Ongoing Experimentation in Transition from a National Paper and Pencil Survey to a Multi-Mode Web and Paper and Pencil Survey

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This presentation is intended to promote the exchange of ideas. The views expressed during the presentation and in presentation materials are part of ongoing research and analysis and do not necessarily reflect the position of the U.S. Department of Education.
Agenda

I. NHES background

II. Methodological challenges and experiments to address these challenges
   A. How do we learn which cases should receive what mode?
   B. Nonresponse bias – how can we increase response from underrepresented groups?
   C. Mailing materials – how do we study which materials increase response?
   D. How do we know if we can save money on our mailing strategies without losing response?
I. NHES BACKGROUND
What Is the National Household Education Surveys Program (NHES)?

• Sponsored by the National Center for Education Statistics (NCES), within the U.S. Department of Education (ED)
• Measures phenomena not efficiently measured through institutions such as schools
• Cross-sectional survey every 2-3 years, with rotating survey topics
• Adult respondents; most often samples children
• Two-stage with a household-level screener and sampled person-level topical
NHES:2019 Design

- Two web invitations followed by two paper invitations at the screener stage
- Fielding two surveys
  - Early Childhood Program Participation (ECPP) survey (sampling children age 0-6 and not yet in kindergarten)
  - Parent and Family Involvement in Education (PFI) survey (sampling children in K-12 grades or grade equivalent)
- Address-based sample using MSG frame of approximately 205,000 addresses
## NHES:2019 Random Experimental Subsamples

<table>
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<tr>
<th>Baseline Condition n=40,000</th>
<th>Targeted Mailings Condition n=15,000</th>
<th>Updated Sequential Mixed Mode Condition n=80,000</th>
<th>Choice-Plus Condition n=30,000</th>
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NHES: 2019 Screener-Stage Contact Strategy

To all 205,000 starting sample addresses

Advance letter – experimental subsample

6 days

First screener packages w/ $5 and letter asking for web completion

8 days

Screener thank you/reminder pressure-sealed mailers

1st screener nonrespondents

Second screener package w/ letter asking for web completion

22 days

1st & 2nd screener nonrespondents

Third screener mailing with questionnaire sent by FedEx or USPS and automated reminder telephone calls

29 days

1st -- 3rd screener nonrespondents

Fourth screener questionnaire

28 days
II. METHODOLOGICAL CHALLENGES AND EXPERIMENTS TO ADDRESS THESE CHALLENGES
## Determining Which Cases Receive What Mode

Response rates by mode from NHES:2016 mode experiment

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<th>Parent and Family Involvement in Education</th>
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<tr>
<td></td>
<td>Mail-only</td>
<td>Mixed-mode</td>
</tr>
<tr>
<td>Screener</td>
<td>67.2</td>
<td>62.1</td>
</tr>
<tr>
<td>Topical</td>
<td>71.5</td>
<td>83.6</td>
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<td>Overall</td>
<td>48.0</td>
<td><strong>51.9</strong></td>
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**NHES:2019 Mode Experiments**

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Determining Which Cases Receive What Mode-Continued

• Choice-plus\(^1\) experiment
  – 24,000 cases offered $10 to complete web survey or in-bound phone survey while offered paper & web
  – 6,000 cases offered $20

• Modeled mode experiment
  – 36,000 of 205,000 sample addresses
  – 5,400 cases (top 15 percent predicted to need paper) received paper

Determining Which Cases Receive What Mode - Preliminary Results*

• Choice-plus $10 and $20 groups have higher response rates than the total response rate (47%-48% vs. 37%).
• Modeled mode response rate higher than total response rate (64% vs. 37%)
• Note, results are before a late March third contact using mailing and paper forms

*No survey weights have been generated yet. Differences cited have not been tested for significance.
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Increasing Response from Underrepresented Groups

- Created “targeted” materials for mailings to addresses modeled to include Spanish speakers
  - 15,000 of 205,000 sample addresses
  - ~3,300 cases of 15,000 received targeted mailings
- Conducted focus groups to create materials
Increasing Response from Underrepresented Groups - Continued
# NHES:2019 Mailing Materials Experiments

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Studying Which Mailing Materials Increase Response – Opt-out Screener

- 10,000 cases randomly assigned to screenout condition
- 41 percent response in screenout condition vs. 37 percent response in control

*No survey weights have been generated yet. Differences cited have not been tested for significance.*
Studying How to Save Money on Mailing Strategies Without Losing Response

- FedEx increases response compared to regular mail and priority mail
- FedEx is expensive
- Do we need to expend that money at the 3\textsuperscript{rd} screener mailing for everyone?
- Are there households where FedEx at 2\textsuperscript{nd} mailing cinches response, avoiding later mail?
Studying How to Save Money on Mailing Strategies Without Losing Response - FedEx Timing Experiment

• The American Institutes for Research (AIR) developed a model combining response propensity and FedEx cost, and allocated cases with higher joint propensity and FedEx cost to receive FedEx with the 4th mailing instead of the 3rd.

• Cases with lower response propensity and lower FedEx cost received FedEx with the 2nd mailing instead of the 3rd.
Questions?
For more information…

Survey website
https://nces.ed.gov/nhes/

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