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# The implementation of fieldwork design initiatives to improve survey quality

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#### Non-Technical Summary

This paper reports on a series of tests in Wave 8 and 9 of the *Understanding Society* panel study that were designed to explore new ways of increasing the response rate on the survey. We specifically focused our efforts on increasing the web take-up with the aim of reducing costs of the survey. We tested six initiatives aimed at increasing the web survey take up among adult sample members, increasing the response to youth survey in households where responsible adults complete the survey online, increasing the number of stable contacts shared by the sample members, and increasing the number of email addresses shared by the sample members. The activities tested include telephone calls for email bounce-backs, youth self-completion (paper) reminders with and without a link to a web version of youth self-completion, mailing to collect stable contact details, email reminder to non-contacted adults before the CATI mop-up, and telephone calls late in the web-only period to encourage online completion. Some features were tested quasi-experimentally, by varying the designs between sample months, and others were one off activities.

The results show that some of these initiatives worked overall but did not seem to be effective in terms of achieving our primary goal of increasing the response rate, for example, telephone calls to email bounce backs or collecting stable contact information. Others (e.g. youth online survey and email and telephone reminders) proved to be effective at increasing the response rate but were deemed not cost effective. One reason for this is that to save costs on a household survey, such as *Understanding Society*, it is necessary for all adults in a household to complete online so that the case is not allocated to an interviewer. In addition, the *Understanding Society* sample is issued in monthly batches, which meant that implementation of these initiatives required the operation to take place each month, which increased the administration costs. This suggests that although for *Understanding Society*, the benefits of these initiatives were not worth the amount they cost to implement at this point in time, it is possible that they would be effective in other surveys where only one household member is interviewed or where the sample is issued in one batch.

#### Abstract:

This paper discusses six response maximisation initiatives implemented on *Understanding Society* (The UK Household Longitudinal Study). The activities aimed at increasing web response, youth response in households where adults completed the survey online, increasing the number of stable contacts and increasing the number of email addresses shared by the sample members. For each initiative we discuss the rationale, research design, results, costs and outcome. Whist we found that we could increase the response rate and the web take-up on the survey, one of the obstacles to wider adoption of these methods was that they were not cost effective.

Keywords: response, online survey, youth survey, cost effectiveness

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#### 1. Introduction

#### 1.1. What is Understanding Society?

*Understanding Society* (also known as the UK Household Longitudinal Study, UKHLS) is the largest household panel study of its kind in the world, with an achieved sample size at Wave 1 of almost 40,000 households across the UK. The study launched in January 2009 and a new wave is launched in January of every year thereafter.

*Understanding Society* focuses on all aspects of an individual's life such as health, relationships, finances, employment status and well-being; measuring the impact of social and economic change on the household. *Understanding Society* is an initiative of the Economic and Social Research Council (ESRC), with scientific leadership from the Institute for Social and Economic Research (ISER) at the University of Essex, and fieldwork subcontracted to Kantar (Public Division) and NatCen Social Research.

*Understanding Society* provides valuable data about people across the UK - their lives, experiences, behaviour and beliefs - and enables an unprecedented understanding of diversity within the population. The study helps researchers understand the short and long-term effects of social and economic change, as well as policy interventions designed to impact upon the general well-being of the UK population. The data are used by academic researchers and policy-makers, feeding into policy debates and influencing the outcome of those debates.

The design of the study is similar to that of the British Household Panel Survey (BHPS), which started in 1991 (as *Living in Britain*) and included the *Living in Scotland* and *Living in Wales* boost samples (from 1999) and *Northern Ireland Household Panel Survey* (from 2001). The BHPS ran annually until early 2009, after which it was incorporated into *Understanding Society* in the second wave in 2010.

#### 1.2. Fieldwork design

The sample for each wave is split into 24 samples and issued monthly over two calendar years. Each monthly sample is in the field for 5-6 months, so each wave finishes in mid-May two years after it started. Households are issued annually, at around the same time of year. This means that the study has an over-lapping fieldwork design, with the second year of each wave in the field at the same time as the first year of the next wave.

Understanding Society used face-to-face interviewing for almost all households for the first seven waves. At Wave 7, adults in households that had not participated at Wave 6 were initially invited to complete their interview online, with those who did not participate after three weeks then issued to interviewers ("Web-first"). At Wave 8, which started in 2016, 40% of households (those who had not taken part at Wave 7 and some who had taken part) were issued as web-first. Higher proportions of households have been invited to take part online at Wave 9 (60%) and Wave 10 (70%). So far over 40% of the households that are invited to take part online *fully* complete online and so are not issued to a face-to-face interviewer. A household is deemed fully complete if all adults (aged 16+) in that household have completed an interview. From Wave 8, web-first households are given five weeks to complete their interview online before being passed to an interviewer to complete any outstanding interviews.

Adults in households not invited to complete their interviews online are issued directly to an interviewer. After ten weeks of CAPI fieldwork, non-responding adults are invited to take part online (this group is referred to as "CAPI-first"), whilst interviewers continue to try and contact and interview them. At the end of fieldwork there is a short period where interviewers attempt to contact and interview remaining non-responders by telephone (CATI).

During the first year of Wave 8, a series of adaptive designs were implemented on the study to try to increase the proportion of households that fully completed online. This was because to realise significant cost savings, it is necessary to maximise the number of households that complete online and so do not require an interviewer visit. One of the strengths of *Understanding Society* is that it is a <u>household</u> panel study, and so all adults in the household are eligible for interview. This means that in a multi-adult household, if at least one adult does not complete online, an interviewer is required to visit the household to contact and interview the remaining adult(s). The adaptive design resulted in the introduction of a bonus for online completion, an additional reminder letter, and a longer "web-only" fieldwork period (from three to five weeks). More information about this adaptive design is available in Carpenter and Burton (2018).

After this adaptive design period, there were some remaining activities which we wanted to test to improve the quality of the study. These aimed at increasing the web take-up among adults, increasing response to the youth survey in households where responsible adults complete the survey online, increasing the number of stable contacts shared by the sample members, and increasing the number of email addresses shared by the sample members. The response maximisation initiatives discussed in this paper were implemented in Waves 8 and 9.

Wave 8 fieldwork lasted for just over 2 years and was issued as 24 monthly samples, issued between January 2016 and December 2017, with fieldwork finishing in May 2018. Wave 9 started in January 2017, and ended in May 2019. The sample is issued either as web-first or CAPI-first, more details about these groups are below. The fieldwork for Wave 8 was carried out by Kantar, and for Wave 9 was carried out by both Kantar and NatCen Social Research.

#### 1.2.1. Web-first

As noted above, at Wave 8 the web-first sample has been expanded beyond adults in previous-wave non-responding households to include a proportion of previous-wave responding households. Altogether, around 40% of households were issued web-first at Wave 8, and 60% at Wave 9. These households were not allocated randomly. A mixed web-CAPI mode design had been implemented on the *Understanding Society* Innovation Panel since the fifth wave (IP5). At IP5, households *were* allocated randomly to web-first or CAPI-first. This allowed an analysis of the households that were most likely to participate online. A model created using the Innovation Panel data was then implemented on the *Understanding Society* main-stage sample to give each household a predicted likelihood to complete online. The model is based on household composition, ownership of computer, internet usage, geographic location, interviewer observations, age, and ethnicity. Excluding a random 20% of the households which were ring-fenced to be CAPI-first, to be used for future analyses of mode effects, those who were most likely to participate online were issued web-first. For more information on how this modelling was done, see Lynn (2017).

#### 1.2.2. CAPI-first

The remaining households were issued CAPI-first. At Wave 8 this was around 60% of the sample. These were predominantly the households in the ring-fenced sample (20%) and the half of the remaining households (40%) that were estimated to be least likely to complete online were issued CAPI-first. At Wave 9, the CAPI-first group was around 40% of the sample, comprising the ring-fenced sample and the 25% of the remaining households predicted to be least likely to complete online.

The overall fieldwork timetable for waves 8 and 9 is shown in Table 1, below, (the web survey remains open throughout fieldwork, but CAPI-first sample members are not told about the web option until the start of week 16).

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<sup>&</sup>lt;sup>1</sup> https://www.understandingsociety.ac.uk/documentation/innovation-panel

<sup>&</sup>lt;sup>2</sup> In the first year of Wave 8, which was not used in the initiatives described in this working paper, the mode allocation was slightly different. The ring-fenced sample was allocated to CAPI-first, as were the 25% of remaining households least likely to participate online. The remaining households were randomly allocated to web-first (65%) or CAPI-first (35%).

Table 1: Fieldwork timetable

Week	Web first sample	CAPI first sample
no.		
1	Web-only fieldwork – 5 weeks	No fieldwork
2		
3		
4		
5		
6	Face-to-face fieldwork – original issue	Face-to-face fieldwork – original issue
7	_ 10 weeks	- 10 weeks
8		
9		
10		
11		
12		
13		
14		
15		
16	Face-to-face fieldwork – re-issues – 5	Letters sent at the start of this period
17	weeks	inviting remaining cases to take part
18		online.
19		Face-to-face fieldwork – re-issues – 5
20		weeks
21	Telephone mop up – remaining cases	Telephone mop up – remaining cases
22	called, and interviews attempted by	called, and interviews attempted by
23	telephone	telephone
24		

### 2. Aims

Following the adaptive design in the first year of Wave 8, we wanted to continue to find ways to increase the quality of the survey by increasing the response rate, and if possible reduce costs by increasing the web take-up. Specifically we wanted to increase the web survey take up among adult sample members, increase the response to youth survey in households where responsible adults complete the survey online, increase the number of stable contacts shared by the sample members, and increase the number of email addresses shared by the sample members.

However, before implementing these changes on the whole sample, we wanted to test them to assess their effectiveness and to evaluate their impact on costs. Overall, we tested six initiatives. The initiatives undertaken are briefly described in the table below.

Table 2: Response initiatives tested

Response initiative	Brief description	Time of implementation
Telephone calls for email bounce-backs	Testing the effect of telephoning sample members where the email invite to the study had bounced back with the intention of collecting a correct email address.	April to September samples (2017) on Waves 8 and 9.
Youth self- completion (paper) reminders	Testing the effect of reminder letters to complete the youth questionnaire sent to the parents of 10 to 15 year olds who completed their adult interview online.	April to September samples (2017) on Waves 8 and 9.
Youth self- completion (paper) reminders with a link to a web version of youth self-completion	Testing the effect of reminder letters as above but with a link to an online youth questionnaire to test whether an online option would improve response among this age group.	Only on Wave 9, started for the August 2017 sample and continued until July 2018.
Collecting stable contact details	Testing the effect of asking sample members for stable contact information outside their annual interview.	Stable contact forms sent as part of inter-wave mailings in July and December 2017.
Email reminder to non-contacted adults before the CATI mop-up	Testing the effect of a reminder email to complete the survey online to those who have not taken part by the time of CATI mop-up.	January to September 2017 sample months of Waves 8 and 9.
Telephone calls late in the web- only period to encourage online completion	Testing the effect of a telephone reminder to complete online to those issued to web-first to increase the proportion of whole-household web-completes.	July, August, September and November 2017 sample months of Wave 8, July, September, October and November 2017 + January and February 2018 sample months of Wave 9, and January and March 2018 sample months of Wave 10

#### 3. Initiatives

In this section we set out the details of each initiative tested and discuss what the initiative was intended to achieve, and why we wanted to do this. We also describe how the initiative was implemented and how we tested the outcome. Finally, for each, we give the results of the initiative.

#### 3.1. Telephone calls to email bounce backs

#### Rationale

Earlier research (Cernat and Lynn, 2018) had shown that the web take-up was higher among those people for whom we had a working email address. One reason for this may be that those who have supplied an email address are more willing to participate. Another explanation is that those sample members in the web-first sample for whom we had an email address received an invitation email, as well as the invitation letter. Whereas on receipt of the letter the sample member was required to type the URL into the address bar of their internet browser and then enter in the unique username and password, those who also received the email invite could click on the unique link within the email to immediately access their survey online. This reduces the barrier to start the survey. So, maximising the proportion of the sample for whom we have a working email address is important.

Every month there are around 70 emails to sample members which are sent from the fieldwork agency but get returned as 'undeliverable'. One way of improving the proportion of sample members who complete their interview online would be to increase the proportion for whom we have the correct email address. An undeliverable email is an indication that we have an incorrect or out-of-date email address. For this initiative we used this bounce-back as a signal that we needed to correct or update an email address. We then used this new email address to send the invitation to the correct address. This needed to be done soon after the first email invitation had been sent and the bounce-back received to allow time for any corrections to be made. We then used this updated email address for the standard reminder email that the web-first non-respondents received, although for this group it was the first email they would have received. This requirement for a quick turnaround meant that it was not feasible to write to the sample member and so we decided that the best way to approach them would be by telephone. The telephone call would be used to collect an updated email address.

We considered the management of the sample and calls, because we may be trying to contact multiple adults in a household and so we may get bounce-backs from different individuals in the same household and we have both household and individual-level telephone numbers. We wanted to ensure that we were using the appropriate telephone number for the person we

wanted to contact. The implementation of this initiative was managed within the fieldwork agency, Kantar, because they received the bounce-backs and had the sample details. They were able to use interviewers to contact the sample members for whom the email had been returned and try to get an updated email address, these updated details were then recorded and used to send the 'reminder' email.

#### **Research Questions**

There were three research questions which guided this work:

RQ1: Are we able to contact sample members whose email bounces back to collect working email addresses?

RQ2: Does the collection of new email addresses affect the likelihood of sample members responding online?

RQ3: Is this exercise cost effective; do the savings made by reducing the number of households which require an interviewer visit outweigh the costs of making the telephone calls?

#### Research Design

This initiative was carried out on the web-first sample which was issued from April to September in 2017 for both Waves 8 and 9 (the second year of Wave 8 and first year of Wave 9). Anyone in the web-first sample whose email invitation bounced back and for whom we had a telephone number was called a few days after the email invite went out and asked to provide a new/corrected email address. The email address was then updated in the sample file so that reminder emails went to the correct email address. Due to the quick turnaround time required the telephone operation was not 'exhaustive', sample members were only attempted a few times, spread over two or three days.

#### Results:

RQ1: Are we able to contact sample members whose email bounces to collect working email addresses?

As part of this initiative 472 adults were called and we were able to collect a new email address for 214 adults (45%). So, we were able to collect an updated email address for just under half of those whose initial email had bounced-back and for whom we had a telephone number. It is possible that we could have achieved a higher proportion of successful contacts, if we had more time to contact people.

RQ2: Does the collection of new email addresses affect the likelihood of sample members responding online?

The rate of completion of the web interview was almost twice as high for those adults who had provided a new email address, compared with those who had not. This difference is statistically significant.

Table 3: Proportion of adults who completed a web interview during the web-only period

	% who completed a web interview	
	during 5-week web-only period	
Called but did not get new email	33%	
Called and collected new email	64%	

Although this seems to be a positive result, it did not result in a conversion of many additional households being <u>fully</u> completed online. For households where at least one person's email bounced back and where we did not manage to get a new email address, 65 out of 237 households (27%) fully completed online during the web-only period. For households where we *did* get a new email address, 80 out of 194 households (41%) fully completed during the web-only period. If we assume that a full household web completion rate of 27% would have been achieved for the second group if the new email address had **not** been collected we would have had 53 full household web completions in this group. This means that the telephone calls resulted in an estimated additional 27 complete households, which meant 27 fewer households issued to face-to-face. So, whilst this initiative was successful in eliciting online interviews from adults, the number of additional households which were fully complete was relatively small.

In reality the analysis above most likely overestimates the number of additional households that completed by web as a result of the telephone calls because the two groups are not directly comparable; those we did not manage to get hold of (perhaps because the phone number we had for them was also out of date or incorrect), or did contact but did not get a new email address from may also be less likely to take part online than those who were fairly easily contacted by phone and were willing to provide a new email address.

To try to get a fairer picture of the impact of the telephone calls we have analysed the outcomes against a comparison group. This was done because the initiative was not implemented as an experiment. We have analysed:

- 1. The 'treatment' group those in the April to September sample months in 2017 for both Waves 8 and 9 whose email bounced back (and who we would therefore have attempted to contact)
- 2. The comparison group those in the January to March sample months in 2017 for both Waves 8 and 9 whose email bounced back (and who we did not attempt to call)

The individual web completion rate was not significantly different between the groups; 46.3% for the treatment group compared with 42.3% for the comparison group. In addition,

the full household completion rate was also not significantly different; 35.6% for the comparison group and 33.1% for the treatment group.

RQ3: Is this exercise cost effective; do the savings made by increasing the number of online participants outweigh the costs of making the telephone calls?

Implementing this initiative had a fixed cost to set up the process and then a variable running cost during the period. The telephone calls to email bounce backs were not cost effective because the cost of conducting the telephone calls was around 6.8 times the amount of money saved by not issuing the 27 households face-to-face.

#### **Outcome**

Although the initiative showed that collecting an updated email address was possible, and those who supplied a new email address were more likely to then go on and complete their interview online, the cost of this was much higher than issuing the household to an interviewer. This initiative was deemed not cost effective and so was not implemented on the main survey as a standard procedure.

#### 3.2. Youth reminders

In addition to adult sample members (aged 16+), sample members aged 10 to 15 in *Understanding Society* are also asked to take part in in the survey by completing a paper self-completion questionnaire. Where interviewing in the household is completed by face-to-face interviewers, they place the questionnaires with the young people, and usually collect them again. This approach leads to a reasonably high completion rate of the youth questionnaires. At wave 6, where almost all interviewing was done face-to-face, youth questionnaires were completed and returned by 80% of young people in households where at least one adult took part.

From wave 8 onwards though, a different approach has been required for households where adults complete their interviews online. In these cases, when a parent completes the survey online, youth self-completion questionnaires are posted to that parent for any 10-15 year olds in the household. The questionnaires are accompanied by a letter asking the parent to pass the questionnaire(s) to their child/children to be completed, and then post them back using the reply-paid envelope provided. If the household is later issued to a face-to-face interviewer (because not all adults have taken part) interviewers are required to follow up on youth questionnaires too, collecting any completed but unreturned questionnaires, and handing out another questionnaire to be completed if necessary.

#### Rationale

Response to the youth self-completion is significantly lower when questionnaires are sent out in the post to households where at least one resident parent or guardian has completed the

survey online. In the first year of Wave 8 it was 73.1%, compared to 82.0% in the first year of Wave 6.<sup>3</sup> Since interviewers always managed the youth self-completions, there had not been a procedure set up to send reminders. To increase the proportion of youth self-completion questionnaires that were received, we looked at two options. The first was to add a reminder letter for those who had been sent a youth self-completion but not yet returned it. A second reminder was sent out some weeks later, this time also including another copy of the youth self-completion questionnaire (a "full pack" reminder). The second option was to offer an online version of the youth self-completion questionnaire. Both options were trialled on *Understanding Society*.

#### 3.2.1. Option 1 – reminder letter + full pack reminder

#### Research Questions:

RQ4: Do letter reminders prompt sample members to return completed youth questionnaires?

RQ5: Is this exercise cost effective; what is the cost per additional completed questionnaire?

#### Research design:

With the aim of improving the response rate to the youth self-completion questionnaire, a series of reminders was trialled on the sample that was issued in April to September 2017, on both Waves 8 and 9. The initial web fieldwork period was five weeks long (before non-responding households were issued to face-to-face interviewers) and during this period youth questionnaires were sent on a weekly basis to any parents of 10-15 year olds that had completed online in the previous week.

The first reminder was a letter sent two weeks after the start of face-to-face fieldwork (between two and six weeks after the questionnaires had been sent). This reminded parents to ask their children to complete and return the questionnaire they had already been sent. A second 'full pack' reminder was sent 10 weeks after the start of face-to-face fieldwork (between 10 and 14 weeks after the original questionnaires had been sent). This included another copy of the questionnaire and reply-paid envelope.

#### Results

RQ4: Do letter reminders prompt sample members to return completed youth questionnaires?

This initiative was not implemented experimentally. To look at the effectiveness of these reminders, we have compared the response rate to the youth self-completion questionnaire for web-first households where at least one adult took part from:

<sup>&</sup>lt;sup>3</sup> Note this figure is slightly higher than the 80% for all of Wave 6 because the first year of each wave includes the BHPS, for which there is a higher response rate overall.

- 'Treatment' months the sample that was issued in April to September 2017, on both Waves 8 and 9, where youth reminder letters were sent
- 'Control' months January 2016 to March 2017 on Wave 8 and January to March 2017 on Wave 9, where no youth reminder letters were sent

Some of the young people included in the analysis for the treatment months were not eligible for a reminder letter – either because they completed and returned the questionnaire promptly, or because their household did not take part online and so administration of the youth questionnaire was the responsibility of the face-to-face interviewer. However, it is the overall impact of the reminders on the youth response rate that we wish to see.

The following table looks at the youth response rate for different household completion types. The table shows the youth response rate is notably higher in the treatment group for households that had fully completed online. An unexpected finding was that where there was only face-to-face interviewing done (i.e., no adults completed online), the youth response rate was higher in the control months than the treatment months; no reminders were sent to the treatment group where only face-to-face interviewing was done, so the reminder initiative cannot be the cause of this difference.

Table 4: Response rate for youth self-completion

Household type	Youth response rate – Treatment	Youth response rate – Control
Fully completed online – not issued f2f	82%*	69%
Partially completed online, issued f2f, but no f2f interviewing done	63%	58%
Partially completed online, issued f2f, and some f2f interviewing done	67%	78%
Only f2f interviewing done	59%*	70%

<sup>\*</sup> significant at p<0.5

RQ5: Is this exercise cost effective; what is the cost per additional completed questionnaire?

For this initiative we are not comparing the cost incurred with savings achieved, because there are no savings in receiving more youth self-completions, unlike with the previous initiative where a household completing online would be a cost saving because it was not issued to an interviewer. Instead, the benefit of this initiative is a higher response to the youth self-completion, and so more information about the young people in the sample. There is also the potential benefit that those who complete the youth self-completion may be more likely to participate in the adult interview when they turn 16.

We have estimated the number of additional questionnaires received back as a result of the reminders based on the difference in response rate between the control group and treatment group for the households where no face-to-face interviewing was done. Based on this

estimate, the cost of this initiative was around £150 per additional completed questionnaire. This may be considered to be quite expensive. However, if this initiative were to be taken up going forward, it could be made more cost effective in two ways.

Firstly we could target the reminder just at households that fully complete online as this is where the biggest impact can be found. Producing a smaller number of reminders would reduce printing and postage costs.

Secondly, to make the mailing more efficient, the reminders could be despatched just once per quarter, instead of every month. This would mean a longer gap between the initial questionnaire sent out and the reminders for the first month in the quarter. (up to 14 weeks for month one in each quarter for the initial reminder, and up to 19 weeks for the second reminder). However, this has a bigger impact on costs, as producing a very small number of reminders per month (estimated numbers for wave 9 are approximately 17 letter reminders and 10 full pack reminders per sample month) requires far more administrative time than producing a slightly larger number once per quarter.

#### Outcome:

The initiative was not considered to be cost-effective in the way it was implemented. However, we will implement this on the survey during waves 10 and 11 to target the reminders to those households that fully complete online, and also send reminders on a quarterly basis.

#### 3.2.2. Option 2 – reminder letter + a link to a web version of questionnaire

#### Research Question:

RQ6: Does the availability of a web version of the youth questionnaire increase the take up of survey among 10-15 year-olds?

RQ7: Is this exercise cost effective; what is the cost per additional completed questionnaire?

#### Research design:

The second option tested was to provide an online version of the survey for 10 to 15 year olds. For online households the process would be as under Option 1 except that at three and six weeks a reminder letter would be sent directing young people to the online survey. Under this option we would also include the cost of scripting the youth questionnaire and setting up the web survey.

Having scripted an online version of the youth self-completion questionnaire, we wanted to test the effect offering the online option to **all** 10 to 15 year olds irrespective of how the initial questionnaire is distributed. This initiative was rolled out on the August 2017 to July 2018 samples at Wave 9.

#### Results:

RQ6: Does the availability of a web version of the youth questionnaire increase the take up of survey among 10-15 year-olds?

In the August 2017 to July 2018 sample there were 2,052 eligible 10-15s in households where a grid was completed. Of these, 471 were sent at least one reminder letter (to a parent/guardian) with details of the youth web questionnaire. Of those sent a reminder, 250 (53%) completed a questionnaire – however, most of these were paper questionnaires, only 37 were completed online (8%).

Clearly, the ability to complete online had very little impact on the overall response rate, but did the reminders prompt people to return the paper questionnaire? Again, this was not implemented experimentally, and so we compare the treatment group with a control group from a different time period.

Treatment group: Eligible 10-15s in households where a grid was completed in the August 2017 to July 2018 sample months of wave 9.

Control group: Eligible 10-15s in households where a grid was completed for the January to March 2017 sample months of Wave 9, January to March 2016 and October to December 2017 sample months of Wave 8, and January to June sample months of Wave 10.

The treatment group is all 10-15s in the treatment months. The control group was selected to avoid any other initiatives (i.e. the youth paper reminders) so should be comparable.

Table 5: Response rate amongst eligible 10-15s in households where a grid was completed.

Household mode of completion	Treatment group	Control group
Web only	65%*	58%
F2F only	66%	71%
Web and F2F	72%	76%
All	66%	66%

<sup>\*</sup> significant at p<0.5

The reminder which included the link to the web survey did raise overall response rates, but only for those households where all the adult interviewing was completed online. The household mode of completion being "web only" is a mix of households that fully completed online before face-to-face fieldwork started, and households which partially completed online, received a face-to-face visit, but did not complete any face-to-face interviewing.

RQ7: Is this exercise cost effective; what is the cost per additional completed questionnaire?

The cost of this initiative was significantly more than the cost of sending reminders that did not include a web option due to the need to set up a web script and amend sample management systems to allow 10-15 year olds to complete by web, and also the requirement to combine web and paper data after fieldwork. These costs were not justified by the small number of 10-15 year olds who completed online.

As with the previous initiative the reminder did increase returns of the paper questionnaire in households that completed by web. We have not attempted to measure the cost effectiveness of these reminders separately to the set up of the web survey since this was covered by the previous option of a reminder letter and 'full pack' reminder.

#### Outcome

Because of low take-up of the web youth survey we decided not to continue with the scripting, testing, and implementation of the online youth questionnaire for subsequent waves.

#### 3.3. Exercise to encourage sample members to provide stable contact details

#### Rationale:

If we're not able to contact a sample member, having contact details for someone who is not a member of an *Understanding Society* household but who is likely to know where the sample member lives is really important for a longitudinal study. Many sample members do contact the *Understanding Society* team with a new address if they move but some do not and tracing them can be difficult if they have not given us a stable contact. A little over a third (36%) of adults in the *Understanding Society* sample have given us full details of a "stable" contact (name, address and phone number) and another 27% have given a name and an address or phone number. However, for 37% of the sample we do not have any stable contact details.

#### Research Question:

RQ8: Does a dedicated mailing to collect stable contact details increase the numbers of stable contacts shared by sample members?

RQ9: Is this cost effective?

#### Research Design:

To try and increase the proportion of the sample for whom we have stable contact details we sent a letter to all adult sample members requesting stable contact information as part of their usual inter-wave mailing sent in July (for those issued in April to September) and December

2017 (for those issued in October to March). In total, we sent out 52,414 letters. The letter included a form for the sample member to fill in and return, and also a link to an online version of the form

#### Results:

RQ8: Does a dedicated mailing to collect stable contact details increase the numbers of stable contacts shared by sample members?

197 stable contacts were returned via an online survey and 955 completed paper forms were returned by post. So, we were able to increase the number of sample members for whom we had a stable contact.

RQ9: Is this exercise cost effective?

This was a one-off exercise which allowed to collect some additional stable contact details at a relatively low cost. We received stable contact details for an additional 1,152 sample members, for a cost of £25.60 per stable contact.

#### Outcome

We felt that this was acceptable value to increase the proportion of people for whom we had a stable contact, and may repeat the exercise in the future, incorporating it into the inter-wave mailing. Around half of the costs for this initiative were in setting up the web survey and providing this data. Since the paper forms were more effective than the web survey in getting returns, this exercise could be repeated in the future at half the cost by just using the forms and not the web survey.

#### 3.4. Additional email reminder

#### Rationale:

Adult sample members who are still being actively worked on by interviewers at the end of face-to-face fieldwork enter a telephone "mop-up" stage for the final four weeks of fieldwork. These are people who have not taken part and also do not have an outcome that means they should not be contacted further (ineligible, hard refusal, unable to take part etc). Some of these active cases are left with a face-to-face interviewer rather than being transferred to the telephone stage, for example if the interviewer is confident they can secure an interview.

#### **Research Questions:**

RQ10: Does an additional reminder by email at the end of the fieldwork period prompt sample members who have not yet taken part to complete the survey online?

RQ11: Is this initiative cost effective?

#### Research design

For the January to September 2017 sample months of Wave 8 year 2 and Wave 9 year 1, emails were sent to sample members for whom we had an email address and who:

- Had not yet completed an interview
- Did not have an outcome which meant they should not be contacted further (e.g. ineligible, hard refusal, unable to take part etc)

These emails included a unique link to the web survey and asked sample members to take part online.

#### Results

RQ10: Does an additional reminder by email at the end of the fieldwork period prompt sample members who have not yet taken part to complete the survey online?

Emails were sent to 1,182 individuals, of which 1,084 were eligible to take part in the survey, i.e. they had not moved abroad, they were not temporary sample members who no longer lived with any original sample members, and they were not deceased. The initiative was not administered experimentally so, in order to measure whether it has been successful, we use a comparison group.

For the comparison group we have used sample members from the first year of wave 8 who would have been eligible for the email. That is, they were either unproductive or took part in the last 4 weeks of fieldwork and did not have an outcome that would exclude them from being emailed.

Table 6: Proportions interviewed by mode

	Treatment group	Control group
Completes – all modes	18%*	11%
Completes by Web	7%*	1%
Completes by CAPI	8%	8%
Completes by CATI	3%	2%
Base: eligible individuals that were emailed	1,084	5,392
(treatment)/would have been emailed (control)		

<sup>\*</sup> significant at p<0.05

The proportions interviewed by CAPI and CATI are similar for both groups, but in the treatment group a higher number of people took part by web (this difference is statistically significant). So this initiative did have an impact, however, it was a small impact: 72 web interviews were completed by the people in the treatment group over 6 quarters of fieldwork. Results from the control group suggest this is 59 more than would have been achieved if no emails were sent.

#### RQ11: Is this initiative cost effective?

The small number of additional interviews attributable to this intervention meant that it was not cost effective. As with some of the other initiatives to increase response included in this paper, the need to conduct the intervention monthly, over the course of 24 months, requires a relatively high level of administrative time (to define who should receive an email, collate the sample information, perform a mail merge, and perform quality checks) for a small number of additional completes. In this case the costs were well over £100 per additional completed interview, although this could have been reduced to around £95 per additional interview going forwards as set up costs had already been incurred.

#### Outcome:

The initiative was deemed not cost effective and was not adopted as a standard procedure.

## 3.5. Additional telephone reminder to non-responding web sample adults during last week of web-only period.

#### Rationale

When people are invited to take part in *Understanding Society* online, they get a five week period to do so, then non-responding adults are issued to a face-to-face interviewer. It saves money if whole households complete online in this initial web-only five week period as that household does not then need issuing to an interviewer. We already have a strategy of letters and emails to remind people to respond online but this initiative trialled the introduction of a telephone reminder in the last week.

During this period, approximately 950 adults were invited to take part online each month, and around 540 of these had not yet completed an interview by the last week of web fieldwork, so these would be eligible for the telephone reminder.

#### **Research Questions:**

RQ12: Does a telephone reminder at the end of web-only period increase web completion?

RQ13: Is this exercise cost effective?

#### Research design:

We have more than one phone number for many individuals (home, work, and mobile), and there are also cases where we need to contact multiple people in the same household, so the sample for each month would include some people with the same home phone number. This makes sample and call management more complicated than if we were trying to contact just one person in a household. This initiative was implemented for the July to December 2017

sample months. In the final week of the web-only period, a telephone contact was attempted to remind those in the web-first group to complete their interview online.

#### Results:

RQ12: Does a telephone reminder at the end of web-only period increase web completion?

The treatment group in the analysis below includes individuals who were called as part of the telephone reminder (whether they were contacted or not) during all months where telephone chase calls were made (July to December 2017). The control group includes those individuals in other months who would have been eligible for a call if they were in a treatment month.

The table below shows the adult response rate for those who received the calls (treatment) and those who would have been eligible for a call but were not in a treatment month (control). The first two columns show the effect for those adults who had responded at the previous wave. Those in the treatment period were more likely to complete their interview in the web-only period, and have a higher overall response rate, although they were neither more or less likely to complete face-to-face, or online once the face-to-face period had started. The second two columns are for those adults who had not responded at the previous wave. As well as having a higher response rate in the web-only period, and overall response, they were also more likely to have completed an interview face-to-face, than those in the control period.

Table 7: Response rate by mode and previous-wave outcome

<sup>\*</sup> significant at p<0.05

Adult response rate	Treatment Previous- wave Respondent	Control Previous- wave Respondent	Treatment Previous- wave Non- respondent	Control Previous- wave Non- respondent
Completed in web period	21.4%*	17.3%	4.5%*	3.0%
Completed by web in F2F period	11.0%	12.2%	4.4%	3.6%
Completed F2F (or CATI)	39.6%	40.0%	11.9%*	10.0%
Total response rate	72.0%*	69.6%	20.7%*	16.6%
Base	3,045	5,108	1,880	4,194

#### RQ13: Is this exercise cost effective?

As shown in the table above there was a small positive impact on the web response rate. However, there were very few additional households that were *fully* completed on the web as a result of telephone calls and so the cost of calls was therefore many times higher than the

reduction in the face-to-face fieldwork costs because slightly fewer households were issued face-to-face.

#### Outcome:

The initiative proved not to be cost effective and so was not implemented going forwards.

#### 4. Discussion

This study aimed to explore new ways to increase the quality of *Understanding Society* through increasing the response rate. We specifically focused our efforts on increasing the web take-up with the aim of reducing costs of the survey. Following the adaptive design on Wave 8 we tested six initiatives aimed at increasing the web survey take up among adult sample members, increasing the response to youth survey in households where responsible adults complete the survey online, increasing the number of stable contacts shared by the sample members, and increasing the number of email addresses shared by the sample members.

A couple of these initiatives were found to work overall but did not seem to be effective in terms of achieving our primary goal of increasing the response rate. Telephone calls to email bounce backs were successful in achieving a significant number of new/working email addresses, and those with new email addresses were shown to be more likely to then go on and complete their interview online. However, this initiative did not increase either the individual or the full household web completion rate when compared to the non-treatment group and was found to be more expensive than issuing web non-respondents to face-to-face interviewers. Collecting stable contact details was another one-off exercise which helped to collect some additional stable contact details at a relatively low cost. Measuring the impact on response is not straightforward in this case. The stable contact information will not be used unless the sample members move house and we need to use the details to try and get a new address for them. Thus, this may reduce costs and may increase response in future waves by making it easier to trace and interview movers.

Several of these initiatives proved to be effective at increasing the response rate but were deemed not cost effective. These were telephone calls to email bounce backs discussed above, the online youth interview, email and telephone reminders. Youth self-completion reminder letters were an effective way of boosting the youth response rate for households that fully completed the survey online. The increased response came from a higher likelihood of returning the paper questionnaire rather than completing the youth survey online, the latter having almost no take up among our target group. The cost of sending those letter reminders, however, was too high to do it for all of this sample, but was more cost-effective to do just for those households that fully completed online. The use of reminders for youth self-completion questionnaires, but not the online interview, will be implemented on the main study. Email reminders did have a small positive impact on the response rate but the cost associated with it was too high to justify the very small increase in response. Similarly, telephone reminders resulted in a higher response rate overall and in the web-only period, but

were deemed not cost-effective because they did not significantly increase the number of fully completed households on the web and so did not reduce the costs associated with issuing incomplete web households to face-to-face interviewers.

#### 5. Conclusion

In conclusion, whist we found that we could increase the response rate and especially the web take-up on the survey through some of the above discussed initiatives, one of the obstacles to wider adoption of these methods was that they were not cost effective. One reason for this is that to save costs on a household survey, such as *Understanding Society*, it is necessary for all adults in a household to complete online so that the case is not allocated to an interviewer. The household nature of the survey also increases the amount of office administration time required to identify those eligible for the treatment. In other surveys, in which a single household respondent is interviewed, there may be more scope to adopt these initiatives. In addition, the way that the sample is issued on *Understanding Society*, in monthly batches, requires the implementation of the initiatives to be repeated each month. This means that the process of selecting the eligible sample, carrying out the initiative, updating sample information, has to be carried every month. A study in which the sample is issued in one batch may have a higher number of cases to deal with, but all of these processes only have to be done once, for a much reduced administrative and management cost. This may mean that some of these interventions would have been cost-effective for such a study. For *Understanding Society*, the benefits of these initiatives were not worth the amount they cost to implement at this point in time. Increased use of mobile devices to complete surveys, and other modes of reminders, such as SMS text messages, might change the balance of costs and benefits and so what may not be cost-effective now, may be more feasible in the future.

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