

NatCen

Social Research that works for society



British Social Attitudes 2018 User guide

At NatCen Social Research we believe that social research has the power to make life better. By really understanding the complexity of people's lives and what they think about the issues that affect them, we give the public a powerful and influential role in shaping decisions and services that can make a difference to everyone. And as an independent, not for profit organisation we're able to put all our time and energy into delivering social research that works for society.



NatCen Social Research
35 Northampton Square
London EC1V 0AX
T 020 7250 1866
www.natcen.ac.uk

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1 British Social Attitudes

The British Social Attitudes survey has been running since 1983. During that time we have surveyed over 110,000 members of the public, each year asking up to 4,000 people up to 300 questions about their attitudes on a variety of topics ranging from welfare to genomic science. (The survey was not run in 1988 and 1992 when we ran the British Election Study series, which included relevant attitudinal questions.)

The British Social Attitudes surveys inform the development of public policy and are an important barometer of public attitudes used by opinion leaders and social commentators. The topics we cover in each survey are determined by the interests of our funders, some questions have been asked every year, others every couple of years, and others less frequently. Repeating some questions over time means that we are able to provide a unique insight into how social attitudes have changed during the last three decades.

Each year we publish a report, freely available online, using the data we have collected to present a compelling picture of Britain's social, moral and political attitudes. Our latest report based on data collected in 2018 is our 36th Report: www.bsa.natcen.ac.uk.

2 Accessing the data

Users from non-commercial organisations can download the data directly from the UK Data Service. Access to the data requires Athens registration. You can download the data as SPSS or STATA files, or as a TAB file. Data is archived around a year after the completion of fieldwork (giving time for analysis and reporting).

Commercial organisations must notify the National Centre for Social Research by email (BSA@natcen.ac.uk) stating their intended use and seeking permission for download. Permission to download may incur a charge. UKDS will be monitoring usage and providing NatGen with usage reports.

3 What topics do the datasets cover?

The questionnaire normally has two parts – the face-to-face interview and the self-completion. The self-completion follows on from some of the topics touched on in the interview and contains questions which may be particularly sensitive, are a battery of questions which are easy to answer in this format, or have historically always been asked via this mode. Self-completion variables appear towards the end of the dataset.

In 2018 the survey covered the following:

Topic	Funder
Political party identification	NatCen Social Research
Newspaper readership	NatCen Social Research
Welfare	Department for Work and Pensions (DWP)
Health	The King's Fund and Nuffield Trust
Housing	Ministry of Housing, Communities and Local Government (MHCLG)
Affordable housing	National Housing Federation (NHF)
Education	Department for Education (DfE)
Transport	Department for Transport (DfT)
Statistics	UK Statistics Authority (UKSA)
Concerns	Joseph Rowntree Foundation (JRF)
Brexit	Economic and Social Research Council (ESRC)
Equalities	Government Equalities Office (GEO)
Science	Wellcome
Emergency healthcare ¹	National Institute for Health Research
Employment	NatCen Social Research
Flexible work and gender	Department for Business, Energy and Industrial Strategy
Income	Joseph Rowntree Foundation (JRF)
Retirement and pensions	Department for Work and Pensions (DWP)
Religion (as part of the International Social Survey Programme)	Economic and Social Research Council (ESRC)

A wide range of background and classificatory questions are also always included.

A number of the same questions are asked most years, enabling us to track change over time.

To see which questions have been asked in which years, check BritSocAt (www.britsocat.com) where you will find a searchable database of questions asked over the survey's history, or contact a member of the British Social Attitudes team at BSA@natcen.ac.uk.

¹ The Emergency Care module has been archived as a separate dataset with the UK Data Service.

4 The sample

In 2018 the sample for the British Social Attitudes survey was split into **four equally-sized parts** (each part still being nationally representative in its own right). Each part was asked a different version of the questionnaire (version A, B, C, D). Depending on the number of versions in which it was included, each 'module' of questions was thus asked either of the full sample (3,879 respondents) or of a random quarter, half or three quarters of the sample.

The British Social Attitudes survey is designed to yield a representative sample of adults aged 18 or over. Since 1993, the sampling frame for the survey has been the **Postcode Address File** (PAF), a list of addresses (or postal delivery points) compiled by the Post Office. For practical reasons, the sample is confined to those living in private households. People living in institutions (though not in private households at such institutions) are excluded, as are households whose addresses were not on the PAF.

The sampling method involved a **multi-stage design**, with three separate stages of selection.

Selection of postcode sectors

At the first stage, postcode sectors were selected systematically from a list of all postal sectors in Great Britain. Before selection, any sectors with fewer than 500 addresses were identified and grouped together with an adjacent sector; in Scotland all sectors north of the Caledonian Canal were excluded (because of the prohibitive costs of interviewing there). Sectors were then stratified on the basis of:

- 36 sub-regions;
- population density, (population in private households/area of the postal sector in hectares), with variable banding used in order to create three equal-sized strata per sub-region; and
- ranking by percentage of homes that were owner-occupied.

A total of 395 postcode sectors were then selected, with probability proportional to the number of addresses in each sector.

Selection of addresses

Twenty-six addresses were selected in each of the 395 grouped sectors, producing a total issued sample of 10,270 addresses². In each sector, addresses were selected systematically using a random start and fixed interval. (The interval was calculated for each sector in order to generate the correct number of addresses.)

The Multiple-Occupancy Indicator (MOI) available through PAF was used when selecting addresses in Scotland. The MOI indicates the number of dwelling units at an individual address. If the MOI indicated more than one dwelling unit at a given address, the probability of the address being selected from the list of addresses would increase so that it matched the total number of dwelling units. The MOI is largely irrelevant in England and Wales, as separate dwelling units (DUs) generally appear as

² 390 of these addresses were held in reserve and issued during fieldwork as a tool to help boost the number of achieved interviews.

separate entries on PAF. In Scotland, tenements with many flats tend to appear as one entry on PAF. However, even in Scotland, 99.9% of the MOIs in the sample had a value of one. The remainder had MOIs greater than one. The MOI affects the selection probability of the address, so it was necessary to incorporate an adjustment for this into the weighting procedures (described below).

Selection of individuals

Interviewers called at each address selected from PAF and listed all those eligible for inclusion in the British Social Attitudes sample – that is, all persons currently aged 18 or over and resident at the selected address. The interviewer then selected one respondent using a computer-generated random selection procedure (KISH grid). Where there were two or more DUs at the selected address, interviewers first had to select one DU using the same random procedure. They then followed the same procedure to select a person for interview within the selected DU.

5 Fieldwork

The vast majority of interviewing was carried out between July and October 2018, with a very small number of interviews taking place in November 2018.

Fieldwork was conducted by interviewers drawn from NatCen Social Research's regular panel and conducted using face-to-face computer-assisted interviewing. Interviewers either attended a half-day briefing conference to familiarise them with the selection procedures and questionnaires or carried out a self-briefing at home before starting fieldwork.

The mean interview length was 64 minutes for version A of the questionnaire, 55 minutes for version B, 62 minutes for version C, and 63 minutes for version D.^[4] Interviewers achieved an overall response rate of between 41.9% and 42.4%. Details are shown in Table 1.

Table 1 Response rate¹ on British Social Attitudes, 2018			
	Number	Lower limit of response (%)	Upper limit of response (%)
Addresses issued	10,270		
Out of scope	1,023	%	%
Upper limit of eligible cases	9,247	100	
Uncertain eligibility	99	1.1	
Lower limit of eligible cases	9,148		100
Interview achieved	3,879	41.9	42.4
Interview not achieved	5,269	57	57.6
Refused ²	3,792	41	41.5
Non-contacted ³	892	9.6	9.8
Other non-response	585	6.3	6.4

1 Response is calculated as a range from a lower limit where all unknown eligibility cases (for example, address inaccessible, or unknown whether address is residential) are assumed to be eligible and therefore included in the unproductive outcomes, to an upper limit where all these cases are assumed to be ineligible and therefore excluded from the response calculation

2 'Refused' comprises refusals before selection of an individual at the address, refusals to the office, refusal by the selected person, 'proxy' refusals (on behalf of the selected respondent) and broken appointments after which the selected person could not be recontacted

3 'Non-contacted' comprises households where no one was contacted and those where the selected person could not be contacted

4 'Interview times recorded as less than 20 minutes were excluded, as these timings were likely to be errors.

As in earlier rounds of the series, the respondent was asked to fill in a self-completion questionnaire which, whenever possible, was collected by the interviewer. Otherwise, the respondent was asked to post it to NatCen Social Research.

A total of 814 respondents (21% of those interviewed) did not return their self-completion questionnaire in 2018. The rate of self-completion has trended downwards in recent rounds of the BSA survey and was recorded at 79% in 2018. An additional weight was therefore produced which takes account of the non-response bias which arises from the differences in the profile of those who returned their self-completion questionnaire compared to those who did not. The weighting section of this user guide goes into more detail about how the self-completion weight was produced.

We spoke to 3,355 people in England, 355 people in Scotland and 169 people in Wales.

Advance mailings

Sampled addresses were sent an advance letter informing the residents that an interviewer would be calling at the address. The letter included an incentive (a voucher) and described the purpose of the survey.

6 Weighting the data

All datasets for surveys based on samples from the Postcode Address File should be weighted to take account of differing selection probabilities and non-response. Addresses are selected with equal probability, but only one person in one household at each address is interviewed for British Social Attitudes. People in small households therefore have a higher probability of selection than people in large households and the weighting corrects for this. In addition, where information is available about both responding and non-responding addresses, this can be used in the weighting to reduce non-response bias. Information about non-responding addresses is available from two sources: census information about the postcode sector of the address and interviewer observations. Calibration weighting was then used to adjust the sample to match the age, sex and region profile of the population.

Please note that the data must be weighted in all analysis. The file is not pre-weighted. Before running any analysis, please weight the data using the NatCen computed weight:

- For CAPI variables this is named **WtFactor**.
- For self-completion questionnaire variables this is called **WtFactorSC**.

Selection weights

Selection weights were required because the probability of selection differed by respondent. The weighting reflects the relative selection probabilities of each individual at the three main stages of selection: address, dwelling unit (DU) and person.

Firstly, addresses in Scotland were selected using the multiple-occupancy indicator (MOI), whereas this stage was omitted for the English and Welsh selection. Addresses with an MOI of greater than one had a higher probability of selection than those with an MOI of one, therefore the weights were required to take account of this. The second step is based on similar principles. This is because a single DU, in an address containing many DUs, would be less likely to be selected compared to if it were in an address which contained fewer DUs. The weight therefore needs to compensate for this. Lower variability (of the weight) was achieved by using this procedure, given that in cases where the MOI is greater than one, this and the preceding stage effectively cancel each other out. Finally, the weights took account of the lower selection probabilities for adults living in large households, compared with those living in small households.

At each stage the selection weights were trimmed to avoid a small number of very high or very low weights; such weights would inflate standard errors, reducing the precision of the survey estimates. A small proportion (typically less than 1%) of the selection weights were trimmed at each stage.

Non-response model

It is known that certain subgroups in the population are more likely to respond to surveys than others. These groups can end up over-represented in the sample, which can lead to bias in the survey estimates. Where information is available about non-responding addresses, the response behaviour of the sample members can be modelled and the results used to generate a non-response weight. This non-response

weight is intended to reduce bias in the sample resulting from differential response to the survey.

Response to the survey was modelled using logistic regression, with the dependent variable indicating whether or not someone at each selected address responded to the survey. Ineligible addresses³ were not included in the non-response modelling. A number of area-level and interviewer observation variables were used to model response. Not all the variables examined were retained for the final model: variables not strongly related to a household's propensity to respond were dropped from the model.

The variables found to be related to response, once the other predictors included in the model had been controlled for, were: region, type of dwelling, whether there were entry barriers to the selected address, the relative condition of the immediate local area and the relative condition of the address. The model shows that the likelihood of response increases if there are no barriers to entry (for instance, if there are no locked gates around the address and no entry phone) and if the general condition of the address is better than other addresses in the area, rather than being about the same or worse. Response is also higher for flats than detached houses, and increases if the relative condition of the immediate surrounding area is mainly good. The full model is given in Table 2.

Table 2. The final non-response model						
Variable	B	S.E.	Wald	Df	Sig.	Odds
Region			73.999	11	0.000	
Inner London	(baseline)					
North East	0.446	0.158	8.002	1	0.005	1.562
North West	0.248	0.134	3.455	1	0.063	1.282
Yorkshire and The Humber	0.531	0.140	14.495	1	0.000	1.701
East Midlands	0.498	0.142	12.283	1	0.000	1.645
West Midlands	-0.021	0.141	0.022	1	0.881	0.979
East of England	0.222	0.138	2.597	1	0.107	1.249
Outer London	0.025	0.138	0.032	1	0.857	1.025
South East	0.080	0.133	0.365	1	0.546	1.083
South West	0.206	0.142	2.122	1	0.145	1.229
Wales	-0.113	0.158	0.516	1	0.473	0.893
Scotland	0.196	0.138	2.011	1	0.156	1.217
Type of dwelling			19.458	3	0.000	
Detached House	(baseline)					
Semi-detached house	-0.221	0.064	11.886	1	0.001	0.802
Terraced house (including end of terrace)	-0.106	0.068	2.418	1	0.120	0.899

³ This includes households not containing any adults aged 18 or over, vacant dwelling units, derelict dwelling units, non-resident addresses and other deadwood.

Flat or maisonette and other	0.077	0.090	0.722	1	0.396	1.080
Barriers to address						
No barriers	(baseline)					
One or more	-0.448	0.085	28.050	1	0.000	0.639
Relative condition of the local area			46.123	2	0.000	
Mainly good	(baseline)					
Mainly fair	-0.311	0.048	41.749	1	0.000	0.733
Mainly bad or very bad	-0.442	0.111	15.849	1	0.000	0.642
Relative condition of the address			38.636	2	0.000	
Better	(baseline)					
About the same	-0.406	0.081	24.929	1	0.000	0.666
Worse	-0.693	0.114	36.753	1	0.000	0.500
Percentage owner-occupied in quintiles			5.894	4	0.207	
1 lowest	(constant)					
2	-0.046	0.074	0.387	1	0.534	0.955
3	-0.113	0.078	2.104	1	0.147	0.893
4	0.010	0.082	0.015	1	0.901	1.010
5 highest	-0.119	0.083	2.023	1	0.155	0.888
Population density⁴	-0.034	0.021	2.520	1	0.112	0.967
Constant	0.342	0.168	4.137	1	0.042	1.407

The response is 1 = individual responding to the survey, 0 = non-response

Variables that are significant at the 0.05 level are included in the model. Percentage owner-occupied (in quintiles) and population density were not significant in 2018 but were kept in the model for consistency.

The model R^2 is 0.036 (Cox and Snell).

B is the estimate coefficient with standard error **S.E.**

The **Wald**-test measures the impact of the categorical variable on the model with the appropriate number of degrees of freedom (**df**). If the test is significant (**sig.** < 0.05), then the categorical variable is considered to be 'significantly associated' with the response variable and therefore included in the model

The non-response weight was calculated as the inverse of the predicted response probabilities saved from the logistic regression model. The non-response weight was then combined with the selection weights to create the final non-response weight. The top 0.5% of the weight were trimmed before the weight was scaled to the achieved sample size (resulting in the weight being standardised around an average of one).

Responses 'Don't know' / 'Refused' / 'Not answered' are included in the base size.

⁴ Population density refers to the number of people per unit of area. This was achieved by calculating the ratio between the number of people in private households in each PSU divided by the area of each PSU in hectares.

Calibration weighting

The final stage of weighting was to adjust the final non-response weight so that the weighted sample matched the population profile in terms of age, sex and region.

Only adults aged 18 or over are eligible to take part in the survey, therefore the data have been weighted to the British population aged 18+ based on 2017 Mid-Year Estimates data from the Office for National Statistics/General Register Office for Scotland.

The survey data were weighted to the marginal age/sex and region distributions using calibration weighting. As a result, the weighted data should exactly match the population across these three dimensions. This is shown in Table 3.

Table 3 Weighted and unweighted sample distribution, by GOR, age and sex					
	Population	Unweighted respondents	Respondent weighted by selection weight only	Respondent weighted by un-calibrated non-response weight	Respondent weighted by final weight
Region	%	%	%	%	%
North East	4.2	4.6	4.7	4.2	4.2
North West	11.3	11.4	11.0	10.8	11.3
Yorkshire and Humber	8.5	10.5	10.2	8.7	8.5
East Midlands	7.5	9.3	9.2	7.7	7.5
West Midlands	9.0	7.6	7.5	8.6	9.0
East of England	9.6	10.2	10.3	9.9	9.6
London	13.5	10.0	10.9	13.3	13.5
South East	14.1	13.4	13.7	14.3	14.1
South West	8.8	9.5	9.5	9.1	8.8
Wales	4.9	4.4	4.5	5.0	4.9
Scotland	8.7	9.1	8.5	8.6	8.7
Age & sex	%	%	%	%	%
M 18–24	5.5	2.6	3.8	4.0	5.5
M 25–34	8.6	5.5	6.2	6.6	8.6
M 35–44	7.9	6.2	6.4	6.5	7.9
M 45–54	8.7	7.5	7.6	7.8	8.7
M 55–59	4.1	4.2	4.4	4.5	4.1
M 60–64	3.5	4.1	4.2	4.0	3.5
M 65+	10.8	13.5	12.8	12.2	10.8
F 18–24	5.2	3.0	4.0	4.1	5.2
F 25–34	8.5	7.7	7.6	8.1	8.5
F 35–44	8.0	10.0	10.0	10.1	8.0
F 45–54	8.9	8.8	9.8	9.6	8.9
F 55–59	4.2	4.4	4.7	4.7	4.2
F 60–64	3.6	4.4	4.1	4.0	3.6
F 65+	12.4	18.0	14.3	13.9	12.5

Base	50,792,629				
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The calibration weight (WtFactor) is the final non-response weight to be used in the analysis of CAPI variables on the 2018 survey; this weight has been scaled to the responding sample size. The range of the weights is given in Table 5.

Self-completion weighting

The BSA survey requires respondents to answer a self-completion questionnaire in addition to the face-to-face interview. The rate of self-completion response differs from survey to survey but has trended downwards in recent years. In 2018, 79% of respondents returned a valid self-completion questionnaire, compared with 82% in both 2016 and 2017.

As in previous years, we investigated differences between the profile of respondents who returned the self-completion questionnaire and those who did not. In 2018, unlike recent years, this analysis showed that there were statistically significant differences in the profile of those who returned a valid self-completion survey and those who did not. As a result, it was deemed appropriate to generate a self-completion non-response weight which takes account of some of the systemic underlying factors which may be leading to these differences. In addition to the census data and interviewer observations that were used to compute the non-response component of the main weight, other respondent characteristics were also considered for the self-completion weight. More is known about individuals who did not return a self-completion survey compared to those who did not participate in BSA at all. Hence, this can be leveraged in modeling the characteristics of those who filled in the self-completion survey, compared to those who did not.

As when modelling non-response for the main survey weight, logistic regression was used (with the dependent variable indicating whether the respondent submitted their self-completion questionnaire). A number of demographic characteristics, responses to politics-related questions (asked in the main survey), as well as area-level and interviewer observation variables, were used to model response. Again, not all the variables examined were retained for the final model; variables which were found to not be significantly associated with an individual's propensity to return the self-completion supplement were excluded.

Among the key findings were that respondents from a BAME background were significantly less likely to return the self-completion supplement. Those without any educational qualifications were also significantly less likely to make a valid return compared to those with a degree. So too, those with 'little' or 'no' interest in politics were less likely to fill in the self-completion questionnaire. The full results from the model are presented in Table 4.

Table 4. The final self-completion non-response model						
Variable	B	S.E.	Wald	Df	Sig.	Odds
Respondent sex/age			58.337	13	0.000	
Male 18-24	(baseline)					
Male 25-34	-0.005	0.204	0.001	1	0.982	0.995
Male 35-44	-0.235	0.204	1.322	1	0.250	0.791
Male 45-54	0.399	0.210	3.619	1	0.057	1.490
Male 55-59	0.366	0.255	2.060	1	0.151	1.442
Male 60-64	0.275	0.272	1.016	1	0.314	1.316
Male 65+	0.645	0.216	8.945	1	0.003	1.905
Female 18-24	0.816	0.252	10.499	1	0.001	2.261
Female 25-34	0.020	0.204	0.010	1	0.921	1.020
Female 35-44	0.259	0.211	1.510	1	0.219	1.296
Female 45-54	0.619	0.216	8.198	1	0.004	1.857
Female 55-59	0.384	0.256	2.252	1	0.133	1.468
Female 60-64	0.801	0.295	7.379	1	0.007	2.227
Female 65+	0.760	0.212	12.890	1	0.000	2.137
Region			54.292	10	0.000	
North East	(baseline)					
North West	-0.187	0.242	0.592	1	0.441	0.830
Yorkshire and The Humber	-0.191	0.251	0.574	1	0.449	0.827
East Midlands	0.404	0.278	2.111	1	0.146	1.497
West Midlands	-0.836	0.242	11.966	1	0.001	0.433
East of England	0.027	0.254	0.011	1	0.916	1.027
London	0.113	0.248	0.206	1	0.650	1.119
South East	-0.076	0.241	0.098	1	0.754	0.927
South West	-0.360	0.253	2.030	1	0.154	0.698
Wales	-0.359	0.276	1.685	1	0.194	0.699
Scotland	-0.283	0.251	1.277	1	0.258	0.753
Ethnicity						
White	(baseline)					
BAME	-0.770	0.114	45.452	1	0.000	0.463
Highest qualification			30.452	3	0.000	
Degree	(baseline)					
A-level/higher (below degree)	-0.156	0.122	1.643	1	0.200	0.856

O-level/GCSE	-0.518	0.122	17.916	1	0.000	0.596
No qualifications/other	-0.645	0.138	21.883	1	0.000	0.524
Interest in politics			15.324	4	0.004	
A great deal	(baseline)					
Quite a lot	0.063	0.149	0.178	1	0.673	1.065
Some	-0.098	0.143	0.469	1	0.494	0.907
Not very much	-0.331	0.153	4.692	1	0.030	0.718
None at all	-0.422	0.175	5.840	1	0.016	0.656
Internet access						
Yes	(baseline)					
No	-0.474	0.150	9.996	1	0.002	0.623
Type of dwelling			13.644	3	0.003	
Detached House	(baseline)					
Semi-detached house	-0.049	0.123	0.155	1	0.694	0.953
Terraced house (including end of terrace)	0.001	0.126	0.000	1	0.991	1.001
Flat or maisonette and other	-0.410	0.142	8.350	1	0.004	0.664
Relative condition of the address			6.186	2	0.045	
Better	(baseline)					
About the same	0.331	0.148	5.000	1	0.025	1.393
Worse	0.479	0.210	5.190	1	0.023	1.615
Constant	2.743	0.371	54.725	1	0.000	15.540

The response is 1 = self-completion supplement returned (response), 0 = self-completion supplement not returned (non-response)

Variables that were significant at the 0.05 level were included in the model.

The model R^2 is 0.106 (Cox and Snell)

B is the estimate coefficient with standard error **S.E.**

The **Wald**-test measures the impact of the categorical variable on the model with the appropriate number of degrees of freedom (**df**). If the test is significant (**sig.** < 0.05), then the categorical variable is considered to be 'significantly associated' with the response variable and therefore included in the model

The self-completion weight was calculated as the inverse of the predicted response probabilities saved from the logistic regression model. These were then combined with the main BSA weight to create the final self-completion weight. The top 0.5% of the weight were trimmed before the weight was scaled to the achieved sample size (resulting in the weight being standardised around an average of one).

WtFactorSC is the weight to be used in the analysis of self-completion variables on the 2018 survey; this weight has been scaled to the responding self-completion sample size. The range of the weights is given in Table 5.

Table 5 Range of weights				
	N	Minimum	Mean	Maximum
DU and person selection weight	3879	.55	1.00	2.20
Un-calibrated non-response weight	3879	.33	1.00	3.61
Final calibrated non-response weight	3879	.28	1.00	4.39
Self-completion non-response weight	3065	.28	1.00	3.97

Identifying self-completion variables

The dataset is structured with CAPI questions first, followed by self-completion questions towards the end of the file. All self-completion variable labels include “SC” followed by the questionnaire versions on which they appear, e.g. “SC: A, B, C, D”. You can also refer to the questionnaire documentation to identify whether a variable is self-completion or CAPI.

Analysis using the self-completion weight

Users should be aware that applying the self-completion weight does cause an error message to appear in SPSS, warning that for at least one case the value of the weight variable was zero, negative, or missing. This is because any cases that did not return a self-completion are necessarily system missing in the self-completion weight variable.

Time series analysis of self-completion variables

Analysts conducting time series analysis of self-completion variables should apply the self-completion weight – **WtFactorSC** – for the 2018 self-completion variables, and the standard main weight – **WtFactor** – for these self-completion variables in earlier years.

The introduction of a self-completion weight represents a necessary adaptation of the methodology to take account of differences in the profiles of those who completed a self-completion questionnaire and those who did not. Analysis of these groups in the 2018 survey indicates the emergence of statistically significant differences for the first time in the recent history of BSA and therefore a specific self-completion weight was required to assure the continuity of the time series.

Applying the self-completion weight (rather than the standard main weight) has a marginal effect of, typically, less than one percentage point on the estimates.

Effective sample size

The effect of the sample design on the precision of survey estimates is indicated by the effective sample size (neff). An effective sample size measures the size of an (unweighted) simple random sample that would result in the same level of precision (or the same standard error) as the sample in question after the effect of the sample design has been accounted for. If the effective sample size is close to the actual sample size, then the design is said to be “efficient”. The efficiency of a sample is given by the ratio of the effective sample size to the actual sample size. Samples that select one person per household (such as BSA) tend to have lower efficiency than samples that select all household members (due to the effect of selection weighting).

The BSA sample design involves stratification, clustering and weighting. The effective sample size will vary from one survey estimate to another, depending on the effect of clustering and stratification. However, it can be useful to calculate the effect of the

survey weights on efficiency as this will be the same for all survey estimates. Application of the final calibrated non-response weights for BSA 2018 results in an effective sample size (NEFF) of 2,936 (an efficiency of 76%). Please note, however, that this effective sample size only takes into account the effect of the weights i.e. it does not account for the effect of stratification and clustering. The following section discusses how to take account of the full sample design when analysing BSA data.

7 Analysing the data

British Social Attitudes provides a compelling account of the public's economic, political, moral and social attitudes over a 36 year period. It can be used to provide an annual snapshot of the public's attitudes through an analysis of a single dataset or to create a narrative of the public's attitudes over a period of time by analysing several datasets.

A number of questions have been repeated over the years. Unless the question wording has been changed, the original variable name is retained.

Please note that the data must be weighted in all analysis. The file is not pre-weighted. Before running any analysis, please make sure the data is weighted using the NatCen computed weight

- For CAPI variables this is named **WtFactor**.
- For self-completion questionnaire variables this is called **WtFactorSC**.

(As long as the weight is included when specifying the sample design, the complex sample procedures will ensure that the data is weighted; other procedures may not weight the data automatically, however.)

Please also note that this survey used a complex sample design. Analysis carried out using BSA data should take this into account using appropriate complex sample commands/procedures in the software used for analysis. Before using the complex samples analysis procedures, SPSS users will need to specify the sample design using the 'csplan' command or the Analysis Preparation Wizard, while Stata users will need to use the 'svyset' command. The variables to include in csplan/svyset are '*spoint*' for PSU, '*stratid*' for strata and '*wtfactor*' for weighting CAPI variables or '*WtFactorSC*' for self-completion variables.

Unlike some other surveys, on British Social Attitudes, responses of 'Don't know' / 'Refused' or 'Not answered' are considered to be valid responses, and should be included in the base for analysis.

There are a number of identification variables that users may find useful in analyses. These are listed below. In addition, there are a number of potentially useful derived variables that are outlined in the following section.

Table 6 Demographic variables	
RSex	Respondent's sex
RAgeCat	Respondent's age group
RaceOri3	Respondent's ethnicity
ReligSum	Respondent's religion
RClassGp	Respondent's occupational class
HEdQual	Respondent's highest educational qualification
HHType	Household type
MarStat	Respondent's marital status

Derived variables

The following derived variables are included in the datasets as standard.

Age

The dataset contains 5 variables that split respondents into different age categories: [RAgeCat], [RAgeCat2], [RAgeCat3], [RAgeCat4] and [RAgeCat5].

Newspaper readership

Respondents are asked whether they read a daily morning newspaper at least 3 times per week. If they do so, respondents are asked which newspaper they read. A derived variable groups newspapers into 'popular' or 'quality' newspapers [Papttype]. Regional newspapers are excluded from this classification.

Region

The dataset includes a region variable ([GOR_ID]), which categorises cases into 11 regions, formerly the Government Office Regions. [GOR_ID] combines Inner London and Outer London into one region. Earlier datasets between 2003–2016 use GOR2 (although GOR_ID is also available); from 2000–2002 the equivalent variable was [GOR]. Before 2000, (1983–1999) [StRegion] was the variable denoting region. It should be noted that the coding of these variables are not the same, and that [GOR2] splits London into 'outer' and 'inner'. Users should be aware of potentially small sample sizes for regional subgroups, and the implications that has for analysis.

Table 7 Coding of region				
Code	StRegion (1983–1999)	GOR (2000–2002)	GOR2 (2003–2016)	GOR_ID (2017–present)
1	Scotland	North East	North East	North East
2	North of England	North West	North West	North West
3	North West	Merseyside	Yorkshire and the Humber	Yorkshire and the Humber
4	Yorks and Humberside	Yorkshire & Humber	East Midlands	East Midlands
5	West Midlands	East Midlands	West Midlands	West Midlands
6	East Midlands	West Midlands	South West	South West
7	East Anglia	South West	East of England	East of England
8	South West	East of England	Inner London	London
9	South East (excl. Greater London)	South East	Outer London	South East
10	Greater London	London	South East	Wales
11	Wales	Wales	Wales	Scotland
12		Scotland	Scotland	

Standard Occupational Classification

Respondents are classified according to their own occupation, not that of the 'head of household'. Each respondent was asked about their current or last job, so that all respondents except those who had never worked were coded. Additionally, all job details were collected for all spouses and partners in work.

Since the 2011 survey we have coded occupation to the new Standard Occupational Classification 2010 (SOC 2010). The main socio-economic grouping based on SOC 2010 is the National Statistics Socio-Economic Classification (NS-SEC). However, to maintain time series, some analysis has continued to use the older schemes based on SOC 90 – Registrar General's Social Class and Socio-Economic Group – though these are now derived from SOC 2000 (which is derived from SOC 2010).

National Statistics Socio-Economic Classification

The combination of SOC 2010 and employment status for current or last job generates the following NS-SEC analytic classes. The name of this variable is [RClass]:

RClass is correct as per the seven categories below.

- Employers in large organisations, higher managerial and professional
- Lower professional and managerial; higher technical and supervisory
- Intermediate occupations
- Small employers and own account workers
- Lower supervisory and technical occupations
- Semi-routine occupations
- Routine occupations

For some analyses, it may be more appropriate to classify respondents according to their current socio-economic status, which takes into account only their present economic position. Respondents not currently in paid work can be allocated to one of the following categories: "not classifiable", "retired", "looking after the home", "unemployed" or "others not in paid occupations" using the data recorded at [REconsum].

Registrar General's Social Class

As with NS-SEC, each respondent's social class is based on his or her current or last occupation. The combination of SOC 90 with employment status for current or last job generates the following six social classes. The variable is called [RNSocCL]:

- I Professional etc. occupations
- II Managerial and technical occupations 'Non-manual'
- III (Non-manual) Skilled occupations
- III (Manual) Skilled occupations
- IV Partly skilled occupations 'Manual'
- V Unskilled occupations

Socio-Economic Group

As with NS-SEC, each respondent's Socio-Economic Group (SEG) is based on his or her current or last occupation.

SEG aims to bring together people with jobs of similar social and economic status, and is derived from a combination of employment status and occupation. The full SEG

classification identifies 18 categories, but these are usually condensed into six groups. The variable name is [RNSEGGp]:

- Professionals, employers and managers
- Intermediate non-manual workers
- Junior non-manual workers
- Skilled manual workers
- Semi-skilled manual workers
- Unskilled manual workers

Note on analysing changing attitudes by social class over time

When analysing how the attitudes of different social classes have changed over time, you need to use a variable that gives a comparable measure of social class across the lifetime of the survey (during which class has been measured using a range of different variables). There is no perfect solution, but our strong preference is to use Goldthorpe-Heath (5 category version) class – RGHClass – before the 2000 SOC became a standard feature of the survey in 2000, and NS-SEC analytic class – RNSEG – thereafter. At the 5-class level these two schemes are conceptually based on more or less the same principles. (You can only do this going back to 1987.) For **BSA 2018, 2017 and 2016** a variable RNSEGD has been included in the data set which bands RNSEG into 5 categories. Before 2016, a 5-category variable can be derived using RNSEG and the following syntax.

For BSA 2001 up until BSA 2015 use: RNSEGD (derived as below)

RECODE RNSEG (1, 2, 4, 5, 6, 7, 8 = 1) (9 = 2) (3, 15, 16, 17 = 3) (11, 12 = 4) (10, 13, 14, 18 = 5) (else = sysmis) into RNSEGD.

Execute.

Variable labels RNSEGD "RNSEG compressed".

Value labels RNSEGD

- 1 "Salariat (Higher & Lower)"
- 2 "Clerical (Junior non-manual)"
- 3 "Petty Bourgeois"
- 4 "Foremen/Technicians"
- 5 "Working class"
- 99 "Don't know".

For BSA 2000 and earlier years use: RGHClass (1983 Heath Goldthorpe scale)

RECODE **RGHClass** (1 thru 2 = 1) (3 thru 4 = 2) (5 thru 7 = 3) (8 = 4) (9 thru 11 = 5) (else = sysmis) into RGHClassD.

Execute.

Variable labels RGHClassD "RGHClass compressed".

Value labels RGHClassD

- 1 "Professional / managerial"
- 2 "Routine"
- 3 "Small petty bourgeoisie / farmers"
- 4 "Manual"
- 5 "Other manual"
- 99 "Don't know".

Industry

All respondents whose occupation could be coded were allocated a Standard Industrial Classification 2007 (SIC 07). Two-digit class codes are used. As with social class, SIC may be generated on the basis of the respondent's current occupation

only, or on his or her most recently classifiable occupation. The variable is called [RSIC07Gpe].

Party identification

Respondents can be classified as identifying with a particular political party on one of three counts: if they consider themselves supporters of that party, closer to it than to others, or more likely to support it in the event of a general election. The three groups are generally described respectively as partisans, sympathisers and residual identifiers. In combination, the three groups are referred to as 'identifiers'. Responses are derived from the following questions:

[SupParty]

Generally speaking, do you think of yourself as a supporter of any one political party? [Yes/No]

[If "No"/"Don't know"]

[ClosePty]

Do you think of yourself as a little closer to one political party than to the others? [Yes/No]

[If "Yes" at either question or "No"/"Don't know" at 2nd question]

[PartyFW]⁵

Which one?/If there were a general election tomorrow, which political party do you think you would be most likely to support?

[Conservative; Labour; Liberal Democrat; Scottish National Party; Plaid Cymru; Green Party; UK Independence Party (UKIP); British National Party (BNP)/National Front; Trade Union and Socialist Coalition (TUSC); RESPECT/Other socialist party; Other party; Other answer; None; Refused to say]

Note: [PartyFW] is called [PartyIDN] in the dataset. From this we derive the variables [PartyId1] (14 categories), [PartyId2] (7 categories) and [PartyId3] (8 categories).

Note: 2014 PartyId3 was added with additional code for UKIP.

Note: 1983–1987 the Green Party did not have its own code.

Note: 1983–1987 Liberal Party, Social Democratic Party, and Liberal Alliance are separate codes and often combined for analysis purposes.

Income

The BSA dataset includes a standard measure of household income [HHIncome]. The bandings used are designed to be representative of those that exist in Britain and are taken from the Family Resources Survey (see <http://research.dwp.gov.uk/asd/frs>).

Two derived variables give income deciles/quartiles:

[HHIncD] and [HHIncQ]. Deciles and quartiles are calculated based on household incomes in Britain as a whole.

In 2018 BSA included our standard question on earnings [REarn], the derived variables associated with it [REarnD] and [REarnQ], and some more detailed questions on respondent individual and household income. The dataset includes a

⁵ Called [PartyIDN] on SPSS file.

derived variable using these data [eq_inc_quintiles] which is the net equivalised household income after housing costs in quintiles. The detailed input variables are not included in the archived dataset due to the sensitive nature of the data. More detailed income data can be made available to researchers on request.

Attitude scales

Since 1986, the British Social Attitudes surveys have included two attitude scales which aim to measure where respondents stand on certain underlying value dimensions: left–right and libertarian–authoritarian. Since 1987 (except in 1990), a similar scale on ‘welfarism’ has also been included. Some of the items in the welfarism scale were changed in 2000–2001. The current version of the scale is shown below. A useful way of summarising the information from a number of questions of this sort is to construct an additive index (Spector, 1992; DeVellis, 2003). This approach rests on the assumption that there is an underlying – ‘latent’ – attitudinal dimension which characterises the answers to all the questions within each scale. If so, scores on the index are likely to be a more reliable indication of the underlying attitude than the answers to any one question.

Each of these scales consists of a number of statements to which the respondent is invited to “agree strongly”, “agree”, “neither agree nor disagree”, “disagree” or “disagree strongly”. The items are:

Left–right scale

Government should redistribute income from the better off to those who are less well off. [Redistrb]

Big business benefits owners at the expense of workers. [BigBusnN]

Ordinary working people do not get their fair share of the nation’s wealth. [Wealth]

There is one law for the rich and one for the poor. [RichLaw]

Management will always try to get the better of employees if it gets the chance. [Indust4]

Libertarian–authoritarian scale

Young people today don’t have enough respect for traditional British values. [TradVals]

People who break the law should be given stiffer sentences. [StifSent]

For some crimes, the death penalty is the most appropriate sentence. [DeathApp]

Schools should teach children to obey authority. [Obey]

The law should always be obeyed, even if a particular law is wrong. [WrongLaw]

Censorship of films and magazines is necessary to uphold moral standards. [Censor]

Welfarism scale

The welfare state encourages people to stop helping each other.
[WelfHelp]

The government should spend more money on welfare benefits for the poor, even if it leads to higher taxes. [MoreWelf]

Around here, most unemployed people could find a job if they really wanted one. [UnempJob]

Many people who get social security don't really deserve any help.
[SocHelp]

Most people on the dole are fiddling in one way or another. [DoleFidl]

If welfare benefits weren't so generous, people would learn to stand on their own two feet. [WelfFeet]

Cutting welfare benefits would damage too many people's lives.
[DamLives]

The creation of the welfare state is one of Britain's proudest achievements.
[ProudWlf]

The indices for the three scales are formed by scoring the leftmost, most libertarian or most pro-welfare position, as 1 and the rightmost, most authoritarian or most anti-welfarist position, as 5. The “neither agree nor disagree” option is scored as 3. The scores to all the questions in each scale are added and then divided by the number of items in the scale, giving indices ranging from 1 (leftmost, most libertarian, most pro-welfare) to 5 (rightmost, most authoritarian, most anti-welfare).

The scores on the three indices have been placed on the dataset.

The scales were tested for reliability (as measured by Cronbach's alpha) using the BSA 2018 data. The Cronbach's alpha (unstandardised items) for the scales in 2018 were 0.82 for the left-right scale, 0.83 for the welfarism scale and 0.79 for the libertarian authoritarian scale. This level of reliability can be considered 'good' for the left-right and welfare scales and 'respectable' for the libertarian authoritarian scale. (DeVellis, 2003: 95–96)

Please be aware the three scale variables use code 9 to record whether a respondent has answered 'don't know' or 'refused' at enough of the attitude statements to prevent us from deriving their score. If a user wishes to look at average scores they will need to declare these values as 'missing'.

Multi-code variables

Where a respondent was given the opportunity to give more than one response at a question, we have created binary variables for each response option available. These binary variables record the number of respondents who chose that response option. If a respondent answered “don’t know” or refused to answer a multi-code question, the don’t know or refusal response has been included at each of the binary variables.

Further information

For further information on anything contained in this booklet please contact:

bsa@natcen.ac.uk