Overview

• Introduction
• Overview of general approach
• Findings from two studies
• Conclusions and future research

Introduction

• The context: Declining response and coverage rates for landline RDD
• Address based sampling (ABS)
  • Use USPS-based address lists maintained by vendors
  • Offers various mode options
• Application to two studies
  • Subpopulation survey: The National Household Education Surveys Program (NHES) 2009 Pilot Study
  • General population survey: Adult Training and Education Survey (ATES) Pilot Study (2010)
### Characteristics of the ABS Frames

- Characteristics vary by vendor
- Nationally, very high coverage; for a particular survey, achieved coverage depends on mode(s)
- According to Fahimi (2010):
  - 11% are P.O. box addresses (about 1/3 of these are the “only way to get mail”)
  - Phone numbers can be matched to ≈65% (on average)
  - Names can be matched to over 90% (on average)
  - Other demographics can be matched (DiSogra, Dennis, and Fahimi 2010):
    - Missingness rates of 5-27%
    - Correlations to self-report survey data: 0.261 to 0.675

### Overview of General Approach

- Single-stage, unclustered ABS selection
  - Stratification based on linked census (tract- or block-level) data possible
  - We do not recommend stratification using merged demographics (due to relatively high rates of missingness and low correlations with survey self-reports)
- Our two-phase administration model
  - Phase 1: Mail Screener
    - First Screener mailing with incentive
    - Thank-you/reminder postcard
    - First follow-up Screener mailing
    - Second follow-up Screener mailing via FedEx
  - Phase 2: Extended by mail or phone

### Why Two-Phase?

- Subpopulation survey: Many households might not contain eligibles
- Reduction in materials (relative to a “select-all” approach)
- Control of determination of eligibility and within-household sampling
- Allows for differential subsampling in second-phase selection
- Allows for tailoring/personalization in second-phase administration
First Phase (Mail): Findings (both ATES and NHES Pilot)

Screener response rates

- ATES: 51%
- NHES Pilot:
  - 61% overall (for mail-only path)
  - Variety of experimental conditions: 64% for one particular combination of treatments

Screener response rates by mailing wave

<table>
<thead>
<tr>
<th>Cumulative Screener Response Rate</th>
<th>ATES</th>
<th>NHES Pilot*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial mailing</td>
<td>33%</td>
<td>25%</td>
</tr>
<tr>
<td>1st follow-up</td>
<td>42%</td>
<td>44%</td>
</tr>
<tr>
<td>2nd follow-up</td>
<td>51%</td>
<td>61%</td>
</tr>
</tbody>
</table>

* Mail-only path

Compared to the initial respondents, respondents to the first-phase follow-up mailings:

- ATES:
  - Are younger (adults)
  - Have lower levels of educational attainment
- NHES Pilot (Han et al. 2010):
  - Have eligible children at higher rates
  - Have lower levels of educational attainment
  - Are more likely to be renters
  - Are more likely to be larger (5+ person) households
Second Phase by Mail: Approach (NHES Pilot)

- **Mail Extended**
  - First Extended mailing with incentive
  - Thank-you/reminder postcard
  - Second Extended mailing
  - Third Extended mailing via FedEx (or Priority Mail)

- **Tailoring/Personalization**
  - Send survey appropriate to particular child’s age/enrollment
  - Child’s name, age, grade in letter and survey instructions
  - Customized list of schools

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Second Phase by Mail: Findings (NHES Pilot)

**Second phase (Extended) response rate**

- Cumulative Extended response rate by mailing wave
  - Initial mailing: 41%
  - First follow-up: 53%
  - Second follow-up: 72%

- Early Screener respondents were more likely to respond to the Extended
  - 87% for the initial Screener respondents
  - 77% for Screener first follow-up respondents
  - 61% for Screener second follow-up respondents

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Second Phase by Phone: Approach (ATES)

- **Motivation for telephone**
  - ATES: Needed to test administration of questions by telephone (for use in other telephone surveys)
  - Complex instrument
  - Cost/resource considerations (e.g., to re-use a previously developed CATI instrument)

- **Approach**
  - No phone number available → Nonresponse to extended
  - Phone number available:
    - Use specific phone number given for sampled adult
    - Else, phone number given for “Adult 1”
    - Else, vendor-matched phone number
### Second Phase by Phone: Findings (ATES)

**Ability to obtain phone numbers**
- **Vendor match rate**
  - 63% of addresses
- **Phone number rate after screener**
  - 96% of sampled adults
    - 26% provided different number than vendor match
    - Overall, 8% were nonworking, nonresidential, or bad matches; this rate varies by source(s) of phone number.

**Vendor match rate**

#### Second Phase by Phone: Findings (ATES)-Cont.

**Considered two groups:**
- Vendor-matched number only, or Screener number is the same as vendor-matched number (VP)
- Screener number different from vendor-matched number, or Screener number only (SP)

**SP differ from VP in terms of:**
- Age (younger)
- Race/ethnicity (higher proportions of Blacks and Hispanics)
- Income (lower)
- Employment status (higher proportion worked in last 12 months)
- Home tenure (higher proportion renters)
- Region (higher proportions in MW and W; lower in NE)

**In terms of these differences, in each case other than income, including SP brings the distribution more in line with population estimates.**

**Extended response rates**
- Overall: 44%
- Rates differ by source of phone number:
  - VP: 42%
  - SP: 45%
Conclusions

- This two-phase ABS approach has been used effectively for both general population and subpopulation studies
  - Mail Screener
  - Mail or telephone Extended
- Follow-up mailings result in sets of respondents more similar, in general, to population
- Characteristics of respondents when phone number is requested on Screener differ from those of respondents with vendor-matched number only

Future Research

- More research involving using telephone as primary (or sole) mode for second phase is needed
- Explore use of web (by mail invitation) for second phase interview, possibly for Screener nonresponse follow-up
- Optimal incentive amounts (experimentation with both Screener and Extended incentives, in conjunction with mailing service)
- How best to target Spanish-speaking households and other households with English literacy issues

References

First Phase (Mail): Findings

Address eligibility and response rates by select characteristics of the addresses

<table>
<thead>
<tr>
<th>Address characteristic</th>
<th>ATES</th>
<th></th>
<th>NHES Pilot</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of sampled addresses</td>
<td>Address eligibility rate (%)</td>
<td>Screener response rate (%)</td>
<td>% of sampled addresses</td>
</tr>
<tr>
<td>City-style address</td>
<td>69</td>
<td>94</td>
<td>54</td>
<td>91</td>
</tr>
<tr>
<td>P.O. box address</td>
<td>11</td>
<td>67</td>
<td>42</td>
<td>91</td>
</tr>
<tr>
<td>Drop point address*</td>
<td>1</td>
<td>91</td>
<td>40</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Vacant address</td>
<td>6</td>
<td>25</td>
<td>41</td>
<td>5</td>
</tr>
<tr>
<td>Seasonal address**</td>
<td>1</td>
<td>37</td>
<td>60</td>
<td>0</td>
</tr>
</tbody>
</table>

*For the NHES Pilot, there were only 3 Extended cases in this category; 6 responded, 2 were NR, and 1 was nondeliverable.

**Excluding addresses flagged as seasonal educational addresses.

Findings: Incentives

• Both studies included a $2 incentive in each initial Screener package

• NHES Pilot
  • Prepaid incentive included in initial Extended mailing; randomized amount ($0, $5, $15)
  • Extended response rates by incentive amount:
    • $0: 72%
    • $5: 77%
    • $15: 83%
Findings: Incentives-Cont.

- ATES
  - Promised incentive for completing Extended; promised in Screener letter
  - Randomized amount ($0, $10, $20); randomized notification (whether or not notified)
  - The promised incentives appear to be much less effective than prepaid incentives (although no direct comparison), but they do seem to result in slight boost in screener response and willingness to provide phone number.

<table>
<thead>
<tr>
<th>Incentive and notification conditions</th>
<th>Screener response rate</th>
<th>% providing a phone number on Screener</th>
<th>Extended response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>No incentive</td>
<td>50</td>
<td>87</td>
<td>42</td>
</tr>
<tr>
<td>$10, not notified</td>
<td>50</td>
<td>88</td>
<td>40</td>
</tr>
<tr>
<td>$10, notified</td>
<td>51</td>
<td>90</td>
<td>46</td>
</tr>
<tr>
<td>$20, not notified</td>
<td>51</td>
<td>87</td>
<td>44</td>
</tr>
<tr>
<td>$20, notified</td>
<td>52</td>
<td>91</td>
<td>44</td>
</tr>
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</table>