the unknown eligibility addresses.

¹⁰ Lynn, Peter, Beerten, Roeland, Laiho, Johanna and Martin, Jean (October 2001) 'Recommended Standard Final Outcome Categories and Standard Definitions of Response Rate for Social Surveys', Working Papers of the Institute for Social and Economic Research, paper 2001-23. Colchester: University of Essex.

Table 3.1: Fieldwork outcomes (Scotland)

SCJS 2016/17

<i>Fieldwork Outcome</i>	Sample	Percentage issued	Percentage eligible
Responding	5,567	57.6	63.2
Refused			
Office refusal	198	2.0	2.2
Refusal at introduction/ before interview	1,768	18.3	20.1
Refusal by proxy	61	0.6	0.7
Broken appointment - no re-contact	370	3.8	4.2
Total refused	2,397	24.8	27.2
Non-contact			
No contact with anyone at the address	333	3.4	3.8
Contact made at address, but not with	112	1.2	1.3
Total non-contact	445	4.6	5.1
Other non-response			
Ill at home during field period	47	0.5	0.5
Away or in hospital throughout field per	68	0.7	0.8
Physically or mentally unable/incompe	162	1.7	1.8
Language barrier	52	0.5	0.6
Lost interview	1	0.0	0.0
Total other non-response	330	3.4	3.7
Unknown eligibility			
Inaccessible	34	0.4	
Unable to locate address	35	0.4	
Total unknown eligibility	69	0.7	
Estimated eligible addresses in set of	63	0.7	0.7
Total eligible addresses	8,802	91.1	100
Not eligible			
Not yet built / under construction	11	0.1	
Demolished/derelict	27	0.3	
Vacant/empty	485	5.0	
Non-residential	126	1.3	
Address occupied but not resident hou	192	2.0	
Communal establishment / institution	16	0.2	
Estimated ineligible addresses in set c	6	0.1	
Total not eligible	863	8.9	
All issued addresses	9,665	100	

The overall response rate for the SCJS in 2016/17 was 63.2%.

This was slightly lower than the 63.8% response rate in 2014/15, and down from 67.7% in the 2012/13 survey. For all selected addresses 8.9% were found to be ineligible for the survey, an increase from 7.5% in the previous survey.

3.3 Police Division performance

Table 3.2 shows that the response rates for Police Divisions ranged from 52.2% (Renfrewshire & Inverclyde) to 72.8% (Dumfries and Galloway).

Table 3.2: Police Division outcomes

SCJS 2016/17

	Sampled addresses	Ineligible addresses		Responding	
		n	% of issued	n	% of eligible
Aberdeen City	673	50	7.4	370	59.4
Aberdeenshire and Moray	610	47	7.7	372	66.1
Argyll and West Dunbartonshire	546	73	13.4	295	62.4
Ayrshire	642	56	8.7	368	62.8
Dumfries and Galloway	534	74	13.9	335	72.8
Edinburgh	849	80	9.4	462	60.1
Fife	515	48	9.3	322	69.0
Forth Valley	485	48	9.9	285	65.2
Greater Glasgow	1,362	79	5.8	718	56.0
Highlands and Islands	603	95	15.8	362	71.3
Lanarkshire	927	53	5.7	564	64.5
Renfrewshire and Inverclyde	593	51	8.6	283	52.2
Tayside	648	48	7.4	415	69.2
The Lothians and Scottish Borders	678	55	8.1	416	66.8
Overall	9,665	857	8.9	5,567	63.2

3.4 Self-completion performance

The SCJS includes a self-completion questionnaire which covers topics of a sensitive nature, including drug use, partner abuser and sexual victimisation and stalking. Respondents were given the opportunity to refuse to participate in the self-completion questionnaire section. This means that the response rate for the self-completion questionnaire is lower than the overall survey. In 2016/17 the conversion rate from the main survey to self-completion was 92.0%¹¹. This is an increase of 5 percentage points compared with the 2014/15 survey (87.0%). The following table shows the age breakdown for participation in the self-completion questionnaire.

¹¹ This figure includes interviews completed throughout the fieldwork period. During the first 4 months of fieldwork there was not an option to skip the whole self-completion, instead, options to skip each of the 3 final self-completion modules separately. In August 2016 an option to skip the whole self-completion was added, which resulted in an increase in the number of respondents who refused (or skipped) the self-completion. The proportion of respondents who completed the self-completion between August 2016 and the end of 2016/17 fieldwork was 90.0%

Table 3.3: Proportion of respondents completing self-completion section by age

% of survey respondents participating in self-completion section	Male	Female	Overall
16 - 24	95.4%	93.3%	94.3%
25 - 34	93.1%	92.7%	92.9%
35 - 44	92.5%	92.7%	92.6%
45 - 54	91.9%	94.2%	93.2%
55 - 64	91.8%	93.6%	92.8%
65 - 74	91.5%	90.5%	91.0%
75 - 84	89.8%	88.7%	89.1%
85+	82.3%	84.2%	83.4%
Overall	91.9%	92.1%	92.0%

The table shows that there was little difference between men and women in conversion from main interview to self-completion. However, the proportion of those completing the self-completion section decreased significantly as the age group of the respondent increased, falling from 94.3% for 16 to 24 year olds, to 83.4% for those aged 85 or older.

Following [discussion with SCJS users in 2017](#), results from the self-completion section of the SCJS are scheduled to be reported alongside the 2017/18 SCJS Main Findings report, likely bringing data across 2016/17 and 2017/18 together to provide results based on larger sample sizes. Further assessment of the overall self-completion performance will be provided in the 2017/18 technical report.

3.5 Fieldwork Performance

Fieldwork began on 4th April 2016 and was scheduled to finish on the 30th of April 2017, with the interviews, spread approximately equally across each of the 12 months fieldwork period (c.500 interviews per month). Unfortunately, fieldwork performance was lower than expected and this target was not met. Consequently, to maximise response, the fieldwork period was extended by one month until the 4th June 2017, and interviews that had not been achieved from the existing sample were reissued. The final number of the interviews achieved was 5,567, 466 interviews below the target of 6,000, but around 132 higher than the number achieved by the end of April 2017.

3.5.1 Impact of fieldwork performance

The final response rate achieved in 2016/17 (63.2%) fell by 0.6 percentage points (pp) compared with 2014/15 (63.8%) and by more than 4pp compared with 2012/13 (67.7%). Response rate is an important indicator of the representativeness of the sample with the Scottish population. Given the reduction in the response rate compared with previous survey years, it is

essential to determine whether the decrease has impacted on the representativeness of the sample, using a number of parameters. It is important to note that all analysis covered below was undertaken using unweighted data.

3.5.2 Impact of fieldwork performance on sample demographics

The characteristics of the 2016/17, 2014/15 and 2012/13 unweighted samples were compared based on age, sex, NS-SEC (National Statistics Socio Economic Classification), and tenure. In 2016/17, 54.0% of respondents were female, which is broadly consistent with 2014/15 (54.9%), and a slight decrease on 2012/13 (56.8%).

2016/17 saw a marginal fall (3.0 pp) in the proportion of respondents aged 44 years and under, compared with the two previous survey years, and a corresponding rise in the proportion of respondents aged 45 years and older.. A complete break-down of the age and gender characteristics for 2016/17, 2014/15, and 2012/13 is provided in Table 3.4.

Table 3.4: Age and sex breakdown, 2016/17, 2014/15, 2012/13

	Age				Total
	16 – 24 (%)	25 – 44 (%)	45 – 59 (%)	60+ (%)	
Males					
2016/17	46.7	47.0	46.0	45.2	46.0
2014/15	46.6	44.8	45.8	44.6	45.1
2012/13	45.1	42.2	43.5	43.5	43.2
Females					
2016/17	53.3	53.0	54.0	54.8	54.0
2014/15	53.4	55.2	54.2	55.4	54.9
2012/13	54.9	57.8	56.5	56.5	56.8
Combined					
2016/17	7.5	27.4	27.6	37.4	
2014/15	8.1	29.8	25.9	36.2	
2012/13	8.1	29.8	25.8	36.3	

Compared with 2014/15, the 2016/17 sample captured a greater proportion of respondents who owned their own home (65.2% compared with 64.3%), and who rented privately (12.6% compared with 12.0%). This is reflected in a decrease in the proportion of respondents in social rented accommodation (22.2% compared with 23.7%). Tenure distribution for the 2016/17, 2014/15, and 2012/13 surveys is shown fully in Table 3.5.

Table 3.5: Tenure breakdown, 2016/17, 2014/15, 2012/13

Age	Tenure		
	Owner occupied	Social rented	Private rented
2016/17	65.2%	22.2%	12.6%
2014/15	64.3%	23.7%	12.0%
2012/13	64.2%	23.5%	12.3%

The 2016/17 survey also included more adults with an NS-SEC classification of “management and professional” (22.4% compared with 20.5% in 2014/15) and “not working or long term unemployed (including retired)” (45.2% compared with 43.5% in 2014/15). The findings for tenure and NS-SEC correlate with the higher proportion of adults aged 45 years and older interviewed for the 2016/17 survey, as outlined above. Table 3.6 details NS-SEC distribution for the 2016/17, 2014/15, and 2012/13 surveys in greater depth.

Table 3.6: NS-SEC breakdown, 2016/17, 2014/15, 2012/13

Age	NS-SEC			
	Management & Professional	Intermediate	Routine & Manual	Not Working & Long Term Unemployed
2016/17	22.4%	11.8%	20.6%	45.2%
2014/15	20.5%	13.6%	22.4%	43.5%
2012/13	20.2%	15.0%	22.9%	41.9%

3.5.3 Impact of fieldwork performance on survey estimate confidence intervals

Analysis into the impact of fieldwork performance also focused on the total achieved sample size (total interviews achieved), and what affect this had on the confidence intervals (CIs) of the survey responses. Comparisons were made between the:

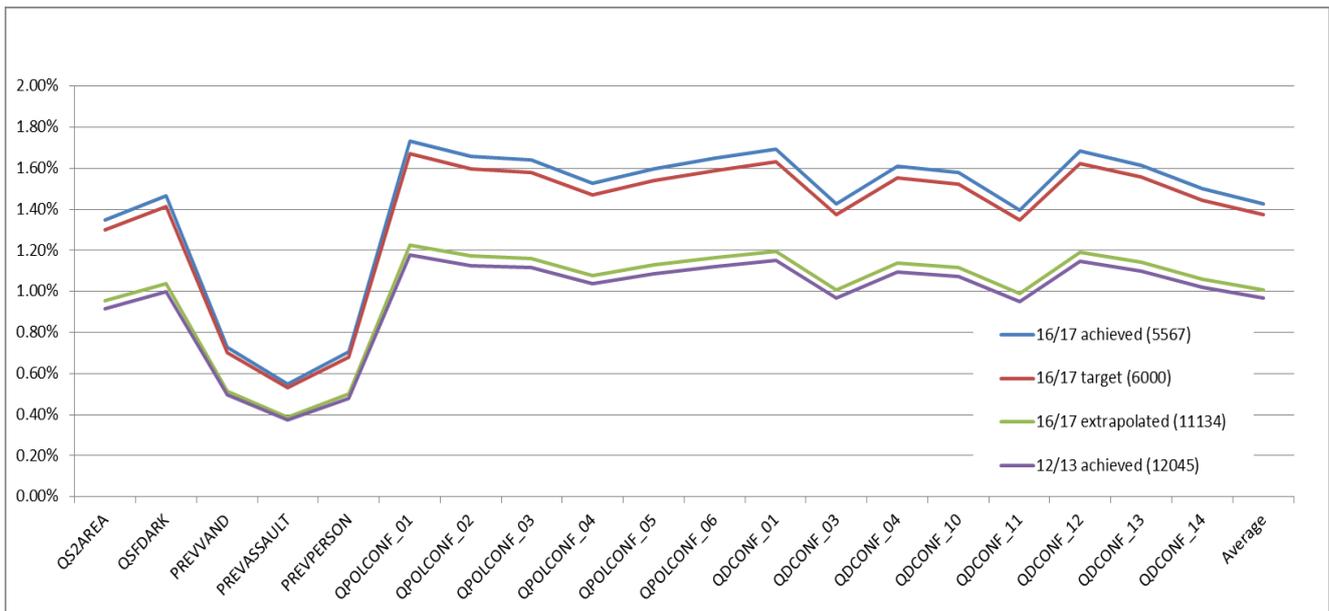
- 2016/17 achieved sample (n=5,567) and
- the 2016/17 target achieved sample (n=6,000), as well as
- an extrapolated 2016/17 *achieved* sample (n=11,134) and
- the 2012/13 achieved sample (12,045), when a response rate of 67.7% was achieved.

The 2016/17 achieved sample size was extrapolated up to enable comparison with the 2012/13 sample, as the sample issued in 2012/13 was double that issued in 2016/17.

The analysis gleaned the CIs for a range of 22 key variables (outlined in table 3.10) based on each of the sample sizes outlined above. The findings show that the shortfall in achieved interviews in 2016/17 against the target resulted

in an average 0.05pp increase in key variable CIs. The same analysis showed that the 2016/17 extrapolated achieved sample CIs were 0.04pp higher than the CIs achieved in 2012/13. These findings suggest that the deficit in total interviews achieved in 2016/17 had a very minimal impact on the CIs of the estimates gained for 19 key survey variables. Further detail on CIs achieved is provided in Graph 3.1.

Graph 3.1: Confidence intervals for 19 key survey variables by achieved sample size.



3.5.4 Impact of fieldwork performance on survey estimates

The analysis above has focused on the impact of the shortfalls in the response rate achieved in 2016/17 in comparison to 2014/15 and 2012/13 (0.6pp and 4.4pp respectively). However, the final assessment of the impact of fieldwork performance compares the 2016/17 final overall sample (response rate 63.2%), against the sample derived from only first issue interviews (i.e. those interviews achieved by interviews when originally scheduled – response rate 54.6%).

Using the first issue response rate allowed us to examine the impact of a response rate deficit of 8.6pp, which is almost twice as large as that between the 2016/17 and 2012/13 final samples. It should be noted that the first issue response rate is a proxy method for assessing the effects of differing response rates, and hence the results should be treated as indicative only. The proxy analysis focused on two areas:

- i. the demographic distribution of the two samples (based on age, tenure, and SIMD (Scottish Index of Multiple Deprivation)), and
- ii. the Average Absolute Difference (AAD) in responses given at 22 key variables.

In summary, assessment of the demographic distribution found that the 2016/17 final sample included a greater proportion of younger adults aged 34 years and under (0.6pp increase compared to first issue sample), and a smaller proportion of older adults aged 65 years and older (0.7pp decrease compared to first issue sample), in comparison to the first issue sample. The final sample also included a higher percentage of respondents categorised as more deprived (0.4pp increase in those in SIMD quintile 1 (most deprived) and 2), and who live in private or social rented accommodation (average 0.4pp increase), in comparison to the first issue sample. The findings from this analysis are provided fully in Tables 3.7, 3.8, and 3.9.

Table 3.7: Age breakdown, 2016/17 final sample and first issue sample

Age band	Final sample (%)	First issue sample (%)	Shift (pp)
16-24	7.5	6.9	0.6
25-34	13.3	12.7	0.6
35-44	14.1	14.0	0.1
45-54	19.0	18.8	0.2
55-64	17.4	17.4	0.0
65-74	16.7	17.5	-0.8
75+	12.0	12.7	-0.7

Table 3.8: Deprivation (SIMD) breakdown, 2016/17 final sample and first issue sample

SIMD	Final sample (%)	First issue sample (%)	Shift (pp)
Quintile 1	19.4	18.9	0.5
Quintile 2	20.0	19.6	0.4
Quintile 3	21.3	21.5	-0.2
Quintile 4	20.1	20.3	-0.2
Quintile 5	19.3	19.6	-0.4

Table 3.9: Tenure breakdown, 2016/17 final sample and first issue sample

Tenure	Final sample (%)	First issue sample (%)	Shift (pp)
Owner occupied	65.2	66.0	-0.8
Social rented	22.2	21.8	0.4
Private rented	12.6	12.1	0.4

The AAD between the final estimates and the first issue estimates was calculated for 22 survey variables, as well as broken down by age, tenure, and deprivation. Table 3.10 below presents the list of 22 variables analysed.

Table 3.10: 22 key survey variables used across impact of fieldwork performance analysis

Variable Name	Variable Name
QS2AREA	Perceived change in crime rate in local area in last two years
QSFDARK	How safe respondent feels walking alone in local area after dark
QPOLCONF_01	Confidence in ability of police in local area to: Prevent crime
QPOLCONF_02	Confidence in ability of police in local area to: Respond quickly to appropriate calls and information from the public
QPOLCONF_03	Confidence in ability of police in local area to: Deal with incidents as they occur
QPOLCONF_04	Confidence in ability of police in local area to: Investigate incidents after they occur
QPOLCONF_05	Confidence in ability of police in local area to: Solve crimes
QPOLCONF_06	Confidence in ability of police in local area to: Catch criminals
QDCONF_01	Confidence that the Scottish CJS: Is effective in bringing people who commit crimes to justice
QDCONF_03	Confidence that the Scottish CJS: Makes sure everyone has access to the justice system if they need it
QDCONF_04	Confidence that the Scottish CJS: Makes sure the system isn't different depending on where you live in Scotland
QDCONF_07*	Confidence that the Scottish CJS: Makes fair, impartial decisions based on the evidence available
QDCONF_08*	Confidence that the Scottish CJS: Gives punishments which fit the crime
QDCONF_10	Confidence that the Scottish CJS: Allows all victims of crime to seek justice regardless of who they are
QDCONF_11	Confidence that the Scottish CJS: Allows all those accused of crimes to get a fair trial regardless of who they are
QDCONF_12	Confidence that the Scottish CJS: Provides victims of crime with the services and support they need
QDCONF_13	Confidence that the Scottish CJS: Provides witnesses with the services and support they need
QDCONF_14	Confidence that the Scottish CJS: Treats those accused of crime as innocent until proven guilty
PREVVAND	Victim of vandalism crime
PREVASSAULT	Victim of assault crime
PREVPERSON	Victim of personal crime
Completed VF*	Completed at least one victim form

*Variables only included in analysis of final sample against first issue sample.

The results of this analysis found that on average, across each variable and the whole sample, the AAD on survey estimates between final sample and first issue sample was 0.14pp. This suggests that at an overall level, achieving a response rate of 54.6% compared with 63.2% has a relatively marginal impact on key survey estimates, including perceptions of policing

and risk of victimisation. Findings also show that no single variable had an AAD of >0.4pp, and that AAD for estimates of risk of victimisation were 0.04pp.

The findings show a marginally higher AAD among subgroups, compared with the whole sample. AAD was higher for: those living in rented accommodation (0.38pp) compared with those who owned their own home (0.16pp); those aged 44 years and under (0.58pp), in particular those aged 16-24 (0.73pp) compared with those aged 45 years and over (0.35pp); and, those within SIMD quintile 1 and 2 (0.39pp) compared with those in SIMD quintile 3,4 and 5 (0.26pp). Data is outlined in further detail in Table 3.11.

Table 3.11 Distributional summary of differences between original-issue survey estimates and final survey estimate

	AAD (pp)	<0.1 pp (%)	<0.2 pp (%)	<0.3 pp (%)	<0.4 pp (%)	<0.5 pp (%)	0.5pp+ (%)
Total population	0.14	32	77	95	100		
Tenure							
Owner occupied	0.16	23	73	91	100		
Social rented	0.38	9	9	27	41	82	18
Private rented	0.38	14	18	32	59	77	23
Age							
16-24	0.69	0	0	9	23	27	73
25-34	0.62	0	14	18	27	36	64
35-44	0.41	9	18	27	55	68	32
45-54	0.37	0	14	36	68	82	18
55-64	0.43	5	18	27	59	77	23
65-74	0.22	18	45	64	95	100	
75+	0.37	23	23	36	45	68	32
Deprivation							
Quintile 1	0.42	0	18	32	55	73	27
Quintile 2	0.36	0	36	55	59	73	27
Quintile 3	0.22	23	50	68	86	100	
Quintile 4	0.31	9	23	59	73	86	14
Quintile 5	0.27	9	36	59	86	95	5

4 SURVEY WEIGHTING

4.1 Introduction

This section presents information on the weighting procedures applied to the survey data. For the SCJS 2016/17 data the weighting was undertaken by the Scottish Government, however, the methodology applied was largely consistent with that from previous sweeps of the survey. The procedures for the implementation of the weighting methodology were developed by the Scottish Government working with the Methodology Advisory Service at the Office for National Statistics.

Weighting procedures for survey data are required to correct for unequal probabilities of selection and variations in response rates from different groups. The weighting procedures for the SCJS use calibration weighting to correct for non-response bias. Calibration weighting derives weights such that the weighted survey totals match known population totals. For the 2016/17 SCJS the population totals used were the National Records of Scotland's (NRS) "Mid-2016 Population Estimates Scotland" and for households the NRS "Estimates of Households and Dwellings in Scotland, 2016" and "Household Projections for Scotland, 2016-based" were used (the latest available at the time of weighting the data). To undertake the calibration weighting the ReGenesee Package for R was used and within this to execute the calibration a rim function was implemented.

The following units of analysis required weights:

- Household main section
- Individual main section
- Household self-completion
- Individual self-completion

Separate weights were required for the self-completion section since not all respondents to the main section completed the self-completion section. The weighting procedures for the self-completion weights were identical to those for the main section.

Details of appropriate application of the weights are presented in section 4.6.

4.2 Main household weight

4.2.1 *Dwelling unit selection weight*

As stated in section 2.3.1, the MOI for the PAF was used to ensure that if there were multiple dwelling units at a single address point then they would have the same selection probability as individual addresses. However, there

were a small number of cases where the MOI was incorrect. The following correction was applied where this was the case:

$$\text{Dwelling selection weight} = \frac{\text{Recorded dwelling units at the address}}{\text{PAF MOI for the address}}$$

4.2.2 Household calibration

The calibration step corrected for unequal probabilities of selection across geographic areas and for response bias from different groups. The dwelling unit selection weight was applied to the data to act as entry weight for the calibration. The execution of the calibration step modified the entry weights so that the weighted household totals match the following estimates:

- Household type within PD/CJAA
- Age of head of household within PD/CJAA
- Urban/rural areas within LA

These variables were included as weighting targets as they were part of the SCJS weighting methodology previously implemented by TNS BMRB due to being related to levels of crime and victimisation.

National Records of Scotland publishes household projection tables which provide local authority level data for household type and age of the head of household.¹² The following household types were used:

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

There were five groups for the age of the head of household:

¹² Source: Estimates of Households and Dwellings in Scotland, 2012: <http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/households/household-projections/household-projections-for-scotland-2012-based> (Tables 6, 8 and 14. The number of households was taken from the 2013 household estimates from NRS, however because we needed to use breakdowns of this number by HRP age and household type the 2012 totals were used (N=2387300). This was the latest available estimate for these breakdowns at the time).

- 16 to 29
- 30 to 44
- 45 to 59
- 60 to 74
- 75 and over

The local authority totals were used to generate totals for PD/CJAA. In Scotland there are 14 PDs and eight CJAs which were combined to create 11 mutually exclusive areas.

The Scottish Government's 6-fold Urban Rural Classification was used to assign addresses from the sample frame (the Royal Mail's Postcode Address File) to urban (categories 1 and 2) or rural (categories 3 to 6). The proportion of urban and rural addresses were then applied to NRS's Estimates of Households and Dwellings in Scotland 2012 at local authority level to estimate the total number of urban and rural households in each local authority.

The full tables of household calibration targets are shown in Annex 7.

4.3 Main adult weight

4.3.1 Individual pre-weight

There are two elements to the individual pre-weight:

a) Adult selection weight

The probability that of an adult within a household being selected for the random adult interview was inversely proportional to the number of adults within a household – i.e. in a single adult household the only adult resident must be sampled but in a three adult household each adult only has a one in three chance of being selected. To correct for this unequal probability of selection an adult selection weight equal to the number of adults in the household was applied.

b) Household weight

Individuals' characteristics and their experiences of crime are related to the characteristics of the households in which they live. Therefore, the household weights are incorporated into the individual weights as pre-weights.

The final pre-weight is given by multiplying the adult selection weight and household weight together.

4.3.2 Individual calibration

The combined pre-weight was applied to the survey data for individuals. The execution of the calibration step then modified the pre-weights so that the weighted totals of individuals matched NRS “Mid-2016 Population Estimates Scotland” totals for five-year age bands and gender within each of the 11 PD/CJAA areas. The individual weighting targets are shown in Annex 8.

4.4 Self-Completion Weights

These will be derived in advance of reporting of the results from the 2016/17 and 2017/18 self-completion modules.

4.5 Victim form weight (incidence 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*’. In these cases, only one victim form is completed, collecting details of the *latest incident only*. The total number of incidents that occurred in the series in the reference period is recorded and this number, capped at five incidents, is used in the incidence statistics produced from the survey.

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.¹³ This is common practice in other victimisation surveys such as the Crime Survey for England and Wales (CSEW) and National Crime Victimization Survey (NCVS) in the USA.

This weight should be applied when analysing incident details in the victim form file (VFF) data file – for example, when analysing who the offender(s) were for ‘all SCJS crime’ and any subgroups of ‘all SCJS crime’ so that data from series incidents are represented in the correct proportion of incidents overall.

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

- Whether the incident detailed in the victim form was assigned an in-scope offence code (i.e. the incident was in Scotland, in the reference period and given one of the 33 offence codes included in the ‘all SCJS crime’ definition);
- Whether the victim form represented a single incident or a series of incidents;

¹³ Therefore, a respondent can only have a maximum of 25 incidents included in the survey statistics (five victim forms, each recording up to five incidents in a series).

The following rules were applied:

1. Where the victim form was 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.¹⁴

In the cases where the multiplier was zero, the number of 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. Further information is provided in section 9.2.

4.6 Summary of weights

The SCJS, like the Crime Survey for England and Wales (CSEW), technically consists of two highly related, but separate surveys. At various times in the survey, the respondent provides information on behalf of the *household as a whole* and on behalf of themselves as an *individual*. In addition, the victim form (and associated data file) records incidents of victimisation.

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

1. Households;
2. Individuals;
3. Incidents of victimisation.

Different weights are used depending upon the unit of analysis (and what data file is being analysed):

1. **Household weights** were constructed for use with variables where the *household* is the main unit of analysis. Some crimes are considered household crimes (e.g. burglary, vandalism to household property, theft of and from a car – see section 9.2.1 for further information) 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 or household income). In these cases the

¹⁴ The VFF SPSS variable providing the incident count (used to multiply the household or individual weights to produce the incident weight) is NUMINC. The uncapped NUMINC is the variable NSERIES.

household weight would apply. The household weight is present in the respondent file (RF) data file.

2. **Individual weights** were constructed for use with variables where the *individual* is the main unit of analysis. The individual weight would also be used when analysing personal feelings of safety when walking alone after dark in the local area and other questions where the respondent is asked for their personal opinion or information about themselves. Analysis of crimes which are considered personal crimes (assault, robbery, sexual offences etc. – see section 9.2.1) is undertaken using the individual weight. The individual weight is present in the RF data file.
3. **Incident weights** are used when analysing the characteristics of *incidents* of crime. The incident weight is only present in the victim form file (VFF) data file. The incident weight is based on the corresponding household and individual weight (depending on whether the crime is classed as a household or personal crime) and additionally incorporates an expansion factor reflecting whether incidents in the victim form reflect a single or a series incident (see section 4.6.1). The incident weights are used for all analysis conducted on the VFF data file if ‘all SCJS crime’ is being analysed or any of the published statistics are being analysed.

The questionnaire included a **self-completion section**. However, not all respondents to the main part of the questionnaire completed the self-completion section. Therefore, an additional set of individual ‘self-completion’ weights are provided to analyse this sub-sample.¹⁵ These self-completion weights are 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. They will next be provided when the results from the self-completion modules are next released with the 2016/17 and 2017/18 self-completion results.

The variable names used for each weight and their descriptions are presented below in 4.6.1 and in [Annex 12](#) with details of which variables the household weights are used to analyse.

4.6.1 *Weighting and expansion variables in SPSS data files*

Table 4.1 lists the weighting variables which are contained in the SCJS 2016/17 SPSS data files.

There are two sets of weights – grossed weights and scaled weights. Grossed weights (Table 4.1) include an expansion factor so that data can be expressed as a proportion of the population of Scotland. When using the

¹⁵ When analysing the self-completion file (SCF) data file, only the individual weights are required as all of the variables relate to information about the respondent themselves and not any other member of their household

gross weight to analyse individual based data for a question asked of the entire sample, the weighted sample size would be 4,488,733 (the total number of adults in Scotland).

Table 4.1: Grossed weighting variables in the SCJS SPSS data files
SCJS 2016/17

Weighting variable	Data File ¹	Description
WGTGHHD	RF & VFF	Household weight
WGTGINDIV	RF & VFF	Individual weight
WGTGINC_SCJS	VFF	Gross incident weight for SCJS crimes
WGTGHHD_SC	SCF	Self-completion household weight
WGTGINDIV_SC	SCF	Self-completion individual weight

Notes: 1 Respondent file (RF), victim form file (VFF) and self-completion file (SCF) data files – see section 10.1 for details

Scaled weights (Table 4.2) do not include this expansion factor and can be used when undertaking more advanced statistical analysis. When using the scaled weight to analyse individual based data for a question asked of the entire sample, the weighted sample size would be 5,567 (the total number of respondents interviewed). The scaled versions of the household and individual weights (including those in the self-completion file) are denoted by the addition of *_SCALE* at the end of the weighting variable names listed in Table 4.1). The scaled weights are not suitable to analyse INC variables. They will provide incorrect crime volume proportions. More information on scaled weights is provided in the SCJS 2008/09 User Guide (available from the survey website and UK Data Service).

Table 4.2: Scaled weighting variables in the SCJS SPSS data files
SCJS 2016/17

Weighting variable	Data File ¹	Description
WGTGHHD_SCALE	RF & VFF	Scaled household weight
WGTGINDIV_SCALE	RF & VFF	Scaled individual weight
WGTGHHD_SC_SCALE	SCF	Scaled self-completion household weight
WGTGINDIV_SC_SCALE	SCF	Scaled self-completion individual weight

When analysing the respondent file (RF) individual weights should be used as respondents provide 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 requires care etc). These questions / variables are listed in Annex 10, and the household weight should be used when conducting analysis of these questions / variables.

In addition, when analysing incidence and prevalence variables for household crimes or crime groups (section 9.2.1) in the RF data file the household weight should be used. A list of household crimes is provided in Annex 10 . Users should note that, following conventions used on the CSEW, where crime groups containing both household and personal crimes, the individual weights are used in the calculation of published incidence and prevalence rates.¹⁶

4.6.2 Calculating rates per 10,000 statistics

Past surveys have included weights that incorporate a calculation to display incidence statistics as rates per 10,000 households or individuals (and rates per 10,000 are presented in the Main Findings report). These are not included in the SCJS data files. They can be created by users if necessary by using the following syntax which simply divides the gross weights by the total population (household or individual) divided by 10,000:

```
compute WGTGINDIVRATE=WGTGINDIV/(4,488,733/10,000).
```

```
compute WGTGHHDRAE=WGTGHHD/(2,451,871/10,000).
```

¹⁶ i.e. for PROPERTYCRIME, SURVEYCRIME AND COMPARCRIME. For example, property crime includes a mixture of crimes committed against households and individuals, and therefore, for example, prevalence data for property crime in the 2012/13 SCJS Main Findings report is quoted as the percentage of adults experiencing at least one property crime.

5 QUESTIONNAIRE CONTENT

5.1 Structure and coverage of the questionnaire

The SCJS questionnaire comprises three elements:

- The main questionnaire which consists of a set of core modules asked of the whole sample, including demographics; and a set of full and quarter-sample modules, containing questions on a variety of topics;
- A victim form which collects details about the incidents a respondent may have experienced during the reference period (the 12 months prior to interview). This victim form can be repeated up to five times; the number of victim forms completed depends on the number and nature of incidents a respondent has experienced in the 12 month reference period;
- A self-completion questionnaire covering more sensitive issues. All respondents are asked to complete the self-completion questionnaire, but have the option to refuse this.

Each of these three elements contains various sections (for example, the self-completion questionnaire contains four sections covering risk factors, illicit drug use, stalking and harassment, partner abuse, and sexual victimisation).

Within most sections there is a degree of filtering of the questions so that some are asked only of sub-samples of respondents (for example, those who have had contact with the Police in the last 12 months). It is therefore recommended that data users read the following section on the questionnaire carefully before starting analysis. However, users should also familiarise themselves with the questionnaire before starting any analysis, to ensure they are clear on how the question has been asked and of whom. Copies of the questionnaires for all sweeps of the SCJS are available from the survey website and the UK Data Service.

The basic structure of the questionnaire is shown in Figure 5.1 below¹⁷. Treated as a single questionnaire, the SCJS 2016/17 had a total of ten distinct sections which flowed in the following order:

Main questionnaire (5,567 respondents)

- Section 1: Perceptions of crime
- Section 2: Victim form screener

¹⁷ The complete questionnaire can be found on the survey website as a separate document.

Victim form (Section 3) (961 respondents, and 1,409 completed forms). The forms are triggered by information collected in the victim form screener section and can be repeated up to five times)

- Incident dates, days of the week and details
- Experience of criminal justice system and related issues (emotions, victims' use of force/drugs/alcohol, Police contact, information and assistance, and attitudes towards offender prosecution and sentencing)
- Incident summary

Full sample module (Section 4) (5,567 respondents)

- Justice system (including the system overall, confidence in the Police and questions about the courts system);
- Police (perceived visibility, attitudes towards policing and contact with the Police)
- Experience of conviction of a crime (including serving an alternative sentence and motoring offences)

Quarter-sample modules (Section 5)

Module A (1,389 respondents)

- How people react to crime in their local community
- Perceptions of crime

Module B (1,364 respondents)

- Sentencing (including community sentencing, prisons and Community Payback Orders)

Module C (1,389 respondents)

- Civil Law
- Workplace abuse
- Smuggled and fake goods

Module D (1,425 respondents)

- Harassment

Demographics (Section 6) (5,567 respondents)

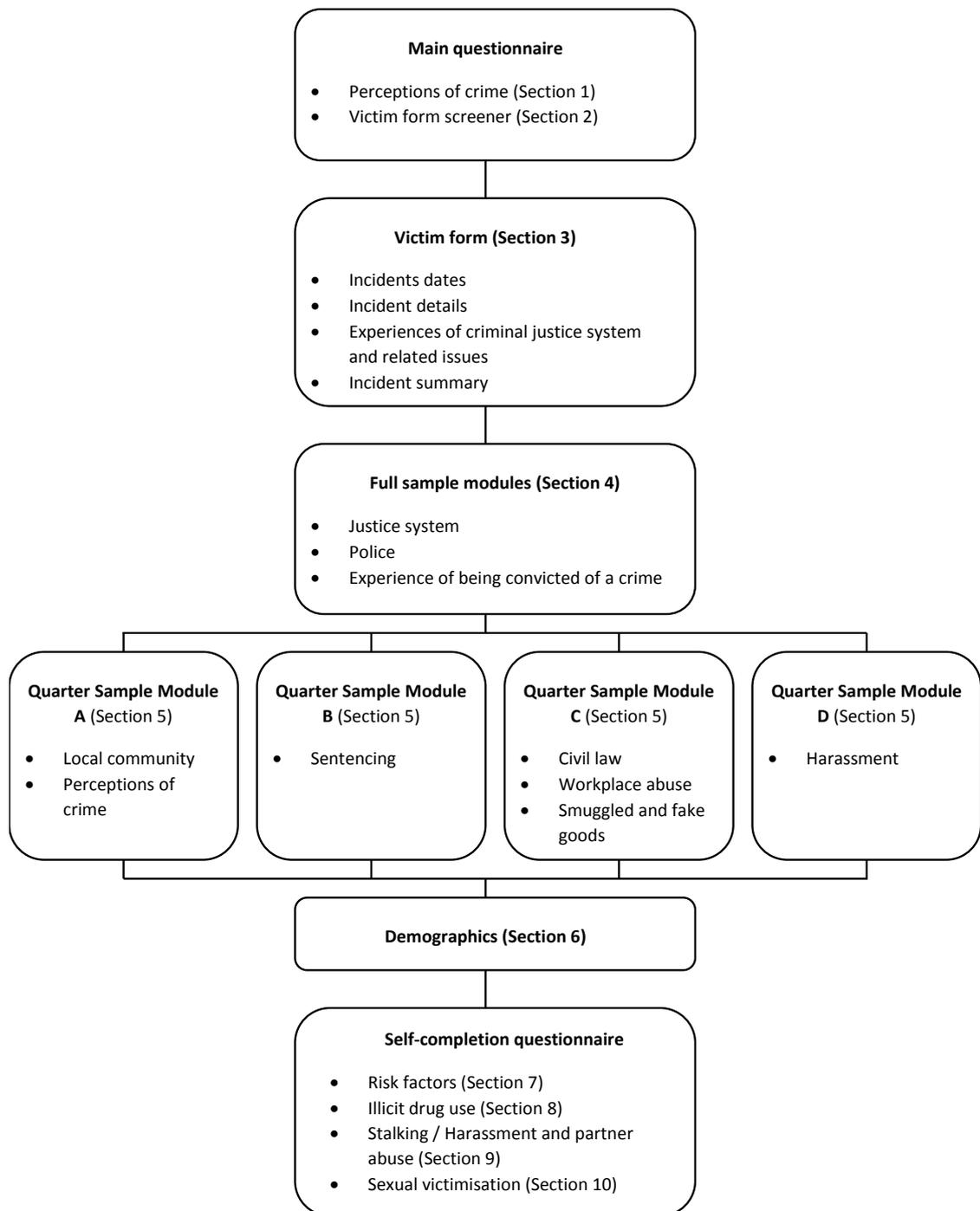
- Household composition/details; tenure and accommodation type; marital status; work status and employment details; qualifications; health status and caring status; identity and household income.

Self-completion questionnaire (completed by 5,153 respondents)

- Section 7: Risk factors (extent to which home left unoccupied, use of alcohol)
- Section 8: Illicit drug use
- Section 9: Stalking, harassment and partner abuse
- Section 10: Sexual victimisation

Before the main questionnaire starts, a series of screener questions are asked by the interviewer when they make contact at an address which allows the CAPI software to make a random selection of a household member (aged 16 or over) for interview (see Chapter 2.3.2). Parental permission is also asked if the selected household member is aged 16 or 17.

Figure 5.1: Questionnaire structure/sections: SCJS 2016/17



5.1.1 The 2016-17 questionnaire changes

[A review of the questionnaire](#) was undertaken for the 2016/17 survey by the Scottish Government. The outcomes of this review are set out in a report published on the SCJS webpage.

The content of the 2016/17 survey is largely the same as the 2014/15 survey. The main changes subsequently made to the questionnaire following the review were in Section 5. Previously, Modules C and D, civil law and harassment, were merged and asked of half the sample. In 2016/17, Modules C and D were split into two distinct modules, each asked of 25% of the sample. Section C comprised: seven questions on civil law (previously asked in the 2014/15 survey); 16 questions on workplace abuse (previously asked in the 2008/09 survey); and four new questions on smuggled and fake goods. Section 5D comprised the questions on harassment, as asked in the 2014/15 survey.

In addition to these changes, the other changes made for 2016-17 were as follows:

- two questions on vandalism were removed from Module 5A (local communities);
- Section 8 (illicit drug use) was updated to include additional questions on new psychoactive substances (sometimes called “legal highs”);
- and a new question was added to Section 9 (harassment and partner abuse) asking about the effects of harassment.

There were also changes to the response options in a number of other questions throughout the questionnaire; for example, additional responses were added to SH_02 in Section 9 (types of harassment experienced) to ensure the question was able to capture any online dimensions to these types of offences. The [full questionnaire](#) and the [questionnaire report](#), which details the main changes to the 2016/17 survey, are available from the SCJS website. To assist users wishing to conduct time-series analysis changes to questions/response options from previous sweeps have been highlighted with an updated question label or response option numbering.

Changes were also made to some of the questions relating to work status & employment details, so that the questions were in line with those from the Scottish Household Survey. For more details please see section 8.2.

5.2 Main questionnaire content

The structure and content of the SCJS questionnaire is explained in detail below, providing users with a comprehensive overview of the questionnaire contents in the order it is asked to respondents (however, as noted above, data users should also familiarise themselves with the questionnaire for relevant sections before conducting any analysis).

5.2.1 Perceptions of crime (section 1)

The survey begins with questions about the local area, including perceptions of how much the crime rate has changed locally and in Scotland overall, and how safe the respondent feels both at home and when out alone after dark. The next questions ask respondents about vehicle ownership, how worried they are that specific crimes will happen to them, whether any such worry prevents them from doing things they want to, and their views on the likelihood of their being a victim of crimes. The majority of this section of the questionnaire is asked of all respondents.

5.2.2 Victim form screener (section 2)

Respondents are asked whether they have experienced certain incidents since the beginning of the reference period (Chapter 7.1). These questions are used to trigger the victim form questionnaire.

The screener questions are separated into three broad groups:

- vehicle related incidents, including theft of a vehicle, theft from a vehicle, damage to a 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 accordingly, 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 accordingly, 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 19 victim form screener questions.¹⁸ The wording of the screener questions has been kept consistent with past Scottish crime 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 which have a precise definition that respondents would not be expected to know. This is consistent with the design of the Crime Survey for England and Wales (CSEW) questionnaire.

¹⁸ Questions relating to vehicle incidents are asked only if the household has had use of the relevant vehicle in the reference period. The question relating to violence from another household member is asked only if there has been more than one adult (aged 16 or over) resident in the household within the reference period.

The focus of the victim form screener questions switches between incidents experienced by the household and those experienced by the individual respondent.

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 (owned or used by someone in the household). It is assumed that the respondent will be able to recall these incidents and provide information even in cases where they were not present.

Personal incidents refer to all crimes against the individual and are asked only in relation to incidents that have happened to the respondent personally (for example a personal assault), and not to any other people in the household.¹⁹

The distinction between household and personal incidents also affects how the data is analysed (See Chapter 9.2).

The questions are also designed in a way that avoids the respondent mentioning the same incident more than once (though this does happen in a small number of cases and hence duplicate victim forms can occur – for information on how such cases are handled see Chapter 9.1.4).²⁰

At the end of the victim form screener questions, the interviewer is shown a list of all incidents recorded. The interviewer checks this list with the respondent to ensure that all incidents they/their household 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. Responses to the screener questions then trigger the victim form questionnaire if a respondent has experienced at least one incident, unless the incident relates to card fraud or identity theft (these were not followed up with a victim form since they are included only to provide an estimate of the prevalence of these issues).

¹⁹ To illustrate, if the respondent and another household member were the victims of a combined assault from an offender in the same incident, the details 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 the other household member).

²⁰ It is possible that two or more types of incident may occur at the same time (i.e. actually be the same incident); for example, an incident of something being taken from a victim may also involve the offender using force or violence against the victim. All screener questions are therefore prefaced with “Apart from anything you have already mentioned” and interviewers are briefed thoroughly on this section to avoid duplication as far as possible.

5.3 Victim form questionnaire structure

Up to five incidents identified by the victim form screener questions (with the exception of card and identity fraud) are explored in much more detail through the victim form questionnaire. The victim form questionnaire is designed to elicit all of the relevant details of an incident, irrespective of what incident the victim form was triggered by.²¹ This then allows the coders to assign the correct offence code to the incident (see Chapter 8.1 for details of the offence coding process).

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

5.3.1 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 the incidents are asked about. Neither the interviewer nor the respondent has any choice about which incidents are followed up with the victim form questionnaire (with the exception of incidents of violence from a household member)²² or which order they are asked in. The priority ordering used by the script is as follows:

1. **According to incident type:** Victim forms are asked in reverse order to the victim form screener questions. Broadly speaking this means that all personal incidents are asked before household incidents. Within household incidents, property-related incidents are asked before vehicle-related incidents.

²¹ 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 detail about the theft and assault.

²² In the case of incidents of violence from another household member, the interviewer has an option to skip 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 2016/17 survey there were 3 cases of a victim form being skipped for this reason (variable WINTRO in the VFF datafile).

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.²³

If a respondent has experienced five or fewer incidents identified at the victim form 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 separate incidents (single incidents or series of incidents) in the reference period, only five victim forms are asked (with the incidents and order based on the schema set out above). As a result, the survey does not collect details about all incidents which a respondent may have experienced in such cases.

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 one of the lowest priority crime types in the victim form order, but one of the most common crimes (SCJS 2016/17 Main Findings Report – Table A1.5). In 2016/17, relatively few respondents, 11 respondents out of 5,567, reported experiences of crime at the screener questions which were not followed up by a victim form.

Chapter 7.2 provides information on the numbers of victim forms that were completed in 2016-17.

5.3.2 Series of incidents

The victim form screener section also determines how many times the respondent has experienced a particular incident within the reference period. Most victim forms represent a single incident. However, in a minority of cases a respondent may have experienced the same type of incident (i.e. one of those asked about in the victim form screener) a number of times in succession. If more than one incident is reported, the respondent is asked whether 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 CSEW, if a respondent regularly experiences incidents where the same thing is done under the same circumstances by the same type of people, this is recorded as a series of incidents (or 'series incident') rather than separate incidents.²⁴ For example, this could happen in a work

²³ Chronological ordering is used only where respondents have experienced more than one of the same type of incident and it is applied only after the incident type ordering has been applied.

²⁴ 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

situation, in instances where groups such as patients or the general public might be involved.

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

In common with other victimisation surveys such as the CSEW, asking only 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). Asking only about the most recent incident avoids asking a respondent the victim form questionnaire several times over when the detail of the incidents recorded will be very similar, 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 similar incidents (and may therefore minimise respondent burden).
3. Respondent re-call of the incident details is likely to be more accurate for more recent incidents, and less so with earlier incidents.

In 2016/17, 79% (1,109) of all victim forms (1,409) related to single incidents and 21% (300) related to a series of incidents.²⁵

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 incidents with the most recent first.

5.4 Victim form questionnaire contents (section 3)

5.4.1 Incident dates

The victim form contains two basic sections; the first relates to the details of the incident itself (including details of the offender(s) if known), and the second relates to the follow-up of the incident with regard to the victim's experience of the criminal justice system and related issues.

this would count as a separate incident (as the incident is of a different type to the cases of threats and verbal abuse).

²⁵ These are unweighted figures and include all victim forms, including those which are assigned an out-of-scope offence code. Data is based in the variable PINCI in the VFF data file.

Once a victim form is triggered, before any of the detailed questions about the incident or the respondent's experience of the criminal justice system are asked, the date of the incident within the reference period is confirmed. For individual incidents, the respondent is asked to provide the month the incident happened in (MTHINC2). If they are unsure of the exact month, they are asked to provide the quarter in which the incident occurred (e.g. between nine and 12 months prior to the month of interview) (QTRINCID), or, if they are unsure, then to confirm if the incident happened in the 12 month reference period (YRINCIB) (Chapter 7.1).

In the CAPI questionnaire, reference dates (months, quarters and the start of the reference period) 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 (Chapter 7.3.2). Because the 12 month reference period changes throughout the fieldwork year, many date-related questions in the victim form have different text each month to reflect this changing reference period.

In some cases, respondents may report an incident in the victim form screener section as having happened within the reference period, which later turns out to be before the start of the reference period (and therefore outside the survey's coverage). In such cases, after this has been confirmed, the victim form is terminated and the questionnaire moves on to the next victim form (or the next section of the main questionnaire if the respondent has not experienced any further incidents). The victim form would be assigned the non-valid offence code 95 (Chapter 9.1). If the incident is in the month of interview, then details are collected (and an offence code assigned as normal), but the incident is not included in the survey statistics as it is outside the reference period (Chapter 7.1).

For incidents that were part of a series, respondents are asked how many incidents occurred in each quarter of the reference period (DATESER and NQUART questions) and the month in which the most recent incident occurred (MTHRECIN).²⁶ If the most recent incident in the series occurred in the month of interview the victim form is still completed, but the number of incidents in the series is adjusted accordingly to include only those that happened in the reference period (Chapter 7.1.1).²⁷ If there are no incidents in the reference period or the month of interview then the victim form is

²⁶ In the same manner as single incidents are treated, if the respondent cannot remember the exact month of the latest incident then they are asked what the corresponding quarter was (QTTRECIN) or to confirm that the incident happened within the reference period (YRINC).

²⁷ Variables NSERIES and NUMINC in the VFF data file show the number of incidents in the series, uncapped and capped respectively.

terminated in the same way as for single incidents (and would also be assigned the non-valid offence code 95).

5.4.2 Incident details

The victim form is key to estimating victimisation in Scotland and collects two vital pieces of information about incidents to allow offence coding: the respondent's description of the incident; and key details of the incident.

These are explored in turn below. Key questionnaire variables are provided in capitals in brackets.

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 (DESCRINC). The interviewer then summarises these in an open-ended text entry. This summary description is vital to the accurate offence coding of incidents when used in combination with the series of pre-coded questions which ask about key details of the incident (see Chapter 8.1 for further detail of the offence coding process).

Important details of the incident

Examples of the sort of information collected include when and where the incident took place; whether anything was stolen or damaged and if so, what; whether force or violence was used and if so, the nature of this and any injuries sustained.

Respondents are also questioned about other details of the incident, along with experience of the criminal justice system and related issues – described below – and the characteristics of the offender(s).

The SCJS only records details of incidents which happen within Scotland (QSCO). For an incident occurring on-line to be included (QWHERE), the respondent must have been living in Scotland at the time of the incident. If an incident occurred outside of Scotland, then the victim form questionnaire terminates and the questionnaire moves on to the next victim form (or the start of the next section of the main questionnaire if the respondent has not experienced any further incidents). The victim form would be assigned the non-valid offence code 98 (Chapter 9). The key 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 victim form screener questions but nothing is recorded as having been stolen).

Several questions are included to allow the interviewer to terminate the victim form if the incident being recorded is a duplicate of a previous victim form (Chapter 9).

5.4.3 Victim's experience of the criminal justice system and related issues

There are several sections on the victim's experience of the incident and of the criminal justice system, and related issues²⁸:

- Emotions felt as a result of the incident;
- Whether the victim used force against the offender/s, and had taken any drugs or alcohol before the incident;
- Police contact; whether and how the Police came to know about the incident; if not then why not; why the incident was reported and how; how satisfied the victim was with Police handling of the incident; and whether the Police found out who the offender/s were and whether they went to court;
- Information and assistance relating to the investigation: this section was asked only in cases where the Police came to know about the incident, and included questions on from whom the respondent received information/assistance (including the Police, and the Crown Office and Procurator Fiscal Service (COPFS)), the types of information/assistance received, and what other information/assistance they would like to have received, if any;
- Attitudes to offender prosecution and sentencing: whether the offender(s) should have been prosecuted in court, and if not, why not; what punishment should be used as an alternative to prosecution in court; whether the offender should have received a prison sentence and how long this should have been; what type of non-prison sentence they should have received; perception of the incident as a crime or not; and the perceived seriousness of the incident on a scale of one to 20.

5.4.4 Incident summary

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 (INCSUM). 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 (QEND).

²⁸ General questions on the criminal justice system are also asked of all respondents in the Scottish criminal justice system full sample module.

5.5 Full sample modules (section 4)

After the victim form screener (or victim form, where the respondent has experienced an incident in the 12 month reference period) has been completed, the main questionnaire continues with three full-sample module sections (justice system, Police and experience of conviction of a crime).

5.5.1 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, and then carrying out that sentence”.

Questions are asked of respondents' level of awareness of the system as a whole, and confidence in it.²⁹ Respondents are then asked specifically about the Police in their local area via a series of statements relating to the role of the Police and an overall assessment of the ability of the Police in the local area. Finally, respondents are asked about contact with the courts system in the past three years. All respondents are asked the questions in this section.

5.5.2 Police

The section begins by screening out respondents who are serving Police officers or where a household member is. Questions are asked about Police visibility in the local area, including how important it is that there are local Police officers who know and patrol the local area, whether this is the case and by what means (foot, bicycle or car), how frequently patrols by foot or bicycle are seen, and opinions on Police presence and why these are held.

Respondents are then asked about their level of agreement/disagreement with a series of statements about the Police in their local area (for example, 'they can be relied on to be there when you need them'). Finally, a series of questions are asked about contact with the Police in the 12 month reference period (excluding social contact). If respondents have had contact, then they are asked, for the last incident only, what type of contact it was, how much interest the Police showed, how polite they were, how fairly they treated the respondent, how satisfied the respondent was with the contact, and whether it changed their opinion of the Police. Respondents are then asked whether they have had any other contact with the Police in the last 12 months, and by what means (though no follow-up questions are asked about these contacts).

²⁹ The questions in this section are asked of the all respondents, irrespective of whether they have completed any victim forms.

5.5.3 Experience of conviction of a crime (section 4.3)

Respondents are asked if they have ever been convicted of a crime (excluding motoring offences) and any sentence they have experienced as a result. They are also asked if they have received a series of 'alternative sentences' (again, excluding motoring offences), as well as whether they have ever been convicted in court for a motoring offence³⁰.

5.6 Quarter-sample modules (A-D) (section 5)

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

Table 5.1: Quarter-sample module sample sizes

SCJS 2016/17

<i>Module</i>	<i>Sample size (n)</i>	<i>Sample %</i>
<i>A</i>	<i>1,389</i>	<i>24.5</i>
<i>B</i>	<i>1,364</i>	<i>25</i>
<i>C</i>	<i>1,389</i>	<i>25</i>
<i>D</i>	<i>1,425</i>	<i>25.5</i>
<i>Base</i>	<i>5,567</i>	<i>100</i>

5.6.1 Module A: local community

This section asks respondents to imagine a scenario where they witness a man being pushed to the ground and his wallet stolen, then poses a series of three questions on how willing they would be to call the Police, identify the offender and go to court to provide evidence. Respondents are then read a list of statements about people in their local area and asked how far they agree or disagree with each statement (for example, 'people in this local area pull together to prevent crime'), before being asked how many people they know in the local area. Finally, they are asked how quickly a problem (broken glass) might be dealt with by local agencies or residents in the area.

5.6.2 Module A: perception of crime

This short section includes questions about how common respondents think various crimes are in their local area (that is within about a 15 minute walk of their home) and what measures they have had in place in the last year to reduce the risk that they will become a victim of crime (selecting from a list).

³⁰ Only those offences where the respondent was physically present in court, not on the spot fines.

5.6.3 Module B: sentencing

Respondents are asked questions about community sentencing, prison sentences and Community Payback Orders (CPOs). Respondents are asked whether they agree or disagree with a series of statements about community sentences and how confident they are about the effectiveness of prisons. A description of CPOs is read to respondents and they are asked if they have heard of them, are aware of them being used in their area, and, if so, how they became aware.

5.6.4 Module C: civil law

This section relates to problems and disputes that the respondent may have experienced in their everyday life in the last three years and that could be settled in court. 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 law rather than criminal law:

“I am now going to ask you some questions about different kinds of problems or disputes you might have had in the past three years³¹. 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 law 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 purchased good or service** (debt, benefits and faulty goods and services);
4. Those concerning **unfair treatment** (discrimination, unfair treatment by the Police and employment related issues).

Respondents are then asked which is the most important to them (if they mention more than one). For the most important or only problem respondents are asked about the current situation with the problem.

³¹ 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.

5.6.5 Module C: workplace abuse

This section asks about any abuse respondents may have experienced at work. It begins by screening out those currently not in employment, before asking if respondents have experienced any verbal or physical abuse from members of the public in the course of their work. For each type of abuse experienced, it asks how often this has happened and if the respondent reported the most recent incident to their employer. If the respondent did not report the most recent incident, they are asked why not. Respondents who have experienced abuse at work are asked the time and day of the week it occurred and what they think might have motivated the incident.

5.6.6 Module C: smuggled and fake goods

This new section asks about the selling of smuggled and fake goods³² in Scotland. Respondents are asked how common they think the selling of smuggled and fake goods is – both in Scotland as a whole, and in their local area. They are then asked if they think the selling of smuggled and fake goods has become more or less common in their local area in the last year, and if anyone has tried to sell them smuggled or fake goods in Scotland during the reference period and, if so, what and where.

5.6.7 Module D: harassment

This section asks respondents if they have been insulted, pestered or intimidated in any way by anybody who is not a member of their household, either in person or by some other means (such as in writing or through electronic communications³³) in the 12 month reference period, and if so, how many times. They are asked by what means they were harassed, what it involved, where the incidents happened and what, if anything, might have motivated the incident (e.g. in terms of ethnicity, sectarianism, gender, age, disability, sexual orientation or religion). For the latest incident only they are asked how many people did it, whether they knew them or not, and how well, and whether, at the time of the incident, they themselves were alone or in a group. Finally, all respondents are asked how much they worry about harassment on the basis of the characteristics noted as possible motivators above.

³² Including alcohol and tobacco to DVDs and games; jewellery, clothes and accessories; and electrical goods.

³³ Not including contact from individuals trying to sell things or such like.

5.7 Demographics section (section 6)

A variety of demographic information is collected from all respondents (many using Scottish Government's core and harmonised questions³⁴), including:

- Household composition age, gender and relationship of each person in the household (termed the 'household grid') as well as whether the respondent is living with a couple with someone in the household and marital status;
- Tenure and accommodation/-property type;
- Questions to allow the derivation of employment status, including questions to allow Office for National Statistics (ONS) Socio-Economic Classification (NS-SEC) coding³⁵, and qualifications;
- Health status (including mental health) and caring responsibilities;
- Questions on identity, including country of birth, ethnicity, religion and sexual orientation;
- Household income and ability to afford an unexpected expense.

As part of this section, the household reference person (HRP) is established³⁶. This standard classification is used on most government surveys and is based on the following criteria:

The HRP is the member of the household in whose name the accommodation is owned or rented, or is otherwise responsible for the accommodation.

- In households with a sole householder, that person is the HRP.
- In households with joint householders (for example, two or more people's name on the mortgage) the person with the highest income is taken as the HRP.
 - If both householders have exactly the same income, the older is taken as the HRP.
- If one or more responsible person do not live in the household then the HRP is:
 - In households with a sole person living, that person is the HRP.

³⁴ Information on harmonised questions can be found on the Scottish Government website: <http://www.scotland.gov.uk/Topics/Statistics/About/SurveyHarm>

³⁵ 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.

³⁶ Variable HRP in the respondent file SPSS data file records which member of the household is the HRP.

- In household with multiple persons are living, the person with the highest income is the HRP;
 - If both 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.

5.8 Self-completion questionnaire content

All members of the sample are invited to participate in the self-completion modules – there are no upper age restrictions³⁷. Respondents can refuse to do so if this is their preference, or request to have the interviewer administer the modules. The latter option is pursued only in exceptional circumstances; that is, in cases where the respondent is *unable* to complete the modules him/herself, whether due to disability, ill health, poor eyesight, or difficulties reading or writing.

In the 2014/15 survey, respondents were able to skip the entire self-completion questionnaire (NONRESP). This function was erroneously missed out of the 2016/17 script and options were added allowing respondents to skip individual modules (Sections 8, 9 and/or 10) within the questionnaire. Following the first three months of fieldwork, these skip options were removed as there was concern that their inclusion impacted on the number of respondents completing all four sections of the questionnaire³⁸. Two months later³⁹ the omission of NONRESP became apparent and this skip option was added to the start of the self-completion questionnaire. During this period if a respondent did not want to complete the self-completion modules then they had to skip all the way through the questions. Further detail on the numbers involved and impact on analysis will, be provided in the 2017/18 SCJS technical report.

In 2016/17, a total of 92% of respondents to the main survey participated in the self-completion questionnaire – 79.2% completed the questionnaire themselves and 12.8% asked the interviewer to administer it for them (Chapter 3.4).

³⁷ This is in contrast to the CSEW where the self-completion questionnaire, containing similar topics, is only asked of those aged up to 74. The decision was taken for the SCJS to include those aged 60 and over on equalities grounds.

³⁸ Respondents could, of course, refuse to answer any of the individual questions in the survey.

³⁹ On 4 August 2016.

The self-completion questionnaire covers

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

Details of stalking and harassment, partner abuse or sexual victimisation incidents recorded in the self-completion questionnaire are not included in the statistics 'all SCJS crime' (see Chapter 9.1.5 for details) unless the incident is also mentioned by respondents in the victim form and assigned an offence code in the normal way. Incidents reported in the self-completion questionnaire only could not be assigned offence codes in the same way as those collected in the victim form as only a limited number of follow-up questions were asked about incidents (reflecting an ethical decision based on potential respondent distress at having to disclose detailed information on very sensitive incidents).

Chapter 7 provides further information on the administration of the self-completion questionnaire.

5.8.1 Risk factors (section 7)

At the start of the self-completion questionnaire, respondents are asked four questions about their day-to-day behaviour which might influence their experience of crime, including how long their home is left unoccupied on an average weekday; how often they visit pubs, bars or nightclubs in the evenings; how frequently they drink alcohol and how often they have felt very drunk.

5.8.2 Illicit drug use (section 8)

Respondents are asked whether they have ever used a range of illicit drugs or groups of illicit drugs, whether they have had anyone offer to sell them each of these drugs in the last 12 months and whether they have taken any legal highs in the last 12 months.

While under-reporting of illicit behaviour by respondents is often a 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 say they have taken Semeron are then excluded from the final data outputs and reporting for the

drugs section of the questionnaire⁴⁰. In 2016-17, there was just one case of a respondent reporting that they had ever taken semeron.

Respondents who have taken drugs in the past are asked if they have taken them in the last 12 months and, for those who have, whether they have taken them in the last month.

Depending on how respondents answer these questions, a series of follow-up questions is then asked, including:

- for those who have ever used drugs, which drug was the first ever taken, at what age they first took drugs, and what methods of drug taking they have ever tried
- for those who have used drugs in the last 12 months, whether they have mixed these drugs, consumed alcohol at the same time as taking them, and how they would describe their usage
- for those who have taken drugs in the last month, which one they have taken most often, how difficult it is to get hold of, where they obtained it the last time they took it, how many times they have used it in the last month, whether they felt dependant on it and whether they had tried to cut down and, if so, whether they had used any support services in the process.
- those who have ever used cannabis, cocaine, ecstasy, tranquilisers or amphetamine, but not used any drugs in the last 12 months are asked at what age they last took it, whether they have ever felt dependant on any of the drugs they have ever taken, and which ones, as well as, for those who have felt dependant, whether they received any help in stopping taking them and from whom.
- Those who have taken new psychoactive substances in the last 12 months are asked what the appearance/form of those they have used were and where they got them from.

The questions about which of the drugs respondents have taken 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).

5.8.3 Stalking and harassment and partner abuse (section 9)

This section begins with a screener section collecting information about respondents' relationship history.

⁴⁰ These respondents are, however, retained in the rest of the dataset, including the remainder of the self-completion section.

Respondents are then asked about whether they have experienced any of six forms of stalking and harassment more than once in the 12 month reference period. As measured by the SCJS, stalking and harassment includes⁴¹:

- Receiving unwanted letters or cards
- Receiving unwanted messages by text, email, messenger or posts on social media sites, like Facebook or Twitter
- Receiving unwanted phonecalls
- Having someone loitering outside a home or workplace
- Being followed
- Having someone share intimate pictures, for example by text, on a website, or on a social media site like Facebook or Twitter, sometimes known as 'revenge porn'

Respondents who have experienced any of these things, are asked (for the most recent incident in each case): who the offender(s) was and what their relationship to the respondent was; and whether the Police came to know about the incident (and if not, why not). Finally, they are asked how the incident made them feel (e.g. frightened, anxious/worried, threatened etc).

The section then moves on to the subject of partner abuse. This part is asked only of respondents who report having had a partner at any time since they were 16 (based on the questions asked at the start of the section). 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.”

Over two questions respondents are presented with a list firstly of different types of **psychological abuse** and, secondly, different types of **physical abuse** then asked if they had 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:

⁴¹ Therefore the survey does not provide measures of the prevalence of all possible forms of stalking and of harassment, but rather of six types of behaviour that could be construed as forms of stalking and harassment.

- Where the incident happened (in Scotland or elsewhere) and how many incidents happened since the beginning of the 12 month reference period;
- Whether any children were in the household, whether the children saw or heard what happened or were involved or hurt in the incident and whether they experience any psychological or emotional problems as a result;
- What physical and psychological consequences the respondent 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: why the respondent did or did not report the incident to the Police; if the report resulted in a prosecution and 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, what the relationship was and whether they were 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, personally, to have ever been a victim of domestic abuse. The term domestic abuse is not defined for the respondent.

5.8.4 Sexual victimisation (section 10)

The questionnaire asks about all types of sexual offences. These are categorised into two groups, which are termed 'serious sexual assault' and 'less serious sexual assault'⁴². Less serious sexual assault includes:

- indecent exposure;
- sexual threats;
- touching sexually when it was not wanted.

Serious sexual assault includes:

- forcing someone to have sexual intercourse when they did not want to;

⁴² 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 questionnaire. This is consistent with the practice adopted by the Office for National Statistics (ONS) in reporting of the CSEW. 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.

- attempting to force someone to have sexual intercourse when they did not want to;
- forcing someone to take part in other sexual activity when they did not want to;
- attempting to force someone to take part in other sexual activity when they did not want to.

Different follow-up questions are asked of respondents depending on the nature of the incident(s) they have experienced (i.e. whether the incidents are classified as less serious or serious sexual assault) and when they occurred (in the last 12 months or since the age of 16).

Less serious sexual assault

Victims of less serious sexual assault are asked the following questions for each form of assault they have experienced⁴³:

- When the incidents(s) happened (in the last 12 months, longer ago or both); and how many times they occurred during the 12 month reference period
- What the relationship was between the respondent and the offender(s) and the gender of the offender(s) for all incidents in the 12 month reference period and the latest incident in the reference period, as well as for incidents longer ago than the last 12 months but since the age of 16
- For incidents before the 12 month reference period, when the most recent incident happened
- For the latest incident in the 12 month reference period, whether it happened in Scotland; whether the Police came to know and, if so, how; and if they did not then why not
- Whether the Police came to know about any incidents in the last 12 months.

Serious sexual assault

Respondents who have experienced serious sexual assault are asked additional follow-up questions about the incident(s). These included: when the incidents(s) happened; how many times they occurred; the relationship between the respondent and the perpetrator(s); and the gender of the perpetrator(s). For the most recent incident (irrespective of when this was)

⁴³ Readers should note that the questions in the questionnaire are asked in a different order to that listed here.

they were asked: whether it happened in Scotland; any injuries were sustained as a result of the assault; whether the Police (or another organisation) came to know about the incident; how it was reported or if it was not, then the reason why; and, if it was reported as a crime, whether there was a prosecution and conviction.

In addition, the reference period for some of the follow-up questions on serious sexual assault was wider than those for less serious assault, with victims asked about the period since they were 16 years of age, rather than the 12 months only⁴⁴.

The end of the interview consists of the interviewer thanking the respondent, collecting details to allow validation and recording some basic information about the administration of the interview.

⁴⁴ This amendment to the self-completion questionnaire was made to increase the number of cases available to allow robust analysis. Further detail is provided in the 2009/10 Technical Report (Section 3.6.4).

6 FIELDWORK

Fieldwork for the SCJS 2016/17 was continuous and took place between the 4th of April 2016 and the 4th of June 2017. This chapter documents all aspects of the data collection process, focusing on:

- the survey pilot
- the briefing of interviewers before main stage fieldwork
- 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.

6.1 Survey pilot

A survey pilot was carried out by Ipsos MORI and ScotCen between 18th and 30th January 2016. The purpose of the pilot was to test the survey questionnaire and materials, as well as the functionality of the CAPI script, in advance of the main stage fieldwork commencing in April 2016.

The total number of interviews completed for the pilot was 101. To ensure a cost-effective approach, quota sampling was used (as opposed to the random sampling approach adopted for the main stage). This involved pre-identifying sampling units – in this case postcode areas – across Scotland then, within each area, identifying a selection of addresses for the interviewers to visit. The postcode areas were purposively selected to ensure they were mixed in terms of urbanity/rurality and level of deprivation. Within each postcode area, socio-demographic quotas⁴⁵ were set to ensure a cross-section of the adult Scottish population (16+) was interviewed. The quotas reflected the demographic profile of the area, based on latest available Census data.

All interviewers involved in the pilot attended a half-day briefing before the pilot (similar in content to the briefings given before main stage fieldwork), and were given forms on which to record feedback on the survey, including their overall thoughts (on administering the survey, and its length, flow etc), thoughts on specific sections and any CAPI issues.

Following the pilot fieldwork, interviewers attended debriefing session to discuss their feedback. The findings from this session and associated recommendations were fed back to the Scottish Government in a summary report.

⁴⁵ Sex, age and employment status.

6.2 Briefing of interviewers before main stage fieldwork

All interviewers working on the survey attended a full-day survey briefing before the main stage fieldwork started on 4th April 2016⁴⁶. All briefings were attended by the Ipsos MORI and ScotCen researchers and field staff working on the survey, and by Scottish Government staff. Additional briefings were held as necessary through the year.

Each briefing covered the following topics:

- Background to the SCJS and how the information is used by the Scottish Government and its partner agencies;
- An overview of the questionnaire structure, and details of new and amended questions for 2016-17;
- Detailed guidance on how to complete the victim form. This provided key pointers on how to collect accurate and comprehensive information from the victim form screener questions and victim form, and an on-screen run-through of the section, using a CAPI machine, to familiarise interviewers with the different elements
- A detailed run through of the self-completion questionnaire, including instructions on how to administer this section, and stressing the importance of encouraging respondents to complete it themselves;
- A practice run through of the questionnaire, carried out by interviewers in pairs;
- Separate breakout sessions held by Ipsos MORI and ScotCen field teams, involving instructions on how to carry out the doorstep household screening and respondent selection procedures⁴⁷;
- Instructions on some of the different aspects of the survey administration, including: how to introduce the survey on the doorstep to potential respondents; how to report concerns about a respondent's safety or wellbeing; and collecting re-contact data.

In addition to the briefing, interviewers were asked to carry out at least one further practice interview at home before starting their assignments.

⁴⁶ The first two main briefings were joint events, attended by both Ipsos MORI and ScotCen staff and interviewers. Subsequent briefings for new interviewers, held during the course of fieldwork, were carried out separately and on an ad hoc basis by each organisation.

⁴⁷ These were carried out separately since each organisation used different contact sheet procedures for respondent selection – Ipsos MORI used CAPI based contact sheet and ScotCen used paper based contact sheets.

6.3 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:

- **Data checking and reporting was undertaken throughout fieldwork** to monitor interviewer performance. These checks included looking for cases where interviewers had: a shorter than average length and/or shorter than average gaps between interviews; below average text characters in open-ended response boxes; and lower than expected numbers completing victim forms and/or the self-completion module.
- **Interviewer supervision.** Interviewers were accompanied by a field supervisor at least twice as part of their performance and development review procedures. During the accompaniment, interviewers were given feedback on their interviewing skills, as well as their general manner with respondents and their adherence to guidelines around confidentiality, data protection and so on. The results of all accompaniments were recorded, remedial action taken as required and reports kept on interviewers' files.
- **Interview validation checks.** A minimum of 10% of addresses where a successful interview was obtained were re-contacted (validated) to verify that the interviewer had conducted the interview and that key details they had collected were correct.

In total, 591 addresses where successful interviews were obtained (10%) were successfully re-contacted for validation purposes. Addresses were randomly selected within the framework of Ipsos MORI and ScotCen's field quality procedures whereby all interviewers have their work checked at least twice a year.

Validation was carried out by both organisations, mainly by telephone. The checking involved asking approximately 15 validation questions. These included standard validation questions to ensure that the interview was carried out in the proper manner, asking a small selection of questions from sections of the main questionnaire (for example, how long a respondent had lived in the area) to ensure these had been asked of respondents, and several additional, project-specific questions to check accuracy against the recorded data. Where no telephone number was available, a short postal questionnaire was sent to the address to collect the same information.

In the event of any of any poor validation results or poor quality work, an interviewer's manager was informed and instructed to raise and discuss the issues with them. Depending on the nature of the issues, subsequent follow

up actions included some or all of: arranging further accompaniment; re-briefing; retraining; more frequent validation; or disciplinary warnings.

6.4 Fieldwork dates and fieldwork management

Fieldwork was divided into 12 monthly tranches from 4th April 2016, with each tranche starting four or five weeks apart. The fieldwork period was extended by two months (April and May 2017) to increase the achieved sample size, closing on 4th June 2017.

Across the fieldwork period, 348 first-issue assignments (batches) of addresses were issued to interviewers. A total of 9,665 addresses were issued to interviewers, with the average assignment size being 27.77 addresses within a range from 21 to 40 addresses. The standard deviation was 3.26 addresses.

Interviewers were encouraged to start their assignment as early as possible in the month to allow early identification of invalid addresses (second homes, business addresses, vacant properties etc, also termed 'deadwood' – see Chapter 3). Interviewers had eight weeks to cover all the addresses in their assignment, making a minimum of six calls at each address (including at least one call each in the evening and the weekend) where no contact with householders or selected participants had been made.

Following standard practice on large social surveys, addresses with non-productive outcomes (where an interview was not obtained but could be in future – for example, non-contacts, soft refusals, broken appointments, etc) were re-issued (see Annex 5 for CAPI outcome codes and re-issue criteria). As a general rule, all non-productive addresses were re-issued unless there was a specific reason not to or noted such as approach would not be cost effective⁴⁸. Re-issued addresses were visited twice in the case of non-contact. Some addresses were reissued a second time.

In total across the year, 3,322 addresses were re-issued, which represented 34% of the original sample (9,665 addresses – see Table 2.2). Of all the addresses re-issued, 714 (21.5%) were converted into useable interviews.

6.5 Fieldwork procedures and documents

6.5.1 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

⁴⁸ For example, if there were only one or two addresses available to re-issue in an assignment in a remote rural area.

responsible for posting the letters a few days in advance of starting their assignment.

The letter provided background information on the survey, informed the occupiers that an interviewer from Ipsos MORI/ScotCen would be calling in the next few days, explained why the address had been selected and provided details of data confidentiality. The letter also provided a Scottish Government contact telephone number, as well as an Ipsos MORI/ScotCen freephone telephone number and email address to allow members of sampled households to find out more about the survey, make an appointment for interview, or opt out⁴⁹. Over the course of the whole year 198 people (less than one per cent of addresses issued) opted out of the survey by contacting either Ipsos MORI/ScotCen's office or the Scottish Government.

Included with the advance letter was a leaflet from the Scottish Government providing further details about the survey, including some general findings from past surveys. The leaflet also tried to answer some questions that potential respondents might have, including information for the parents of young adults (aged 16-17), informing them that their son or daughter may be selected to participate in the survey.

Changes to the wording and formatting of both the letter and leaflet were made in advance of the 2016/17 survey, and were tested with respondents during the survey pilot. Copies of the advance letters and survey leaflet can be found in Annex 4.

Interviewers were also provided with a Scottish Government card which provided contact details for Victim Support Scotland, Careline, Samaritans and a range of other organisations that provide support for victims of crime or abuse.

Participation in the survey was entirely voluntary and the interview was not incentivised in any way.

6.5.2 Address contact record

There were slight differences in how Ipsos MORI and ScotCen recorded the outcomes of interviewer address contacts. Ipsos MORI interviewers used Electronic Contact Sheet (ECS) CAPI software on their machines, which allowed the electronic collection and storage of the address contact record, while ScotCen interviewers used paper-based contact sheets.

Both types of contact sheet allowed interviewers to:

⁴⁹ The content of the letters sent by Ipsos MORI and ScotCen interviewers were identical, except for the company contact details and reference number.

- automatically record the days and times that the interviewer called at an address, enabling them to tailor their calling strategy based on this;
- 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.

6.6 Response rate and reasons for non-response

The full response rate analysis for the sample is shown in Table 3.1.

Nine per cent of the issued addresses were recorded as ineligible addresses, known as 'deadwood' (see Chapter 3). Empty or vacant residential properties were the most common type of deadwood, accounting for five per cent of all issued addresses. The proportion of deadwood in the 2016/17 survey was two percentage points higher than in 2014/15 (7%).

Interviewers were unable to contact either the selected respondent or a responsible adult at 5.1% of eligible addresses. Non-contact included:

- No contact made with anyone at the address after 6 calls;
- Contact was made with someone at the address, but no contact was made with the adult selected for interview;
- No contact was made with a responsible adult in order to obtain permission to interview a household member aged 16 or 17;
- Interviewers were unable to access the selected address (for example, unable gain access to the building or locate the address).

Where contact was made at an address, refusals were the most common reason for not obtaining an interview, accounting for 27.2% of all eligible addresses. This proportion of refusals was similar to the 2014/15 survey (26.7%).

The most common types of refusal were refusal at the introduction of the survey/before the interview (13%), and refusal after the adult selection, where the adult refused to take part (7%).

A further 3.7% of eligible addresses were categorised as 'unable to respond', including when the selected adult was physically or mentally unable to complete an interview (1.7%), or away or in hospital throughout the survey period (0.7%). There were 21 households where people had inadequate English to complete the survey.

Combining all the different types of unproductive addresses gave a final adjusted response rate of 63.2%.

6.7 Self-completion response rate and reasons for non-completion

The final part of the interview involved a self-completion questionnaire containing sections on (see Chapter 7.7):

- risk factors
- illicit drug use
- stalking, harassment and partner abuse
- sexual victimisation.

Respondents were able to refuse the entire self-completion questionnaire if this was their preference⁵⁰. The response rate and the reasons for non-completion are explored below.

6.7.1 Response rate

The self-completion questionnaire was answered by 5,124 respondents (92%) to the main survey (in comparison to 87% in the 2014/15 survey). Table 3.3 compares the profile of respondents who answered the self-completion section of the questionnaire (including those who did so with help from the interviewer) by age and sex.

6.7.2 Reasons for self-completion refusal/interviewer completion

Table 6.1 shows the reasons given by respondents for either refusing the self-completion questionnaire altogether or asking the interviewer to administer the questionnaire on their behalf.

The main reason for refusal/interviewer completion was a dislike of computers, mentioned by almost half (47.7%) of people who refused the self-completion or had it interviewer administered. One in five (19.8%) said they did not have time to complete the self-completion questionnaire. Only 3.1% of respondents refused to complete the self-completion questionnaire because of worries about confidentiality.

Table 6.1: Reasons for self-completion refusal/interviewer completion

Reason	Refused	Interviewer administered	Total
Did not like using computers	16.4%	65%	47.7%
Ran out of time	44.7%	6.1%	19.8%
Eyesight problems	5.5%	20.8%	15.4%

⁵⁰ The option to skip the self-completion questionnaire differed slightly during the first few months of the 2016/17. During the first four months' of fieldwork, respondents were given the option of skipping individual sections, rather than the entire questionnaire. See Chapter 5.8 for more information.

4. Survey Weighting

Other reason ⁵¹	19.9%	7.6%	12.0%
Other disability	6%	11.4%	9.6%
Respondent adamant that they have never taken drugs/experienced abuse	15.6%	6.1%	9.5%
Couldn't be bothered	11.7%	7.5%	9.0%
Worried about confidentiality	6.9%	1%	3.1%
Other people present in room	5.7%	1.6%	3.1%
Language problems	2.7%	1.9%	2.2%
Objected to study	4.5%	0.4%	1.8%
Children present/tending to children	3.2%	0.7%	1.6%
Could not read/write	1.5%	1%	1.1%
<i>Base</i>	403	734	1,137

⁵¹ 'Other reason' includes reasons such as family emergencies, the respondent feeling unwell or the respondent being dyslexic.

7 THE INTERVIEW

Interviews were conducted face-to-face in-home and were administered by specially trained professional interviewers working for Ipsos MORI or ScotCen Social Research using Computer Assisted Personal Interviewing (CAPI).

This chapter provides information on the following elements of the survey:

- The survey reference period;
- Number of Victims forms completed;
- Computer Assisted Personal Interviewing (CAPI);
- Use of showcards;
- Interview length;
- Presence of others during the interview;
- Self-completion modules.

7.1 Survey reference period

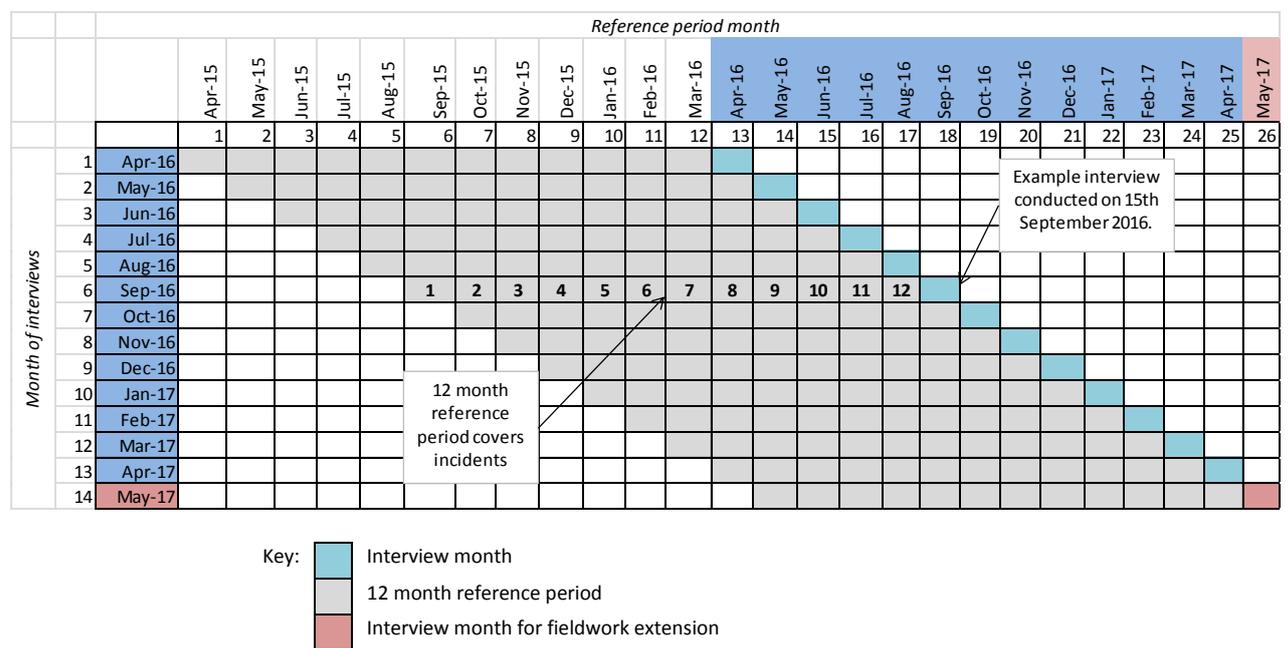
Respondents were asked about their experience of crime within a defined period of time known as the 'reference period'. Questions about exactly when incidents happened were asked at the start of the victim form (see chapter 5). The survey statistics are based only on incidents which happened in the 12 calendar months prior to the month of interview. For example, in an interview conducted on the 15th of September 2016, the survey statistics would include incidents which the respondent had experienced between 1st September 2015 and the 31st August 2016. 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. Incidents which fall outside this reference period are not included in crime counts.

Incidents which happened in the month of interview (in the example above, incidents happening in the 15 days between the 1st and the 15th of September 2016) are not included in the reference period (and therefore any of the data reported in the Main Findings report). However, both for the sake of simplicity with regard to the administration of the interview and for ethical reasons, respondents are asked about incidents which happened in the period of time since the start of the reference period; the victim form screener questions are phrased in the following way "Since the 1st of September 2015, have ...", where '1st September 2015' is the start of the reference period in this example (the reference period dates change based on what month the interview is conducted in – see below). Full details of incidents occurring in the month of interview are retained in the SPSS data files for use by analysts

if necessary (though these cases are marked as non-valid and the incident weight in the victim form is set to zero – see chapter 4.5).

Due to the 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 2015 were asked about incidents which occurred in the reference period 1st October 2015 to the 30th of September 2016. The total reference period for interviews conducted from April 2016 through to the end of May 2017 is therefore a 25 month period from April 2015 through to April 2017. This is illustrated in Figure 7.1 below.

Figure 7.1: Survey reference period



7.1.1 Series incidents and the reference period

Where respondents had experienced series incidents, if incidents 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 five – chapter 4.5) was reduced by the number of incidents that occurred in the month of interview.

Variables NSERIES and NUMINC (uncapped count of series incidents and capped respectively) in the victim form file (VFF) data file are calculated based on the number of incidents in the 12 month reference period only and do not include incidents which happened in the month of interview.

7.2 Numbers of victim forms completed

In total 1,409 victim forms were completed by 961 respondents. Less than one in five respondents (17.3%) completed at least one victim form. 12.2% of respondents completed a single victim form only, while just 0.4% completed five victim forms (the maximum allowed) (Table 7.1).

In the VFF SPSS data file each record represents a victim form (chapter 10.1.2), with each record being labelled as victim form one to five for each respondent (variable VICNO). There are therefore 1,409 records in the file, with 681 of these being victim form one.

Table 7.1: Numbers of respondents who completed victim forms
SCJS 2016/17

VFs completed	No of resps.	% of Respondents	% of those with 1 or more VF	Total VFs
None	4158	74.7	-	0
1	681	12.2	70.9	681
2	171	3.1	17.8	342
3	71	1.3	7.4	213
4	17	0.3	1.8	68
5	21	0.4	2.2	105
1 or more	961	17.3		1409
Total	5567			

Not all completed victim forms are used in the production of the SCJS statistics, for example some may refer to incidents which are outside the reference period (chapter 7.1) or to crimes which are outside the scope of the survey (chapter 9.1). Table 7.2 provides details of how many of the 1,409 victim forms were assigned non-valid / out-of-scope offence codes.

Table 7.2: Classification of non-valid / out-of scope victim forms
SCJS 2016/17

Category	No. of VFs	% total VFs
Terminated as violence from household member*	3	0.2
Partial victim form	17	1.2
Incident occurred outside reference period**	102	7.2
Incident occurred outside Scotland	33	2.3
Duplicate VF (series and single incidents)	58	4.1
Other non-valid/no crime offence codes	197	14.0
Non-valid SCJS offence codes (Sexual offences and threats)	140	9.9
Total "Valid SCJS" victim forms	859	61.0
Total victim forms	1409	

Notes: * In cases of violence from another household member recorded in the victim form screener section, interviewers have the option to skip the victim form (variable WINTRO if there is another person present at the interview (chapter 3.3.1)).

** This includes incidents which occurred in the month of interview and which are therefore outside of the reference period but may have a valid offence code.

7.3 Computer Assisted Personal Interviewing

The use of CAPI interviewing presents various opportunities for improving the quality of data collected and the efficiency of the survey, including:

- Plausibility and consistency checks within the interview;
- Automated text substitution and calculation (especially important for using the correct reference period);
- Automated links between questionnaire sections.
- The use of tablet PCs and CAPI software also allows, the electronic collection and storage of the address contact record and automated random respondent selection (and dwelling selection where necessary).

7.3.1 Plausibility and consistency checks

CAPI has the advantage over paper-based interviewing as it allows 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 5.

7.3.2 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 period and other questions where a specific time period was required. All of the date variables in the SPSS data files (for example, DATESER variables, QTRRECIN, and MTHINC2 in the VFF file) are given values according to the actual month / time period in question.

7.3.3 Don't know and refused codes

Almost every question in the CAPI questionnaire for the SCJS has a 'Don't know' and 'Refused' option. These are displayed at the top of the screen as separate buttons. For 'show card' questions (see section 7.4) these options are not shown to respondents explicitly as part of the pre-code list of answers.

At the start of the self-completion questionnaire, the interviewer specifically showed the respondent where these buttons were located on the screen via a practice question at the start of the section. The refused option used in the main part of the survey was re-worded as 'Don't wish to answer'.

7.4 Use of show cards

For the majority of 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. The use of show cards prevents the interviewer from having to read out all of the answer options for certain variables, and thus improves the flow of the interview. The show cards are also particularly important for the following types of variable:

- Questions with long or complicated pre-code lists (e.g. QQUAL asking qualifications);
- Questions on sensitive issues where respondents may not want interviewer to know what their answer relates to (eg QDISCRIM which asks respondent's views on offender's potential motivation; the respondent reads out a letter next the their answer and only the letter code is displayed on the CAPI screen, so the interviewer does not know what their answers means);
- Questions which are not read out by the interviewer because they are on a sensitive topic (e.g. for variable HHLDVIOI, which asks whether the respondent has experienced physical violence from another household member, the question text is included on the show card);

- Particularly sensitive questions in the self-completion section if the interviewer reads them out for the respondent (e.g. DA_1i for experiences of partner abuse).

7.5 Length of interview

Automatic 'time stamps' were placed throughout the CAPI script to allow timing of questionnaire sections. It is not always possible to derive meaningful time stamps from every interview using CAPI systems. For example, if an interviewer has to temporarily stop or suspend an interview for a period of time 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 with an erroneously increased length. Interviews lasting longer than 2 hours or, or less than 14 minutes were excluded from the analysis in this section (matching the same criteria used in previous SCJS Technical Reports).

Since the calculation of interview times is based on automatic time stamps in the CAPI script (rather than interviewer estimates), they represent the elapsed time from the first question (QSYAREA) to the last question (Respondent's email address, if consented to provide). They do not include the time during which the interviewer completes the address contact record, introduces the survey or closes the interview.

The average (mean) total interview length, including the self-completion section, across the (5126, 92.1%) respondents with usable timestamp data was 46 minutes and 11 seconds, which is 4 minutes and 50 seconds longer than in 2014/15. However, there was a significant difference in the average interview length when compared by organisation; interviews completed by ScotCen interviewers took an average of 49 minutes and 18 seconds, compared with 43 minutes and 25 seconds when completed by interviewers from Ipsos Mori (an increase of 2 minutes and 4 seconds compared with 2014/15). The disparity in interview length across the two survey organisations can be attributed to a general difference in interviewer approach to data collection. There is no association between interview length and interviewer performance or quality of data collected. The average total interview length by questionnaire section, survey year, and organisation is shown in Table 7.3.

Table 7.3: Average length of each questionnaire module by questionnaire section, survey year, and organisation

Module	Average Time (mins:seconds)			
	14/15	16/17 Ipsos Mori	16/17 ScotCen	16/17 Average
1	4:47	4:58	5:37	5:16
2	3:20	3:08	3:32	3:19
3 (VF)	12:55	13:24	15:07	14:16
4	8:39	9:13	10:07	9:38
5A*	4:00	5:09	5:48	5:28
5B*	3:44	3:23	3:44	3:33
5C*		4:03	4:35	4:19
5D*	3:14	1:51	2:07	1:58
6	7:09	8:13	9:34	8:51
7**	1:12	2:42	3:03	2:52
8	3:08	4:22	4:16	4:19
9	0:58	2:44	2:43	2:44
10	1:59	3:16	4:26	3:49
Overall	41:21	43:25	49:18	46:11

*Module 5A-D are rotating modules, and are each completed by approximately 25% of the sample. Module C and D were combined in 2014/15. The modules differed between 2014/15 and 2016/17.

**Length for each Self completion module (modules 7, 8, 9 and 10) includes all cases completed by Respondents and Interviewers.

Whether the respondent had been a victim of crime (and therefore whether a victim form was completed or not) was also a factor in total interview length. The average total interview length (including the self-completion section) for those not completing any victim forms was 43 minutes and 28 seconds, compared to 60 minutes and 9 seconds for those who completed one or more victim forms. A full breakdown of the influence of total victim forms completed on the interview length, including breakdowns for each organisation, is provided in Table 7.4.

Table 7.4: Average total length of interview by number of completed victim forms, survey year, and organisation

Total VFs	Survey year			
	14/15	16/17 Ipsos Mori	16/17 ScotCen	16/17 Average
No VF				
N	9130	2298	1994	4292
Length (mins.seconds)	38.27	41.04	46.16	43.28
1 or more VF				
N	2074	411	423	834
Length (mins.seconds)	54.04	56.34	65.19	60.09
1 VF				
N	1509	309	304	613
Length (mins.seconds)	50.47	53.49	58.58	56.22
2 VFs				
N	359	71	74	145
Length (mins.seconds)	59.53	61.23	72.59	67.19
3 VFs*				
N	118	21	32	53
Length (mins.seconds)	64.27	69.17	76.19	73.32
4 VFs*				
N	44	5	6	11
Length (mins.seconds)	73.01	86.24	93.10	90.05
5 VFs*				
N	44	5	7	12
Length (mins.seconds)	72.29	74.00	83.52	79.45

*Note: small sample sizes for respondents completing three or more VFs mean that findings should be interpreted with caution.

One potential explanation for the increase in interview length in 2016/17 was the fact that interviewers were not familiar with administering the survey, and hence took slightly longer to do so. This is corroborated by the fact that as interviewer familiarity increased (as time passed), the average interview length decreased, as shown in table 7.5. Overall, the average time for interviews conducted by Ipsos Mori in Quarter 3 and especially quarter 4 of 2016/17 were much more similar to the overall average time in 2014/15.

Organisation	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Overall
Ipsos Mori	44.10	44.55	42.34	41.46	43.25
ScotCen	50.34	49.02	48.20	49.10	49.18
Combined	47.02	46.53	45.22	45.16	46.11

7.6 Presence of others during the interview

Interviewers aimed to conduct the interviews in private with only the respondent present. 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 to talk about in front of others.

However, although it is preferable for the interview to be conducted with no one else present, there are some situations where the presence of other members of the household might improve the accuracy of the information collected. This is particularly the case in incidents of household crime, where the respondent may not have been personally present at the time of the incident, or may not have reported the incident to the police. Information on the presence of others during the self-completion interview was recorded and is available in the self-completion SPSS datafile (variable SCOTHPRES).

7.7 Self-completion interview

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. The respondent was asked to follow the instructions on the screen of the tablet PC and enter their answers using a stylus 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 (including an explicit demonstration of the 'don't wish to answer' button reflecting the sensitive nature of the topics in the questionnaire). If the respondent was unable or unwilling to complete the questionnaire using the computer but was happy to answer the questions, the interviewer administered the questionnaire on their behalf, showing the respondent the screen and then selecting the answer accordingly.

92% of respondents completed the self-completion section; 79.2% of them entered their answers directly in to the tablet PC themselves and 12.8% asked the interviewer to administer the questionnaire for them.

During interviews where another person (other than the interviewer and the respondent) was present in the room during the self-completion section, interviewers tried to '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 read the computer screen. Of the 414 respondents who refused the self-completion section outright, 23 (5.6%) cited the presence of someone else in the room as the reason.

8 DATA PROCESSING

All data processing was undertaken by ScotCen Social Research, including offence coding, standard coding and data checking. This chapter looks at these processes in turn. Information on the offence codes themselves is provided in Chapter 9 and details of data outputs themselves are provided in Chapter 10.

8.1.1 Offence coding process

The SCJS offence coding system is based on that developed for the 1982 Crime Survey for England and Wales (then the British Crime Survey), 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 between statistics from the SCJS and police recorded crime statistics.

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. All data for the survey was coded consistently using agreed principles set down in the SCJS Offence Coding Manual (available from the survey website).⁵²

Every victim form has an offence code assigned to it. The SCJS Offence Coding Manual has a 'priority' ladder which determines what offence codes are assigned if the incident involves multiple aspects. For example, if an incident involves an offender breaking into someone's house, beating up the occupants, stealing the car and breaking some valuable belongings), the offence coding process needs to sort out which of these offences takes priority (i.e. should the crime be coded as housebreaking, assault, theft of a car or vandalism?).

The priority ladder (with those codes that take priority towards the top) is generally:

- Rape or Serious Assaults
- Robbery
- Housebreaking
- Theft
- Minor Assault

⁵² Scottish Government survey website: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Crime-Justice/crime-and-justice-survey>

- Vandalism
- Threats

Further information is available in the offence coding manual available from the survey website.

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 ScotCen coder electronically using IBMDC software.
- 2) The ScotCen coder reviewed the answers to the questions in the coding system and, consulting the coding manual, assigned an offence code. They also completed a certainty record for each victim form showing whether they were certain or uncertain that the code assigned was correct (for example in cases where there was no specific guidance in the offence coding manual or the information in the victim form was inconclusive).
- 3) A ScotCen coding supervisor subsequently checked all victim forms, as well as completing an additional certainty record for the code they assigned. ScotCen Supervisors had the additional responsibility of highlighting “duplicate victim forms” (see section 9.1.4)
- 4) Researchers at the Scottish Government then also checked each of the victim forms.
- 5) The offence coding records were finalised and exported from the IBMDC software for inclusion in the final datasets.

As a result of this process 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.

When more than one offence code was selected by the coder, the software automatically applied the priority ladder to determine the code. In this instance, coders were briefed to complete the certainty record as “uncertain.”

All ScotCen Supervisor and Scottish Government coding was completed using a “blind coding” approach. This stipulates that ScotCen Supervisors and Scottish Government completed their coding without knowledge of the codes and certainty records given to a victim form by previous coders. This prevented each coding stage being influenced by previous stages.

Researchers at the Scottish Government were given access to the IMBDC coding questionnaire, which was used each calendar month after fieldwork to complete offence coding. ScotCen provided Scottish Government with the unique serial numbers for the victim forms collected each month.

Researchers at the Scottish Government then 'blind coded' each of the victim forms and added their code and comments to the coding history summary file. Where Scottish Government coders did not agree with the code assigned by the ScotCen Coder or Supervisor, a further dialogue was opened 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 to ensure consistency throughout. These were used to set precedents for future decisions, and to provide feedback and guidance to the ScotCen Coders and Supervisors. In 2016-17 the Scottish Government checked 100% of all victim forms as a measure to ensure consistency and confidence in crime coding of ScotCen compared to previous sweeps of the survey.

8.1.2 Offence coding quality assurance

A number of measures were in place to monitor the progress of the offence coding carried out by the ScotCen coders, to ensure a high quality of coding was delivered across the survey year, and to highlight and address any issues with coding accuracy if they arose.

Firstly, Researchers at ScotCen Social Research produced analysis of coding behaviours on a quarterly basis. The analysis focused on a number of parameters, including: agreement between ScotCen Coder assigned codes and Scottish Government assigned codes, proportion of certainty/uncertainty among ScotCen Coders, and agreement between ScotCen Coders and Scottish Government when certain/uncertain. This process shed light into individual or types of codes where agreement between ScotCen Coders and Scottish Government was lower, and allowed Researchers at ScotCen Social Research to feedback valuable guidance to the ScotCen Coders.

Overall, ScotCen coders were consistent with Scottish Government coding on 85.2% of victim forms. When coders marked their coding as "Certain" (68% of victim forms), consistency with Scottish Government was 93.1%, and when "Uncertain" (32% of victim forms), consistency was 69.8%.

The second coding quality assurance measure undertaken was biannual variability studies, which assessed the level of variance amongst the ScotCen coders. The variability study involved every coder each coding the same 100 victim forms, selected randomly from the mainstage sample. This allowed Statisticians at ScotCen Social Research to compute Fleiss Kappa analysis and produce an overall indicator of the level of variance among the coders, and also for each individual code (eg code 13 minor assaults, no injury).

In different studies (Biemer & Lyberg, 2003; Campanelli et al. 1997; Kalton & Stowell, 1979) two basic measures have been used to assess coding variance: proportion of agreement (P) which is the proportion of agreement between the coders when compared 1-to-1 and Kappa (k) (1971) which takes

into account that some degree of agreement may be due to chance alone. Accounting for the amount of agreement that might be expected by chance is the central benefit of using Kappa analysis. Fleiss Kappa is similar to the original Cohen's kappa, but allows for more than two coders.

The Fleiss Kappa is defined as:

$$k = \frac{\bar{P} - \bar{P}_e}{1 - \bar{P}_e}$$

Where $1 - \bar{P}_e$ represents the degree of agreement that can be due to chance and $\bar{P} - \bar{P}_e$ gives you the proportion of agreement achieved above chance. The statistic k takes a value from 0 to 1 indicating the strength of the agreement among the coders (though can be less than 0).

While an interpretation of the value of k will vary in different circumstances, the most common interpretation has six categories:

Table 8.1: Description of kappa scores

Value of k	Interpretation
< 0	Poor agreement (less than chance)
0.01–0.20	Slight agreement
0.21– 0.40	Fair agreement
0.41–0.60	Moderate agreement
0.61–0.80	Substantial agreement
0.81–0.99	Almost perfect agreement

Two variability tests were carried out - in October 2016 and March 2017. The results show that the agreement between coders was substantial. The variance when certain was almost perfect when coders were certain and moderate when coders were uncertain.

Table 8.2: Results of variability tests

	Variance overall	Variance when certain	Variance when uncertain
Variability test 1	.745	.883	.422
Variability test 2	.791	.903	.522

The variability study provided us with valuable information on the consistency of coding among the coders, highlighting areas where consistency could be improved, thus informing guidance provided to the coders and informing when to reduce the level of SG checking.

In summary, across each measure, the level of consistency between ScotCen coders and Scottish Government was high. The level of checks carried out by the Scottish Government has subsequently been reviewed and reduced for the 2017/18 survey.

8.1.3 *Offence code history*

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 offence coding process. This allows a complete history of each case to be viewed.

The final offence code is derived using a priority ordering system, whereby the Scottish Government code takes priority over the ScotCen coding supervisor, who takes priority over the original ScotCen coder (where applicable). The variables in the VFF 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 final offence codes for each victim form are also contained in the RF data file in the VICFORM variables (one for each victim form completed).

8.1.4 *Standard and open-end coding*

In addition to the survey specific offence coding, coders also reviewed all questions where an 'Other SPECIFY' had been given as an answer to a pre-coded question. The aim of this exercise was to see whether the answer given could actually be coded into one of the original pre-coded response options. If it could not then the coders would discuss it with the researchers whether a

new code could be created and other similar 'Other – specify' answers could also be added into this new code.

Open-ended questions, with the exception of those required for Standard Occupational Classification (SOC) and National Statistics Socio-Economic Classification (NS-SEC) coding, were treated in the same way, with code frames developed by coders and coding supervisors for these questions before being checked by researchers.

It should be noted that no 'other – specify' questions were present in the self-completion questionnaire.

8.2 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 2010 (SOC2010). All occupational coding was done centrally by specialist ScotCen coders once the data were returned by interviewers. SOC coding was done using NatCen's bespoke coding system, which uses enhanced search functionality to lookup the job titles which underlie each SOC unit group.

While full SOC codes were assigned, the SPSS data files only contain a two-digit SOC code to remove the risk of individual respondents being identified in the datasets (known as 'disclosure risk').

As well as occupation codes, National Statistics Socio-Economic Classification (NS-SEC) were assigned to all respondents.⁵³ 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.⁵⁴

As a result of the questionnaire and routing changes outlined in chapter 5.1.1, the coding process for the NS-SEC variable values *never worked*, *long-term unemployed* and *system missing* was different to that in 2012-13 and 2014-15.

⁵³ It should be noted that information to allow NS-SEC coding was only collected for respondents, and not specifically the Household Reference Person (HRP).

⁵⁴ NS-SEC coding based on SOC2010 was used. For further information, see the ONS website: <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/index.html>

Figure 8.1 shows the routing and coding process for the NS-SEC variables for the 2012-13 and 2014-15 survey sweeps. Figure 8.2 shows the routing and coding process for the NS-SEC variables for 2016-17 questionnaire.

Table 8.2 shows a comparison of the NS-SEC coding process of between the last three sweeps looking at the breakdown of the coding of NS-SEC, never worked, long-term unemployed and system missing. The results show that the coding process adopted for 2016-17 produces similar results to the previous two survey sweeps, however caution should be taken if using the NS-SEC comparisons across survey years.

Figure 8.1: The questionnaire routing for the 2012-13 and 2014-15 questionnaire, and the coding process for NS-SEC family of variables

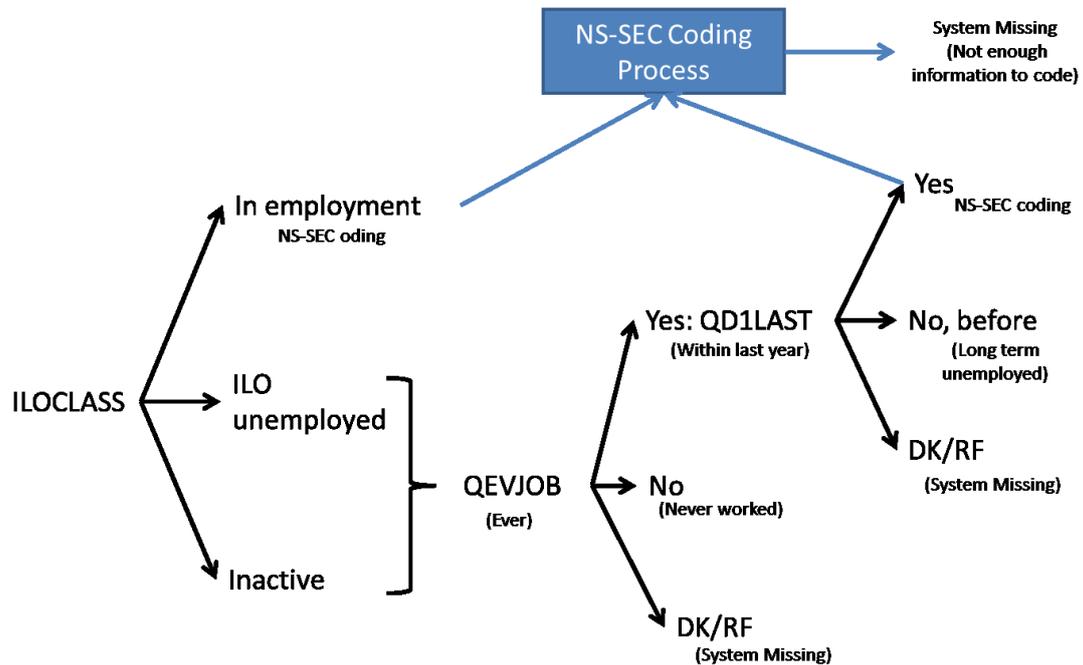


Figure 8.2: The questionnaire routing for the 2016-17 questionnaire, and the coding process for NS-SEC family of variables

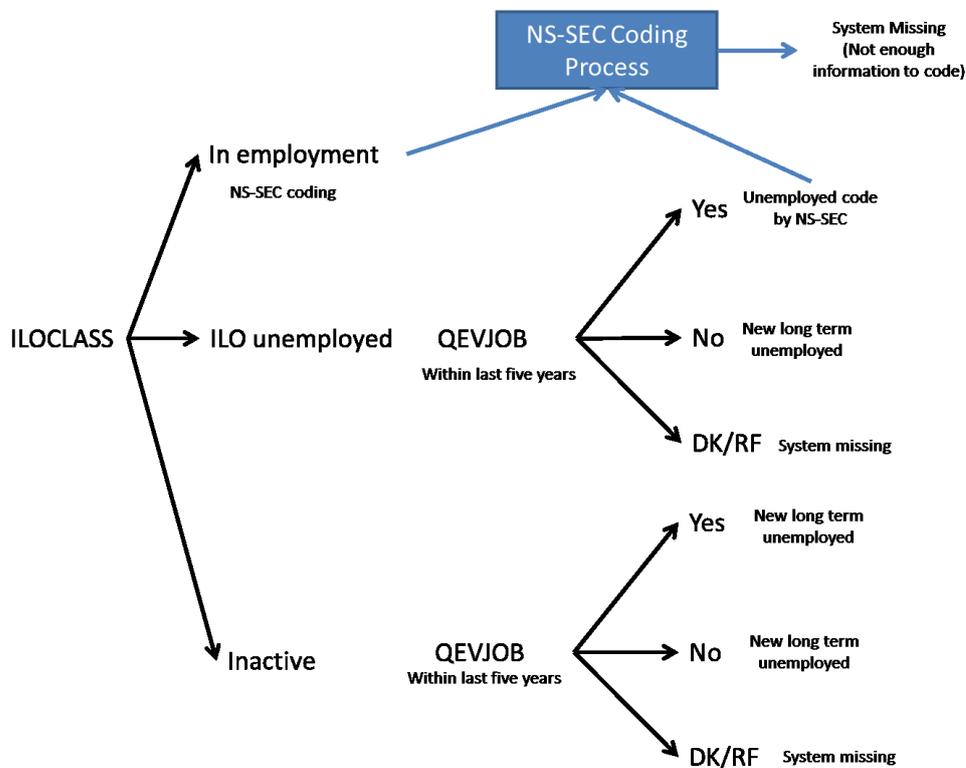


Table 8.2: Comparison results between the last three survey sweeps

ILO Class	NSSEC Coded	2012-13	2014-15	2016-17
In employment	NSSEC Coded	53.0%	52.6%	52.3%
ILO unemployed	NSSEC Coded	1.3%	1.0%	2.2%
	Never worked & Long term unemployed	2.4%	1.8%	1.3%
Inactive	NSSEC Coded	3.7%	2.9%	0.0%
	Never worked & Long term unemployed	39.5%	41.7%	44.2%
Total		100%	100%	100%
Overall	NSSEC Coded	58.1%	56.5%	54.5%
	Never worked & Long term unemployed	41.9%	43.5%	45.5%
Total		100%	100%	100%
Percentage of sample of NS-SEC system missing		8.9%	0.8%	1.1%
Base Size		12,045	11,472	5,567

8.3 Data checking

Data quality control is a continuous process which is undertaken throughout the survey life cycle, from survey inception to the provision of a final clean dataset. Specifically, quality control is undertaken during each of the following core survey stages:

- sampling design and methodology
- questionnaire design

- survey administration (e.g. interviewer recruitment and training)
- data collection (by interviewers)
- data entry (eg of self-completion questionnaire data); and
- data checking, editing and cleaning

This section focuses on the quality control checks undertaken **during the final survey stages, that is of data checking, editing and cleaning**. These stages were undertaken by ScotCen in full consultation with (and in the latter stages, verification by) the Scottish Government Justice Analytical Services SCJS team.

Details of the methods used for the quality assurance of the remainder of the elements listed above are detailed in the relevant section of this report. The Offence Coding manual also provides further information on the Offence Coding process and the generation of the survey statistics.

After data collection (and data entry for the self-completion element of the survey) the data checking and cleaning tasks are carried out. This involves a number of stages as detailed below, for both the SPSS data files and the Data Tables. The SPSS is generated before the Data Tables are produced since most of the key checks can only be performed using the SPSS data.

In addition to the plausibility and consistency checks which were programmed as part of the CAPI script (see section 7.3.1), a number of other checks were undertaken as part of the data processing.

The SPSS datafiles for the SCJS contain all of the questionnaire variables as well as some derived and sample variables and the victimisation survey statistics.

8.3.1 SPSS Data Checking

- Early data checks during fieldwork to identify and amend potential scripting errors
- Checks on fieldwork records and between raw data, field records and SPSS data to ensure there are no discrepancies.
- Initial checks on completed interviews - identifying and removing duplicated or incomplete or corrupt interviews from the raw dataset.
- Checks of the raw CAPI (topline) data against the SPSS
- Checking the content and formatting of the SPSS datafiles - checking the specifications for the SPSS data file against the content and formatting of

the SPSS.

- Specific checking of new or amended variables - checked to ensure that they are correct and no errors have been made in the specification of these.
- Checking the data in the SPSS datafiles are correct - ensuring the total number of responses in the base for each variable matches the total respondents eligible to respond.
- Checks that variable and value labels are clear and meaningful, consistent with questionnaire documentation and previous years.
- Comparing the data against the previous Sweep - checks are made comparing the content, structure and data frequencies against the previous Sweep's data.
- Coding data – checks of the final coding specification for open end and Other SPECIFY questions
- SPSS derived, summary and weighting variable checks - checked by recreating the variables in SPSS and then comparing them to the existing variables, or to the source data.
- Removal of any possible direct/indirect identifiers e.g. name, date of birth, address (in agreement with SG)
- Checking all variables required are present and no/limited surplus variables
- Offence Coding data and associated incidence and prevalence variables - unique to the SCJS – the following section explores this further.

8.3.2 Data Table Checking

Once the SPSS is complete and correct, the data tables are produced. The Data Tables replicate the SPSS but present the data in an easier to read and publishable format which does not require any specialist software. Two sets of Data Tables are produced, one for reporting purposes (for Scottish Government use only) and one for publication.

Those for publication are a subset of the reporting tables and use different conventions to simplify the presentation of the data.

- Checking the content and formatting of the tables - checking the specifications for the Tables against the content and formatting of Tables themselves.
- Data Tables and SPSS match – check frequencies match.

- Consistency checks with 2014/15 tables.
- Data Tables summary codes - the Data Tables often contain summary codes which combine certain responses in a summary (for example, and 'agree' code combining 'agree strongly' and 'agree slightly' codes (which are separate in the SPSS). Since these appear only in the Data Tables these are checked using the tables themselves, or by recreating them in the SPSS.
- Data Tables cross-breaks are correct - the specification, data and labelling for the Data Table cross-breaks is checked against the SPSS to ensure these are correct and clearly labelled.
- Logic checks of key demographic and factual responses
- Victim Form Data Tables – where applicable, the published (and reported) Victim Form data is based only on those forms which are marked as ValidSCJS.

8.3.3 Offence Coding and Survey Statistics Checking

The survey statistics (incidence and prevalence figures) are produced from the Offence Coding data. The Offence Coding process and validation is described at the beginning of this section, and in the Offence Coding manual which describes how Offence Codes are assigned and what they comprise.

The production of the survey statistics from the Offence Coding is carried out to an agreed specification which has been used on all sweeps of the SCJS and the surveys which preceded this (for example the Scottish Crime and Victimization Survey).

This defines what Offence Codes are within the scope of the survey and which are not, as well as how these should be counted and what weighting should be applied. This specification is replicated in SPSS syntax. For the current SCJS, the survey statistics are produced in the data processing software and exported into the SPSS file. An annotated SPSS syntax file is then used to replicate all of the survey statistics (how many incidents are counted, whether the incident was in the Reference Period etc). The SPSS syntax file is used both by ScotCen and the Scottish Government to check the survey statistics.

Prior to the generation of the survey statistics, a number of stages during the data processing are undertaken:

1. Checks are performed to compare the number of Victim Forms in the data against previous Sweeps, and checking against the raw topline data. Checks are also made to ensure that all of the Victim Forms are complete and identifiers are unique.

2. Once the Offence Coding is complete then the data is incorporated into the data processing software and outputs – checks are made to ensure that all the Victim Forms have an offence code and that there are no duplicates.

Once the data is included in the (unweighted) SPSS then logic checks are made to review the data compared to previous Sweeps:

1. Checking the number of single vs series incidents
2. Checking the number of forms which are coded as “Not enough information to code”
3. Checking the number of forms which are outside of the Reference Period
4. The number of ‘Valid’ and ‘ValidSCJS’ forms.

Frequencies are then run to compare the number of Victim Forms with each Offence Code to previous Sweeps.

Once these stages are complete, the syntax noted above is used to recreate the survey statistics incidence and prevalence. The syntax follows a logical process through which forms are assigned as ValidSCJS or not (based on being completed forms, within the Reference Period and having a valid offence code). The resulting data is then copied from the Victim Form SPSS (where each record represents a Victim Form) into the Respondent File SPSS, where it is summarised on a respondent basis and grouped into different categories of crime. The variables are then run with the correct weighting and compared to those in the original SPSS file. Finally, the SPSS is checked against the Data Tables to ensure that they match.

9 OFFENCE CODES, SURVEY STATISTICS AND CRIME GROUPS

The offence coding process assigns offence codes to each victim form completed by a respondent (see section 8.1.1). This chapter examines the offence codes which are used in the analysis and reporting of the survey, and how they are grouped and defined.

9.1 Crime types / offence codes covered by the survey

A list of all of the offence codes which can be assigned to a victim form, including in-scope codes and out-of-scopes codes is provided in Annex 8. The following section also looks at what is excluded from the scope of the survey.

9.1.1 Offence codes

The offence coding manual for SCJS 2016/17 contains the range of offence codes which are assigned to every victim form which is triggered as a result of the victim form screener section (section 5.2.2). Therefore even incidents classified as non-valid because they occurred outside of the reference period or outside of Scotland are given an offence code (i.e. an out-of-scope non-valid code as detailed below).

The offence codes can be split into two groups: in-scope and out-of-scope codes:

- **In-scope codes:** 33 offence codes were used in the calculation of 'all SCJS crime' (section 9.1.5) and therefore the incidence and prevalence statistics from the survey;
- **Out-of-scope codes:** these can be grouped into two categories, neither of which are included in the published survey statistics;
 - **Sexual offence or threat codes:** 12 offence codes related to sexual offences or threats which were not included in the 'all SCJS crime' statistics produced by the survey (see section 9.1.3);
 - **Non-valid codes:** the offence coding manual also contained 21 offence codes for classifying incidents recorded in the victim form which were non-valid incidents (outside of Scotland or the reference period, duplicate incidents), where not enough information was collected to make an accurate classification, where the respondent or household was not the victim or the victim form was skipped. As with the sexual offence or threat codes, these 21 codes were not included in the 'all SCJS crime' statistics produced by the survey.

Included in the non-valid out-of-scope codes is code 97 which is assigned where there is insufficient information to code the offence.

Details of the offence codes and the incidents that they cover are provided in the SCJS Coding Manual.⁵⁵ The variables OFFENCE in the victim form file (VFF) data file and the VICFORM variables in the respondent file (RF) data file show the offence code assigned to each victim form.

9.1.2 A note on crime types excluded from the scope of the survey

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 7.1).

In addition, the SCJS does not collect 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 shared accommodation, such as military bases and student halls of residence – section 2.3);
- Crimes against children and young people (aged under 16);⁵⁶
- Crimes against businesses;⁵⁷
- So-called ‘victimless’ crimes, such as speeding, or crime where the victim cannot be interviewed, such as homicide.

9.1.3 Sexual offences and threats

The SCJS victim form was used to collect information on threats and, where respondents provided information, sexual offences. Coders assigned offence codes to incidents of these crimes in the normal way. However, the ‘all SCJS crime’ statistics (section 9.1.5) produced from the survey, including the estimates of incidence and prevalence, do not include these crimes for the reasons outlined below.

Sexual offences

⁵⁵ Available from the Scottish Government survey website: <http://www.scotland.gov.uk/scjs>

⁵⁶ The Crime Survey for England and Wales (CSEW – formerly the BCS) was extended to cover children aged between 10 and 15 in 2008, with experimental statistic published in summer 2010 (Millard and Flately, 2010). More information can be found on the Office for National Statistics website: <http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Crime>

⁵⁷ The Commercial Victimization 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/science-research/research-statistics/crime/crime-statistics/commercial-victimisation-survey>

The victim form screener did not include questions specifically on sexual assault for two reasons:

1. Victims are often reluctant to disclose information on these sensitive crimes in a face-to-face interview and therefore that surveys using face-to-face data collection rather than self-completion tend to under-represent them.
2. On ethical grounds, a decision was taken that it was important to identify respondents' experiences of sexual assault (and to gather limited key information about them) in as sensitive a way as possible without putting them in an uncomfortable position (either by asking questions face-to-face or asking lots of detailed questions).

A separate self-completion questionnaire was therefore used to collect information on sexual victimisation.⁵⁸ The statistics and analysis from the self-completion survey are reported separately and a separate data file is available from the UK Data Service.⁵⁹

Details of sexual offences were recorded in the victim form where the respondent did provide details of the incident (for example, as part of the victim form screener question which asks "*Has anyone, including people you know well, deliberately hit you with their fists, or with a weapon of any sort, or kicked you, or used force or violence on you in any other way?*") respondents may have provided details of an incident of sexual assault). However, as the evidence shows that estimates based on this method of data collection for these types of incidents are not reliable, all such incidents were excluded from the 'all SCJS crime' statistics.

Incidents reported only in the self-completion questionnaire could *not* be assigned offence codes in the same way as those collected in the victim form as only a limited number of follow-up questions were asked about incidents (reflecting an ethical decision based on potential respondent distress at having to disclose detailed information on very sensitive incidents).

Threats

Following established practice in previous crime surveys in Scotland, threats, although assigned offence codes, were not included in the estimates of crime

⁵⁸ Of course it is important to note that self-completion data collection is still likely to underestimate the number of actual sexual offences occurring as, even with a self-completion format, a degree of under-reporting would be expected.

⁵⁹ SCJS reports and related publications are available on the Scottish Government survey website: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Crime-Justice/crime-and-justice-survey>

due to the difficulty of establishing whether or not a crime actually occurred (Anderson and Leitch, 1996).

9.1.4 Duplicate victim forms

Duplicate victim forms can occur where the *same* actual incident is recorded in two separate victim forms or the victim form is part of a series of the same type of incident (section **Error! Reference source not found.**). This can occur for two reasons:

- Firstly, if the incident contains two or more different types of incidents described in the victim form screener section (for example, an incident of where something is taken from a victim may also involve the offender using force or violence against the victim) the respondent may not have understood or misheard the qualifier to the victim form screener question:⁶⁰ “*Apart from anything you have already mentioned*”. If the respondent mentions the same incident in two separate victim form screener sections, then this may only become apparent after the victim form has been triggered;
- Secondly, a series of incidents may not be correctly identified / disclosed in the victim form screener section and separate victim forms triggered for very similar incidents.

Duplicate victim forms are marked as ‘same duplicate’ (code 3) or ‘series duplicate’ (code 4) according to why the duplicate form has been marked. The questionnaire included a set of questions which were added in order to allow interviewers to better record where this was happening. However relatively few victim forms are coded as duplicates.

9.1.5 List of in-scope offence codes

The list of the 33 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 Annex 6. It also shows the SPSS value code for each offence code as well as the crime groups used in the 2016/17 SCJS Main Findings report into which each in-scope offence code is grouped (section 9.3)

9.2 Survey statistics

The SCJS produces two key measures of crime: incidence (the numbers of crimes) and prevalence (the risk of being a victim of crime or the victimisation rate). It also provides data on repeat and multiple victimisation. These are all presented in the 2016/17 SCJS Main Findings report.

⁶⁰ Victim form screener questions identify incidents which will be followed up in the victim form.

Incidence and prevalence statistics were estimated for Scotland using data supplied by National Records of Scotland (NRS); Estimates of Households and Dwellings in Scotland, 2016 (2,451,871 households) and Mid-2016 Population Estimates Scotland (4,488,733 adults).

9.2.1 Household and personal crimes

All of the 33 in-scope offence codes which are assigned in the SCJS relate either to crimes against the individual respondent (such as assault) or to crimes experienced by the respondent's household (such as housebreaking). With regard to crimes against individuals (personal crimes), respondents were asked to only provide information about incidents in which they themselves were the victim. If other household members had experienced personal crimes then this was not recorded in the survey.

This important distinction between personal and household crimes affects how the survey statistics were calculated (sections 9.2.2 and 9.2.3) and how the data is analysed. [Annex 12](#) provides detail of which crimes are classified as household crimes and should therefore be analysed using the household weights (section 4.6).

9.2.2 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 (section 9.2.1) 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 five) recorded in the victim forms.

The incidence rate can also be calculated for key crime groups. This is calculated as the gross number of incidents multiplied by the product of 10,000 divided by the population (households or adults aged 16+ depending whether the crime group contains household or personal crimes) to give an incidence rate per 10,000. The incidence rate enables comparison between areas with differing populations.

Incidence and incidence rates are estimated using incidence weights which include a grossing factor based on population estimates for the household and adult populations depending on whether the crime was classified as a household or personal crime.

Incidence variables are present in the respondent file (RF) data file and begin with INC. Users of the SPSS data files should note that the incidence figures for the crime groups 'all SCJS crime', 'property crime' and 'comparable crime' are produced by summing the component incidence figures rather than running the weighted frequencies for the relevant incidence variables.

9.2.3 Prevalence

Prevalence is defined as:

“The proportion of the population who were victims of at least one crime in the specified period.”

Prevalence takes account of whether a household or person was a victim of a specific crime once or more in the reference period, not the number of times they were victimised. These figures were based on information from the victim form which was used to designate respondents and / or their households as victims, or non-victims.

The SCJS technically consists of two highly related, but separate surveys; at various times in the survey the respondent provides information on behalf of the household as a whole and on behalf of themselves as an individual. The overall crime prevalence rate, relates only to the experience of the respondent, not to other victims within a household. The analytical approach to the survey assumes that the risk of victimisation for those adults not interviewed in a household is determined by the experiences of those other respondents to the survey with whom they share a similar profile (i.e. in terms of age, gender and location).

The percentage of households or individuals in the population that were victims provides the prevalence. This equates to the *risk* of being a victim of crime and is also referred to as the *rate* or *likelihood of victimisation*. Prevalence was estimated using population estimates for the household and adult populations depending on whether the crime was classified as a household or personal crime (section 9.2.1).

Where crimes are grouped together in a way that includes both household and personal crime, prevalence was calculated using the population estimates for adults. This follows the practice adopted by the CSEW and includes;

- Property crime;
- Comparable crime;
- ‘All SCJS crime’ (crime overall).

Prevalence variables are included in the respondent file (RF) data file and begin with PREV.

9.2.4 Multiple victimisation

The SCJS classifies multiple victimisation as the experience of being the victim of a crime of any type more than once during the 12 month reference period. This includes those who have been victims of more than one crime of the same type within the last 12 months (repeat victimisation) and also those who have been victims of more than one SCJS crime of any type within the last 12 months. i.e. multiple victimisation includes those who have been a

victim of more than one personal crime, or have been resident in a household that was a victim of more than one household crime, or have been a victim of both types of crime.

As noted above, the overall crime prevalence rate, relates only to the experience of the respondent, not to other victims within a household. The analytical approach to the survey assumes that the risk of victimisation for those adults not interviewed in a household is determined by the experiences of those other respondents to the survey with whom they share a similar profile (i.e. in terms of age, gender and location).

To enable an estimation of overall multiple victimisation, the statistics are derived using the individual weight, by summing the weights associated with those experiencing multiple crimes, i.e two crime, three crimes and so on. This means that the statistics relate to crimes against adults where they were a victim of a personal crime or who lived in a household that was a victim of a household crime.

9.2.5 Repeat victimisation

Repeat victimisation is a subset of multiple victimisation. The SCJS classifies repeat victimisation as the experience of being the victim of the same crime more than once in the 12 month reference period. If all victims had only been the victim of one crime in the reference period, incidence and prevalence would be the same. Repeat victimisation accounts for differences between incidence and prevalence. Higher levels of repeat victimisation mean there is a relatively lower prevalence compared with incidence.

Repeat victimisation is calculated as a percentage of household or adult victims according to the crime group. Where both household and personal crimes are grouped together, repeat victimisation is calculated as a percentage of the population of adult victims. Repeat victimisation variables are included in the respondent file (RF) data file and begin with REP.

9.2.6 Capped series of crimes

The total number of incidents that occurred in a series in the reference period is capped at five incidents. Therefore, as up to five victim forms are completed, a respondent can have a maximum of 25 incidents included in the survey statistics. The capping of series incidents is consistent with current practice in other crime surveys, such as the Crime Survey for England and Wales.

The restriction/cap to the first five incidents of a crime in a series has been applied consistently throughout the SCJS and earlier crime surveys in Scotland, although this methodology will be kept under review. Recent analysis on the CSEW has examined and questioned the continued use of the cap as it alters the distribution of crime by gender of victim and by whether the offender is well known to the victim or a stranger.

However, analysis of the SCJS data (and the CSEW⁶¹) finds that that cap ensures that survey estimates of incidence are not affected by a very small number of respondents who report an extremely high number of incidents. The number of such victims included in the sample varies from year to year and so the cap is applied to reduce the potential for spurious volatility between survey years, enhancing the ability of the survey to monitor underlying trends consistently (Smith and Hoare, 2009).

Collecting detailed information from high frequency repeat victims is inherently difficult. Respondents are asked to provide incident dates, characteristics and impacts that are used to assign a crime code. This can be particularly difficult for high frequency repeat victims who experience crime as a continuing pattern, rather than a distinct event (Planty and Strom, 2007).

Analysis of the SCJS from 2008/09 onwards finds that relatively few respondents report large numbers of crime in a series. The number of respondents reporting a valid series of incidents capped at five has ranged from 70 in 2009/10 to 16 in 2016/17. Based on these relatively small numbers of respondents, the removal of the 'cap' would increase the estimate of SCJS crime by a proportion which would vary from survey to survey. Applying the cap to these small number of high frequency repeat victims enables a more consistent and stable estimation of the incidence of crime in the underlying population. The convention of capping does not affect estimates of crime prevalence (the risk of victimisation).

Between 2008-09 and 2016-17 there was a statistically significant decrease in the prevalence of adults experiencing 5+ crimes (from 1.5% to 0.7%). However, there was no statistically significant difference between the most recent survey sweeps, 2014-15 and 2016-17, for this group of high frequency victims. Given the small number of high frequency repeat victims in annual SCJS samples we are not able to conduct detailed analysis on these group of victims.

In 2016/17, 79% (1,109) of *all victim forms* (1,409) related to single incidents and 21% (300) related to a series of incidents.⁶²

In the SCJS 2016/17, 18% (151) of *all victim forms assigned an in-scope offence code* (859) were for series incidents. 1.9% (16) of all valid victim forms recorded a series of more than five similar incidents and 0.5% (4) a series of more than 10.

⁶¹ <http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/guide-method/method-quality/specific/crime-statistics-methodology/methodological-notes/index.html>

⁶² These are unweighted figures and include all victim forms, including those which are assigned an out-of-scope offence code. Data is based in the variable PINCI in the VFF data file.

9.2.7 Population Grossing Totals

The SCJS is a face-to-face survey of adults (aged 16 and over) resident in private households in Scotland.

The SCJS does not include a small subset of the adult population who do not reside in private households, who for example, live in group residences (e.g student's hall of residences) or other institutions (prisons), or who are homeless. As part of the weighting process, overall SCJS crime estimates have been calculated using the total adult population, rather than adults living in private households; this assumes that the subset of the adult population not captured in the SCJS experience the same level of victimisation as adults in the household resident population. In reality, this is unlikely to be true, and it may be speculated that some of the groups not included in the survey experience a higher risk of crime than those captured in the survey. However it is notable that methodological work on this issue completed on the CSEW in 2014⁶³ concluded that 'the effects of the weighting updates on the post-1999 CSEW estimates are minimal and have not altered any trends.'

The adult population has been used consistently as the weighting base in this way throughout the SCJS time series, so results are comparable between years.

9.3 Crime groups

'All SCJS crime' (overall crime) can be broken down into various subgroups of crimes for analysis purposes. There are a total of 13 subgroups which are used in the analysis in the 2016/17 SCJS Main Findings report as shown in Figure 9.1 below.

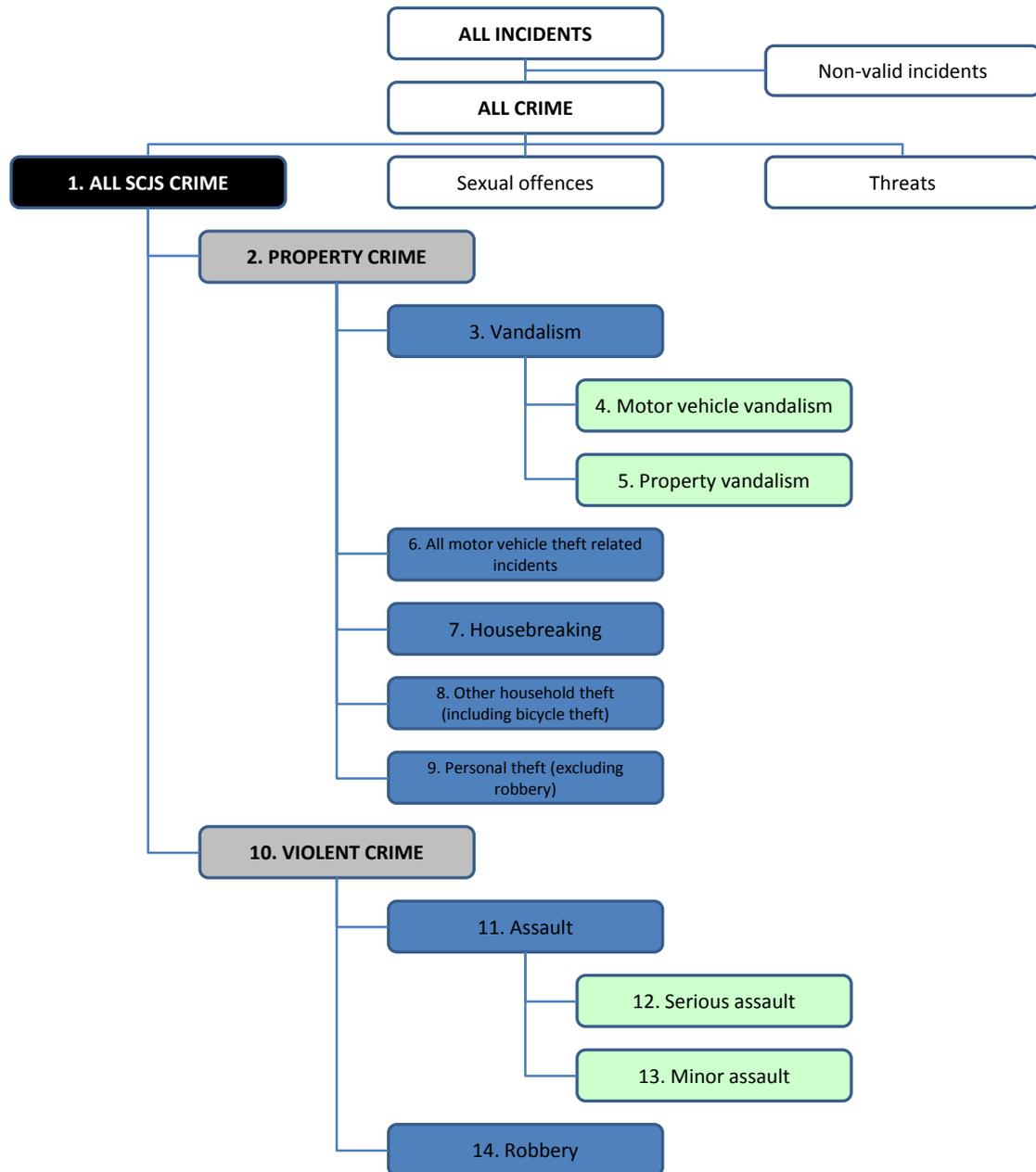
The two principal crime groups are property crime and violent crime. The level of risk associated with these groups of crimes differs, along with the characteristics of the crimes, and victims' experience and perception of them. These two principal groups can also be further broken down into seven groups (as noted in **Error! Reference source not found.**), and three further subgroups are also shown for vandalism and assault. All of these crime groups are discussed in more detail below Annex 6 also shows how each of these groups is composed of the 33 individual in-scope offence codes (section 9.1.5).

As well as these crime groups, the respondent file (RF) data file also includes a number of other crime group variables which have been used or analysis of past Scottish crime surveys.

⁶³ CSEW Methodological amendments [Presentational and methodological improvements to National Statistics on the Crime Survey for England and Wales](#)

Each of the crime groups has a variable for incidence and one for prevalence.

Figure 9.1: Crime groups used in the SCJS 2016/17 Main Findings report



9.3.1 Crime group descriptions

The descriptions of the crime groups below follow the basic order of Figure 9.1 above and the Annex 1 tables in the used in the SCJS 2016/17 Main Findings report⁶⁴. Descriptions for comparable crime groups are also included

⁶⁴ Some of the categories are unpacked further in the report Annex Tables, where, for example, in 2016/17 Table A1.1 'Other Household theft' and 'Bicycle theft' are presented separately.

(section 9.3.2). Variable names are included in square brackets after the heading for each crime group.⁶⁵

1. 'All SCJS crime' [variable *surveycrime*]

'All SCJS crime' includes all property crime and all violent crime, but excludes threats and sexual offences (section 9.1.3).

'All SCJS crime' is used throughout the Main Findings report and all of the other crime groups are subgroups of 'all SCJS crime'. Estimates of overall incidence and prevalence of crime in Scotland are calculated using 'all SCJS crime'. As 'all SCJS crime' includes both household and personal crimes, prevalence and repeat victimisation are calculated based on the adult population. Users of the SPSS data files should note that the figures for incidence for all SCJS crime are produced by summing the incidence figures for property and violent crime.

2. Property crime [variable *property*]

This crime group includes vandalism; all motor vehicle theft related incidents; housebreaking; other household theft (including bicycle theft); and personal theft (excluding robbery).

Property crime is one of the main crime groups used in the Main Findings report (together with violent crime). As property crime includes both household and personal crimes, prevalence and repeat victimisation are calculated based on the adult population. Users of the SPSS data files should note that the figures for incidence for property crime are produced by summing the incidence figures for these component crime groups.

3. Vandalism [variable *vand*]

Vandalism involves intentional and malicious damage to property (including houses 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. 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 crimes that take precedence.

Vandalism is a subgroup of property crime.

4. Motor vehicle vandalism [variable *motovvand*]

⁶⁵ Variables in the SPSS data files will be prefaced by INC for incidence variables and PREV for prevalence variables.

This crime group includes any intentional and malicious damage to a motor 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 included in vandalism to other property. The SCJS only covers vandalism against vehicles belonging to private households; that is, cars, vans, motorcycles, 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 as these are usually the property of an employer and not for personal use.

Motor vehicle vandalism is a subgroup of vandalism.

5. Property vandalism [variable *propvand*]

Vandalism to the home and other property involves intentional or malicious damage to doors, windows, fences, plants and shrubs for example. 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 type of property involved.

Property vandalism is a subgroup of vandalism.

6. All motor vehicle theft related incidents [variable *allmvtheft*]

The SCJS 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, motorcycles, 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 as these are usually the property of an employer and not for personal use.

All motor vehicle theft related incidents are a subgroup of property crime.

7. Housebreaking [variable *housebreak*]

In Scottish law, the term 'burglary' has no meaning although in popular usage it has come to mean breaking into a home 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 have been 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, were not housebreaking (they would fall into 'other household theft'). The definition of housebreaking used in this report is the same as the definition used in previous reports but differs from the definition used prior to the 2003 report.⁶⁶

Housebreaking is a subgroup of property crime.

8. Other household theft (including bicycle theft) [variable *otherhousetheftcycle*]

This crime group includes actual and attempted thefts from domestic garages, outhouses and sheds 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 group; 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 got in using false pretences, or if the respondent left a door open or unlocked). Theft of a bicycle is also included.

Other household theft (including bicycle theft) is a subgroup of property crime.

9. Personal theft (excluding robbery) [variable *perstheft*]

This group of crime includes actual and attempted 'snatch theft', '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 force and 'other personal 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 a subgroup of property crime.

10. Violent crime [variable *violent*]

The coverage of violent crime consists of actual and attempted minor assault, serious assault and robbery. Sexual offences are not included (section 9.1.3).

Violent crime is one of the main crime groups used in the Main Findings report (together with property crime).

11. Assault [variable *assault*]

⁶⁶ The definition was changed in 2003 to mirror more accurately 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 connected to the dwelling

In the SCJS, the term assault refers to two categories:

- Serious assaults, comprising incidents of assault which led to an overnight stay in hospital as an in-patient or which resulted in specific injuries regardless of whether or not the victim stayed in hospital overnight;
- Minor assaults, which are actual or attempted assaults resulting in no or negligible injury.

Assault is a subgroup of violent crime.

12. Serious assault [variable *serassault*]

An assault is classified as serious if the victim sustained an injury resulting in an overnight stay in hospital as an in-patient or any of the following injuries whether or not they was 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 subgroup of assault.

13. Robbery [variable *rob*]

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 subgroup of violent crime.

9.3.2 Comparable crime group descriptions

Comparable crime groups are used to compare SCJS data with police recorded crime statistics (section 12.1).

Comparable crime [variable *comparcrime*]

Only certain categories of crime covered by the SCJS are directly comparable with police recorded crime statistics (section 12.1). These categories are collectively referred to as comparable crime. Comparable crime can be broken down into the following three crime groups:

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

Section 9.3.1 above provides definitions of vandalism and violent crime. Acquisitive crime is defined below.

Acquisitive crime [variable *acquis*]

Acquisitive crime consists of three crime groups / offence codes: housebreaking, theft of a motor vehicle and bicycle theft. Housebreaking is defined above in section 9.3.1 and theft of a motor vehicle is part of the all motor vehicle theft related incidents crime group. Bicycle theft is defined as theft of a bicycle from outside a dwelling. Almost all bicycles were stolen in this way. Bicycle thefts which take place inside the home by someone who is not trespassing at the time are counted as theft in a dwelling (a subgroup of other household theft including bicycle theft); and thefts of bicycles from inside the home by a trespasser are counted as housebreaking.

10 DATA OUTPUT

10.1 Introduction

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

- Respondent file (RF);
- Victim form file (VFF);
- Self-completion file (SCF).

This section provides detail of the content and structure of the three files and the conventions used in them.

10.1.1 *Respondent file*

The RF data file 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 (for example Scottish Index of Multiple Deprivation) and the derived variables for incidence and prevalence measures based on data collected in the Victim Form section of the questionnaire. Data for all respondents who took part in the survey is provided in the RF file, irrespective of whether they are classified as victims or non-victims according to their Victim Form responses.

10.1.2 *Victim form file*

The VFF data file is produced at the level of the individual incident 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 VFF data file.

All victim forms are included in the file; including cases where the incident occurred outside of the reference period or outside of Scotland. These records were not used for analysis and contain very little information (the victim form questionnaire is terminated in these cases but are retained on the file for use by researchers who may wish to examine this data. Similarly, victim forms which were assigned a non-valid offence code (and therefore were not used in the production of the 'all SCJS crime', Valid or ValidSCJS statistics from the survey) are also retained (section 9.1).

It should also be noted that some victim forms were completed for incidents which happened in the month of interview (i.e outside of the reference period): these victim forms may have a valid offence code assigned to them but are NOT included in the published survey statistics (and are marked as non-valid at the variables VALID and VALIDSCJS in the VFF data file).

10.1.3 Self-completion file

The SCF data file 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, stalking and harassment, partner abuse and sexual victimisation) as well as the key demographic variables from the RF data file. The file can also be linked to the RF data file for analysis purposes via use of the variable SERIAL.

The variables which correspond to questions in illicit drugs section of the SCF data file do not contain responses for respondents who say they have ever taken semeron (a fictitious drug – section 5.7.2). These respondents are identified by the variable SEMERON. Note that the SCF data is not being used for reporting in 2016/17 and will instead be combined with 2017/2018 data for both reporting and archiving purposes.

10.2 Content of SPSS data files

The SPSS data files delivered to the Scottish Government and available from the UK Data Service contain different types of variables, including:

- Questionnaire variables (all files). SPSS variable names correspond to question labels from the questionnaire documentation. Variable names are also repeated in variable labels;
- Incidence and prevalence variables (RF and SCF data files).
- Geo-demographic variables (all data files). All cases have a set of pre-specified geo-demographic variables attached to them, including 2016 Scottish Index of Multiple Deprivation (SIMD)⁶⁷ and 2013-2014 Scottish Government Urban / Rural Classification;⁶⁸
- Coding variables (all data files). SOC2010 and NS-SEC codes (based on SOC2010) are included for the respondent (see section 8.2).
- Offence coding variables (all files). On the VFF data file, a full set of offence codes, including the history, are attached as outlined in section 8.1.2. The RF and SCF data files contain the final offence code assigned to each respondent's victim forms;

⁶⁷ SIMD quintiles (SIMD_QUINT) and the 15% most deprived (SIMD_TOP) variables are included in the respondent file (RF) and self-completion file (SCF) data files. Scottish Government website: <http://www.scotland.gov.uk/Topics/Statistics/SIMD/>

⁶⁸ Details of the 2013-2014 Scottish Government Urban / Rural Classification can be found on the Scottish Government website: <http://www.scotland.gov.uk/Topics/Statistics/About/Methodology/UrbanRuralClassification>

- Derived variables (all files). Many derived variables are also added to the files. There are two main types of derived variables:
 - Flag variables that identify, for example, the date of interview, the month of issue, a victim or non-victim etc. On the VFF data file, flag variables include whether an incident was assigned and in-scope or out-of scope offence code (section 9.1.1), whether it was a series or a single incident, and others;
 - Classificatory variables derived from the data. These included standard classifications such as banded age groups, household composition, tenure, etc;
- Interviewer and observational variables (all files). All interviews had a small amount of observational data collected by interviewers in the CAPI script, such as whether the respondent required any help with the self-completion section of the questionnaire;
- Weighting variables (all files). See section 4.6 for further information on what these variables are and how they should be used.

10.3 Conventions used in SPSS data files

Consistency was retained between the previous SCJS data files. In the majority of cases, SPSS variable names correspond to question labels from the questionnaire.

10.3.1 Case identifiers

There are two types of case identifiers in the data files: SERIAL (all files) and VSERIAL (victim form file [VFF] data file).

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

In the VFF, where each individual case or record represents a victim form, 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.

10.3.2 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

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'.

10.3.3 Decimal places

Users may find very small (<0.1%) differences in some data when comparing the data in the tables and SPSS files with the published reports on the Scottish Government website. This is due to some of the analysis conducted for the report using data to a reduced number of decimal places.

10.3.4 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 coding process). 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:

ASK IF OFFENDER DID NOT GET INSIDE HOME OR DK OR REF
(QIN, CODES 1-3).

QNIN Did the person / people TRY to get inside your house or flat, or your garage, shed or other outbuilding at all during the incident? MULTICODE.

1	Yes – tried to get inside house or flat	[QNIN_01]
2	Yes – tried to get inside the garage	[QNIN_02]
3	Yes – tried to get inside shed or other outbuilding	[QNIN_03]
4	No	[QNIN_04]
	DK	[QNIN_DK]
	REF	[QNIN_RF]

11 STATISTICAL SIGNIFICANCE AND CONFIDENCE INTERVALS

11.1 Statistical significance

SCJS 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 has been 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 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 possible to calculate a 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 95 times out of 100.

Changes in observed estimates between survey years or differences between population subgroups may occur due to sampling variation. In other words, even when there are no real differences in population values, differences might be observed from survey samples. These 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 population figures. In general, only differences that are statistically significant at the five percent level (and are therefore likely to be real as opposed to occurring by chance) are described as differences within this report.

11.2 Confidence intervals

In 2016/17, as has been the case since 2012/13, the SCJS sample design was altered to be stratified and weighted, but not clustered. Accurate complex standard errors and confidence intervals were calculated using SAS Surveymeans module. The calculation of the survey design factor (a measure of survey efficiency) was based upon the stratification and survey weighting. To take account of the survey weighting, the standard error for an equivalent simple random sample was approximated by calculating the standard error on the unweighted sample (which although not a true simple random sample, provides a practical approximation to such, given the more complex design of the actual survey sample).

11.2.1 – All SCJS crime

Statistical significance for change in SCJS estimates for all SCJS 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 individual 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, though highly related, surveys. The Office for National Statistics (ONS) methodology group has provided an approximation method to use to overcome this problem. This method was 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 individual crimes to all household members (converting adults into households).

The variances are calculated in the same way as for the standard household or individual 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 individual 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.

11.2.2 – 2016/17 survey design factors

If confidence intervals are not provided in the report for a variable of interest, 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 1.34. This suggests that the use of 1.34 would provide a reasonable and often conservative estimate of the design factor for most estimates from the survey.

11.2.3 – Summary of confidence intervals around key survey results

Table 11.1 shows the following for the key crime groups:

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

Table 11.1: Rates, confidence intervals and design factors for key crime groups (per 10,000) SCJS 2016-17

Crime rates per 10,000	Best Estimate	Confidence Interval	Design Factor
ALL SCJS CRIME	2,250	530	1.26
PROPERTY CRIME	1,730	380	1.17
Vandalism	680	220	1.15
Motor vehicle vandalism	330	140	1.14
Property vandalism	340	160	1.12
Motor vehicle theft related crime	160	80	1.04
Theft of motor vehicle	10	20	1.15
Theft from motor vehicle	140	80	1.05
Attempted theft of / from motor vehicle	10	10	0.81
Housebreaking	110	70	1.22
Other household theft (including cycles)	520	180	1.28
Other household theft	430	150	1.16
Bicycle theft	90	100	1.70
All personal theft (excluding robbery)	280	140	1.54
Theft from the person	90	80	1.52
Other personal theft	180	110	1.48
VIOLENT CRIME	510	260	1.51
Assault with attempted assault	500	260	1.51
Serious assault	40	80	1.64
Robbery	20	30	1.57
COMPARABLE CRIME	1,400	320	1.25
Acquisitive crime	210	130	1.47
Violent crimes	510	260	1.51
Vandalism incident	680	220	1.15

12 COMPARING THE SCJS WITH OTHER DATA SOURCES

12.1 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 (as well as those that are), but is limited to crimes against adults resident in private households, and also does not cover all crime types (section 9.1.2).

Police recorded crime is a measure of those crimes reported to the police and recorded by them as a crime or offence.

In order to compare the estimates of crime from the SCJS and police recorded crime statistics, a comparable subset of crime was created for crimes covered by both measures and recorded in a consistent manner. Around 63% of 'all SCJS crime' as measured by the SCJS 2016/17 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 three crime groups:

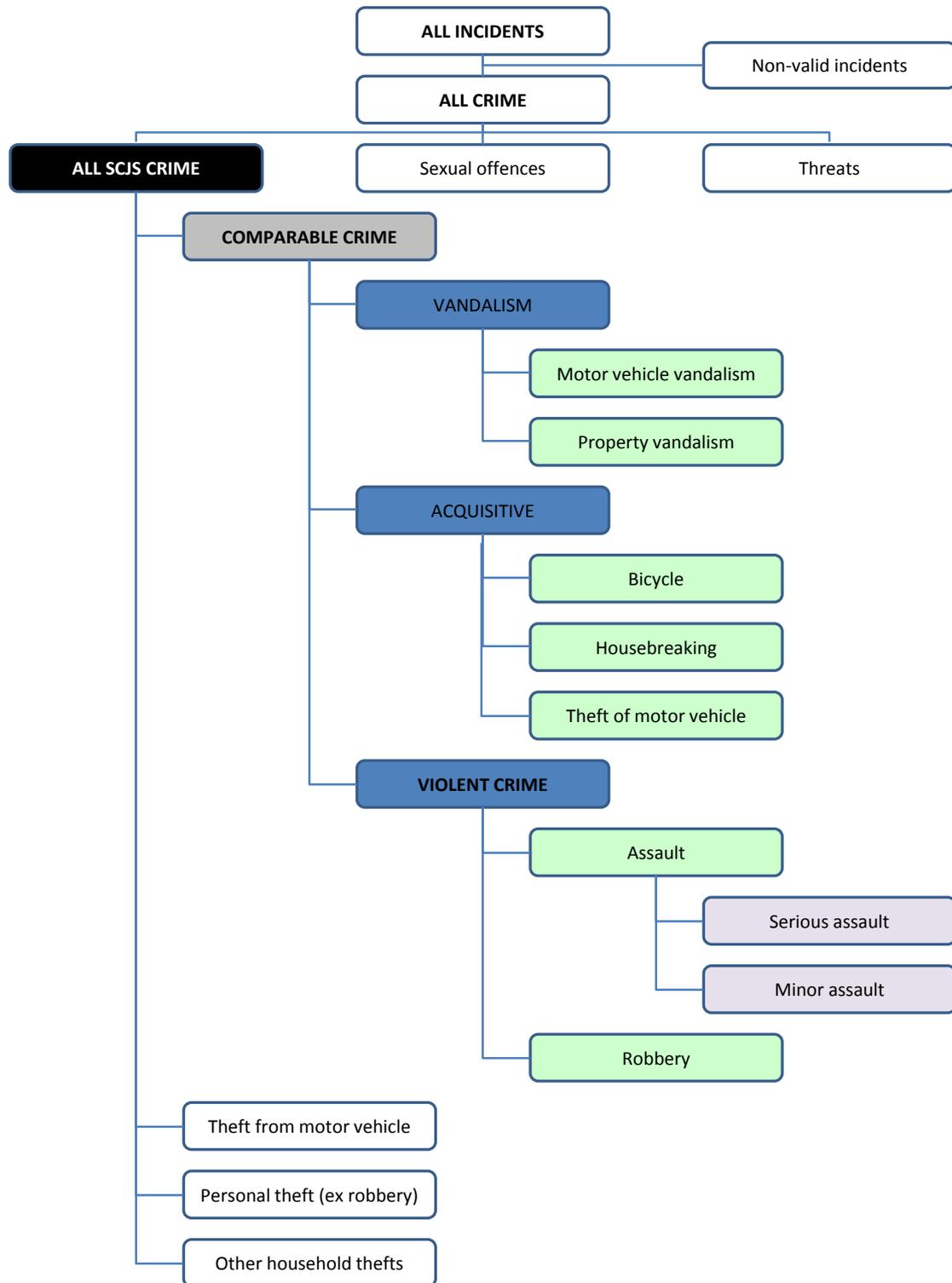
- Vandalism (including motor vehicle vandalism and property vandalism);
- Acquisitive crime (including bicycle theft, housebreaking and theft of motor vehicles);
- Violent crime (including assault and robbery).

Section 9.3 provides further information about these crime groups.

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 National Records of Scotland (NRS) estimates.

Police recorded crime statistics used in this report relate to crimes committed in the financial year between April 2016 and March 2017.

Figure 12.1: Comparable crime groups



12.2 Comparison with the Crime Survey for England and Wales

The coding of crimes differs between the SCJS and the Crime Survey for England and Wales (CSEW – formerly the British Crime Survey BCS) which reflects the different criminal justice systems in which they operate. These differences should be borne in mind when comparisons are made between

SCJS and CSEW estimates in this report. 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 CSEW estimates).

The SCJS also differs from the CSEW in that it prioritises 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 CSEW where vandalism has priority over assault.

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 CSEW.

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

1. 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.⁶⁹

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

2. The intention of the offender;

Burglary from a dwelling in England and Wales as measured by the CSEW 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 classified as 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.

⁶⁹ If a theft occurred in this instance, it would be included in the other household theft crime group.

ANNEX 1 - POPULATION TARGETS USED FOR WEIGHTING

Estimates and projections of household and individual populations published by the National Records of Scotland (NRS) were used for weighting calculations. Source notes are provided below the tables. Estimates are rounded to the nearest 50.

Table A2.1: Population targets used for weighting

Police Division	Households in urban areas (b)	Households in rural areas (b)	Estimated households population (a)	Estimated adult population (c)
Aberdeen City	101,534	5,215	106,749	195,653
Aberdeenshire and Moray	41,400	110,857	152,257	292,862
Argyll and West Dunbartonshire	49,658	34,039	83,697	147,988
Ayrshire	103,430	66,681	170,111	308,413
Dumfries and Galloway	20,601	48,601	69,202	125,906
Edinburgh	225,089	7,796	232,885	429,806
Fife	105,614	60,219	165,833	305,958
Forth Valley	94,825	38,599	133,424	251,604
Greater Glasgow	366,123	11,403	377,526	680,461
Highlands and Islands	33,999	107,064	141,063	254,692
Lanarkshire	233,784	60,728	294,512	538,315
Renfrewshire and Inverclyde	105,839	15,772	121,611	212,285
Tayside	125,574	64,495	190,069	347,662
The Lothians and Scottish Borders	114,557	98,375	212,932	397,178
Total Scotland	1,722,027	729,844	2,451,871	4,488,783

Sources: (a) & (b) Estimates of Households and Dwellings in Scotland, 2016: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/households/household-estimates/2016/list-of-tables>; and Small area household estimates data, numbers and percentages of dwellings by 2001 Data Zone, 2014: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/households/household-estimates/small-area-statistics-on-households-and-dwellings> (c) Mid-2016 population estimates Scotland: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2016/list-of-tables>

ANNEX 2 - SAMPLE STRATA

Analysis of SCJS was required by Police Division (PD). However, in order to align the SCJS with the Scottish Household Survey and the Scottish Health Survey, local authorities were used as the sample strata. The construction of PDs from the local authority strata is shown below. Note that Aberdeen City and Aberdeenshire police divisions merged together in January 2016.

Weighting Strata	Police Division	Local Authority
1	Aberdeen City	Aberdeen City
2	Aberdeenshire and Moray	Aberdeenshire Moray
3	Argyll and West Dunbartonshire	Argyll and Bute West
4	Ayrshire	East Ayrshire North Ayrshire South Ayrshire
5	Dumfries and Galloway	Dumfries and
6	Edinburgh	Edinburgh City
7	Fife	Fife
8	Forth Valley	Clackmannanshire Falkirk Stirling
9	Greater Glasgow	Glasgow East East Renfrewshire
10	Highlands and Islands	Eilean Siar Highland Orkney Shetland
11	Lanarkshire	North Lanarkshire South Lanarkshire
12	Renfrewshire and Inverclyde	Inverclyde Renfrewshire
13	Tayside	Angus Dundee City Perth and Kinross
14	The Lothians and Scottish Borders	East Lothian Midlothian Scottish Borders West Lothian

ANNEX 3 - CAPI OUTCOME CODES AND REISSUE CRITERIA

For each address issued, an outcome had to be coded from the list below. All, with the exception of codes 31 to 38, 59 and 18 were eligible for reissue.

Response Code / Description	Reissue (Y/N)
31 Not yet built / under construction	N
32 Derelict / demolished	N
33 Vacant / empty housing unit	N
34 Non-residential address	N
35 Communal establishment / institution	N
36 Not main residence	N
37 Other ineligible	N
38 Inaccessible	N
39 Unable to locate address	Y
40 No contact with anyone	Y
41 No contact with selected respondent	Y
42 No contact with responsible adult (U18 interview)	Y
43 Appointment to interview	Y
44 Appointment to call back	Y
52 Refused Household information - potential to convert	Y
54 Refused all information - no market research / interview too long	Y
55 Refused all information - won't give personal info. / don't trust gov.	Y
56 Refused all information - door slammed / swearing	Y
57 Refused all information - death in family	Y
58 Refused all information - other	Y
59 Office refusal	N
60 Selected person refused - potential to convert	Y
61 Selected person refused - no market research / Interview too long	Y
62 Selected person refused - won't give personal info. / don't trust gov.	Y
63 Selected person refused - too busy / no time	Y
64 Selected person refused - death in family	Y
65 Selected person refused - not interested in subject matter	Y
66 Selected person refused - other family / partner objection	Y
67 Selected person refused - other	Y
68 Proxy refusal - potential to convert	Y
69 Proxy refusal - too busy, no time	Y
70 Proxy refusal - death in family	Y
71 Proxy refusal - other family / partner objection	Y
72 Proxy refusal - other	Y
73 Parental Permission refused - possibility to convert	Y
74 Parental Permission refused - interviewer gender	Y
75 Parental Permission refused - other	Y
76 Broken Appointment / no further contact	Y
77 Selected person ill at home during survey period	Y
78 Away / in hospital throughout field period	Y
79 Unable to take part due to physical or learning disability or difficulty	Y
80 Language difficulties	Y
81 Other unproductive	Y
82 Partial interview	Y
18 Successful interview	N

ANNEX 4 - ADVANCE LETTER AND LEAFLET

All selected addresses were sent a letter from the Scottish Government in advance of an interviewer calling at the address. Included with the advance letter was a leaflet from the Scottish Government which provided people with further details about the survey.

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 respondent didn't receive or see the letter.

The advance letter and leaflet (respectively) are shown below. Section 6.5.1 provides further details of procedures relating to the advance letter and leaflet.



The Resident
<add_line-1>
<add_line-2>
<add_line_3>
<add_line-4>
<IMPcode>

Serial number: <IMAddSerial>
<IMMonthText>
<SampleYear>

Your interviewer will be: _____

Help tackle crime in Scotland

Dear Sir/Madam,

We are writing to ask for your help with the **Scottish Crime and Justice Survey**.



WHAT IS THE SCOTTISH CRIME AND JUSTICE SURVEY?

This is an important study that helps the Scottish Government, the police and other agencies to understand and tackle crime in your local area and across the country. In the previous survey almost **70%** of the households we contacted took part in the study. We hope we can count on your help.



WHY IS IT IMPORTANT?

Every year we invite households across your area and Scotland to tell us about their views and experiences in relation to crime, policing, and the justice system in Scotland. This is a unique chance for you to have your say and to share your thoughts. By taking part you will be playing an important role in supporting our work to reduce crime and improve the service provided by police in your area.



WHAT NEXT?

An interviewer from <IMFullCompanyName> will call at your house in the next week or so. So you know who they are, they all carry a photo ID. They will randomly select an adult in your household (aged 16 or over) to take part in the study. We would appreciate it if you could show this letter to others in your household.



COMPLETE CONFIDENTIALITY

All your answers will be completely confidential and anonymous (in accordance with the Data Protection Act 1998) and will be used for statistical and research purposes only.



ANY QUESTIONS?

We have provided more information about the survey in the enclosed leaflet and the FAQs overleaf or you can visit the website at <http://www.gov.scot/scjs>. If you have any questions you can email <IMCompanyEmail> or call us free on <IMFreephoneNumber>. You can also contact the survey team at Scottish Government on **0131 244 3012**.

Yours faithfully,

Neil Grant,
Project Director,
Scottish Government



FAQs

HOW DID YOU CHOOSE MY ADDRESS?

Every year we randomly select addresses from across the country and interview 6,000 adults to represent all types of people in Scotland. Your address was chosen at random from the Postcode Address File, a list of every address in the UK, held by the Post Office and available to the public.

WHAT IS THE INTERVIEW ABOUT?

The interview will ask about your views on crime and your experiences of crime in the past year. There are also some questions about your opinions on organisations like the police, courts and prisons. You will be asked to complete some of the questions on your own. In total, the interview will take around 40 minutes to complete.

WHAT WILL HAPPEN TO THE INFORMATION I GIVE?

The information is used by the Scottish Government and police forces to help make important decisions which affect us all. This information will help us to understand who is most at risk of crime, how crime affects victims and to check if current policies are working.

We will treat the information you give in the strictest confidence under the Data Protection Act 1998. The results collected are used for research purposes only and no one looking at the findings will be able to identify you in any way. Personal details, like your name and address, will only be known to the survey team processing the survey results at ScotCen and Ipsos MORI and the Scottish Government. We won't pass on your details unless you give your consent, for example to take part in further research.

WHO IS CARRYING OUT THE STUDY?

The study is carried out jointly by ScotCen Social Research and Ipsos MORI, on behalf of the Scottish Government. ScotCen and Ipsos MORI are impartial research institutes, independent of all government departments and political parties. For more information visit www.scotcen.org.uk or www.ipsos-mori.com.



USEFUL CONTACTS

If you have been the victim of crime, and want some support or information, you can get in touch with Victim Support Scotland.

<http://www.victimsupportsco.org.uk>
0345 603 9213

More information for interviewees, including details of other support organisations is available on the Scottish Crime and Justice Survey website:

<http://www.gov.scot/Topics/Statistics/Browse/Crime-Justice/crime-and-justice-survey/interviewee-information>

FOR MORE INFORMATION

For more information including results of previous studies and information on the topics included you can visit

<http://www.gov.scot/scjs>, or see the twitter feed @SGJusticeAnlys

The study is being carried out jointly by ScotCen Social Research and Ipsos MORI. Contact details for the research teams are below:

ScotCen Social Research: you can email us at scottishcrime@scotcen.org.uk or call on Freephone 0800 652 4574.

Ipsos MORI: you can email us at crimesurvey@ipsos-mori.com or call on Freephone on 0808 238 5376.



Scottish Crime & Justice Survey

WHAT IS THE SCOTTISH CRIME AND JUSTICE SURVEY?

The Scottish Crime and Justice Survey is an annual survey of around 6,000 households. The study is important because it provides a picture of crime in Scotland, as well as public perceptions of police and the justice system.

Taking part involves a short research interview in your home, at a time convenient to you. We would like to ask you some questions about your experiences and views of policing, crime, and the justice system in Scotland.

TAKING PART IS IMPORTANT

HELP TACKLE CRIME. By taking part in this study you will help the Scottish Government and the police gain a better understanding of crime in Scotland. This will help to tackle crime more effectively.

WE CANNOT REPLACE YOU. In order to get a true picture of all types of people living in Scotland, we have chosen your address at random. This means we cannot ask someone else to replace you as this would bias the results and so your participation is very important to us.

VICTIM OR NOT. Even if you have not been a victim of crime or experienced crime, we need to speak to you to understand if current crime policies are working or not.

TOO BUSY? We are totally flexible and can arrange the interview at a time that suits you. By taking part you'll be supporting the Scottish Government and the work of the police in your area to improve the policing service they provide to the people of Scotland.

INFORMATION FOR PARENTS OF YOUNG ADULTS

If you have a son/daughter/other young adult aged 16+ within your care and living in your home, they may be selected to take part in the survey. Please ensure that they're aware of this and understand that the survey contains some sensitive topics. The interviewer will ask them for their consent to take part in the survey.

A SNAPSHOT OF SCOTLAND



The SCJS measured around **688,000** crimes in 2014/15.



Just under **two-fifths** of crimes were reported to the police in 2014/15, around the same level seen in recent years



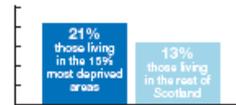
One in seven adults were the victim of crime



16-24 year olds were more likely to be a victim of crime (**20%**)



The risk of property crime was **higher** than violent crime



The risk of crime was **higher** for those living in the **15% most deprived areas**



70% said they were **very or fairly confident** in their local police force's ability to investigate incidents after they occur

ANNEX 5 - PLAUSIBILITY AND CONSISTENCY CHECKS

A number of plausibility and consistency checks were included in the CAPI script. These are detailed below:

Main questionnaire

Section 1: General views on crime and social issues

- QSADDNE: If lived in area for less than 1 year (QSYAREA, code 1) but was living at address at start of reference period (QSADD, code 1) why this was the case.

Section 2: Victim form screener

- NSEPCHK_1 to _20: The number of incidents in a series must be two or greater.
- SEPDCHK_1 to _20: Date of earliest separate incident must be within the reference period.
- CNUMSER_1 to _20: The number of incidents in a series cannot be greater than the total number of incidents.
- LATCHK_1 to _20: The most recent incident in a series must be within the reference period.
- INCXCHK_1 to _20: The total number of incidents in a series and as separate incidents cannot be greater than the total number of incidents.

Victim form (Section 3): incident dates: series incidents

- DATESER: Dates of all incidents in a series cannot be before the reference period.
- CHECK1: The sum of incidents occurring across all quarters in a series in the reference period cannot be less than the total number of incidents.
- CHECK2: The sum of incidents occurring across all quarters in a series in the reference period cannot be greater than the total number of incidents.
- MTHQCHK: The most recent month in which an incident in a series occurred should not be after the most recent quarter in which part of a series occurred.
- MTHRECK: The most recent month in which an incident in a series occurred in cannot be before the reference period.
- QTRRECIN: The most recent quarter in which an incident in a series occurred cannot be before the reference period.
- QQCK: The most recent quarter in which an incident in a series occurred should not be after the most recent quarter in which part of a series happened.
- YRINC: The most recent incident in a series cannot be before the reference period.

Victim form (Section 3): incident dates: single incidents

- MTHINC2: The month the incident occurred in cannot be before the reference period.

- QTRINCID: The quarter the incident occurred in cannot be before the reference period.
- YRINCIB: The incident cannot be before the reference period.

Victim form (Section 3): incident details

- DESCRINC: The number of characters entered to describe the incident should be greater than 99 characters.
- QCHK1: Reason why victim form is for theft but nothing has been recorded as stolen (QSTO, code 2).
- BOTH1: Confirmation that car / van and vehicle parts stolen.
- BOTH2: Confirmation that motorcycle and vehicle parts stolen.
- QBAG1: Briefcase / handbag / shopping bag stolen but cash / cheque book / credit card not stolen.
- QBAG2: Briefcase / handbag / shopping bag stolen but ID or personal details not stolen.
- QPURSE1: Purse / wallet stolen but cash / cheque book / credit card not stolen.
- QPURSE2: Purse / wallet stolen but ID or personal details not stolen.
- QBACCUSE: Cheque book / credit card stolen but no money taken from account or charges added to account.
- QBACCUSE2: Noticed unusual activity in bank account but no money taken from account or charges added to account.
- QCHK2: Reason why victim form is for attempted theft from person but no attempt made to steal anything (QTRY, code 2).
- QCHK3: Reason why victim form is for housebreaking but no attempt made to steal anything (QTRY, code 2).
- QABAG1: Attempted theft of briefcase / handbag / shopping bag but no attempt to steal cash / cheque book / credit card.
- QABAG2: Attempted theft of briefcase / handbag / shopping bag stolen but no attempt to steal ID or personal details.
- QAPURSE1: Attempted theft of purse / wallet stolen but no attempt to steal cash / cheque book / credit card.
- QAPURSE2: Attempted theft of purse / wallet stolen but no attempt to steal ID or personal details.
- QCHK4: Reason why victim form is for vehicle damage / vandalism / damage to property but nothing damaged (QDAM, code 2).
- QCHKSEE: Reason why victim form is for assault / assault within household / threat of force or violence but respondent or anyone else did not have contact with offender (QSEE, code 2).
- QCHK5: Reason why victim form is for assault / assault within household but offender did not use force or violence (QFOR, code 2).
- QCHK6: Reason why victim form is for threats but offender did make threat (QTHR, code 2).

ANNEX 6 - SCJS OFFENCE CODES AND CRIME GROUPS

33 in-scope offence codes were used in the calculation of 'all SCJS crime'. The table below shows these codes and how they relate to the key crime groups used in the SCJS 2016/17 Main Findings report and contained in the SPSS data files. It also shows additional crime groups included in the SPSS data files, though not referenced in the SCJS reports (in the lower half of the table). All variable names in the SPSS data files are prefaced by either INC for incidence or PREV for prevalence.

Variable Name (inc or prev)	Offence Code SPSS Code	Offence Code Description																																			
		11	12	13	14	15	21	41	42	43	44	45	50	51	52	53	55	56	57	58	60	61	62	63	64	65	67	71	72	73	80	82	84	86			
Variable Label / WEIGHTING		Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	HH	Ind	HH	HH	Ind	HH	HH	HH	HH	HH																
surveycrime	All SCJS crime	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
property	Property crime	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
vand	Vandalism crime																																	1	1	1	
motovvand	Motor vehicle vandalism																																		1	1	1
propvand	Property vandalism																																		1	1	1
allmvtheft	All mv theft related crimes																					1	1	1	1												
theftfrommv	Theft from motor vehicle																						1														
theftofmv	Theft of motor vehicle																						1														
attheftmv	Attempted theft of / from mv																																				
otherhousetheftcycle	Other h'hold theft incidents (in. cycle)											1						1	1	1	1					1	1										
otherhousetheft	Other household theft											1					1	1	1	1							1										
bicycletheft	Bicycle theft																																			1	
housebreak	Housebreaking												1	1	1																						
perstheft	Personal theft incidents (excl. robbery)																																				
theftperson	Theft from the person											1	1	1																							
othertheft	Other personal theft																																				
violent	Violent crime	1	1	1	1	1	1	1	1	1																											
assault	Number of assault incidents	1	1	1	1	1	1																														
serassault	Serious assault	1			1	1																															
rob	Robbery											1	1																								
house	Household crime											1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
person	Person crime	1	1	1	1	1	1	1	1	1	1																										
comparcrime	Comparable crime	1	1	1	1	1	1	1	1	1												1	1			1									1	1	1
acquis	Acquisitive crime																																				
violent	Violent crime	1	1	1	1	1	1	1	1	1																											

Out-of-scope codes can be grouped into two categories:

- **Sexual offence or threat codes:** 12 offence codes related to sexual offences or threats (not included in the ‘all SCJS crime’ statistics).
- **Non-valid codes:** 21 offence codes for classifying incidents recorded in the victim form which were non-valid incidents (outside of Scotland or the reference period, duplicate incidents), where not enough information was collected to make an accurate classification, where the respondent or household was not the victim or the victim form was skipped. As with the sexual offence or threat codes, these 21 codes were not included in the ‘all SCJS crime’ statistics produced by the survey.

Code / Description	Type
19 Other assault outside of the survey’s coverage	
39 Sexual offence outside the survey’s coverage	
48 Possibly theft but could have been loss / possibly attempted theft, but could have been innocent	
49 Other robbery or theft from the person outside the survey’s coverage	
54 Possible attempted housebreaking (insufficient evidence to be sure)	
59 Other housebreaking, outside of the survey’s coverage	
66 Theft of milk bottles from outside dwelling	NON-VALID
68 Possible theft, possible lost property	
69 Other theft outside of the survey’s coverage	
79 Attempted theft falling outside survey’s coverage	
87 Possibly vandalism / possibly accidental damage / nuisance with no damage	
88 Attempted vandalism (no damage actually achieved)	
89 Other vandalism outside of the survey’s coverage	
99 Other threats / intimidation outside of the survey’s coverage	
95 Incident outside of reference period	
96 No crime committed	NON-VALID
97 Insufficient information to code	
98 Incident occurred outside Scotland	
3 SAME DUPLICATE	DUP / SKIPPED
4 SERIES DUPLICATE	
90 VICTIM FORM SKIPPED	
31 Rape	
32 Serious assault with sexual motive	
33 Assault with sexual motive	
34 Attempted rape	SEXUAL OFFENCES ¹
35 Indecent assault	
36 Indecent exposure	
37 Rape and housebreaking	
38 Serious assault with sexual motive and housebreaking	
91 Threat to kill / assault made against, but not necessarily to respondent	
92 Sexual threat made against, but not necessarily to respondent	
93 Other threat or intimidation made against, but not necessarily to respondent	THREATS ²
94 Threats against others, made to the respondent	

¹ The incidence / prevalence variables SEXOFF in the Respondent File SPSS data file denote all sexual offences.

² The incidence / prevalence variables THREAT in the Respondent File SPSS data file denote all threats.

ANNEX 7 - HOUSEHOLD WEIGHTING CALIBRATION TARGETS

The calibration targets selected for use in the weighting were:

- Calibration target 1: Household type within Police Division (PD)
- Calibration target 2: Age of head of household within PD
 - Calibration target 3: Urban / rural within Local Authority (LA)

Calibration target 1: Household type within Police Division

Table A9.1: Calibration target 1 used for weighting

Police Division	1 Adult	1 Adult & 1+ Child	2 + Adult	2 + Adult & 1 + Child	Total households
Aberdeen City	41,632	4,270	42,700	18,147	106,749
Aberdeenshire and Moray	42,788	6,510	66,573	36,386	152,257
Argyll and West Dunbartonshire	32,079	5,853	32,019	13,746	83,697
Ayrshire	59,083	12,016	68,470	30,542	170,111
Dumfries and Galloway	23,529	3,460	29,757	12,456	69,202
Edinburgh	93,154	11,644	90,825	37,262	232,885
Fife	54,725	11,608	67,992	31,508	165,833
Forth Valley	43,607	8,580	54,707	26,530	133,424
Greater Glasgow	155,934	28,284	132,263	61,045	377,526
Highlands and Islands	47,704	8,021	58,713	26,625	141,063
Lanarkshire	101,576	22,119	113,356	57,461	294,512
Renfrewshire and Inverclyde	49,136	8,978	42,994	20,503	121,611
Tayside	68,517	12,160	75,936	33,456	190,069
The Lothians and Scottish Borders	66,941	14,210	86,917	44,864	212,932
Scotland	880,405	157,713	963,222	450,531	2,451,871

Source: Estimates of Households and Dwellings in Scotland, 2016:

<https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/households/household-estimates/2016/list-of-tables>

Calibration target 2: Age of head of household within Police Division

Table A9.2: Calibration target 2 used for weighting

Police Division	Head of household age					Total households
	16-29	30-44	45-59	60-74	75+	
Aberdeen City	21,565	29,113	26,957	18,331	10,783	106,749
Aberdeenshire and Moray	12,513	36,532	46,441	36,280	20,491	152,257
Argyll and West Dunbartonshire	7,537	17,125	25,840	21,168	12,027	83,697
Ayrshire	15,282	36,795	50,326	43,490	24,218	170,111
Dumfries and Galloway	5,481	13,018	19,870	19,185	11,648	69,202
Edinburgh	41,919	67,537	58,221	39,591	25,617	232,885
Fife	16,751	38,527	48,577	40,202	21,776	165,833
Forth Valley	13,752	32,695	39,914	30,246	16,817	133,424
Greater Glasgow	55,020	100,301	107,462	71,127	43,616	377,526
Highlands and Islands	11,577	30,567	42,014	36,858	20,047	141,063
Lanarkshire	28,033	75,170	89,808	66,240	35,261	294,512
Renfrewshire and Inverclyde	12,501	28,153	37,698	27,234	16,025	121,611
Tayside	23,452	41,358	53,061	43,869	28,329	190,069
The Lothians and Scottish Borders	18,981	50,908	65,233	50,303	27,507	212,932
Scotland	284,364	597,799	711,422	544,124	314,162	2,451,871

Source: Estimates of Households and Dwellings in Scotland, 2016:

<https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/households/household-estimates/2016/list-of-tables>

Calibration target 3: Urban / rural within LA

Table A9.3: Calibration target 3 used for weighting

Police Division	Local authority	Urban	Rural	Total households
Aberdeen City	Aberdeen City	101,534	5,215	106,749
Aberdeenshire and Moray	Aberdeenshire	32,085	78,211	110,296
Tayside	Angus	32,064	21,269	53,333
Argyll and West Dunbartonshire	Argyll and Bute	7,298	33,742	41,040
Forth Valley	Clackmannanshire	9,619	13,782	23,401
Dumfries and Galloway	Dumfries and Gall	20,601	48,601	69,202
Tayside	Dundee City	69,635	-	69,635
Ayrshire	East Ayrshire	22,541	32,207	54,748
Greater Glasgow	East Dunbartonsh	40,034	5,316	45,350
The Lothians and Scottish Borders	East Lothian	15,039	29,710	44,749
Greater Glasgow	East Renfrewshire	33,076	5,505	38,581
Edinburgh	Edinburgh City	225,089	7,796	232,885
Highlands and Islands	Eilean Siar	-	12,951	12,951
Forth Valley	Falkirk	63,900	7,172	71,072
Fife	Fife	105,614	60,219	165,833
Greater Glasgow (GCC)	Glasgow	293,595	-	293,595
Highlands and Islands	Highland	33,817	73,756	107,573
Renfrewshire and Inverclyde	Inverclyde	32,929	4,657	37,586
The Lothians and Scottish Borders	Midlothian	25,225	12,541	37,766
Aberdeenshire and Moray	Moray	9,312	32,649	41,961
Ayrshire	North Ayrshire	44,605	18,835	63,440
Lanarkshire	North Lanarkshire	120,261	30,103	150,364
Highlands and Islands	Orkney	-	10,256	10,256
Tayside	Perth and Kinross	23,318	43,783	67,101
Renfrewshire and Inverclyde	Renfrewshire	72,908	11,117	84,025
The Lothians and Scottish Borders	Scottish Borders	13,922	39,865	53,787
Highlands and Islands	Shetland	-	10,283	10,283
Ayrshire	South Ayrshire	36,337	15,586	51,923
Lanarkshire	South Lanarkshire	113,528	30,620	144,148
Forth Valley	Stirling	21,402	17,549	38,951
Argyll and West Dunbartonshire	West Dunbartonsh	42,657	-	42,657
The Lothians and Scottish Borders	West Lothian	60,622	16,008	76,630
Scotland		1,722,567	729,304	2,451,871

Source: see Annex 1 sources (a) and (b).

ANNEX 8 - INDIVIDUAL WEIGHTING RIMS TARGETS

Table A10.1: Individual calibration targets

Strata	PD	16 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 plus	Total adults
Female															
1	Aberdeen City	16,318	11,646	9,712	7,583	6,824	7,059	7,514	6,840	5,820	5,622	4,129	3,695	6,159	98,921
2	Aberdeenshire and Moray	16,241	9,373	11,165	11,069	12,202	14,109	14,191	12,398	11,442	11,315	8,500	6,559	9,881	148,445
3	Argyll and West Dunbartonshire	8,426	4,775	4,893	4,763	5,331	6,818	7,433	6,961	6,183	6,356	4,793	4,035	5,876	76,643
4	Ayrshire	18,504	10,393	10,174	10,193	11,821	14,637	15,343	14,228	12,941	13,256	10,604	8,316	12,131	162,541
5	Dumfries and Galloway	6,804	3,846	3,753	3,612	4,255	5,713	6,247	5,813	5,644	5,665	4,801	3,660	5,618	65,431
6	Edinburgh	35,272	27,486	22,996	18,399	16,077	16,115	16,086	14,875	12,299	12,277	9,152	7,867	13,807	222,708
7	Fife	20,901	11,146	10,880	10,973	11,795	13,972	14,461	13,155	11,746	12,418	9,547	7,370	11,092	159,456
8	Forth Valley	17,066	9,301	9,210	9,241	10,498	12,131	12,124	10,571	9,222	9,516	7,323	5,959	8,265	130,427
9	Greater Glasgow	52,486	37,320	31,341	26,989	25,142	29,332	30,503	27,189	21,811	19,786	15,525	14,075	22,672	354,171
10	Highlands and Islands	13,480	8,050	8,734	8,709	9,678	11,631	12,403	11,483	10,790	10,689	8,391	6,618	9,992	130,648
11	Lanarkshire	34,079	19,574	21,275	21,063	22,192	26,275	26,757	24,185	20,917	19,565	15,281	12,578	17,660	281,401
12	Renfrewshire and Inverclyde	13,410	7,921	7,707	7,567	8,181	10,456	10,770	9,841	8,091	8,113	6,277	5,255	7,992	111,581
13	Tayside	23,792	13,693	12,984	11,610	12,217	14,636	15,815	14,778	12,992	13,733	10,684	8,806	14,538	180,278
14	The Lothians and Scottish Borders	24,303	13,451	14,784	14,714	16,496	19,945	19,615	17,767	15,248	15,746	12,143	9,538	13,275	207,025
Male															
1	Aberdeen City	14,673	13,084	10,533	8,518	7,308	7,281	7,284	6,797	6,027	5,436	3,551	2,734	3,506	96,732
2	Aberdeenshire and Moray	18,690	9,958	10,477	10,997	12,103	13,629	13,743	12,400	11,150	11,174	7,787	5,723	6,586	144,417
3	Argyll and West Dunbartonshire	9,986	5,354	4,673	4,514	4,873	6,079	6,869	6,454	5,856	5,789	4,423	3,078	3,397	71,345
4	Ayrshire	19,443	9,915	9,097	9,060	10,458	12,866	13,909	13,173	11,857	12,280	9,328	6,859	7,627	145,872
5	Dumfries and Galloway	7,217	3,672	3,519	3,252	3,894	5,061	5,884	5,552	5,261	5,663	4,333	3,339	3,828	60,475
6	Edinburgh	31,331	25,953	22,449	18,925	16,766	16,303	16,177	14,276	12,088	11,191	7,692	5,881	8,066	207,098
7	Fife	20,668	10,466	10,197	10,280	11,190	13,408	13,327	12,779	10,956	11,517	8,633	6,060	7,021	146,502
8	Forth Valley	17,821	8,858	8,343	8,761	9,674	11,616	11,677	10,385	8,640	8,993	6,378	4,726	5,305	121,177
9	Greater Glasgow	52,141	36,886	32,226	27,144	24,634	26,860	27,609	24,689	20,611	18,272	13,076	10,035	12,107	326,290
10	Highlands and Islands	15,181	8,101	8,277	8,416	8,952	10,855	11,926	11,436	10,505	10,603	7,884	5,494	6,414	124,044
11	Lanarkshire	35,911	18,917	19,214	19,717	21,079	24,654	24,930	22,517	19,187	17,898	13,109	9,506	10,275	256,914
12	Renfrewshire and Inverclyde	13,842	8,041	7,645	6,952	7,148	9,006	10,070	9,315	7,488	7,177	5,427	4,018	4,575	100,704
13	Tayside	24,425	14,064	12,559	11,183	11,261	13,716	15,203	13,952	12,412	12,860	9,384	7,276	9,089	167,384
14	The Lothians and Scottish Borders	24,777	12,880	13,096	13,549	15,589	18,088	18,821	17,012	14,368	14,614	10,864	7,786	8,709	190,153

Source: Mid-2016 Population Estimates Scotland: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2016/list-of-tables>

ANNEX 9 - EFFECTIVE SAMPLE AND WEIGHTS BY DIVISION

The effective sample sizes resulting from disproportionate stratification and weighting **by Police Division** for both household and individuals' based data are presented in the tables below.

Household weights

Table A11.1: Effective sample size by Police Division - Household

Police Division	Sample size	Effective sample size	Effective sample %	Design Effect	Design Factor
Aberdeen City	370	353	95.3%	1.10	1.05
Aberdeenshire and Moray	372	365	98.1%	1.04	1.02
Argyll and West Dunbartonshire	295	284	96.4%	1.08	1.04
Ayrshire	368	354	96.2%	1.08	1.04
Dumfries and Galloway	335	323	96.5%	1.07	1.04
Edinburgh	462	448	97.0%	1.06	1.03
Fife	322	301	93.6%	1.14	1.07
Forth Valley	285	268	94.0%	1.13	1.06
Greater Glasgow	718	705	98.1%	1.04	1.02
Highlands and Islands	362	308	85.1%	1.38	1.18
Lanarkshire	564	529	93.7%	1.14	1.07
Renfrewshire and Inverclyde	283	264	93.4%	1.15	1.07
Tayside	415	412	99.3%	1.01	1.01
The Lothians and Scottish Borders	416	393	94.5%	1.12	1.06

Individual weights

Table A11.2: Effective sample size by Police Division - Individual

Police Division	Sample size	Effective sample size	Effective sample %	Design Effect	Design Factor
Aberdeen City	370	347	93.7%	1.14	1.07
Aberdeenshire and Moray	372	279	75.0%	1.78	1.33
Argyll and West Dunbartonshire	295	262	88.9%	1.26	1.12
Ayrshire	368	311	84.4%	1.40	1.19
Dumfries and Galloway	335	304	90.7%	1.22	1.10
Edinburgh	462	439	95.1%	1.11	1.05
Fife	322	276	85.6%	1.37	1.17
Forth Valley	285	250	87.6%	1.30	1.14
Greater Glasgow	718	640	89.2%	1.26	1.12
Highlands and Islands	362	312	86.2%	1.35	1.16
Lanarkshire	564	508	90.0%	1.23	1.11
Renfrewshire and Inverclyde	283	236	83.3%	1.44	1.20
Tayside	415	363	87.5%	1.31	1.14
The Lothians and Scottish Borders	416	365	87.8%	1.30	1.14

Table A 11.3 Minimum, maximum and mean weights, by Police Division

Police Division	Household			Individual		
	Minim um	Maxim um	Mean	Minim um	Maxim um	Mean
Aberdeen City	41	996	289	33	1,873	529
Aberdeenshire and Moray	249	795	409	199	2,903	787
Argyll and West Dunbartonshire	208	553	284	205	2,292	502
Ayrshire	268	2,798	462	282	3,058	838
Dumfries and Galloway	143	430	207	136	1,513	376
Edinburgh	313	1,929	504	423	4,046	930
Fife	376	3,464	515	318	4,032	950
Forth Valley	252	1,179	468	237	5,237	883
Greater Glasgow	159	1,021	526	163	4,257	948
Highlands and Islands	232	1,075	390	204	4,504	704
Lanarkshire	345	1,189	522	336	3,925	954
Renfrewshire and Inverclyde	214	1,147	430	221	3,063	750
Tayside	354	1,085	458	276	4,170	838
The Lothians and Scottish Borders	371	1,390	512	312	4,529	955
Overall	41	3,464	440	33	5,237	806

ANNEX 10 - VARIABLES FOR ANALYSIS WITH HOUSEHOLD WEIGHTS

The following **questionnaire, derived and incidence / prevalence SPSS variables** should be analysed using household weights. All other variables use the individual weights.

SPSS variable name	Description
MOTORCYC	Whether anyone in h/hold has owned / had regular use of motorbike / scooter / moped during ref period
NUMMOT	How many motorcycles, scooters or mopeds does the household own or have regular use of now?
CAR	Whether anyone in h/hold has owned / had regular use of car / van / other motor vehicle during ref period
NUMCAR	How many cars, vans or other motor vehicles does the household own or have regular use of now?
OWNBIK2	Whether anyone in h/hold has owned a bicycle during ref period
NOWNBIK2	How many bicycles does the household own now?
MOTTHEFT	Has any car, van or other motor vehicle been stolen or driven away without permission?
NMOTTHEF	How many times has a motor vehicle been stolen?
MOTSTOLE	Whether anyone in h/hold has had anything stolen off vehicle or out of it
NMOTSTOL	How many times has anything been stolen off or out of vehicle?
CARDAMAG	Has the vehicle been tampered with or damaged by vandals or people out to steal?
NCARDAM	How many times has the vehicle been tampered with?
BIKTHEFT	Has a bicycle been stolen?
NBIKTHEF	How many times has a bicycle been stolen?
YRHOTHEF	Has anyone got into your home without permission and stolen or tried to steal anything?
NYRHOTHEF	How many times has anyone got into your home without permission and stolen anything?
YRHODAM	Whether anyone has got into home without permission and caused damage
NYRHODAM	How many times has anyone got into your home without permission and caused damage?
YRHOTRY	Has anyone tried to get in without permission to steal or to cause damage?
NYRHOTRY	How many times has someone has tried to get in without permission to steal or to cause damage?
YRHOSTOL	Whether anything was stolen out of the home by someone there with permission

NYRHOSTO	How many times has anything been stolen out of your home?
YROSID	Whether anything was stolen from outside the home
NYROSIDE	How many times has anything stolen from outside your home?
YRDEFACE	Has anyone deliberately damaged or defaced your home or anything outside it?
NYRDEFAC	How many times has anyone deliberately damaged or defaced your home or anything outside it?
QNADULTS	How many adults aged 16 or over live in your household, including yourself
QNCHILD	How many children under 16 live in this household
QDTENUR	Tenure of home
QDTIED	Does accommodation go with the job of anyone in household
QDRENT	Who property is rented from
QACCOM	Property type
QDETACH	House type
QFLAT	Flat type
QOTH	Other accommodation type
QENTRAN	Whether flat shares a common entrance with other people
QFLOOR	Lowest floor of respondent's flat
QDINC2	Total annual household income
QDI100	Whether h/hold could find £100 to meet an unexpected expense

The following **derived variables** should be analysed using household weights.

<i>SPSS variable name</i>	<i>Description</i>
TENURE	Household tenure
ACCTYPE	Accommodation type summary
NPERSONS	How many people live in this household?
HHCOMP	Household composition

The **incidence, prevalence and repeat variables** should be analysed using household weights (variables are prefixed by INC, PREV or REP respectively).

SPSS variable name	Description
MOTOVAND	Motor vehicle vandalism
PROPVAND	Property vandalism
THEFTFROMMV	Theft from motor vehicle
ATTTHEFTMV	Attempted theft of / from motor vehicle
THEFTOFMV	Theft of motor vehicle
ALLMVTHEFT	All motor vehicle theft related crimes
BICYCLETHEFT	Bicycle theft
HOUSEBREAK	Housebreaking
OTHERHOUSETHEFT	Other household theft
OTHERHOUSETHEFTCYCLE	Other household theft (including bicycle theft)
VAND	Vandalism
HOUSE	Household crime
ACQUIS	Acquisitive crime

Note that the following *incidence* variables for SURVEYCRIME, COMPARCRIME and PROPERTY **cannot be run using weights** since these are the sum of other incidence variables which are separately weighted by household or individual weights. The *prevalence* variable versions for SURVEYCRIME, COMPARCRIME and PROPERTY must be run using the individual weights to correctly calculate their prevalence rates.

SPSS variable name	Description
SURVEYCRIME	All SCJS crime
COMPARCRIME	Comparable crime
PROPERTY	Property crime

Please note when using *incidence* variables for analysis use the grossing weight instead of the scaled weights as they are not suitable for calculating crime volume proportions.