Worth the effort? An Examination of Re-Contact Strategies in F2F and Telephone Surveys

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Research Area

- Declining response rates generally seen as an indication for less quality,
  - A lot of effort goes into maintaining response rates

- Non-response is seen as one cause of survey error and bias

- Non-response bias as the difference between estimates for survey respondents and overall population
  - Increases of there is a relationship between study subject and likelihood of responding
  - Inverse of response rate

How do survey estimates change with different levels of fieldwork effort (relative and absolute non-response bias)?
Literature

• Keeter at all 2000, 2006 – reducing non-response in telephone surveys

• Groves and Peytcheva 2008 – meta analysis of studies of absolute NR bias
  • Very low correlation between response rate and non response bias
  • Great variation within studies then across studies

• Sturgis et all 2017 – meta analysis focusing on relative NR bias and FW effort
  • On average, questions about beliefs and attitudes tended to respond most to FW effort, behavioral questions not so much
  • Small number of variables with high relative bias
  • 4 call design has the most appeal

• Sztabinski 2017, Fuchs et all 2013 – effort and data quality for ESS data
Data Used

• 2017 Global Attitudes Spring surveys: Nationally representative telephone and face-to-face interviews with adults 18 years and older
• Scope would be 40 countries, but
  • 10 telephone countries are included (all)
  • 5 f2f countries included

BUT

• 15 f2f countries excluded due to response rates higher than 70% on first visit
• 10 countries excluded because contact data unusable
Fieldwork Efforts all F2F Countries

Response Categories F2F Countries

CATI Countries

### Percentage of Interviews Completed by Fieldwork Effort

#### Telephone (10 countries)

<table>
<thead>
<tr>
<th>Callbacks</th>
<th>Number of completed interviews</th>
<th>Number of completed interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34%</td>
<td>34%</td>
</tr>
<tr>
<td>2</td>
<td>22%</td>
<td>36%</td>
</tr>
<tr>
<td>3</td>
<td>14%</td>
<td>17%</td>
</tr>
<tr>
<td>4</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

#### In-person (5 countries)

<table>
<thead>
<tr>
<th>Callbacks</th>
<th>Number of completed interviews</th>
<th>Number of completed interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>56%</td>
<td>56%</td>
</tr>
<tr>
<td>2</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>3</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>4</td>
<td>2%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Cumulative Interview Rates – Telephone Countries

Cumulative Interview Rates – F2F Countries

Response Rates by Attempt – CATI Countries

Response Rates by Attempt – F2F Countries


www.pewresearch.org
Evaluating Variable Bias

Absolute bias (distance from true value – population estimate) measured after different FW effort levels measured for the following variables

- Sex of respondent
- Binary age variable (up to 49 years; 50 and more years of age)
- Binary education variable (higher secondary education or less; above secondary education)

Relative bias (distance from final estimate) measured after different FW effort levels

- 4 attitudinal questions - perception and respect of US, favorability Trump & Obama
- 4 technology related questions - use of internet, own cell, own smartphone, social networking

### Differences by Attempt Structure – Phone (10 countries)

#### Demographics

<table>
<thead>
<tr>
<th>Category</th>
<th>Sex</th>
<th>Age (50+)</th>
<th>Edu (4+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to get (1)</td>
<td>0 (-6;8)</td>
<td>1 (-4;6)</td>
<td>-2 (-7;2)</td>
</tr>
<tr>
<td>Medium effort (2-3)</td>
<td>0 (-3;4)</td>
<td>2 (-5;8)</td>
<td>1 (-3;9)</td>
</tr>
<tr>
<td>More effort (4-7)</td>
<td>0 (-11;7)</td>
<td>-4 (-14;5)</td>
<td>2 (-5;8)</td>
</tr>
<tr>
<td>Easy to get (1) vs. Medium effort (2;3)</td>
<td>0 (-9;6)</td>
<td>1 (-7;8)</td>
<td>4 (-5;13)</td>
</tr>
<tr>
<td>Easy to get (1) vs. More effort (4 or more)</td>
<td>-1 (-19;12)</td>
<td>-5 (-19;6)</td>
<td>4 (0;12)</td>
</tr>
</tbody>
</table>

#### Substantive questions

<table>
<thead>
<tr>
<th>Category</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>A4</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to get (1)</td>
<td>-1 (-7;3)</td>
<td>0 (-1;4)</td>
<td>-1 (-3;1)</td>
<td>1 (-2;5)</td>
<td>-1 (-4;3)</td>
<td>0 (-4;4)</td>
<td>-2 (-7;1)</td>
<td>0 (-5;14)</td>
</tr>
<tr>
<td>Medium effort (2-3)</td>
<td>1 (-4;7)</td>
<td>-1 (-12;5)</td>
<td>1 (-1;3)</td>
<td>0 (-4;3)</td>
<td>-1 (-9;3)</td>
<td>-1 (-5;2)</td>
<td>1 (-4;7)</td>
<td>-1 (-8;5)</td>
</tr>
<tr>
<td>More effort (4-7)</td>
<td>0 (-6;4)</td>
<td>0 (-6;4)</td>
<td>0 (-2;5)</td>
<td>-1 (-7;5)</td>
<td>2 (-2;7)</td>
<td>2 (-2;7)</td>
<td>1 (-4;8)</td>
<td>0 (-5;6)</td>
</tr>
<tr>
<td>Easy to get (1) vs. Medium effort (2;3)</td>
<td>1 (-5;14)</td>
<td>2 (-14;6)</td>
<td>2 (-2;5)</td>
<td>-2 (-5;5)</td>
<td>0 (-10;7)</td>
<td>-1 (-6;5)</td>
<td>2 (-4;10)</td>
<td>-1 (-22;10)</td>
</tr>
<tr>
<td>Easy to get (1) vs. More effort (4 or more)</td>
<td>1 (-8;7)</td>
<td>0 (-8;6)</td>
<td>1 (-4;7)</td>
<td>-2 (-11;5)</td>
<td>2 (-3;7)</td>
<td>2 (-5;9)</td>
<td>3 (-1;14)</td>
<td>0 (-20;10)</td>
</tr>
</tbody>
</table>

## Differences by Attempt Structure – F2F (5 countries)

### Demographics

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Age (50+)</th>
<th>Edu (4+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to get (1)</td>
<td>1 (-2:4)</td>
<td>-1 (-6:3)</td>
<td>0 (-1:1)</td>
</tr>
<tr>
<td>Medium effort (2)</td>
<td>-3 (-6:1)</td>
<td>2 (4:4)</td>
<td>1 (-4:4)</td>
</tr>
<tr>
<td>More effort (3-4)</td>
<td>-5 (-51:17)</td>
<td>-3 (-32:22)</td>
<td>-1 (-15:14)</td>
</tr>
</tbody>
</table>

### Substantive questions

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<tr>
<th></th>
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<th>A2</th>
<th>A3</th>
<th>A4</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to get (1) vs. Medium effort (2)</td>
<td>-3 (-6:1)</td>
<td>-1 (-3:1)</td>
<td>0 (-2:2)</td>
<td>-1 (-4:4)</td>
<td>-1 (-1:3)</td>
<td>-1 (-4:2)</td>
<td>0 (-3:4)</td>
<td>-1 (-4:1)</td>
</tr>
<tr>
<td>Easy to get (1) vs. More effort (3 or more)</td>
<td>-4 (-8:1)</td>
<td>4 (-7:14)</td>
<td>1 (-5:4)</td>
<td>-3 (-6:1)</td>
<td>-1 (-3:1)</td>
<td>0 (-2:2)</td>
<td>-1 (-4:4)</td>
<td>-1 (-1:3)</td>
</tr>
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April 18, 2018
Substantive Differences by Fieldwork Effort (CATI)

Low effort

Medium effort

Substantive Differences by Fieldwork Effort (F2F)

Low effort

Medium effort


April 18, 2018
Response Patterns Differ Across Countries (CATI)

Response Patterns Differ Across Countries (F2F)

Conclusion and Limitations

• Fieldwork effort matters, which is a reflection of the design

• But some effects seem to cancel each other out
  in CATI countries age and education
  it is a country specific story for F2F

• Substantive results shift when the sample composition by fieldwork effort changes

• Limitations
  F2F designs with a 1+2 design provide limited insights, but one can still find differences

  Surveys in developing countries still show very high response rates generally, and
  1st contact success rates that make the effort assessment difficult, if not impossible