The Implications of Online Panel Survey Experience and Panel Conditioning on Data Quality

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The Problem of Panel Conditioning

• Participation in longitudinal study can shape how respondents engage the study
  • Evidence against: Kruse et al. 2010; Smith et al. 2003; Toepoel et al. 2009

• Studied haphazardly

• Lack of clarity about mechanisms:
  • Impacts who you are (respondent)
  • Impacts how you take surveys (measurement)
The (Potential) Problem of Survey Experience?

- With the advent of online panels, respondents participate in multiple surveys over time
  - Median ranges from 6 to 31 in past year (Krosnick et al. 2005)
  - Professional respondents

- Evidence that responses vary with experience
  - Small differences: Coen et al 2005; Frede et al 2006; Smith & Brown 2006

- Does the experience of taking previous surveys impact how respondent answers current survey?
Analytical Challenge

• **Actual**: How I answer this survey after having taken several previous surveys

• **Counterfactual**: How I would have answered this survey if I had not taken the previous surveys
Analytical Challenge

• **Treatment**: In panel study \((P)\)

• **Control**: Not in panel study \((F)\)

• Typical approach: Compare responses from panel at time \(t\) to responses from fresh cross-section at \(t\):

  \[\ldots, -\ldots, \text{BAD!}\]
Analytical Challenge

- Need to account for attrition in Group $P$...

  ...and in Group $F$

- Requires fresh panel to observe later attrition

- Stayers: Respondents remain in study until $\ldots > \ldots$
Analytical Challenge

• Apply within longitudinal study to identify panel conditioning

• Apply across surveys to identify effect of survey experience
Data

- American National Election Study (ANES) 2008-2009 Panel Study
- 2007-2008 Associated Press Yahoo-News (APYN) Election Panel Study

- Same topic & similar questions
- Same time
- Same vendor
- Different recruitment
Data

• Experience:
  • ANES Cohort 1: Newly recruited in fall 2007
  • ANES Cohort 2: Newly recruited in summer 2008
  • APYN: 3 tenure categories (0-1 year, 1-2 years, & 2 or more years)

• Political interest: 1 to 5 point scale
Wrap up

• Limitations:
  • Extend to other outcomes
  • Extend to data quality measures (speeding, satisficing, etc.)
  • Extend to non-probability sample

• Implications:
  • Experience has persistent non-linear effects
  • Online panels should build in mechanisms to evaluate impact of experience on surveys