How do household panel members react to multiple requests for different types of additional data over time?

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UK RI — Economic and Social Research Council
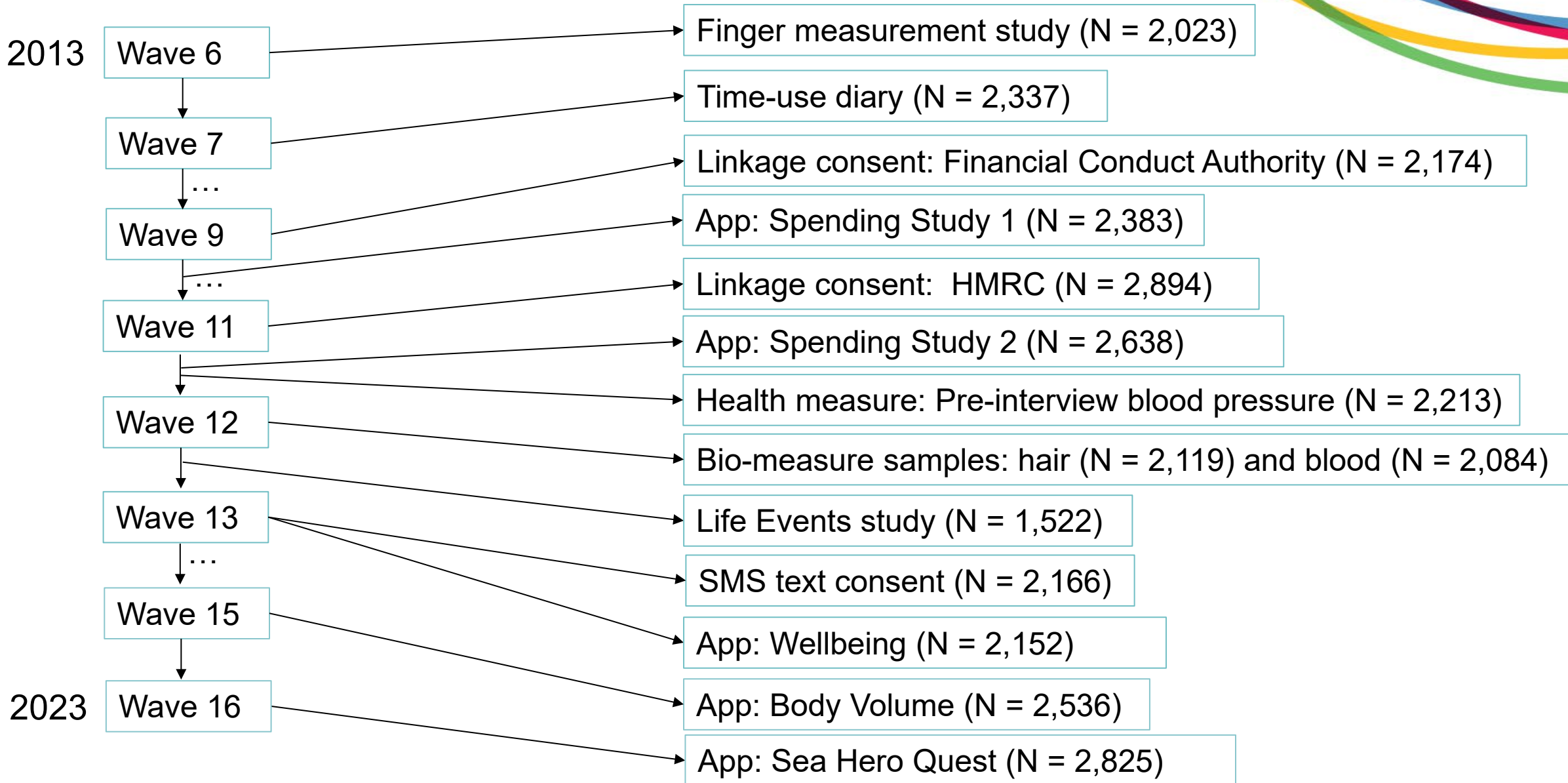
Background

- Individuals are increasingly being asked to do more than just answer questions in surveys.

- How best to gather data on different concepts using different methods, in a way that sample members will cooperate?

- No research investigating the cumulative effects of additional tasks in a panel survey.

Understanding Society
Innovation Panel

- Household Panel (N=1,500 households)

    Probability sample in Great Britain

- All adults aged 16+ interviewed annually

    Since 2009

- Mixed mode

    Web, CAPI, CATI

- Refreshment samples

    Waves 4, 7, 10, 11, 14

- Used for experimental methods testing

In the *Understanding Society* Innovation Panel…

2013 — Wave 6

Wave 7
…
Wave 9
…
Wave 11

Wave 12

Wave 13
…
Wave 15

2023 — Wave 16

Finger measurement study (N = 2,023)

Time-use diary (N = 2,337)

Linkage consent: Financial Conduct Authority (N = 2,174)

App: Spending Study 1 (N = 2,383)

Linkage consent: HMRC (N = 2,894)

App: Spending Study 2 (N = 2,638)

Health measure: Pre-interview blood pressure (N = 2,213)

Bio-measure samples: hair (N = 2,119) and blood (N = 2,084)

Life Events study (N = 1,522)

SMS text consent (N = 2,166)

App: Wellbeing (N = 2,152)

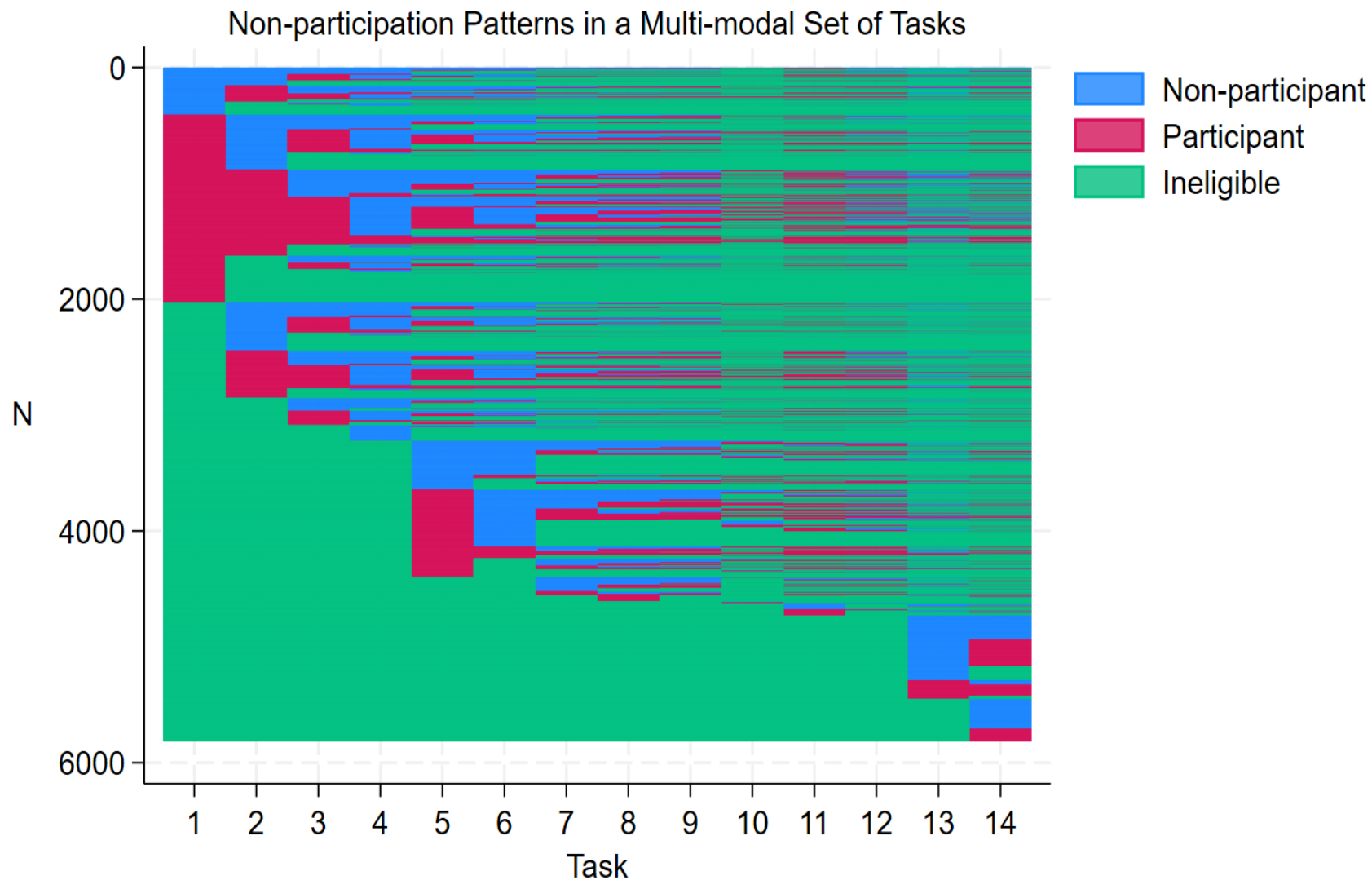App: Body Volume (N = 2,536)
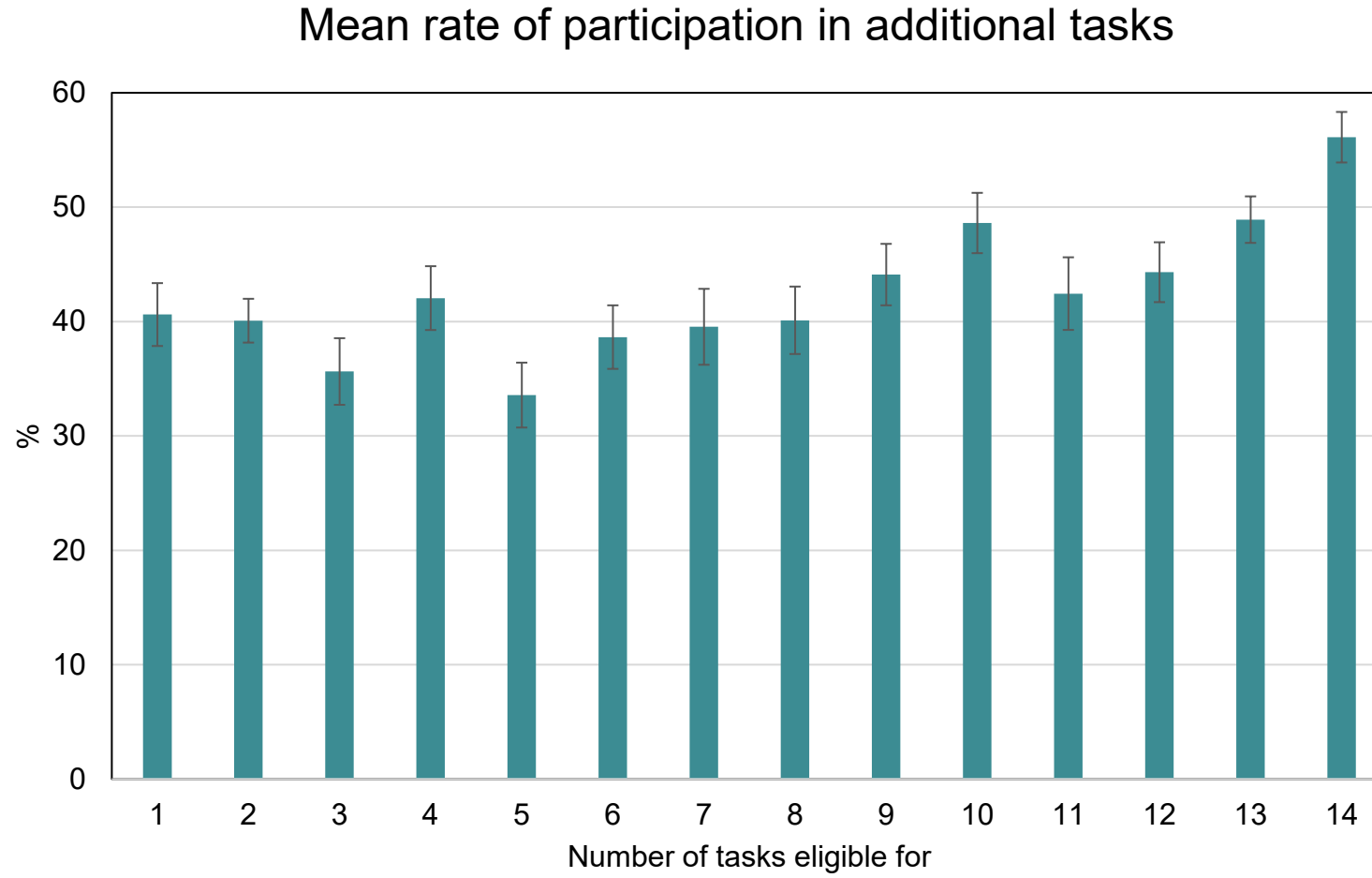
App: Sea Hero Quest (N = 2,825)

Research questions

1) What are the patterns of participation across additional data collection tasks?

2) Do respondents become less likely to participate in additional tasks the more they are asked to do?

3) Do respondents become less likely to participate in the annual interview the more additional tasks they are asked to participate in?

There are high rates of churn in the sample

Non-participation Patterns in a Multi-modal Set of Tasks

Respondents tend to participate in just under half the tasks they are invited to.

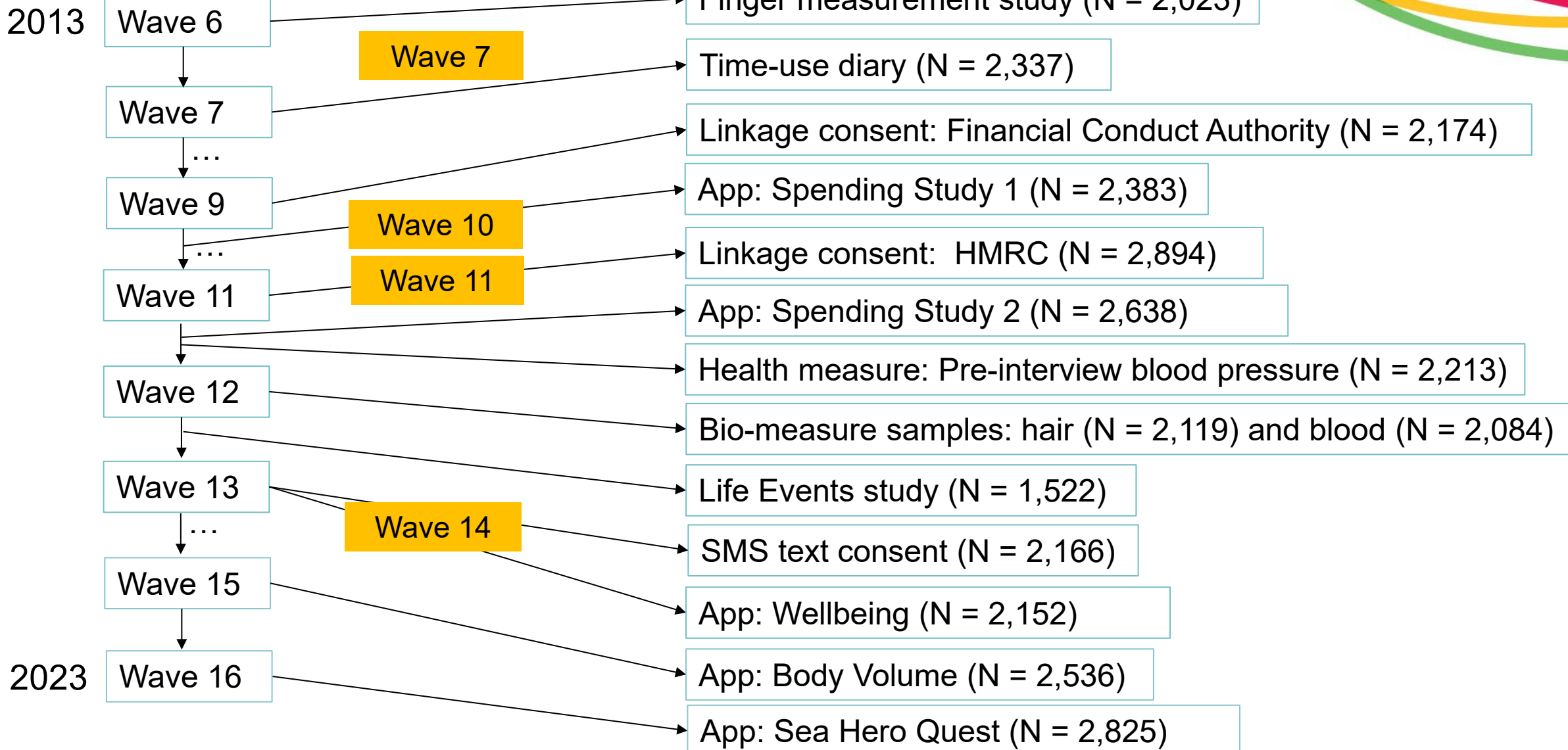Mean rate of participation in additional tasks

2) Do respondents become less likely to participate in additional tasks the more they are asked to do?

- Problem:

- Selection bias - Individuals invited to more tasks are those who
  - Have participated in more annual interviews
  - Have not dropped out
  - Are more cooperative (?)

Refreshment samples

Original and wave 4

2013

Wave 6 → Finger measurement study (N = 2,023)

Wave 7

Wave 7 → Time-use diary (N = 2,337)

...

Linkage consent: Financial Conduct Authority (N = 2,174)

Wave 9 → App: Spending Study 1 (N = 2,383)

Wave 10

...

Linkage consent: HMRC (N = 2,894)

Wave 11

Wave 11 → App: Spending Study 2 (N = 2,638)

Health measure: Pre-interview blood pressure (N = 2,213)

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Wave 14

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...

App: Wellbeing (N = 2,152)

Wave 15

App: Body Volume (N = 2,536)

2023

Wave 16 → App: Sea Hero Quest (N = 2,825)

2) Do respondents become less likely to participate in additional tasks the more they are asked to do?

Pr(participate in task)	Unweighted	Weighted	Fixed-effects	Item NR indicator	Instrumental regression
	β	β	β	β	β
Number of tasks invited to prior	-0.001	-0.001	0.010**	-0.001	-0.040***
Item non-response	-	-	-	-.0.763***	-
Control for mode in interview	No	No	No	Yes	No
Controls for task experiments	Yes	Yes	No	Yes	Yes
Control for sample origin	Yes	Yes	No	Yes	No
N	31,728	29,949	27,758	29,949	31,728

Note. *** p < 0.001, ** p < 0.01, * p < 0.05
Linear probability models (clustered SEs)
Instrumental model used sample origin as an instrument.

3) Do respondents become less likely to participate in the annual interview the more additional tasks they are asked to participate in?

Pr(participate in annual interview)	Unweighted	Weighted	Fixed-effects	Instrumental regression
	β	β	β	β
Number of tasks invited to prior	0.074***	0.053***	-0.019***	-0.020***
Control for interview year	Yes	Yes	Yes	Yes
Controls for interview experiments	Yes	Yes	Yes	Yes
Control for sample origin	Yes	Yes	No	No
N	36,230	29,948	23,973	36,230

Note. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Linear probability models (clustered SEs)

Instrumental model used sample origin as an instrument.

Conclusions

- Raw data found mixed results when analysing participation in a task or annual interview and the number of tasks previously invited to.

- There is high rates of churn in the sample.

- The probability of participating in a task or annual interview decreases with each additional task previously invited to.

Thank you!

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