Employing Behavioral Insights to Entice Response to the American Community Survey

Victoria A. Velkoff  
*Demographic Directorate*

Jennifer M. Ortman  
*American Community Survey Office*

European Survey Research Association  
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Outline

• ACS Data Collection and Mail Contact Strategy
• Objectives of ACS Mail Materials Research
• Learning from Behavior Insights
• Recent Research
  o Including a data slide
  o Revising current mail materials
  o Developing new mail materials
• Next Steps
The American Community Survey is on the leading edge of survey design, continuous improvement, and data quality

- The nation’s most current, reliable, and accessible data source for local statistics on critical planning topics such as age, children, veterans, commuting, education, income, and employment
- Surveys 3.5 million addresses and informs over $675 billion of Federal government spending each year
- Covers 40+ topics, supports over 300 evidence-based Federal government uses, and produces 11 billion estimates each year
ACS Data Collection Process

Online

Mail

Personal Visit\(^1\)

Self-Response
(about 6 weeks)

Nonresponse Follow-up
(about 4 weeks)

(Between 17 and 24 days)

\(^1\) The Personal Visit is conducted via Computer Assisted Personal Interviewing (CAPI).
ACS Self-Response Mail Contact Strategy

All Mailable Sample Addresses

First Mailing
- Letter
- Instruction Card (internet)
- FAQ Brochure
- Multilingual Brochure

Second Mailing
- Reminder Letter

Nonrespondents

Third Mailing
- Paper Questionnaire Letter
- Instruction Card (choice)
- FAQ Brochure
- Return Envelope

Fourth Mailing
- Reminder Postcard

Nonrespondents

Fifth Mailing
- Reminder Letter
ACS Mail Materials Research Objectives

• Improve self-response rates through streamlined materials
• Address respondents’ and stakeholders’ concerns about the prominent nature of mandatory messages on the mail materials

ACS research publications are available at: https://www.census.gov/programs-surveys/acs/library/publications-and-working-papers/research-and-evaluation.html
Learning from Behavioral Insights

• Reviewed research in the fields of Communications, Social Psychology, Behavioral Economics, and Survey Methodology

• Combined insights to build a strategic framework for improving ACS mail materials
  - Establish credibility and trust
  - Two-way communication
  - Audience-based messaging
  - Communicate benefits
  - Personalization
  - Communicate norms
2018 Data Slide Test

• Establish credibility and trust:
  o Attach the ACS to the Census Bureau brand
  o This could lend legitimacy to the survey request

• Communicate benefits:
  o Messages that convey community-level benefits of ACS participation are viewed favorably
  o This could overcome respondent concerns about sharing sensitive information
Incorporating the Data Slide into Mail Materials

**First Mailing**
- Letter
- Instruction Card (internet)
- FAQ Brochure
- Multilingual Brochure
- Data Slide

**Second Mailing**
- Reminder Letter

**Third Mailing**
- Paper Questionnaire
- Letter
- Instruction Card (choice)
- FAQ Brochure
- Return Envelope
- Data Slide

**Fourth Mailing**
- Reminder Postcard

**Fifth Mailing**
- Reminder Letter

**All Mailable Sample Addresses**

**Nonrespondents**

**Nonrespondents**

**Treatment 1**

**Treatment 2**
Self-Response Rate Results: Treatment 1
(Analysis of All Addresses Sent the Initial Mailing)

Percent with a Return Received before CAPI

- Control
- Treatment 1

<table>
<thead>
<tr>
<th></th>
<th>Mail</th>
<th>Internet</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>18</td>
<td>33.4</td>
<td>51.4</td>
</tr>
<tr>
<td>Treatment 1</td>
<td>17.1</td>
<td>34.4</td>
<td>51.6</td>
</tr>
</tbody>
</table>

Difference significant at 90% confidence level.
Self-Response Rate Results: Treatment 2
(Analysis only of Addresses Sent the Paper Questionnaire)

Percent with a Return before CAPI

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Treatment 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mail</td>
<td>22.1</td>
<td>22.1</td>
</tr>
<tr>
<td>Internet</td>
<td>17.6</td>
<td>18.5</td>
</tr>
<tr>
<td>Overall</td>
<td>39.6</td>
<td>40.6</td>
</tr>
</tbody>
</table>

Difference significant at 90% confidence level.
2018 Data Slide Test: Findings

• Sending data slide in mailing 1 (Treatment 1)
  o Overall self-response rates were not different
  o Treatment 1 had a higher internet response rate and lower mail response rate

• Sending data slide in mailing 3 (Treatment 2)
  o Treatment 2 had higher self-response
  o Treatment 2 had higher internet response
2018 Mail Materials Test

Continue to explore changes to mandatory messaging and improvements to mail materials including:

• Emphasizing the Census Bureau brand
• Using visual design principles to draw attention to key messages
• Employing plain language principles to make the letters easier to read
• Streamlining the mail materials
• Revising the questionnaire cover
• Including the text “Open Immediately” on the envelope
2018 Mail Materials Test

Emphasizing the Census Bureau Brand, Using Visual Design Principles, and Employing Plain Language Principles

Current ACS Production

Revised Letter

A message from the Director, U.S. Census Bureau...

Your household has been randomly selected to complete a very important national survey, the American Community Survey. This is the survey that provides the information used to make decisions that affect the well-being of our society. The survey is conducted yearly and collects information about people, households, and housing. For example, the survey can be used to decide where new schools, hospitals, and the police station are located. This information also helps communities plan for future needs, including improving roads and your neighborhood.

The Census Bureau is the largest source of data about the American population, household, and housing characteristics. Your survey helps to improve the accuracy of the data that is collected and provides a more complete picture of America.

Your responses are protected by federal law. I urge you to complete the survey at your earliest convenience. I would be very grateful if you would ask all other household members to complete the survey.

Thank you for your cooperation.

Enclosure

Respond now at https://respond.census.gov/acs

Your response is required by 5 U.S.C. 13142(a) and 13703. If you do not respond, we may use other methods (publication in a local newspaper, mail, or other media) to encourage response to the survey. The U.S. Census Bureau is required to carry out this survey by law. If you do not respond, we will use other methods to encourage response to the survey. The methods we may use to encourage response may include publication in a local newspaper, mail, or other media.

Thank you for your cooperation.
2018 Mail Materials Test

Revising Questionnaire Cover

Production Questionnaire

Revised Questionnaire
2018 Mail Materials Test
Including the Text “Open Immediately” on the Envelope
## 2018 Mail Materials Test: Findings

<table>
<thead>
<tr>
<th>Research Objective</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe impact on self-response of <strong>removing materials</strong> from some of the mailings</td>
<td>Removing materials from some mailings <strong>does not appear to impact self-response</strong>, but reduces the costs of the mailings.</td>
</tr>
<tr>
<td>Observe impact on self-response of <strong>redesigning the questionnaire cover</strong></td>
<td>Modifying wording on the questionnaire cover <strong>increased total self-response return rates</strong> before the fifth mailing and before the start of CAPI.</td>
</tr>
<tr>
<td>Observe impact on self-response of <strong>modifying the wording and design of the mail materials</strong>, including adding &quot;Open Immediately&quot; on the outside of the Initial Mailing Envelope</td>
<td>The emphasizing mandatory messaging significantly <strong>increased self-response</strong> before CAPI. Including “Open Immediately” had a significant <strong>increase in self-response</strong> before the questionnaire package was sent.</td>
</tr>
</tbody>
</table>
Starting Over: Develop New Mail Materials

• Objective: Invest in a strategic framework for messaging in the ACS mailings to increase self-response.
  1. Develop a strategic framework for mail messaging
  2. Evaluate current materials
  3. Design new materials
  4. Test new materials
Develop a Strategic Framework for Mail Messaging

What do we know about the ACS audience?

What does the literature tell us about messaging?

What do the experts think of ACS messaging?

STRATEGIC FRAMEWORK
Evaluate Current Materials

Lesson 1: Limit Volume of Messaging

Mailing 1: 129 messages across 5 items
Evaluate Current Materials

Lesson 2: Follow Plain Language Guidelines

<table>
<thead>
<tr>
<th>Mail Piece</th>
<th>FRE Score Interpretation</th>
<th>Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing 1 Letter</td>
<td>“fairly difficult to read”</td>
<td>10\textsuperscript{th} - 12\textsuperscript{th}</td>
</tr>
<tr>
<td>Multilingual Brochure</td>
<td>“difficult to read”</td>
<td>College</td>
</tr>
<tr>
<td>FAQ Brochure</td>
<td>“difficult to read”</td>
<td>College</td>
</tr>
</tbody>
</table>

Flesch Reading Ease Scores of ACS Mail Materials
Source: U.S. Census Bureau, American Community Survey Office

*Schreiner, Oliver & Poehler (forthcoming)*
Evaluate Current Materials

Lesson 3: Each mailing should have a clear purpose and highlight different reasons to participate

Repetition across mail materials

First Mailing

Second Mailing

Third Mailing

Fourth Mailing

Fifth Mailing

A message from the Director, U.S. Census Bureau.

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A message from the Director, U.S. Census Bureau.
## Evaluate Current Materials

**Lesson 4: Leverage the Census Bureau Brand**

<table>
<thead>
<tr>
<th>Graphic Used</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Envelopes</td>
<td>X</td>
</tr>
<tr>
<td>Instruction Cards</td>
<td>X</td>
</tr>
<tr>
<td>FAQ Brochure</td>
<td>X</td>
</tr>
<tr>
<td>Multilingual Brochure</td>
<td>X</td>
</tr>
<tr>
<td>Letters</td>
<td>X</td>
</tr>
<tr>
<td>Survey Form</td>
<td>X</td>
</tr>
<tr>
<td>Post Card</td>
<td>X</td>
</tr>
</tbody>
</table>

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**United States Census Bureau**

U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU  
census.gov
Design New Materials

- Improve branding
- Use color and icons to draw attention
- F-pattern headings to ease readability
- Reduce amount of text (increase white space)
- Use plain language

Focus messaging:
- Mailing 1 = Communicate trust and legitimacy of survey
- Mailing 2 = Communicate benefits of participation
- Mailing 3 = Communicate options to respond online or by paper form
New ACS Materials for Testing: Mailing 1

Letter 1

A message from the Director of the Census Bureau:

Your household has been selected to participate in the American Community Survey. The Census Bureau has conducted this survey since 2005. This survey provides an up-to-date picture of how we live – including topics such as education, employment, and housing – to help local leaders determine the needs of your community.

Please use the enclosed instruction card to respond now at:
https://respond.census.gov/acss

Letter 2

American Community Survey Form Enclosed

About two weeks ago, you should have received a letter asking you to respond to the American Community Survey. As promised, we are sending you a survey form.

If you have already responded, thank you. If not, you now have two ways to respond – please choose the one that works best for you.

Respond today at https://respond.census.gov/acss
  on your computer or smartphone.

OR

Fill out the survey form and mail it back in the postage-paid envelope.

Your response to the American Community Survey is required by law. The law requires you to report for jury duty, pay taxes, and carry a license to drive. It also requires us to respond to this survey.

If you need help completing the survey or have questions, please call 1-800-947-7665.

We look forward to receiving your response.

Sincerely,

Steven D. Dillingham
Director

Letter 3

United States Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU

census.gov
Next Steps

• Implement emphasized mail materials from 2018 testing in ACS production (January 2020)

• Due Dates Test (October 2019)
  • Include due date and messaging about benefit/consequences to 5th mailing

• Strategic Framework Materials
  • Cognitive Testing (Fall 2019)
  • Field Testing (Fall 2020)
Thank you!

ACS Research and Evaluation Reports:


Victoria.A.Velkoff@census.gov
Jennifer.M.Ortman@census.gov
Appendix Slides
# 2018 Mail Materials Test

## Experimental Treatments

<table>
<thead>
<tr>
<th>Treatment Type</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Modified Control (MC)</strong></td>
<td>Removes FAQ brochure from 1(^{st}) and 3(^{rd}) mailing</td>
</tr>
<tr>
<td></td>
<td>Removes instruction card from 3(^{rd}) mailing</td>
</tr>
<tr>
<td><strong>Emphasized Mandatory with Revised Questionnaire (ER)</strong></td>
<td>Stronger mandatory on envelopes</td>
</tr>
<tr>
<td></td>
<td>Stronger mandatory in letters</td>
</tr>
<tr>
<td></td>
<td>Updated design of letters and questionnaire</td>
</tr>
<tr>
<td><strong>De-emphasized Mandatory with Revised Questionnaire (DR)</strong></td>
<td>Stronger mandatory on envelopes</td>
</tr>
<tr>
<td></td>
<td>Softens mandatory in letters</td>
</tr>
<tr>
<td></td>
<td>Uses updated design of letters and questionnaire</td>
</tr>
<tr>
<td><strong>De-emphasized Mandatory with Current Questionnaire (DP)</strong></td>
<td>Same as DR except questionnaire</td>
</tr>
<tr>
<td><strong>Softer/Eliminated Mandatory (SR)</strong></td>
<td>Softens mandatory in letters</td>
</tr>
<tr>
<td></td>
<td>Removes mandatory from some mailings</td>
</tr>
<tr>
<td></td>
<td>Uses updated design of letters and questionnaire</td>
</tr>
</tbody>
</table>
2018 Mail Materials Test

Results: Removal of Materials

Removing materials from some mailings does not appear to impact self-response, but reduces the costs of the mailings.

<table>
<thead>
<tr>
<th></th>
<th>Modified Control</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Questionnaire</td>
<td>23.3</td>
<td>22.7</td>
</tr>
<tr>
<td>Before Fifth Mailing</td>
<td>46.1</td>
<td>45.5</td>
</tr>
<tr>
<td>Before CAPI</td>
<td>50.7</td>
<td>50.3</td>
</tr>
</tbody>
</table>

The self-response return rate is the number of mailable and deliverable sample addresses that either provided a non-blank return by mail or TQA, or a complete or sufficient partial response by internet divided by the total number of mailable and deliverable sample addresses multiplied by 100.

Difference significant at 90% confidence level.
2018 Mail Materials Test

Results: Redesigned Questionnaire Cover

Total Self-Response Return Rates

Universe = Only addresses sent the paper questionnaire (mailing 3).

- Before Fifth Mailing:
  - DR: 33.4%
  - DP: 32.4%

- Before CAPI:
  - DR: 41.2%
  - DP: 40.0%

The redesigned questionnaire cover (DR) increased total self-response return rates before the fifth mailing and before the start of CAPI.

\[ \text{Difference significant at 90\% confidence level.} \]

1The self-response return rate is the number of mailable and deliverable sample addresses that either provided a non-blank return by mail or TQA, or a complete or sufficient partial response by internet divided by the total number of mailable and deliverable sample addresses multiplied by 100.
2018 Mail Materials Test

Results: Modifying the Design and Wording

The emphasized mandatory treatment had higher total self-response return rates at all three time points. The de-emphasized mandatory with revised questionnaire treatment had higher total self-response return rates before the start of CAPI.

Total Self-Response Return Rates

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Before Questionnaire</th>
<th>Before Fifth Mailing</th>
<th>Before CAPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC</td>
<td>23.3</td>
<td>46.1</td>
<td>50.7</td>
</tr>
<tr>
<td>ER</td>
<td>26.9</td>
<td>49.4</td>
<td>55.2</td>
</tr>
<tr>
<td>DR</td>
<td>24.1</td>
<td>46.2</td>
<td>52.5</td>
</tr>
<tr>
<td>SR</td>
<td>23.2</td>
<td>44.6</td>
<td>49.9</td>
</tr>
</tbody>
</table>

1The self-response return rate is the number of mailable and deliverable sample addresses that either provided a non-blank return by mail or TQA, or a complete or sufficient partial response by internet divided by the total number of mailable and deliverable sample addresses multiplied by 100.

Difference significant at 90% confidence level.
Results: Effect of Softening/Eliminating Mandatory Language

Softening/eliminating the mandatory language resulted in lower total self-response return rates at all three time points.

Total Self-Response Return Rates

24.1 23.2 46.2 44.6 52.5 49.9

DR SR DR SR DR SR

Before Questionnaire Before Fifth Mailing Before CAPI

1The self-response return rate is the number of mailable and deliverable sample addresses that either provided a non-blank return by mail or TQA, or a complete or sufficient partial response by internet divided by the total number of mailable and deliverable sample addresses multiplied by 100.

Difference significant at 90% confidence level.
2018 Mail Materials Test

Results: Effect of Strengthening or Emphasizing Mandatory Language

Difference significant at 90% confidence level.

Emphasizing the mandatory language resulted in higher total self-response return rates at all three time points.

The self-response return rate is the number of mailable and deliverable sample addresses that either provided a non-blank return by mail or TQA, or a complete or sufficient partial response by internet divided by the total number of mailable and deliverable sample addresses multiplied by 100.
2018 Mail Materials Test

Results: Impact of Not Including the Phrase “Open Immediately”

Total Self-Response Return Rates

<table>
<thead>
<tr>
<th>DR + DP</th>
<th>SR</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.0</td>
<td>23.2</td>
</tr>
</tbody>
</table>

Including the phrase “open immediately” significantly increased self-response return rates before the questionnaire package was sent.

The self-response return rate is the number of mailable and deliverable sample addresses that either provided a non-blank return by mail or TQA, or a complete or sufficient partial response by internet divided by the total number of mailable and deliverable sample addresses multiplied by 100.