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Public opinion on the EU referendum question: a new approach

An experimental approach using a probability-based online and telephone panel



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Executive summary

A new approach to opinion surveys

NatCen has developed a new and experimental approach to measuring public opinion, and specifically the likely EU referendum result, that addresses some of the points raised by the inquiry into the 2015 General Election Polls¹. In this report we provide a transparent description of our method alongside our findings about how the electorate will vote.

Online panels are common for a range of market research including polling, but this is the first time that a panel based on people *selected at random* has been established in Britain. The results should thus be treated as experimental. However, the panel has been designed to maximise methodological rigour and has three distinctive features that set it apart:

- The panel is the first ‘random probability’ online and telephone panel in the UK. Panel members were recruited via the 2015 British Social Attitudes (BSA) survey whose participants were selected at random and interviewed in a high quality face-to-face approach. Unlike most online panels, a random probability panel is not formed from people who have ‘volunteered’ to be a member.
- Those who failed to respond to the survey over the internet have, where possible, been followed up by telephone.
- The survey has been conducted over an extended period of 4 weeks (May 16th to June 13th 2016) and has made multiple attempts to reach hard to contact panel members.

In addition, we present alternative ways of estimating how the eventual turnout in the referendum will affect the result. These draw on the information available in the BSA from which the panel members were recruited as well as participants’ self-reported likelihood to vote. Our aim is to be as transparent as possible with the approaches to contribute to the methodological debate around polling and online panels.

Main findings

How would the public have voted on the EU referendum question?

Fieldwork was conducted over the four weeks May 16th to June 13th 2016. In that period we estimate that the electorate would have voted to remain in the EU, with a margin of 6 percentage points: 53% for Remain compared to 47% for Leave (Figure 1:1). However, these levels are just within the statistical margin of error for the survey, meaning we cannot reject the possibility that the lead for Remain is the product of the chance sampling error to which all surveys are subject’.

Polls are a product of their fieldwork period and it is important to consider the differences between this survey and other polls when making comparisons. If it is the case that, as the polls collectively suggest, there has been a swing towards Leave since early June², the timing of the fieldwork for our survey means that the swing will not be prominent in our estimate.

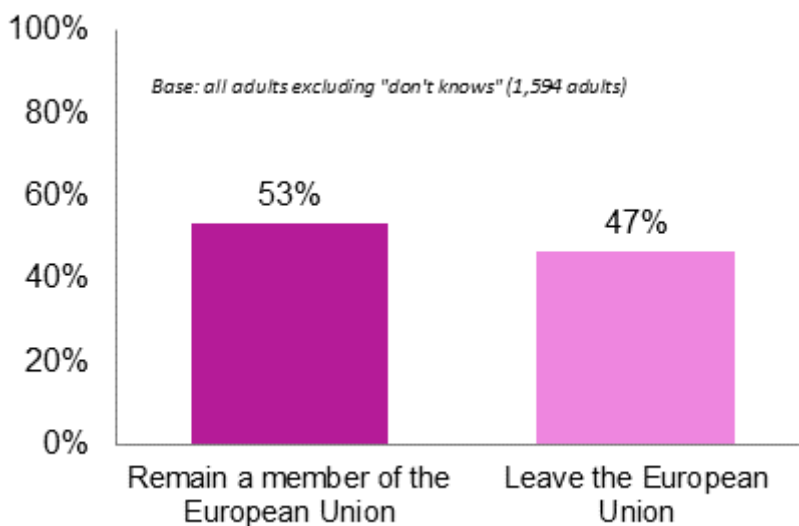
¹ <http://eprints.ncrm.ac.uk/3789/>

² <http://whatukthinks.org/eu/leave-make-a-leap/>

If we instead focus on polls during the period of our fieldwork, and particularly the early period when most of our interviews were achieved, the average of the polls suggested Remain was in front by a small margin.

John Curtice's analysis of the differences between phone and internet polls³ suggested the two approaches may be producing systematically different results. An average of polls done in our fieldwork period found that internet polls averaged 50% for Remain and phone polls 55%. Professor Curtice suggests this may be due to differences in sample composition. One possibility (which remains to be evidenced) is that polls conducted over the internet had a lower level of more highly educated people in their samples, whereas telephone polls had a higher level than is the case in the general population. Given the strong approach to the sample design for our survey our estimates are less affected by sample bias in general and specifically on this characteristic. This would explain our estimate sitting between the online and telephone poll results at that time.

Figure 1:1 Estimate of the EU Referendum result (modelled turnout approach)



Adjusting for turnout: alternative approaches to assessing the result

The referendum result provided above uses our preferred approach to creating an estimate of voting intention, but there are other approaches to assessing the difficult question of who will actually turn out to vote on polling day. We briefly describe three approaches here, our preferred approach against two alternatives.

1. **No adjustment.** No attempt is made to identify who is likely to vote: this represents the views of the whole British public.
2. **Using people's own report of their likelihood to vote.** We asked panel members how likely they would be to vote in the referendum. Using this measure we weighted their responses on the leave or remain question, with

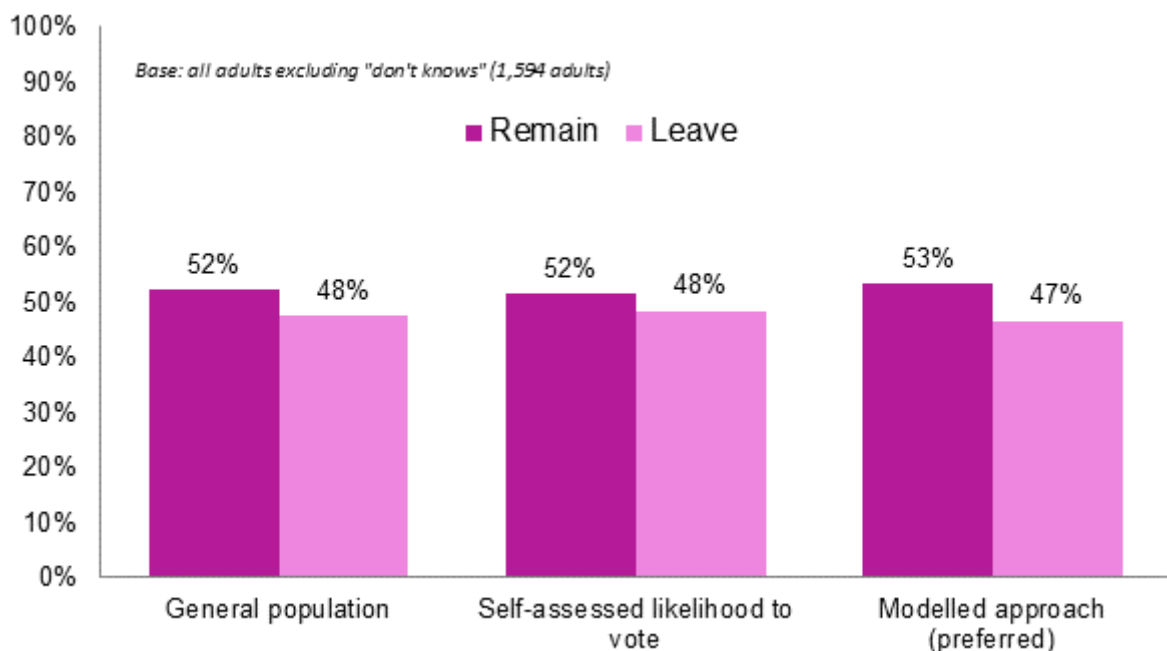
³ <http://whatukthinks.org/eu/analysis/the-divergence-between-phone-and-internet-polls-which-should-we-believe/>

those who say they are more likely to vote having more influence on the final estimate. This is the approach that most polls take.

3. **A modelling approach (preferred approach).** This makes use of data about whether people voted in the 2015 general election that is available in the British Social Attitudes survey in 2015 – from which panel members were recruited. This approach models that turnout and applies the result to those participating in the EU referendum survey. We are treating this as our ‘preferred’ approach in this report.

The results for the three approaches are provided in Figure 1:2. We see that all three suggest a lead for remain in the fieldwork period, with the preferred modelling approach suggesting a slightly larger lead than the other two approaches.

Figure 1:2 EU Referendum result estimates: three approaches



What drove the choice to leave or remain?

The demographic characteristic most strongly associated with wanting to remain in the UK, whilst controlling for other factors, was educational attainment. Those with a degree were substantially more likely to back Remain than those without qualifications. Age was also strongly related (younger groups more likely to back Remain than older), along with region (Scotland and London were most likely to back Remain).

Panel members were asked a range of questions about aspects of the decision that have been prominent in the debates leading up to polling day. The issue most strongly related to the question of whether to remain or leave was that of whether Britain's identity was being undermined by its membership of the EU. Whether or not the economy would be better off outside the EU was the second strongest factor.

1 Context for a new approach

NatCen Social Research has developed a new and experimental approach to measuring public opinion, and specifically the likely EU referendum result, that addresses some of the points raised by the inquiry into the 2015 General Election Polls. In this report we provide a transparent description of our method alongside our findings about how the electorate will vote.

The polling inquiry

In the run up to the general election in 2015, the majority of opinion polls suggested a close vote and a hung parliament. In fact, the result was a clear Conservative majority. Subsequently, there was considerable debate about the value of polling and the influence that polling has on the nature of political debate in the run up to elections.

The industry, represented by the British Polling Council (BPC) and the Market Research Society (MRS), responded quickly by setting up an independent inquiry led by Professor Patrick Sturgis, Director of the National Centre for Research Methods at the University of Southampton. The conclusion of this inquiry was that *'the primary cause of the polling miss in 2015 was unrepresentative samples'*.⁴

The inquiry made a number of recommendations for improving polling methods, and also assessed that the problem of unrepresentative samples would be best addressed through 'random probability designs'. These designs systematically approach a randomly selected group of people without bias, in contrast to most online panels that are developed through people 'volunteering' to join and telephone polls that speak to whoever they can in line with predefined quotas. The inquiry acknowledged the challenges of costs and speed for polling organisations to adopt these methods.

In the run up to the European Union referendum the polls have once again been numerous and prominent, but with more transparency and scrutiny following recent history. A number of questions have been raised by this recent polling, and these have been addressed by John Curtice, Senior Research Fellow at NatCen and Professor of Politics at Strathclyde University as part of the 'What UK Thinks' initiative run by NatCen Social Research and funded by the Economic and Social Research Council. His report⁵ highlighted the apparent divergence between online polls those carried out over the phone. For most of the campaign, polls done over the internet have suggested that Leave and Remain were around the same levels, whereas phone polls have tended to suggest a clear lead for Remain. The explanation for this is not entirely clear, but the report concludes that it may be explained by differences in sample composition, with differences in the proportions of graduates being an especially relevant focus for this referendum.

A new approach

Against this backdrop, NatCen has developed a new and experimental approach to measuring public opinion that addresses the fundamental issue raised by the inquiry. In this report we show how this new approach has been used to measure public opinion in the EU referendum. NatCen is not a polling organisation but an independent social research organisation with charitable status. Part of our charitable aim is to contribute

⁴ See p4 of report at <http://eprints.ncrm.ac.uk/3789/>

⁵ <http://whatukthinks.org/eu/wp-content/uploads/2016/05/Analysis-paper-6-The-Divergence-Between-Phone-and-Internet-Polls.pdf>

to methodological developments that lead to improvements in the quality of social research in the UK. In this spirit, this report presents the methodology employed prominently and transparently alongside the substantive results.

2 NatCen's probability-based panel

2.1 Background

The NatCen Panel was set up at the end of 2015 as part of a feasibility study funded by the Joseph Rowntree Foundation (JRF) who were interested in whether a survey vehicle could be established that would provide high quality research for use in policy development that was quicker and cheaper than random probability face-to-face methods. A number of experiments were included in the feasibility study's design (the findings of which are intended to be published) and the study proved to be a success in relation to being able to complete the survey in a relatively short time whilst achieving good response rates and sample quality. In order to further assess the quality of the estimates that the study produces, NatCen has taken the opportunity presented by the EU referendum to calibrate its findings against an external measure. Our intention is also to go back to our panel members after the referendum to ask them whether and how they voted.

2.2 A random probability approach

NatCen's online panel is the first panel in the UK to be established based on a random probability design. This is a considerable difference to conventional internet opinion polls: our panel members were originally selected at random, unlike the participants in most online polls, who are selected from a panel of people who have volunteered to take part. It also differs from Random Digit Dialing (RDD) approaches which, although they select numbers at random, will then typically aim to fulfill quotas rather than maximizing participation. This, coupled with the approach to fieldwork described below, should help to make our sample more representative, which in turn should make it less prone to bias than conventional opinion polls.

Panel members were recruited from the British Social Attitudes survey (BSA) in 2015 which interviews those aged 18 and over across Britain (south of the Caledonian canal). The BSA is a high-quality, random probability face-to-face survey: this means that households and individuals are selected at random, and then considerable effort is expended by field interviewers to achieve an interview, including visiting the selected addresses multiple times.

Those interviewed as part of the BSA were asked to join the Panel at the end of the BSA interview. For this survey on the EU referendum, all panel members were approached to participate (no quotas were used) and the random probability design was therefore maintained.

2.3 Fieldwork for the survey

The approach to fieldwork for the panel survey is aimed to provide high quality at relatively low cost and relatively quickly. We employ a sequential mixed mode design, where we first invite panel members to participate in the research online (using multiple points of contact by post, email and text) before we then attempt to make contact by telephone with those who have not yet completed the interview. In this way we are able to access those who do not have regular access to the internet or, for instance, who

may have literacy or language barriers, which online polls are not necessarily able to do. A £5 'thank you' was paid to those who participated.

In contrast to conventional internet or telephone polls, the fieldwork period lasted for one month. This was to ensure that we could make repeated attempts to contact the selected individuals to try to secure their participation, rather than only including those that are 'readily' available.

The probability design allows us to apply statistical theory to the study, including tests of statistical significance or the 'margin of error'. Response rates are a crucial indicator of quality for surveys of this sort and are provided in Table 2:1. Conventional polls do not generally provide response rates as their quota designs do not have maximizing response as their aim. This survey achieved a 62% response rate among those invited to participate. When we take account of non-response at the BSA interview and then also at the point of recruitment to the panel, our overall response rate is 19%. See Appendix C for a comparison of the sample achieved in the survey after weighting in comparison to the original BSA sample (itself weighted to be representative of the general population).

Table 2:1 Survey response	
Response to the EU survey	
Issued	2,638
Achieved	1,632
EU survey response rate	62%
Overall response	
BSA issued	9,412
BSA deadwood	923
BSA productive	4,328
Recruited to panel	2,783
BSA response rate	51%
Panel recruitment rate	64%
Overall EU survey response rate	19%

2.4 Weighting for general analysis

This section outlines the weight that has been calculated for the general analysis of the survey results. In addition, weights have been derived for estimating the referendum result in particular – see section 3.2). In line with the recommendations from the BPC polling inquiry, it also explicitly states which variables have been used to weight the data.

Random probability samples are affected by non-coverage and non-response. Additionally, internet probability panels also suffer from differential attrition since some cases are more likely to drop out of the panel than others. In order to ensure that the

sample is representative of the population, we have computed a set of non-response weights.

Non-response for NatCen's probability panel surveys can occur at three stages: non-response at the survey used for recruitment (the British Social Attitudes survey), refusal to join the panel at the end of that interview and non-response in the survey of panel members itself. We compute a weight to account for non-response at each of these three stages. The final weight is the product of these three weights. We use this three-stage system because the variables underlying non-response could be different at each stage. With this system we also can maximise the use of all the information available from the British Social Attitudes Survey (BSA). These are the three weights we have computed:

- a. **BSA survey weight:** the panel members were recruited from the BSA 2015. The BSA 2015 weight has been used to make the sample of BSA respondents representative of the general British population in terms of gender, age and Government Office Region (GOR). More details on the BSA weight can be found at <http://bsa.natcen.ac.uk/latest-report/british-social-attitudes-32/technical-details.aspx>.
- b. **Panel weight:** this weight accounts for non-response at the panel recruitment stage where some people interviewed as part of the BSA survey chose not to join the panel. A stepwise logistic regression model has been used to derive the probability of response of each panel member; the panel weight is computed as the inverse of the probabilities of response. This weight adjusts the panel for non-response using the following variables: age and sex groups, GOR, household type, household income, education level, whether respondent has a disability, internet access, ethnicity, tenure, social class group and interest in politics. The resulting panel weight has been multiplied by the BSA 2015 weight, so the panel is representative of the population.
- c. **Survey weight:** this weight is to adjust non-response to this particular panel survey. A stepwise logistic regression model has been used to compute the probabilities of response of each participant. The panel survey weight is equal to the inverse of the probabilities of response. The initial set of predictors used to build the model was the same as for the panel weight; the only difference in the final set of variables in the model is that household type was not entered in the model while political party identification was. The final survey weight is the result of multiplying the survey weight by the compounded panel weight.

In Appendix C we present, for the variables used to compute the survey weight, the population estimates from BSA 2015 alongside the population estimates from the EU referendum survey.

3 Estimating the outcome of the EU referendum

3.1 Estimate of the EU referendum outcome

The survey question asked in the survey was the one that will be used as the actual referendum question on the ballot paper:

“Should the United Kingdom remain a member of the European Union or leave the European Union?”

This was the first question asked in the questionnaire and followed a short preamble that reminded participants that the referendum would be happening on the 23rd June and that a referendum meant people voting to make a decision about whether the UK should leave or remain in the EU.

Referendum result estimate

The results of our analysis are provided in (Table 3:1). These include a statistical adjustment that uses a modelling approach to estimating the effects of voter turnout on the referendum vote. This is our preferred method, but there are alternatives, and each is discussed in detail the Section 3.2.

Based on views in the period May 16th to June 12th 2016, we estimate that the electorate would have voted to remain in the EU, with a margin of 6.5 percentage points: 53.2% remain compared to 46.8% leave (Table 3:1). However, these levels are close to the statistical margin of error for the survey: the lower boundary of the 95% confidence interval for the remain figure is 49.9%, meaning we cannot reject the possibility that the lead for Remain is the product of chance sampling variation. We are providing confidence intervals in line with the BPC inquiry recommendations.

Table 3:1 Estimate of the EU referendum result – excluding “don’t knows” (modelled approach)			
Base: GB adults excluding “Don’t Knows”		95% confidence interval	
		Lower	Upper
Should the United Kingdom remain a member of the European Union or leave the European Union?	Estimate		
	%	%	%
Remain a member of the European Union	53.2	49.9	56.6
Leave the European Union	46.8	43.4	50.1
Total	100.0		
Difference (Remain - Leave)	6.5		
<i>Unweighted base</i>	1,554		

Interpreting results with a four-week fieldwork period

In order to ensure a good response rate to the survey (see Section 2.3) fieldwork for the survey was conducted over four weeks from May 16th to June 13th 2016. Whilst short for a probability sample, this is considerably longer than the time taken to conduct most internet and telephone polls. Whilst this does have the benefit of not being as prone to news events on any given day, it does not provide a ‘snapshot’ of current voting intentions near to the day of publication.

Treatment of “don’t knows” in the analysis

The complexity of the economic and social considerations surrounding the question of whether to exit from the EU suggests that a very reasonable position in the debate is “don’t know”. However, on the basis that we wanted to replicate the decision in the polling booth, we did not encourage a don’t know response: the online questionnaire did not initially list “don’t know” – this only became available if a participant tried to ‘skip’ the question without providing an answer. Similarly, telephone interviewers did not read out the “don’t know” option (but did code this where an answer could not be given). However, some participants did spontaneously say “don’t know” in response to the question, and an alternative approach to the presentation of the result would be to include this group in the base for the percentages.

The estimate of the referendum result when people who said “don’t know” were included in the analysis 50.8% for Remain (Table 3:2). Again, the confidence interval around the estimate means that this is not statistically significantly different to the 50% required for a result.

Table 3:2 Estimate of the EU referendum result – including “don’t knows” (modelled approach)			
Base: all GB adults		95% confidence interval	
		Lower	Upper
Should the United Kingdom remain a member of the European Union or leave the European Union?	Estimate		
	%	%	%
Remain a member of the European Union	50.8	47.6	54.1
Leave the European Union	44.7	41.4	48.0
Don't know	4.5	3.4	5.9
Total	100.0		
Difference (Remain - Leave)	6.2		
Unweighted base	1,630		

Potential effect of a “late swing”

Any survey or poll is a product of the timing of its fieldwork and the further this is away from the referendum or election itself, the more prone it will be to voters changing their minds or making a late decision. An apparent shift in emphasis was picked up in a number of polls after the end of May, with the ‘What UK Thinks’ poll of polls identifying

a switch to a majority in favour of a vote to leave the EU after that time.⁶ Given that the fieldwork for this survey was concentrated prior to the end of May we may not pick up this possible swing to Leave. But equally, the polls in the week prior to the referendum vote will not pick up a very late swing in the other direction, were this to happen as Stephen Fisher’s analysis of previous referendums has suggested it might.⁷ His analysis found that polls did not detect a later return to the status quo in the majority of referendum votes included in his analysis.

One method we have to assess the potential for a late swing is to consider how firmly participants say that their minds are made up. The survey asked the question “*Have you definitely decided how you will vote in the EU referendum or is there a chance you may change your mind?*”. A total of 29% of those who had stated a view on whether to leave or remain said that they “may change their mind” (Table 3:3). Those who had stated a preference for remaining in the EU were slightly more likely to suggest they could change their mind (31% compared to 26%), although the difference between the two figures was not statistically significant. With this level of undecided voters in combination with the “don’t know” described above, this is a relatively large proportion of voters who suggest they may be open to changing their minds in the last weeks of campaigning.

Table 3:3 Whether definitely decided on referendum question

<i>Base: GB adults who stated leave or remain</i>			
	Remain in the EU	Leave the EU	Total
	%	%	%
Definitely decided	69	74	71
May change mind	31	26	29
Total	100	100	100
<i>Unweighted base</i>	821	727	1,548

A further aspect of this issue relates to the mode of interview – telephone or internet, as we discuss below in Section 3.3.

3.2 Assessing turnout

The referendum estimates presented above include an adjustment to try to account for who will go on to vote in the referendum on the day. This is because some groups in the population are more likely to vote than others in any given election or referendum. Turnout varies considerably: turnout was 42% for the AV referendum in 2011, 66% for the General Election in 2015 and 85% for the Scottish Referendum in 2014. Given this variation, it is both important to try to assess how turnout will affect the result in survey estimates and difficult to do so.

The BPC’s polling inquiry recommended the industry should ‘review existing methods for determining turnout probabilities’. In this section we outline two approaches to

⁶ <http://whatukthinks.org/eu/a-scintilla-of-movement-to-leave/>

⁷ <http://blog.whatscotlandthinks.org/2014/09/accurate-will-scottish-independence-referendum-polls/>

estimating the referendum result. In addition to the general analysis weight described in Section 2.4 we have computed two sets of weights, to adjust for differential turnout across groups. The two methods employed are the **self-assessed likelihood to vote approach (LTV)** and the **modelled LTV** approach.

A. Self-assessed LTV approach

This propensity approach assumes that all individuals have a probability of voting. Survey respondents are asked to indicate how likely they are to vote on a scale from 0 to 10. The approach uses this information as an estimate of turnout propensities (e.g. 10=1, 9=.9...). Finally, the resulting LTV propensity is multiplied by the main non-response weight described above.

Table 3:4 shows that those stating their preference was to remain in the EU were less likely to say they would definitely vote (a score of 10). As a result, this weight lowers the Remain percentage in our estimate compared with the general population weight, as shown in Table 3:5.

Table 3:4 Likelihood to vote by referendum question			
<i>Base: all GB adults</i>			
	Remain in the EU	Leave the EU	Total
Likelihood to vote	%	%	%
0 (definitely won't vote)	4	3	4
1	0	0	0
2	0	0	0
3	1	0	1
4	1	2	2
5	7	4	6
6	2	3	2
7	4	3	4
8	7	5	6
9	8	4	6
10 (definitely will vote)	67	75	70
Total	100	100	100
<i>Unweighted base</i>	822	729	1,629

B. Modelled LTV approach

An alternative approach is to compute the likelihood to vote using a statistical model. As long as the differences in turnout across groups remain constant, this approach would be valid to estimate the turnout propensities. This a potential weakness for the approach given the variability in election and referendum turnouts mentioned above. For this study we have used the BSA 2015 data to model the likelihood to vote in the 2015 General Election (the turnout level found on the BSA was close to the actual level, so is a good basis for this approach). This model was built using a data-driven strategy: the main socio-demographics from BSA were candidates to be entered in the

model. Using a stepwise logistic regression model we selected the variables related to voting behaviour which are: age and sex, education level, social class group, ethnicity, GOR, household type, tenure and economic activity.

We then used the resulting model to derive the LTV for each survey respondent. The likelihood to vote has been multiplied by the main non-response weight described above.

The association between the variables in our model with our referendum question can be seen in Appendix A. Particularly noticeable is the relationship with educational attainment: 74% of graduates backed Leave compared to 35% of those without qualifications.

Comparison of the results of the approaches

The results for the three approaches are provided in Table 3:5. We see that all three suggest a lead for remain in the fieldwork period, with the preferred modelling approach suggesting a slightly larger lead than the other two approaches.

<i>Base: GB adults excluding "Don't Knows"</i>			
Should the United Kingdom remain a member of the European Union or leave the European Union?	General population	Self-assessed likelihood to vote	Modelled likelihood to vote
	%	%	%
Remain a member of the European Union	52.3%	51.6%	53.2%
Leave the European Union	47.7%	48.4%	46.8%
Total	100.0%	100.0%	100.0%
Difference (Remain - Leave)	4.6%	3.1%	6.5%
<i>Unweighted base</i>	1,554	1,524	1,554

Various approaches to estimating differential turnout are taken by polling organisations and these have been refined as the campaign has developed. The most common approaches are to not adjust for turnout (the equivalent of our general population weight measure) or to weight using a LTV question. A further approach used by some polls is use the LTV question to only include in their analysis those who say they will definitely vote. In our view this approach is less defensible given that a proportion of those who do not state they will definitely vote to the LTV question nonetheless will go on to vote while a proportion of people who say they will definitely vote in the end do not.

The BPC's polling inquiry recommended the industry should 'review existing methods for determining turnout probabilities' – here we have compared some of the dominant existing approaches, there are also further adjustments that could be made to the data to try to account for actual turnout, such as further calibration of the population weight to the 2015 General Election, adjusting the weights for those that may change their mind, adjusting weights for those that have registered for postal voting (or already

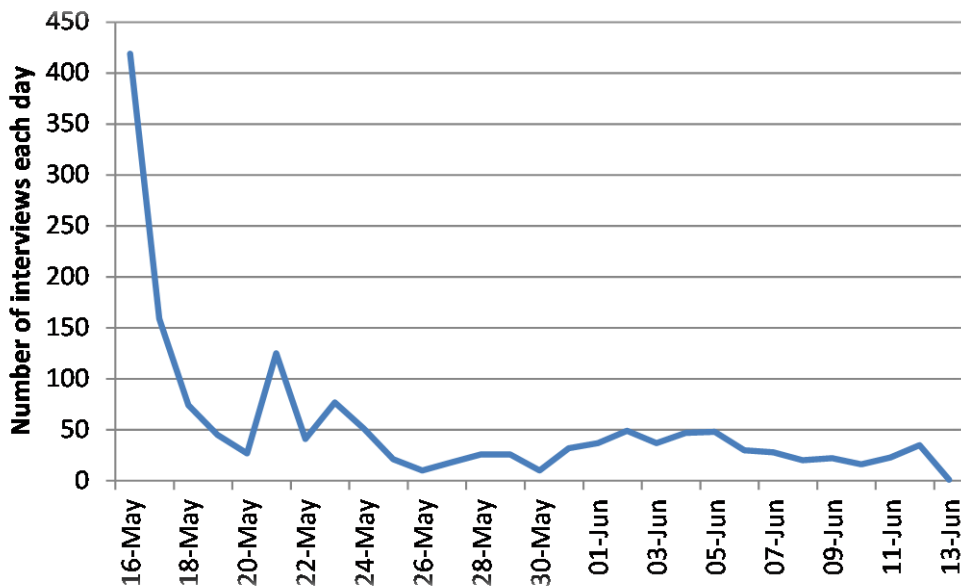
voted by post), and creating a combined weight taking into account both modelled and self-reported LTV. In particular, the polling inquiry report suggests including questions to determine whether respondents have already voted. While we have collected this data, along with who has registered to vote, we have not yet accounted for this in our adjustments. We will consider whether microdata can be made available for researchers to look at these and other possibilities.

3.3 Effect of the fieldwork approach

Fieldwork over a month

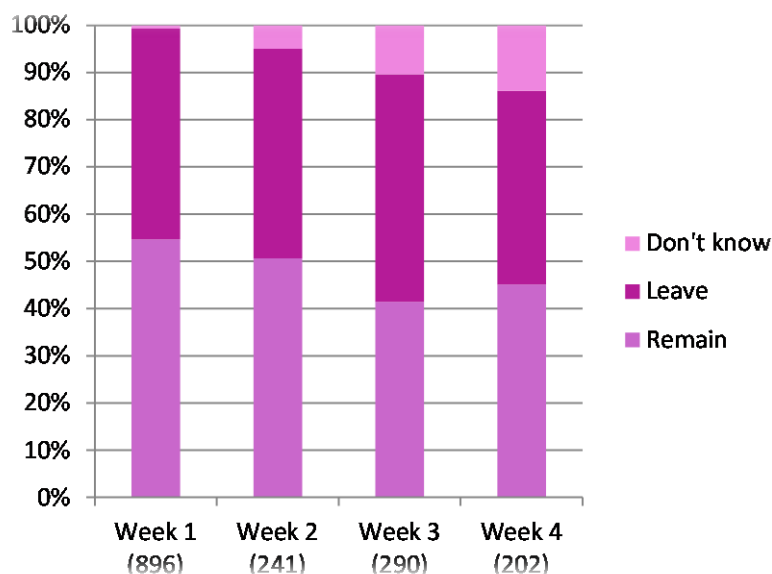
Fieldwork was spread over a month but interviews were concentrated in the very early part of this period – soon after emails and letters were first sent to invite panel members to participate (Figure 3:1).

Figure 3:1 Number of interviews achieved in each day of fieldwork



The levels of support for Remain and Leave varied over the course of fieldwork. There was a considerably higher level of support for remain in the first two weeks than in the last two weeks; indeed, in the third week more people backed Leave than did Remain (Figure 3:2). “Don’t knows” also increased in the latter two weeks, although this is likely to be due at least in part to the change in mode mid-way through fieldwork.

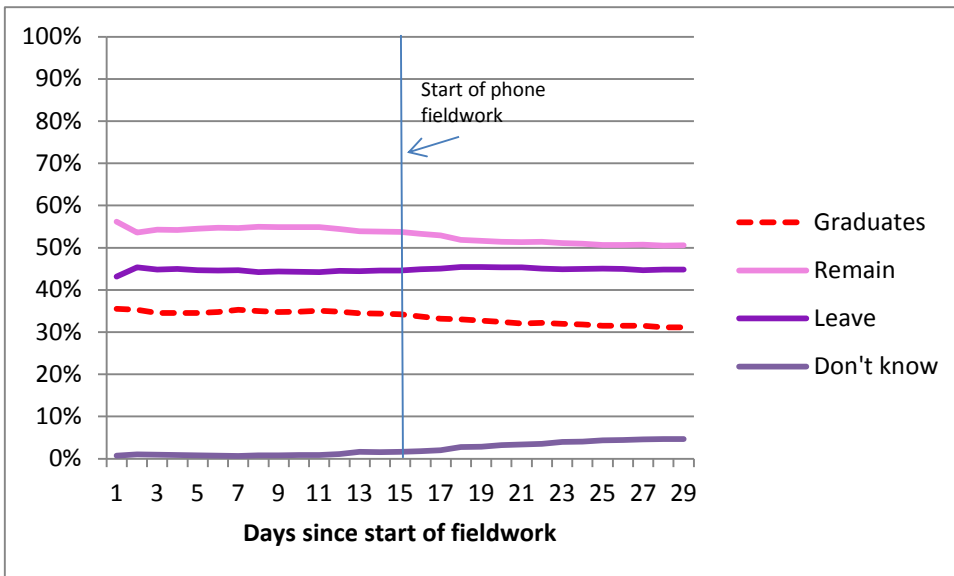
Figure 3:2 Weekly EU referendum decision measure (unweighted)



The aim of the longer period of fieldwork was to increase response in order to improve sample quality, as has been demonstrated in analysis of the BSA⁸. We might expect to see differences in some demographic characteristics amongst those interviewed later in the fieldwork period if they are harder to access (in particular if they do not have access to the internet). Looking at the highest level of educational attainment, an important measure in the weighting and the strongest correlate with the referendum question (see Section 4), we can see that the proportion of interviews conducted with panel members with a degree was higher in the early (online only) part of fieldwork (35% in the first week, falling to 31%, 23% and 25% in subsequent weeks). Comparing interviews conducted online with those over the phone, 35% of the former were with those with a degree compared with 22% of the telephone interviews. This demonstrates the likely importance of the longer fieldwork period and the inclusion of the telephone mode (discussed further below) as a means of encouraging and enabling participation from people who would otherwise not have been included in the study. Figure 3:3 shows the cumulative levels of the referendum question and the level of graduates. There is a gradual decline in Remain over the period while the proportion of don't knows increase. The level of graduates declined over the fieldwork period as the overall response rate increased.

Figure 3:3 Cumulative referendum question levels and level of graduates over the survey period (unweighted)

⁸ <http://www.bsa.natcen.ac.uk/media/39018/random-sampling.pdf>

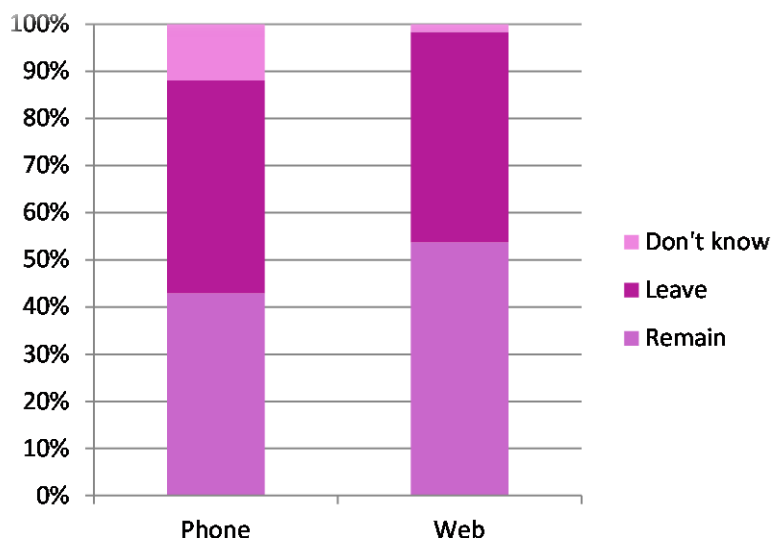


Mode of interview

Those interviewed online were more likely to want to remain in the EU than to leave, but the reverse was true for those interviewed over the phone (Figure 3:4). This is different to the overall pattern seen in other polls and is likely to be a feature of the sample differences at the different points in fieldwork rather than the mode of interview⁹.

It was a feature of the telephone approach that it was more likely that people would choose “don’t know”. As discussed in Section 3.1, this option was not explicitly provided in the online questionnaire. In the telephone interviews, whilst it was not an option that was read out, if participants were clear that they did not know whether wanted to leave or remain the interviewer would have coded them as such.

Figure 3:4 Referendum decision by mode of interview



⁹ The presence of an interviewer may have some effect if we believe that the question may have a social desirability bias where the interviewer’s presence leads to some participants changing their response.

A further aim of the multimode approach was to ensure those who were not able to access the internet easily could still participate via the telephone. Ten per cent of the survey's sample had stated in the face-to-face BSA interview that their household did not have internet access. They were noticeably less likely to have qualifications than those who did have access to the internet (suggesting a lower propensity to vote Remain), making them a distinct group and important to represent.

3.4 Comparisons with polls

As of 20th June, the What UK Thinks poll of polls¹⁰ assessed the referendum result to be a dead heat at 50% for Leave and Remain. An overall swing away from Remain towards Leave has been a feature of recent polling and contrasts with our best estimate which suggests a Remain win (albeit within the margin of error).

It is important to consider the fieldwork period when making comparisons. As noted above, polls are a product of their fieldwork period and if it is indeed the case that, as the polls collectively suggest, there has been a swing towards Leave since early June, the timing of the fieldwork for our survey means that the swing will not be prominent in our estimate.

Focusing on the period of our fieldwork period (16th May to the 13th June) there was considerable variation between polls in that period, with some suggesting a Leave win and others a win for Remain. John Curtice's analysis of the differences between phone and internet polls¹¹ is particularly useful here. This suggested the two approaches may be producing systematically different results, most likely due to differences in sample composition. An average of polls done in our fieldwork period, weighted to reflect the numbers of interviews we achieved in the first two weeks relative to the second two weeks found that internet polls averaged 50% for Remain and phone polls 55%.

Our estimate is between these figures. It is difficult to assess the reasons for the divergence between the methods at this point or why our estimate sits between them, but our initial hypothesis is that this relates to differences in sample composition, especially educational attainment. Few polls capture or report educational attainment, but where they have, online polls had a lower level of more highly educated people in their sample. If telephone polls (which gave Remain a clear lead) have a higher level of those more highly educated than is the case in the general population this may lead to the divergence: our results confirm a strong relationship between education and their stance on the referendum question, with graduates being considerably more likely to back remaining in the EU (see Chapter 4 and Appendix A).

Given the strong approach to the sample design for our survey we would expect that our estimates are less likely to be affected by sample bias in general. In addition, we have developed a weighting scheme that accounts for educational attainment as this is collected along with a wealth of other information from the original BSA interview. It is also a variable used in the modelled approach to the question of turnout. As the table in Appendix C shows, the weighted sample for this survey matches that of the BSA. If it is the case that the phone and internet polls over and under-represent those with higher

¹⁰ What UK Thinks gathers together all published polls in the referendum, placing them on a comparable basis as far as possible <http://whatukthinks.org/eu/opinion-polls/poll-of-polls/>

¹¹ <http://whatukthinks.org/eu/analysis/the-divergence-between-phone-and-internet-polls-which-should-we-believe/>

educational attainment, this suggests that our estimate of the referendum result should lie somewhere between them.

4 Attitudes to the EU

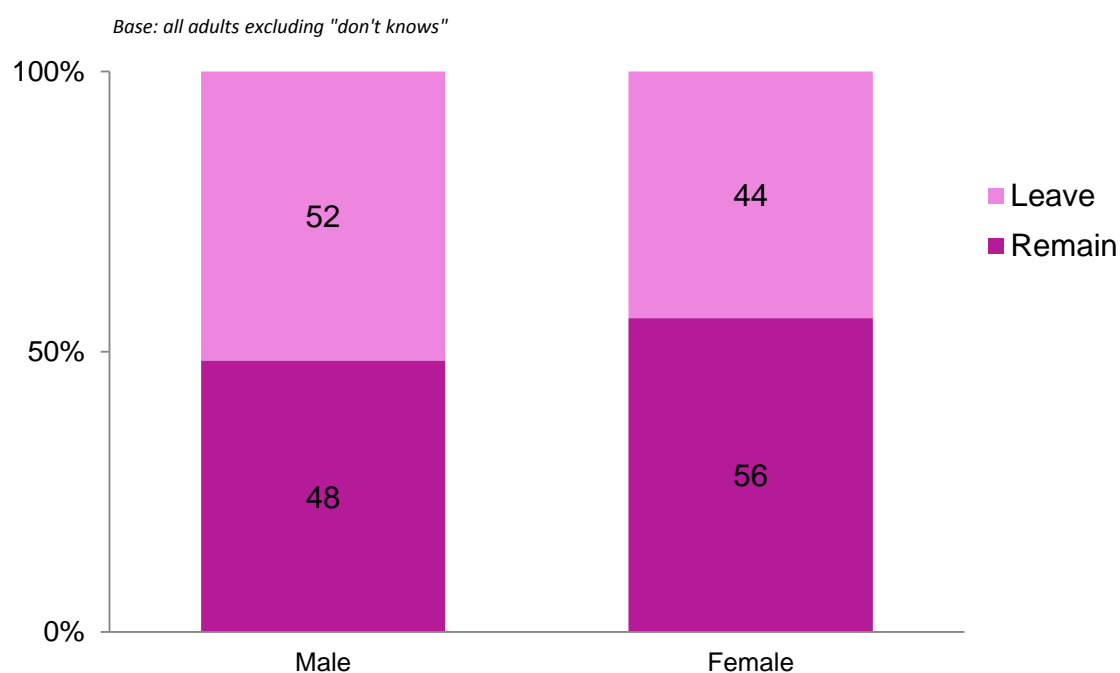
This chapter uses some of the wide range of additional data that our panel holds on its members to address the question of which groups are more likely to want to leave and to remain in the EU. We also look at which of the major themes in the campaign to date appear to be most prominent in this decision.

Differences between demographic groups

A number of characteristics were found to be statistically significantly associated with variation in responses to the referendum question. The analysis in this chapter presents findings for a representative groups of adults, rather than being weighted towards those more likely to vote.

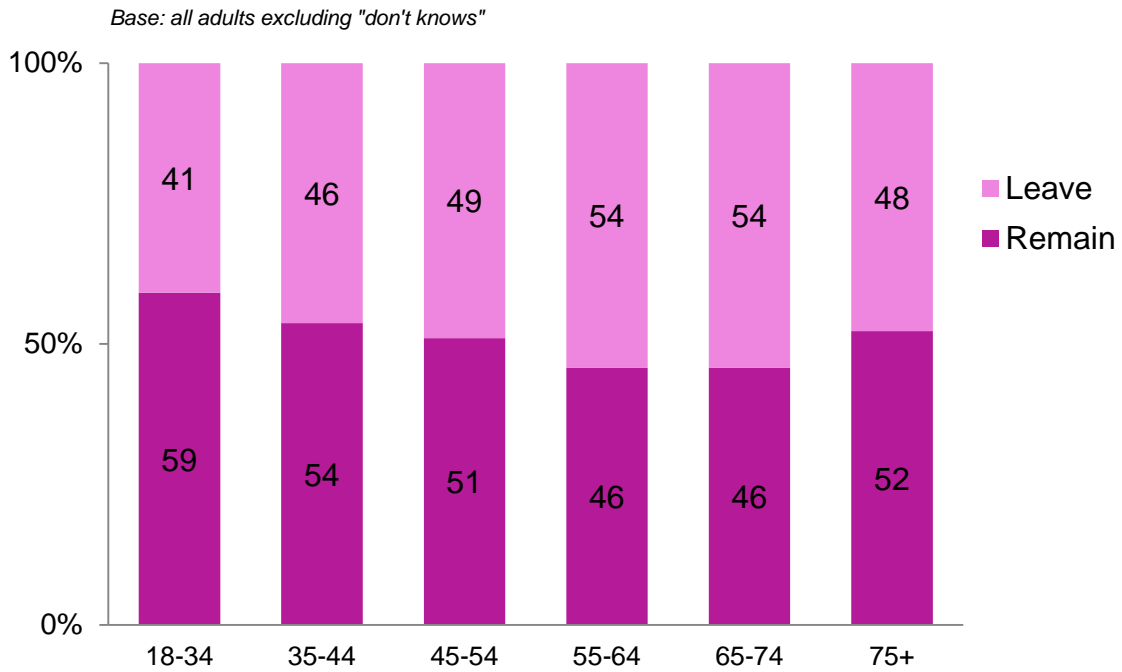
- Women were more likely want to remain in the EU than men (56% compared to 48%; Figure 4:1).

Figure 4:1 Referendum decision by sex



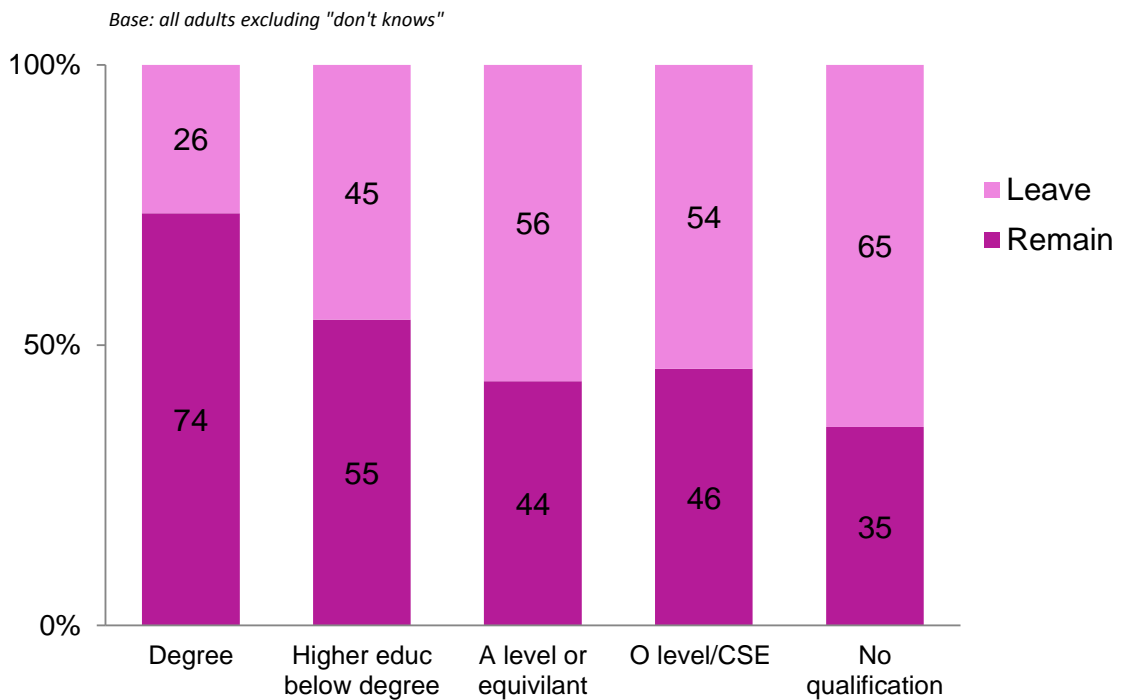
- Younger age groups were more likely to want to remain in the EU than older groups. However, whilst these differences were statistically significant, the differences were not as substantial as has been seen in some of the polls (59% among 18 to 24 year olds compared with 46% among those aged 65 to 74; Figure 4:2).

Figure 4:2 Referendum decision by age



- Those with degrees were substantially more likely to want to remain in the EU than those with no qualifications (74% compared with 35%; Figure 4:3).

Figure 4:3 Referendum decision by highest educational attainment



- Those in Scotland and London were more likely to want to remain in the EU than other regions (see Appendix A).
- Managerial and professional occupations were more likely to want to remain (63% compared with 46% of those in semi-routine and routine occupations; Appendix A).
- Those in higher income households were also more likely to want to remain in the EU (63% of higher earners compared with 52% of those on lower incomes; Appendix A).

Statistical modelling helps to reveal underlying associations with something we are trying to explain by assessing the relationship with one factor whilst controlling for others in the model. The demographic characteristic most strongly associated with wanting to remain in the UK whilst controlling for other factors was educational attainment (see Table 4:3). Age and region were also statistically significant, but other characteristics were not.

Demographic factors found to be statistically significantly associated with wanting *to remain* in the EU, controlling for other factors:

1. Having a degree
2. Being younger
3. Region (Scotland and London)

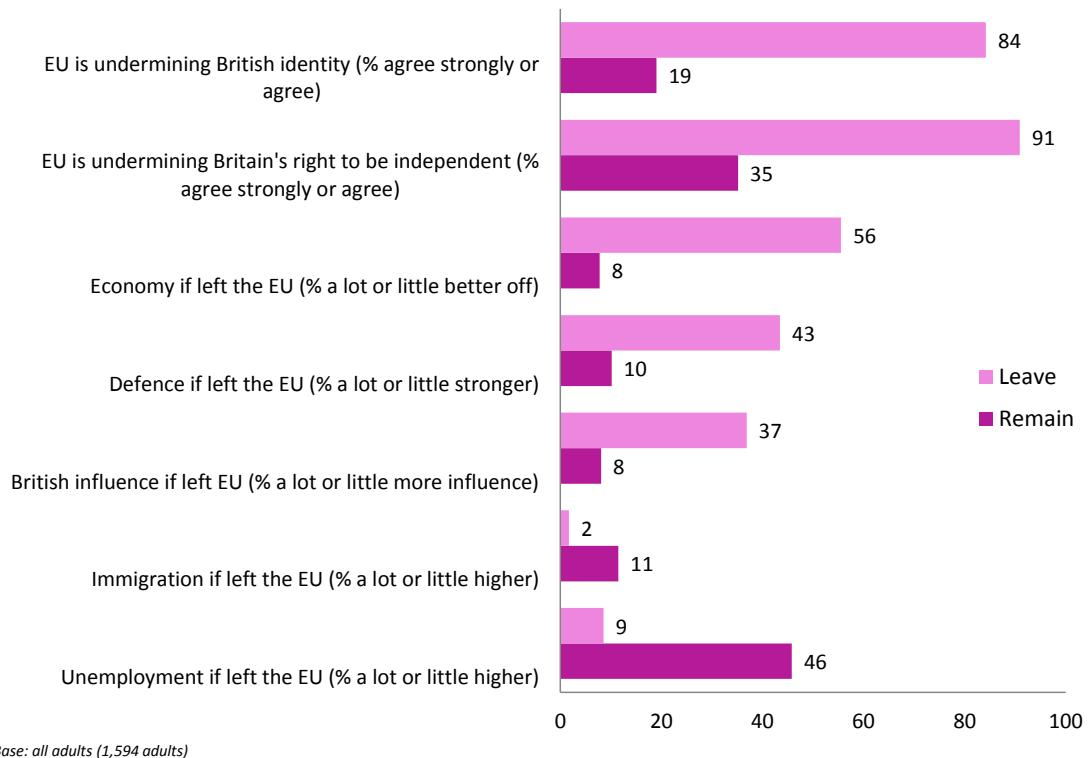
Influence of the referendum debate issues

The survey asked a number of questions in line with key points of debate in the campaign to date. Figure 4:4 provides a comparison of the opinions on these issues between those backing Leave and Remain. These used different answer categories, but the Figure presents them together for comparison.

- The most substantial difference in terms of the percentage point difference between the Leave and Remain groups was to the question of whether membership of the EU is undermining British identity. 84% of the Leave group agreed (“agree” or “agree strongly”) that that it was, compared to 19% of those in the Remain camp.
- There was a similar very substantial difference in relation to the EU undermining Britain’s right to be independent (91% of Leave, 35% of Remain).
- There was less certainty amongst the Leave camp in relation to the economy, although differences between the camps was still substantial. 56% of those in the Leave camp felt that the UK economy would be a lot or a little better off outside the EU, compared with 8% of those in the Remain camp.

- Most people did not think that immigration would be higher after leaving the EU. The detailed tables in Appendix A show that 85% of the Leave camp thought it would be “a lot” or “a little lower” outside the EU, compared with 47% of those in the Remain camp.

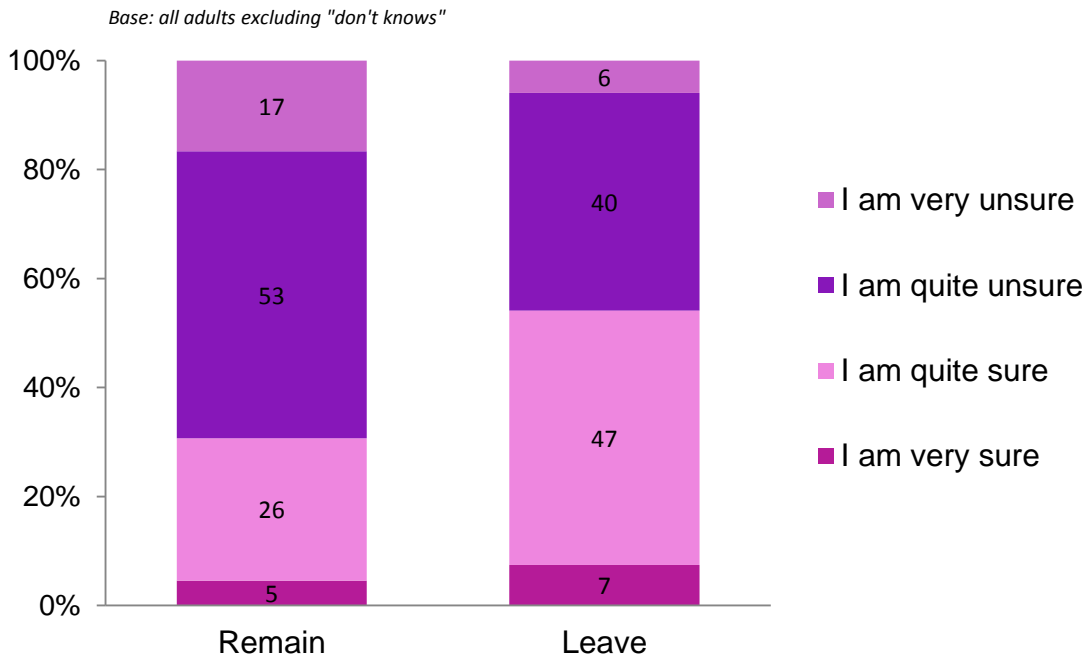
Figure 4:4 EU referendum decision against attitudes to key campaigning points



Certainty about the impact of leaving the EU

In general, our findings show that on average there is a greater level of certainty amongst the Leave camp about their decision and the basis for it. They were more likely to say they were certain to vote (Table 3:4) and as Figure 4:5 shows they were also more likely to say that they were “very” or “quite sure” about what would happen if the UK did decide to leave the EU (54% compared to 31% of those in the Remain camp).

Figure 4:5 Certainty about what would happen if UK left EU by referendum question



A logistic regression of these debate questions revealed that the issue that was most strongly associated with the decision to leave or remain was that of whether the EU was undermining Britain's right to be independent (Table 4:4). The question on the economy was also strongly associated. All of the debate issues included in the model were statistically significantly associated with the decision to leave or remain when controlling for the other factors, indicating all of the issues have some influence on the decision, but to varying degrees.

The debate issue most strongly associated with the decision to leave or remain was that of whether Britain's identity was being undermined by the EU.

Whether or not the economy would be better off outside the EU was the second strongest factor.

Taken together, these findings reinforce those of the online and telephone polls in terms of the groups within the population who are more likely to support Remain and Leave. They add additional detail on some key demographics, including educational attainment and multivariate analysis confirms those most strongly associated with the referendum decision. It is also useful to see which of the main campaign topics are most prominent in the decision. However, these are very strongly associated with the referendum question, which perhaps indicates they are in a sense extensions of it: having made a decision, consistency requires a particular stance on the campaign questions. This is perhaps further indicated in the proportion who are relatively confident they know what would happen in the event of a UK exit.

Appendix A. Tables

Table 4:1 Referendum question by demographics					
<i>Base: all GB adults</i>					
		Remain in the EU	Leave the EU	Total	Unweighted base
Sex					
Male	%	48	52	100	702
Female	%	56	44	100	852
Age					
18-34	%	59	41	100	238
35-44	%	54	46	100	274
45-54	%	51	49	100	334
55-64	%	46	54	100	305
65-74	%	46	54	100	275
75+	%	52	48	100	128
Highest educational attainment					
Degree	%	74	26	100	490
Higher educ below degree	%	55	45	100	214
A level or equivalent	%	44	56	100	280
O level/CSE	%	46	54	100	389
Foreign or other <i>**small base**</i>	%	63	37	100	31
No qualification	%	35	65	100	150
NS-SEC Socioeconomic class					
Managerial & professional occups	%	63	37	100	762
Intermediate occupations	%	50	50	100	195
Employers in small org; own account workers	%	41	59	100	133
Lower supervisory & technical occupations	%	42	58	100	119
Semi-routine & routine occupations	%	46	54	100	315
Long-term health condition					
Yes	%	48	52	100	570
No	%	54	46	100	984
Government Office Region					

A North East	%	47	53	100	64
B North West	%	47	53	100	181
D Yorkshire and The Humber	%	55	45	100	104
E East Midlands	%	45	55	100	157
F West Midlands	%	47	53	100	133
G East of England	%	46	54	100	139
H London	%	62	38	100	145
J South East	%	46	54	100	282
K South West	%	54	46	100	149
L Wales	%	55	45	100	71
M Scotland	%	68	32	100	129
Household type					
Single household	%	50	50	100	389
Lone parent	%	45	55	100	96
2 adults	%	51	49	100	549
2 adults with children	%	55	45	100	311
Multiperson household	%	55	45	100	204
Household income					
Less than £1,200 pm	%	52	48	100	258
£1,201 - 2,200 pm	%	49	51	100	312
£2,201 - 3,700 pm	%	53	47	100	369
£3,701 or more pm	%	63	37	100	470
Tenure					
Owned/being bought	%	53	47	100	1130
Rented (LA)	%	44	56	100	98
Rented (HA/Trust/New Town)	%	51	49	100	109
Rented (other)	%	57	43	100	204
Household internet access					
Yes	%	53	47	100	1461
No	%	50	50	100	93
Party identification					
Conservative	%	48	52	100	572
Labour	%	61	39	100	423
Liberal Democrat	%	62	38	100	94
UKIP	%	4	96	100	103
Green party	%	75	25	100	80
Other party	%	53	47	100	71

None	%	53	47	100	150
Voted in general election 2015					
Yes	%	51	49	100	1253
No	%	55	45	100	301

Table 4:2 Opinion on EU debate issues by referendum question

<i>Base: all adults</i>			
	Remain	Leave	Total
EU is undermining British identity	%	%	%
Agree strongly	4	45	23
Agree	15	39	27
Neither agree nor disagree	26	9	19
Disagree	38	6	22
Disagree strongly	17	1	9
Total	100	100	100
EU is undermining Britain's right to be independent	%	%	%
Agree strongly	6	56	29
Agree	30	35	33
Neither agree nor disagree	22	6	15
Disagree	34	2	18
Disagree strongly	8	1	5
Total	100	100	100
British influence in the world if left EU	%	%	%
A lot more influence	2	18	9
A little more influence	7	18	12
Wouldn't make much difference	30	58	44
A little less influence	36	5	21
A lot less influence	26	1	14
Total	100	100	100
Unemployment if left the EU	%	%	%
A lot higher	16	2	9
A little higher	30	7	19
Wouldn't make much difference	40	51	46

A little lower	11	29	20
A lot lower	3	11	7
Total	100	100	100
Immigration if left the EU			
	%	%	%
A lot higher	5	1	3
A little higher	7	1	4
Wouldn't make much difference	41	13	28
A little lower	38	36	36
A lot lower	9	49	28
Total	100	100	100
Economy if left the EU			
	%	%	%
A lot better off	2	23	12
A little better off	5	33	18
Wouldn't make much difference	22	36	30
A little worse off	39	8	24
A lot worse off	31	0	16
Total	100	100	100
Defence if left the EU			
	%	%	%
A lot stronger	4	20	11
A little stronger	6	24	15
Wouldn't make much difference	33	50	42
A little weaker	34	5	20
A lot weaker	23	1	12
Total	100	100	100
Certainty about what would happen if left the EU			
	%	%	%
I am very sure what would happen	5	7	6
I am quite sure what would happen	26	47	34
I am quite unsure what would happen	53	40	47
I am very unsure what would happen	17	6	13
Total	100	100	100
What should long-term UK policy be towards EU			
	%	%	%
Leave the European Union	2	84	40
Stay in the EU and try to reduce the EU's powers	57	12	37
Leave things as they are	23	2	13

Stay in the EU and try to increase the EU's powers	12	0	6
Work for the formation of a single European government	6	2	4
Total	100	100	100
To what extent you think of yourself as European?	%	%	%
1 (not at all European)	18	55	35
2	8	16	11
3	18	9	13
4	13	7	11
5	19	6	13
6	9	2	5
7 (very strongly European)	16	6	11
Total	100	100	100
To what extent you think of yourself as British?	%	%	%
1 (not at all British)	6	4	5
2	2	1	2
3	4	2	3
4	5	3	5
5	13	7	10
6	15	11	13
7 (very strongly British)	55	70	63
Total	100	100	100
<i>Unweighted base (minimum)</i>	812	719	1,622

Table 4:3 Logistic regression of 'Leave' by demographic characteristics

<i>Base: all GB adults</i>		
	Significance	Odds ratio
Sex		
Male	0.106	1.250
Female [Reference]		1.000
Age*		
18-34 [Reference]		1.00
35-44	0.062	1.613

45-54	0.003	2.094
55-64	0.001	2.430
65-74	0.004	2.368
75+	0.222	1.534
Highest educational attainment*		
Degree	0.040	0.521
Higher educ below degree	0.651	0.869
A level or equivalent	0.762	1.094
O level/CSE	0.485	1.186
Foreign or other	0.215	0.544
No qualification [Reference]		1.000
NS-SEC Socioeconomic class		
Managerial & professional occups	0.081	0.664
Intermediate occupations	0.476	0.843
Employers in small org; own account workers	0.483	1.209
Lower supervisory & technical occupations	0.493	1.251
Semi-routine & routine occupations [Reference]		1.000
Long-term health condition		
Yes	0.458	0.890
No [Reference]		1.000
Government Office Region*		
A North East	0.069	1.807
B North West	0.001	2.667
D Yorkshire and The Humber	0.071	2.055
E East Midlands	0.005	2.402
F West Midlands	0.007	2.267
G East of England	0.001	3.108
H London	0.050	2.017
J South East	0.000	3.216
K South West	0.030	1.908
L Wales	0.110	1.793
M Scotland [Reference]		1.000
Household type		
Single household	0.967	0.990
Lone parent	0.007	2.464

2 adults	0.962	1.011
2 adults with children	0.425	1.196
Multiperson household [Reference]		1.000
Household income		
Less than £1,200 pm	0.529	1.195
£1,201 - 2,200 pm	0.211	1.336
£2,201 - 3,700 pm	0.071	1.390
£3,701 or more pm [Reference]		1.000
Main activity		
Full time education	0.657	0.724
Paid work	0.334	0.799
Unemployed	0.188	0.567
Retired	0.539	0.837
Other [Reference]		1.000
Ethnicity		
White	0.812	1.073
BME		1.000
Notes: Logistic regression. DV=Likelihood to want to leave.		
*Statistically significant variable		

Table 4:4 Logistic regression of 'Leave' by attitudes to EU debate issues

<i>Base: all adults</i>		
	Significance	Odds ratio
EU is undermining British identity*		
Agree strongly	0.000	116.73
Agree	0.000	82.39
Neither agree nor disagree	0.004	23.21
Disagree	0.002	30.52
Disagree strongly [Reference]		1.00
EU is undermining Britain's right to be independent*		
Agree strongly	0.616	0.581
Agree	0.024	0.082
Neither agree nor disagree	0.003	0.035

Disagree	0.000	0.017
Disagree strongly [Reference]		1.000
British influence in the world if left EU*		
A lot more influence	0.057	8.999
A little more influence	0.388	2.035
Wouldn't make much difference	0.190	2.909
A little less influence	0.358	0.468
A lot less influence [Reference]		1.000
Unemployment if left the EU*		
A lot higher	0.010	0.066
A little higher	0.006	0.128
Wouldn't make much difference	0.062	0.260
A little lower	0.354	0.520
A lot lower [Reference]		1.000
Immigration if left the EU*		
A lot higher	0.000	0.013
A little higher	0.026	0.171
Wouldn't make much difference	0.001	0.265
A little lower	0.005	0.365
A lot lower [Reference]		1.000
Economy if left the EU		
A lot better off	0.000	1706.975
A little better off	0.001	109.553
Wouldn't make much difference	0.001	75.184
A little worse off	0.013	28.544
A lot worse off [Reference]		1.000
Defence if left the EU*		
A lot stronger	0.153	6.664
A little stronger	0.038	14.344
Wouldn't make much difference	0.063	9.589
A little weaker	0.335	3.279
A lot weaker [Reference]		1.000
Certainty about what would happen if left the EU		
I am very sure what would happen	0.667	0.480
I am quite sure what would happen	0.538	1.362

I am quite unsure what would happen	0.168	0.553
I am very unsure what would happen [Reference]		1.000
To what extent you think of yourself as European?*		
1 (not at all European)	0.373	1.768
2	0.480	1.634
3	0.541	0.657
4	0.656	0.750
5	0.601	0.688
6	0.364	0.551
7 (very strongly European) [Reference]		1.000
To what extent you think of yourself as British?		
1 (not at all British)	0.519	0.622
2	0.342	2.039
3	0.042	0.170
4	0.942	0.956
5	0.651	1.228
6	0.192	1.743
7 (very strongly British) [Reference]		1.000
Notes: Logisitic regrssion. DV=Likelihood to want to leave.		
*Statistically significant variable		

Appendix B. Questionnaire

EUIntro {IF MODE = WEB}

Hi {MailNameSal}

Welcome to our survey.

This survey will ask you questions about your opinions on the European Union (EU) and the referendum taking place on 23rd June where people will vote to decide whether the UK should remain a member of the European Union or leave it.

It should take you around 10 minutes to complete, but this may be a little longer or shorter depending on your circumstances.

Once you have finished the survey, we'll send you a £5 Love2Shop voucher as a thank you for your time.

You don't have to complete the whole survey in one go - any progress you make will be saved and you can start where you left off when you next log in.

To get started, simply click the 'Next' button below:

EURefQn {ASK ALL}

Should the United Kingdom remain a member of the European Union or leave the European Union?

1. Remain a member of the European Union
2. Leave the European Union

VARLAB: Should the EU remain a member of the EU?

EUDefDec

Have you definitely decided how you will vote in the EU referendum or is there a chance you may change your mind?

1. Definitely decided
2. May change mind

VARLAB: Whether definitely decided on vote

EULikelyVote {ASK ALL}

On a scale of 0 to 10, how likely are you to vote in the EU referendum, with 0 meaning you definitely will not vote and 10 meaning you definitely will vote?

{WEB: "Please enter a number between 0 and 10."}

RANGE 0...10

VARLAB: Likelihood to vote.

EUPostalVote {ASK ALL}

Have you, or will you, be voting by post in the EU referendum?

INTERVIEWER - PROMPT AS NECESSARY: 'Have you already voted by post or are you going to?'

1. Yes – I have already voted by post
2. Yes – I will vote by post
3. No – I will not be voting by post

VARLAB: Use of postal votes

EUImpIdent {ASK ALL}

How much do you agree or disagree that being a member of the European Union is undermining Britain's distinctive identity?

INTERVIEWER: READ OUT

1. Agree strongly
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Disagree strongly

VARLAB: Impact of EU membership on Britain's identity

EUImpSov {ASK ALL}

How much do you agree or disagree that being a member of the European Union is undermining Britain's right to be an independent country that makes its own laws?

INTERVIEWER: READ OUT

1. Agree strongly
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Disagree strongly

VARLAB: Impact of EU membership on Britain's sovereignty

EUExInfl {ASK ALL}

If Britain were to leave the EU, do you think Britain would have more influence in the world, less influence, or wouldn't it make much difference?

INTERVIEWER - PROMPT AS NECESSARY: 'would you say a lot or a little more/less'

1. A lot more influence
2. A little more influence
3. Wouldn't make much difference
4. A little less influence
5. A lot less influence

VARLAB: Impact of EU exit on influence

EUEXUnem {ASK ALL}

And if Britain were to leave the EU, do you think unemployment in Britain would be higher, lower, or wouldn't it make much difference?

INTERVIEWER - PROMPT AS NECESSARY: 'would you say a lot or a little higher/lower'

1. A lot higher
2. A little higher
3. Wouldn't make much difference
4. A little lower
5. A lot lower

VARLAB: Impact of EU exit on unemployment

EUEXImm {ASK ALL}

And if Britain were to leave the EU, do you think immigration to Britain would be higher, lower, or wouldn't it make much difference?

INTERVIEWER - PROMPT AS NECESSARY: 'would you say a lot or a little higher/lower'

1. A lot higher
2. A little higher
3. Wouldn't make much difference
4. A little lower
5. A lot lower

VARLAB: Impact of EU exit on immigration

EUEXEcon {ASK ALL}

And if Britain were to leave the EU, do you think Britain's economy would be better off, worse off, or wouldn't it make much difference?

INTERVIEWER - PROMPT AS NECESSARY: 'would you say a lot or a little better off/worse off'

1. A lot better off
2. A little better off
3. Wouldn't make much difference
4. A little worse off
5. A lot worse off

VARLAB: Impact of EU exit on economy

EUEXDef {ASK ALL}

And if Britain were to leave the EU, do you think Britain's defence and security would be stronger, weaker, or wouldn't it make much difference?

INTERVIEWER - PROMPT AS NECESSARY: 'would you say a lot or a little stronger/weaker'

1. A lot stronger
2. A little stronger

{WEB: "Please enter a number between 1 and 7."}

RANGE 1...7

VARLAB: British identity

Appendix C. Profile of survey participants

Table 4:5 Panel survey weighted sample profile compared to BSA weighted sample profile

	BSA	Panel survey	Difference
	%	%	
Sex			
1 Male	49	49	0
2 Female	51	51	0
Total	100	100	
Age group			
1.00 18-24	12	11	0
2.00 25-34	17	17	0
3.00 35-44	16	17	0
4.00 45-54	18	18	0
5.00 55-64	14	15	0
6.00 65-74	13	13	0
7.00 75+	9	9	0
Total	100	100	
Government Office Region			
1 A North East	4	4	0
2 B North West	11	11	0
3 D Yorkshire and The Humber	9	8	0
4 E East Midlands	7	7	0
5 F West Midlands	9	9	0
6 G East of England	10	10	0
7 H London	13	14	0
8 J South East	14	14	0
9 K South West	9	9	0
10 L Wales	5	5	0
11 M Scotland	9	9	0
Total	100	100	
Household type			
1.00 Single HH	17	17	0
2.00 Lone parent	4	4	0
3.00 2 adults	36	36	0

4.00 2 adults with children	21	21	1
5.00 Multiperson household	22	23	-1
Total	100	100	
Household income			
1 Less than £1,200 p.m.	18	18	0
2 £1,201 - 2,200 p.m.	18	18	0
3 £2,201 - 3,700 p.m.	20	20	0
4 £3,701 or more p.m.	26	26	0
98 Missing value	19	18	1
Total	100	100	
Longstanding health condition			
.00 No	68	68	0
1.00 Yes	32	32	0
Total	100	100	
Educational attainment			
1 Degree	24	24	0
2 Higher educ below degree	11	11	0
3 A level or equiv	19	19	0
4 O level or equiv	19	19	0
5 CSE or equiv	7	7	0
7 No qualification	20	20	0
Total	100	100	
Political party identification			
1 Conservative	32	32	-1
2 Labour	30	29	1
3 Liberal Democrat	5	5	0
4 Other party	13	14	-1
5 None + DK/Other/NA	21	20	1
Total	100	100	
Interest in politics			
1 ... a great deal,	12	12	0
2 quite a lot,	24	24	0
3 some,	33	33	-1
4 not very much,	20	20	0
5 or, none at all?	12	11	1

Total	100	100	
Internet access household			
No	9	9	1
Yes	91	91	-1
Total	100	100	
Ethnicity			
.00 White	87	86	0
1.00 Ethnic minority	13	14	0
Total	100	100	
Tenure			
1 Owned/being bought	64	65	-1
2 Rented (LA+HA)	18	17	1
3 Rented (other) + Other	19	19	0
Total	100	100	
Socioeconomic group			
1.00 Managerial & professional occupa	37	38	-1
2.00 Intermediate occupations	11	12	0
3.00 Employers in small org; own account workers	9	8	0
4.00 Lower supervisory & technical occupations	9	10	-1
5.00 Semi-routine & routine occupations	28	27	1
8.00 Not classifiable	5	5	0
Total	100	100	