Is there a difference in response? Comparing a Web only and mixed mode design in a government customer survey

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External Quality Survey (EQS)

❯ United States Patent and Trademark Office (USPTO)
❯ The EQS is a semi-annual customer survey
❯ It’s a mixed-mode survey: Paper and Web
❯ Rotating panel design
❯ Decline of RR from 40%-50% to 33%-38%
Research Question

For a government customer survey, does a Web-only design produce a higher response rate than a mixed mode design?
Study Groups

Choice
N=126

- Choice of paper or Web
- Mail contact

Web-only
N=124

- Web-only
- Email contact
The Web-only design did not produce a higher response rate than the mixed mode design.

The Choice group had a significantly higher response rate than the Web-only group (p<.001).
Mailed contact materials were more successful

Paper contact may be better than email contact for establishing trust and increasing RR

Limitations

- Samples – small, respondents, received survey 2\textsuperscript{nd} time
- Telephone non-response prompts – Choice group only
Discussion

Next steps

• Examine response rates with variations in both mode of contact and mode of survey administration

Mail with Choice

Mail with Web-only

Email with Web-only
Thank You

United States Patent and Trademark Office

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Paper to Mixed-Mode: An Evaluation of Mode Effects

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Any views expressed are the authors and not necessarily those of the U.S. Census Bureau.
School Survey on Crime and Safety (SSOCS)

- **Background**
  - Sponsored by the National Center for Education Statistics
  - Provides estimates of school crime, discipline, disorder, programs and policies

- **Methodology**
  - Sampling unit: Public primary, middle, high and combined grade-level schools
  - Mode:
    - Prior to 2018, paper and telephone
    - Experiment in 2018 cycle to include a web option as part of a push methodology
SSOCS Experiment

- Field experiment as part of the 2018 SSOCS data collection cycle that tested a web option

- 1,150 schools randomly selected to receive a web response option (out of 4,800 sampled schools)
Contact Strategy

- **Paper (control)**
  - Web invitations
    - None
  - 4 Questionnaire mailings
    - Weeks 1, 5, 9, 12
  - Email and telephone follow-up
    - Throughout data collection

- **Web (treatment)**
  - 2 Web invitations
    - weeks 1 and 5
  - 2 Questionnaire mailings
    - weeks 9, 12
  - Email and telephone follow-up
    - Throughout data collection
Evaluation Measures

- Response rates (AAPOR RR2)
- Responding school characteristics
- Item completion rates
- Key estimates
Results – Response Rates

- Overall: 60.2%
- Experiment (no significant difference, p=0.9875):
  - Paper (control) – 60.1%
  - Web (treatment) – 60.2%
Results – School Characteristics

- Characteristics Considered:
  - Locale
  - School Size
  - School Level
  - Percent White enrollment
  - Region
  - Full-Time Teachers
  - Percent of Students with Free/Reduced-Priced Lunch
  - Student-to-Full Time Employee (FTE) Teacher Ratio
  - Percent of Schools with at least One Violent Incident
  - Percent of Schools with any Sworn Officer Present

- Response distributions were only significantly different between the web option and paper only groups for the student-to-FTE Teacher ratio
Results – Item Completion

- Compared item completion rates for over 50 different survey items, using an adjustment for multiple comparisons
- Four yielded a significant difference in completion rates between web option and paper only
- In general, web nominally higher
- But, web completion rates were lower for follow-up items
Results – Key Estimates

- Compared key estimates for 45 survey outcomes, using t-tests (adjusted for multiple comparisons) and regression controlling for school characteristics
- Only one significant difference identified, but disappeared after controlling for school characteristics
- Differences ranged from 0.6% to 7.4%
  - Web push > paper for most likert scale questions
  - Paper > web push for most count/total questions
Conclusions

- Compared to a paper with telephone follow-up design, a web push design had:
  - No impact on response rates
  - High internet use
  - Minimal impact on responding school characteristics
  - Minimal impact on item completion rates
  - No impact on key estimates
- This methodology is viable for future cycles
Thank you!

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Encouraging International Respondents to Choose the Web

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Brenda Schafer, Pat Langetieg, Scott Leary, and Rizwan Javaid, Internal Revenue Service

*This research does not represent any official opinions or views of the Internal Revenue Service, United States Treasury or any other government agency.

June 11, 2019
Multi-mode survey conducted annually since 2010 with sample of 20,000 taxpayers. *For this study, we used a large subset of comparable data from the 2017 ITB, since data collection is ongoing.

Measures taxpayer burden in terms of time and money spent on:
- Recordkeeping
- Tax planning
- Gathering tax materials & software
- Professional tax help
- Completing & submitting the tax return

Results used as input for IRS Taxpayer Burden Model
2010 ITB Survey Mode Experiment

Paper only
• Respondents received paper questionnaires only, with no web option

Web-push
• Respondents received web instructions first, and only non-respondents received a paper questionnaire

(Newsome et al., 2012)

Significant difference, n = 19,383, p<0.01
Options for Subsequent Surveys

**Paper-Only**
Except—there is an expectation that federal surveys should include a web option in this day and age.

**Web-Push**
Except—our experiment had just showed depressed response rates with the approach.

**Concurrent**
Offer both paper and web at the same time.
Except...
Call-out on inside of front cover

IRS Individual Taxpayer Burden Survey Frequently Asked Questions

What is the Individual Taxpayer Burden Survey?

Web instructions on back cover

Web Survey Instructions

If you would prefer to complete this survey on the web, please follow the instructions below. Web responses are processed more quickly and will help ensure that you don’t receive follow-up contacts.

1. Go to the website.
   To take the survey online, please go to: www.IRSTaxpayerBurdensurvey.org

2. Log in.
   You will need the following PIN to access the survey: PIN: [PIN]
2011 ITB Survey Approach

Survey packages include web instructions on the back cover.
2011 ITB Survey Response Rate

Response Rate: 49.6%

Mode of completion:
- Paper: 94%
- Web: 6%

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Like our standard survey, measures burden in terms of time and money spent on filing tax returns.

Population, however, is tailored to taxpayers who are Foreign Account Tax Compliance Act (FATCA) filers who reported foreign accounts or foreign assets on their tax return.

For the 2015 survey, we sent IRS ITB FATCA surveys to approximately 5,000 taxpayers.

Of these,  
- 3459 had domestic addresses  
- 1537 had international addresses
2015 FATCA Survey: Contacts

Lighter Concurrent Lite™

Contact 1

Prenote

Contact 2

Survey package with web instructions

Contact 3

Postcard reminder

Contact 4

Survey package with web instructions

Shortened our number of contacts (from 6 to 4) in light of the number of international mailings

DISCLAIMER: All Trademarks are for Westat’s entertainment purposes only.
Overall Response Rate

31.8%

(comparable to standard survey with standard population)

Significant difference, p=0.002
2015 FATCA Survey: Percent of completes that were web completes

Overall Percentage of Web Completes

10.1%

(higher than standard survey with standard population)

FATCA domestic  FATCA International

Significant difference, p<0.0001
2017 FATCA Survey: Experimental Design*

**Lighter Concurrent Lite™**

- **Contact 1:** Prenote
- **Contact 2:** **Survey package** with web instructions
- **Contact 3:** Postcard reminder with web instructions
- **Contact 4:** **Survey package** with web instructions

**Web-Push**

- **Contact 1:** Prenote with web instructions
- **Contact 2:** Postcard reminder with web instructions
- **Contact 3:** **Survey package** with web instructions
- **Contact 4:** **Survey package** with web instructions

*For this study, since data collection is ongoing, we only included data for the first wave, which consists of 2500 respondents.
2017 FATCA Survey: Overall response rates

No significant differences

Overall Response Rate
- 36.8% (460 completes)
- 37.7% (471 completes)

Domestic Addresses
- 33.8% (317 completes) Concurrent
- 36.3% (341 completes) Web-push

International Addresses
- 46.0% (143 completes) Concurrent
- 41.9% (130 completes) Web-push
2017 FATCA Survey: Percent of completes that were web completes

**Overall**
- 179 web completes
- 318 web completes
- 38.9%

**Domestic Addresses**
- 106 web completes
- 224 web completes
- 33.4%

**International Addresses**
- 73 web completes
- 94 web completes
- 72.3%

**Domestic Addresses**
- 65.7%

**International Addresses**
- 51.0%

**Significant difference, p<0.0001; p<0.0001; p=0.03**

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Grouped countries into 8 regions as defined by United Nations Statistics Division.
2017 FATCA Survey: Response by region

Response Rates by Geographic Regions

<table>
<thead>
<tr>
<th>Region</th>
<th>Concurrent</th>
<th>Web-push</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>33.7%</td>
<td>36.5%</td>
</tr>
<tr>
<td>Europe and Northern America</td>
<td>50.3%</td>
<td>42.9%</td>
</tr>
<tr>
<td>Eastern and Southeastern Asia</td>
<td>37.7%</td>
<td>35.0%</td>
</tr>
<tr>
<td>Northern Africa &amp; Western Asia</td>
<td>29.0%</td>
<td>35.1%</td>
</tr>
<tr>
<td>Australia and New Zealand</td>
<td>73.7%</td>
<td>46.7%</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>22.2%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Central and Southern Asia</td>
<td>20.0%</td>
<td>66.7%</td>
</tr>
</tbody>
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No significant difference

Concurrent  Web-push
2017 FATCA Survey: Response by region

Percent of completes that were web completes

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<td>71.4%</td>
</tr>
<tr>
<td>Eastern and Southeastern Asia</td>
<td>70.0%</td>
<td>84.6%</td>
</tr>
<tr>
<td>Northern Africa &amp; Western Asia</td>
<td>44.4%</td>
<td>100.0%</td>
</tr>
<tr>
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<td>50.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>100.0%</td>
<td>85.7%</td>
</tr>
<tr>
<td>Central and Southern Asia</td>
<td>50.0%</td>
<td>66.7%</td>
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</table>

Significant difference, p<0.01
Conclusions

- For this population of respondents (taxpayers who report foreign accounts or foreign assets on their tax returns), the web-push does not appear to depress response.

- The web-push significantly increases the number of web completes.

- Once second wave of data collection is complete (bringing full sample size to 4000), we will revisit analysis to confirm there is no impact on overall response (particularly among domestic respondents). We’ll also look at demographic differences, such as age and income.

- We’ll present our findings at the 2019 ESRA Conference in July.
Thank You

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