Does giving people their preferred survey mode actually increase survey participation rates?

An Experimental Comparison

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Mixed Mode Surveys and Mode Preference

• Mixed mode surveys are becoming increasingly common to counter falling response rates

• Long-standing hypothesis:
  – People prefer certain modes over others (e.g., Groves and Kahn 1979)
  – Offering people a preferred mode will increase their probability of participation in that mode
  – Still an open question
Mode preference is different from mode choice

• Mode preference
  – Positive attitude about participating in one mode over other modes
  – Can express this preference prior to participating in a particular survey

• Mode choice
  – Behavior of selecting a mode to participate in when offered two or more mode choices
  – Engages in this behavior during a particular survey
Research Questions

• Do people who express a preference for a particular mode participate at higher rates in that mode than others?
  – Is this due to contactability or amenability?

• When given a choice, do people select the mode they reported preferring?
  – How does the order in which the modes are offered affect participation in a certain mode?

• Does mode preference affect the timing of participation in that mode?
Why might mode preference matter?

• Leverage-Saliency Theory (Groves, Singer and Corning 2000) and Social Exchange Theory (e.g., Dillman, Smyth and Christian, 2009)
  – Both theories predict that offering a person the mode they prefer should increase cooperation rates

• Mode preference should be an indication of cooperation in a particular mode, not contactability
  – Requires an interviewer-administered mode to disentangle the two sources of nonresponse
Measuring Mode Preference

• 2008 Nebraska Annual Social Indicators Survey (NASIS)
  – Omnibus survey conducted by UNL’s Bureau of Sociological Research February – August 2008
  – CATI survey with listed landline sample of Nebraska residents age 19+
    • Estimated 23% of Nebraska households were cell-only in 2007 (Blumberg et al. 2009)
    • Response Rate (AAPOR RR3): 38%
  – Respondents to the 2008 NASIS were asked if they would be willing to participate in future social research projects
    • $n = 1370$ of 1811 (75.6%) said yes
Mode Preference Question

- If you received a request to do another survey like this one, would you prefer to participate in…
  - An in-person interview at your home
  - An interview on your home phone
  - An interview on your cell phone
  - A paper survey sent by mail, or
  - A survey on the internet

Percentage Distribution:
- Home Phone: 49.2%
- Mail: 24.6%
- Internet: 19.7%
- Cell Phone: 0.4%
- Missing: 4.5%
- In person: 1.7%
**Step 1. Measure Mode Preference**

2008 NASIS
Feb. – Aug. 2008

1370 Respondents were willing to participate in additional research

**Step 2. Evaluate Participation**

2009 Quality of Life in a Changing Nebraska Survey

- **Phone**
  - N=1000
  - RR2=55.5%

- **Mail**
  - N=297
  - RR2=53.9%
  - N=327
  - RR2=53.2%

- **Web**
  - N=314
  - RR2=50.0%
  - N=291
  - RR2=25.4%

2009 NASIS
March – July 2009

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N=1000
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Analytic Methods

• Received preferred mode as first mode
  – Prefer any ‘interviewer-administered’ survey’ and received the phone survey or
  – Prefer ‘web’ and assigned to ‘Web Mail’ or ‘Web Only’ or
  – Prefer ‘mail’ and assigned to ‘Mail Web’ or ‘Mail Only’

• Bivariate and multivariate analyses
  – Item missing data multiply imputed (m=5) using sequential regression in IVEWare
  – All analyses account for the clustering of requests within people
Research Questions

• Do people who prefer a particular mode participate at higher rates in that mode than others?  
  – Is this due to contactability or amenability?

• Do people select the mode they prefer?  
  – How does the order in which the modes are offered affect participation in a certain mode?

• Does mode preference affect the timing of participation in that mode?
In single-mode surveys, response rates are higher for those being surveyed in their preferred mode.
But the web survey response rates are lower than the mail and phone survey response rates across all preference groups.

<table>
<thead>
<tr>
<th>Mode Preference</th>
<th>Mail Response Rate</th>
<th>Web Response Rate</th>
<th>Intvwr Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mail</td>
<td>57.7</td>
<td>53.8</td>
<td>52.5</td>
</tr>
<tr>
<td>Web</td>
<td>17.3</td>
<td>40</td>
<td>23.5</td>
</tr>
<tr>
<td>Phone</td>
<td>51.4</td>
<td>46.6</td>
<td>60.3</td>
</tr>
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</table>

- **Green** bars represent Mode Preference Matches Survey Mode.
- **Dark blue** bars represent Mode Preference Doesn’t Match Survey Mode.
In mixed-mode surveys, response rates are not higher for those who prefer the mode that is offered first.

<table>
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<th>Prefers Web/Interview</th>
<th>Mail Survey with Web Supplement</th>
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Across all the modes, receiving the preferred mode increased response rates by 41% even when the following variables were controlled:

- Mode (Mail, Web, Mail/Web, Web/Mail)
- Mode * Received preferred mode
- Age
- Education
- Sex
- Has children
- Married
- Employment
- Income
- Has internet access
- Has cellular phone
- Lives in city
- Self-rated computer ability
- Self-rated hearing
- Self-rated health
- Concern about identity theft
- Depression

Based on logistic regression predicting overall survey participation in NASIS 2009 and QLCN with standard errors adjusted for multiple imputation and the clustering of requests within respondents. Red indicates p≤.05.
Cooperation rates are higher in the phone survey for those who prefer phone than those who prefer a different mode when respondent characteristics are controlled.
Research Questions

• Do people who prefer a particular mode participate at higher rates in that mode than others?
  – Is this due to contactability or amenability?

• When given a choice, do people select the mode they reported preferring?
  – How does the order in which the modes are offered affect participation in a certain mode?

• Does mode preference affect the timing of participation in that mode?
People who prefer web choose to participate by web, but only when it is offered first

% of respondents who participated by web or mail, by mode preference

*

Web/Mail Survey

Participated by Web

Participated by Mail

**

Web Survey

Participated by Web

Participated by Mail

Preferred Mode

- Participated by Web
- Participated by Mail
The finding that people who prefer web choose to participate by web holds when analyses are limited to only those reporting internet access in the 2008 NASIS.

% of respondents who participated by web or mail, by mode preference, for those reporting internet access in 2008 NASIS.

Preferred Mode

- Web Mail
- Int

Participated by Web

Participated by Mail
Research Questions

• Do people who prefer a particular mode participate at higher rates in that mode than others?
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• Do people select the mode they prefer?
  – How does the order in which the modes are offered affect participation in a certain mode?

• Does mode preference affect the timing of participation in that mode?
People who prefer web participate faster in the web survey than those who prefer other modes; little difference for mail preference, but…

Response rates before the reminder mailing (i.e., before the mode switch)
Those who prefer a non-web mode participate at much higher rates when it is made available after a web mode.

Response rates before and after the reminder mailing (i.e., before and after the mode switch)

<table>
<thead>
<tr>
<th></th>
<th>Mail Survey</th>
<th>Mail/ Web Survey</th>
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<td>Response Rates</td>
<td>40.3</td>
<td>41.4</td>
<td>18.8</td>
<td>6.5</td>
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* Significant difference
** Highly significant difference
Summary: Participation

• In single-mode surveys…
  – People who preferred the web mode compared to those who preferred a different mode participated at higher rates in a web survey.
  – People who preferred the phone mode compared to those who preferred a different mode participated at higher rates in a phone survey (due to cooperation).
  – There was a slight, but insignificant tendency for people who preferred the mail mode to participate at higher rates in the mail survey.

• BUT the advantage of catering to mode preference for web surveys may be lost to overall higher unit nonresponse rates in this mode.
  – Those who preferred the web mode participated at higher rates in a web survey than those who preferred other modes, BUT they participated at lower rates in the web survey than they did in a mail and a phone survey.
Summary: Mode Choice

• When given mail first, most people responded by mail, regardless of mode preference.

• When given web first, over half of those who preferred web responded in this mode.
  – Remaining respondents who preferred web and respondents who preferred mail responded subsequently by mail.

• Both of our designs were sequential mixed-mode designs. We did not test a simultaneous mixed-mode design.
Summary: Timing

• People who preferred the web mode participated faster in the web survey than those who preferred other modes.
  – Those who preferred other modes
    • Caught up when a subsequent mail option was provided
    • Never caught up when web was the only mode offered
Implications

• Even though mode preference does lead to participation in that mode (when offered first, for some preferences), other considerations like overall response rates across different modes may be more important.

• We need to examine:
  – How appealing to mode preference affects nonresponse bias. This work is getting underway.
  – If speeding up response by catering to a web preference (with or without a subsequent mail mode) leads to a measurable reduction in costs without increasing nonresponse bias.
Thank you!

- Bureau of Sociological Research for data access
- Dan Hoyt for funding the initial data collection
- UNL Office of Research Layman Award for funding the second data collection