Online Appendix

“Benefits of increasing the value of respondent incentives during the course of a longitudinal mixed-mode survey”

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# Online Appendix A. Cumulative Response Rates at *Understanding Society* Wave 12

The analysis presented in the article corresponds to a subpopulation of *Understanding Society*: panel members eligible for an individual interview at wave 12 who were part of a responding household in the previous wave. In addition, the analysis sample is restricted to the April to September 2020 monthly samples[[1]](#footnote-1), where the higher incentive experiment was embedded. The response rates used to assess the effect of the treatment are detailed in the Data and Methods section of the article. In this appendix, we provide some contextual information about the cross-sectional and longitudinal response rates of *Understanding Society* wave 12. Before, we offer a brief description of the samples that compose *Undertanding Society* main study.

The study has multiple sample components. The main component is the General Population Sample (GPS), which comprises two elements: a clustered and stratified probability sample of more than 24,000 households selected in Great Britain in 2009-10 and a simple random sample of approximately 2,000 households selected in Northern Ireland in 2009 (Lynn 2009). The British Household Panel (BHPS) started in 1991 and consisted of a stratified and clustered probability sample of households of more than 5,000 households; boost samples for Wales, Scotland were added in 1997, and in 2001 a simple random sample of households from Northern Ireland (Marcia Freed et al. 2018). In addition, Understanding Society includes two boost samples: the Ethnic Minority Boost (EMB) sample, selected in 2009-10, selected from areas with a high concentration of persons from an ethnic minority background (Berthoud et al. 2009), and the Immigrant and Ethnic Minority Boost (IEMB), selected at wave 6 (2014-15) (Lynn et al. 2018).

We provide two response rates. First, we present a cross-sectional individual response rate for wave 12 based on the panel members eligible for an adult interview (aged 16 or over) issued to the field at wave 12. Second, we present the cumulative response rate for the different samples that form *Understanding Society*, which were recruited at different time points. The cumulative response rate combines the household response probability at the initial wave, the individual response rate at wave 1, and the probability of being eligible and responding to wave 12. Below, we describe the calculation and present the different response rates.

The individual cross-sectional response rate is based on the RR6 AAPOR (AAPOR 2023), including specific outcomes from a household longitudinal study:

(A1)

where are the web interviews and the partials, refers to the proxy interviews where another household member responded to a shorter version of the questionnaire on behalf of the panel member, are individual refusals, are household refusals, is non-contacted households, are other interviews, and untraced households. The definition of partials refers to individual questionnaires completed up to the household finance module.

Table A. Cross-sectional individual response rate at wave 12

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Interviews & Partials  | Proxy Interviews  | Individual Refusals | Household Refusals(*HR*) | Household Non-contact | Other Non-interview   | HouseholdUntraced | Response Rate |
| 29,070 | 21 | 2,569 | 3,323 | 3,132 | 3,210 | 527 | 69.5 |

The estimated cumulative response rate at wave 11 has three components:

(A2)

where refers to the estimated proportion of sample individuals from households that participated in the recruitment wave, corresponds to the estimated proportion of individuals from responding households who completed the individual interview at the initial wave, and is the estimated proportion of sample members responding at the recruitment wave who were interviewed at wave 12.

*Understanding Society* is formed by several samples covering the general household population of Great Britain (BHPS original sample, 1991; General Population Sample, 2009), Northern Ireland (Northern Ireland HPS, 2001; GPS Northern Ireland, 2009), Wales (Welsh BHPS boost sample, 1999) or Scotland (Scottish BHPS boost sample, 1999). Moreover, the study includes two ethnic minority boost samples: the ethnic minority boost sample (EMB), recruited in wave one (2009), and the immigration and ethnic minority boost (IEMB), incorporated in wave six (2014). These samples cover different subpopulations, their designs depart from each other to some extent and were recruited at different times. Therefore, we calculated the response rates for each one individually.

First, we estimate , where is the number of individuals living in the responding households at the initial wave[[2]](#footnote-2), and is the estimated number of individuals living in the sampled households. The calculation of poses some challenges. The Postal Address File used as a sample frame contains a list of postal addresses, but there is no information about the number of individuals living in each address. This information is only available for the households where someone responded to the survey at the initial wave. Hence, the number of individuals in the non-responding households must be estimated. To estimate this figure, we rely on the Censuses of Population from 1991, 2001 and 2011 for the general population samples and survey estimates for the ethnic minority boost samples.

Regarding the general population samples, we use data from the Census of Population to estimate the total number of persons in the sampled households. The expected number of individuals in the sample is estimated as , where is the proportion of households in the Census that contain individuals and is the number of addresses with at least one household. To estimate , where is the number of addresses known to be eligible, is the number of addresses of unknown eligibility, and refers to the non-eligible addresses. For the ethnic minority and immigration samples, we rely on survey data from *Understanding Society* to estimate the number of eligible sample members in each household.

Second, refers to the probability of responding to the adult interview at the initial wave conditional on the household participation. Persons aged 16 are eligible for the adult interview. Therefore, where is the number of individuals aged 16 or over from responding households and is the number of complete individual interviews.

Finally, is the proportion of initial wave respondents who responded to the wave 11 adult interview. , where is the number of respondents to the initial wave who also responded to wave 12. The calculation of , the initial wave respondents still eligible for an adult interview at wave 12, involves subtracting from the panel members that became ineligible between waves 1 and 12. Panel members may become ineligible for two reasons: dying and moving out of the country. This change in the eligibility status is known for some panel members; however, some participants become uneligible from one wave to another, and it is not possible to disentangle a genuine nonresponse from a change in the eligibility status. Therefore, to estimate we, first, remove all the ineligible cases identified by the fieldwork force between waves 1 and 11 using the outcome codes. Second, we remove the cases known to have deceased before wave 11 from the mortality registers and during data collection. Third, we implement a propensity adjustment to correct the sample for undetected mortality (Kamisnka 2021). Thus, , where is the mortality propensity adjustment, is the estimated number of deceased panel members from outcome codes and official registers, and are the panel members who moved out of scope.

Estimates of the different components for all the *Understanding Society* samples is shown in Table A2.

Table A. Wave 12 cumulative response rate for the samples that form *Understanding Society*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General Population Sample (GB) | 100,076 | 60,596 | 0.61 | 47,614 | 39,049 | 0.82 | 0.98 | 2,625 | 1,031 | 34,681 | 13,087 | 0.38 | 18.7 |
| General Population Sample (NI) | 5,272 | 3,351 | 0.64 | 2,584 | 1,997 | 0.77 | 0.98 | 146 | 55 | 1,765 | 608 | 0.34 | 16.9 |
| Ethnic Minority Boost  | 22,718 | 12,267 | 0.54 | 8,375 | 6,019 | 0.72 | 1.00 | 159 | 292 | 5,544 | 1,251 | 0.23 | 8.8 |
| Immigration and Ethnic Minority Boost  | 16,400 | 7,922 | 0.48 | 5,746 | 4,123 | 0.72 | 1.00 | 73 | 232 | 3,818 | 1,023 | 0.27 | 9.3 |
| British Household Panel Survey original sample (GB) | 18,478 | 13,840 | 0.75 | 10,745 | 9,912 | 0.92 | 0.94 | 2,148 | 626 | 6,553 | 1,979 | 0.30 | 20.9 |
| British Household Panel Boost (Scotland) | 5,444 | 3,395 | 0.62 | 2,671 | 2,405 | 0.90 | 0.95 | 335 | 192 | 1,763 | 470 | 0.27 | 15.0 |
| British Household Panel Boost (Wales) | 5,180 | 3,577 | 0.69 | 2,770 | 2,430 | 0.88 | 0.94 | 376 | 192 | 1,724 | 544 | 0.32 | 19.1 |
| Northern Ireland Household Panel | 7,761 | 5,188 | 0.67 | 3,897 | 3,258 | 0.84 | 0.97 | 352 | 217 | 2,598 | 632 | 0.24 | 13.6 |
| Total | 181,329 | 110,136 | 0.61 | 84,402 | 69,193 | 0.82 |   |   |   | 58,447 | 19,594 | 0.34 | 16.7 |

Note – The Great Britain and Northern Ireland General Population Samples and the Ethnic Minority Boost were recruited in 2009 at the initial wave of *Understanding Society.* The Immigration and Ethnic Minority Boost was recruited in wave six (2014-16). The BHPS original sample was selected in 1991; the BHPS Scottish and Welsh boost samples were recruited in 1999, and the Northern Ireland Household Panel was first interviewed in 2001. The BHPS and NHIS samples were added to *Understanding Society* in wave 2 (2010-12).

# Online Appendix B. Incentive Strategy at Understanding Society

This Online Appendix presents a table summarising the incentive strategy of *Understanding Society* at wave 12. The modifications introduced in this strategy by the experiment are shown in Table 1 of the article.

Table A. Incentive strategy in wave 12 of Understanding Society

|  |  |  |
| --- | --- | --- |
| **Previous wave household outcome:** | **Responding household** | **Non-responding household** |
| **Previous wave adult interview outcome:** | **Responding adult and rising 16** | **Non-responding adult and new entrants** | **Non-responding adult, rising 16 and new entrants** |
| **Unconditional** incentive | £10 | None | None |
| Incentive **conditional** on completing individual questionnaire | None | £10 | £20 |
| **Early-bird incentive** conditional on completing web questionnaire during first 5 weeks of fieldwork (web-first protocol only) | £10 | £10 | £10 |

# Online Appendix C. Excerpts from the letters and emails sent to participants

|  |
| --- |
| **Control group: Unconditional incentive** |
| We’re very grateful that you take part in Understanding Society. To say thank you we’ve enclosed a £10 gift card which is activated and ready for you to use. If you’re able to complete your interview online by [DATE] we will send you an extra £10 gift card as a thank you for completing your survey early. |
| **Control group: Conditional incentive** |
| We’re very grateful that you take part in Understanding Society. To say thank you, if you’reable to take part this year we will give you a £10 gift card. If you’re able to complete your interview online by [DATE] we will send you an extra £10 gift card as a thank you for completing your survey early. |
| **Higher incentive: Unconditional incentive** |
| We’re very grateful that you take part in Understanding Society. To say thank you foryour long-term contribution we’ve increased the gift card amount for you this year.Please find enclosed a £20 gift card which is activated and ready for you to use. Ifyou’re able to complete your interview online by [DATE] we will send you an extra £10gift card as a thank you for completing your survey early. |
| **Higher incentive: Conditional incentive** |
| We’re very grateful that you take part in Understanding Society. To say thank you, if you’re able to take part this year we’ll give you a £20 gift card. If you’re able to complete your interview online by [DATE] we will send you an extra £10 gift card as a thank you for completing your survey early. |

Figure . Excerpts from the letters and emails sent to participants.

# Online Appendix D. Heterogenous effects

This appendix contains the replication of the heterogeneous effects table included in the body of the paper (Table 3) using the multivariate models. The table in the results section presents the uncontrolled heterogeneous effects derived from simple logistic regression models, while these include the heterogeneous effect controlled by the rest of the moderators. The simple and controlled heterogeneous effects are almost identical for the analysis of the last wave respondents, where we have complete information for all cases. However, when analysing the previous wave non-respondents from responding households, there are some critical differences because the estimation samples are also different after excluding the cases with missing values in at least one moderator.

Table A. Heterogeneous effects of the higher unconditional incentive by moderators for last wave respondents and last wave nonrespondents from responding households

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | **Previous wave respondents(Unconditional incentive)** | **N** | **Previous wave non-respondents(Conditional incentive)** | **N** |
|   | **Web** | **Final response(Web+CATI)** | **Web** | **Final response(Web+CATI)** |
|   | **Est.** | **SE** | **Est.** | **SE** | **Est.** | **SE** | **Est.** | **SE** |
| **Gender** |   |   |   |   |   |   |   |   |   |   |
| Male | 0.029 | (0.021) | **0.029\*** | **(0.016)** | 2,552 | -0.034 | (0.031) | -0.004 | (0.038) | 381 |
| Female | -0.002 | (0.019) | 0.012 | (0.012) | 3,209 | **0.178\*\*\*** | **(0.055)** | **0.202\*\*\*** | **(0.059)** | 227 |
| **Age groups** |   |   |   |   |   |   |   |   |   |   |
| 16-29 | 0.016 | (0.040) | -0.006 | (0.033) | 915 | 0.044 | (0.043) | 0.079 | (0.051) | 227 |
| 30-44 | **0.092\*\*** | **(0.038)** | 0.040 | (0.029) | 1,093 | -0.035 | (0.076) | -0.068 | (0.070) | 106 |
| 45-64 | -0.009 | (0.024) | 0.019 | (0.015) | 2,031 | 0.075 | (0.055) | **0.152\*\*** | **(0.061)** | 194 |
| 65+ | 0.000 | (0.027) | 0.025 | (0.020) | 1,722 | 0.061 | (0.067) | 0.022 | (0.086) | 81 |
| **Education** |   |   |   |   |   |   |   |   |   |   |
| No degree | 0.013 | (0.052) | 0.027\* | (0.015) | 4,152 | 0.046 | (0.053) | **0.067\*** | **(0.039)** | 472 |
| Degree | 0.000 | (0.028) | -0.001 | (0.017) | 1,609 | 0.022 | (0.048) | 0.068 | (0.053) | 136 |
| **Ethnic background** |   |   |   |   |   |   |   |   |   |   |
| Ethnic minority | 0.005 | (0.052) | -0.004 | (0.038) | 815 | 0.077 | (0.053) | **0.155\*\*** | **(0.065)** | 174 |
| White British | 0.013 | (0.017) | **0.023\*** | **(0.012)** | 4,946 | 0.031 | (0.033) | 0.047 | (0.038) | 434 |
| **Individual income** |   |   |   |   |   |   |   |   |   |   |
| Q1 | -0.003 | (0.030) | 0.009 | (0.023) | 1,361 | -0.005 | (0.046) | 0.052 | (0.050) | 229 |
| Q2 | 0.031 | (0.029) | 0.020 | (0.021) | 1,412 | **0.109\*** | **(0.048)** | 0.068 | (0.061) | 133 |
| Q3 | 0.000 | (0.029) | 0.025 | (0.021) | 1,510 | 0.037 | (0.068) | 0.139 | (0.087) | 116 |
| Q4 | 0.018 | (0.025) | 0.025 | (0.017) | 1,478 | 0.049 | (0.074) | 0.043 | (0.074) | 130 |
| **Household size (adults)** |   |   |   |   |   |   |   |   |   |   |
| 1 | 0.018 | (0.028) | 0.025 | (0.021) | 1,237 | 0.029 | (0.062) | 0.068 | (0.116) | 39 |
| 2 | 0.016 | (0.024) | 0.030\* | (0.015) | 2,851 | 0.097\* | (0.051) | **0.116\*** | **(0.054)** | 241 |
| 3 | -0.009 | (0.047) | 0.019 | (0.031) | 870 | -0.077 | (0.063) | -0.092 | (0.071) | 141 |
| 4 or more | 0.004 | (0.054) | -0.021 | (0.036) | 803 | **0.093\*** | **(0.041)** | **0.171\*\*\*** | **(0.050)** | 187 |
| **Response pattern** |   |   |   |   |   |   |   |   |   |   |
| Irregular respondent | 0.018 | (0.060) | 0.041 | (0.063) | 406 | 0.015 | (0.027) | 0.030 | (0.033) | 438 |
| Regular respondent | 0.010 | (0.017) | 0.017 | (0.011) | 5,355 | 0.119 | (0.074) | **0.184\*** | **(0.080)** | 170 |
| **Previous wave fieldwork** |   |   |   |   |   |   |   |   |   |   |
| Web-first | 0.026 | (0.019) | 0.018 | (0.013) | 4,135 | **0.061\*** | **(0.034)** | **0.072\*** | **(0.039)** | 424 |
| CAPI-only (HWP) | -0.029 | (0.041) | **0.045\*** | **(0.027)** | 859 | 0.000 | (0.080) | 0.149 | (0.095) | 89 |
| CAPI-first | 0.059 | (0.057) | 0.024 | (0.048) | 597 | -0.119 | (0.087) | -0.109 | (0.090) | 68 |
| CAPI-only (LWP) | 0.089 | (0.115) | 0.028 | (0.050) | 170 | **0.262\*\*** | **(0.111)** | **0.279\*** | **(0.122)** | 27 |

Note – Sig. \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001. These estimates are marginal effects expressed as proportions from a set of logistic regression models that included each moderator, the experimental allocation variable and the interaction term. 1 Previous wave CAPI-only sample members were divided into those with a high response propensity on the web (HWP), who are comparable to the (previously) web-first group, and those with a low web propensity (LWP), who are comparable to the (previously) CAPI-first group.

# Online Appendix E. Variables in the analysis

Table A. Description of the variables included in the analysis

|  |  |  |
| --- | --- | --- |
| **Variable** | **Description** | **Distribution****(unweighted)** |
| **Individual-level analysis (RQ 1 and RQ 2)** |
| Web-only response | The web response variable was calculated based on the AAPOR RR6 (AAPOR 2023). The variable takes 1 for those completing the individual questionnaire online (interviews and partials) during the first five weeks of web-only fieldwork and 0 for the proxy interviews, individual refusals, household refusals, non-contacted households, others and untraced.  | (0) Non-repsonse (n = 2,772; 41.7%)(1) Response (n = 3,875; 58.3%) |
| Final response (Web + CATI) | The web response variable was calculated based on the AAPOR RR6 (AAPOR 2023). The variable takes 1 for those completing the individual questionnaire (interviews and partials) and 0 for the proxy interviews, individual refusals, household refusals, non-contacted households, others and untraced. | (0) Non-repsonse (n = 1,419; 21.4%)(1) Response (n = 5,228; 78.6%) |
| Gender | The gender variable was derived from the household grid questionnaire, which is asked at the beginning of the annual interview. | (0) Male (n = 3,086, 46.4%)(1) Female (n = 3,559, 53.5%) (99) Missing (n = 2, 0.0%) |
| Age | Age in four groups was derived from the age information collected in the household grid. | (0) 16-29 (n = 1,316; 19.8%)(1) 30-44 (n = 1,240; 18.7%)(2) 45-64 (n = 2,264; 34.1%)(3) 65+ (n = 1,824; 27.4%)(99) Missing (n = 3; 0.1%) |
| Education | The education variable was derived from the highest qualification reported by respondents. The most recent valid response was imputed for those not responding at wave 12. | (0) No degree (n = 4,627; 69.6%)(1) Degree (n = 1,745; 26.3%)(99) Missing (n = 275; 4.1%) |
| Ethnic background | Ethnic background derived from multiple sources (self-reported as an adult, self-reported as a youth, reported by a household member, ethnic group of biological parents), with priority given to self-reported information. | (0) Ethnic minority (n = 1,123; 16.8%)(1) White British (n = 5,524; 83.2%) |
| Household size (adults) | Number of panel members aged 16 or over eligible for an individual interview in the household at wave 12. This excludes the adults who were new to the study at wave 12. | (0) 1 (n = 1,283; 19.3%)(1) 2 (n = 3,196; 48.1%)(2) 3 (n = 1,087; 16.4%)(3) 4 or more (n = 1,081; 16.3%) |
| Individual income | Individual income in quartiles derived from the individual gross income variable (see [Main Survey User Guide](https://www.understandingsociety.ac.uk/documentation/mainstage/user-guides/main-survey-user-guide/individual-income-variables/)). | (0) Q1 (Bottom) (n = 1,608; 24.3%)(1) Q2 (n = 1,551; 23.3%)(2) Q3 (n = 1,635; 24.6% )(3) Q4 (Top) (n = 1,612; 24.3% )(99) Missing (n = 241; 3.6%) |
| Previous response behaviour | This variable was derived using the outcome code for the adult interviews in which the panel members had been invited to participate up to wave 11. First, we calculated the ratio of adult interviews the panel member completed to the waves they were issued to the field. Then, we identified regular respondents as those who completed at least 2-in-3 interviews and irregular respondents who participated less than 66% of the time. | (0) Irregular respondent (n = 1,074, 16.2%)(1) Regular respondent (n = 5,573, 83.8%) |
| Previous wave fieldwork protocol | Fieldwork protocol the household of the panel member was allocated in the previous wave1. For the CAPI-only protocol we differentiate between the cases with higher and lower online response propensities. | (0) Web-first (n = 4,763; 71.7%)(1) CAPI-only HWP (n = 989; 14.9%)(2) CAPI-first (n = 689; 10.4%)(3) CAPI-only LWP (n = 206; 3.1%) |
| **Household-level analysis (RQ 3)** |
| Full household response (web-only phase)  | The full household web response rate (FHWRR) is based on the AAPOR RR5 (AAPOR 2023), where the partials are not considered as respondents. We consider partial households where one or more adults did not complete the individual interview. This variable takes 1 for the households where all adults completed the individual interviews during the web-only phase of the fieldwork and 0 for the partials, refusals, non-contacted, others and untraced. | (0) Non-repsonse (n = 1,937; 55.5%)(1) Response (n = 1,554; 44.5%) |
| Previous wave fieldwork protocol | Fieldwork protocol the household was allocated in the previous wave1. For the CAPI-only protocol we differentiate between the cases with higher and lower online response propensities. | (0) Web-first (HWP) (n = 2,503; 71.7%)(1) CAPI-only (HWP) (n = 526; 15.1%)(2) CAPI-first (LWP) (n = 361; 10.3%)(3) CAPI-only (LWP) (n = 101; 2.9%) |

Note – (1) In the previous wave of Understanding Society coexisted three fieldwork protocols: web-first (70%), CAPI-first (10%) and CAPI-only (20%). A random subsample of households was allocated to the CAPI-only protocol, whereas the rest of the sample was divided between households predicted to have a higher web response propensity (web-first) and a lower response propensity (CAPI-first). In order to enable the comparison of the web-first and the CAPI-only subgroups, we split the CAPI-only group into high web propensity (HWP) households – comparable to the web-first – and low web propensity (LWP) households.

# Online Appendix F. Wave 12 mode of individual interview and sample composition

Table A6 presents the sample profile of those responding to the adult interview at wave 12 by the mode in which the individual interview was completed.

Table A. Sample profile of respondents to the adult questionnaire by mode of interview

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | **Experiment: Control** |  | **Experiment: Higher Incentive** |  | **Rest of wave 12 (2020-22)** |
|   | **CATI** | **Web** |  | **CATI** | **Web** |  | **CAPI** | **CATI** | **Web** |
| **All respondents** | 19.0 | 81.0 |  | 17.6 | 81.0 |  | 2.6 | 15.0 | 82.4 |
| **Sex** |   |   |   |   |   |   |   |   |   |
| Male | 44.4 | 44.1 |  | 41.8 | 44.4 |  | 44.1 | 43.6 | 44.0 |
| Female | 55.6 | 55.9 |  | 58.2 | 55.6 |  | 55.9 | 56.4 | 56.0 |
| Total | 100.0 | 100.0 |  | 100.0 | 100.0 |  | 100.0 | 100.0 | 100.0 |
| **Age** |   |   |   |   |   |   |   |   |   |
| 16-29 | 13.1 | 17.7 |  | 16.3 | 17.2 |  | 8.0 | 15.0 | 18.1 |
| 30-49 | 20.0 | 29.9 |  | 16.4 | 31.0 |  | 20.0 | 22.9 | 30.1 |
| 50-64 | 25.0 | 28.7 |  | 23.8 | 28.7 |  | 21.9 | 22.6 | 28.9 |
| 65 and older | 41.9 | 23.7 |  | 43.5 | 23.1 |  | 50.0 | 39.5 | 22.9 |
| Total | 100.0 | 100.0 |  | 100.0 | 100.0 |  | 100.0 | 100.0 | 100.0 |
| **Ethnic background** |   |   |   |   |   |   |   |   |   |
| White | 85.9 | 89.4 |  | 87.9 | 89.6 |  | 93.5 | 77.0 | 81.6 |
| Black | 5.2 | 1.6 |  | 4.0 | 1.4 |  | 3.1 | 7.2 | 3.0 |
| Asian | 6.3 | 7.0 |  | 5.6 | 7.0 |  | 1.9 | 12.8 | 12.2 |
| Mixed and other | 2.6 | 2.0 |  | 2.4 | 2.0 |  | 1.5 | 3.1 | 3.2 |
| Total | 100.0 | 100.0 |  | 100.0 | 100.0 |  | 100.0 | 100.0 | 100.0 |
| **n** | 2,298 | 2,838 |   | 531 | 2,442 |   | 524 | 3,033 | 16,654 |

Note – Unweighted estimates.

# Online Appendix G. COVID-19 effect on response rates and sample composition

The fieldwork of each UKHLS wave extends over two years. The sample is randomly distributed into 24 monthly samples, issued to the field on the first week of each month. The fieldwork for each of these monthly samples lasts up to six months. The higher incentive experiment was embedded in the April to September monthly samples of the first year of wave 12, whose fieldwork period extended from April 2020 to January 2021.

In March 2020, after the outbreak of the COVID-19 pandemic in the United Kingdom, all face-to-face fieldwork was suspended. *Understanding Society* moved to a sequential mixed-mode design that combines web-first and a telephone follow-up for the web non-respondents (Burton et al. 2020). The higher incentive experiment fieldwork occurred during the COVID-19 pandemic and after the Understanding Society mode shift, so we cannot rule out that these events affected how panel members reacted to the change in the value of the unconditional and conditional incentives. For example, the fact that a significant proportion of the population had more time available during the lockdown might have made the possibility of completing the survey and obtaining the incentive more salient.

This appendix presents some evidence to understand the possible impact of COVID-19 on response rates and sample composition of *Understanding Society* wave 12. This information allows us to assess the possible impact of the pandemic on the experiment results. In summary, the analysis suggests that we cannot rule out that the effect of the higher incentives was due to the change in their value.

The analysis compares the evolution of response rates and sample composition of the 12 monthly samples from the year 1 sample of *Understanding Society*. This analysis aims to assess whether the control group of the monthly samples where the higher incentive experiment was embedded was similar to the pre-pandemic samples with regard to response rates and sample composition.

Some methodological notes about the analysis. The numerator of the response rates was restricted to those completing the adult interview of *Understanding Society*, excluding proxies. The denominator of the formula was the eligible panel members for an adult interview from the previous wave of responding households. We restricted the analysis to panel members from previous wave responding households to examine a population similar to the one covered in the experiment.

Figure A. Average response rate for the monthly samples of Understanding Society (year 1) for waves 10 to 12.

Figure A1 presents the average response rate for the monthly samples of Understanding Society (year 1 of fieldwork) for waves 10 to 12. The plot shows that the response rates of the control group of the experiment were slightly lower compared to the previous and posterior samples, although these differences were not significant. Figure A2 offers a somehow different perspective of the data by comparing the same monthly sample across waves.

Figure A. Average response propensity by monthly sample and wave.



Finally, we compared the sample profiles of the monthly samples using sex, age, and ethnicity. Figures A3 to A5 show no significant differences between the experiment's control group and the previous and posterior monthly samples. Thus, these data suggest a slight to null overall effect of the pandemic on response rates, and although the experiment design does not allow us to completely rule out an interaction between the higher incentive and the pandemic, this seems unlikely.



Figure A. Proportion of respondents by sex and monthly sample monthly sample



Figure A. Proportion of respondents by age and monthly sample monthly sample



Figure A. Proportion of respondents by age and monthly sample monthly sample

# References

AAPOR (2023), *Standard Definitions. Final Dispositions of Case Codes and Outcome Rates for Surveys*, Alexandria (VA): American Association for Public Opinion Research, p. 90.

Berthoud, R., Fumagalli, L., Lynn, P., and Platt, L. (2009), “Design of the Understanding Society Ethnic Minority Boost Sample,” *Understanding Society Working Papers*.

Burton, J., Lynn, P., and Benzeval, M. (2020), “How Understanding Society: The UK Household Longitudinal Study adapted to the COVID-19 pandemic,” *Survey Research Methods*, Survey Research Methods, 14, 235-239 Pages. https://doi.org/10.18148/SRM/2020.V14I2.7746.

Carpenter, H. (2021), *UK Household Longitudinal Study. Wave 11 technical report.*, Technical report, London: Kantar Public, p. 44.

Lynn, P. (2009), “Sample Design for Understanding Society,” *Understanding Society Working Papers*.

Marcia Freed, T., Brice, J., Buck, N., and Prentice-Lane, E. (eds.) (2018), *British Household Panel Survey User Manual Volume A: Introduction, Technical Report and Appendices.*, Colchester: University of Essex.

1. The fieldwork of each wave of *Understanding Society* expands over two years and a half. The different samples that form *Understanding Society* are split into 24 random monthly samples. Each month, a new monthly sample is issued, and the fieldwork lasts 19 weeks (Carpenter 2021). [↑](#footnote-ref-1)
2. For the ethnic minority and immigration boost samples, $m\_{1}$ is restricted to the eligible sample members in the sampled households, who are persons with an ethnic minority background and, in the case of the IEMB, people born outside the United Kingdom. [↑](#footnote-ref-2)