Innovative Uses of Paradata in the SIPP

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Presented at
FCSM
December 2015

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Outline

- SIPP Overview
- Types and Uses of Paradata
  - Certification Test
  - Debriefing Instrument
  - Audit Trails (Keystroke files)
- CARI
- Contact History Instrument (CHI)
- Unified Tracking System (UTS)
The Survey of Income and Program Participation (SIPP)

Longitudinal survey collecting data and measuring change for topics such as:

- Economic Well-being
- Family Dynamics
- Education
- Assets
- Health Insurance
- Childcare
- Food Security
2014 SIPP Survey Design

- Sample is multi-stage, stratified sample of the noninstitutionalized, civilian U.S. population
- Sample size 53,000 households
- 4-year panel
- Conducted in waves, each 1 year long
- 3-4-month interview period
Interviewers

- Used 1,345 field representatives (FRs)
  - ~300 new hires
  - Remainder experienced interviewers
- Sample size was ~53,000 households
- Approximately 40 cases per FR
- Interviews all done in-person
- Yielded just under 30,000 completed cases
Interviewer Training

- Two-day generic Census training
  - New hires only
  - Covers cross-survey skills
- Four-day classroom training
  - All SIPP FRs
  - Specific to SIPP
- Pre- and post-classroom self-study modules
- Ends with certification test
Certification Test

72 questions, divided into 8 sections:
1. Field Procedures (11)
2. Event History Calendar (12)
3. Programs (6)
4. Movers (15)
5. Content (10)
6. Noninterviews (6)
7. Medicare vs. Medicaid (7)
Certification Test

Number of Takers

Score (in Percent)
Certification Test

Mean Certification Test Scores by Regional Office

Certification test section
Certification Test

Mean Certification Test Scores by Position

Certification test section
Debriefing Instrument

- Administered to FRs when they complete their SIPP interviews
- Asks them about the type and frequency of encountered problems in each section of SIPP interview:
  - Question wording
  - Response-related
  - Technical
  - Context/flow/redundancy
Debriefing Instrument

- Most FRs report that they “never or almost never” experienced problems in the field
  - Wording and response-related problems are reported more frequently than either technical or context, flow and redundancy problems
- Most FRs (87%) provide feedback for at least one open-ended question
Debriefing Instrument

Section

Percent

Never or almost never
Rarely
Sometimes
Often
Always or almost always
Debriefing Instrument

- Examples of resulting instrument updates:
  - Update Health Insurance FAQ to better explain different kinds of health insurance
  - Allow minimum values of $0 in most Assets fields
  - New FR notes explaining how to handle timeshares, leased vehicles, and reinvested dividends
Debriefing Instrument

- Debriefing one of the best ways we have of getting FRs’ direct feedback
  - Item notes are also useful, but debriefing covers whole interviewing period
- These results help drive continuous improvement of our instrument, training, and processes
Audit Trails

- Audit trail files are a record of all of the keystrokes entered by a field representative (FR) during an interview.

- Audit trail files can be used to create paradata on such things as:
  - Section timers,
  - Don’t know/refused counts,
  - Help screen calls,
  - Checks encountered,
  - Item-level notes left, and
  - FR navigation throughout the instrument.
# Audit Trails

## Statistics (Completed cases)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total</th>
<th>Range</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
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<tr>
<td>Don’t Know (CTRL+D)</td>
<td>13.33</td>
<td>15.61</td>
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<tr>
<td>Refuse (CTRL+R)</td>
<td>4.46</td>
<td>15.60</td>
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<tr>
<td>Help Call Screens (F1)</td>
<td>0.37</td>
<td>0.92</td>
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<tr>
<td>Field Case Notes (F7)</td>
<td>0.76</td>
<td>2.90</td>
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<tr>
<td>Survey Time (in minutes)</td>
<td>102.41</td>
<td>51.89</td>
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</table>
CARI

- Computer-Assisted Recorded Interviewing
- FRs must obtain consent from each respondent to record the interview
- Records interactions between Field Representatives (FRs) and respondents
- The goal of CARI is to ensure the accuracy and quality of data collected
  - Monitor and improve the FR’s performance
  - Identify difficult or problematic questions
We consider data inauthentic when interviewers do not collect them directly from respondent

- FRs may feel they already know the answer (and do not confirm it)
- FRs may skip a question
- Occasionally, FRs may fabricate a response entirely
CARI

Errors in question administration arise when questions are presented differently

- FRs do not read the questions as worded
- Speed/volume of interviewer’s voice does not match respondents’
- FRs do not probe or lead the respondent
CARI

- Behavioral problems arise when the interviewer’s conduct is inappropriate for a Census Bureau employee
  - Off-topic personal discussions
  - Overly task-oriented
  - Unfriendly or hostile
- SIPP is dependent on respondents having a good relationship with FRs
Contact History Instrument (CHI)

- Keeps a history of every contact attempt for every case
- Collects information about the kind of response received (if contact is made)
  - Reluctant respondent, hostile respondent, etc.
- Also collects FR’s observation about housing unit/environmental conditions
  - Condition of the sample unit
  - Presence of bars on windows
UTS

- Unified Tracking System
- A Census Bureau application that provides real-time survey information
- Allows for detailed monitoring of FRs, costs, and cases
- Can also track overall survey progress
  - For example, have we contacted as many cases as we should, given where we are in the interviewing window?
Conclusion

- SIPP (and the Census Bureau more generally) has access to more paradata than we have ever had in the past
- Effective use of this paradata for FR monitoring and performance helps us improve interview administration
- We can also evaluate data quality and survey design, allowing continuous improvement and streamlining
THANK YOU!

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