The following table summarises experiments and studies carried in the Innovation Panel for all waves of the Study. Each is described in greater detail in its own section of this User Guide. The table includes a brief title and description, a summary of the design, and the waves in which it was carried. Experiments and studies are categorised as:

- Procedural experiments
- Questionnaire design experiments general issues
- Questionnaire design experiments specific topics
- Non-experimental studies

Procedural experiments	Summary	Wave
7.1 Respondent incentives to encourage participation and web response	Different values of unconditional respondent incentives, including	All
	• £5, £10 or £5 increasing to £10 if all household members participate (original sample);	
	• £10, £20, £30 (IP4, IP7 refreshment samples);	
	• £10 +£5 bonus if all household members complete by web (web mixed modes group)	
	• £10 +£20 bonus if all household members complete by web (web mixed modes group)	
7.2 The use of conditional and	½ households issued to standard unconditional incentives, ½ issued to treatment: previous wave	7
unconditional incentives	respondents received unconditional incentive, previous wave non-respondents received conditional	
	incentive. Amount of incentive determined by allocation to experiment 1.	
7.3 Mixed modes: telephone and face-to-	1/3 households issued to face-to-face, 2/3 issued to telephone with respondents followed up face-to-	3
face	face. Two different strategies for issuing telephone sample to face-to-face: as soon as one person requires	
	face-to-face visit, or only once all household members attempted by telephone.	
7.4 Mixed mode experiments: web and	1/3 households issued to face-to-face interviewing, 2/3 invited to complete survey online. Non-	5-12, 15-17
face-to-face	respondents followed up by face-to-face interviewers. (Waves 12 had a third mode allocation: nurse-led.)	
7.5 Paper vs. CASI self-completion	½ respondents completed adult self-completion on paper, ½ on CASI	4, 5, 6

Procedural experiments	Summary	Wave
7.6 Advance materials: letters versus cards	½ respondents received advance letter, ½ in greeting card format; same content	2
7.7 Advance materials: content of advance letters	4 versions of advance letter text, varying the content to test theories about how people can be persuaded to take part in surveys. Plus self-completion questions about self-rated helpfulness, conformity, and preference for consistency	5
7.8 Targeted advance letters	<ul> <li>½ sample received standard advance letter; ½ received targeted version – targeted groups:</li> <li>16-29 year-olds</li> <li>employment-busy</li> <li>have dependent children under age 15</li> <li>living in London</li> <li>of pensionable age</li> </ul>	6
7.9 Number of mailings between interviews	<ul> <li>½ households received 1 mailing between interviews</li> <li>½ received 3 mailings</li> </ul>	7
7.10 Different ways of asking respondents to register on participant website	2x2 crossed design:  • Invitation to register with participant website sent in letter versus email  • £5 incentive for registering versus no incentive	4
7.11 Improving Interviewer observations about characteristics of address	Wording of questions about likelihood that household has a car or children was improved for ½ of interviewers; standard version for other 1/2	4
7.12 Effects of content of re-issue letter on refusal conversion	½ reissued households received standard letter, for ½ letter included additional information leaflet	4

Procedural experiments	Summary	Wave
7.13 Early bird scheduling: encouraging respondents to call interviewer to schedule appointment	$2/3$ households were encouraged to call their interviewer in advance of fieldwork to schedule an appointment; $\frac{1}{2}$ of these were offered £5 incentive if they did.	4
7.14 Targeted weekday invitation emails	½ households sent email invitation on a day determined by data from previous waves about weekdays on they completed the web survey, ½ households sent email invitation on a Monday (control)	9
7.15 Using prospect theory in wording of advance letters	Wording of advance letters: ½ households emphasis on positive outcome of participation, ½ emphasis on negative outcome of not participating	10
7.16 Invitation letters for mixed-mode survey	Text of advance letters for IP11 refreshment sample allocated to Web-first, split into four groups:  • Mention interviews with all HH members, mention interviewer follow up  • Mention interviews with all HH members, but not interviewer follow up  • Mention interviewer follow up, but not interviews with all HH members  • Mention neither	11
7.17 Spending Study 2	<ul> <li>½ households invited to Spending Study 2 in IP11 interview</li> <li>⅓ invited later by postal letter</li> </ul>	11
7.18 Invitation to complete pre-interview blood pressure measure: information treatment vs pro-social appeal	<ul> <li>1/3 households given information on their nearest pharmacy to enable blood pressure measurement</li> <li>1/3 received an altruistic/pro-social appeal to encourage participants to get their blood pressure measured.</li> <li>1/3 none of the above (control)</li> </ul>	12
7.19 Fieldwork compression experiment	<ul> <li>1/5 households continuous longer interview, full set of rotating modules</li> <li>1/5 potential break-off request, full set of rotating modules</li> <li>1/5 continuous longer interview, reduced set of rotating modules</li> <li>1/5 potential break-off request, reduced set of rotating modules</li> </ul>	13

Procedural experiments	Summary	Wave
	• 1/5 control group, standard IP13 questionnaire and incentives	
7.20 Event Triggered Data Collection	• 70% households: invited to event-triggered data collection	13
	• 30% households: not invited	
7.21 Consent to survey questions by SMS	IP13:	13,15
	• ½ households: consent asked in Demographics module (early in questionnaire)	
	• ½ households: consent asked in Contact Details module (at end of questionnaire)	
	IP15: question re-asked non-experimentally of those who did not consent in IP13	
7.22 Wellbeing app study	• ½ households each: invited to app early vs late in IP13 interview	13
	• 1/2 households each: 2 vs 10 min daily app survey	
	• 1/3 households each: no bonus vs £10 for completing all 14 days vs £2.50 on 4 randomly selected days	
7.23 Asking for Living Apart Together	● ½ households: asked partner details in survey	14
partner details	• ½ households: asked partner details in interwave mailing	
7.24 Contact protocols for IP14	Multiple experiments: prenotification letters and number of reminders, logos/branding on envelopes, gift	14
refreshment sample	incentive, explaining longitudinal nature of the survey, early bird incentive, explaining nature of	
	household survey, collecting email addresses of all adults in the household grid, encouraging messages	
	during the survey	
7.25 PERKs for unconditional incentives	Households allocated incentive groups:	16
	<ul> <li>         • ½ households sent unconditional Love2Shop vouchers with the advance letter     </li> </ul>	
	• ½ households told to download their electronic voucher online	
	Crossed with four motivational messages:	
	No additional message	
	• E-incentives are more eco-friendly	

Procedural experiments	Summary	Wave
	• E-incentives are easier to use	
	Both messages.	
7.26 Youth online survey	Households with children aged 10-1:	16
	• ½ households: Cover letter mentioned that if the child completed the survey online or returned the	
	questionnaire, they would be sent an additional £5 gift card.	
	• ½ households: no additional incentive	
	Information leaflet:	
	• ½ households: information leaflet was targeted to the young person	
	½ households: leaflet targeted to the parent	
7.27 Test of Government logo on	• ½ households: envelopes with government logo	16
envelopes for continuing sample	½ households: no government logo	
7.28 Youth survey invite mailing	• Variations on process for sending the invitation to the youth survey (within the adult letter or in an	17
	envelope addressed to the young person).	

Questionnaire design	Summary	Wave
General issues		
8.1 Subsetting the questionnaire content	• ½ respondents asked questions about environmental behaviours/height and weight every year; long partnership and fertility history in wave 1	1-5
	• ½ asked every second year; short history in wave 1	
8.2 Showcards vs. no showcards	½ respondents answered questions with long lists of response options using showcards, ½ without showcards	1-3
8.3 Impact of question wording and	Four related experiments:	2, 3, 4
context on measuring change	<ul> <li>½ respondents had standard question wording, ½ had wording where definitions were less ambiguous</li> <li>½ respondents were given explicit instructions for a "select one" type question where response categories were not mutually exclusive</li> </ul>	
	• ½ respondents were asked about the dates of events implicitly ("when"), ½ were asked explicitly ("in which month and year"); all asked about strategies used to recall dates	
	Effects on high/low frequency context on questions with vague quantifiers: $\frac{1}{2}$ respondents had a high frequency context, $\frac{1}{2}$ a low frequency context for a question about the frequency of behaviours using vague quantifiers	
8.4 Dependent interviewing wording	• Waves 3, 4: ½ respondents asked yes/no question whether response from previous waves "still the case?", ½ asked "has this changed?"	3, 4, 5, 7
	Waves 5, 7: two additional forced choice versions asking "is this still the case or has it changed?" or "has this changed or is it still the case?"	
8.5 Branched vs. unbranched rating scales for measuring attitudes	½ respondents asked standard agree/disagree questions, ½ first asked whether they agree or disagree and then about the strength of their attitude	3, 4, 5

Questionnaire design	Summary	Wave
General issues		
8.6 Smiley faces versus text based scales in child self-completion	½ of youth rated satisfaction with different domains using smiley faces, ½ using text based scales	5, 6
8.7 Quality of recall data with web versus face-to-face	Respondents asked to recall facts gathered contemporaneously at earlier waves. Half of respondents completing the survey on the web received a commitment pledge as an experimental treatment to encourage more accurate reporting of historical information.	6
8.8 Methods of reducing item non- response in web surveys	<ul> <li>3 treatments:</li> <li>Standard procedure: dk/refused not offered initially; if respondent presses "next" without answering, the options appear</li> <li>As above but with additional prompt asking respondent to complete the question</li> <li>Follow-up questions at end of questionnaire for items not answered</li> </ul>	6
8.9 Separating systematic measurement error components using MTMM in longitudinal studies	Respondents asked 6 questions about immigration at start and again at end of questionnaire, varying:  • Whether question emphasizes positive or negative aspects  • Number of scale points	7, 8, 9
8.10 Replicating classic response order experiments across countries	Series of cross-sectional question wording experiments	7
8.11 Impact of response scale direction on responses	For ½ respondents the direction of the answer scale was reversed	7.8
8.12 Enhancing respondent engagement with the survey through tailored interesting questions	Two treatments:  • 3 additional questions, tailored to respondents' interests as reported in IP2, or 3 additional questions that are not tailored, e.g. questions on TV watching and favourite programs.  No additional questions	7

Questionnaire design	Summary	Wave
General issues		
8.13 Grid design in mobile surveys	½ of respondents assigned to a standard static grid, ½ assigned to a dynamic grid	10
8.14 Don't know/prefer not to answer response formats	Respondents randomly allocated to different ways of presenting DK/REF answer options:  • Standard procedure  • Instructions on DK procedure given first  DK/REF response options offered in the initial presentation of question	11
8.15 Collecting mobile phone numbers	<ul> <li>IP13 treatments:</li> <li>½ households asked about mobile phone numbers before other contact details</li> <li>½ asked standard UKHLS contact details module</li> <li>IP15 treatments:</li> <li>½ households asked about mobile phone numbers before other contact details</li> <li>½ asked question worded to increase compliance with providing mobile phone number</li> </ul>	12, 15

Questionnaire design	Summary	Wave
Specific issues		
9.1 Measures of consumption and	IP1 three treatments:	1, 6
expenditure	Question about overall expenditure without cues	
	Question about overall expenditure with detailed categorical cues	
	• Separate questions about amounts of expenditure broken out into reporting on each category rather than an overall figure.	
	IP6 two treatments:	
	Asked for total benefit unit expenditure by adding up a set of expenditure categories using a	
	showcard to trigger recall of expenditure on each category.	
	• Asked for an amount of expenditure for each expenditure category, then reconciled the total amount spent for accuracy.	
9.2 Measuring satisfaction	Waves 2, 3, 6, several aspects of question wording varied:	1-3, 5, 6
	Number of scale points	
	Showcards versus no showcards	
	Labelling of end points only or all scale points	
	Position early or late in questionnaire	
	CASI versus interviewer administered	
9.3 Reference groups in measuring	Four treatments:	
satisfaction	Standard questions	
	Satisfaction rating relative to others of same gender	
	Others of same education	
	Others of same education and gender	

Questionnaire design	Summary	Wave
Specific issues		
9.4 Measuring identity	For questions about identity ½ respondents were asked about their "profession", ½ about their "occupation"	2
9.5 Measures of wealth	Four ways of collecting information about money held in savings and investments, 2x2 crossed design varying:  • Aggregate amounts versus itemized  • Reports from all adults versus one financial reporter	3
9.6 Context of questions about consent to data linkage with administrative records	<ul> <li>2x2 crossed design varying whether</li> <li>consent asked in context or at end of interview</li> <li>independent question or dependent reminding respondent of whether or not they gave consent previously</li> </ul>	4
9.7 Respondent preferences about mode of data collection	½ respondents asked to rate specific modes then generalized preference; ½ asked first about generalized preference, then ratings of specific modes	4, 5, 6
9.8 Feasibility of directly measuring household energy use	<ul> <li>2x2 crossed design varying:</li> <li>which meter readings household was asked for (odometer only / gas, electricity and odometer)</li> <li>whether advance letter mentioned that respondent would be asked for meter readings</li> </ul>	5, 6
9.9 Context effects in fertility decisions	• ½ respondents asked about expected fertility before questions about friendship networks, ½ asked afterwards	4, 5
9.10 Vignettes: measuring partner satisfaction with division of household labour	Vignettes describing hypothetical scenarios of partners sharing domestic and paid work; 3 vignettes per respondent; dimensions varied: (1) paid work; (2) earnings; (3) presence of children; (4) housework allocations; and (5) use of paid help.	5, 6

Questionnaire design	Summary	Wave
Specific issues		
9.11 Subjective expectations about the returns to higher education and decisions to attend university	$\frac{1}{2}$ respondents and their parents shown information about average earnings by gender and subject, $\frac{1}{2}$ no information	5, 8, 9
9.12 Measuring change in self-assessed disability	<ul> <li>¼ asked standard questions: filter question whether long term illness or disability, if "yes" asked about difficulty with everyday activities</li> <li>½ respondents asked follow-up questions if they reported a long term illness or disability, and had not reported this at previous interview, or vice versa about reasons for change. All asked about areas of everyday life where they have difficulty due to health</li> <li>¼ only asked about difficulties with everyday life activities, not asked about long-term health problems</li> </ul>	6, 7
9.13 Associated Study: Measuring Time and Risk Preferences	A total of 91 lottery questions about respondents risk and time preferences, including actual payouts	6, 7
9.14 Assessing how people think about environmental taxes	10 treatments varying questions about respondents' willingness to pay increased environmental taxes. For each of 5 question pairs, one variant makes no mention of tax reductions elsewhere, while the other variant does	7
9.15 Validity of interviewer ratings of respondent health	½ interviewers asked to assess respondents health at start of interview, ½ at end	8
9.16 Social desirability bias in attitudes towards immigration	Item count list	8,9
9.17 Measuring sexual identity using direct and indirect questioning	Item count list and direct question	8,9

Questionnaire design	Summary	Wave
Specific issues		
9.18 What do the general population regard as "successful ageing?" experiment	Vignettes describing different scenarios about the circumstances of a 75 year old; 3 vignettes per respondent; dimensions varied: (1) gender, (2) chronic disease, (3) disability, (4) physical functioning, (5) cognitive functioning, (6) interpersonal engagement, and (7) productive engagement.	9, 17
9.19 Household finances module	Experiment 1: ½ respondents shown a summary of all income sources reported and asked to check and correct, ½ respondents no summary screen.	9
	Experiment 2: budget reconciliation module with ½ benefit units asked about money taken from	
	savings/new credit and money put into savings/repayment of credit (gross flows), vs. changes in	
	savings and credit accounts (net flows).	
9.20 Presentation of response options	1/3 households assigned to each treatment:	9
in satisfaction questions	Grid format	
	One question per screen, response options vertically aligned	
	One question per screen, response options horizontally aligned	
9.21 Improving consent to link to the	• Random allocation of households to opt-in vs. opt- out and two versions of wording the consent	10, 11
electoral register	question	
9.22 Financial management within	Households randomly allocated to two different versions of questions asking about financial	10
couples	management and perception of money ownership within couples	
9.23 Non-resident parents and reasons for separation	Households randomly assigned to two different versions asking about non-resident parents and reasons for separation	10
9.24 Variations of the EQ-5D questions	Respondents were randomly allocated to three equal sized groups:	11
	• ask EQ-5D-3L Late and ask EQ-5D-5L Early	
	• ask EQ-5D-3L Early and ask EQ-5D-5L Late	
	• ask EQ-5D-5L Late ONLY	

Questionnaire design	Summary	Wave
Specific issues		
9.25 HMRC data linkage consent experiment	<ul> <li>IP11:</li> <li>Respondents randomly allocated to an easy vs. difficult version of the consent question</li> <li>For CAPI respondents question difficulty was crossed with early vs. late location in the questionnaire</li> <li>IP15:</li> <li>FTF respondents randomly allocated to CAPI, CASI, partial CASI consent question</li> <li>Web respondents randomly allocated to control or consent question with message from and photo of study director</li> </ul>	11, 15
9.26 Does competition over public services decrease support for residency rights of immigrants?	Conjoint experiment and vignettes	11
9.27 Reporting of height and weight	<ul> <li>Respondents interviewed face-to-face:</li> <li>½ households were asked to report height and weight by the interviewer</li> <li>½ households asked about height and weight in the self-completion module</li> </ul>	12
9.28. Biomarker and sample collection	• Depending on the mode of interview (see Section 16.4), respondents were asked to provide blood samples, dried blood spots, and hair samples.	12
9.29 LinkedIn consent	Two randomized allocations:  • ½ respondents asked early, ½ late in the questionnaire  • ½ respondents shown a motiviational statement before the consent question, ½ no motivational statement	14
9.30 Vignettes: intentions to prepare for automation	Vignettes describing different scenarios about the prospected severity of technological developments (severe threat vs. minor threat) and the prospected timeframe of such developments (short-term vs. long-term) followed by questions about attitudes and behaviours regarding re- and upskilling	14
9.31 Comparison of ReQoL-10 to other scales	Randomised order:  • ½ respondents: ReQoL and EQ5D early and GHQ late	14

Questionnaire design	Summary	Wave
Specific issues		
	• ½ respondents: ReQoL and EQ5D late and GHQ early	
9.32 Proxy nomination	Two randomized allocations:  • ½ respondents asked early, ½ late in questionnaire  • ½ respondents asked wording version 1, ½ asked version 2	14
9.33 Twitter consent	Two randomized allocations  • ½ respondents shown 'help' links with additional information on the same page  • ½ respondents shown help links on a separate page	15
9.34 Marginal propensity to consume	Question wording with 3 randomizations, crossed:  • Two-part vs. direct question on marginal propensity to consume  • 3 month vs. 12 month period  • £500 vs. £2500 windfall gain	15
9.35 Informal care	Two randomized allocations:  • Control: current UKHLS questions  • Amended caring questions  • Combining comparable questions	15
9.36 Alcohol consumption	Two randomized allocations:  • Questions used by NHS  • Questions used by UKHLS	15
9.37 Body Volume Index app and body measurements	Waist and hip measurements collected as self-measurement, interviewer observed self-measurement, and from an app that calculates measurements based on photos of the respondent Randomized allocations for the invitation to the app study:	15

Questionnaire design	Summary	Wave
Specific issues		
	Respondents promised feedback on their total body fat, visceral body fat, or no feedback	
	• £5 additional unconditional incentive for completing the survey vs. £5 conditional on using the app	
9.38 National identity	Randomized allocations:	15
	Importance of being British first	
	National identity first	
9.39 Vignettes: measuring flexibility	Vignettes describing different characteristics of job applicants, followed by questions about whether	16
stigma – double whammy or femininity	respondent would recommend the applicant and their perceptions of the applicant	
stigma		
9.40 Cognitive reflection and politically	• 1/3 households allocated to control version	16
motivated reasoning	• 1/3 households allocated to Brexit Remain version	
	1/3 households allocated to Brexit Leave version	
9.41 Robustness of climate change	• ½ households allocated to 'Worry me' version	16
worry measurement	½ households allocated to 'Worry about' version	
9.42 Understanding of the long-term	Households allocated to	16
future	Financial questions only	
	Environmental questions only	
	Both financial and environmental questions	
	And different question order/position:	
	Environmental questions early/financial questions late	
	Financial questions early/environmental questions late	
9.43 Mental health questions	Households allocated to different versions of the UKHLS questions about mental health:	16
comparison	Wave 8 version	

Questionnaire design	Summary	Wave
Specific issues		
	Wave 10 version	
	Wave 14 version	
944 Asking for child red book pictures	Households with children <16:	16
	• ½ asked for information from red book (personal child health record) before interview	
	½ asked during the interview	
945 Spatial cognition mobile app	• ½ households: £10 conditional incentive	16
game	½ households: £30 conditional incentive	
9.46 Consent decision process	Respondents asked variants of question seeking consent to link to data from the Department for Work	17
	and Pensions about welfare benefits. Aiming to see whether participants can be encouraged to think	
	more reflectively about consent request. Face-to-face respondents allocated in equal 1/3s between 3	
	variants; web-respondents allocated in equal 1/5s between those plus 2 more options.	
	Standard version	
	Benefits / risks version	
	Value for science version	
	(Web only) Reasons for/against consenting version	
	(Web only) Objective understanding version	
9.47 Identification of informal	Experiment to compare standard Understanding Society questions on informal care against 'activity-	17
caregiving	based' questions.	
9.48 Labour market expectations	Experiment to investigate respondents' reporting of labour market expectations, depending on how options are presented to them.	17

Questionnaire design	Summary	Wave
Specific issues		
9.49 Indoor residential environment: consent for in-home sensor	Variations on consent questions seeking consent to place in-home sensors in respondents' homes.  Variation based on:  • Whether information was placed in the question text or in supplemental help text.  • The maximum duration they would be asked to keep the sensor in the home.  • Whether they were offered feedback from the sensor.	17
9.50 Domestic energy use: consent for smart meter data linkage	Variations on consent questions seeking consent to collect smart meter data varying the presentation of the information provided (whether in bullet point format; paragraph format; or abbreviated bullet point format with further information in help text).	17

Non-experimental studies	Summary	Wave
10.1 Questions about twins	Non-experimental: whether respondent is a twin, type of twin, whether they would disclose twin's address and likelihood that twin would participate in a follow-up study	5
10.2 Measuring finger length ratios as indicator of prenatal testosterone exposure	<ul> <li>IP6: non-experimental measurement of 2<sup>nd</sup> and 4<sup>th</sup> digit length on both hands in adult interview;</li> <li>IP7 measurement in adult interview repeated for new sample members (including refreshment sample), and included in youth self-completion questionnaire</li> </ul>	6, 7
10.3 Associated Study: time use diary	Each respondent asked to complete two paper time use diaries. Random allocation to a weekday and a weekend day.	7
10.4 Spending Study 1	A mobile app based study where respondents were asked to upload pictures of all their shopping receipts for a month, fielded autumn 2016 (after IP9 interviews)	9
10.5 Consent to link Twitter data	All respondents asked whether they use Twitter and whether willing to link their Twitter account to their survey data	10
10.6 An investigation of children's consistency in reporting their parents' occupations	Youth and young adults asked about mother's and father's occupation	11
10.7 Panel conditioning	Questions about how participating in the survey affected the way respondents think, their behaviours, their attitudes, and why they participate.	13
10.8 Living Apart Together (LATS) partner and survey	Questions about name and contact details.	13
10.9 Asking for Parents Living Apart other parent details	Questions about name and contact details.	15

Non-experimental studies	Summary	Wave
10.10 What constitutes an interesting size effect when measuring people's psychological state	Question comparing current life satisfaction to life satisfaction when previously interviewed.	16
10.11 People's expectations of gender discrimination related to work	Question asking respondent's expectations of facing gender discrimination in the workplace.	16
10.12 The extent and nature of the use of domestic workers	Questions about the use of paid domestic labour (cleaners, gardeners, etc.)	16
10.13 Judging the passage of time	Questions asking respondents' perceptions of how quickly time passes for them.	16
10.14 Adaptation to eco-climate emergency	Questions about emotions related to climate change and support for / opposition to various associated policies.	17
10.15 Youth online survey	New online version of the youth questionnaire.	17
10.16 Indoor residential environment and energy use: background information	Additional non-experimental data collection gathered in support of the experiments described in:  • Error! Reference source not found.  • Error! Reference source not found.	17