

Does Experience and Sample Attrition Affect Response Behavior in Panels?

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Motivation

- (Internet) panels are a very promising tool for learning about society's "*preferences*", and they are used to inform policy makers and researchers.
- Example: Time and risk preferences are relevant for macroeconomic and welfare policies, polls.
- BUT: How reliable is the information obtained from (internet) panels?

Potential Problems

- Preference elicitation questions have often a high cognitive load.
- “Novice” respondents may not be able to express their preferences consciously.
- Only experienced respondents (CentER-panel!) may provide well-reflected answers.
- If repeatedly being exposed to questions on a topic, respondents may change their views.
- Endogenous attrition: It may be the more interested respondents that stay in a panel.

Our study

Explore whether “experience” effects and sample attrition are a serious issue.

Research design

Field a survey module with high cognitive load to both a novice panel and an experienced panel. Choose two panels that are highly similar in *every* other dimension.

Topic of survey module: Time and risk preferences as related to retirement preparation.

Two panels

CentERpanel

- In existence since 1991.
- 12 retirement modules in the two years preceding our study.
- Average “tenure” within panel: About 4 years.
- Many have seen already many retirement modules as well as other preference elicitation modules. → *Experienced panel.*

LISSpanel

- Came into existence in fall 2007
- Our retirement module was *the first* such module.
- → *Novice panel.*

Two panels (cont'd)

- Both samples are highly similar except along the dimension of interest (both representative, same country, data collection within the same 12 months).
- Provides unique opportunity for clean identification of experience and sample attrition effect.

Our expectations

The experienced panel provides us with

- Qualitatively and quantitatively different answers.
- Higher item response rate.

Literature

Using survey questions to elicit preferences:

- Barsky et al. (1997), Fong (2001), Kapteyn and Teppa (2002, 2003), Kimball et al. (2006), van Rooij et al. (2007), Corneo and Fong (2008), ...

“Stability” of preferences as elicited through surveys:

- Dohmen et al. (2006), Sahm (2007), Ansolabehere et al. (2008), Das et al. (2008).

Intertemporal preferences

Next you will find four options for how you could spend your money over your lifetime. For each option the first column indicates how much your household could spend on average per month from age 25 until retirement. Thus, this refers to your total (working) time from age 25 until retirement, NOT just the remaining (working) time. The second column indicates how much your household could spend during retirement.

Please think of all your expenditures, such as food, clothing, housing, insurance, traveling etc. Assume that the numbers below show what you can spend after having already paid for taxes. Assume also that prices of the things you spend your money on remain the same in the future as today (i.e., no inflation).

If you had a choice, which option would you like most?

Intertemporal preferences (cont'd)

	<i>Monthly spending during working life (age 25 until retirement), in Euros</i>	<i>Monthly spending during retirement, in Euros</i>
Option A	2200	2200
Option B	2300	2000
Option C	2400	1800
Option D	2500	1600

- The numbers are just an example. They are individually tailored to each respondent's income.
- Question has high cognitive load.

Intertemporal preferences (cont'd)

Results (table shows percentages of observations):

	<i>CentER</i>	<i>LISS</i>
50 percent	4	5
64 percent	6	9
76 percent	22	24
88 percent	36	32
100 percent	24	23
140 percent	8	6

Nobs are 708 for CentER and 1738 for LISS.

- Ordered probit regression with full interactions show no differences between samples.

Risk preferences

	<i>A</i>	<i>B</i>
<i>Choice 1</i>	1850	50 % chance of 1550, 50 % chance of 2200
<i>Choice 2</i>	1850	40 % chance of 1550, 60 % chance of 2200
<i>Choice 3</i>	1850	30 % chance of 1550, 70 % chance of 2200
<i>Choice 4</i>	1850	20 % chance of 1550, 80 % chance of 2200
<i>Choice 5</i>	1850	10 % chance of 1550, 90 % chance of 2200

- Choice between *A* and *B* in five different circumstances.
- The numbers are only an example.
- Risk preferences identified by switch point from *A* to *B*
 ($sp = 1, 2, 3, 4, 5, > 5$)

Risk preferences

Results (table shows percentages of observations):

	<i>CentER</i>	<i>LISS</i>
$sp = 1$	10	14
$sp = 2$	8	7
$sp = 3$	21	22
$sp = 4$	23	18
$sp = 5$	10	7
$sp \Rightarrow 5$	27	31

Nobs are 671 for CentER and 1490 for LISS.

- No statistically significant difference according to fully-interacted ordered probit regression (except for retired*LISS).

Other aspects of preferences

We obtain similar results for

- Minimally acceptable replacement rates (minimally desirable spending during retirement, divided by respondent's current total household income).
- Habit formation
- Intertemporal preferences with different implicit interest rates.

Response behavior

Item non-response (percentage of respondents that start with survey):

	<i>CentER</i>	<i>LISS</i>
<i>Intertemp pref, low r</i>	15	14
<i>Intertemp pref, high r</i>	14	14
<i>risk pref</i>	20	26
<i>Minimum expenditures</i>	22	26
<i>habit formation</i>	17	11

- Fully-interacted probit regressions for response behavior: No significant difference between samples for all items, except LISS*retired.

Can we be confident that answers are meaningful overall?

- Measured preferences unaffected by age. → Respondents are able to abstract from their current household situation when answering our questions.
- Meaningful patterns. E.g. Minimum replacement rates falling with income.

Conclusion

- We do not find evidence for strong experience or sample attrition effect.
- This suggests that panels are a valuable instrument to inform researchers and policy-makers.
- Preference elicitation is cheaper than ever, thanks to internet panels. Let's use them for better informed policy making!