National Centre for Social Research

BRITISH SOCIAL ATTITUDES

Technical details

The 2023 British Social Attitudes (BSA) survey used a mixed-mode push-to-web design. Letters were sent to a random sample of addresses inviting up to two people per household to complete the survey online, with an option to be interviewed by phone if preferred. This is the same design as used in the 2020 to 2022 BSAs. Prior to 2020, BSA was a face-to-face survey (see Curtice et al, 2020 for details), but this was changed as a result of the public health measures introduced in the wake of the Coronavirus (COVID 19) pandemic[1] . The rest of this chapter provides more detail on the design of the BSA 2023 survey.

Sample design

The BSA survey is designed to yield a representative sample of adults aged 18 or over living in Britain. 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 and selection method used since 2020 reflects the change in survey mode from face-to-face to primarily online.

Selection of addresses and dwelling units/households

In 2023 a stratified sample of 30,436 unclustered addresses was drawn from the PAF. Addresses located north of the Caledonian Canal and on the Isles of Scilly were excluded in order to be consistent with previous years of BSA.

Prior to selection of the sample, all PAF addresses were sorted within each stratum by: (a) Region in England; (b) population density at LA level; (c) tenure profile (% owner occupation) at Output Area level; (d) then within % owner occupied by postcodes and (e) within postcodes by addresses.
A systematic (1 in N) random sample of addresses was then drawn from each stratum.

To improve the efficiency, strata were created for sampling based on Index of Multiple Deprivation (IMD) score quintiles within country, with England divided into within/outside London. Addresses in Scotland, Wales and London, as well as the most deprived two IMD quintiles within the four regions were oversampled. Oversampling rates were calculated based on response patterns from the previous two waves of BSA. Further details can be found in Appendix table 1.

[1] Please refer to Technical Details (Clery et al, 2021) for more information about this transition.

The initial invitation to participate in the online survey was made by post. Consequently, where the selected address contained more than one DU or household it was not possible to make a random selection of a single DU/household. Instead, the selected household was effectively the one which first opened the invitation letter and decided to take part. The overall proportion of such addresses is very small (around 1% at the national level) and it is therefore unlikely to lead to any systematic bias in the responding sample.

Selection of individuals

A random selection of individuals within a household is difficult to operationalise accurately in an online survey setting (i.e. where an interviewer is not physically present to verify who is taking part). Therefore, up to two adults aged 18 or over at each address were invited to take part in the survey to mitigate the effect of selection bias within households. This approach still means that not everyone in households with more than two adults could take part, potentially resulting in selection bias. However, these account for only around 14%[2] of all households so the effect will be minimised. This discrepancy was also corrected for during the weighting process to ensure that people in larger households were not underrepresented within the final data. This is discussed in more detail in the weighting section.

2023 fieldwork

Fieldwork

Sampled addresses were sent letters inviting up to two respondents per household to complete the survey.

While respondents were encouraged to complete the survey online, they were given the option of conducting the survey by telephone. This was to try to ensure that the offline population, and those who are less likely to take part online, still had the opportunity to take part.

Telephone interviews were conducted by interviewers from NatCen 's Telephone Unit. Before fieldwork, interviewers attended a briefing to familiarise themselves with the questionnaire and the study.

Fieldwork was carried out between 12th September and 31st October 2023 for both modes.

Communication strategy

The principles for designing the invitation and reminder letters were based on the Tailored Design Method (Dillman, 2014). This approach to designing survey communications is based on social exchange theory that has a goal that the respondent believes that the expected benefits of responding outweigh the costs, therefore increasing the likelihood of response.

The main aim of the letters was to provide all the relevant information a respondent requires to complete the survey, and to answer immediate questions they might have had. The communications

[2] Estimate based on ONS Labour Force Survey (ONS, 2023)

were designed to ensure that each successive contact built on the previous one, varying the motivational statements to increase the likelihood of converting non-responders.

1. Invitation letter

A letter was sent to each sampled address inviting up to two adults aged 18 or over and resident at the household to take part in the survey. The letter provided two sets of unique login details, explained the purpose of the study, how the address was selected, and stressed the importance of taking part. A QR code was printed on each letter. This could be scanned using the respondent's phone and would take them directly to the survey login page. The letter also confirmed that the respondent would receive a £10 or £15 shopping voucher on completing the survey as a thank you for taking part. The invitation letter mainly directed respondents to taking part online, presenting the telephone interview as an option in the frequently asked questions.

Up to three reminder letters were sent to addresses where no-one had taken part so far or only one person had and they had indicated that there was more than one person aged 18+ living there. To maximise chances of contact, reminders were timed to arrive on a mixture of weekdays and weekends.

2. First reminder letter

Eight days after the invitation letter was mailed, sampled addresses were sent a reminder letter. Owing to the lead-in time for printing and delivering this letter, it was sent to all sampled addresses. The reminder letter built on the invitation letter by informing respondents of the advantages of taking part and provided details of how to access the survey. As in the invitation letter, respondents were directed mainly towards taking part online.

3. Second reminder letter

Twelve days after the first reminder letter, a second reminder letter was sent to all households where no-one had taken part, or only one person had done so. Households that had opted out of the survey by contacting the office were excluded from this mailing. This letter differed from the invitation and first reminder letters by making it clearer that respondents could telephone the office to complete a telephone interview. The second reminder letter was sent to 27,986 of the original 30,436 addresses that formed the main sample.

4. Third reminder letter

Finally, a third reminder letter emphasised that it was the last chance to participate and included the same messaging in relation to the telephone interview as the second reminder. The third reminder was sent to 27,315 addresses.

Incentives

On completion of the survey respondents were offered a £10 shopping voucher to be sent via email or post. An incentive experiment was also run on the survey where households allocated to version 1 of the questionnaire were offered a £15 shopping voucher upon completion.[3]

Questionnaire

Each address was allocated at random to one of ten versions of the questionnaire covering different topic areas. All versions of the questionnaire collected key demographic information.

For each version of the questionnaire the mean interview length when completed online was:

Version 1	30 minutes,43 seconds
Version 2	31 minutes,41 seconds
Version 3	31 minutes,20 seconds
Version 4	30 minutes,42 seconds
Version 5	29 minutes,21 seconds
Version 6	29 minutes,42 seconds
Version 7	28 minutes,42 seconds
Version 8	31 minutes, 01 seconds
Version 9	30 minutes,46 seconds
Version 10	29 minutes,54 seconds

Response rate

The push-to-web approach for BSA 2023 allowed up to two people per household to participate in the survey. When taking into consideration the estimated number of eligible adults per address and the estimated proportion of deadwood or ineligible addresses the individual and household level response rates can be calculated.

[3] 19.3% response rate for £15 incentives, 15.7% response rate for £10 incentives

Table 1 BSA 2023 response rate	
Issued sample	30,436 addresses
Estimated proportion deadwood/ineligible[4]	10%
Estimated number of eligible addresses	27,392
Estimated number of eligible adults	50,676
Number of fully productive individual interviews	5,386
Number of partially productive individual interviews	192
Number of addresses with at least one productive (full or partial)	4,404
Number of productive individual interviews per address	1.27
Unadjusted household response rate[5]	14.5%
Adjusted household response rate[6]	16.1%
Estimated number of individuals per household	1.85
Estimated individual response rate	11.0%

4,404 households (14.5% of all issued addresses) fully or partially completed at least one questionnaire. Information on non-responding addresses is not fully captured in push-to-web surveys, so it is not possible to record accurately the number of selected addresses which were not eligible because, for example, they are non-residential addresses. If we assume the level of such addresses is the same as in the 2019 BSA survey (10%), the estimated household response rate in 2023 was 16.1%. Given an assumed average of 1.85[7] eligible adults per address and a total of 5,578 productive interviews, there was an individual response rate of 11%. Of the total productive interviews, 5,526 were completed via the web survey and 52 were telephone interviews.

This response is similar to the 2022 BSA, which had the same fieldwork design as 2023, where the adjusted household response rate was 14.5% and the individual response rate was 11.2%.[8]

Weighting

Certain subgroups in the population are less likely than others to respond to surveys. This is referred to as differential non-response. These groups can end up being under-represented in the sample, which can bias the survey estimates. Weights are applied to the BSA survey that correct for these biases. Such non-response could occur within households as well as at the level of the selected postal address. Separate non-response models were constructed to deal with each of these elements of non-response. Finally, calibration weighting was used to adjust the profile of the responding sample so that

[4] Estimate based on BSA 2019 % of ineligible

[5] The number of households with at least one response as a proportion of all issued addresses

[6] The number of households with at least one response as a proportion of all the eligible sample (i.e. adjusted for deadwood/ineligible)

[7] Estimate based on ONS Labour Force Survey (ONS, 2023)

[8] Response rates for push-to-web surveys are not directly comparable with those achieved in face-to-face surveys, but they tend to be lower. For example, on the 2019 BSA – the last face-to-face survey – the household response rate was between 44.3% and 44.8%.

it matched the population in terms of age, sex, education, tenure, ethnicity, economic activity (employment status) and region.

The different stages of the weighting scheme are outlined in the detail below.

Selection weights

As there was an uneven probability of address selection in the sampling process, the first step was to calculate selection weights that account for oversampling. The address selection weights were calculated as the inverse of the selection probabilities for each of the 20 strata, so that the weighted number of addresses in each stratum was in the correct proportion.

People in households with more than two adults have a lower probability of selection than single or two adult households. These are accounted for in the within-household model stage.

Non-response model

Specific subgroups can end up being over-represented in the sample, which can bias the survey estimates. As already noted, given that up to two people per household could respond, non-response could occur at the household level, when no one from the selected address responds, or within households, when only one person responds in households with two or more adults.

Where information is available about non-responding addresses, the propensity for households (at selected addresses) to respond can be modelled, and the results used to generate a non-response weight. Similarly, where information is available about responding households, the expected number of responses within these households can also be modelled. Hence there are two components to the non-response weights – one for 'between household' non-response and one for 'within household' non-response. These are intended to reduce bias in the responding sample resulting from differential response to the survey.

Between household response was modelled using logistic regression, with the dependent variable indicating whether or not anyone at each selected address responded to the survey. Responding addresses were coded 1 and non-responding addresses were coded 0. The model was fitted weighted by the selection weights. A number of variables that described the character of the area in which a selected address was located, including aggregated census data and deprivation indices, were considered for possible inclusion in the response model. The model generated an estimated probability of responding for each selected address. From this model, the between household non-response weight was calculated as the inverse of this estimated probability of responding for each responding address.

The variables found to be related to household response, once the other predictors included in the model have been controlled for, were: region, percentage of owner-occupied properties in the Output Area (quintiles), the percentage of residents 65+ in the postcode sector (quintiles), the percentage of residents that hold a degree in the postcode sector (quintiles), Output Area Classification (8 categories), Index of Multiple deprivation (quintiles) and the percentage of ethnic minority residents in the postcode sector (quintiles). The model shows that the likelihood of response increases with higher

rates of home ownership, higher rates of degree level education as well as in urban areas. The full model is shown in Appendix table 2.

Non-response within households was also modelled using logistic regression, with the dependent variable indicating whether each responding address had one response or two to the survey. Addresses that contained only one adult and addresses from which there was not any response were not included in this stage of the non-response modelling. As well as the area-level information used in the previous model, additional household-level variables (gathered from the responses that were received) such as household size, tenure, whether anyone in the household has a degree and income were also considered for possible inclusion in the model. The predicted probability from the model of two people responding rather than one was used to estimate the expected number of completed surveys in responding households. This was calculated as (1-p) + 2p = 1+p, where p is the probability of two responses.

The within household non-response weight was calculated as the ratio of the number of adults in the household (capped at 4) divided by the expected number of responses for each responding household, i.e. numad / (1+p), where numad is the number of adults in the household (capped at 4).

The variables found to be related to the probability of receiving two responses once the other predictors included in the model have been controlled for were: region, whether someone in the household holds a degree, total weekly pre-tax household income (quartiles), the number of adults in household (capped at 4), the percentage of residents in NS-SEC managerial, administrative and professional occupations in the postcode sector (quintiles), the percentage of residents 55+ in the postcode sector (quintiles), and whether there were any children under 16 in the household.

The model shows that the likelihood of two respondents per household decreases in households with children and in households with no degree. The full model is shown in Appendix table 3.

Calibration weighting

The final stage of weighting was to adjust the composite non-response weight (the product of the weights from the previous stages) so that the weighted composition of the sample was in line with the best available population estimates of the characteristics of adults (18+) in Britain.

Only adults aged 18 or over living in Great Britain were eligible to take part in the survey. Consequently, the data have been weighted to the British population aged 18 and over according to the 2022 mid-year population estimates published by the Office for National Statistics (ONS, 2022) for England and Wales, and the National Records for Scotland (ONS, 2021) for age, sex and region, and the latest ONS Labour Force Survey (ONS, 2023) for education, ethnicity, economic activity and housing tenure. The demographic composition of the original and final weighted sample, and how this compares with the population estimates, is shown in Table 4.

The calibration weight (BSA23_final_wt) is the final weight used in the analysis of the 2023 survey; this weight has been scaled so that the total sample size is unchanged. The range of the final calibrated weights is between 0.13 and 7.03.

Weighting efficiency and effective sample size

The effect of the weights on the precision of the survey estimates is indicated by the effective sample size (neff). The effective sample size measures the size of an (unweighted) simple random sample that would achieve the same precision (that is, the range of the standard error associated with each estimate) as the design that has been implemented. If the effective sample size is close to the actual sample size, then we have an efficient design with a good level of precision. The lower the effective sample size is, the lower the level of precision. The efficiency of a sample is given by the ratio of the effective sample size to the actual sample size. The effective sample size (neff) of BSA 2023 after weighting is 3,895 with an efficiency of 70%. This is similar to the BSA 2022, which had an effective sample size (neff) after weighting of 4,271 with an efficiency of 64%.

Analysis variables

A number of standard analysis variables have been used in some of the chapters in this report. The analysis variables requiring further definition are set out below. Where relevant the name given to the relevant analysis variable is shown in square brackets – for example [EmpOcc].

Region

The BSA dataset identifies 11 regions, formerly the Government Office Regions (South East, London, North West, East of England, West Midlands, South West, Yorkshire and the Humber, East Midlands, North East, Wales and Scotland).

National Statistics Socio-Economic Classification (NS-SEC)[9]

For the 2023 survey, respondents were asked to self-code their current or last job into an eight-category variable [EmpOCC]. In addition, an employment status variable that summarises information on employment status and size of organisation was also derived [EmplStatDV] from questions on whether an individual is:

- An employer, self-employed or an employee [Empstat];
- size of organisation [employ]; and
- supervisory status [Superv].

The National Statistics Socio-Economic Classification (NS-SEC) was derived from a combination of the information on occupation and employment status [RclassGP]. This allows respondents to be classified into the following socio-economic groups:

- Managerial and professional occupations
- Intermediate occupations
- Small employers and own account workers
- Lower supervisory and technical occupations
- Semi-routine and routine occupations

[9] It is important to note that NS-SEC was derived differently in 2020 to 2023 from previous BSAs for which information may be found in the Technical Details for the 2019 survey (Curtice et al., 2020).

Those who have never had a job are coded as “not classifiable”.

Party identification

Respondents are 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. Responses are derived from the following questions:

> ***Generally speaking, do you think of yourself as a supporter of any one political party? [Yes/No] [SupParty]***
>
> ***[If “No”/“Don’t know”]***
> ***Do you think of yourself as a little closer to one political party than to the others? [Yes/No] [ClosePty]***
>
> ***[If “Yes” at either question or “No”/“Don’t know” at 2nd question]***
> ***Which one?/If there were a general election tomorrow, which political party do you think you would be most likely to support?[PartyFW]***
> ***[Conservative; Labour; Liberal Democrat; Scottish National Party; Plaid Cymru; Green Party; UK Independence Party (UKIP); Reform UK (previously known as Brexit Party); Other party; None; (SPONTANEOUS: Prefer not to answer), (SPONTANEOUS: Don’t know)***

Attitude scales

Since 1986, the BSA surveys have included two attitude scales which aim to measure where respondents stand on certain underlying value dimensions – left–right and libertarian–authoritarian.[10] Since 1987 (except in 1990), a similar scale on ‘welfarism’ has also been included. A useful way of summarising the information from these questions 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 individual 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”.

Some of the items in the welfarism scale were changed in 2000–2001. The current version of this scale is shown over the page.

[10] Because of methodological experiments on scale development, the exact items detailed in this section have not been asked on all versions of the questionnaire each year.

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][11]
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.[12]

The scales have been tested for reliability (as measured by Cronbach's alpha). The Cronbach's alpha (unstandardised items) for the scales in 2023 are 0.84 for the left–right scale, 0.81 for the libertarian–authoritarian scale and 0.90 for the welfarism scale. This level of reliability can be considered 'good' for the left–right, libertarian and welfarism scales (DeVellis, 2003: 95–96).

[11] In 1994 only, this item was replaced by: Ordinary people get their fair share of the nation's wealth *[Wealth1].*

[12] In constructing the scale, a decision had to be taken on how to treat missing values ("Don't know" and "Not answered"). Respondents who had more than two missing values on the left–right scale and more than three missing values on the libertarian–authoritarian and welfarism scales were excluded from that scale. For respondents with fewer missing values, "Don't know" was recoded to the midpoint of the scale and "Not answered" was recoded to the scale mean for that respondent on their valid items.

Other analysis variables

These are taken directly from the questionnaire and to that extent are self-explanatory. The principal ones are:

- Sex
- Age
- Religion
- Highest educational qualification obtained
- Marital status
- Whether receiving any benefits or tax credits

Margins of error

All our reported survey estimates will have a 'margin of error'. A margin of error of plus or minus two means that we can be 95% certain that the true population percentage is within two percentage points (in either direction) of the percentage we report.

The margin of error will vary depending on the sample size being analysed, the percentage estimated, and the design effect on the sample. The overall design effect (DEFF) for this year's full BSA is 1.43. Table 2 illustrates the margins of error for varying sample sizes and percentages with this DEFF. Note that in reality, the DEFF varies between specific subgroups, which is not reflected in the table.

Table 2 Margins of error for different sample sizes with a DEFF of 1.43

N =	10%/90%	20%/80%	30%/70%	40%/60%	50%/50%
250	4.5	6.1	6.9	7.4	7.6
500	3.2	4.3	4.9	5.2	5.3
750	2.6	3.5	4.0	4.3	4.4
1,000	2.3	3.0	3.5	3.7	3.8
1,500	1.9	2.5	2.8	3.0	3.1
2,000	1.6	2.1	2.5	2.6	2.7
3,000	1.3	1.7	2.0	2.1	2.2
5,000	1.0	1.4	1.6	1.7	1.7

Trend analysis and design change

In 2020, in response to the COVID-19 pandemic, the BSA moved from a face-to-face survey to a 'push-to-web' design. While measures have been taken at every stage of the study to minimise the impact on results (e.g. questionnaire design and weighting), it is possible that some questions may have experienced 'mode effects' whereby changes in the design have resulted in changes to the sample composition or how people answer the question, affecting estimates. For example, people may be more honest answering sensitive questions in an online survey than with an interviewer

present. The presence, size, and nature of these effects will vary from question to question, and we recommend considering the specific context of the question when interpreting changes measured between 2019 and 2020, including validating against other data sources where possible. More information about the change in design can be found in the BSA 38 Technical Details (Clery et al, 2021).

Table and figure conventions

The following conventions are used for tables and figures throughout the report.

- Data in the tables are from the 2023 British Social Attitudes survey unless otherwise indicated.
- Tables are percentages by row or column as indicated by the percentage signs.
- In tables, '*' indicates less than 0.5 % but greater than zero, and '–' indicates zero.
- When findings based on the responses of fewer than 100 respondents are reported in the text, reference is made to the small base size. These findings are excluded from line charts, but included in tables.
- Percentages in tables have been rounded up or down on the basis of the figure to two decimal points.
- In many tables the proportions of respondents answering "Don't know" or not giving an answer are not shown. This, together with the effects of rounding and weighting, means that percentages will not always add up to 100 %.
- The unweighted bases shown in the tables (the number of respondents who answered the question) are printed in small italics.
- In time series line charts, survey readings are indicated by data markers. While the line between data markers indicates an overall pattern, where there is no data marker, the position of the line cannot be taken as an accurate reading for that year.

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Appendix

Table 1 BSA 2023 Issued addresses by strata

Strata	BSA Main sample
11 Most deprived in England	5,810
12 2nd most deprived in England	4,079
13 Middle deprived in England	3,826
14 2nd least deprived in England	4,013
15 Least deprived in England	4,164
21 Most deprived in Wales	452
22 2nd most deprived in Wales	361
23 Middle deprived in Wales	311
24 2nd least deprived in Wales	313
25 Least deprived in Wales	312
31 Most deprived in Scotland	727
32 2nd most deprived in Scotland	577
33 Middle deprived in Scotland	502
34 2nd least deprived in Scotland	502
35 Least deprived in Scotland	502
41 Most deprived in London	876
42 2nd most deprived in London	1,277
43 Middle deprived in London	804
44 2nd least deprived in London	598
45 Least deprived in London	430
TOTAL	30,436

Table 2 Between-household non-response model

Variable	*B*	*S.E.*	*Wald*	*Df*	*Sig.*	*Odds*
Region			33.020	10	0.000	
North East	(baseline)					
North West	-0.226	0.091	6.178	1	0.013	0.798
Yorkshire and the Humber	-0.087	0.094	0.857	1	0.354	0.917
East Midlands	-0.171	0.099	3.014	1	0.083	0.843
West Midlands	-0.139	0.097	2.066	1	0.151	0.870
East of England	-0.170	0.096	3.177	1	0.075	0.843
London	-0.440	0.107	16.769	1	0.000	0.644
South East	-0.130	0.090	2.073	1	0.150	0.878
South West	-0.064	0.093	0.469	1	0.493	0.938
Scotland	-0.233	0.156	2.227	1	0.136	0.792
Wales	-0.564	0.201	7.898	1	0.005	0.569

Table 2 Between-household non-response model (continued)

Variable	*B*	*S.E.*	*Wald*	*Df*	*Sig.*	*Odds*
Percentage owner-occupied (quintiles)			22.195	4	0.000	
1 (lowest)	(baseline)					
2	0.241	0.064	14.227	1	0.000	1.272
3	0.148	0.073	4.116	1	0.042	1.159
4	0.246	0.079	9.598	1	0.002	1.279
5 (highest)	0.341	0.089	14.708	1	0.000	1.407
Percentage aged 65+ (quintiles)			11.667	4	0.020	
1 (lowest)	(baseline)					
2	-0.108	0.059	3.283	1	0.070	0.898
3	-0.180	0.064	7.894	1	0.005	0.835
4	-0.132	0.067	3.919	1	0.048	0.876
5 (highest)	-0.223	0.071	9.725	1	0.002	0.800
Percentage with degree (quintiles)			40.427	4	0.000	
1 (lowest)	(baseline)					
2	0.076	0.066	1.322	1	0.250	1.078
3	0.189	0.071	7.125	1	0.008	1.208
4	0.296	0.075	15.570	1	0.000	1.344
5 (highest)	0.454	0.083	29.693	1	0.000	1.575
Output Area Classification			21.205	7	0.003	
Rural residents	(baseline)					
Cosmopolitans	0.078	0.108	0.529	1	0.467	1.081
Ethnicity central	-0.006	0.133	0.002	1	0.962	0.994
Multicultural metropolitans	-0.028	0.100	0.077	1	0.781	0.972
Urbanites	0.046	0.065	0.507	1	0.476	1.048
Suburbanites	-0.043	0.066	0.421	1	0.517	0.958
Constrained city dwellers	-0.208	0.099	4.390	1	0.036	0.812
Hard pressed living	-0.204	0.076	7.241	1	0.007	0.815

Table 2 Between-household non-response model (continued)

Variable	*B*	*S.E.*	*Wald*	*Df*	*Sig.*	*Odds*
Index of Multiple-Deprivation*				12		
Most deprived in England	(baseline)					
2nd most deprived in England	0.044	0.073	0.362	1	0.548	1.045
middle deprived in England	0.075	0.079	0.911	1	0.340	1.078
2nd least deprived in England	0.054	0.086	0.395	1	0.530	1.055
Least deprived in England	0.066	0.094	0.489	1	0.484	1.068
Most deprived in Wales	0.448	0.277	2.606	1	0.106	1.565
2nd most deprived in Wales	0.556	0.246	5.128	1	0.024	1.744
middle deprived in Wales	0.352	0.235	2.252	1	0.133	1.422
2nd least deprived in Wales	0.376	0.225	2.787	1	0.095	1.457
Most deprived in Scotland	-0.109	0.215	0.257	1	0.612	0.897
2nd most deprived in Scotland	0.290	0.182	2.537	1	0.111	1.336
middle deprived in Scotland	0.339	0.165	4.209	1	0.040	1.403
2nd least deprived in Scotland	-0.065	0.164	0.157	1	0.692	0.937
Percentage ethnic minority (quintiles)			19.938	4	0.001	
1 (lowest)	(baseline)					
2	0.097	0.053	3.294	1	0.070	1.102
3	0.008	0.060	0.018	1	0.892	1.008
4	-0.125	0.071	3.157	1	0.076	0.882
5 (highest)	-0.258	0.096	7.170	1	0.007	0.773
Constant	-1.825	0.133	187.365	1	0.000	0.161

Table 3 Within-household non-response model

Variable	*B*	*S.E.*	*Wald*	*Df*	*Sig.*	*Odds*
Region			5.674	10	0.842	
North East	(baseline)					
North West	0.136	0.213	0.409	1	0.522	1.076
Yorkshire and the Humber	0.237	0.220	1.156	1	0.282	1.142
East Midlands	0.071	0.227	0.099	1	0.753	1.096
West Midlands	0.030	0.222	0.018	1	0.894	1.079
East of England	0.140	0.218	0.416	1	0.519	0.766
London	0.135	0.220	0.375	1	0.540	0.891
South East	-0.006	0.209	0.001	1	0.975	0.882
South West	0.021	0.219	0.009	1	0.923	0.873
Scotland	0.056	0.223	0.062	1	0.803	1.767
Wales	-0.171	0.250	0.466	1	0.495	0.843
Household Education (degree/no degree)						
Degree	(baseline)					
No degree	-0.189	0.086	4.847	1	0.028	0.827
Pre-tax household income (quartiles)			23.387	4	0.000	
Missing	(baseline)					
Less than £330 per week	0.237	0.155	2.345	1	0.126	1.267
£331 - £590 per week	0.511	0.123	17.292	1	0.000	1.667
£591 - £1,000 per week	0.282	0.117	5.813	1	0.016	1.325
£1,000 per week or more	0.051	0.118	0.187	1	0.665	1.052
Number of adults in household			7.030	2	0.030	
2	(baseline)					
3	-0.284	0.110	6.627	1	0.010	0.752
4+	0.040	0.134	0.090	1	0.764	1.041
Percentage aged 55+ (quintiles)			20.420	4	0.000	
1 (lowest)	(baseline)					
2	0.083	0.125	0.442	1	0.506	1.086
3	0.121	0.126	0.917	1	0.338	1.128
4	-0.238	0.131	3.227	1	0.070	0.789
5 (highest)	0.273	0.132	4.305	1	0.038	1.314

Table 3 Within-household non-response model (continued)

Variable	*B*	*S.E.*	*Wald*	*Df*	*Sig.*	*Odds*
Children under 16 in household						
None	(baseline)					
1+	-0.246	0.085	8.441	1	0.004	0.782
NS-SEC (quintiles)			7.953	4		0.093
1 (lowest)	(baseline					
2	0.063	0.135	0.219	1	0.639	1.065
3	0.126	0.136	0.856	1	0.355	1.134
4	0.073	0.137	0.288	1	0.592	1.076
5 (highest)	-0.173	0.142	1.482	1	0.223	0.841
Constant	-0.711	0.234	9.258	1	0.002	0.491

Table 4 Sample distribution

	Population	Unweighted respondents	Respondent weighted by pre-calibration weight	Respondent weighted by final weight
Region	%	%	%	%
North East	4.1	4.8	4.3	4.1
North West	11.4	11.2	11.4	11.4
Yorkshire and Humber	8.4	9.1	8.3	8.4
East Midlands	7.5	7.2	7.3	7.5
West Midlands	9.0	8.5	8.6	9.0
East of England	9.7	9.4	9.5	9.7
London	13.4	11.0	13.7	13.4
South East	14.2	14.8	14.2	14.2
South West	8.9	10.1	9.1	9.0
Wales	4.8	5.2	5.1	4.8
Scotland	8.5	8.9	8.5	8.5
Age and sex	%	%	%	%
M 18–24	5.3	1.8	2.3	5.3
M 25–34	8.3	5.7	5.5	8.3
M 35–44	8.0	6.7	6.7	8.0
M 45–54	8.0	6.7	7.5	8.0
M 55–59	4.2	3.6	4.0	4.2
M 60–64	3.7	4.3	4.1	3.7
M 65–69	3.1	5.0	4.6	3.1
M 70+	7.8	9.0	7.9	7.8
F 18–24	5.1	3.8	5.1	5.1
F 25–34	8.7	9.6	9.3	8.7
F 35–44	8.5	9.5	9.7	8.5
F 45–54	8.3	9.8	11.0	8.3
F 55–59	4.4	5.0	5.3	4.4
F 60–64	3.9	5.5	5.2	3.9
F 65–69	3.3	5.5	4.9	3.3
F 70+	9.6	8.3	6.9	9.6

Table 4 Sample distribution (continued)

	Population	Unweighted respondents	Respondent weighted by pre-calibration weight	Respondent weighted by final weight
Age & education	%	%	%	%
18-34 Degree/equivalent	12.5	13.5	13.7	12.6
18-34 other qualification	13.7	6.7	7.9	13.7
35-54 Degree/equivalent	17.3	22.0	22.5	17.3
35-54 other qualification	13.6	9.0	10.4	13.6
55-69 Degree/equivalent	8.5	16.1	15.2	8.5
55-69 other qualification	11.6	10.3	10.2	11.7
70+	17.4	17.4	14.7	17.4
No qualification	5.4	5.0	5.4	5.4
Tenure	%	%	%	%
Owned outright	34.3	41.8	39.3	34.3
Mortgage owned	33.9	31.1	32.4	33.9
Rent or other	31.8	27.1	28.3	31.7
Ethnicity	%	%	%	%
White	86.0	88.7	86.6	86.0
BAME	14.0	11.3	13.4	14.0
Economic activity	%	%	%	%
Employed	61.8	57.0	59.0	62.2
Unemployed	2.5	3.9	4.1	2.5
Other/inactive	35.7	39.1	36.9	35.3
Base	52,186,422	5,578	5,578	5,578