

Are interviewer administered follow-ups of web non-respondents still needed to maximise data quality? Evidence from Understanding Society: the UK Household Longitudinal Study



Welcome and Introduction

Recording

Programme today

- | | |
|-------------|---|
| 14.00-14.10 | Welcome and Introductions (Gabi and Annette) |
| 14.10-15.10 | Presentation by project team |
| 15.10-15.30 | Discussion by collaborating partners (survey agencies)
Andrew Phelps (ONS), Joel Williams (Verian) and Tom
Huskinson (IPSOS) (and NatCen rep)
Chair: Jonathan Burton |
| 15.30-16.00 | General Discussion

also consideration of next steps and future developments
Chair: Peter Smith |

Project Team

- **Research Strand 8:** Addressing Nonresponse
- **Project team:**

Gabriele Durrant (University of Southampton)

Annette Jäckle (University of Essex)

Jamie Moore (University of Essex)

Pablo Cabrera-Álvarez (University of Essex)

Jon Burton (University of Essex)

Peter Smith (University of Southampton)

Survey agencies: Joel Williams (Verian), Andrew Phelps (ONS),
Tom Huskinson (IPSOS), Peter Cornick (NatCen)

Acknowledgements

- Research supported by **UKRI-ESRC strategic research grant ES/X014150/1** for “Survey data collection methods collaboration: securing the future of social surveys”, known as **Survey Futures**.

Survey Futures is directed by Professor Peter Lynn, University of Essex, and is a collaboration of twelve organisations, benefitting from additional support from the Office for National Statistics and the ESRC National Centre for Research Methods. www.surveyfutures.net

- **Research Strand 8** addresses nonresponse and the project led by Professor Gabriele Durrant focusses on non-response follow-ups to web surveys of the UK general population.

Collaboration between University of Southampton and University of Essex, jointly with IPSOS, Verian, NatCen and ONS.

Aim of the workstream is to review existing evidence, analyse recent data and trends and to provide guidance to survey agencies and researchers with regards to follow-up of non-respondents and representativeness in web surveys.

The work was also supported by the [National Centre for Research Methods](#) (NCRM, 2020-2025) (ESRC grant number: ES/T000066/1), and Understanding Society (UKRI-ESRC grant ES/T002611/1).

Key research question

Are follow-ups of web non-respondents still needed to maximise data quality?

(interviewer administered , CAPI, CATI)

Do we still need to follow up web-non-respondents in a second mode to ...?

- Ensure representativeness of internet users compared to survey sample (coverage)
- Maximise response rates (nonresponse)
- Maximise representativeness of survey respondents compared to survey sample (nonresponse)
- Maximise response by under-represented hard-to-reach population subgroups (nonresponse)
- Minimise non-response biases remaining after non-response weighting (nonresponse)
- Are there differences in answers to survey questions between web and face-to-face modes? Are the gains in reducing biases outweighed by measurement differences between modes? (measurement)

... and changes over time.

Structure of presentation

- Data
- Methods
- Individual papers:
 1. Coverage
 2. Nonresponse
 3. Nonresponse (within subgroups)
 4. Measurement
- So, what have we learnt? (Summary and conclusions)
- Implications for Survey Practice

Data

Data – Understanding Society

Main sample

- Probability sample of UK household (HH) population.
- Annual. First in HH to respond completes HH grid & questionnaire. Then, individual interviews from all adults 16+ in HH.
- **2009 – 2014:** HHs mainly **CAPI**
- **2015 – present:** increasing proportion **Web-first → CAPI**
- **2020 – 2022 (Covid):** All **Web-first → CATI**

Data – Understanding Society

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Innovation Panel

- Probability sample of GB household population, same design as main sample
- Experimental testing
- **2012 – 2018 & 2022 – present:** HH allocations constant:
 - 2/3: **Web-first → CAPI**
 - 1/3: **CAPI-first → Web**
- **2019:** 1/3 allocated to nurse interview.
- **2020 – 2022 (Covid):** All **Web-first → CATI**

Method: Focus on representativeness

Method: What is dataset representativeness?

- The [similarity \(representativeness\)](#) of a subset of individuals compared to a wider population is a topic of interest in RQ1, 2 & 3
 - RQ1: representativeness of internet users compared to survey sample
 - RQ2 & RQ3: representativeness of survey respondents compared to survey sample
- Idea: the more closely subset resembles sample, the less biased the information collected from the subset will be
- However, many definitions of representativeness exist
- We refer to representativeness of subset of individuals compared to wider sample based on characteristics described by a set of auxiliary covariates available for both included and non-included individuals

Method: Quantifying dataset representativeness

- Coefficients of variation of response propensities (CVs) used to quantify representativeness of subset compared to sample
- Estimate probabilities of inclusion in subset given set of auxiliary covariates available for all sample members and correlated with survey variables.
- Using model predicted probabilities, **overall CV** is:

$$\widehat{CV}(p_x) = \frac{\sqrt{\frac{1}{n-1} \sum_{i=1}^n (\hat{p}_i - \hat{p})^2}}{\hat{p}}$$

CVs close to zero indicate low variability of inclusion probabilities, greater representativeness, and less risk of bias.

- Can also weight sample to map them to (UK / GB) study population
- Partial CVs to quantify auxiliary covariate correlated variation in predicted probabilities available as well
- And standard errors for conversion into 95% CIs for statistical inference

Individual papers

Coverage | Are we stepping into the future?
Exploring the representativeness of web-only
surveys of the general population

Research questions



RQ1 | How have **internet exclusion and intensity of internet use** changed over time?



RQ2 | What are the **characteristics of different types of internet users and non-users**? How representative are these groups? How has this changed over time?



RQ3 | How does the **representativeness of web respondents** compare to the representativeness of different groups of **internet users**? How has this changed over time?

Data

Understanding Society (UKHLS) **main survey** (RQ1 and RQ2)

Waves **1-14**. Responding adults
($n = 51,740 \sim 15,646$).

Analysis **weighted** by wave cross-sectional weight.

UKHLS **Innovation Panel** (IP) (RQ3)

Mixed-mode experiment from wave 5 (66% household web-first):

- (1) Web respondents** (waves 5-11, 13-16). All sample members issued to the field from the web-first random subsample. Weighted to account for attrition ($n = 1,496 \sim 3,064$).
- (2) Internet users** (waves 5-16). All responding adults. Weighted by cross-sectional wave weight ($n = 2,142 \sim 3,061$).

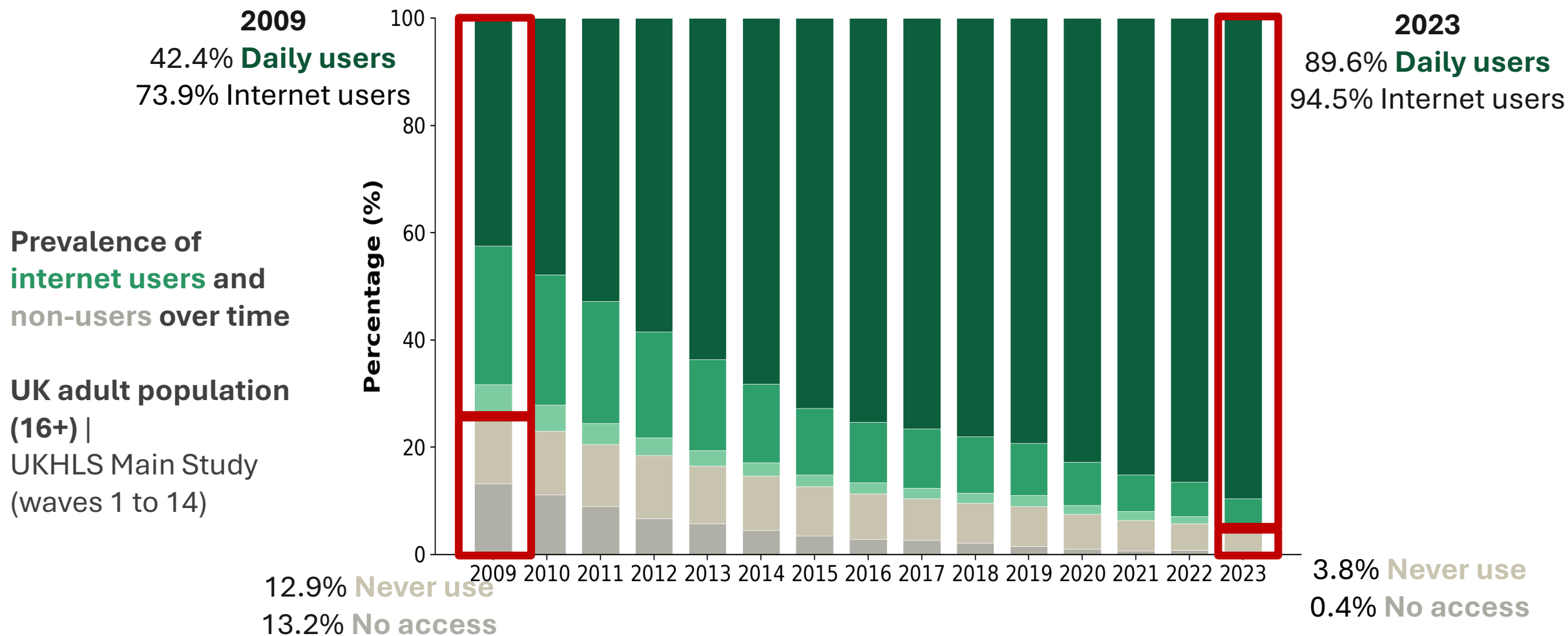
Methods

- Coefficients of variation (CVs) of internet use/response propensities to assess the **representativeness** with respect to a set of auxiliary variables (Schouten et al., 2012; 2016):
 - Daily internet users
 - All internet users
 - Web respondents
- **Predictors** to estimate internet use/response propensities:

RQ2 Representativeness of internet users
Gender, age, ethnicity, education, having a long-standing illness or disability, employment status, region, urban/rural, tenure status, being behind with bills, household income and household type.

RQ3 Representativeness of web respondents and internet users
Gender, age, employment status, region of residence, tenure status, being behind with bills, household income and household type.

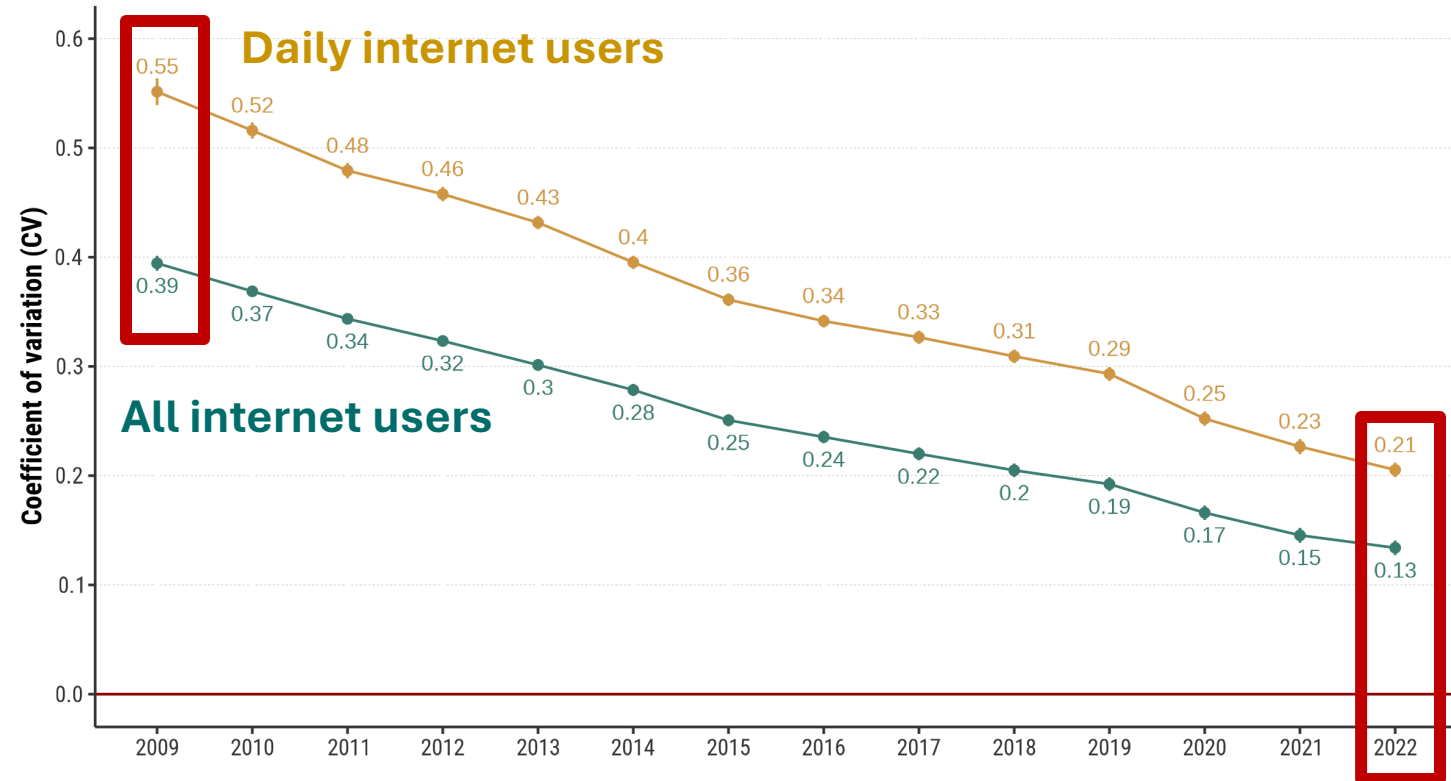
RQ1 | The digital divide in the UK is narrowing



RQ2 | Internet users have become more representative in the last decade

Overall CVs for **all internet users** and **daily internet users** over time

UK adult population (16+) |
UKHLS Main Survey (waves 1 to 14)



RQ2 | Older respondents and those with no qualifications remain underrepresented among internet users

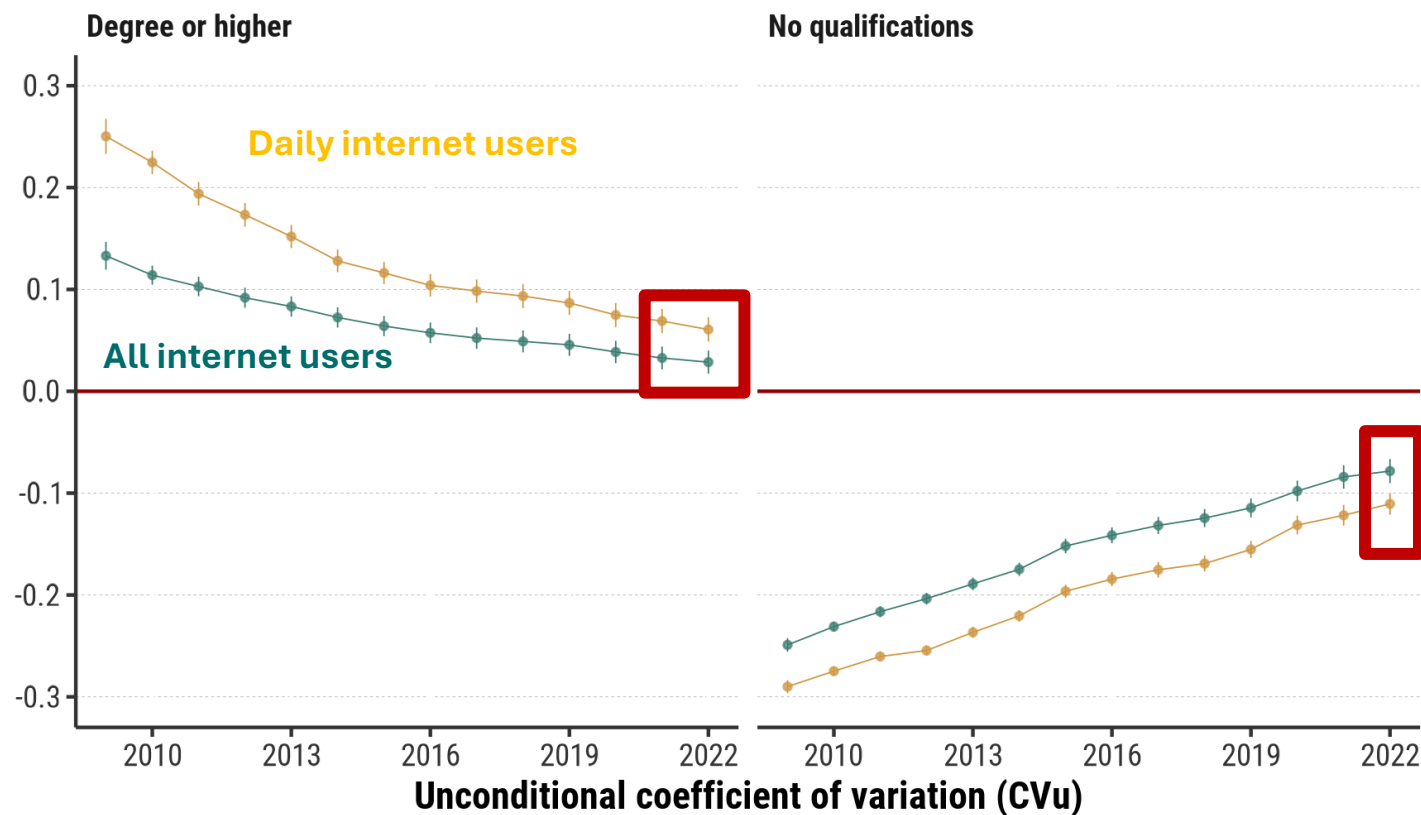
All internet users (2022) | Group-level (CVu)

	Overrepresented				Underrepresented	
Age group	16-24	25-34	35-44	45-54	65-74	75+
	0.018	0.018	0.021	0.019	-0.013	-0.083
Education	Degree				No qual	Other qual.
	0.029				-0.078	-0.02
Household income	Q4	Q5 (Top)			Q1 (Bottom)	
	0.022	0.021			-0.048	
Employment	Employed				Non-employed	
	0.037				-0.042	
Household type	Other househ.				1 adult, no child	
	0.015				-0.045	
Household tenure	Owned mort.				Owned	Rented
	0.029				-0.016	-0.013
Health	Healthy				Illness or disab.	
	0.02				-0.026	
Region					Northern Ireland	
					-0.012	

Partial unconditional CVs for all internet users in 2022 (sig. 5% level)

UK adult population (16+) | UKHLS Main Survey (wave 14)

RQ2 | Low education levels underrepresented among internet users



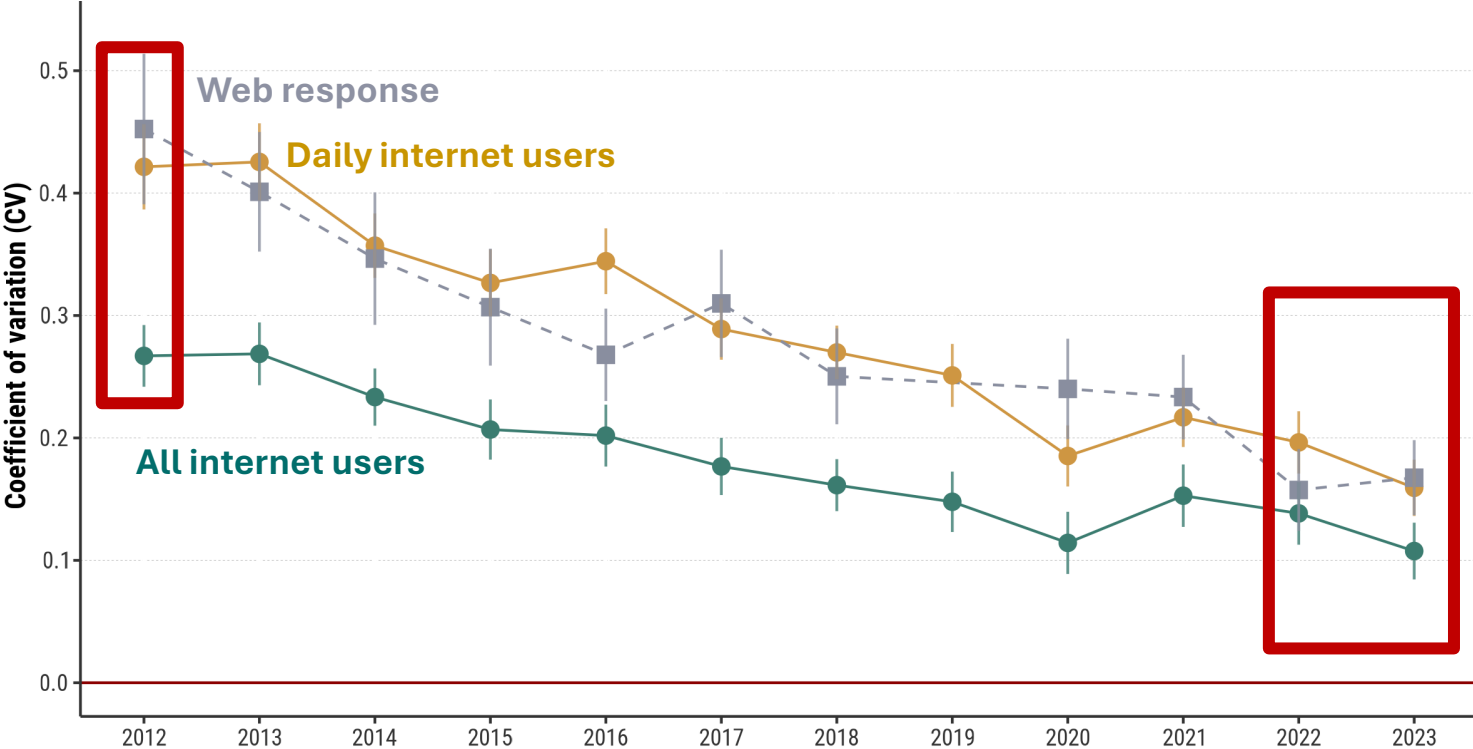
Partial unconditional CVs for **all internet users** and **daily users** over time by education

UK adult population (16+) |
UKHLS Main Study (waves 1 to 14)

RQ3 | Web survey respondents becoming more representative in the last decade

Overall CVs for **all internet users**, **daily internet users** and **web respondents** over time

GB adult population (16+) | UKHLS IP (waves 5 to 16)



RQ3 | Representativeness at group level

		Daily internet users	All internet users	Web respondents
Age	16-34	0.049		-0.097
	35-54	0.055		
	55-74			0.048
	75+	-0.113	-0.063	
Employment status	Employed	0.062	0.033	
	Non-employed	-0.067	-0.036	
Household tenure	Owned	-0.033		0.052
	Owned mort.	0.049		
	Rented			-0.059
Household income	Q1 (Bottom)	-0.051	-0.045	
	Q3			-0.052
	Q5 (Top)			0.053
Behind with bills	All paid			0.011
	Unpaid			-0.037
Household type	1 adult, no children	-0.049	-0.043	
	Couple, no children			0.060
	Other household			-0.082

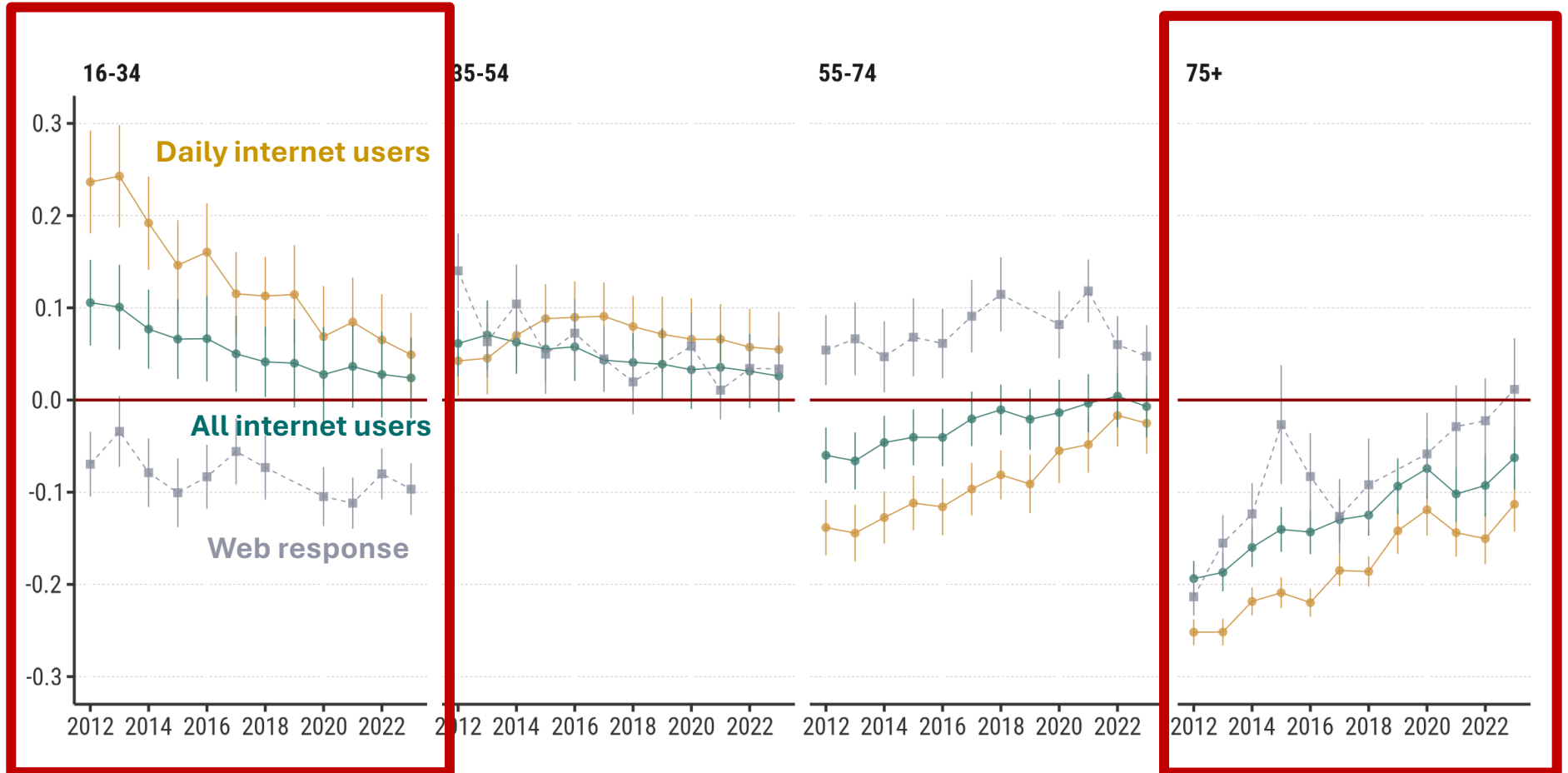
Partial unconditional CVs for all internet users, daily internet users and web respondents in 2023 (sig. 5% level)

GB adult population (16+) | UKHLS IP (wave 16)

RQ3 | Representativeness by age group

Partial unconditional CVs by
age group

GB adult population (16+) |
UKHLS IP (waves 5 to 16)



Coverage paper: Summary of findings

- **Internet** is an **almost universal technology** in the UK; only 0.4% of the UK adult population does not have access, although a small group never use it (3.8%) and remains excluded.
- **Internet users** are becoming **increasingly representative** of the general population: (1) decrease in the number of non-users; (2) some groups adopted the technology later and caught up.
- As the representativeness of internet users has increased, it has also increased the **representativeness of web respondents**. However, **the lack of internet coverage** (internet non-users) **and web non-response** remain relevant in 2023.

Non-response | Are interviewer administered follow-ups of web non-respondents still needed to maximise survey dataset quality?

Nonresponse: Introduction

- Web-first sequential mixed mode survey designs with interviewer administered follow-ups now common.
- In these, first web mode is offered, then non-respondents followed up face to face (computer aided personal interviewing, CAPI) or by telephone (computer aided telephone interviewing, CATI).
- Cost less than CAPI / CATI only, and can improve survey dataset quality in terms of size, representativeness and non-response biases remaining after non-response weighting.
- However, is evidence for their use still valid?
- With rising levels of internet access, are CAPI / CATI follow-ups still required to maximise dataset quality?

Nonresponse: Research questions

Are CAPI / CATI follow-ups of web non-respondents required to:

RQ1: maximise response rates, and how has this changed over time?

RQ2: maximise dataset representativeness, and how has this changed over time?

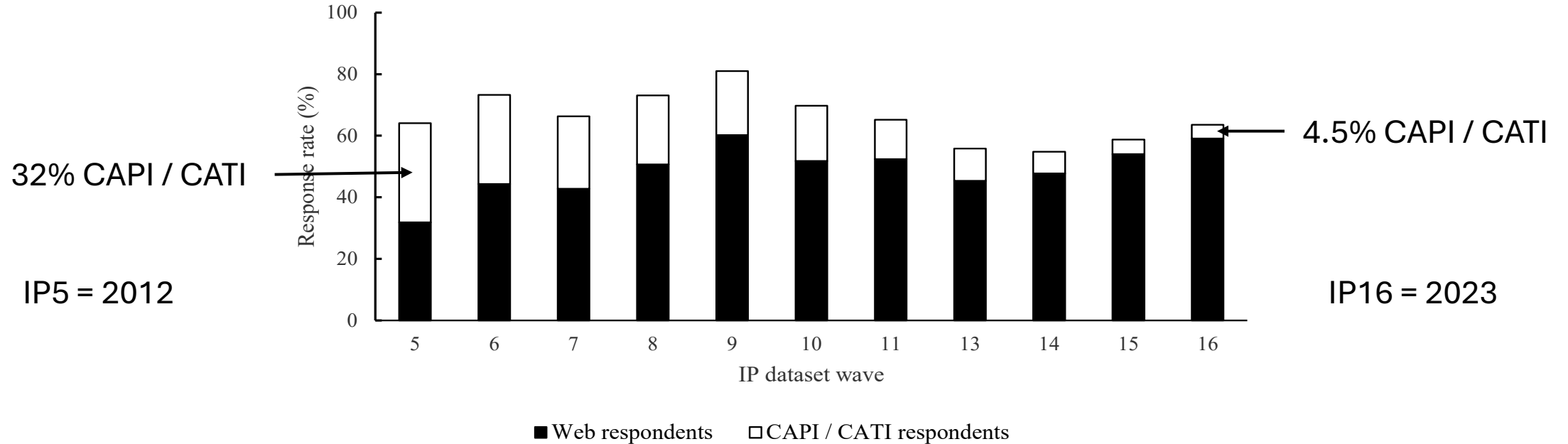
RQ3: maximise response by under-represented hard-to-reach population subgroups, and how has this changed over time?

RQ4: minimise non-response biases remaining after non-response weighting, and how has this changed over time?

Analysis samples

- UKHLS Innovation Panel datasets for period 2012-2023 used in analyses.
- Web first with CAPI follow-up design first introduced at wave (IP) 5 in 2012.
- Web first with CATI follow-up used during COVID-19 pandemic 2020-22.
- We study subset (2/3) of sample allocated to web first after recruitment.
- IP12 (2019) excluded as nurse interviews mean web-first sample too small.
- All sample members in HHs responding at least once to the survey included in analysis samples.
- Attrition due to non-responding HHs accounted for in analyses by adjusting released non-response weights.
- Other missing information on sample member characteristics imputed.

RQ1: Response rates and changes over time

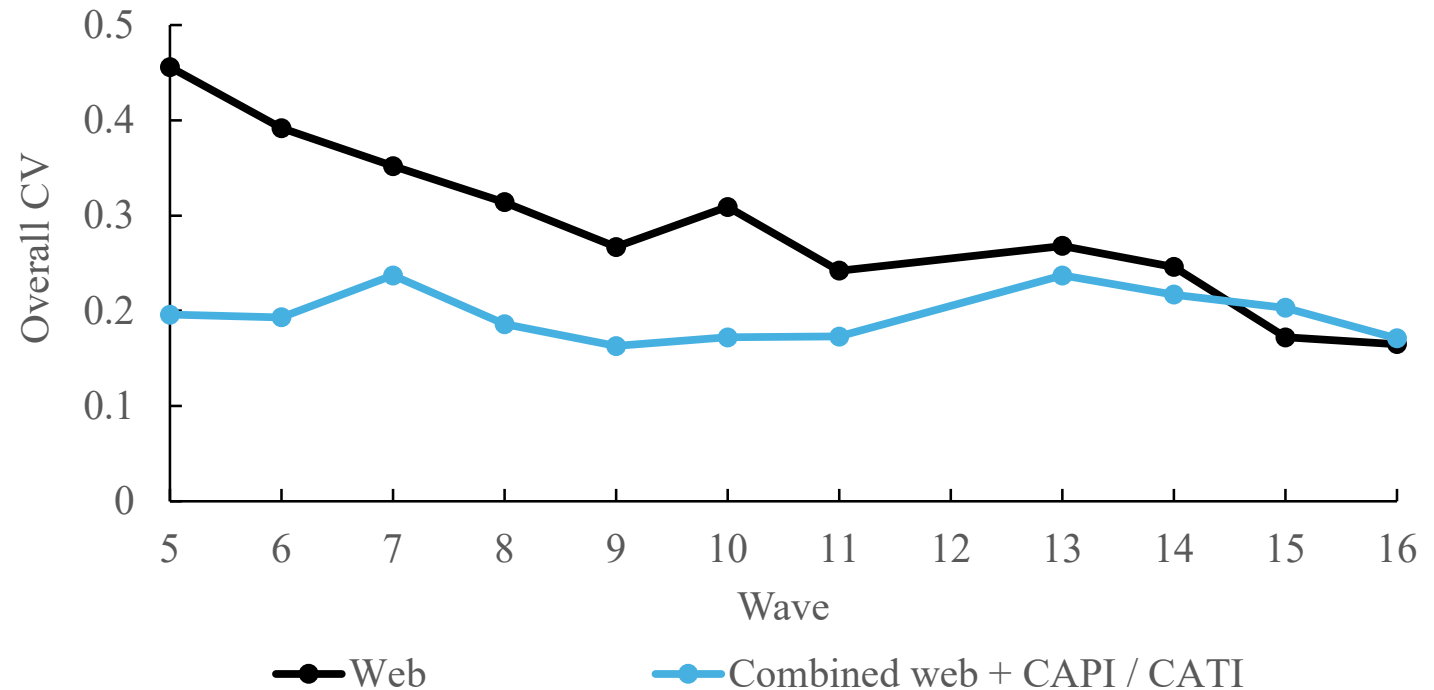


- No trend in combined web plus CAPI / CATI follow-up response rates across waves / over time.
- % responding by web increases and % responding to CAPI / CATI follow-ups decreases over time, such that at IP16 the latter increase overall dataset size by just 8%.

RQ2: Overall dataset representativeness and changes over time

Overall CVs for **Web** and **Combined web + CAPI / CATI** respondents over time

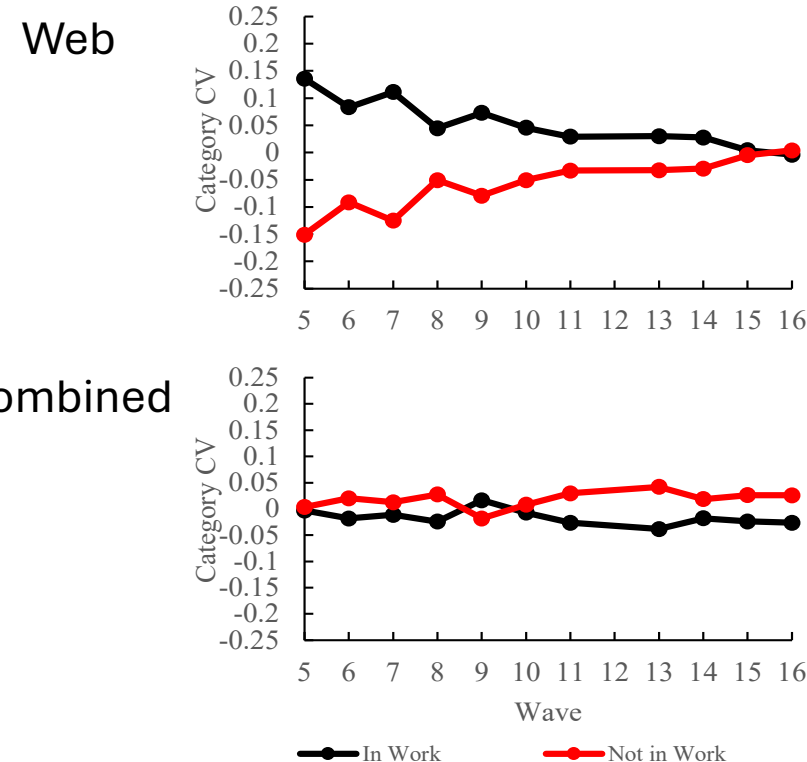
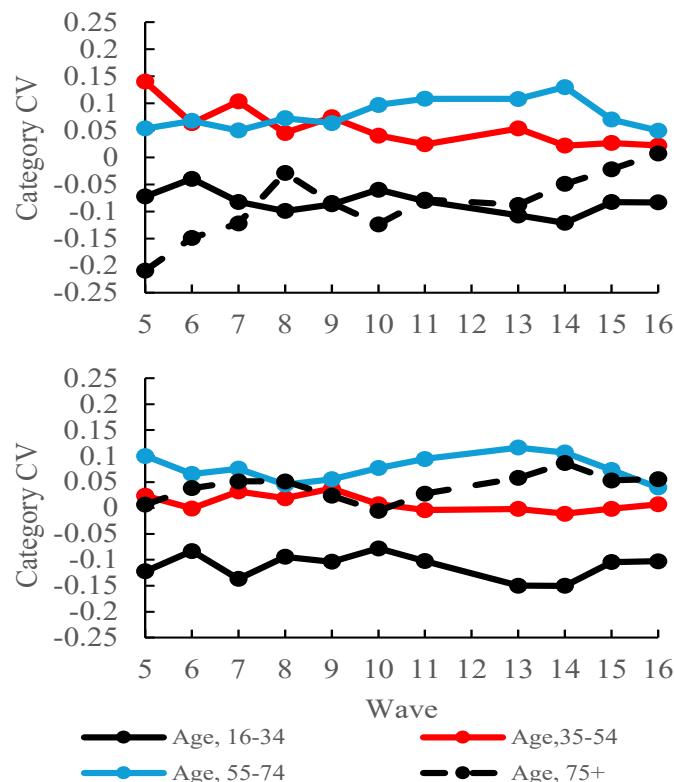
Auxiliary covariates in model:
Sex, Age, Activity Last Week,
Tenure, HH structure, Region,
Behind with bills, HH income.



- Web respondents significantly less representative of sample than combined respondents, i.e. follow-ups improve datasets – at waves 5 to 10.
- No significant differences between web and combined respondents, i.e. follow-ups don't improve datasets – from wave 11 on.

RQ3: Response by under-represented population subgroups and changes over time

Partial category CVs for Web and Combined web + CAPI / CATI respondents over time

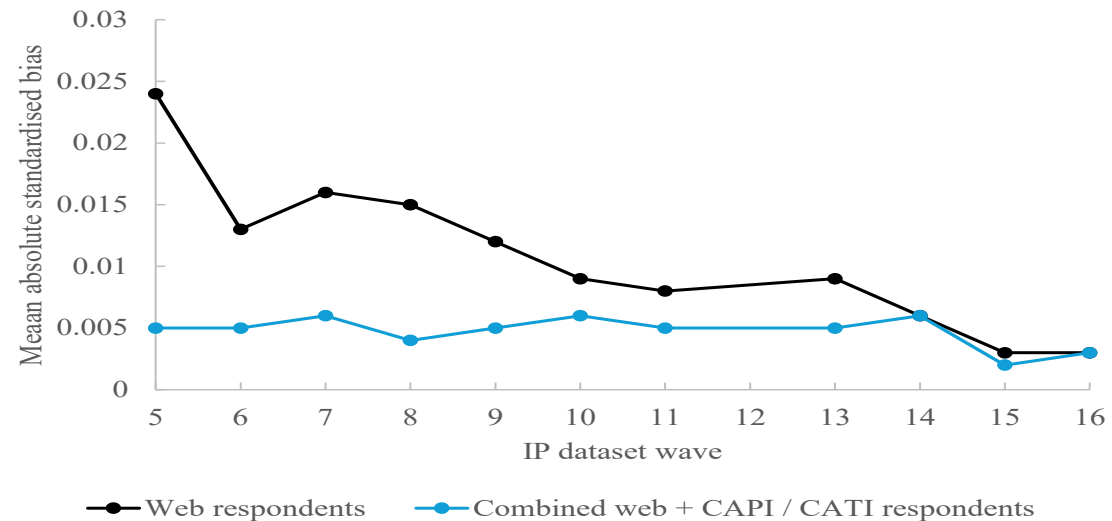


- At early but not later waves, follow-ups significantly reduce web respondent under-representation for: Age 75+, Not in Work, Rented Accom., 1st quintile HH income.
- They do not reduce it at all for Age 16 – 34, Other HHs, and Behind with Bills.

RQ4: Non-response weighted dataset quality and changes over time

- Non-response biases not directly measurable as population values for survey variables often not available, so instead quantified as difference between non-response weighted estimate and benchmark sample inclusion weighted equivalent.

Mean absolute biases across considered characteristics, standardised by benchmark estimate standard deviations, for Web and Combined web + CAPI / CATI respondents.



- Biases significantly larger (paired Wilcoxon sign test) for web respondents than combined respondents at waves 5 to 9, i.e. follow-ups reduce biases.
- No significant differences between datasets from wave 10 on.

Nonresponse paper: Summary of findings and implications

- CAPI / CATI follow-ups:
 - increase IP dataset response rate, but rate is declining over time.
 - improved overall dataset representativeness to IP10 (2017), but not after.
 - improved representation of some under-represented population subgroups at least in early years, but not others.
 - reduced non-response biases remaining after non-response weighting to IP9 (2016), but not after.
- Implies that point may arrive soon when (costly) follow-ups no longer needed to maximise dataset quality, and can be discontinued.
- Hence, survey designers, if they do not do so already, should begin to continuously evaluate the impacts of follow-ups on dataset quality.

Nonresponse | Are interviewer administered follow-ups of web non-respondents still needed to maximise survey subgroup dataset quality?

Nonresponse (subgroups): Introduction

- The previously presented research considers the overall, i.e. general population – datasets.
- What are the impact of such web-first sequential mixed mode survey designs on datasets on substantively important population subgroups?
- These subgroups a key component of dataset quality.
- Limited previous work suggests impacts may differ.
- Also treats subgroups as monotypic, whereas in reality they consist of individuals with differing characteristics.
- We address this knowledge gap by using UKHLS data to consider the impacts of CATI follow-ups of web non-respondents in the Young adult (age 16-34), Older adult (age 75+), Ethnic minority, and Low income (1st quintile HH income) subgroups.

Nonresponse (subgroups): Research questions

How do follow-ups of web non-respondents with CATI impact on subgroups in terms of:

RQ1: response rates, and do findings differ from the overall dataset?

RQ2: dataset representativeness, and do findings differ from the overall dataset?

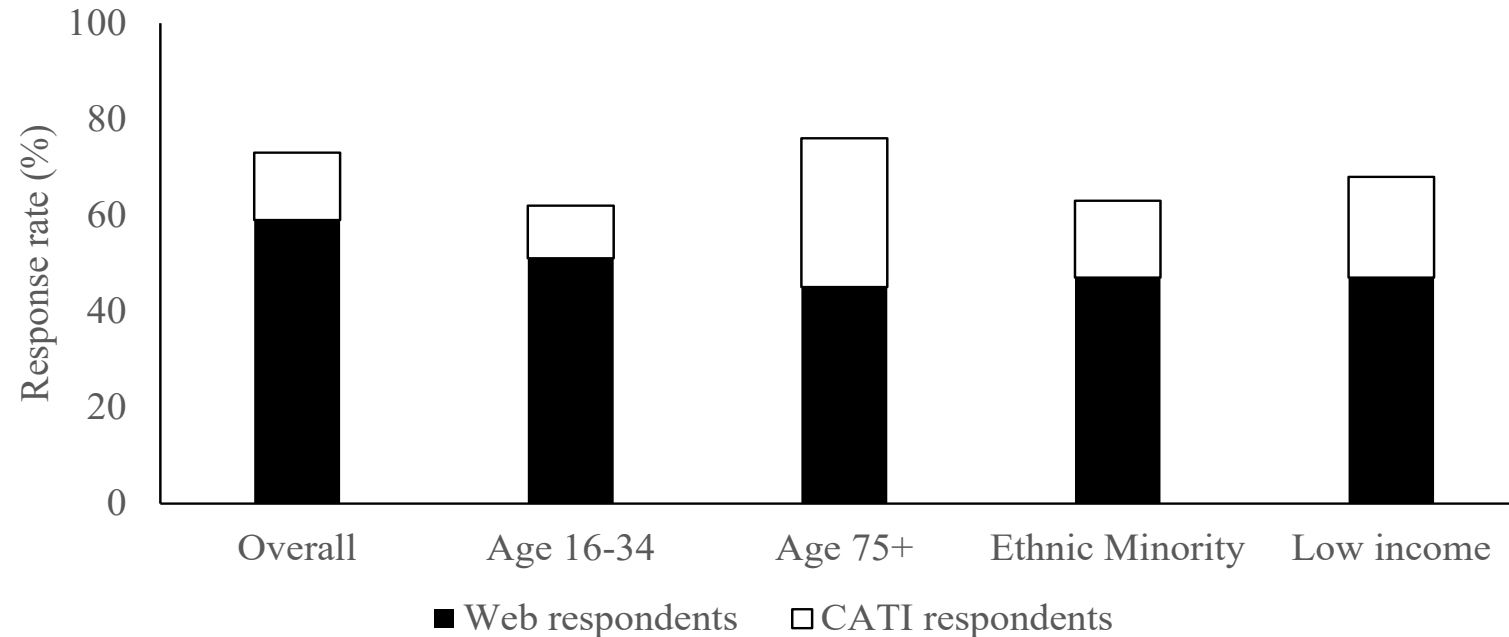
RQ3: under-represented (sub-) population subgroups, and do findings differ from the overall dataset?

RQ4: non-response biases remaining after non-response weighting, and do findings differ from the overall dataset?

Analysis sample

- In the UKHLS main survey, web first with CAPI / CATI follow-up first offered at wave 7 (2015).
- Proportion of sample offered the design has been increased over time.
- During 2020-2022 COVID pandemic, entire sample offered web first with CATI follow-up design.
- Data from Apr-Dec 2020 of this period used in analyses here.
- Corresponds to waves 11 q6-8 and 12 q2-4 (no individual appears twice).
- All sample members with information on subgroup defining characteristics in HHs responding at least once to the survey included in analysis sample.
- Attrition due to non-responding HHs accounted for in analyses by adjusting released non-response weights.
- Other missing information on sample member characteristics imputed.

RQ1: Overall and subgroup dataset response rates



- CATI follow-ups mostly increase response rates by more for subgroups than for the overall dataset.
- The exception is Young adults, for whom the response rate increase is slightly smaller.
- Follow-ups have greatest impact on Older adult dataset.

RQ2: Overall and subgroup dataset representativeness

Overall CVs for Web and Combined web + CATI respondents. For each subgroup, comparator overall dataset analyses using same response propensity model run

	Age 16-34	Age 75+	Ethnic minority	Low income
Subgroup web	0.282 (0.263 – 0.301)	0.409 (0.370 – 0.448)	0.263 (0.241 – 0.285)	0.351 (0.327 – 0.375)
Subgroup combined	0.242 (0.226 – 0.257)	0.127 (0.106 – 0.148)	0.200 (0.183 – 0.216)	0.202 (0.186 – 0.218)
Overall web, same response propensity model	0.217 (0.208 – 0.226)	0.205 (0.196 – 0.214)	0.249 (0.240 – 0.258)	0.237 (0.228 – 0.246)
Overall combined, same response propensity model	0.163 (0.156 – 0.170)	0.150 (0.143 – 0.157)	0.178 (0.171 – 0.185)	0.164 (0.157 – 0.171)

(Potential) auxiliary covariates:

Sex, Age, Ethnicity, Activity Last Week, Tenure, HH structure, Region, Behind with bills, HH income.

- Web respondents significantly less representative of sample than combined respondents for all subgroups and, using the same models, the overall dataset.
- Greatest impact of follow-ups on Older adult and Low income subgroups.

RQ3: Under-represented (sub-) subgroups in overall and subgroup datasets

- Category CVs for subgroup web and combined web + CATI respondents. Comparator overall dataset analyses using the same response propensity models also run.
- Subgroups identified and impacts of follow-ups on their under-representation similar to in IP dataset analyses.
- Follow-ups have:
 - Less impact on Young adult subgroup dataset than on overall dataset with same response propensity model.
 - Greater impact on Older adult subgroup dataset than on overall dataset with same response propensity model.
 - Similar impact on Ethnic minority subgroup and overall datasets with same response propensity model.
 - Similar impact on Low income subgroup and overall datasets with same response propensity model.

RQ4: Non-response biases after weighting in overall and subgroup datasets

Mean absolute standardised biases across characteristics for Web and Combined web + CATI respondents.

	Overall	Age 16-34	Age 75+	Ethnic minority	Low income
Web	0.003 (0.002 – 0.004)	0.031 (0.022 – 0.041)	0.069 (0.045 – 0.093)	0.026 (0.019 – 0.033)	0.037 (0.023 – 0.051)
Combined	0.002 (0.001 – 0.003)	0.020 (0.015 – 0.025)	0.022 (0.016 – 0.028)	0.019 (0.014 – 0.023)	0.018 (0.011 – 0.025)
Wilcoxon sign <i>p</i>	0.856	0.029	0.011	0.557	0.015

- No significant differences between web and combined respondent biases, i.e. follow-ups don't improve datasets – for the overall dataset and the Ethnic minority subgroup dataset.
- Combined respondent biases significantly smaller than web respondent biases, i.e. follow-ups improve datasets – for Young adult, Older adult and Low income subgroups.

Papers on Nonresponse: Summary of findings and implications

- CATI follow-ups:
 - mostly increase substantively important subgroup dataset response rates by more than for the overall dataset.
 - improve overall and subgroup dataset representativeness.
 - improve representation of some under-represented subgroups but not others, with degree of impact compared to in comparator overall dataset analyses varying between subgroups.
 - reduce non-response biases remaining after non-response weighting for some subgroups and the overall dataset, but not other subgroups.
- Hence, although evidence exists that impacts of CAPI / CATI follow-ups of web non-respondents on dataset quality are declining, survey designers should be cautious of discontinuing them without explicit evidence of a similar lack of impact on subgroup dataset quality.

Measurement | Are the gains in reducing biases outweighed by measurement differences between modes?

Research questions



RQ1 | Are there **differences in answers** to survey questions between web and face-to-face modes? Have these changed over time?



RQ2 | Which **types of questions** are more susceptible to measurement differences?



RQ3 | In which ways do **response distributions** differ between modes?

Data

UKHLS Innovation Panel (IP)

- Mixed-mode experiment from wave 5 (waves 5-11, 15-17):
 - (1) **2/3 Web → CAPI**. All responding adults (n = 1,078~1,837).
 - (2) **1/3 CAPI → Web** All responding adults (n = 464~870).
- Analysis of **480 questions** repeated across waves:
 - Most of the questions are **factual** (e.g., employment, income, education...).
 - **Sensitive questions** in CAPI administered in a self-completion mode.

Methods

- **RQ1 | Differences in answers between CAPI and web**

Compare **as-treated** (AT), **intention-to-treat** (ITT) and **instrumental variable regression** (IV).
Percentage of questions with significant differences between CAPI and web.

- **RQ2 | Question characteristics**

Question characteristics coding based on **Measurement Effect Risk Framework** (d'Ardenne et al. 2017, 2025). Used penalised **logistic regression** model to identify the question characteristics associated with mode effects.

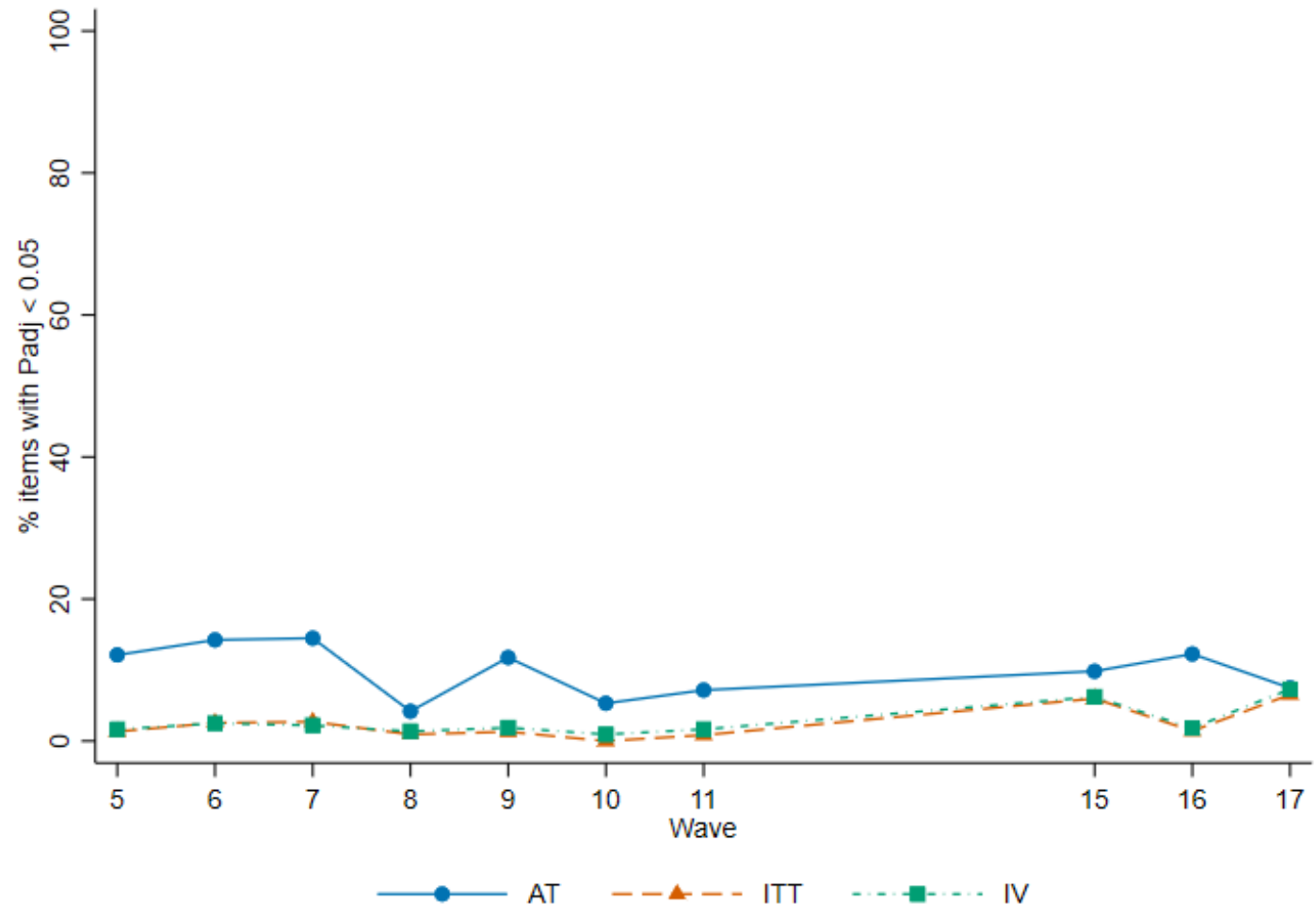
- **RQ3 | Response distributions**

Questions classified based on response scales: binary, ordinal, nominal, multicode. We **tested differences across first, last, and midpoint categories**. Used the IV approach to control for selection.

RQ1 | Measurement mode effects are rare after controlling for selection

Percentage of mode differences over time: **As treated (AT)**, **Intention-to-treat (ITT)**, **Instrument variable (IV)**

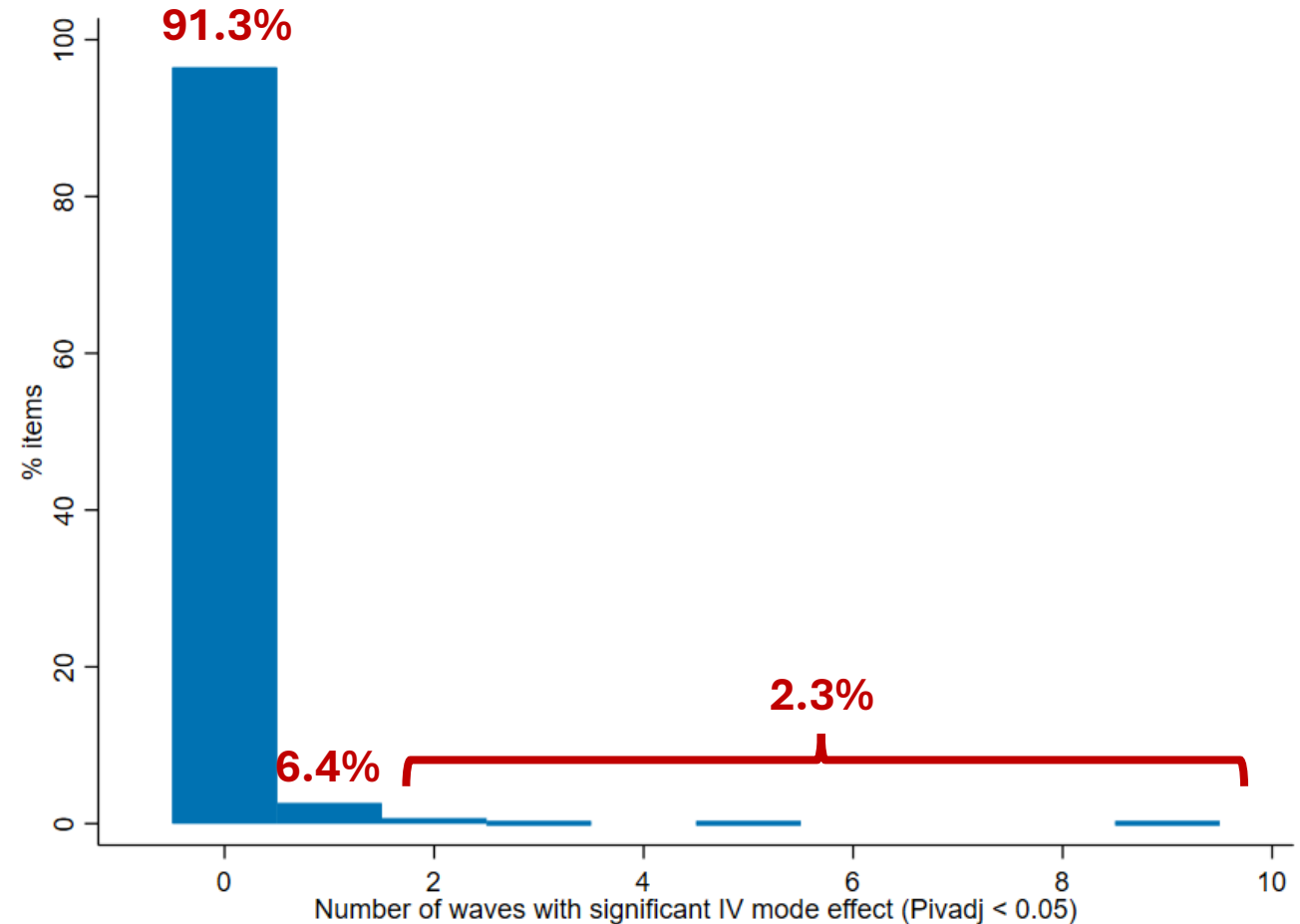
Survey questions (n = 159~306 per wave) |
UKHLS IP (waves 5-11 and 15-17)



RQ1 | Few variables (2.3%) present mode effects at two or more waves

Number of waves with significant IV mode effect

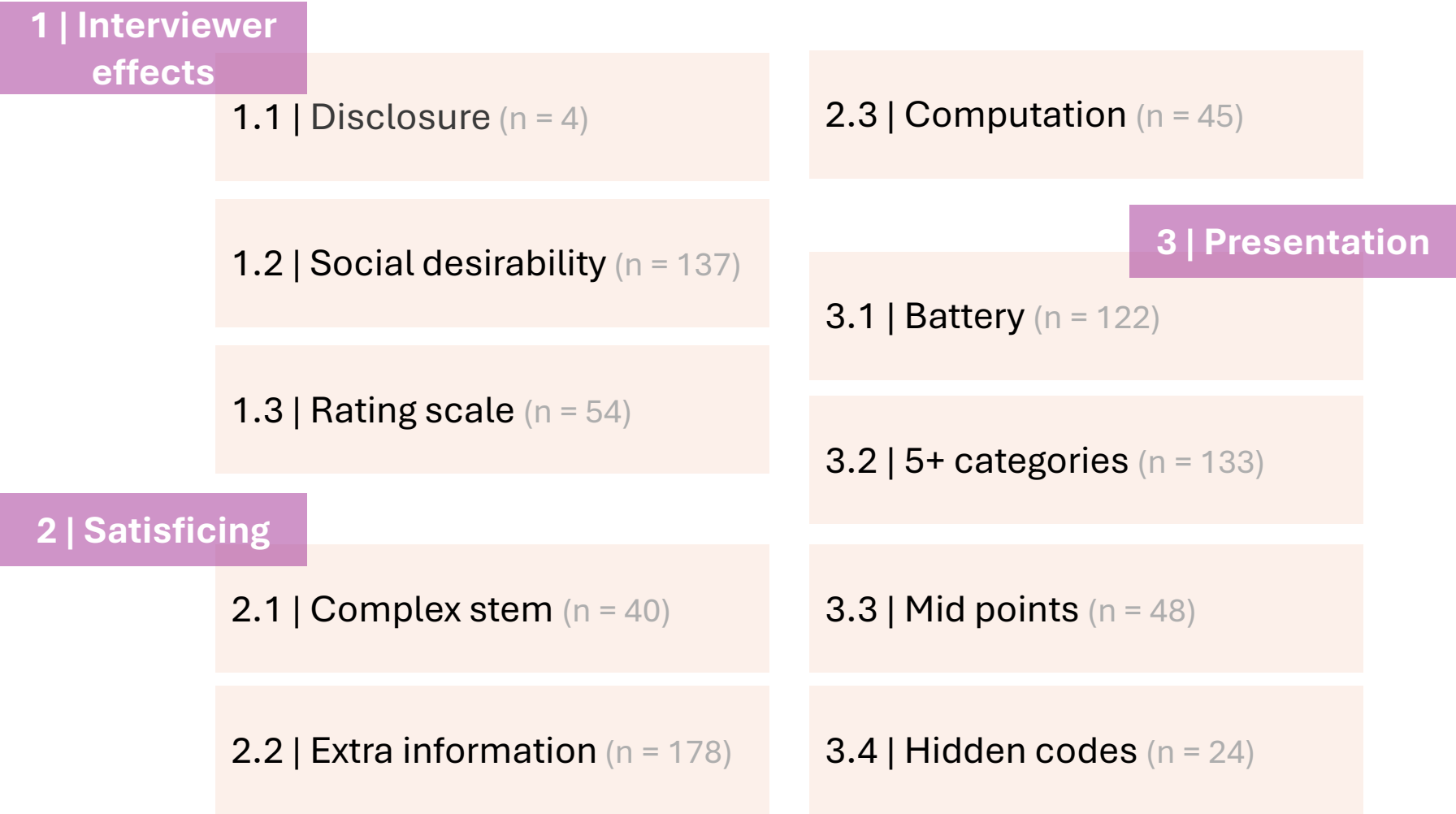
Survey questions (n = 480) |
UKHLS IP (waves 5-11 and 15-17)



RQ2 | Risk factors that may be associated with mode effects

Risk factors associated with mode effects
(d’Ardenne et al. 2017, 2025)

Survey questions (n = 480) | UKHLS IP (waves 5-11 and 15-17)



RQ2 | Questions with 5 or more response categories show a higher probability of mode effects

1 | Interviewer effects

1.1 | Disclosure

1.2 | Social desirability

1.3 | Rating scale

2 | Satisficing

2.1 | Complex stem

2.2 | Extra information

2.3 | Computation

3 | Presentation

3.1 | **Battery**

3.2 | **5+ categories***

3.3 | **Mid-points**

3.4 | Hidden codes

Risk factors associated with mode effects (d'Ardenne et al. 2017, 2025)

Survey questions (n = 480)
|
UKHLS IP (waves 5-11 and 15-17)

* **p < .05** multiple LR model; in **bold**, significant differences in bivariate analysis

RQ3 | Mode effects show different forms: first, last or mid-point categories

- For the few questions with mode effects in two or more waves, the direction of the effects was consistent.

Changes in the response distribution (web vs CAPI) for questions with mode effects

Questions with measurement mode effects across all waves (n = 63) |
UKHLS IP (waves 5-11 and 15-17)

	n	%
First category	36	57.1%
Last category	28	44.4%
Mid-point	12	19.0%
All questions with ME	63	

Measurement paper: Summary of findings

- **Web-first mixed-mode designs** remain a feasible approach:
 - Differences between web and CAPI estimates are significantly lower when selection is controlled for (1%-7%).
 - Measurement mode effects are not consistent over time. Only 2.3% of questions had mode effects at two or more waves.
- Questions with **many (5+) response categories** related to a higher probability of measurement mode effects.
- Differences between CAPI and web in **response distributions** show no clear pattern.

So, what have we learnt?

A brief history...

Web in Understanding Society



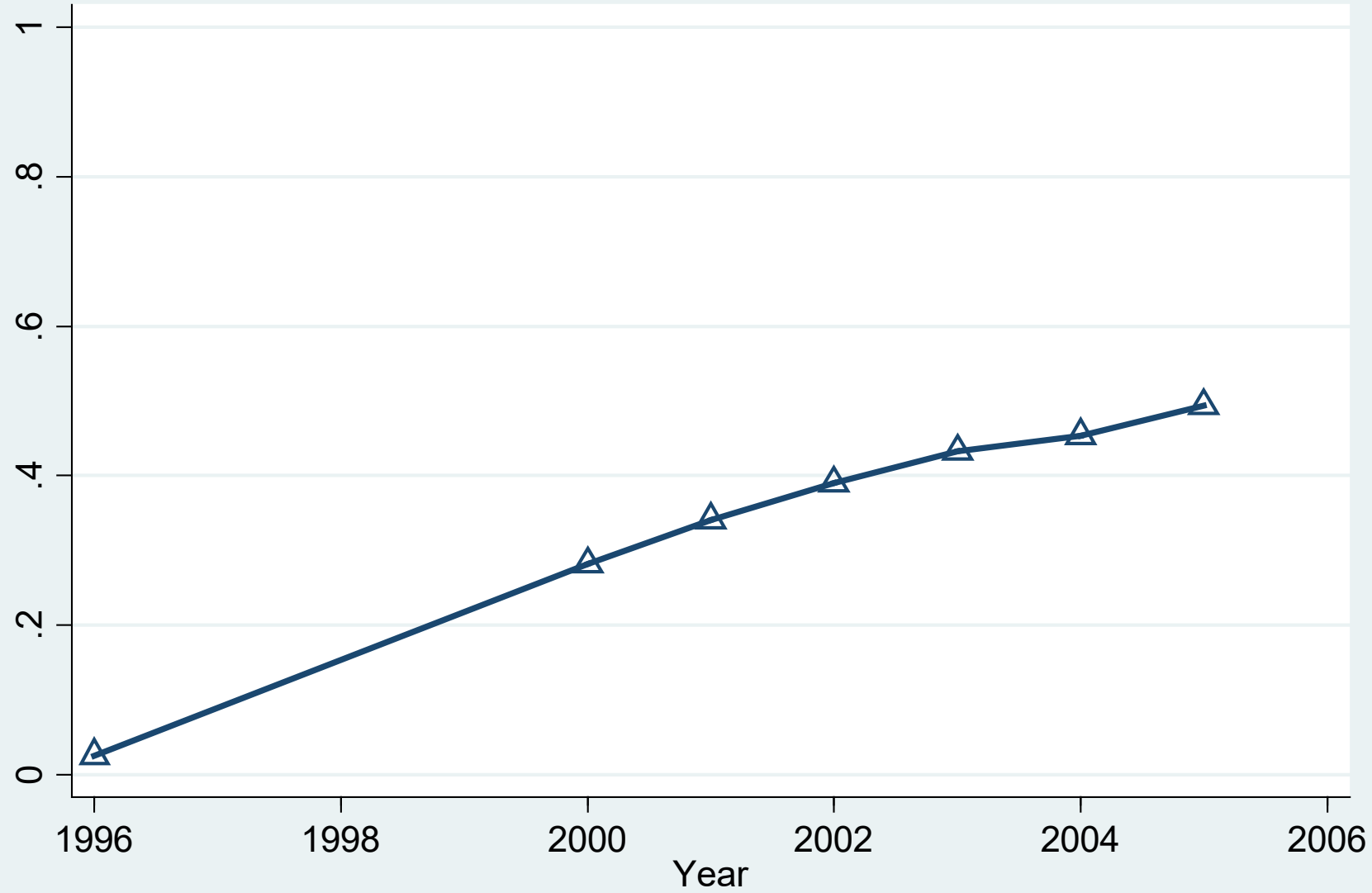
- Deliberation and planning
- Technical concerns e.g.

Web/CAPI/CATI compatible *software*

Effect of *broadband vs. dialup* on breakoffs?

- Internet coverage

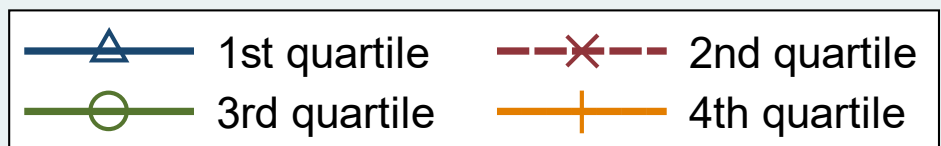
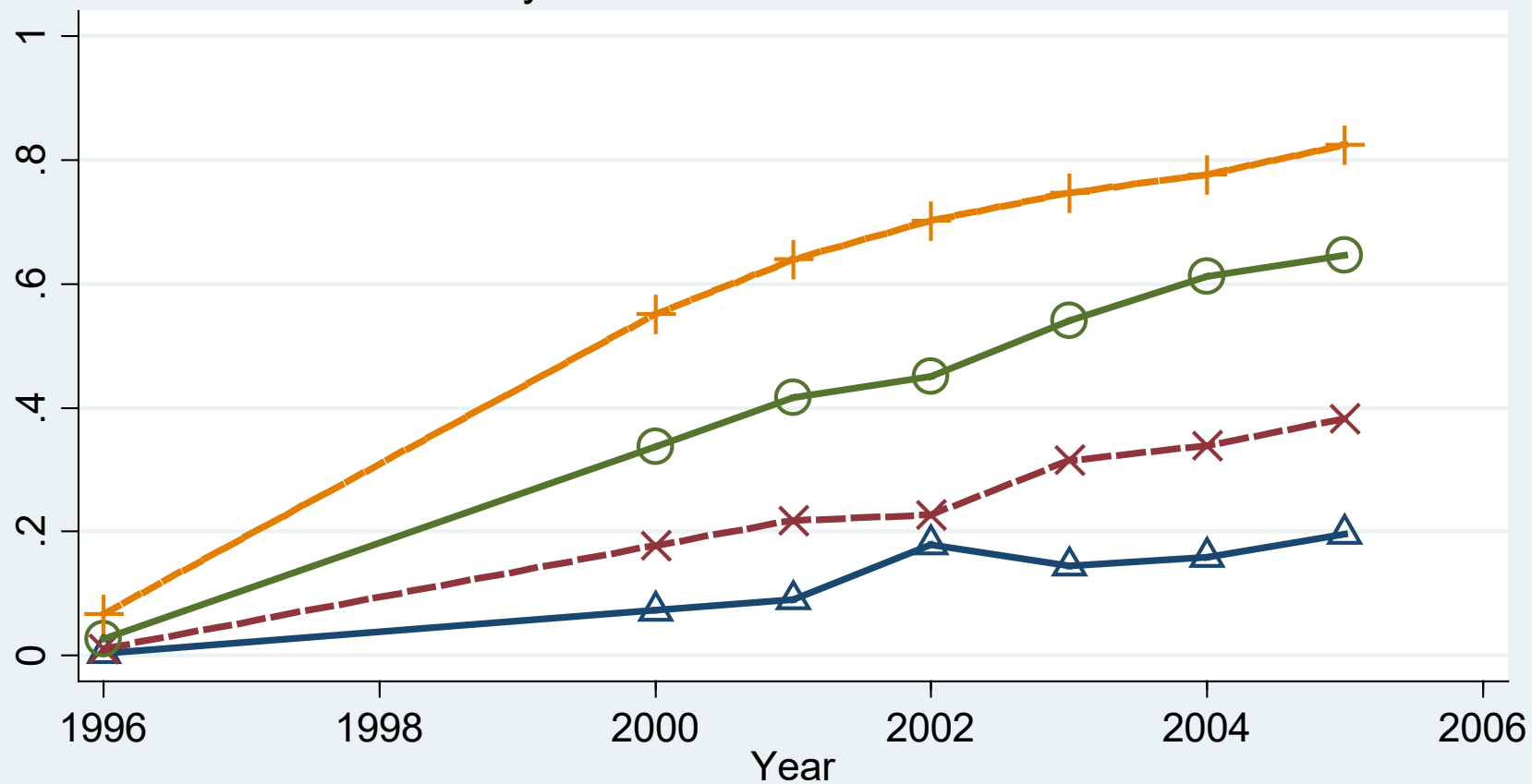
Proportion of Households with Internet



Source: British Household Panel Survey (Essex Sample), weighted.

Proportion of Households with Internet

By Annual HH Income Quartile



A brief history...

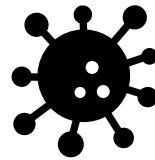
Web in Understanding Society



- Innovation Panel experiment
 - Web → CAPI vs
 - CAPI → Web

A brief history...

Web in Understanding Society



- Web → CATI
- Internet coverage increased
- Afterwards: some respondents no longer welcomed interviewers

A brief history...

Web in Understanding Society



- Do we still need to worry about web **coverage**?
- Or do we need to worry more about web **non-response**?

So, what have we learnt?

Do we still need to worry about web coverage?

Internet access

- 2023: <1% no internet access
- Internet users have become more representative
 - Especially if 'not daily' users included
- But still under-represented:
 - Older
 - Low education

Web respondents

- Similar to DAILY web users
- Less representative than ALL web users
- Young under-represented because of **low response rates**
- Old under-represented because of **low internet coverage**

Yes, depending on population

Do we still need to follow up web-non-respondents in other modes?

Full sample

- Initially (2012): gains in
 - Response rates
 - Representativeness of respondents
 - Non-response bias reduced even after weighting
- In recent years:
 - Little gains

Sub-groups

- Some large gains
 - Young
 - Old
 - Non-white
 - Low income

Yes, for key subgroups

Do we need to worry about measurement differences in web vs CAPI?

- Differences in distributions of answers
- Mostly due to selection of different types of respondents into modes
 - 91% of items: no differences
- Measurement differences not persistent over time
 - 2% of items: differences in 2+ waves
- Question format most at risk:
 - 5+ response categories

- Caveats:
 - Sensitive Qs in CASI
 - Mostly factual, behavioural, single item Qs
- Large measurement differences for
 - Consents
 - Cognitive tests

No, for Understanding Society

Implications for Survey Practice

1. Analyses based on full sample can mask effects on sub-groups
 - Following up web non-respondents does not seem cost-effective
2. Analyses of under-represented groups leads to different conclusions
 - Follow-ups very important, even if costly
3. UK general population samples: web only not yet feasible
4. Continue monitoring effectiveness of web non-respondent follow-ups
 - Other follow-up modes?
 - Other survey contents?
 - Cross-sectional surveys?
 - Other sub-groups?
 - Benchmark data / more detailed characteristics of sample members to assess representativeness

Thank you!

Working paper 7 (Coverage paper): Are we stepping into the future? Exploring the representativeness of web-only surveys of the general population, Cabrera-Álvarez et al. (2025)

Working Paper 4 (Nonresponse paper): Are interviewer administered follow-ups of web non-respondents still needed to maximise respondent dataset quality?, Moore et al. (2025)

Working paper 20 (Nonresponse paper): Do the effects of interviewer administered follow-ups of web non-respondents on dataset quality differ between overall datasets and population subgroup datasets? Moore et al (2026)

Working paper in progress (Measurment paper): Are the gains in reducing biases outweighed by measurement differences between modes? Cabrera-Álvarez et al. (2026)



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