Adaptive Designs – Tailoring of Contact Materials to Increase Survey Participation

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Leverage Saliency Theory (Groves et al. 2000)

- **Topic saliency**
  - Tailoring of communication materials to make a survey more attractive and increase saliency (Groves and McGonagle 2001; Groves et al. 2000; Groves et al. 1992; Cialdini 1984; Blau 1964)
  - Improved response rates with targeted/more salient letters (especially among nonrespondents) (Lynn 2016; Tourangeau et al. 2010)

- **Sponsorship**
  - Individuals “are more likely to comply with a request if it comes from an authority” (Groves et al. 1992) due to increased sense of
    - legitimacy
    - trust
    - potentially positive attitude towards sponsor
  - Positive effects on response rates for legitimate organizations (Edwards et al. 2014; Avdeyeva and Matland 2013; Groves et al. 2012)
Baccalaureate and Beyond 2008/18 (B&B:08/18)
- Longitudinal survey of individuals who completed their Bachelor’s degree during the 2007-08 academic year
- Last National Postsecondary Student Aid Study (NPSAS:08) follow-up
  - Students are interviewed during their degree year (NPSAS:08), one (B&B:08/09), four (B&B:08/12) and ten years later (B&B:08/18)
- Mixed-mode data collection (web and telephone)

Field Test
- N=1,557
- Response Rate=75%
- Data collection: July 17-November 7
Research Questions

- How does tailoring of letters and emails affect
  - response rates?
  - potential for nonresponse bias?
    - Are there differences for previous round nonrespondents?

- How does sponsorship in reminder emails affect
  - response rates?
  - potential for nonresponse bias?

- How do tailoring and sponsorship interact?
Experimental Manipulations

- **Tailoring experiment on all letters and emails**
  - Generic version – earning a Bachelor’s degree impacted…
  - Tailored version – earning a Bachelor’s degree in **field** impacted…

- **Sponsorship experiment on all reminder e-mails**
  - From RTI (@rti.org)
  - From NCES (@ed.gov)
Methods

- Response Rates: t-tests on final numbers

- Nonresponse Bias: absolute relative bias
  - Region
  - Age
  - School type
  - Enrollment
Similar overall response rates ($p = .914$):

- Generic: 72.0%
- Tailored: 71.7%
<table>
<thead>
<tr>
<th>B&amp;B:08/12 Respondents</th>
<th>B&amp;B:08/12 Nonrespondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td>Tailored</td>
</tr>
<tr>
<td>77.9%</td>
<td>78.9%</td>
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<tr>
<td>36.0%</td>
<td>42.4%</td>
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Tailoring and Nonresponse Bias

Relative Nonresponse Bias

- Maximum absolute relative bias: Generic 44.5, Tailored 39.4
- Average absolute relative bias: Generic 8.4, Tailored 9.5
- Median absolute relative bias: Generic 5.5, Tailored 5.5

Legend: Generic 🟢 Tailored 🌟
Similar overall response rates ($p = .982$).

- **RTI**: 54.8%
- **NCES**: 54.8%
Sponsorship and Nonresponse Bias

Relative Nonresponse Bias

- Maximum absolute relative bias: RTI = 54.5, NCES = 44.5
- Average absolute relative bias: RTI = 11, NCES = 10
- Median absolute relative bias: RTI = 8.9, NCES = 7.4
Interaction Response Rates

**Response Rate (in %)**

<table>
<thead>
<tr>
<th></th>
<th>RTI</th>
<th>NCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td>67.5%</td>
<td>64.7%</td>
</tr>
<tr>
<td>Tailored</td>
<td>62.8%</td>
<td>71.3%</td>
</tr>
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</table>
Interaction Nonresponse Bias

Relative Nonresponse Bias

- Maximum absolute relative bias: 50.6
- Average absolute relative bias: 14.7, 10.6, 8.1, 10.7
- Median absolute relative bias: 10.4, 6.1, 6.9, 5.2

- RTI-Generic
- RTI-Tailored
- NCES-Generic
- NCES-Tailored
Conclusions

▪ Tailoring seems to help with nonresponse
  – Response rates among previous round nonrespondents
  – Absolute relative bias

▪ NCES sponsorship seems to increase response rates when combined with tailoring

▪ Analyses underpowered, but results in the expected direction
Thank you!

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