

An Official Statistics publication for Scotland

PEOPLE, COMMUNITIES AND PLACES

Scottish Surveys Core Questions 2019 Technical Report



Scottish Surveys Core Questions 2019

The Scottish Surveys Core Questions (SSCQ) is an annual Official Statistics publication for Scotland. The SSCQ gathers survey responses from identical <u>indicator questions</u> in the Scottish Crime and Justice Survey, the Scottish Health Survey and the Scottish Household Survey into one output.

The Scottish Surveys Core Questions in 2019 reports on the indicators: self-assessed general health, limiting long-term conditions, smoking, unpaid caring and local government satisfaction.

The pooling of Core Questions results in an annual sample of around 20,000 respondents, providing unprecedented precision of estimates at national level. This sample size enables the detailed and reliable analysis of national indicators by **equalities characteristics** such as ethnic group, religion, country of birth, sexual orientation, age, and gender. Further variables are education level, economic activity, tenure, car access and household type. Multi-level analysis is available on request.

SSCQ also enables a more detailed analysis of **sub-national geographies** than source surveys allow. Annually, SSCQ reports for Local Authorities, Health Boards, and Police Divisions.

Multiyear SSCQ analysis which presents data on Scottish Parliamentary Constituencies, UK Parliamentary Constituencies and Electoral Wards is available at statistics.gov.scot. Further information on the methodology for Mulityear SSCQ is available at Multiyear SSCQ (nrscotland.gov.uk).

1.1 Source Surveys and Core Questions

Results from the three large-scale Scottish Government population surveys are published separately as National Statistics:

- Scottish Crime and Justice Survey (SCJS)
- Scottish Health Survey (SHeS)
- Scottish Household Survey (SHS)

Further information on Population Surveys in Scotland can be found on the <u>SG website</u>.

Since the beginning of 2012 each of the surveys included a set of around 20 core questions that provide information on the composition, characteristics and attitudes of Scottish households and adults across a number of topic areas including equality characteristics, housing, employment and perceptions of health and crime. Responses on these questions from all three surveys have been pooled to provide the Scottish Surveys Core Questions (SSCQ) dataset with a sample size of around 20,000 responses.

Full details of the <u>harmonised questions</u> are available online and questionnaires are provided on the websites of each of the individual surveys.

Due to the different sampling nature of each survey, which is necessary to meet their primary aims, the number of respondents varies between different SSCQ questions. The questions were hence batched into three groups: household questions, individual questions and crime questions, and three different sets of weights calculated to ensure representative results. Sampling, weighting and pooled sample numbers are described separetely for each survey below.

Scottish Crime and Justice Survey (SCJS) technical notes

Sampling, survey response and weighting are described in full in the <u>SCJS technical</u> report. Briefly, the survey consists of a simple random sample, designed to achieve a robust sample at national and subgroup level. The target samples size at national level is 6,000 interviews per year. One random adult per household is interviewed and asked all SSCQ and SCJS questions.

Scottish Health Survey (SHeS) technical notes

Sampling, survey response and weighting are described in full in the SHeS sample is clustered in each calendar year and unclustered over four years. All adults and up to two children in each household are eligible for interview. Only one adult in each household was asked the crime and household questions, to remain in line with the SCJS sampling procedure. The SHeS sample is boosted for some health boards and to capture more households with children.

Scottish Household Survey (SHS) technical notes

Sampling, survey response and weighting are described in full in the <u>SHS technical report</u>. The SHS consists of a simple random sample with a target minimum effective sample size of 250 per local authority. The SSCQ household questions are answered by the highest income householder or their spouse/partner, and one adult is randomly selected to answer the individual and crime questions, in line with the other two surveys.

1.2 Weighting

Datasets from the three source surveys were combined into new SSCQ datasets: SSCQ household variables (20,065 responses), SSCQ individual variables (20,247 responses) and SSCQ crime and local government variables (18,586 responses) see Table 1.

Due to errors in the SCJS questionaire, not all response categories were presented to respondents when asked questions on local government satisfaction. Because of this, a separate weight has been created to remove SCJS responses from 6 of the local government satisfaction questions where "No opinion" constituted a high proportion of responses; Local Schools, Public Transport, Council Museums and Galleries, Council Sports and Leisure Facilities, Council Parks and Greenspace and Council Libraries.

Each variable response category in each of the surveys carries a different design effect. If we were solely seeking the most efficient estimate for each variable separately, then separate scale factors could be derived for each one. However, this would restrict the use of the dataset. Rather, for each constituent survey dataset the design effects were estimated for each category and then the median design effect over all categories was used as the representative design effect of that survey. These design effects were then used along with the sample sizes to calculate the effective sample sizes (neff) and scaling factors for combining the four datasets.

Table 1: Numbers of sample and effective sample pooled from the source surveys

	SCJ	S	SHe	SHeS SHS S		SHS		SSCQ	
	Sample	neff	sample	neff	sample	neff	sample	neff	
Household responses[1]	5,568	4,937	3,920	2,528	10,577	8,883	20,065	16,348	
Individual responses[2]	5,568	4,257	4,903	2,391	9,776	6,815	20,247	13,463	
Crime and Local Government responses [3]	5,568	4,152	3,242	1,475	9,776	6,659	18,586	12,286	
Local Government SHeS and SHS only [4]	0	0	3,242	1,460	9,776	6,628	13,018	8,088	

To combine the data the scale factors were applied to the grossing weights for the individual surveys (described in section 0). The neff of each survey contribution formed the basis for the scaling factors:

survey A weight scaling factor = neff (surveyA) / (sum of three survey neffs).

The weights were then re-scaled to be proportionate to effective sample size contribution of each survey and used as pre-weights. The three pooled SSCQ datasets were then weighted again to be representative of population estimates. See **SSCQ Weighting Bases.**

1.3 Confidence Interval Calculations

All three source surveys are stratified to ensure sufficient sample sizes in smaller local authorities. SHeS is clustered in each annual fieldwork period and, while this effect cancels out over each four-year period, must be accounted for in producing annual results.

Confidence intervals have been calculated using a method to account for stratification and clustering (surveyfreq in SAS). Confidence intervals across all subgroup estimates in SSCQ are provided in the accompanying **supplementary tables**.

Confidence intervals (at a 95% level) are plotted on point estimates for all charts and figures in the tables and reports. If the intervals surrounding two different point estimates do not overlap then there is a significant difference between the two points, but if they do overlap it does not necessarily mean there is no significant difference (see further guidance). In the report text the term "significant" refers to "statistically significant" differences.

A comparison of estimates of key variables across the three constituent surveys and the SSCQ are provided in <u>Annex A</u>.

1.4 Statistical Disclosure Control

All estimates based on one or two respondents and displayed in main and supplementary tables have been denoted with '*' to safeguard the confidentiality of respondents with rare characteristics. Cells with true zero counts are denoted with '.' or 0 throughout, unless denoted '*' as part of disclosure control.

Further cells with zero or low respondent numbers in the same row and column as the low responses have also been suppressed with '*' to ensure confidentiality.

1.5 Presentation of Data on Gender

In some surveys forming part of the SSCQ, respondents were asked a non-binary question on gender, with the option to report "Male", "Female" or "In Another Way". The handling of this within SSCQ is explained below.

The calibration of weights in SSCQ is to the national statistics of NRS Population Estimates for 2019. These estimates are presented split by Male and Female and do not dissagregate or present estimates for "In Another Way". Therefore during the weighting process, adults who reported "In Another Way" were randomly assigned to Male or Female to allow for the calibration to take place and for their data to contribute to the population totals.

When reporting estimates, all three categories for gender have been reported. Due to the small number of people reporting this "In Another Way", estimates for this group have been redacted for disclosure control reasons as well as due to the lack of statistical robustness of estimates based on small group sample sizes. In order to preserve disclosure of individuals reporting "In Another Way", estimates presented for "Male" and "Female" have been rounded to a lower level of accuracy in order to prevent disclosure from calculations based on "Male" and "Female" and the comparison to combined estimates.

1.6 Presentation of Data on Religion

Table 2: Grouping of religion in the SSCQ 2019

Base Collection Categories	Sample	SSCQ Groups	Sample
None	10,240	None	10,240
Church of Scotland	5,130	Church of Scotland	5,130
Roman Catholic	2,630	Roman Catholic	2,630
Other Christian	1,610	Other Christian	1,610
Muslim	230	Muslim	230
Buddhist	50	Other	340
Sikh	10		
Jewish	20		
Hindu	90		
Pagan	40		
Another religion	130		

1.7 Presentation of Data on Ethnic Group

Table 3: Grouping of ethnic group in the SSCQ 2019

Base Collection Categories	Sample	SSCQ Groups	Sample
A - WHITE - White Scottish	15,730	White: Scottish	15,730
A - WHITE - Other British	2,640	White: Other British	2,640
A - WHITE – Polish	310	White: Polish	310
A - WHITE – Irish	170	White: Other	830
A - WHITE - Gypsy/Traveller	10		
A - WHITE - Any other white ethnic group	650		
C - ASIAN, ASIAN SCOTTISH OR ASIAN BRITISH - Pakistani, Pakistani Scottish or Pakistani British	120	Asian	420
C - ASIAN, ASIAN SCOTTISH OR ASIAN BRITISH - Indian, Indian Scottish or Indian British	120		
C - ASIAN, ASIAN SCOTTISH OR ASIAN BRITISH - Bangladeshi, Bangladeshi Scottish or Bangladeshi British	20		
C - ASIAN, ASIAN SCOTTISH OR ASIAN BRITISH - Chinese, Chinese Scottish or Chinese British	90		
C - ASIAN, ASIAN SCOTTISH OR ASIAN BRITISH - Other Asian, "Asian" Scottish or "Asian" British	80	•	
B - MIXED OR MULTIPLE ETHNIC GROUP - Any mixed or multiple ethnic groups	50	All other ethnic groups	280
D - AFRICAN - African, African Scottish or African British	100	•	
D - AFRICAN - Other African background	30	•	
E - CARIBBEAN OR BLACK - Caribbean, Caribbean Scottish or Caribbean British	10		
E - CARIBBEAN OR BLACK - Black, Black Scottish or Black British	10	•	
E - CARIBBEAN OR BLACK - Other Caribbean or Black background	<10		
F - OTHER ETHNIC GROUP - Arab, Arab Scottish or Arab British	30		
F - OTHER ETHNIC GROUP – Other	60		

Annex A. Comparison of the pooled surveys

In this section, estimates from the pooled SSCQ and its constituent surveys SCJS, SHeS and SHS are displayed and assessed to determine agreement.

Estimates in these tables may not be identical to figures published by the individual surveys. This is due to differences in the valid sample size and weights being applied before pooling (see section 1.2).

Table A.1: Self-assessed general health by source survey (row % and margin of error)

	Good/very good	Very good	Good	Fair	Bad	Very Bad
SSCQ	72.0 ± 0.7	34.4 ± 0.9	37.6 ± 0.8	19.8 ± 0.7	6.3 ± 0.4	1.8 ± 0.2
SCJS	73.0 ± 1.5	36.0 ± 1.5	37.0 ± 1.5	19.5 ± 1.2	5.7 ± 0.6	1.5 ± 0.3
SHeS	71.6 ± 2.1	33.0 ± 2.1	38.6 ± 1.9	19.5 ± 1.4	6.8 ± 0.9	2.1 ± 0.5
SHS	71.5 ± 1.2	33.9 ± 1.2	37.6 ± 1.2	20.0 ± 0.9	6.4 ± 0.5	1.9 ± 0.3

All three survey estimates of self-assessed general health overlap.

Table A.2: Current smoker by source survey (row % and margin of error)

	Y	'es
SSCQ	17.5	± 0.7
SCJS	18.1	± 1.2
SHeS	17.2	± 1.6
SHS	17.2	± 0.9

All three survey estimates of current smoking prevalence in the adult population overlap.

Table A.3: Long-term limiting health condition by source survey (row % and margin of error)

	Limiting condition					
SSCQ	25.9	± 0.7				
SCJS	23.4	± 1.2				
SHeS	34.7	± 1.9				
SHS	24.5	± 1.0				

SHeS reports a somewhat higher percentage of adults living with long-term limiting health conditions, while SHS and SCJS estimates overlap. It is thought that respondents are more likely to identify long-term conditions when asked about them in the context of a specific interview about numerous aspects of their health and wellbeing.

Table A.5: Provides unpaid care by source survey (row % and margin of error)

	Provides Care					
SSCQ	16.1	± 0.6				
SCJS	14.0	± 1.1				
SHeS	13.7	± 1.4				
SHS	18.3	± 0.9				

SHS reports a higher level of unpaid care than SCJS and SHeS. The confidence intervals on estimates from SCJS and SHeS overlap and do not represent a significant difference. It is thought that the SHS estimate is higher due to this being asked in the context of other questions around volunteering and time spent providing care.

Table A.6: Local service satisfaction by source survey (row % and margin of error)

					•		•	
		/fairly	Neither sa		Very/fairly		No opinion/	
		sfied	nor dissatisfied		dissatisfied		DK/R	efused
Local He	ealth Se	ervices						
SSCQ	78.2	± 0.8	5.8	± 0.4	13.5	± 0.6	2.4	± 0.3
SCJS	79.9	± 1.2	5.7	± 0.8	13.4	± 1.0	0.9	± 0.3
SHeS	77.8	± 2.3	6.2	± 1.2	12.6	± 1.9	3.4	± 1.1
SHS	77.3	± 1.0	5.8	± 0.6	13.8	± 0.8	3.1	± 0.5
Local Re	efuse C	ollectio	n					
SSCQ	74.3	± 0.8	7.0	± 0.5	17.1	± 0.7	1.6	± 0.2
SCJS	77.8	± 1.3	6.6	± 0.9	14.9	± 1.1	0.8	± 0.3
SHeS	77.0	± 2.2	6.8	± 1.2	15.4	± 2.0	8.0	± 0.4
SHS	71.6	± 1.1	7.3	± 0.7	18.8	± 1.0	2.2	± 0.4
Local Sc	hools							
SSCQ	43.3	± 1.1	10.8	± 0.7	4.1	± 0.5	41.9	± 1.1
SHeS	44.4	± 2.7	6.6	± 1.3	3.4	± 0.9	45.6	± 2.8
SHS	43.1	± 1.2	11.7	± 0.8	4.2	± 0.5	41.0	± 1.2
Public T	ranspo	rt						
SSCQ	58.5	± 1.1	12.9	± 0.7	14.0	± 0.8	14.6	± 0.8
SHeS	62.0	± 2.6	8.8	± 1.3	16.5	± 2.1	12.7	± 1.6
SHS	57.8	± 1.2	13.7	± 0.8	13.5	± 0.8	14.9	± 0.8
Street C	leaning	l						
SSCQ	57.7	± 0.9	14.2	± 0.6	22.1	± 0.7	5.9	± 0.4
SCJS	62.0	± 1.5	13.2	± 1.1	21.4	± 1.2	3.5	± 0.5
SHeS	60.4	± 2.4	12.8	± 1.5	20.8	± 2.2	6.0	± 1.2
SHS	54.5	± 1.2	15.1	± 0.9	22.9	± 1.0	7.4	± 0.7
Council	Sports	and Lei	sure Facili	ties				
SSCQ	45.3	± 1.1	12.3	± 0.7	7.6	± 0.6	34.9	± 1.0
SHeS	52.6	± 2.7	12.1	± 1.6	11.2	± 1.7	24.1	± 2.3
SHS	43.7	± 1.2	12.3	± 0.8	6.8	± 0.6	37.1	± 1.1
· ·								

	•	/fairly sfied	Neither satisfied nor dissatisfied		Very/fairly dissatisfied		No opinion/ DK/Refused	
Council	Librari	es						
SSCQ	44.5	± 1.1	12.6	± 0.7	3.3	± 0.4	39.7	± 1.1
SHeS	54.7	± 2.5	11.3	± 1.6	5.0	± 1.2	29.0	± 2.4
SHS	42.3	± 1.2	12.9	± 0.8	2.9	± 0.4	42.0	± 1.2
Council	Museu	ms and	Galleries					
SSCQ	40.4	± 1.1	14.5	± 0.8	3.3	± 0.4	41.8	± 1.1
SHeS	40.9	± 3.1	16.1	± 2.0	5.7	± 1.2	37.4	± 2.7
SHS	40.3	± 1.1	14.2	± 0.8	2.7	± 0.4	42.7	± 1.2
Council	Parks a	and Ope	en Spaces					
SSCQ	72.2	± 1.0	8.5	± 0.6	6.3	± 0.6	13.0	± 0.7
SHeS	76.5	± 2.3	8.1	± 1.4	8.7	± 1.4	6.8	± 1.2
SHS	71.3	± 1.1	8.6	± 0.7	5.8	± 0.6	14.3	± 0.8

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