National Centre for Social Research

BRITISH SOCIAL ATTITUDES

Technical details

The 2024 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 approach as was used in the 2020 to 2023 BSAs. However, in 2024 two changes were made. First, addresses in Northern Ireland were sampled. Second, in anticipation of a reduction in the voting age, the minimum age for participation was lowered from 18 to 16 years old.

Before 2020, BSA was conducted face-to-face in respondents' homes (see Curtice et al, 2020 for details). However, 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 report provides more detail on the design of the BSA 2024 survey.

Sample design

The BSA survey is designed to yield a representative sample of people aged 16 years or over living in the UK. 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.

Selection of addresses and dwelling units/households

In 2024 a stratified sample of 21,649 unclustered addresses was drawn from the PAF. In a change from previous years, the sample was drawn from addresses across the whole of the UK, including Northern Ireland, the Scilly Isles and Scotland north of the Caledonian Canal (but excluding the crown dependencies, Channel Isles and the Isle of Man). Previously, BSA was unable to cover these areas because NatCen did not have an established field team in Northern Ireland, while interviewing in Scotland north of the Caledonian Canal was deemed too expensive. By removing these barriers, the push-to-web design has provided an opportunity for us to survey people living in these areas and so include people who had previously been excluded.

Although these changes potentially affect the composition of the sample, in practice they will usually have little bearing on survey estimates – only 1.3% of the sample is aged between 16 and 17 years, and only 4.5% live in Northern Ireland. Nevertheless, caution should be taken when drawing comparisons with previous waves of BSA. To facilitate such comparisons a weight has been

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

constructed for the 2024 survey based solely on those aged 18+ and living in Great Britain. Checks carried out as part of the weighting process indicated that this is a robust way to conduct analysis.[2] In this report, all results are based on the full sample unless otherwise stated.[3]

Addresses in Wales and Northern Ireland, as well as the most deprived Index of Multiple Deprivation (IMD) quintiles in England (divided into London and elsewhere) and Scotland, were oversampled. Oversampling rates were calculated based on response patterns from previous waves of the BSA. In 2024, boosts were additionally implemented in Wales and Northern Ireland to achieve target numbers of 250 and 200 respectively, based on an expected return rate of 18.3% derived from 2023 data. To accommodate this, the sample was adjusted by redistributing the difference equally across the remaining regions (England, Scotland, and London), which slightly reduced the sample sizes allocated to those regions, and was scaled to a total issued sample size of 21,649. Further details can be found in Appendix Table 1.

Stratification enhances the efficiency of sample design by increasing precision, reducing variability, and ensuring representativeness by controlling for differences between subgroups. The method involves dividing the population into distinct subgroups, known as strata, based on specific characteristics relevant to the study. Each stratum is then sampled separately.

Twenty-one strata were created based on country (Scotland, Wales, and England divided into London and elsewhere) and Index of Multiple Deprivation (IMD) score quintiles within each country and within London. Northern Ireland was treated as one stratum. Prior to sample selection, all PAF addresses were sorted within each stratum by (a) region in England; (b) population density at the local authority level; (c) tenure profile (percentage of owner occupation) at the Output Area level; (d) then within the percentage of owner-occupied addresses by postcodes and (e) within postcodes by addresses. A systematic (1 in N) random sample of addresses was then drawn from each stratum.
The initial invitation to participate in the online survey was made by post. Consequently, where the selected address contained more than one dwelling unit (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 the impact on survey estimates is expected to be minimal.

Selection of individuals

A random selection of individuals within a household is difficult to operationalise accurately in an online survey (i.e. where an interviewer is not physically present to verify who is taking part). Therefore, to mitigate the possible effect of selection bias within households (that is, that those who choose to take the survey are distinctive in their attitudes). up to two people aged 16 or over at each address were invited to take part in the survey.

Allowing up to two people to take part still means that not everyone in households with more than two people aged 16 years or over could take part, potentially resulting in selection bias. However, such households account for only around 16.4%[4] of all households, so the effect will be minimal. This

[2] See further details in the ‘Calibration weighting’ section.

[3] Results tend to be presented for a GB 18+ sample where utilising the full sample would introduce additional complexity. For example, in the ‘Britain's democracy: A health check’ chapter, comparing voter behaviour in 2024 with previous years would prove more difficult with a Northern Irish sample given the popularity of political parties that are specific to NI. Meanwhile, those aged less than 18 were not eligible to vote in the 2024 election.

[4] Estimate based on ONS Labour Force Survey (ONS, 2024)

potential 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.

2024 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 the National Centre for Social Research (NatCen)'s Telephone Unit. Before fieldwork, interviewers attended a briefing to familiarise themselves with the questionnaire and the study.

Fieldwork was carried out between 16th September and 27th October 2024 for both modes.

Communication strategy

The principles for designing both the invitation and subsequent reminder letters were based on the Tailored Design Method (Dillman, 2014). This approach to designing survey communications is based on social exchange theory. This has the 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 were designed to ensure that each successive letter built on the previous one, varying the motivational statements to increase the likelihood of converting non-responders.

1. Invitation letter

As noted above, a letter was sent to each sampled address inviting up to two adults aged 16 years 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, only presenting the telephone interview as an option in the frequently asked questions.

Up to three reminder letters were sent to addresses where either no-one had taken part so far or only one person had and they had indicated that there was more than one person aged 16+ living there. To maximise chances of an effective 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 arrange a telephone interview. The second reminder letter was sent to 19,839 of the original 25,979 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 information about the possibility of a telephone interview as the second reminder. The third reminder was sent to 19,467 addresses.

Incentives

On completion of the survey, respondents were offered a shopping voucher that would be sent via email or post. In 2024, we conducted an incentive experiment to test whether varying the value and timing of the incentive would make a difference to response rates. The sample was divided into three equal groups: Group 1 was offered a £10 voucher upon completion of the survey, Group 2 was offered a £15 voucher upon completion, and Group 3 was initially offered a £10 voucher, which was increased to £15 in the second reminder letter if the survey had not yet been completed.[5]

Questionnaire

Each address was allocated at random to one of eight versions of the questionnaire, each of which covered a different mixture of topics. All versions of the questionnaire collected key demographic information about participants.

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

Version 1	27 minutes, 55 seconds
Version 2	26 minutes, 34 seconds
Version 3	30 minutes, 35 seconds
Version 4	28 minutes, 17 seconds
Version 5	28 minutes, 42 seconds
Version 6	29 minutes, 48 seconds
Version 7	36 minutes, 03 seconds
Version 8	30 minutes, 03 seconds

[5] Group 1 had a 15% household response rate, Group 2: 17%, Group 3: 16%.

Response rate

After taking into account the estimated number of eligible people aged 16 years or over per sampled address and the estimated proportion of addresses that were deadwood or ineligible, the individual and household level response rates have been calculated as follows:

Table 1 BSA 2024 response rate	
Issued sample	21,649 addresses
Estimated proportion deadwood/ineligible[6]	10%
Estimated number of eligible addresses	19,484
Estimated number of eligible adults	36,046
Number of fully productive individual interviews	3,992
Number of partially productive individual interviews	128
Number of addresses with at least one productive (full or partial)	3,237
Number of productive individual interviews per address	1.27
Unadjusted household response rate[7]	14.9%
Adjusted household response rate[8]	16.6%
Estimated number of individuals per household	1.85
Estimated individual response rate	11.1%

3,237 households (14.9% 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 2024 was 16.6%. Given an assumed average of 1.85[9] eligible adults per address and a total of 4,120 productive interviews, there was an individual response rate of 11.1%. Of the total productive interviews, 4,079 were completed via the web survey and 41 were telephone interviews.

This level of response is similar to the 2023 BSA, for which the adjusted household response rate was 16.1% and the individual response rate was 11.0%.[10]

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 are designed to correct for these biases. Such non-response could occur within households as well as at the level of

[6] Estimate based on BSA 2019 % of ineligible

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

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

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

[10] 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%.

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 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 detail below.

Selection weights

Oversampling and stratification within the sample design led to an uneven probability of address selection. To account for this, address selection weights (W1) were calculated as the inverse of the selection probabilities for each of the 21 strata, so that the weighted number of addresses in each stratum was in the correct proportion.

Individuals in households with more than two people aged 16 years or over have a lower probability of selection than households with one or two 16+ people. These were accounted for in the within-household non-response modelling.

Non-response model

Specific subgroups can be over-represented in samples, biasing survey estimates. Non-response can occur at the household level (no one responds) or within households (only one or two people respond from a multiple occupancy household). If information on non-responding addresses is available, the probability of a household responding can be modelled to generate a non-response weight. Expected responses within households can similarly be modelled. Thus, non-response weights have two components: 'between household' and 'within household,'.

‘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 run weighted by the selection weights (W1). 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 variables found to be related to household level response, once the other predictors included in the model had been controlled for, were: region, percentage of owner-occupied properties in the Output Area (quintiles), the percentage of residents in the postcode sector that have a degree (quintiles), the percentage of residents aged 65+ in the postcode sector (quintiles), the percentage of ethnic minority residents in the postcode sector (quintiles) and Output Area Classification (eight categories). 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. 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 the estimated response probability for each responding address (W2). A composite weight (W3) was then calculated as the product of W1 and W2.

Non-response within households was also modelled using logistic regression, with the dependent variable indicating whether each responding address had one or two responses to the survey. Addresses that contained only one person aged 16+ and addresses from which there was no response were excluded from this stage of the non-response modelling. The model was run weighted by the composite weight (W3). As well as the area-level information used in the previous model,

additional household-level variables (gathered from the survey 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 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: the number of people aged 16+ in household (capped at 4), household tenure, whether someone in the household holds a degree, and total weekly pre-tax household income. The model indicates that the probability of having two respondents per household decreases in non-owner-occupied households, in households where no occupants hold a degree, and where there are a greater number of occupants aged 16 and above. Detailed results are presented in Appendix Table 3.

The predicted probability from this model 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 (W4) was calculated as the ratio of the number of people aged 16+ 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 people aged 16+ in the household (capped at 4). This was then combined with the previous composite weight (W3) to create the pre-calibration weight.

Calibration weighting

The final stage of weighting was to adjust the pre-calibration weight so that the weighted composition of the sample was in line with the best available population estimates of the characteristics of people (16+) in the UK.

For the UK population aged 16 years and over the data were weighted so that the sample matches as closely as possible the 2023 mid-year population estimates published by the Office for National Statistics (ONS, 2023) for age, sex and region, and the latest ONS Labour Force Survey (ONS, 2024) estimates for education, ethnicity, economic activity and housing tenure. The demographic composition of the original and final weighted sample, and how these compare with the population estimates, is shown in Table 4.

The calibration weight (BSA24_final_wt) is the final weight used in the analysis of the 2024 survey; this weight has been scaled so that the total sample size is unchanged. The range of the final calibrated weights is between 0.09 and 8.32.

An 18+ GB weight was also produced (BSA24_final_wt_GB18). This weight excluded respondents from Northern Ireland and those aged 16–17 years from the dataset and calibrated the remaining sample to the 18+ GB population benchmarks as detailed above. This weight was used to assess whether the full UK 16+ weight could be reliably applied to subgroup analysis (specifically, for estimates based only on 18+ GB respondents) to ensure continuity with previous BSA years. To assess this, estimates for 18+ GB respondents were compared using the main weight (UK 16+) and the 18+ GB weight. The differences found were minimal, providing reassurance that applying the main weight (UK 16+) had little impact on key estimates for the 18+ GB population so could be used reliably.

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 weighted design that has been implemented. If the effective sample size is close to the actual sample size, this indicates that the design is efficient and that weighting has not substantially reduced precision. However, the overall level of precision also depends on the absolute size of the sample, as even an efficient design may yield less precise estimates if the sample size is small. 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 2024 after weighting is 2,568 with an efficiency of 62%. This is similar to the BSA 2023 which had an effective sample size (neff) after weighting of 3,895 with an efficiency of 70%, and BSA 2022, with 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, Scotland and Northern Ireland).

Vote

Respondents were asked both whether they voted in the 2024 General Election and, if so, which party they voted for. Responses are derived from the following questions:

Talking to people about the general election on the 4th of July, we have found that a lot of people didn't manage to vote. How about you – did you manage to vote in the general election? *[Yes, voted/No/Not applicable, I was not eligible to vote, or too young] [Voted]*

[If 'Yes, voted' at Voted]
Which party did you vote for in the general election? [Conservative/Labour/Liberal Democrat/Scottish National Party/Plaid Cymru/Green Party/UK Independence Party (UKIP)/Reform UK (previously known as Brexit Party)/Democratic Unionist Party (DUP)/Sinn Fein/Social Democratic & Labour Party (SDLP)/Alliance Party/Ulster Unionist Party (UUP)/Traditional Unionist Voice (TUV)/Other party (please say what)/Independence candidate]

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); Democratic Unionist Party (DUP); Sinn Fein; Social Democratic & Labour Party (SDLP); Alliance Party; Ulster Unionist Party (UUP); Traditional Unionist Voice (TUV); 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.[11] 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 below.

The items in each scale are as follows:

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][12]
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]

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

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.[13]

The scales have been tested for reliability (as measured by Cronbach's alpha). The Cronbach's alpha (unstandardised items) for the scales in 2024 are 0.83 for the left–right scale, 0.79 for the libertarian–authoritarian scale and 0.88 for the welfarism scale. This level of reliability can be considered 'good' for the left–right, libertarian and welfarism scales (DeVellis, 2003: 95–96).

Other analysis variables

These are taken directly from the questionnaire. The principal ones are:

- Sex
- Gender identity (Respondents are asked whether the gender they identify with is the same as their sex registered at birth, and there is an optional free text for respondents to enter their gender identity)
- Age
- Religion
- Highest educational qualification obtained
- Marital status
- Whether receiving any benefits or tax credits

[13] 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.

Sampling errors

Most of the questions asked of all sample members have a margin of error of around plus or minus two to three of the survey percentage. This means that we can be 95% certain that the true population percentage is within two to three percentage points (in either direction) of the percentage we report. However, sampling errors for percentages based only on respondents to just one or a few versions of the questionnaire, or on subgroups within the sample, are larger than they would have been had the questions been asked of everyone.

The design effect (DEFF) quantifies how a survey's complex sampling design affects the statistical precision of survey estimates, by comparing the actual variance to that from a simple random sample of the same size. For BSA 2024, the overall DEFF is 1.60 which indicates that the variance of estimates is 60% higher than it would be under simple random sampling for a sample of the same size.

The implications of this increased variance are particularly relevant when interpreting margins of error for survey estimates. Appendix Table 5 illustrates the adjusted margins of error around single percentage estimates, across a range of sample sizes (n = 250 to 5,000) and percentage values (from 10% to 90%). As expected, the margin of error decreases with larger sample sizes and is largest when proportions approach 50%, where statistical variability is highest.

It is important to note that while the table applies a constant DEFF of 1.60 across all estimates for simplicity, in practice, DEFF can vary between subgroups due to differences in sample structure and response variability. These subgroup-specific variations are not captured in the table but should be considered in subgroup analyses.

Appendix

Table 1 BSA 2024 Issued addresses by strata

Strata	BSA Main sample
11- Most deprived in England	4024
12- 2nd most deprived in England	2826
13- middle deprived in England	2651
14- 2nd least deprived in England	2780
15- Least deprived in England	2885
21- Most deprived in Wales	353
22- 2nd most deprived in Wales	282
23- middle deprived in Wales	243
24- 2nd least deprived in Wales	244
25- Least deprived in Wales	244
31- Most deprived in Scotland	412
32- 2nd most deprived in Scotland	327
33- middle deprived in Scotland	285
34- 2nd least deprived in Scotland	285
35- Least deprived in Scotland	285
41- Most deprived in London	534
42- 2nd most deprived in London	779
43- middle deprived in London	490
44- 2nd least deprived in London	365
45- Least deprived in London	262
51- Northern Ireland	1093
Total	21649

Table 2 Between-household non-response model

Variable	*B*	*S.E.*	*Wald*	*Df*	*Sig.*	*Odds*
Region			21.571	11	0.028	
North East	(baseline)					
North West	0.126	0.113	1.233	1	0.267	1.134
Yorkshire and The Humber	0.169	0.118	2.054	1	0.152	1.184
East Midlands	-0.023	0.123	0.035	1	0.851	0.977
West Midlands	0.139	0.120	1.339	1	0.247	1.149
East of England	0.139	0.117	1.410	1	0.235	1.149
London	-0.100	0.131	0.587	1	0.444	0.905
South East	0.010	0.113	0.009	1	0.926	1.011
South West	0.194	0.116	2.791	1	0.095	1.214
Northern Ireland	-0.116	0.167	0.488	1	0.485	0.890
Scotland	0.182	0.132	1.907	1	0.167	1.200
Wales	0.070	0.130	0.292	1	0.589	1.073

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

Variable	B	S.E.	Wald	Df	Sig.	Odds
Percentage owner-occupied (quintiles)			31.023	4	0.000	
1 (lowest)	(baseline)					
2	0.214	0.071	9.101	1	0.003	1.239
3	0.317	0.077	17.058	1	0.000	1.373
4	0.428	0.086	24.677	1	0.000	1.534
5 (highest)	0.502	0.093	29.145	1	0.000	1.653
Percentage with degree (quintiles)			71.136	4	0.000	
1 (lowest)	(baseline)					
2	0.207	0.068	9.196	1	0.002	1.230
3	0.440	0.069	40.703	1	0.000	1.552
4	0.464	0.071	42.651	1	0.000	1.591
5 (highest)	0.571	0.076	55.840	1	0.000	1.770
Percentage aged 65+ (quintiles)			10.602	4	0.031	
1 (lowest)	(baseline)					
2	-0.109	0.067	2.679	1	0.102	0.897
3	-0.227	0.072	10.020	1	0.002	0.797
4	-0.177	0.075	5.560	1	0.018	0.838
5 (highest)	-0.195	0.081	5.830	1	0.016	0.823
Percentage ethnic minority (quintiles)			9.166	4	0.057	
1 (lowest)	(baseline)					
2	-0.065	0.063	1.068	1	0.301	0.937
3	0.051	0.067	0.583	1	0.445	1.052
4	-0.074	0.086	0.747	1	0.388	0.928
5 (highest)	-0.215	0.117	3.393	1	0.065	0.807
Output Area Classification			12.990	7	0.072	
Rural residents	(baseline)					
Cosmopolitans	0.016	0.073	0.051	1	0.821	1.017
Ethnicity central	-0.153	0.146	1.110	1	0.292	0.858
Multicultural metropolitans	-0.042	0.140	0.090	1	0.764	0.959
Urbanites	0.032	0.098	0.104	1	0.747	1.032
Suburbanites	0.192	0.102	3.516	1	0.061	1.212
Constrained city dwellers	0.092	0.105	0.764	1	0.382	1.096
Hard pressed living	0.098	0.165	0.355	1	0.551	1.103
Constant	-2.278	0.156	213.948	1	0.000	0.103

Table 3 Within-household non-response model

Variable	*B*	*S.E.*	*Wald*	*Df*	*Sig.*	*Odds*
Number of adults in Household			9.849	2	0.007	
2	(baseline)					
3	-0.257	0.123	4.354	1	0.037	0.774
4+	-0.400	0.154	6.782	1	0.009	0.670
Household tenure			7.578	2	0.023	
Ownership -outright	(baseline)					
Ownership - mortgage/shared	-0.088	0.104	0.718	1	0.397	0.915
Renting/other	-0.302	0.110	7.513	1	0.006	0.740
Household Education (degree/no degree)						
Degree	(baseline)					
No degree	-0.250	0.099	6.366	1	0.012	0.779
Pre-tax household income (quartiles)			37.469	4	0.000	
Missing	(baseline)					
Less than £330 per week	0.979	0.167	34.258	1	0.000	2.661
£331 - £590 per week	0.687	0.149	21.268	1	0.000	1.987
£591 - £1,000 per week	0.645	0.153	17.760	1	0.000	1.907
£1,000 per week or more	0.649	0.147	19.586	1	0.000	1.914
Constant	-0.884	0.133	44.470	1	0.000	0.413

Table 4 Sample distribution

	Population	Unweighted respondents	Respondent weighted by pre-calibration weight	Respondent weighted by final weight
Region	%	%	%	%
North East	4.0	3.9	4.0	4.0
North West	11.1	12.3	11.1	11.1
Yorkshire and Humber	8.2	8.7	8.0	8.2
East Midlands	7.3	6.4	7.2	7.3
West Midlands	8.8	8.5	8.4	8.8
East of England	9.4	9.9	10.2	9.4
London	13.0	8.7	13.2	13.0
South East	13.8	13.2	13.3	13.9
South West	8.7	10.0	8.6	8.7
Wales	4.7	6.4	5.0	4.7
Scotland	8.2	7.5	8.4	8.3
Northern Ireland	2.7	4.5	2.8	2.8
Age and sex	%	%	%	%
M 16–24	6.7	2.0	2.8	6.5
M 25–34	8.0	5.7	5.8	8.0
M 35–44	7.9	7.0	6.9	7.9
M 45–54	7.5	6.4	7.2	7.6
M 55–59	4.1	3.8	3.8	4.1
M 60–64	3.7	3.8	3.7	3.7
M 65–69	3.0	4.1	3.7	3.0
M 70+	7.6	9.1	7.5	7.6
F 16–24	6.4	4.2	6.0	6.4
F 25–34	8.3	10.3	9.8	8.3
F 35–44	8.4	10.1	10.3	8.4
F 45–54	7.8	9.9	11.1	7.8
F 55–59	4.2	5.2	5.7	4.2
F 60–64	3.8	5.9	5.4	3.8
F 65–69	3.2	4.6	3.9	3.2
F 70+	9.3	8.0	6.3	9.3

Table 4 Sample distribution (continued)

	Population	Unweighted respondents	Respondent weighted by pre-calibration weight	Respondent weighted by final weight
Age and education	%	%	%	%
16-34 Degree/equivalent	11.7	13.5	14.2	11.8
16-34 other qualification	15.5	7.9	9.5	15.4
35-54 Degree/equivalent	16.7	22.9	23.6	16.7
35-54 other qualification	13.0	9.3	10.4	13.0
55-69 Degree/equivalent	8.3	15.5	14.2	8.3
55-69 other qualification	11.3	9.7	9.8	11.3
70+	16.9	17.1	13.8	16.9
No qualification	6.5	4.1	4.4	6.5
Tenure	%	%	%	%
Owned outright	31.5	40.6	37.5	31.5
Mortgage owned	34.4	32.3	32.4	34.3
Rent or other	34.2	27.1	30.1	34.2
Ethnicity	%	%	%	%
White	84.6	89.7	87.1	84.7
BAME	15.4	10.3	12.9	15.3
Economic activity	%	%	%	%
Employed	60.1	55.5	56.8	60.2
Unemployed	2.6	4.2	4.6	2.6
Other/inactive	37.3	40.4	38.6	37.2
Base	55,785,430	4,120	4,174	4,120

Table 5 Margins of error for different sample sizes with a DEFF of 1.60

N =	10%/90%	20%/80%	30%/70%	40%/60%	50%/50%
250	4.7	6.3	7.2	7.7	7.8
500	3.3	4.4	5.1	5.4	5.5
750	2.7	3.6	4.1	4.4	4.5
1,000	2.4	3.1	3.6	3.8	3.9
1,500	1.9	2.6	2.9	3.1	3.2
2,000	1.7	2.2	2.5	2.7	2.8
3,000	1.4	1.8	2.1	2.2	2.3
5,000	1.1	1.4	1.6	1.7	1.8