# **Scottish Crime and Justice Survey 2019/20**

# **Technical Report**

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# 1 BACKGROUND

#### What's in this chapter?

- An introduction to the Scottish Crime and Justice Survey (SCJS) and a brief history of crime surveys in Scotland
- Details on the structure of the Technical Report, with an overview of the content of each chapter
- A summary of changes for the 2019/20 SCJS
- A summary of outputs from the 2019/20 SCJS

# 1.1 Overview to the Scottish Crime and Justice Survey

The Scottish Crime and Justice Survey (SCJS) is a survey of public experiences and perceptions of crime in Scotland. The 2019/20 survey is the ninth year 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 people in Scotland 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<sup>1</sup>
- 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 Scotland. SCJS respondents are asked directly about their experience of incidents which have happened to them, irrespective of whether or not they reported them to the police. The survey provides 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<sup>2</sup>.

<sup>&</sup>lt;sup>1</sup> For more information on police recorded crime, see the Scottish Government website.

<sup>&</sup>lt;sup>2</sup> An <u>analytical paper</u> was published in 2014 looking at SCJS and police recorded crime.

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 informing progress against the Scottish Government's National Performance Framework (NPF)<sup>3</sup>.

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 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 happen abroad are not covered by the survey (termed non-valid incidents). Incidents which happened in England and Wales will be recorded in the Crime Survey for England and Wales (CSEW) where householders are resident in either England or Wales. Crimes experienced in England and Wales by people normally resident in Scotland and incidents occurring in Scotland to people who live in England and Wales will not be captured in either the SCJS or CSEW.

Incidents which meet the above criteria and which are identified as crimes within the scope of the survey (<u>Chapter 8</u>) are used to produce the 'all SCJS crime' statistics which are published in the 2019/20 SCJS Main Findings report.

The survey collects socio-demographic information from respondents which allows a picture to be built up about the nature of crime in Scotland and variation in experiences of victimisation among subgroups of the population. It collects information on a number of sensitive issues, including the prevalence of drug use, sexual victimisation, stalking and harassment, and partner abuse (collected via the self-completion element of the questionnaire). The survey also collects attitudinal information on a range of issues related to crime, policing and the justice system.

# 1.2 History of Crime Surveys in Scotland

Prior to the 2019/20 survey, there have been 16 previous surveys of victimisation in Scotland, beginning with the 1982 and 1988 years of the British Crime Survey (BCS) coordinated by the Home Office<sup>4</sup>. 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 surveys in 1996, 2000 and 2003<sup>5</sup>. In 2004, following an external review, the survey underwent both a name change, under the title of the Scottish Crime and Victimisation Survey (SCVS), and a major methodological change, with a move away

<sup>&</sup>lt;sup>3</sup> The framework measures Scotland's progress against the National Outcomes. To do this, it uses 'National Indicators'. The SCJS informs three National Indicators: Crime victimisation, Perceptions of local crime rate and Access to justice.

<sup>&</sup>lt;sup>4</sup> Further information is available on the shared Office for National Statistics and Kantar Public website.

<sup>&</sup>lt;sup>5</sup> For more information see the Scottish Government SCJS survey website.

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<sup>6</sup>.

Following the 2006 SCVS a further review of the crime survey was carried out, which resulted in the new Scottish Crime and Justice Survey (SCJS) being launched in April 2008.

The 2019/20 survey year retained the same basic design as the 2008/09 surveys onwards. Throughout the SCJS series of surveys, there have been a reduction in sample sizes and some small changes to the sample design in relation to clustering and stratification and the length of the fieldwork period for each survey. Whilst the fundamental structure of the questionnaire has remained consistent, the survey questionnaire is designed to allow the rotation of questionnaire sections in and out of the survey according to the policy and research requirements of the Scottish Government and stakeholders.

After the 2010/11 survey was completed, the survey moved to a biennial frequency, with the survey conducted in 2014/15 (but no surveys in 2013/14 or 2015/16). From the 2016/17 survey onwards, the SCJS has returned to a continuous fieldwork model, but with the achieved sample size reduced to around half that of the 2014/15 survey (11,500 down to sample target of 6,000). This means that some sections of the questionnaire and breakdowns of the data are only available on a biennial basis (e.g. when the 2018/19 and 2019/20 surveys are combined). The 2019/20 survey represents the fourth survey in this continuous series.

The 2019/20 SCJS questionnaire was largely the same as the 2018/19 one. No new questions were added, and only minor changes were made to the wording and routing of some questions. For further details on the questionnaire content and changes see the following section and <a href="Chapter 4">Chapter 4</a>.

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. However, care must be taken when comparing different surveys, both those conducted in Scotland and other UK surveys, and analysts should carefully read the relevant technical documentation to ensure that like-for-like comparisons are being made<sup>7</sup>.

# 1.3 Changes to the 2019/20 SCJS questionnaire

The content and structure of the SCJS have remained largely the same over time to ensure comparability of the data and establish trends. Therefore, the content of the 2019/20 survey is largely the same as the 2018/19 SCJS. The main changes were:

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

<sup>&</sup>lt;sup>6</sup> For more information see Hope (2005). The SCVS 2004 survey included a face-to-face calibration survey run in parallel to the main telephone survey, and the 2004 crime estimates were based on this survey rather than the telephone survey.

- QHDISCRIM3 the wording of this question (previously QHDISCRIM2) was updated to clarify that this question is asking about incidents of harassment other than the incident previously mentioned at QHDISCRIM1
- DA8\_ANY the routing was updated so that the question is now asked of those who answered 'Too many to count' at DA\_6
- RECONTCT the second recontact question was updated, so that the question is now asked of those who provided answers at Section 7 but who had not taken drugs in last 12 months (at Section 8) and who had not experienced partner abuse or sexual victimisation (at Sections 9 and 10). More details on the questionnaire are presented in <a href="Chapter 4">Chapter 4</a>

## 1.4 Outputs from the 2019/20 SCJS

The data collected from the 2019/20 SCJS are reported by the Scottish Government in a number of different formats. Figure 1.1 illustrates the different products and formats for which data produced for the 2019/20 SCJS are available.

Data collected by the self-completion element of the SCJS are collated over two survey years to increase sample sizes, and are published biennially. The 2019/20 SCJS publication contains combined 2018/19 and 2019/20 self-completion data. Likewise, SCJS results provided to Police Division level are also available biennially (as they have been since 2012/13), with two years of data combined to increase the sample size and precision around results, with effect from 2016/17.

Figure 1.1: 2019/20 SCJS output products

Questionnaire	Main Questionnaire (2019/20)		rm Questionnaire 2019/20)	Self-completion Questionnaire (2019/20)		
Reports	Main Finding Repo (single year c		I ZITI XITU ANA ZITI UZZI COMNINGA INCILIAGA S			
Online Data Tables	Full Sample & Crime Prevalence tables, 2019/20	& C	les A, B, C Victim Form tables, 5019/20 2019/20		Self-completion tables, 2018/19 and 2019/20 combined	
Datasets	Main Data Set (2019/20), available from UK Data Archive (End User Licence), expected by end of April 2021		Victim Form Data Set (2019/20), available from UK Data Archive (Special Licence), expected by end of April 2021		Self-completion Data Set providing aggregated 2018-20 data, available from UK Data Service (Special Licence), expected by end of April 2021	
Documentation	Technical Report (2019/20)					

The <u>2019/20 SCJS Main Findings report</u> is available online in HTML format from the SCJS website. A pdf version is also available to download. The questionnaire, offence coding manual and other documentation are also provided on the SCJS website.

In addition, <u>online data tables</u> are also downloadable on the SCJS website. Information on how to read the tables is described in the 'Introduction' worksheets within the table files.

Data for some key survey questions are also available at police division level using an <u>SCJS interactive data tool</u>. The tool has been updated with the latest data covering the period 2018-20 (2018/19 and 2019/20 data combined) and is updated biennially.

# 1.5 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 Guide.

## 1.6 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 contains a number of sub-samples, including the modular and self-completion samples.

Chapter 2 sets out the survey sample design.

<u>Chapter 3</u> provides information on **survey response** and fieldwork outcomes.

Chapter 4 provides a summary of the structure and content of the survey questionnaire.

Chapter 5 examines fieldwork procedures.

Chapter 6 provides details and practicalities of the interview itself.

<u>Chapter 7</u> provides information on **data processing**, including the offence coding process and quality assurance of data.

<u>Chapter 8</u> looks at the **offence coding process** in more detail, including all offence codes, survey statistics, and crime groups used.

<u>Chapter 9</u> sets out the process for creating and applying **survey weights**.

<u>Chapter 10</u> provides information on **statistical significance** and confidence intervals for the results.

<u>Chapter 11</u> provides information on **data outputs**, including the structure of the SCJS SPSS data files and conventions used in them.

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

The series <u>Technical Report Annexes</u> referred to in this report are included at the end of the report.

## 1.7 Summary of methodological changes since 2008/09 SCJS

Figure 1.2: Summary of methodological changes since 2008/09 SCJS

rigure 1.2. Summary of metri	2008/09	2009/10	2010/11 <sup>6</sup>	2012/13	2014/15	2016/17	2017/18	2018/19	2019/20
Survey company	TNS-BMRB <sup>7</sup>	TNS-BMRB	TNS-BMRB	TNS-BMRB	TNS-BMRB	Ipsos MORI & ScotCen	Ipsos MORI & ScotCen	Ipsos MORI & ScotCen	lpsos MORI & ScotCen
Core achieved sample	16,003	16,036	13,010	12,045	11,4972 <sup>8</sup>	5,567	5,475	5,537	5,568
Response rate	70.9%	70%	67%	67.7%	63.8%	63.2%	62.4%	63.4%	63.4%
Sample frame	Royal Mail PAF <sup>1</sup>	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF	Royal Mail PAF
Survey weights	Incident, Indiv, Hhold	Incident, Indiv, Hhold	Incident, Indiv, Hhold	Incident, Indiv, Hhold	Incident, Indiv, Hhold	Incident, Indiv, Hhold	Incident, Indiv, Hhold	Incident, Indiv, Hhold	Incident, Indiv, Hhold
Self-completion	✓	✓	✓	✓	✓	<b>√</b> *			
Reference period <sup>2</sup>	12 months	12 months	12 months	12 months	12 months	12 months	12 months	12 months	12 months
CAPI <sup>3</sup>	✓	✓	✓	✓	✓	✓	✓	✓	✓
No of victim forms	5	5	5	5	5	5	5	5	5
Cap on series of incidents <sup>4</sup>	<b>√</b> (5+)	<b>√</b> (5+)	<b>√</b> (5+)	<b>√</b> (5+)	<b>√</b> (5+)	<b>√</b> (5+)	<b>√</b> (5+)	<b>√</b> (5+)	<b>√</b> (5+)
Sample type	Stratified sample design, rural areas clustered			Single stage unclustered stratified sample design					
Design factor	1.5	1.5	1.5	1.3	1.2	1.34	1.22	1.17	1.21
Geographical coverage	Sc	otland (excludi	ng smaller Islar	nd Communities) Sampling frame includes all Islands				nds	
Police Force Area (PFA)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Police Division (PD) <sup>5</sup>			_	_	<b>√</b>		<b>/</b> *	,	/*
Community Criminal Justice Areas (CCJA)	✓	✓	✓	✓	✓	✓	Х	Х	X

- 1. PAF Postal Address File
- 2. The SCJS only counts data on incidents occurring in Scotland and in the reference period for crime statistics
- 3. CAPI stays for 'Computer-assisted personal interviewing'
- 4. The SCJS caps all series of crime that are greater than five incidents. See <u>Section 8.2.6</u> for more details
- 5. Police Division were introduced 1 April 2013; estimates can be derived for pre-2013 data. PFA results can still be derived by aggregating divisions in the underlying dataset
- 6. There were no surveys conducted in 2011/12, 2013/14, or 2015/16
- 7. TNS-BMRB is now Kantar Public UK
- 8. This figure was updated in September 2021 when a small error was realised (previously 11,493). This does not affect the data.
- \* Note that data from the self-completion modules and data by Police Division (PD) is reported on biennially

# 2 SAMPLE DESIGN AND SELECTION

#### What's in this chapter?

- Information on how the SCJS sample was designed
- Information on the way respondents were selected to take part in the survey, with detailed numbers for target sample sizes and selected addresses at local authority level
- Information on how households were selected at addresses with multiple dwellings, and how the respondent was selected within the sampled address

## 2.1 Sample design requirements

The sample for the SCJS 2019/20 was designed by the Scottish Government and coordinated with the sample designs for the Scottish Health Survey (SHeS) and the Scottish Household Survey (SHS) to allow the samples of the three surveys to be pooled for further analysis<sup>8</sup>.

The SCJS sample was designed to allow reporting at Police Division (PD) level. The requirements of the design for the 2019/20 SCJS were to provide an annual sample size of 6,000 for Scotland.

## 2.2 Sample design and assumptions

The SCJS is a random probability sample survey of private households, which uses a single stage unclustered sample design.

The sample design specified above was implemented using systematic random sampling to select the addresses from the sample frame. Within strata the addresses are ordered by urban-rural classification, Scottish Index of Multiple Deprivation (SIMD) rank and postcode and then randomly selected.

To deliver the required Police Division (PD) precision the minimum effective sample size for each PD was set at 315. The first step in calculating the effective sample size for each PD was to allocate the overall sample on the basis of household population. For PDs where the first step led to an effective sample size of less than 315, the target was increased to 315, with a corresponding decrease in the PDs where the target effective sample size was greater than 315.

In order to estimate the annual target achieved sample size for each PD, analysis of design effects<sup>9</sup> from the 2012/13 survey<sup>10</sup> was undertaken, since:

<sup>&</sup>lt;sup>8</sup> Further information on the sample designs and the methodology uses is available on the Scottish Government <u>website</u>.

<sup>&</sup>lt;sup>9</sup> The design effect tells you how much information has been gained or lost by using a complex survey rather than a simple random sample.

<sup>&</sup>lt;sup>10</sup> This was calculated at the start of the 2016/17 contract and is still accurate.

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

As rural areas were clustered in the 2008/09 survey, for the 2019/20 unclustered sample the median design effect from a range of variables for the unclustered parts of PD samples were assumed for the entire areas. This allowed the calculation of the target achieved sample size for each PD, as shown in Table 2.1.

Table 2.1: Total annual target achieved sample size *SCJS 2019/20* 

Police Division	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 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 (LAs) as stratum. This was done by allocating the target PD samples to LAs proportionate to household population<sup>11</sup>.

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

 estimates for response rates for 2019/20 for each LA were based on the average response rate from the 2016/17 and 2017/18 survey years of the SCJS, with the conditions that for any LA the response rate assumption is not below 60% or above 80% and the Scotland level is not below 63%<sup>12</sup>

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<sup>&</sup>lt;sup>11</sup> While there are now 13 PDs in Scotland as a result of the Aberdeen division merging with Aberdeenshire and Moray to become the North East division in January 2016, these were the PDs when the sampling assumptions and approach were set up at the start of the contract. As mentioned, the sample design was implemented using local authorities as stratum, therefore the change in these PDs does not affect the sampling approach.

<sup>&</sup>lt;sup>12</sup> This is a standard approach for Scottish Government surveys. Multiple years response rates are averaged, therefore variation by year should not greatly influence the survey assumptions. Setting these assumptions prevents pushing the survey towards perpetual low response rates. Also note that these are not the expected response rate but the likely response rate needed to achieve national target sample sizes.

 estimates for levels of ineligible addresses were calculated at LA level and based on the average level of ineligible addresses from the SHeS, SHS, SCJS, and Scottish House Condition Survey (SHCS) from 2012 to 2013

Table 2.2 shows the number of selected addresses in each LA.

**Table 2.2: Local Authority selected addresses** *SCJS 2019/20* 

SCJS 2019/20	
	Selected
Local authority	addresses
Aberdeen City	673
Aberdeenshire	438
Angus	176
Argyll and Bute	293
Clackmannanshire	111
Dumfries and Galloway	558
Dundee City	259
East Ayrshire	228
East Dunbartonshire	155
East Lothian	159
East Renfrewshire	136
Edinburgh City	868
Eilean Siar	57
Falkirk	312
Fife	611
Glasgow City	1,142
Highland	458
Inverclyde	207
Midlothian	130
Moray	180
North Ayrshire	282
North Lanarkshire	557
Orkney	41
Perth and Kinross	238
Renfrewshire	448
Scottish Borders	186
Shetland	39
South Ayrshire	222
South Lanarkshire	535
Stirling	168
West Dunbartonshire	287
West Lothian	254
Total	10,408

# 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 excellent coverage of addresses in Scotland
- the small user version excludes the majority of businesses

 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 2019/20 sample design

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 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 helps to reduce respondent burden. The addresses are removed from the sample frame for a minimum of four years.

## 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<sup>13</sup>. 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. 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. The names or initials of all adult household members were collected by the interviewer and one adult was randomly selected as the respondent using Kish grid selection or a random number algorithm in the CAPI script<sup>14</sup>.

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 the volunteer and the address

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<sup>&</sup>lt;sup>13</sup> For example, one single house that has been converted into flats, but still appears as one address in the PAF.

<sup>&</sup>lt;sup>14</sup> Ipsos MORI use an electronic contact sheet, and NatCen a pre-printed randomised Kish grid row on a paper contact sheet for each address.

outcome was coded as a refusal from the selected respondent 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 to enable effective fieldwork. The process of batching addresses aimed to minimise the distance between 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 fewer 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 across the fieldwork year. All quarters had, as far as possible, the same number of batches in each local authority to help ensure that the fieldwork was spread across 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.).

# 3 SURVEY RESPONSE

#### What's in this chapter?

- Information on the survey response from the sampled addresses
- Information on eligible and non-eligible addresses, refused, non-contact or other reasons for non-response for Scotland overall, alongside information on police division and self-completion response rate performance

#### 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)<sup>15</sup>) for survey fieldwork were applied across the Scottish Household Survey (SHS), Scottish Health Survey (SHeS) and SCJS. This allows consistent reporting of fieldwork performance and effective comparison between the performance of the surveys.

## 3.2 Scotland level summary

Table 3.1 below 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.

Fieldwork was paused on 17<sup>th</sup> March 2020, in response to the COVID-19 pandemic and did not re-start in 2019/20. As fieldwork was still ongoing and addresses being worked, this meant some addresses were partially or not yet worked (i.e. the interviewer had not completed/started their visits to the address and a final outcome had not yet been assigned). These are included in Table 3.1 below. As these addresses were not completely worked we do not know the eligibility of the households at those addresses, therefore these have been coded as "Unknown Eligibility". To show the response rate for the whole sample and for the sample which has been fully worked when this pause occurred, we have presented the response rate characteristics in the following tables both including and excluding these addresses.

Although fieldwork for the 2019/20 survey year closed early, it has been possible to produce results of comparable quality to previous years. The suspension is likely to have had a minimal effect on the precision of the results and on bias. Precision is driven by overall achieved sample size. The number of interviews achieved for the 2019/20 SCJS is 5,568 – similar to that achieved in 2018/19 (5,537). A SCJS methodological paper on

<sup>&</sup>lt;sup>15</sup> 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.

response rate and survey bias <sup>16</sup>, published in June 2020, shows that the impact of varying response rates by a few percentage points on non-response is small.

Table 3.1: Fieldwork outcomes (Scotland)<sup>17</sup> SCJS 2019/20

Percentage   Percentage   Percentage   Sample   Institute   Percentage   Percenta		Including sample	not fully wo	rked due to		sample not fully to COVID-19	worked due
Refused   Sample   Issued   eligible   Sample   Issued   S.568   S.5.9	Fieldwork Outcome			Percentage			Percentage
Responding 5,568 53.5 58.6 5,568 57.9 63.4  Refused Office refused							
Office returnal Redusal at Introduction' before interview         266         2.6         2.8         3.0           Reflusal at Introduction' before interview         1,585         15.2         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,585         16.5         16.7         1,59         17.8         18.2         1.0         1.1         1.	Responding	5,568	53.5			57.9	
Refusel at Introduction/ before interview Refusel by proxy 71 0,7 0,7 71 0,7 0,88 Broken appointment - no re-contact 408 3,9 4,3 408 4,2 46 Total refused 2,300 22,4 24,5 2,300 24,2 26,5  Total refused  Non-contact  No contact with anyone at the address 400 3,8 4,2 400 4,2 4,6 Contact made at address, but not with target respondent 93 0,9 1,0 93 1,0 1,1 Total inon-contact  No contact with anyone at the address 400 3,8 4,2 400 4,2 4,6 Contact made at address, but not with target respondent 93 0,9 1,0 93 1,0 1,1 Total inon-contact  No contact with anyone at the address 4,0 1,0 1,1 Total inon-contact  No contact with anyone at the address 5,0 in on with target respondent 93 0,9 1,0 93 1,0 1,1 Total inon-contact  No contact with anyone at the address 5,0 in on with target respondent 93 0,9 1,0 93 1,0 1,1 Total inon-contact  No contact with anyone at the address 5,0 in on with target respondent 93 0,9 1,0 93 1,0 1,1 Total inon-contact  No contact with anyone at the address 5,0 in on with target respondent 93 0,9 1,0 93 1,0 93 1,0 1,1 Total inon-contact  No contact with anyone at the address 5,0 in on with target respondent 93 0,9 1,0 93 1,0 93 1,0 1,1 Total inon-contact with anyone at the address 5,0 in on the data address 5,0 in on on on one of the address 5,0 1,0 1,1 Total other non-response  No contact with anyone at the address 6,0 1,1 1,1 1,1 1,1 1,1 1,1 1,1 1,1 1,1 1	Refused						
Refusal by proxy Refusa	Office refusal			2.8		2.8	3.0
Bröken appointment - no re-contact 4,08 3.9 4.3 4.08 4.2 24.5 2.30 22.4 24.5 2.30 22.4 26.5 Total refused 2.330 22.4 24.5 2.300 22.4 26.5 Total refused 2.330 22.4 24.5 2.300 24.2 26.5 Total refused 2.330 22.4 24.5 2.300 24.2 26.5 So.5 Total refused 2.330 22.4 24.5 2.300 24.2 26.5 So.5 Total refused at address, but not with target respondent 33 0.9 1.0 33 1.0 1.1 Total non-contact With anyone at the address 5.0 to not with target respondent 33 0.9 1.0 33 1.0 1.1 Total non-contact 493 4.7 5.2 493 5.1 5.6 So.5 Other non-response Will at home during field period 4.2 0.4 0.4 42 0.4 0.5 Away or in hospital throughout field period 8.8 0.8 0.9 8.8 0.9 1.0 Physically or mentally unable/incompetent 178 1.7 1.9 178 1.8 2.0 Language barrier 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 27 0.3 0.3 2.5 Unknown eligibility  Busued but not attempted due to COVID-19 376 3.3 3.6 340 3.5 3.9 Unknown eligibility  Busued but not attempted due to COVID-19 261 3.6 0 0 3.5 Neaccessible 27 0.0 20 20 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Refusal at introduction/ before interview	,					
Non-contact	Refusal by proxy						
Non-contact No contact with anyone at the address							
No contact with anyone at the address	Total refused	2,330	22.4	24.5	2,330	24.2	26.5
Contact made at address, but not with target respondent   93   0.9   1.0   93   1.0   1.1	Non-contact						
Total non-contact   493   4.7   5.2   493   5.1   5.6	No contact with anyone at the address	400	3.8	4.2	400	4.2	4.6
Other non-response         Ill at home during field period         42         0.4         0.4         42         0.4         0.5         0.5         0.5         0.5         0.5         0.5         0.5         0.5         0.5         0.1         0.5         0.6         0.5         0.2         0.2         0.3         0.3         0.7         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         3.5         3.9           Unknown eligibility         Susued but not attempted due to COVID-19         376         3.3         3.6         340         3.5         3.9           Unknown eligibility         Susued but not attempted due to COVID-19         376         3.3         0         0         3.5         3.9           Unknown eligibility         38         3.1         3.6         0         0         0         0         0         0         0         0         0         0         0	Contact made at address, but not with target respondent						1.1
at home during field period	Total non-contact	493	4.7	5.2	493	5.1	5.6
Away or in hospital throughout field period	Other non-response						
Physically or mentally unable/incompetent	III at home during field period						0.5
Language barrier	Away or in hospital throughout field period					0.9	1.0
Lost interview							
Total other non-response   340   3.3   3.6   340   3.5   3.9	Language barrier						
Unknown eligibility Issued but not attempted due to COVID-19 Inaccessible 27 0.0 27 0.0 27 0.0 Unable to locate address 20 0.0 0.0 20 0.0 Unable to confirm eligibile person(s) due to non-contact due to COVID-19 Issued but not resident(s) due to a language barrier 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.3 7 0.4 8.1 49 0.5 6  Total unknown eligibility  Total unknown eligibility addresses 8,496 8.1 48.1 49 0.5 0.6  Total eligible addresses 9,496 91.2 100 8,780 91.2 100  Not eligible Not yet built / under construction 11 0.1 11 0.1 11 0.1 Demolished/derelict 31 0.3 31 0.3 Vacant/empty 518 5.0 518 5.4 Non-residential 100 1.0 100 1.0 Address occupied but not resident household 171 1.6 171 1.8 Communal establishment / institution 8 0.1  Estimated ineligible addresses in set of unknown eligibility addresses 73 0.7 5 0.1  Total not eligible 812 8.8 844 8.8							
Issued but not attempted due to COVID-19   376   3.3   0   3.5     Inaccessible   27   0.0   27   0.0     Unable to locate address   20   0.0   20   0.0     Residential - unknown if eligible person(s) due to non-contact due to COVID-19   261   3.6   0   0.0     Unable to confirm eligibility of resident(s) due to a language barrier   7   0.3   7   0.3     Other unknown eligibility of resident(s) due to a language barrier   7   0.3   7   0.3     Other unknown eligibility of tesident(s) due to a language barrier   7   0.3   7   0.3     Other unknown eligibility of tesident(s) due to a language barrier   7   0.3   7   0.3     Other unknown eligibility of tesident(s) due to a language barrier   7   0.3   7   0.3     Other unknown eligibility of tesident(s) due to a language barrier   7   0.3   7   0.3     Other unknown eligibility of tesident(s) due to a language barrier   7   0.3   7   0.3     Other unknown eligibility of tesident(s) due to a language barrier   7   0.3   7   0.3     Other unknown eligibility addresses   765   7.4   8.1   49   0.5   0.6      Total eligible addresses in set of unknown eligibility addresses   7.4   8.1   49   0.5   0.6      Total eligible addresses in set of unknown eligibility addresses   7.4   8.1   49   0.5   0.6      Total not eligible addresses in set of unknown eligibility addresses   7.3   0.7   5   0.1      Total not eligible   7.5   7.4   8.1   7.5   7.4   8.1   7.5   7.4   7.5   7.5   7.4   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5   7.5	Total other non-response	340	3.3	3.6	340	3.5	3.9
Inaccessible	Unknown eligibility						
Unable to locate address	·						
Residential - unknown if eligible person(s) due to non-contact due to COVID-19   261   3.6   0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0							
Unable to confirm eligibility of resident(s) due to a language barrier 7 0.3 7 0.3 7 0.3 Other unknown eligible due to COVID-19 147 0.2 0 0.2 Total unknown eligibility 838 8.1 54 0.6 Estimated eligible addresses in set of unknown eligibility addresses 765 7.4 8.1 49 0.5 0.6 Total eligible addresses 9,496 91.2 100 8,780 91.2 100 Not eligible  Not eligible Whot yet built / under construction 11 0.1 11 0.1 11 0.1 0.1 11 0.1 0.1 0.1							
Other unknown eligible due to COVID-19       147       0.2       0       0.2         Total unknown eligiblity       838       8.1       54       0.6         Estimated eligible addresses in set of unknown eligibility addresses       765       7.4       8.1       49       0.5       0.6         Total eligible addresses       9,496       91.2       100       8,780       91.2       100         Not eligible       Vacual (eligible)	• • • • • • • • • • • • • • • • • • • •						
Sase							
Estimated eligible addresses in set of unknown eligibility addresses 765 7.4 8.1 49 0.5 0.6  Total eligible addresses 9,496 91.2 100 8,780 91.2 100  Not eligible  Not yet built / under construction 11 0.1 11 0.1  Demolished/derelict 31 0.3 31 0.3  Vacant/empty 518 5.0 518 5.4  Non-residential 100 1.0 100 1.0  Address occupied but not resident household 171 1.6 171 1.8  Communal establishment / institution 8 0.1  Estimated ineligible addresses in set of unknown eligibility addresses 73 0.7 5 0.1  Total not eligible 912 8.8 844 8.8					_		
Note   eligible   Note   eligible	Total unknown eligibility	838	8.1		54	0.6	
Not eligible Not yet built / under construction 11 0.1 11 0.1 Demolished/derelict 31 0.3 31 0.3 Vacant/empty 518 5.0 518 5.4 Non-residential 100 1.0 100 1.0 Address occupied but not resident household 171 1.6 171 1.8 Communal establishment / institution 8 0.1 8 0.1  Estimated ineligible addresses in set of unknown eligibility addresses 73 0.7 5 0.1  Total not eligible 912 8.8 844 8.8	Estimated eligible addresses in set of unknown eligibility addresses	765	7.4	8.1	49	0.5	0.6
Not yet built / under construction 11 0.1 11 0.1  Demolished/derelict 31 0.3 31 0.3  Vacant/empty 518 5.0 518 5.4  Non-residential 100 1.0 100 1.0  Address occupied but not resident household 171 1.6 171 1.8  Communal establishment / institution 8 0.1 8 0.1  Estimated ineligible addresses in set of unknown eligibility addresses 73 0.7 5 0.1  Total not eligible 912 8.8 844 8.8	Total eligible addresses	9,496	91.2	100	8,780	91.2	100
Demolished/derelict     31     0.3     31     0.3       Vacant/empty     518     5.0     518     5.4       Non-residential     100     1.0     100     1.0       Address occupied but not resident household     171     1.6     171     1.8       Communal establishment / institution     8     0.1     8     0.1       Estimated ineligible addresses in set of unknown eligibility addresses     73     0.7     5     0.1       Total not eligible     912     8.8     844     8.8	Not eligible						
Vacant/empty         518         5.0         518         5.4           Non-residential         100         1.0         100         1.0           Address occupied but not resident household         171         1.6         171         1.8           Communal establishment / institution         8         0.1         8         0.1           Estimated ineligible addresses in set of unknown eligibility addresses         73         0.7         5         0.1           Total not eligible         912         8.8         844         8.8	Not yet built / under construction	11	0.1		11	0.1	
Non-residential       100       1.0       100       1.0         Address occupied but not resident household       171       1.6       171       1.8         Communal establishment / institution       8       0.1       8       0.1         Estimated ineligible addresses in set of unknown eligibility addresses       73       0.7       5       0.1         Total not eligible       912       8.8       844       8.8	Demolished/derelict	31	0.3		31	0.3	
Address occupied but not resident household       171       1.6       171       1.8         Communal establishment / institution       8       0.1       8       0.1         Estimated ineligible addresses in set of unknown eligibility addresses       73       0.7       5       0.1         Total not eligible       912       8.8       844       8.8	Vacant/empty	518	5.0		518	5.4	
Communal establishment / institution 8 0.1 8 0.1  Estimated ineligible addresses in set of unknown eligibility addresses 73 0.7 5 0.1  Total not eligible 912 8.8 844 8.8	Non-residential						
Estimated ineligible addresses in set of unknown eligibility addresses 73 0.7 5 0.1  Total not eligible 912 8.8 844 8.8							
Total not eligible 912 8.8 844 8.8	Communal establishment / institution	8	0.1		8	0.1	
-	Estimated ineligible addresses in set of unknown eligibility addresses	73	0.7		5	0.1	
All issued addresses 10,408 100 9.624 100	Total not eligible	912	8.8		844	8.8	
	All issued addresses	10,408	100		9,624	100	

Excluding cases still being worked when fieldwork was paused due to COVID-19, the overall response rate for the SCJS in 2019/20 was 63.4%, the same as the response rate for the 2018/19 survey (63.4%). Including all cases, the response rate was 58.6%.

For all selected addresses 8.8% were found to be ineligible for the survey (known as 'deadwood'), slightly lower than the percentage in 2018/19, at 9.5%. Vacant or empty residential properties were the most common type of deadwood, accounting for 5.4% of all issued addresses.

<sup>&</sup>lt;sup>16</sup> Scottish Crime and Justice Survey: methodological papers on response rate and survey bias

<sup>&</sup>lt;sup>17</sup> Due to rounding, percentages in Table 3.1 may not add up to the sum totals shown.

Interviewers were unable to contact either the selected respondent or a responsible adult at 5.6% of eligible addresses (excluding COVID-19 paused addresses)<sup>18</sup>.

Where contact was made at an address, refusals were the most common reason for not obtaining an interview, accounting for 26.5% of all eligible addresses (excluding COVID-19 paused addresses). This proportion of refusals was similar to the 2018/19 survey (26.8%).

A further 3.9% of eligible addresses were categorised as 'other non-response', including when the selected adult was physically or mentally unable to complete an interview (2.0%), or away or in hospital throughout the survey field period (1.0%) (excluding COVID-19 paused addresses).

Traditionally, response rates have been used as a key proxy measure of survey quality – with a high response rate indicating good quality. While the response rate in 2019/20 was 63.4%, the same as in 2018/19 (63.4%), and slightly higher than in 2017/18 (62.4%) and 2016/17 (63.2%), it was lower than in previous survey years and the response rate target (68%, last achieved in 2012/13 – see Figure 1.2).

However, previous empirical studies have suggested that using response rates as a measure of survey error or bias can be problematic. To further examine and understand the relationship between response rates and survey quality in the SCJS, a methodological workshop was held with stakeholders in September 2018 and follow-up analysis was undertaken.

The follow-up analysis examined what different response rates might imply for the SCJS results. This examined how a response rate change of 5-10 percentage points would impact on results. This was achieved by comparing the re-weighted results based only on the sample achieved at first issue, against the final sample achieved following reissues for a range of key metrics. Overall, including the reissue interviews (i.e. increasing the response rate by 8-9 pp) had little impact on survey estimates. The differences found were small in magnitude and unlikely to have any meaningful impact, particularly when margin of error around estimates is taken into account. The likely impact of a lower response rate (8-9 pp) on non-response bias is therefore thought to be small<sup>19</sup>.

# 3.3 Police Division performance

Table 3.2 below shows that the response rates for Police Divisions (PDs) ranged from 55.8% (Greater Glasgow) to 70.3%% (Lothian and the Scottish Borders), excluding COVID-19 paused cases.

<sup>&</sup>lt;sup>18</sup> Non-contact included: i) No contact made with anyone at the address after 6 calls, ii) Contact was made with someone at the address, but no contact was made with the adult selected for interview, iii) No contact was made with a responsible adult in order to obtain permission to interview a household member aged 16 or 17, iv) Interviewers were unable to access the selected address (for example, unable gain access to the building or locate the address).

<sup>&</sup>lt;sup>19</sup> Scottish Crime and Justice Survey: methodological papers on response rate and survey bias

Table 3.2: Police Division outcomes

3033 2019/20								
			Ineligible a	addresses		Responding		
	Sampled addresses	COVID affected addresses	n	% of issued	n	% of eligible	% of eligible (removing COVID affected addresses)	
Aberdeen City	673	83	82	12.2	342	57.9	67.3	
Aberdeenshire and Moray	618	127	41	6.6	309	53.6	68.7	
Arygll and West Dunbartonshire	580	30	60	10.3	342	65.8	69.8	
Ayrshire	732	73	65	8.9	379	56.8	63.8	
Dumfries and Galloway	558	36	64	11.5	313	63.4	68.3	
Edinburgh	868	105	82	9.4	447	56.9	65.6	
Fife	611	66	40	6.5	283	49.6	56.0	
Forth Valley	591	1	49	8.3	351	64.8	64.9	
Greater Glasgow	1,433	78	81	5.7	711	52.6	55.8	
Highlands and Islands	595	45	65	10.9	301	56.8	62.1	
Lanarkshire	1,092	17	58	5.3	667	64.5	65.6	
Renfrewshire and Inverclyde	655	21	47	7.2	355	58.4	60.5	
Tayside	673	55	55	8.2	324	52.4	57.5	
The Lothians and Scottish Borders	729	47	50	6.9	444	65.4	70.3	
Overall	10,408	784	839	8.1	5,568	58.6	63.4	

## 3.4 Self-completion performance

Respondents were able to refuse the entire self-completion questionnaire or stop part way though if this was their preference<sup>20</sup>, though the importance of the data produced by the module was often highlighted to help respondents understand why these topics feature and this methodology is used to enable them to make an informed decision. The response rate and the reasons for non-completion are explored below.

The SCJS includes a self-completion questionnaire which covers topics of a sensitive nature, including:

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

Due to the opportunity to refuse to participate in the self-completion questionnaire section, the response rate for the self-completion questionnaire is lower than the overall survey. In 2019/20 the conversion response rate from the main survey to self-completion was 87.7% (4,870 respondents). This is an increase of 2.0 percentage points compared with the 2018/19 survey (85.5%).

Table 3.3 below shows the age breakdown for participation in the self-completion questionnaire. Additional information on the response rate and the reasons for non-completion are explored below.

<sup>&</sup>lt;sup>20</sup> Note that respondents can opt out at any time during the interview.

Table 3.3: Proportion of respondents completing self-completion section by age *SCJS 2019/20* 

% of survey respondents participating in self- completion section	Male	Fe male	Overall
16 to 19	88.3%	85.9%	87.2%
20 to 24	90.9%	94.3%	92.9%
25 to 34	88.7%	92.1%	90.5%
35 to 44	86.4%	91.6%	89.2%
45 to 54	89.1%	91.9%	90.6%
55 to 59	88.6%	89.7%	89.2%
60 to 64	89.6%	89.9%	89.8%
65 to 74	86.0%	86.5%	86.3%
75 plus	75.4%	78.7%	77.3%
Overall	86.5%	88.7%	87.7%

The table shows that there was a small 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 (92.9% for 20 to 24 year olds to 77.3% for those aged 75 and older.

### 3.4.1 Reasons for self-completion refusal/interviewer completion

Table 3.4 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 refusing to take part in the self-completion module was that respondents said that they did not have time / ran out of time (34.2% of refusals). The main reason for interviewer completion was a dislike of computers (69.5% of interviewer completions).

Table 3.4: Reasons for self-completion refusal/interviewer completion

Reason for:	Interviewer administered	Refusal
Ran out of time	2.4%	34.2%
Respondent adamant that they have never taken drugs / experienced		
abuse	2.6%	24.2%
Didn't like computer	69.5%	23.2%
Other	9.1%	20.9%
Couldn't be bothered	6.6%	15.9%
Other disability	12.2%	9.0%
Eyesight problems	23.9%	6.9%
Children present / tending to children	1.7%	6.0%
Other people present in room	0.9%	5.4%
Worried about confidentiality	0.2%	4.7%
Language problems	1.9%	4.2%
Objected to study	0.2%	3.2%
Could not read/write	1.7%	0.4%
Number of respondents	583	687

In addition, of the 583 interviews administered by the interviewer at the start of the self-completion questionnaire, 76 were only partially 'interviewer-completed', as the interviewer handed over the section fully to the respondent (though it is not recorded at which point).

# 4 QUESTIONNAIRE CONTENT

## What's in this chapter?

- Information on the three elements in the questionnaire: main questionnaire, victim form and a self-completion questionnaire
- A narrative description of the 2019/20 questionnaire content providing a sense of flow between sections
- Questionnaire changes for 2019/20, which were mainly minor changes to question wording and routing
- See the <u>2019/20 SCJS questionnaire</u>, available on the survey website, for more details on how the questions were asked and of whom

## 4.1 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 the month of
  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<sup>21</sup>

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

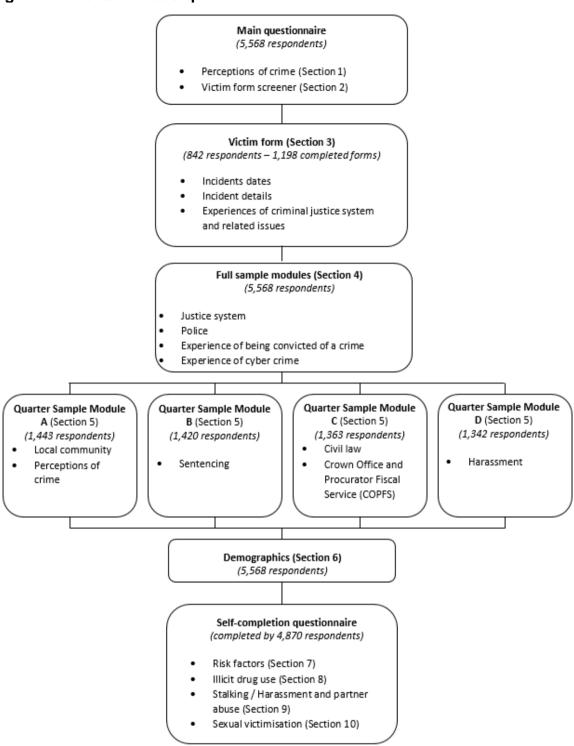
Within most sections there is a degree of filtering of the questions so that some are asked only of sub-samples of respondents. It is therefore recommended that data users read the following section on the questionnaire carefully before starting analysis. Users should also familiarise themselves with the questionnaire itself to ensure they are clear on how the question has been asked and of whom. Questionnaires for all survey years of the SCJS are available from the survey website and via the UK Data Service.

The 2019/20 SCJS had a total of ten distinct sections. The basic structure of the questionnaire is shown in Figure 4.1 below<sup>22</sup>.

<sup>&</sup>lt;sup>21</sup> Note that respondents can opt out at any time during the interview.

<sup>&</sup>lt;sup>22</sup> The complete questionnaire can be found on the survey website.

Figure 4.1: 2019/20 SCJS questionnaire structure<sup>23</sup>



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. Parental

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<sup>&</sup>lt;sup>23</sup> The sample sizes in the diagram refer to the number of respondents for the first question of each section. Any subsequent questions which are relevant only to a subset of the sample will have lower sample sizes accordingly. The <u>online data tables</u> provide the sample sizes for each question.

permission, where appropriate, is also asked if the selected household member is aged 16 or 17.

## 4.1.1 The 2019/20 SCJS questionnaire changes

The content of the 2019/20 survey is largely the same as the 2018/19. No new questions were added, and only minor changes were made to the wording or routing of some questions. The main changes to the questionnaire were:

- QHDISCRIM3 the wording of this question (previously QHDISCRIM2) was updated to clarify that this question is asking about incidents of harassment other than the incident previously mentioned at QHDISCRIM1
- DA8\_ANY the routing was updated so that the question is now asked of those who answered 'Too many to count' at DA 6
- RECONTCT the second recontact question was updated, so that the question is now asked of those who provided answers at Section 7 but who had <u>not</u> taken drugs in last 12 months (at Section 8) and who had <u>not</u> experienced partner abuse or sexual victimisation (at Sections 9 and 10)

## 4.2 Main questionnaire

The structure and content of the SCJS questionnaire is explained in detail below. However, as noted above, data users should also familiarise with the questionnaire itself for relevant sections before conducting any analysis.

## 4.2.1 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.

## 4.2.2 Victim form screener (Section 2)

Respondents are asked whether they have experienced certain incidents since the beginning of the reference period. 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<sup>24</sup>. 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.

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

All vehicle (including bicycles) 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 (e.g. a personal assault), and not to any other people in the household<sup>25</sup>.

The distinction between household and personal incidents also affects how the data are analysed (Section 8.2.1).

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 Section 8.1.3)<sup>26</sup>.

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 or 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

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).

26 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.

<sup>&</sup>lt;sup>24</sup> 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.
<sup>25</sup> 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

incident relates to card fraud or identity theft (variables CARDVIC2 and IDTHEF3). These are not followed up with a victim form since they are included only to provide an estimate of the prevalence of these issues.

#### 4.3 Victim form

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<sup>27</sup>. This then allows the coders to assign the correct offence code to the incident (see Section 7.1 for details of the offence coding process).

Respondents are asked to report all incidents that they or 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.

### 4.3.1 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<sup>28</sup>) 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
- 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<sup>29</sup>

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

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<sup>&</sup>lt;sup>27</sup> 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.

<sup>28</sup> 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

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 2019/20 survey there were 3 cases of a victim form being skipped for this reason (variable WINTRO in the VFF data file).

<sup>&</sup>lt;sup>29</sup> 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.

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 2019/20 Main Findings report – Table A1.5).

<u>Section 6.2</u> provides information on the numbers of victim forms that were completed in 2019/20.

#### 4.3.2 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

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. This is consistent with the CSEW. For example, this could happen in a work situation, in instances where groups such as patients or the general public might be involved<sup>30</sup>.

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:

- 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
- it avoids using up the limit of five victim forms on similar incidents (and may therefore minimise respondent burden)

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<sup>&</sup>lt;sup>30</sup> To illustrate, a care worker who was regularly threatened and verbally abused by patients as part of their job, would count these as a series incident. If, however, they were also physically attacked, then this would count as a separate incident (as the incident is of a different type to the cases of threats and verbal abuse).

 respondent's recall of the incident detail is likely to be more accurate for more recent incidents, and less so with earlier incidents

In 2019/20, 77% (926) of all victim forms (1,198) related to single incidents and 23% (272) related to a series of incidents<sup>31</sup>.

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.

# 4.4 Victim form (Section 3)

The victim form contains two basic sections:

- the first relates to the description and details of the incident itself, including details of the offender(s) if known
- 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

Key data variables are provided in capitals in brackets in the following sections.

#### 4.4.1 Incident dates

Once a victim form is triggered, before any of the detailed questions 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, to confirm if the incident happened in the 12 month reference period (YRINCIB) (Section 6.1).

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 (Section 6.3.2). 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 (Section 8.1). If the incident is in the month of interview, then details are

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<sup>31</sup> 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.

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 (Section 6.1).

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)<sup>32</sup>. 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 (Section 6.1.1)<sup>33</sup>. If there are no incidents in the reference period or the month of interview then the victim form is terminated in the same way as for single incidents (and would also be assigned the non-valid offence code 95).

#### 4.4.2 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.

#### The respondent's description of the incident

At the start of the victim form, respondents are asked to describe 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 Section 7.1 for further detail of the offence coding process).

#### Important details of the incident

Respondents are then questioned about details of the incident, including the characteristics of the offender(s), if known.

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.

The SCJS only records details of incidents which happen within Scotland (QSCO). For an incident occurring online 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 8). The key questions within the victim form have remained largely unchanged from previous versions of the survey.

<sup>33</sup> Variables NSERIES and NUMINC in the VFF data file show the number of incidents in the series, uncapped and capped respectively.

<sup>&</sup>lt;sup>32</sup> 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).

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 8).

### 4.4.3 Victim's experience of the criminal justice system

Respondents are then asked about their experience of the incident and of the criminal justice system, and related issues, including<sup>34</sup>:

- 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: only asked in cases where
  the Police came to know about the incident (QPOL), including questions on from
  whom the respondent received information/assistance (the Police, the Witness
  Service / Victim Support Scotland, the Crown Office and Procurator Fiscal Service /
  Victim Information and Advice, the Scottish Courts and Tribunals Service, others),
  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 from one to 20

#### 4.4.4 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).

# 4.5 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

<sup>&</sup>lt;sup>34</sup> General questions on the criminal justice system are also asked of all respondents in the Scottish criminal justice system full sample module.

continues with three full-sample module sections (justice system, Police and experience of conviction of a crime).

### 4.5.1 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. There are a range of sentencing options available to courts, such as imposing a fine, or imposing a community or prison sentence.

Questions are asked of respondents' level of awareness of the system as a whole, and confidence in it<sup>35</sup>. 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 Scotland in the past three years, including a brief introduction to what the system is. All respondents are asked the questions in this section.

#### 4.5.2 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).

## 4.5.3 Experience of conviction of a crime

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 offence<sup>36</sup>.

<sup>36</sup> Only those offences where the respondent was physically present in court, not on the spot fines.

<sup>&</sup>lt;sup>35</sup> The questions in this section are asked of the all respondents, irrespective of whether they have completed any victim forms.

### 4.5.4 Cyber crime

This section, first included in the 2018/19 questionnaire, asks if respondents have been a victim of cyber fraud and computer misuse (hereafter defined as cyber crime) in the last 12 months. It begins by screening out respondents who have not used a personal computer or another device, such as a smartphone or tablet (thus excluding, for example, workplace-owned devices), to go online in the last 12 months. Respondents are then shown a list of eight different cyber crimes, including having their personal details stolen online, being the victim of ransomware or scam emails, and asked if they have experienced any of these crimes in the last 12 months. The survey does not seek to capture instances in which a crime was only attempted in a very broad sense (for example, when a scam e-mail was received but the person simply deleted it). However, as information on cyber crime is not collected through a victim form, the lack of follow-up probing questions might mean that some are still included.

Respondents who experienced one or more of these crimes are then asked a series of follow-up questions about each crime. If they were the victim of more than three different cyber crimes the script randomly selects three of these crimes for which to ask the follow-up questions. Further, if they had experienced a particular crime more than once, then they are asked to think about the most recent incident when answering the questions.

For each incident respondents are asked about what happened to them as a result of the crime and if and how the experience changed the way they use the internet. They are then asked if they reported the incident to anyone, and if so, who they reported it to. Respondents who did not report the incident to the Police are then asked why they chose not to do so.

It is important to note that the findings from these questions are not included in the main SCJS crime estimates, and are not comparable with them.

# 4.6 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 3.1 below shows the quarter-sample module sample sizes.

Table 3.1: Quarter-sample module sample sizes<sup>37</sup> *SCJS* 2019/20

Module	Sample size (n)	Sample (%)
A: Local Community & Perceptions of Crime	1,443	25.9
B: Sentencing	1, <b>4</b> 20	25.5
C: Civil Law & Crown Office and Procurator Fiscal Service (COPFS)	1,363	24.5
D: Harassment	1,342	24.1
Base	5,568	100

<sup>&</sup>lt;sup>37</sup> Variable QMODULE in the NVF data file.

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## 4.6.1 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 likely or 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.

### 4.6.2 Module A: Perception of Crime

Module A also includes a short section with questions about how common respondents think various crimes are in their local area (i.e. 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).

## 4.6.3 Module B: Sentencing

Respondents are asked questions about community sentencing, unpaid work projects and prisons. They are asked whether they agree or disagree with a series of statements about community sentences and unpaid work orders and how confident they are about the effectiveness of prisons.

#### 4.6.4 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 years<sup>38</sup>. 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:

• those concerning **home**, **family or living arrangements** (neighbours, family, housing and immigration)

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<sup>&</sup>lt;sup>38</sup> 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.

- those concerning **health and well-being** (injury because of an accident or medical negligence and mental health issues)
- those concerning money, finances or any purchased good or service (debt, benefits and faulty goods and services)
- 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.

#### 4.6.5 Module C: Crown Office and Procurator Fiscal Service (COPFS)

This section is introduced with:

"The Crown Office and Procurator Fiscal Service, sometimes known as the COPFS, is one of the organisations which make up the Scottish Criminal Justice System."

Respondents are asked whether they were aware of COPFS prior to receiving this description. If they are, then follow-up questions are asked on how much they feel they know about the work of the service and what roles it performs. Respondents are then provided with a fuller description of what the service does and asked if they have ever had contact with the service. Those that have, are asked in what capacity this contact was made. Questions are then asked about the last contact: what capacity this was in, how satisfied they were with the contact personally, and how satisfied they were with the way the service dealt with the victim or witness / accused.

#### 4.6.6 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 communications)<sup>39</sup> 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.

Respondents are asked (QHDISCRIM1) what they think motivated the last incident of harassment they experienced. The same list is then shown at QHDISCRIM2, which is asked of respondents who experienced more than one incident of harassment within the 12 month reference period (at QAINSNO), to capture perceived motivations for all incidents of harassment experienced.

<sup>&</sup>lt;sup>39</sup> Not including contact from individuals trying to sell things or such like.

# 4.7 Demographics section (Section 6)

A variety of demographic information is collected from all respondents (many using Scottish Government's core and harmonised questions)<sup>40</sup>, 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) coding<sup>41</sup>, and qualifications
- questions on identity, including country of birth, ethnicity, religion and sexual orientation
- health status and caring responsibilities
- · household income and ability to afford an unexpected expense
- questions on satisfaction with a range of public services (collected as part of the core and harmonised questions noted above)

As part of this section, the household reference person (HRP) is established<sup>42</sup>. 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:

- in households with a sole person living, that person is the HRP
- in household with multiple persons living, the person with the highest income is the HRP
- if both have exactly the same income, the older is taken as the HRP

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<sup>&</sup>lt;sup>40</sup> Information on harmonised questions can be found on the Scottish Government website.

<sup>&</sup>lt;sup>41</sup> 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.

<sup>&</sup>lt;sup>42</sup> Variable HRP in the respondent file SPSS data file records which member of the household is the HRP. Information on the 'respondent file' is provided in <u>Chapter 11</u>.

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.

# 4.8 Self-completion questionnaire content (Sections 7 to 10)

All members of the sample are invited to participate in the self-completion modules – there are no upper age restrictions<sup>43</sup>. 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, for example, in cases where the respondent is *unable* to complete the modules themselves, whether due to disability, ill health, poor eyesight, or difficulties reading or writing.

The self-completion questionnaire covers:

- risk factors
- · illicit drug use
- stalking, harassment and partner abuse (including both psychological and physical abuse by a partner)
- sexual victimisation

In 2019/20, a total of 87.5% of respondents to the main survey participated in the self-completion questionnaire -77% completed the questionnaire themselves and 10% asked the interviewer to administer it for them (Section 6.7)<sup>44</sup>.

Data collected by the self-completion element in 2019/20 are combined with the equivalent data from the 2018/19 survey to increase sample sizes available for analysis, and is referred to as 2018/20 and published as part of the 2019/20 SCJS Main Findings report.

Details of stalking and harassment, partner abuse or sexual victimisation incidents recorded in the self-completion questionnaire are not included in the 'all SCJS crime' statistics (Section 8.1.4) 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).

The partner abuse and stalking and harassment questions of the self-completion section do not ask whether offenders were in Scotland or not, therefore potentially some incidents which were perpetrated, or occurred, outwith Scotland may be included in the data. This is consistent with the questionnaire in previous years.

<u>Chapter 6</u> provides further information on the administration of the self-completion questionnaire.

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<sup>&</sup>lt;sup>43</sup> This is in contrast to the CSEW where the self-completion questionnaire, containing similar topics, is only asked of those aged up to 74.

<sup>&</sup>lt;sup>44</sup> Variable SELF\_COMP in the NVF data file.

# 4.8.1 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.

## 4.8.2 Illicit drug use (section 8)

Respondents are asked whether they have ever used a range of illicit drugs or groups of illicit drugs in the last 12 months and whether they have taken nitrous oxide or any new psychoactive substances (or '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 questionnaire<sup>45</sup>. In 2018/20 (2018/19 and 2019/20 combined), there was just five cases of a respondent reporting that they had ever taken semeron.

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).

In the 2018/19 SCJS (and subsequently in the 2019/20 SCJS), a number of questions were removed from the drug use section, including questions on whether or not respondents had ever used drugs, had ever been offered drugs, had used drugs in the last month, and on the frequency and methods of drug use. The full list of the questions removed is shown below:

 QEVE; QDR1ST; QDRAGE; QDRMETH; QOF2; Q12MMIX; Q12MALC; Q12MUSE; Q1M; QDRMOST; QDRHOLD; QDRDEAL; QDROFT; QDEP1; QDRLAST; QEVEDEP; QEVENO1; Q12MLWH

# 4.8.3 Stalking and harassment and partner abuse (section 9)

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

<sup>&</sup>lt;sup>45</sup> 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 includes<sup>46</sup>:

- Receiving unwanted letters or cards
- Receiving unwanted messages by text, email, messenger or posts on social media sites, like Facebook or Twitter
- Receiving unwanted phone calls
- Having someone loitering outside a home or workplace
- Being followed
- Having someone share intimate pictures without their consent, for example by text, on a website, or on a social media site like Facebook or Twitter, sometimes known as 'revenge porn' (in the 2018/19 and 2019/20 SCJS, two new, separate questions on the sharing of intimate questions were added – SH\_03 and SH\_04)

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<sup>47</sup>; 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, about the most recent (or only) incident in that time, including:

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<sup>&</sup>lt;sup>46</sup> 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.

<sup>&</sup>lt;sup>47</sup> In the 2018/19 and 2019/20 SCJS a new response option was added to any questions asking about the offender's relationship to the respondent – 'The person was my ex-partner'.

- 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

Respondents are then asked about any other incidents of abuse they experienced in the last year and what people or organisations, if any, they informed of the incident. Question DA\_8ANY asks respondents who experienced more than one incident of abuse within the 12 month reference period (at DA\_6) which, if any, physical impacts they experienced from these other incident(s). In 2019-20 the routing of DA\_8ANY was updated to correct an error which had previously excluded those who said the number of incidents they had experienced at DA 6 were 'Too many to count'.

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.

### 4.8.4 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' 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

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<sup>&</sup>lt;sup>48</sup> 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 experienced<sup>49</sup>:

- 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 include: 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) 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 only.

<sup>49</sup> Readers should note that the questions in the questionnaire are asked in a different order to that listed here.

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.

# 5 FIELDWORK

## What's in this chapter?

- Information on the data collection process for the 2019/20 SCJS
- Fieldwork took place between the 1<sup>st</sup> April 2019 17<sup>th</sup> March 2020 and was continuous over the period
- The briefing of interviewers before main stage fieldwork started
- Quality control procedures
- The management of fieldwork across the survey year
- Fieldwork procedures and materials

# 5.1 Survey pilot

# 5.2 Briefing of interviewers before main stage fieldwork

All existing interviewers working on the survey attended a face-to-face briefing before the main stage fieldwork started. These covered new and amended questions / sections for the 2019/20 survey, practice interviews and reminders on survey procedures. Any new interviewers joining the interviewer panel throughout the survey fieldwork period attended a full face-to-face briefing before starting work on the survey.

# 5.3 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, with both lpsos MORI and ScotCen implementing the following checks:

- 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; did not collect telephone numbers for validation; 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 successful interviews were recontacted (validated) to verify that the interviewer had conducted the interview and that key details they had collected were correct.

The validation procedure to ensure that interviewers have conducted genuine interviews involves the collection of a telephone number at the end of the interview, along with permission to re-contact the respondent for the purposes of quality assurance.

In total, 597 interviews (11%) were successfully re-contacted for validation purposes over the course of the fieldwork period. Addresses were randomly selected within the framework of Ipsos MORI and ScotCen's field quality procedures whereby all interviewers have a proportion of 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 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.

Where any doubt was raised over the validity of interviews, then face-to-face validation was enacted where interviewers could not be verified by telephone or postal methods.

# 5.4 Fieldwork dates and fieldwork management

Fieldwork was divided into 12 monthly tranches from 1<sup>st</sup> April 2019, with each tranche starting four or five weeks apart. Fieldwork closed early on 17<sup>th</sup> March 2020, as a result of all Scottish Government face-to-face interviewing being suspended to help prevent the spread of COVID-19<sup>50</sup>.

Across the fieldwork period, 376 first issue assignments (batches) of addresses were issued to interviewers. A total of 10,409 addresses were issued to interviewers, with the average assignment size being 27.68 addresses within a range from 14 to 39 addresses. The standard deviation was 3.25 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' – <a href="Chapter 3">Chapter 3</a>). 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-

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<sup>&</sup>lt;sup>50</sup> Section 3.2 provides information on survey fieldwork suspension and impact on quality.

contacts, soft refusals, broken appointments, etc.) were re-issued (see <u>Annex 3</u> 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 effective<sup>51</sup>. Re-issued addresses were visited twice in the case of non-contact. Some addresses were reissued a second time.

In total across the year, 2,293 addresses were re-issued, which represented 22% of the original sample (10,408 addresses – <u>Table 2.2</u>). Of all the addresses re-issued, 330 (14.4%) were converted into useable interviews.

# 5.5 Fieldwork procedures and documents

#### 5.5.1 Advance letter and leaflet

All selected addresses were sent a letter from the Scottish Government in advance of an interviewer calling at the address.

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 out<sup>52</sup>. Over the course of the whole year 266 people (2.8% of eligible 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. 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, 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.

#### 5.5.2 Address contact record

Interviewers record the days and times that they call at an address, and the outcome, enabling them to tailor their calling strategy based on this and providing a record of all the outcomes achieved at the address, both at first-issue and re-issue.

<sup>51</sup> For example, if there were only one or two addresses available to re-issue in an assignment in a remote rural area.

<sup>&</sup>lt;sup>52</sup> The content of the letters sent by Ipsos MORI and ScotCen interviewers were identical, except for the company contact details and reference number.

# **6 THE INTERVIEW**

#### What's in this chapter?

- Information on the survey interview. Interviews were conducted face-to-face in respondents' home and were administered by professional interviewers working for lpsos MORI or ScotCen Social Research using Computer Assisted Personal Interviewing (CAPI)
- Information on the following elements:
  - o Survey reference period
  - Number of victim forms completed
  - o Computer Assisted Personal Interviewing (CAPI)
  - Use of show cards
  - o Interview length
  - Presence of others during the interview
  - o Self-completion interview, including the different ways in which selfcompletion module questions were answered

# 6.1 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. 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 15<sup>th</sup> September 2019, the survey statistics would include incidents which the respondent had experienced between 1st September 2018 and the 31st August 2019. The reference period therefore covered an equal length of time (12 calendar months) for each respondent, irrespective of when they were interviewed during the 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 15th September 2019) 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 September 2018, have ...", where '1st September 2018' 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).

Due to the continuous interviewing across the fieldwork period, the reference period 'rolled' forward for each consecutive fieldwork month. Compared to the example above, respondents interviewed on the 15<sup>th</sup> October 2019 were asked about incidents which occurred in the reference period 1<sup>st</sup> October 2018 to the 30<sup>th</sup> September 2019. The total reference period for interviews conducted from 1<sup>st</sup> April 2019 through to the 17<sup>th</sup> March 2020, when fieldwork was stopped due to the suspension of all Scottish Government face-to-face interviewing to help prevent the spread of COVID-19) is therefore a 23 month period from the start of April 2018 through to the end of February 2020. This is illustrated in Figure 6.1 below.

Reference period month Jun-19 9 lan-1 Feb-1 Mar-1 Apr-1 딒 2 3 5 6 7 8 9 10 11 12 13 14 15 16 17 19 20 Apr-19 Example 2 May-19 interview conducted on 3 Jun-19 15th September Month of interviews Jul-19 2019 Aug-19 i 1 2 3 4 5 6 7 8 9 10 11 12 6l Sep-19l Oct-19 Nov-19 12 month reference period covers incidents Dec-19 from 1st September 10 Jan-20 2018 to 31 August 2019 Feb-20 11 in this example. Mar-20 12 month reference period Interview month

Figure 6.1: Survey reference period

#### 6.1.1 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) was reduced by the number of incidents that occurred in the month of interview.

Variables NSERIES and NUMINC (uncapped and capped count of series incidents, respectively) in the victim form file (VFF) data file for all ValidSCJS forms 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.

## 6.2 Numbers of victim forms

In total 1,198 victim forms were triggered for 842 respondents. Around one-in-seven respondents (15.1%) had one or more victim forms. One in nine (11.0%) respondents had a single victim form only, while just 0.3% had five victim forms (the maximum allowed) (Table 6.1).

In the VFF SPSS data file each record represents a victim form (<u>Section 11.1.2</u>), with each record being labelled as victim form one to five for each respondent (variable VICNO).

**Table 6.1: Number of victim forms** *SCJS 2019/20* 

VFs completed	No of Respondents	% of Respondents	% of those with 1 or more VF	Total VFs
None	4,726	84.9	-	0
1	610	11.0	72.4	610
2	153	2.7	18.2	306
3	50	0.9	5.9	150
4	13	0.2	1.5	52
5	16	0.3	1.9	80
1 or more	842	15.1		1,198
Total	5,568			

Not all victim forms are used in the production of the SCJS statistics, for example some may refer to incidents which are outside the reference period (<u>Section 6.1</u>) or to crimes which are outside the scope of the survey (<u>Section 8.1</u>). Table 6.2 provides details of how many of the 1,198 victim forms were assigned non-valid or out-of-scope offence codes.

Table 6.2: Classification of non-valid and out-of-scope victim forms *SCJS* 2019/20

Category	No. of VFs	% total VFs
Terminated as violence from household member*	3	0.3%
Incident(s) occurred outside reference period**	138	11.5%
Incident(s) occurred in month of interview (outside of	38	3.2%
reference period)		
Incident(s) occurred outside Scotland	24	2.0%
Duplicate victim form	44	3.7%
No crime <sup>1</sup>	53	4.4%
Not enough information to code	3	0.3%
Non-valid SCJS offence codes	51	4.3%
Threat offences (not included in statistics) <sup>2</sup>	114	9.5%
Sexual offences (not included in statistics) <sup>2</sup>	5	0.4%
Total "Valid SCJS" victim forms	<i>7</i> 25	60.5%
Total victim forms	1,198	100.0%

<sup>\*</sup> 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 (Section 4.3.1)).

# 6.3 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)

<sup>\*\*</sup> 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.

<sup>&</sup>lt;sup>1</sup> A number of victim forms are coded as 'no crime occurred' (code 96).

<sup>&</sup>lt;sup>2</sup> These offences are not included in the calculation of 'all SCJS crime' statistics for the reasons outlined in <u>Section 8.1.2</u>. Experiences of sexual offences are instead collected in the self-completion section and reported separately.

## 6.3.1 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 <a href="#">Annex 5</a>.

#### 6.3.2 Text substitution and date calculations

Text substitutions and date calculations are 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 are made automatically by the CAPI script for the reference period and other questions where a specific time period is 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.

#### 6.3.3 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 on the screen as separate buttons. For 'show card' questions (<u>Section 6.4</u> below) 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 shows the respondent where these buttons are 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 is re-worded as 'Don't wish to answer'.

#### 6.4 Use of show cards

For the majority of pre-coded questions where respondents are asked to select an answer from a list, interviewers hand respondents a booklet of numbered or lettered 'show cards' on which the pre-coded answers to questions are 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 to 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 HHLDVIOL, 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)

# 6.5 Length of interview

Automatic 'time stamps' are 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 less than 14 minutes were excluded from the analysis in this section (matching the same criteria used in previous SCJS years).

The average (mean) total interview length, including the self-completion section, across the respondents with usable timestamp data (5,499, 98.8%) was 41 minutes and 52 seconds<sup>53</sup>. The average length varied by contractor<sup>54</sup>. The number of victim forms completed was a factor in total interview length. The average total interview length (including the self-completion section) for those not completing any victim forms was 39 minutes and 35 seconds, compared to 55 minutes and 10 seconds for those who completed one or more victim forms.

# 6.6 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 data file (variable SCOTHPRES).

# 6.7 Self-completion interview

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The self-completion 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 is 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

<sup>&</sup>lt;sup>53</sup> This time represents the elapsed time from the first question (QSYAREA) to the last question (Respondent's email address, if consented to provide). It does not include the time during which the interviewer completes the address contact record, introduces the survey or closes the interview, since the CAPI script is not active at these points.

<sup>&</sup>lt;sup>54</sup> The average Ipsos MORI interview length was 38 minutes and 29 seconds, and the average ScotCen interview length was 45 and 09 seconds.

(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.

In 2019/20, 88% of respondents completed the self-completion section (86% in 2018/19); 77% of them entered their answers directly in to the tablet PC themselves (74% in 2018/19) and 10% asked the interviewer to administer the questionnaire for them (11% in 2018/19).

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.

# 7 DATA PROCESSING

## What's in this chapter?

- An overview of data processing, which involves the manipulation of the data collected during the interviews
- The offence coding process, including quality assurance. Specific information on all the offence codes available in Chapter 8
- All data processing undertaken by ScotCen Social Research in consultation with Scottish Government analysts, including offence coding and quality assurance
- Information on the quality control checks carried out during the final survey stages (data checking, editing and cleaning)

# 7.1 Offence coding

# 7.1.1 Offence coding process

The SCJS offence coding system is designed to match as closely as possible the way incidents would be classified by the police in Scotland to aid comparison between statistics from the SCJS and police recorded crime statistics. The system is tailored for the Scottish justice system and is based on that developed for the 1982 British Crime Survey<sup>55</sup>.

The principles and process behind the offence coding for the SCJS have remained consistent over the course of the survey. No changes were made to the process nor the Offence Coding Manual for the 2019/20 SCJS compared to the 2018/19 SCJS.

All victim forms are reviewed by specially trained ScotCen coders in order to determine what offence code should be assigned to the crime. Every victim form has an offence code assigned to it. The process determines whether what has been reported in the interview represents a crime or not<sup>56</sup>. All data for the survey was coded consistently using agreed principles set down in the SCJS Offence Coding Manual.

The SCJS Offence Coding Manual has a 'priority' ladder which determines what offence codes are assigned if the incident involves multiple aspects. This is then built into the coding system. For example, if an incident involves an offender breaking into someone's house, assaulting them, breaking some of their belongings and then stealing their car, the offence coding process needs to sort out which of these offences takes priority (i.e. should the crime be coded as housebreaking, assault, vandalism or theft of a motor vehicle?).

<sup>&</sup>lt;sup>55</sup> The recorded crime statistics for Scotland are collected on the basis of the Scottish Crime Recording Standard (SCRS), which specifies the approach for counting the number of crimes that should be recorded as a result of a single incident. While this is similar to the National Crime Recording Standard (NCRS) for England & Wales, there are various differences in the two systems. For example, an incident where an intruder breaks into a home and assaults the sole occupant would be recorded as two crimes in Scotland, while in England & Wales it would be recorded as one crime (the most serious one).

<sup>&</sup>lt;sup>56</sup> Note that the term 'offence' code does not mean a crime was committed.

There are a number of scenarios in which different elements of the incident are both deemed too serious for one to take priority over the other. In these situations, the incidents should use the 'double-barrelled' codes, which capture both elements of the event. This is the case for serious assault, rape or serious assault with sexual motive occurring during a housebreaking, for which there are double-barrelled codes that can be used to capture both elements of the incident (codes 15, 37, and 38). There is also a double barrelled code for serious assault and fire raising (code 14)<sup>57</sup>.

The priority ladder can be summarised as below, with the highest priority being rape or serious assault:

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

Further information is available in the SCJS Offence Coding Manual.

The offence coding system provides the responses to key questions in the victim form and other relevant parts of the questionnaire to those involved in the offence coding process electronically using IBMDC software.

The process of offence coding consists of the following steps, involving coders, supervisors and Scottish Government researchers:

- 1) **Initial coding**: a ScotCen coder reviews the answers to the questions for each case in the coding system and, consulting the coding manual, assigns offence and applicable codes. They also complete a certainty record for each victim form showing whether they are certain or uncertain that the code(s) assigned is 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). The certainty record for each victim form determined the quality assurance checking process it went through.
- 2) **Quality assurance**: all forms recorded as *uncertain* by the original coder are checked firstly by a ScotCen coding supervisor, and then by at least one researcher at the Scottish Government. Of those forms recorded as *certain*, 25% are checked by the Scottish Government, and a further 25% by ScotCen coding supervisors. Any victim forms where the coder and supervisor gave a different outcome code, or where the supervisor recorded as uncertain are subsequently checked again by the Scottish Government, as are cases where there was not enough information to code, no crime and offence codes with two aspects. This process is outlined in figure 7.1 below.

<sup>57</sup> Crimes that require a double-barrelled code tend to occur rarely. There were no cases of these in the 2019/20 SCJS.

VFs not sent to coding (outside of Reference Period etc) VF cases sent for Coder review Coder Coder certain uncertain Final code given (no further checks) SV check all SG checks 50% SV checks 25% 25% SG check all SV certain but SV certain and disagrees SV uncertain agrees with with Coder Coder - Final code given -Final code Coder/SV checked SG checks -Coder/SV/SG Final code Final code checked given - Coder given -/SG checked Coder/SV/SG checked

Figure 7.1 – Offence code checking process

As a result of this process every victim form has 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 is selected by the coder, the software automatically applies the priority ladder to determine the code.

All supervisor and Scottish Government coding is completed using a "blind coding" approach using the coding system. This stipulates that supervisors and Scottish Government completed their coding without knowledge of the codes and certainty record given to a victim form by previous coders. This prevented each coding stage being influenced by previous stages.

Where Scottish Government coders do not agree with the code assigned by the coder or supervisor, a further dialogue is opened until a conclusion is reached.

At the end of the offence coding process, cases where coders and supervisors or Scottish Government researchers disagree are reviewed, and any consistent issues are logged.

This log is used to set precedents for future decisions, and to provide feedback and guidance to the coders and supervisors.

# 7.1.2 Offence coding quality assurance

A number of measures were in place to ensure and monitor the progress of the offence coding carried out by the 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, all coders working on the survey were briefed face-to-face by the research team at ScotCen, with feedback provided based on analysis of the offence coding from the previous survey year.

Secondly, researchers at ScotCen produced analysis of coding behaviours as coding proceeded through the survey year. The analysis focused on a number of parameters, including: agreement between coder assigned codes and Scottish Government assigned codes, proportion of certainty / uncertainty among coders, and agreement between coders and Scottish Government when certain / uncertain. This process shed light into individual or types of codes where agreement between coders and Scottish Government was lower and allowed researchers to feedback valuable guidance to the coders.

Overall, ScotCen coders / supervisors assigned the same code as the final Scottish Government code in 91% of cases which were validated by the Scottish Government. When coders marked their coding as "Certain" (76% of victim forms), consistency with Scottish Government – where these cases were checked (31%) – was 88%, and when "Uncertain" (24% of victim forms), consistency was 65%. All cases where the coder was uncertain were checked by Scottish Government.

To aid with offence coding quality assessment and interviewer briefing, the offence coding system included flags for where the coders felt that the information contained in the victim form was of a poor quality.

#### 7.1.3 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 coding supervisor, who takes priority over the original 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 initial Scottish Government coder
- FINLOFFC2: final code assigned by the Scottish Government
- 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).

## 7.1.4 Standard coding

In addition to the survey specific offence coding all questions where an 'Other SPECIFY' category was over 10% of answers were reviewed. 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 a decision to add a new code was taken and other similar 'Other – specify' answers were added into this new code. No new codes were added as part of the exercise for the 2019/20 survey.

# 7.2 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 last 12 months.

Occupations were coded using the <u>Standard Occupational Classification 2010 (SOC2010)</u>. All occupational coding was done centrally by specialist ScotCen coders once the data were returned by interviewers. SOC coding was done using NatCen's <sup>58</sup> 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<sup>59</sup>. 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<sup>60</sup>.

# 7.3 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)

<sup>&</sup>lt;sup>58</sup> NatCen is Britain's largest independent social research agency. ScotCen is the Scottish arm of NatCen.

<sup>&</sup>lt;sup>59</sup> It should be noted that information to allow NS-SEC coding was only collected for respondents, and not specifically the Household Reference Person (HRP).

<sup>&</sup>lt;sup>60</sup> NS-SEC coding based on SOC2010 was used. SOC2020 was not available at the time of coding. For further information, see the <u>ONS website</u>.

- data collection (by interviewers)
- data entry (e.g. of self-completion questionnaire data)
- 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 research 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 SCJS 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 online 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 (Section 6.3.1), a number of other checks were undertaken as part of the data processing.

# 7.3.1 SPSS Data Checking

These included:

- 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 compared to data in SPSS
- checks on the content and formatting of the SPSS data files: checks on the specifications for the SPSS data file against the content and formatting of the SPSS
- specific checks of new or amended variables to ensure they are correct and no errors have been made in the specification of these
- checks on the data in the SPSS data files to ensure the total number of responses in the base for each variable matches the total respondents eligible to respond
- checks on variable and value labels to ensure they are clear and meaningful, consistent with questionnaire documentation and previous survey years
- comparing the content, structure and data frequencies against the previous year'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
- checking all variables required are present and no surplus variables

## 7.3.2 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 (MS Excel) 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 which supresses the data where the number of respondents providing an answer is 50 or below.

- Checking the content and formatting of the tables: specifications for the data tables checked against the content and formatting of the tables themselves
- Data tables and SPSS frequencies match
- Data tables summary codes: the data tables often contain summary codes which
  combine certain responses in a summary (for example, 'agree' code combing '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: the specification, data and labelling for the cross-breaks are 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 are based only on those forms which are marked as ValidSCJS

### 7.3.3 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 chapter, 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 years of the SCJS and the surveys which preceded this (for example the Scottish Crime and Victimisation 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. An annotated SPSS syntax file is used to produce all of the survey statistics (how many incidents are counted, whether the incident was in the reference period etc.). 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 ValidSCJS offence code).

The Scottish Government check the survey statistics by independently replicating the key statistics using annotated SAS syntax file.

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

- checks are performed to compare the number of victim forms in the data against previous survey years, and checking against the raw topline data. Checks are also made to ensure that all of the victim forms are complete
- once the Offence Coding is complete then the data are 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

Logic checks are made to review the data compared to previous survey years:

- checking the number of single vs series incidents
- checking the number of forms which are coded as "Not enough information to code"
- checking the number of forms which are outside of the reference period
- the number of 'Valid' and 'ValidSCJS' forms

Frequencies are then run to compare the number of victim forms with each offence code to previous survey years.

Once these stages are complete 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. More information on the different data files is provided in the Data Outputs Chapter (Chapter 11).

# 8 OFFENCE CODES, SURVEY STATISTICS AND CRIME GROUPS

## What's in this chapter?

- The offence codes used in the survey and how they are grouped and defined
- Offence codes in and out of scope for the SCJS crime calculations and what 'incidence' and 'prevalence' mean in the SCJS context
- Definition of in-scope codes used in the calculation of 'all SCJS crime', and out-of-scope codes ('sexual offence or threat codes' and 'non-valid codes') which are not included in the published survey statistics. A detailed list of all offence codes is provided in <a href="#">Annex 6</a>
- Information on multiple victimisation, repeat victimisation and the capped number of crimes (up to five)

# 8.1 Crime types / offence codes

The <u>SCJS Offence Coding Manual</u> contains the range of offence codes that are assigned to every victim form which is triggered as a result of the victim form screener section (<u>Section 4.2.2</u>). 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' 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
- 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 Offence Coding Manual. 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.

# 8.1.1 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 (Section 6.1).

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)<sup>61</sup>
- crimes against businesses<sup>62</sup>
- crimes where there is no direct or specific victim to interviews (e.g. speeding, possession of drugs), or crime where the victim cannot be interviewed (e.g. homicide)

#### 8.1.2 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 (<u>Section 8.1.4</u>) produced from the survey, including the estimates of incidence and prevalence, do not include these crimes for the reasons outlined below.

#### Sexual offences

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

- Victims are often reluctant to disclose information on these sensitive crimes in a face-to-face interview and therefore surveys using face-to-face data collection rather than self-completion tend to under-represent them
- 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)

<sup>&</sup>lt;sup>61</sup> 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.

<sup>&</sup>lt;sup>62</sup> The Commercial Victimisation Survey (CVS) conducted for the Home Office provides data on this for England and Wales, but a separate survey is not conducted in Scotland. More information on the CVS is available from the Home Office <u>website</u>.

A separate self-completion questionnaire was therefore used to collect information on sexual victimisation<sup>63</sup>. The statistics and analysis from the self-completion survey are reported separately and a separate data file is available from the <u>UK Data Service</u><sup>64</sup>.

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 following victim form screener question respondents may have provided details of an incident of sexual assault):

"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?"

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

## 8.1.3 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. This can occur for two reasons:

- 1. 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: "Apart from anything you have already mentioned" 165. 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

<sup>&</sup>lt;sup>63</sup> 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.

<sup>&</sup>lt;sup>64</sup> SCJS reports and related publications are available on the Scottish Government survey website.

<sup>&</sup>lt;sup>65</sup> Victim form screener questions identify incidents which will be followed up in the victim form.

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.

## 8.1.4 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 2019/20 SCJS Main Findings report into which each in-scope offence code is grouped (Section 8.3)

# 8.2 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 <a href="2019/20 SCJS">2019/20 SCJS</a> Main Findings report.

Incidence and prevalence statistics were estimated for Scotland using data supplied by National Records of Scotland (NRS); <u>Estimates of Households and Dwellings in Scotland</u>, <u>2018</u> (2,477,300 households) and <u>Mid-2019 Population Estimates Scotland</u> (4,541,900 adults).

Variable	Sum of Weights		
Household	2,477,300		
Individual	4,541,900		

## 8.2.1 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 (<u>Sections 8.2.2 and 8.2.3</u>) and how the data are analysed, reported on and presented in tables of prevalence; for example, with demographic breakdowns only available for personal crimes. <u>Annex 10</u> provides detail of which crimes are classified as household crimes and should therefore be analysed using the household weights (<u>Section 9.5</u>).

#### 8.2.2 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 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 and over 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' (INCSURVEYCRIME), 'property crime' (INCPROPERTY) and 'comparable crime' (INCCOMPARCRIME) are produced by *summing* the component incidence figures rather than running the weighted frequencies for the relevant incidence variables since these groups include both personal and household crimes.

#### 8.2.3 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 *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.

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.

# 8.2.4 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.

# 8.2.5 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 RFP.

The Scottish Government published a rapid <u>evidence review paper on repeat violent</u> victimisation in April 2019, which informed the commissioning of a qualitative study to better understand repeat violent victimisation in Scotland, in late 2019. The research is intended to inform effective, appropriate and proportionate policy responses, as well as service responses to support victims, tailored to the needs of those who experience the highest levels of violent victimisation in Scottish society. The paper is available on the Scottish Government website.

## 8.2.6 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 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. The 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).

Analysis of the SCJS from 2008/09 onwards finds that relatively few respondents report large numbers of crime in a series: in 2019/20 11 victim forms comprised a valid SCJS series of incidents capped at five incidents. Based on these relatively small numbers of cases, 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).

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. Due to the volatility incurred by removing the cap altogether, CSEW maintained a cap on the number of crimes in a series, moving from capping at five to capping at the 98th percentile of numbers of crimes for that crime type over the three years up to that point (or five if the 98th percentile falls below). The potential impact of this methodological change for the SCJS has been explored and is discussed in the methodological note on calculating crime estimates in the SCJS. On balance, based upon our analysis, the SCJS will continue to retain the cap of five crimes in a series.

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).

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 each year. Planned work

for the future includes pooling samples across years of the survey to better understand the characteristics and experiences of respondents experiencing high levels of repeat victimisation.

Between 2008/09 and 2019/20 there was a statistically significant decrease in the prevalence of adults experiencing five or more crimes (from 1.5% to 0.4%). However, there was no statistically significant difference between the most recent survey years, 2018/19 and 2019/20, for this group of high frequency victims.

In 2019/20, 77% (926) of *all victim forms* (1,198) related to single incidents and 23% (272) related to a series of incidents<sup>66</sup>.

In the SCJS 2019/20, 16% (124) of ValidSCJS victim forms (725) were for series incidents. 1.4% (11) of all ValidSCJS victim forms recorded a series of more than five similar incidents and 0.7% (5) a series of more than 10.

# 8.2.7 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 (for example, 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 2014 concluded that 'the effects of the weighting updates on the post-1999 CSEW estimates are minimal and have not altered any trends'<sup>67</sup>.

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.

# 8.3 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 2019/20 SCJS Main Findings report as shown in Figure 8.1 below.

The two principal crime groups are property crime and violent crime. The level of prevalence 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

<sup>&</sup>lt;sup>66</sup> 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.

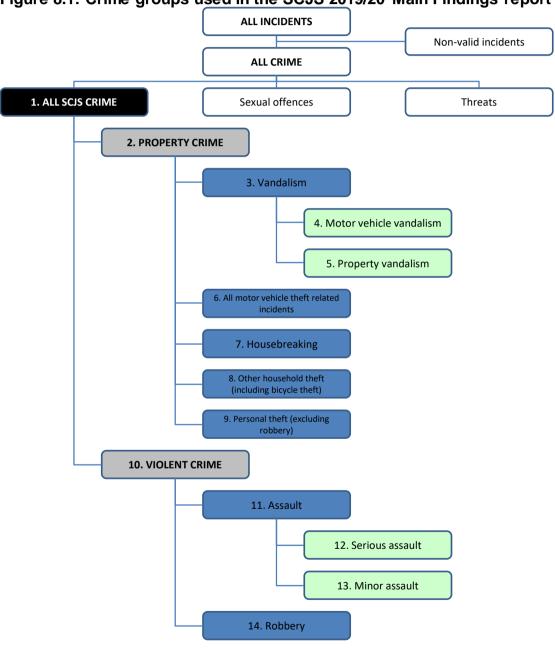
<sup>&</sup>lt;sup>67</sup> CSEW Methodological amendments: <u>Presentational and methodological improvements to National Statistics on the Crime Survey for England and Wales</u>

can also be further broken down into seven groups 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 inscope offence codes.

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 (Chapter 11).

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

Figure 8.1: Crime groups used in the SCJS 2019/20 Main Findings report



# 8.3.1 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 <u>SCJS 2019/20 Main Findings report</u><sup>68</sup>. Descriptions for comparable crime groups are also included. Variable names are provided in square brackets after the heading for each crime group<sup>69</sup>.

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

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

'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 is a subgroup of property crime, which 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.

#### **4. Motor vehicle vandalism** [variable *motovvand*]

This crime group is a subgroup of vandalism which 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

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<sup>&</sup>lt;sup>68</sup> Some of the categories are unpacked further in the Main Findings report Annex Tables, where, for example, in 2019/20 Table A1.1 'Other Household theft' and 'Bicycle theft' are presented separately. <sup>69</sup> Variables in the SPSS data files will be prefaced by INC for incidence variables and PREV for prevalence variables.

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 (i.e. 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.

#### **5. Property vandalism** [variable *propvand*]

Vandalism to the home and other property is a subgroup of vandalism which 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.

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

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

#### **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'. Housebreaking is a subgroup of property crime.

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 2003<sup>70</sup>.

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<sup>&</sup>lt;sup>70</sup> 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.

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

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

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

Personal theft is a subgroup of property crime, which 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.

#### **10. Violent crime** [variable *violent*]

Violent crime is one of the main crime groups used in the <u>SCJS 2019/20 Main Findings</u> report (together with property crime). The coverage of violent crime consists of actual and attempted minor assault, serious assault and robbery. Sexual offences are not included.

#### 11. Assault [variable assault]

Assault is a subgroup of violent crime. 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 any of the following injuries regardless
  of whether or not the victim was detained in hospital overnight: 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.
- Minor assaults, which are actual or attempted assaults resulting either in minor assault with injury, or in minor assault with no or negligible injury

#### **12. 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.

#### 8.3.2 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 (<u>Section 12.1</u>). 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

<u>Section 8.3.1</u> 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 <a href="Section 8.3.1">Section 8.3.1</a> 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.

# 9 SURVEY WEIGHTING

#### What's in this chapter?

- Information on the weighting procedures applied to the SCJS data
- Weighting procedures for survey data, required to correct for unequal probabilities of selection and variations in response rates from different groups
- Calibration weighting used to correct for non-response bias. Calibration weighting derives weights such that the weighted survey totals match known population totals
- Information useful for users who are interested in the different weights available when conducting analysis on different SCJS data (for households or individuals)

#### 9.1 Introduction

This chapter presents information on the weighting procedures applied to the SCJS data. 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 (ONS).

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 2019/20 SCJS the population totals used were the National Records of Scotland's (NRS) Mid-2019 Population Estimates Scotland and for households the NRS Estimates of Households and Dwellings in Scotland, 2018 and Household Projections for Scotland, 2016-based (the latest available at the time of weighting the data). To undertake the calibration weighting the ReGenesees 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 9.6 below.

## 9.2 Main household weight

#### 9.2.1 Dwelling unit selection weight

As stated in <u>Section 2.3.1</u>, the Multiple Occupancy Indicator (MOI) for the Royal Mail Postcode Address File (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 found to be incorrect by the interviewers calling at the address (who then recorded the correct details). The following correction was applied where this was the case:

#### 9.2.2 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 Police Division (PD)
- · Age of head of household within PD
- Urban/rural areas within Local Authority (LA)

These variables were included as weighting targets as they are related to levels of crime and victimisation.

NRS publishes household projection tables which provide local authority level data for household type and age of the head of household<sup>71</sup>. 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 four groups for the age of the head of household:

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

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<sup>&</sup>lt;sup>71</sup> Estimates of Households and Dwellings in Scotland, 2018 (2016-based projections)

The LA totals were used to generate totals for Police Division.

The Scottish Government's 6-fold Urban Rural Classification was used to assign addresses from the sample frame (PAF) 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 2018 at LA level to estimate the total number of urban and rural households in each LA.

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

## 9.3 Main adult weight

#### 9.3.1 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.

#### 9.3.2 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-2019 Population Estimates Scotland totals for age bands and gender within each of the PD areas. The individual weighting targets are shown in Annex 8.

#### 9.4 Self-completion weight

As stated in <u>Section 3.4</u>, not all respondents who completed the main household and individual interview completed the self-completion section of the SCJS. Furthermore, Table 3.3 showed that the response rates to the self-completion section varied with respondent age, with a higher proportion of young people completing the section. Therefore, a separate weight was required for analysis of the self-completion sections.

For each year's sample, a single year self-completion weight was constructed. This was based on the same methodology as <u>Sections 9.2</u> and <u>9.3</u> above, but excluded those who did not complete the self-completion section.

To achieve a reasonable sample size to be able to accurately estimate crimes with a low prevalence, two years' worth of data were pooled together (2018/19 and 2019/20) to create a combined self-completion sample. An additional calibration target was derived to ensure the combined sample was representative across the two years and totalled to a known population figure. The weight was calculated as the proportion of the sample size that came from each year multiplied by the overall population or household target, as outlined in Table 9.1 below.

Table 9.1: Calibration totals for multiyear weights

	Indiv	vidual	Hous	ehold				
Self-completion weight targets	Sam ple size	Calibration target	Sample size	Calibration target				
2018/2019	4,727	2,237,100	4,727	1,220,200				
2019/2020	4.870	2,304,800	4,870	1,257,100				
	Total	4,541,900	Total	2,447,300				

Finally the individual year pre-weights were then calibrated to the same totals as the single year 2019/20 weights (the latest households and population level estimates available) plus the additional calibration target for each year's sample.

## 9.5 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 <sup>72</sup>. This methodology has been consistently applied throughout the SCJS and earlier crime surveys in Scotland, although this methodology will be kept under review (see Section 8.2.6 for more details)<sup>73</sup>.

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:

<sup>72</sup> 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).

<sup>&</sup>lt;sup>73</sup> A similar approach is taken in other victimisation surveys such as the Crime Survey for England and Wales (CSEW) and National Crime Victimisation Survey (NCVS) in the USA.

- 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

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<sup>74</sup>

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 8.2.

## 9.6 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. housebreaking, vandalism to household property, theft of and from a car – see Section 8.2.1 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 –

<sup>&</sup>lt;sup>74</sup> 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.

see Annex 10). In these cases the 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 etc. <u>Section 8.2.1</u>) 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 (Section 9.6.1 below). 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 subsample. 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.

The variable names used for each weight and their descriptions are presented below in Section 9.6.1 and in <u>Annex 10</u> with details of which variables the household weights are used to analyse.

#### 9.6.1 Weighting and expansion variables in SPSS data files

Table 9.2 below lists the weighting variables which are contained in the SCJS 2019/20 SPSS data files.

There are two sets of weights – grossed weights and scaled weights. Grossed weights (Table 9.2) include an expansion factor so that data can be expressed as a number of the population of Scotland. When using the gross weight to analyse individual based data for a question asked of the entire sample, the weighted sample size would be 4,541,900(the total number of adults in Scotland).

Table 9.2: Grossed weighting variables in the SCJS SPSS data files SCJS 2019/20

Weighting variable	Data file <sup>1</sup>	Description
WGTGHHD	RF	Household weight
WGTGINDIV	RF	Individual weight
WGTGINC_SCJS	VFF	Gross incident weight for SCJS crimes
WGTGSCHHD	SCF	Self-completion household weight
WGTGSCINDIV	SCF	Self-completion individual weight

<sup>&</sup>lt;sup>1</sup> Respondent file (RF), victim form file (VFF) and self-completion data files – see <u>Section</u> 11.1 for details.

When using the scaled weight to analyse individual based data for a question asked of the entire sample, the weighted sample size would be 5,568 (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 9.2). 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 2008/09 SCJS User Guide.

Table 9.3: Scaled weighting variables in the SCJS SPSS data files SCJS 2019/20

Weighting variable	Data file 1	Description
WGTGHHD_SCALE	RF & VFF	Scaled household weight
WGTGINDIV_SCALE	RF & VFF	Scaled individual weight
WGTGSCHHD_SCALE	SCF	Scaled self-completion household weight
WGTGSCINDIV_SCALE	SCF	Scaled self-completion individual weight

<sup>&</sup>lt;sup>1</sup> Respondent file (RF), victim form file (VFF) and self-completion data files – see <u>Section</u> 11.1 for details.

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 <a href="Annex 10">Annex 10</a>, 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 8.2.1) 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<sup>75</sup>.

#### 9.5.2 Calculating rates per 10,000 statistics

This data 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/(4,541,900/10,000)

compute WGTGHHDRATE=WGTGHHD /(2,477,300/10,000)

experiencing at least one property crime.

<sup>&</sup>lt;sup>75</sup> 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 <u>2019/20 SCJS Main Findings report</u> is quoted as the percentage of adults

# 10 STATISTICAL SIGNIFICANCE AND CONFIDENCE INTERVALS

## What's in this chapter?

- The concepts of statistical significance and confidence intervals in the SCJS context
- The importance of having a representative sample of the population to draw conclusions on the whole population
- When a finding is statistically significant when it can be demonstrated that the probability of obtaining such a difference (e.g. when comparing two figures over time) by chance only is relatively low
- What the survey design factor is a measure of survey efficiency that adjusts the estimates because of design features

## 10.1 Statistical significance

SCJS estimates are based on a representative sample of the population of Scotland aged 16 and 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 change may simply be due to which respondents were randomly selected for interview and which of those took part.

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 in the published reports.

The SCJS website provides a <u>Users Statistical Significance Testing Tool</u>, where estimates can be tested against each other to determine whether the differences are likely to be due to chance or represent a real difference.

#### Relative Standard Error

Uncertainty can be particularly high around some crime incidence estimates, often where experiences are less common and incident numbers are derived from the experiences of a relatively small number of victims in the sample. The uncertainty for crime incidence figures is assessed by computing the relative standard error (RSE) around the results.

The RSE is equal to the standard error of a survey estimate divided by the survey estimate, multiplied by 100. Estimates with a RSE values greater than 20% are subject to high sampling error and should be used with caution. Table 10.1 below shows the RSEs for 2019/20 estimates for each type of crime.

Table 10.1: 2019/20 SCJS Relative Standard Error (RSE) by crime type

Crime type	2019/20 Relative Standard error (RSE)
ALL SCJS CRIME	5.6%
PROPERTY CRIME	5.5%
Vandalism	8.3%
Motor vehicle vandalism	10.3%
Property vandalism	13.8%
All motor vehicle theft related	14.9%
Theft of motor vehicle	38.1%
Theft from motor vehicle	17.4%
Attempted theft of / from motor vehicle	43.8%
Housebreaking	16.2%
Other household theft (including bicycle theft)	9.1%
Other household theft	10.4%
Bicycle theft	18.8%
Personal theft (excluding robbery)	14.0%
Other personal theft	17.7%
Theft from the person	21.0%
VIOLENT CRIME	12.5%
Assault	12.9%
Serious assault	35.6%
Robbery	35.0%
Acquisitive crime	11.9%
POLICE COMPARABLE CRIME	7.1%

#### 10.2 Confidence intervals

The SCJS sample design is unclustered but stratified and weighted. Stratification and weighting both affect the precision of survey estimates, as measured by standard errors and confidence intervals. Specific statistical packages are needed to accurately calculate the standard errors and confidence intervals. Complex standard errors and confidence

intervals were therefore calculated using the 'survey' and 'srvyr' packages in R. The calculation of the survey design factor (a measure of survey efficiency) was based upon the stratification and survey weighting. To take account of these sample design features, the standard error for an equivalent simple random sample was approximated by calculating the standard error on the unstratified and 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).

#### 10.2.1 All SCJS crime

Statistical significance for change in SCJS estimates for all SCJS crime (surveycrime) 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 is also used by the Crime Survey for England and Wales (CSEW).

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.

#### 10.2.2 2019/20 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 2019/20 data indicates that the factors for most (10 out of 12) crimes types have values of less than 1.21. This suggests that the use of 1.21 would provide a reasonable and often conservative estimate of the design factor for most estimates from the survey.

## 10.2.3 Summary of confidence intervals around key survey results

Table 10.2 below shows the best estimates for incidence rates per 10,000 adults / households, along with the lower estimates and upper estimates (i.e. the lower and upper limits of the confidence intervals) for each crime. The design factors are also provided.

Table 10.2: Rates, confidence intervals and design factors for key crime groups (per 10,000) SCJS 2019/20

Crime rates per 10,000 households/adults (to nearest 10)	Best estimate	Lower estimate	Upper estimate	Design factor
ALL SCJS CRIME	1,770	1,580	1,960	1.10
PROPERTY CRIME	1,340	1,200	1,490	1.12
Vandalism	560	470	650	1.09
Motor vehicle vandalism	340	270	410	1.19
Property vandalism	220	160	280	1.00
All motor vehicle related theft	120	90	160	1.05
Theft of motor vehicle	20	10	40	1.20
Theft from motor vehicle	90	60	120	1.02
Attempted theft of/from motor vehicle	10	0	20	1.05
Housebreaking	90	60	110	1.10
Other household theft inc. bicycle theft	390	320	470	1.20
Other household theft	320	250	380	1.20
Bicycle theft	80	50	110	1.17
Personal theft (exc. Robbery)	180	130	220	1.23
Other theft	120	80	160	1.29
Theft from the person	50	30	80	1.08
VIOLENT CRIME	430	320	530	1.31
Assault	410	300	510	1.33
Serious assault	30	10	40	0.78
Robbery	20	10	30	0.89
COMPARABLE CRIME	1,180	1,010	1,340	1.10
Vandalism	560	470	650	1.09
Acquisitive crime	190	140	230	1.15
Violent crime	430	320	530	1.31

# 11 DATA OUTPUTS

#### What's in this chapter?

- Information on the SCJS data outputs
- Useful to understand data available, what the data covers, and what analysis can be carried out using such data
- It refers to the <u>UK Data Service</u>, where data files are deposited after undergoing a disclosure control review
- Details on the data conventions used in the files published in the <u>UK Data Archive</u> provided to assist with correct interpretation of variable names and categories

#### 11.1 Introduction

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

- Respondent file (RF)
- Victim form file (VFF)
- Self-completion file (SCF)
- Cybercrime file (CCF)

The four data files are also deposited on the <u>UK Data Archive</u> after undergoing a disclosure review (<u>Section 11.3</u> below). In addition, a corresponding set of online data tables are published on the Scottish Government survey website. The Scottish Government also publish some key data in the <u>SCJS Interactive Data Tool</u>.

This section provides detail of the content and structure of the Data Outputs and the conventions used in them.

#### 11.1.1 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 are provided in the RF file, irrespective of whether they are classified as victims or non-victims according to their victim form responses.

#### 11.1.2 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 8.1).

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).

#### 11.1.3 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 SERIAL2.

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). These respondents are identified by the variable SEMERON.

The SCF data for 2019/20 is combined with SCF data for 2018/19 for both reporting and archiving purposes.

#### 11.1.4 Cybercrime file

The Cybercrime section of the questionnaire contains a large number of looped question sections, and therefore associated data file is made available as a separately as it contains a large number of variables. The file contains the key demographic variables from the RF data file can also be linked to the RF data file for analysis purposes via use of the variable SERIAL2 data file.

#### 11.2 Content of SPSS data files

The SPSS data files delivered to the Scottish Government contain different types of variables<sup>76</sup>, including:

 Questionnaire variables (all files). SPSS variable names correspond to question labels from the questionnaire documentation. Variable names are also repeated in variable labels

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<sup>&</sup>lt;sup>76</sup> Note that the files available from the <u>UK Data Archive</u> may not include of all of the variables discussed here.

- Incidence and prevalence variables (RF and SCF data files)
- Geo-demographic variables (all data files). All cases have a set of pre-specified geodemographic variables attached to them, including 2020 Scottish Index of Multiple Deprivation (SIMD)<sup>77</sup> and 2016 Scottish Government Urban / Rural Classification<sup>78</sup>
- Coding variables (all data files). SOC2010 and NS-SEC codes (based on SOC2010) are included for the respondent (see Section 7.2)
- Offence coding variables (all files). On the VFF data file, a full set of offence codes, including the history, are attached as outlined in <a href="Section 7.1.2">Section 7.1.2</a>. The RF and SCF data files contain the final offence code assigned to each respondent's victim forms
- 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 (<u>Section 8.1</u>), 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 <u>Section 9.6</u> for further information on what these variables are and how they should be used

#### 11.3 Disclosure control and access to datasets via the UK Data Archive

The files which are deposited with the <u>UK Data Archive</u> undergo a disclosure review process to ensure that personal data are protected. This process uses the methods of variable removal, top- or bottom-coding and re-coding. This results in the following changes to the datasets compared to those that the Scottish Government receive:

- Removed variables include household matrix variables (age, gender and relationship
  for every person in the household), sensitive variables (sexual orientation, flags for
  sexual victimisation recorded in the victim form), geographic variables (2011 data
  zone, Health Board Area, Local Authority and Criminal Justice Authority) and some
  others relating to accommodation type and employment where these variables are
  summarised in separate variables
- Top-coded variables are those which have numeric values where only a small number of cases have these numbers – for example, number of cars in the household (NUMCAR) was top-coded to 3+ cars in the household

<sup>&</sup>lt;sup>77</sup> SIMD 2020 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. Information on SIMD is available on the Scottish Government website.

<sup>&</sup>lt;sup>78</sup> Details of the 2016 Scottish Government Urban / Rural Classification can be found on the Scottish Government <u>website</u>.

 Re-coded variables include Scottish Index of Multiple Deprivation (SIMD) Quintiles (where a small number of unique data zones were removed), collapse of the Police Division variable into three Regions (variable POLREGION), recode of QRELIG (religion) for all non-Christian religious groups, collapse of the marital status variable QDLEGS, recode of QDETH3 (ethnicity) for all non-white minority ethnic groups and the Household Reference Person (HRP) identifier and banded-age variables

Further detail is available from the Scottish Government survey team by request. The victim form file (VFF) has the same level of disclosure control applied to the respondent file, but is only available from the <a href="UK Data Archive">UK Data Archive</a> under restricted controlled access arrangements. The respondent file is classified as safeguarded data, and is available on the basis of completion of the UK Data Service's End User Licence (EUL).

The Scottish Crime and Justice Survey series of datasets is available on the UKDA under the Scottish Crime Surveys series, and includes all the SCJS datasets as well as the past years of the survey from 1993 onwards.

#### 11.4 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.

#### 11.4.1 Case identifiers

There are two types of case identifiers in the data files: SERIAL2 (all files) and VSERIAL2 (victim form file [VFF] data file).

The unique identifier SERIAL2 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 (VSERIAL2) is identical to SERIAL2, but with the addition of the victim form number (01 to 05) at the end. This gives each victim form a unique identifier.

#### 11.4.2 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'.

#### 11.4.3 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.

#### 11.4.4 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]

#### 11.5 Online data tables

The <u>online data tables</u> report the responses to questions in the survey, as well as some derived variables. Percentages are based on weighted survey data (so that the data are representative of the population of Scotland).

As well as displaying the aggregate answers given by all respondents (the 'Total' column), the data tables also show how answers to questions vary when respondents are grouped by certain geographic, demographic, attitudinal or experiential categories. These categories, known as the cross-breaks, are displayed along the top of the tables.

Due to the large number of questions in the survey, the data tables are split into three volumes: full and quarter sample modules from the respondent file (termed the non-victim form tables – NVF) and the victim form tables. The separate file "SCJS – 2019-20 – data tables – master index" shows all tabulated questions and in which volume of tables they can be found. The questionnaire sections which the data tables are from are noted in the 'index' worksheet.

The non-victim form (NVF) tables are broken down by age, gender, age within gender, victim status (yes/no), fear of crime (feel safe/unsafe walking in local area alone after

dark), socio-economic group (NS-SEC), tenure, disability (long-term limiting illness, yes/no), Scottish Government 2016 Urban/Rural classification (2-fold) and the 2020 Scottish Index of Multiple Deprivation (SIMD, top 15% deprived vs rest). The victim form tables are broken down by the key crime-categories for all ValidSCJS incidents (survey crimes).

The <u>online data tables</u>, including guidance how they should be read and conventions used in them are available from the survey website.

# 12 COMPARING THE SCJS WITH OTHER DATA SOURCES

#### What's in this chapter?

- How SCJS statistics compare with other data sources, especially with police recorded crime statistics in Scotland and with findings from the Crime Survey for England and Wales (CSEW)
- Why looking at both results from the SCJS and police recorded crime statistics is important to have a more complete picture of crime in Scotland
- What crime groups from the SCJS can be compared with police recorded crime statistics (i.e. Vandalism, Acquisitive crime and Violent crime)
- Information on the differences between SCJS and CSEW, with detail on how these affect comparability

## 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, crimes which occurred in Scotland (for example, not when on holiday) and also does not cover all crime types (Section 8.1.1).

<u>Police Recorded Crime</u> 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 in Scotland, a comparable subset of crime was created for crimes covered by both measures and recorded in a consistent manner. Around two-thirds (67%) of 'all SCJS crime' as measured by the SCJS 2019/20 falls into categories that can be compared with crimes recorded by the police. The variables which summarise the comparable group of crimes are the *comparcrime* incidence, prevalence and repeat variables.

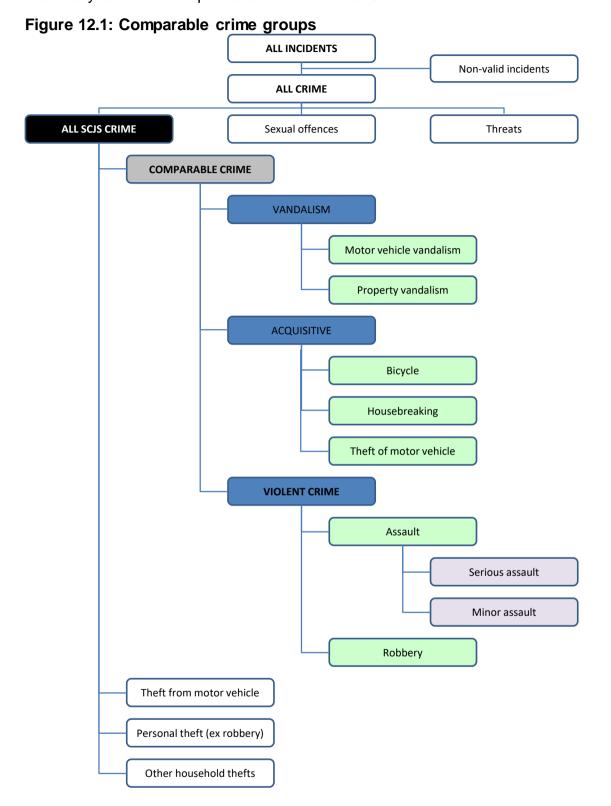
It is possible to make comparisons between the SCJS and police recorded crime statistics for three crime groups:

- 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)

<u>Section 8.3.2</u> 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.

<u>Police recorded crime statistics</u> used in this report relate to crimes committed in the financial year between April 2019 and March 2020.



# 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) 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.

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 CSEW79.

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<sup>80</sup>.

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.

Another difference between the two surveys is that in the SCJS the total number of incidents that occurred in a series in the reference period is capped at five incidents. In previous years this was consistent with the CSEW, however due to recent changes in the CSEW methodology this is no longer the case. More information on this can be found in Section 8.2.6.

<sup>&</sup>lt;sup>79</sup> Another difference between SCJS and CSEW is in the delivery of the self-completion questionnaire. The SCJS invites all members of the sample to participate in the self-completion modules, with no upper age restrictions. The CSEW self-completion questionnaire, containing similar topics, is only asked of those aged up to 74.

<sup>&</sup>lt;sup>80</sup> If a theft occurred in this instance, it would be included in the other household theft crime group.

#### References

Hope, S. (2005); SCVS: Calibration Exercise Report, Edinburgh, Scottish Government. Available from the Scottish Government website

Norris, P. and Palmer, J., (2010); Comparability of crime surveys in the UK. Online: Scottish Centre for Crime & Justice Research research paper. Available from the SCCJR website

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.

Mayhew, P. (1995); 'Some methodological issues in victim surveys'. In, D. Brereton (Ed.), Crime Victim Surveys. Brisbane: Criminal Justice Commission.

Millard, B. and Flately, J., (2010); Experimental statistics on victimisation of children aged 10 to 15: Findings from the British Crime Survey for the year ending December 2009, London; The Home Office. Available from the Home Office website

Anderson, S. and Leitch, S. (1996); Main Findings from the 1993 Scottish Crime Survey; Edinburgh, Scotland; The Scottish Office.

Smith, K. and Hoare, J., (2009); Crime in England and Wales 2008/09, Volume 2, Explanatory Notes and Classifications, London, The Home Office.

Planty, M. and Strom, K. J., (2007); "Understanding the Role of Repeat Victims in the Production of Annual US Victimization Rates", Journal of Quantitative Criminology, 23:179–200.

#### **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.

Police Division	Housheolds in urban areas (b)	Households in rural areas (b)	Estimated households population (a)	Estimated adult population (c)
Aberdeen City	102,350	5,250	107,600	193,250
Aberdeenshire and Moray	41,800	111,950	153,700	291,850
Argyll and West Dunbartonshire	50,250	34,250	84,500	146,250
Ayrshire	104,250	67,100	171,300	308,250
Dumfries and Galloway	20,700	48,850	69,600	125,600
Edinburgh	227,900	7,900	235,750	445,850
Fife	106,950	61,000	167,950	309,000
Forth Valley	96,400	39,000	135,400	254,150
Greater Glasgow	366,800	11,000	377,750	697,700
Highlands and Islands	34,250	108,300	142,550	256,650
Lanarkshire	236,500	61,450	297,900	543,400
Renfrewshire and Inverclyde	107,400	16,000	123,400	214,050
Tayside	126,450	66,000	192,400	349,850
The Lothians and Scottish Borders	117,350	100,150	217,450	406,000
Total Scotland	1,739,150	738,100	2,477,300	4,541,900

Sources: (a) & (b) Estimates of Households and Dwellings in Scotland, 2018 and Small area household estimates data, numbers and percentages of dwellings by 2001 Data Zone, 2014; (c) Mid-2019 population estimates Scotland.

#### **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. Aberdeen City and Aberdeenshire and Moray police divisions merged together in January 2016. While there are now 13 PDs in Scotland as a result, these were the PDs when the sampling assumptions and approach were set up at the start of the contract. The sample design was implemented using local authorities as stratum, therefore the change in these PDs does not affect the sampling approach.

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				
	Dunbartonshire	West Dunbartonshire				
		East Ayrshire				
4	Ayrshire	North Ayrshire				
4	Ayishire	South Ayrshire				
5	Dumfries and Galloway	Dumfries and Galloway				
6	Edinburgh	Edinburgh City				
7	Fife	Fife				
0	F - v(l. ) / - ll - v	Clackmannanshire				
8	Forth Valley	Falkirk				
		Stirling				
		Glasgow				
9	Greater Glasgow	East Dunbartonshire				
		East Renfrewshire				
		Eilean Siar				
40		Highland				
10	Highlands and Islands	Orkney				
		Shetland				
44		North Lanarkshire				
11	Lanarkshire	South Lanarkshire				
40	Denfroughire and lovershide	Inverclyde				
12	Renfrewshire and Inverclyde	Renfrewshire				
		Angus				
13	Tayside	Dundee City				
15	rayside	Perth and Kinross				
		East Lothian				
4.4	The Lothians and Scottish	Midlothian				
14	Borders	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.

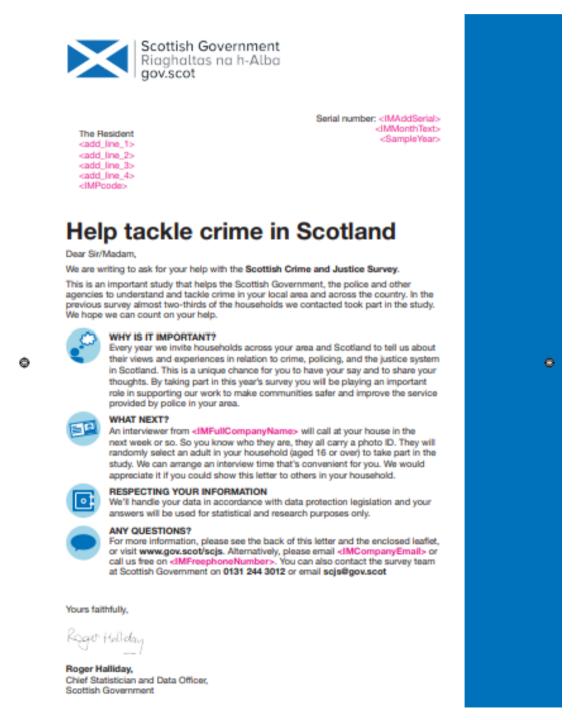
Res	oonse Code / Description	Reissue (Y/N)
31	Not yet built / under construction	N
	Derelict / demolished	N
_	Vacant / empty housing unit	N
	Non-residential address	N
35	Communal establishment / institution	N
36	Not main residence	N
37	Other ineligible	N
38	Inaccessible	N
39	Unable to locate address	Υ
	No contact with anyone	Υ
41	No contact with selected respondent	Υ
42	No contact with responsible adult (U18 interview)	Y
43	Appointment to interview	Y
44	Appointment to call back	Υ
52	Refused Household information - potential to convert	Y
54	Refused all information - no market research / interview too long	Υ
55	Refused all information - won't give personal info. / don't trust gov.	Υ
	Refused all information - door slammed / swearing	Υ
57	Refused all information - death in family	Υ
58	Refused all information - other	Υ
59	Office refusal	N_
60	Selected person refused - potential to convert	Υ
61	Selected person refused - no market research / Interview too long	Υ
62	Selected person refused - won't give personal info. / don't trust gov.	Υ
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	<u>Y</u>
68	Proxy refusal - potential to convert	Y
69	Proxy refusal - too busy, no time	Y
	Proxy refusal - death in family	Y
71 72	Proxy refusal - other family / partner objection	Y Y
	Proxy refusal - other	
73	Parental Permission refused - possibility to convert	Y
74 75	Parental Permission refused - interviewer gender Parental Permission refused - other	Y Y
<u>75</u>		<u> </u>
76	Broken Appointment / no further contact	
77 78	Selected person ill at home during survey period  Away / in hospital throughout field period	Y
76 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	<u>'</u>
	Caccocki ii itoi vio v	

#### **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. <u>Section 5.5.1</u> provides further details of procedures relating to the advance letter and leaflet.





# Frequently Asked Questions

#### HOW DID YOU CHOOSE MY ADDRESS?

Every year we randomly select addresses from across the country and interview around 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?

Once all the responses have been collated, the information is used by the Scottish Government and organisations like the police to help make important decisions which affect us all. This information is collected in the public interest to help us to understand who is most likely to experience crime, how crime affects victims and to check if current policies are working.

We will treat the information you give in accordance with data protection legislation.

All responses are anonymised and stored securely only for research purposes by the
Scottish Government and other authorised research institutes now and in the future.

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, Ipsos MORI and the Scottish Government. We won't pass on your details unless you say you are happy for us to do so, and this would only ever be to invite you to take part in further research.

#### WHERE CAN I FIND OUT ABOUT MY RIGHTS?

Survey respondents have a number of rights. Most notably, if you choose to take part, you are free to withdraw at any time during the interview and you do not have to answer any question you do not wish to. Further information on your rights once you have taken part, as well as additional details on how your information will be used, is available on the Scottish Government's website: www.gov.scot/Topics/Statistics/Browse/Crime-Justice/crime-and-justice-survey/interviewee-information

#### 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.

ScotCen Social Research that works for society



⊜

# 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 opinions of police and the justice system.

#### WHY IS TAKING PART 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.

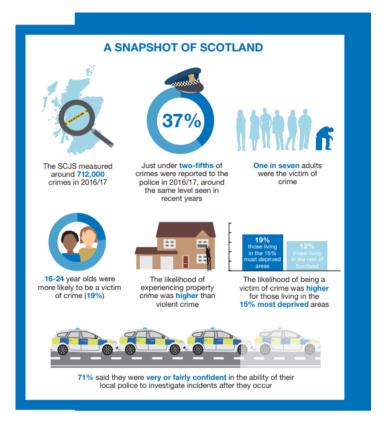
WE CANNOT REPLACE YOU. In order to get a true picture of all types of people living in Scotland, we have chosen your address at random. This means we cannot ask someone else to replace you as this would bias the results and so your participation is very important to us.

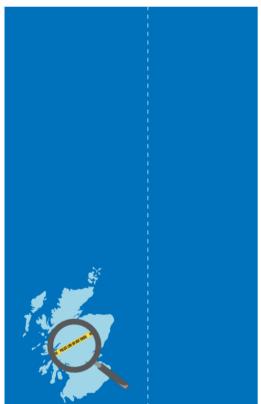
VICTIM OR NOT. Even if you have not been a victim of crime or experienced crime, we need to speak to you to understand if current crime policies are working or not.

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 police in your area to improve the service they provide to the people of Scotland.

# INFORMATION FOR PARENTS OF YOUNG ADULTS

If you have a 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.





#### WHERE CAN I FIND OUT MORE?

For more information including results of previous studies and information on the topics included you can visit www.gov.scot/scjs, or email scjs@gov.scot

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.

#### **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: 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:

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

If you have any concerns about how your information is being used, you have the right to complain to the Information Commissioner's Office: www.ico.org.uk/concerns/handling/

To contact the Scottish Government's Data Protection and Information Assets team, please email: dpa@gov.scot or see: www.gov.scot/about/contact-information/ personal-data/



# Scottish Crime & Justice Survey

#### **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
- MTHRECCK: 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 2019/20 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.

	Offence Code Description	Serious assault	Minor assault with injury	Minor assault with no/negligible injury	Serious assault and fire raising	Serious assault and housebreaking	Attempted assault	Robbery	Attempted robbery	Snatch theft from the person	Other theft from the person	Attempted theft from the person	Attempted housebreaking to non- connected dom. garage/outh'se	Housebreaking in a dwelling (nothing taken)	Housebreaking in a dwelling (Something taken)				H'breaking non-connected dom. garage/outh'se – nothing taken	H'breaking non-connected dom. garage/outh'se – something taken		Theft from car/van	Theft of motorbike, motor scooter or moped	Theft from motorbike, motor scooter or moped	Theft of pedal cycle	Theft from outside dwelling (excluding theft of milk bottles)	Other theft	Attempted theft offrom car/van	Attempted theft offrom m'cycle, motor scooter or moped	Other attempted theft	Fire raising	Vandalism to a motor vehicle	Vandalism to the home	Other vandalism
Variable Name	Offence Code	11	12	13	14	15	21		42			45	50	51	52	53	55		57	58		31	62	63	64	65	67	71	72	73				86
(inc or prev)	SPSS Code	2	3	65	4	5	7	17	18	19	20	21	24	25	26	27	29		31	32		35	36	37	38	39	41	44	45	46			_	51
(into or prov)	Variable Label / WEIGHTING	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	HH	HH	HH	HH	НН	НН	HH	HH	HH F	Η	HH	HH	HH	HH	Ind	НН	HH	Ind	HH	HH F	HH I	ΗН
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
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
vand	Vandalism crime																														1	1	1	1
motovvand	Motor vehicle vandalism																															1	_	
propvand	Property vandalism																														1	_	1	1
allmvtheft	All my theft related crimes																				1	1	1	1				1	1					
theftfrommv	Theft from motor vehicle											_					<u> </u>					1		1						Ш			_	
theftofmv	Theft of motor vehicle																<u> </u>				1		1									—	_	
atttheftmv	Attempted theft of / from mv																											1	1			_		
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				Ш			_	
bicycletheft	Bicycle theft																								1									
housebreak	Housebreaking													1	1	1																4		
perstheft	Personal theft incidents (excl. robbery)									1	1	1															1			1				
theftfperson	Theft from the person									1	1	1																				_	_	
othertheft	Other personal theft																										1			1		4		
violent	Violent crime	1	1	1	1	1	1	1	1																							4		
assault	Number of assault incidents	1	1	1	1	1	1																											
serassault	Serious assault	1			1	1																												
rob	Robbery							_1	1								F.																	
house	Household crime												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	1															1			1		_		
comparcrime	Comparable crime	1	1	1	1	1	1	1	1					1	1	1					1		1		1						1	1	1	1
acquis	Acquisitive crime													1	1	1					1		1		1									
violent	Violent crime	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: 20 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 20 codes
  were not included in the 'all SCJS crime' statistics produced by the survey.

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

<sup>&</sup>lt;sup>1</sup> The incidence / prevalence variables SEXOFF in the Respondent File SPSS data file denote all sexual offences

<sup>&</sup>lt;sup>2</sup> 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

Police Division	1 Adult	1 Adult & 1+ Child	2 + Adult	2 + Adult & 1 + Child	Total households
Aberdeen City	43,050	4,300	43,050	17,200	107,600
Aberdeenshire and Moray	44,750	6,550	67,200	35,200	153,700
Argyll and West Dunbartonshire	33,400	5,950	32,050	13,100	84,500
Ayrshire	61,200	12,100	69,500	28,500	171,300
Dumfries and Galloway	23,650	3,500	30,600	11,850	69,600
Edinburgh City	94,300	11,800	94,300	35,350	235,750
Fife	57,100	11,750	68,850	30,250	167,950
Forth Valley	45,500	9,100	55,550	25,250	135,400
Greater Glasgow	158,450	28,050	134,150	57,100	377,750
Highlands and Islands	49,550	8,100	59,400	25,500	142,550
Lanarkshire	105,750	22,350	114,650	55,150	297,900
Renfrewshire and Inverclyde	50,600	9,000	44,400	19,350	123,400
Tayside	71,050	12,250	77,300	31,800	192,400
The Lothians and Scottish Borders	69,800	14,450	89,300	43,900	217,450
Scotland	908,100	159,300	980,350	429,500	2,477,300

Source: Estimates of Households and Dwellings in Scotland, 2018.

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

		Н	ead of household	l age	
Police Division	16-29	30-44	45-59	60 plus	Total households
Aberdeen City	20,450	30,100	26,900	30,100	107,600
Aberdeenshire and Moray	12,600	36,800	46,750	57,550	153,700
North East	33,050	66,900	73,650	87,650	261,300
Argyll and West Dunbartonshire	8,050	16,950	25,350	34,150	84,500
Ayrshire	15,400	35,350	50,700	69,900	171,300
Dumfries and Galloway	5,550	12,550	20,200	31,300	69,600
Edinburgh City	42,450	68,350	58,950	66,000	235,750
Fife	16,800	38,650	48,700	63,800	167,950
Forth Valley	14,350	31,800	40,850	48,400	135,400
Greater Glasgow	57,300	98,900	106,250	115,300	377,750
Highlands and Islands	11,750	29,900	42,700	58,150	142,550
Lanarkshire	28,350	73,000	92,350	104,200	297,900
Renfrewshire and Inverclyde	12,800	27,650	38,650	44,300	123,400
Tayside	23,600	41,700	53,550	73,600	192,400
The Lothians and Scottish Borders	19,800	50,100	66,500	81,050	217,450
Scotland	289,250	591,750	718,350	877,950	2,477,300

Source: Estimates of Households and Dwellings in Scotland, 2018.

Calibration target 3: Urban / rural within LA

Police Division	Local authority	Urban	Rural	Total
				households
Aberdeen City	Aberdeen City	102,350	5,250	107,600
Aberdeenshire and Moray	Aberdeenshire	32,350	78,800	111,150
Tayside	Angus	32,400	21,500	53,900
Argyll and West Dunbartonshire	Argyll and Bute	7,400	34,250	41,650
Forth Valley	Clackmannanshire	•	13,950	23,650
Dumfries and Galloway	Dumfries and Gall	,	48,850	69,600
Tayside	Dundee City	70,350	-	70,350
Ayrshire	East Ayrshire	22,700	32,400	55,100
Greater Glasgow	East Dunbartonsh	40,650	5,400	46,000
The Lothians and Scottish Borders	East Lothian	15,450	30,500	46,000
Greater Glasgow	East Renfrewshire	33,550	5,600	39,100
Edinburgh	Edinburgh City	227,900	7,900	235,750
Highlands and Islands	Eilean Siar	-	12,750	12,750
Forth Valley	Falkirk	64,950	7,300	72,250
Fife	Fife	106,950	61,000	167,950
Greater Glasgow (GCC)	Glasgow	292,600	-	292,600
Highlands and Islands	Highland	34,250	74,650	108,900
Renfrewshire and Inverclyde	Inverclyde	33,000	4,650	37,650
The Lothians and Scottish Borders	Midlothian	26,150	13,000	39,100
Aberdeenshire and Moray	Moray	9,450	33,100	42,550
Ayrshire	North Ayrshire	44,950	19,000	63,950
Lanarkshire	North Lanarkshire	121,350	30,400	151,750
Highlands and Islands	Orkney	-	10,500	10,500
Tayside	Perth and Kinross	23,700	44,500	68,200
Renfrewshire and Inverclyde	Renfrewshire	74,400	11,350	85,750
The Lothians and Scottish Borders	Scottish Borders	14,100	40,350	54,400
Highlands and Islands	Shetland	-	10,400	10,400
Ayrshire	South Ayrshire	36,600	15,700	52,300
Lanarkshire	South Lanarkshire	·	31,050	146,150
Forth Valley	Stirling	21,650	17,750	39,450
Argyll and West Dunbartonshire	West Dunbartons	42,850	· -	42,850
The Lothians and Scottish Borders	West Lothian	61,650	16,300	77,950
Scotland		1,739,150	738,100	2,477,300

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

**ANNEX 8 - INDIVIDUAL WEIGHTING RIMS TARGETS** 

Strata	Police Division	16 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 plus	Total adults
	Female												
1	Aberdeen City	24,900	9,850	8,550	6,750	6,900	7,100	7,200	6,250	5,200	4,900	9,900	97,550
2	Aberdeenshire and Moray	23,600	10,550	11,450	11,150	13,200	14,100	13,300	11,950	10,750	10,150	17,600	147,800
3	Argyll and West Dunbartonshire	12,500	4,800	5,000	4,800	6,000	7,200	7,300	6,650	5,850	5,600	10,000	75,650
4	Ayrshire	27,550	10,650	10,550	10,400	13,150	15,250	15,050	13,700	12,450	12,200	21,550	162,500
5	Dumfries and Galloway	9,950	3,800	3,950	3,750	4,850	6,100	6,350	5,800	5,450	5,250	9,800	65,000
6	Edinburgh	62,500	25,300	20,600	16,600	15,950	15,900	15,500	13,400	11,650	10,850	21,950	230,150
7	Fife	31,100	11,300	11,450	11,050	12,800	14,400	14,000	12,550	11,350	11,200	19,450	160,700
8	Forth Valley	25,550	9,500	9,500	9,550	11,450	12,300	11,500	9,850	8,850	8,400	15,050	131,500
9	Greater Glasgow	88,600	34,800	29,650	24,950	26,500	29,500	29,100	24,650	19,150	17,400	36,650	360,900
10	Highlands and Islands	20,650	8,700	9,350	8,850	10,850	12,400	12,200	11,050	10,250	9,450	17,750	131,500
11	Lanarkshire	52,550	20,950	22,500	20,750	24,100	26,650	25,850	22,600	19,150	17,250	31,350	283,650
12	Renfrewshire and Inverclyde	20,850	8,050	8,200	7,450	9,150	10,700	10,450	8,900	7,550	7,150	13,650	112,150
13	Tayside	36,050	13,300	12,850	11,350	13,400	15,450	15,600	13,850	12,600	12,500	24,050	180,950
14	The Lothians and Scottish Borders	36,950	15,250	16,350	15,200	18,350	20,100	19,050	16,600	14,700	14,250	24,550	211,300
	Male												
1	Aberdeen City	24,050	11,450	9,250	7,450	7,050	7,150	6,900	6,250	5,200	4,450	6,500	95,700
2	Aberdeenshire and Moray	27,050	10,150	11,100	11,150	12,800	13,600	13,250	11,650	10,300	9,550	13,450	144,050
3	Argyll and West Dunbartonshire	14,400	4,700	4,700	4,500	5,250	6,550	6,800	6,200	5,400	5,050	7,050	70,600
4	Ayrshire	28,450	9,500	9,300	9,100	11,600	13,450	13,750	12,650	11,500	10,850	15,700	145,750
5	Dumfries and Galloway	10,650	3,700	3,500	3,350	4,500	5,550	5,900	5,400	5,300	5,050	7,750	60,600
6	Edinburgh	57,250	25,250	20,750	17,250	16,250	16,100	15,150	12,800	10,850	9,500	14,550	215,700
7	Fife	31,400	10,250	10,550	10,400	12,100	13,650	13,250	11,800	10,400	10,250	14,300	148,300
8	Forth Valley	26,250	8,750	8,850	9,100	10,600	11,750	11,150	9,300	8,250	7,750	10,900	122,650
9	Greater Glasgow	89,850	36,100	30,450	24,600	25,050	26,700	26,050	22,300	17,750	15,050	22,900	336,800
10	Highlands and Islands	22,600	8,550	8,750	8,500	9,850	11,750	11,900	10,900	9,900	9,200	13,350	125,150
11	Lanarkshire	54,100	19,250	20,800	19,550	22,600	24,950	24,050	20,400	17,400	15,200	21,450	259,750
12	Renfrewshire and Inverclyde	21,500	8,150	7,850	6,750	7,850	9,650	9,800	8,300	6,800	6,050	9,200	101,900
13	Tayside	37,700	13,050	12,250	10,750	12,300	14,450	14,700	13,150	11,850	11,250	17,450	168,900
14	The Lothians and Scottish Borders	37,550	13,850	14,600	14,350	17,050	18,650	18,150	15,700	13,550	13,050	18,100	194,650

Source: Mid-2019 Population Estimates Scotland.

## **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

Effective sample size by PFA

Police Division	Sample size	Effective sample size	Effective Des	ign Effect	Design Factor
Aberdeen City	342	334	97.6%	1.05	1.02
Aberdeenshire and Moray	309	248	80.1%	1.56	1.25
Argyll and West Dunbartonshire	342	316	92.4%	1.17	1.08
Ayrshire	379	360	95.1%	1.11	1.05
Dumfries and Galloway	313	294	93.9%	1.13	1.07
Edinburgh	447	444	99.3%	1.01	1.01
Fife	283	276	97.4%	1.06	1.03
Forth Valley	351	288	81.9%	1.49	1.22
Greater Glasgow	711	694	97.6%	1.05	1.02
Highlands and Islands	301	279	92.8%	1.16	1.08
Lanarkshire	667	618	92.6%	1.17	1.08
Renfrewshire and Inverclyde	355	300	84.4%	1.40	1.18
Tayside	324	310	95.8%	1.09	1.04
The Lothians and Scottish Borders	444	430	96.9%	1.06	1.03

## Individual weights

Effective sample size by PFA

Police Division	Sample size	Effective sample size	Effective sample %	Design Effect	Design Factor
Aberdeen City	342	308	90.0%	1.23	1.11
Aberdeenshire and Moray	309	271	87.7%	1.30	1.14
Argyll and West Dunbartonshire	342	299	87.3%	1.31	1.15
Ayrshire	379	379	100.0%	1.00	1.00
Dumfries and Galloway	313	267	85.4%	1.37	1.17
Edinburgh	447	422	94.3%	1.12	1.06
Fife	283	255	90.2%	1.23	1.11
Forth Valley	351	296	84.4%	1.40	1.19
Greater Glasgow	711	649	91.2%	1.20	1.10
Highlands and Islands	301	229	76.1%	1.72	1.31
Lanarkshire	667	610	91.4%	1.20	1.09
Renfrewshire and Inverclyde	355	306	86.3%	1.34	1.16
Tayside	324	269	83.1%	1.45	1.20
The Lothians and Scottish Borders	444	383	86.3%	1.34	1.16

# Mean weights

Police Division		Household		Individual			
Police Division	Minimum	Maximum	Mean	Minimum	Maximum	Mean	
Aberdeen City	0.47	2.69	0.71	0.23	2.97	0.69	
Aberdeenshire and Moray	0.56	5.01	1.12	0.38	4.18	1.16	
Argyll and West Dunbartonshire	0.44	1.38	0.56	0.18	2.02	0.52	
Ayrshire	0.66	4.35	1.02	0.39	3.23	1.00	
Dumfries and Galloway	0.38	1.18	0.50	0.13	1.69	0.49	
Edinburgh	0.64	1.86	1.19	0.47	3.77	1.22	
Fife	0.74	3.99	1.33	0.37	4.63	1.34	
Forth Valley	0.61	4.75	0.87	0.30	6.17	0.89	
Greater Glasgow	0.66	6.47	1.19	0.45	4.74	1.20	
Highlands and Islands	0.40	2.17	1.06	0.28	4.88	1.05	
Lanarkshire	0.53	3.12	1.00	0.35	4.13	1.00	
Renfrewshire and Inverclyde	0.43	2.76	0.78	0.31	3.22	0.74	
Tayside	0.93	3.25	1.33	0.38	6.90	1.32	
The Lothians and Scottish Borders	0.60	2.04	1.10	0.34	4.81	1.12	
Overall	0.38	6.47	1.00	0.13	6.90	1.00	

## **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?
NYRHTHEF	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.

SPSS variable name	Description
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
MOTOVVAND	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.