

Using Quality Assessment Findings as Input for Questionnaire Revisions and Cognitive Testing Protocol

Jennifer M. Rothgeb
U.S. Census Bureau

The presentation is about evaluating the use of quality assessment methods such as behavior coding, interviewer debriefing, and expert review as problem identification techniques for input for recommendations for questionnaire revisions and input to the protocol for the cognitive testing of those revisions. The research will provide additional support for the flexibility of the sequence with which the Census Bureau uses methodological techniques to pretest questionnaires.

The texts of the presentation:

BACKGROUND

- American Community Survey (ACS)
 - eventual replacement for decennial detailed long form.
- Labor Force Questions
 - Perceived as problematic by sponsors and analysts.
- ACS Labor Force Estimates different than Current Population Survey (CPS)
 - CPS official estimate of employment and unemployment – therefore, benchmark for ACS.
- ACS Employment Estimates Lower
- ACS Unemployment Estimates Higher

BACKGROUND (cont'd)

Targeted Questions

- **At Work***
- Temporarily Absent from Work
- Looking for Work
- Weeks Worked

BACKGROUND (cont'd)

- ACS – Different Modes of Data Collection
 - Self-Administered Paper Questionnaire (mail)
 - Computer-Assisted Telephone Interview (CATI)
 - Computer-Assisted Personal Interview (CAPI)

BACKGROUND (cont'd)

- Many differences between ACS and CPS
 - Mode
 - Question Wording
 - Question Sequencing

- Interview Period
- Survey Staffing

RESEARCH PLAN

- Multi-Method Approach
- Use Quality Assessment Methods to Confirm/Identify Potential Problems
- Develop Alternative Question Wording for Testing
- Conduct Cognitive Interviews Using Alternative Questions

METHODOLOGY

- PHASE I - QUALITY ASSESSMENT OF ACS PRODUCTION SURVEY
 - Expert Review
- Methodological
- Substantive
 - Behavior Coding
 - Interviewer Debriefing
 - ACS Telephone Questionnaire Assistance Logs

ACS “AT WORK”

QUESTION WORDING - SAQ

LAST WEEK, did this person do ANY work for either pay or profit?
Mark (X) the “yes” box even if the person worked only 1 hour, or helped without pay in a family business or farm for 15 hours or more, or was on active duty in the Armed Forces.”

- Yes
- No

ACS “AT WORK” QUESTION: ISSUES

- ACS Current “At Work” Question
 - Without questionnaire design experts’ advice, ACS adopted CPS question wording.
 - CPS question wording in ACS is awkward, partly because it is out of context. CPS has a screening item before the “At Work” question and the “for profit” phrase is filled depending on response to screener.
 - ACS has a series of disability questions before the “At Work” question, which prompts some respondents to comment on their ability to work and work status before the “At Work” question is asked.

QUALITY ASSESSMENT:

Expert Reviews

- Expert Review conducted by survey methodologist and economists so both substantive conceptual issues could be addressed as well as questionnaire design issues.

QUALITY ASSESSMENT:

Behavior Coding

- Behavior Coding
 - 51 cases: 104 person interviews
 - Interviewer Behavior:
- 82 % read as worded
- 10% major change
- 13% Probed or Verified
- Observation that “instruction” never read by interviewers.

QUALITY ASSESSMENT:

Behavior Coding

- Respondent Behavior:
- 98% Adequate Answer
- 21% Other
 - R’s provided more info than a yes/no (“Yes, I worked 3 days.)
 - R’s information could be interpreted as yes or interpreted as no “Just my job”.
 - Reflects uncertainty.

QUALITY ASSESSMENT:

Interviewer Debriefings

- INTERVIEWER DEBRIEFINGS
- Two sessions with total of 15 ACS CATI interviewers
 - Interviewers used a log to record problems during interview week, prior to the debriefing.
 - At the beginning of the debriefing interviewers were asked to rate each item to assess relative magnitude of problems.
 - At Work question identified by one group as most problematic question and identified by other group as second most problematic question
 - Interviewers indicated that phrase “for pay or profit” was problematic.

Quality Assessment Results

- Quality Assessment results identified and/or confirmed the following problems:
 - Confusion of phrase “for pay or profit”.
 - Instruction not consistently communicated to respondents.
 - Concern that marginal, casual, part-time and/or self-employed workers were not identifying themselves as “working”.
 - Retired persons unclear how to answer question.

QUALITY ASSESSMENT BENEFITS FOR COGNITIVE TEST DEVELOPMENT PROCESS

- Using quality assessment results, Census and BLS methodologists and economists jointly developed alternative questions.
- Quality assessment confirmed suspected problems and permitted cognitive interview test questions to be more precisely formulated than would have been the case without the quality assessment information.

QUALITY ASSESSMENT BENEFITS FOR COGNITIVE TEST DEVELOPMENT PROCESS (cont'd)

- Quality assessment results provided insights for probe development for cognitive interview protocol.
- Quality assessment required fewer resources (time and staff) than multiple rounds of cognitive interviews.

Proposal Resulting from Quality Assessment Findings

From review of quality assessment results, we proposed splitting the ACS “At Work” question into two separate questions:

- First, to focus on whether a person had a job.
- Second, to determine if a person did ANY work, even for as little as one hour (e.g., marginal work).

Proposal Resulting from Quality Assessment Findings

- The design team also developed a single question alternative:
 - Because of potential space constraints on the paper questionnaire, and
 - Because some respondents may find the two- part question redundant.

Cognitive Interview Test Wording

Version 1 “At Work” Question

a. LAST WEEK, did this person work for pay at a job (or business)?

Yes → SKIP to question X

No → No – Did not work (or retired)

b. LAST WEEK, did this person do ANY work for pay, even for as little as one hour?

Yes

No →SKIP to question X

Cognitive Interview Test Wording

Version 2 “At Work” Question

Did this person work for pay at ANY time LAST WEEK?

Yes

No →SKIP to question X

PHASE II – COGNITIVE INTERVIEWS

- Split-panel design (Two versions)
- 40 cognitive interviews:
 - 22 of Version 1
 - 18 of Version 2
 - Required to simulate each mode
 - SAQ
 - CATI
 - CAPI

RESULTS

- Cognitive Interviews
 - VERSION 1 - Two-part “At Work” questions
 - Results indicate that respondents:
 - Clearly understood the Version 1 “At Work” question – both parts A and B.
 - Respondents seem to be consistent in recognizing that the “B” question was intended to obtain information about more casual work arrangements which might not be captured in the “A” question.

RESULTS

- Version 2 – Single Item Alternative
 - Did seem successful at capturing persons “at work.”
 - However, responses to the two-part question demonstrated a richer understanding of the “work” concept (e.g., regular work, marginal work, casual work).

Recommendation

- Our recommendation was that the two-part “At Work” question be adopted.

NEXT STEPS

- ACS 2006 Content Test
 - Split-panel field test using current question and recommended two-part “at work” questions.
 - Field test will include SAQ, CATI, CAPI modes.
 - Evaluation plan not yet finalized, but will include content reinterview for both panels to determine reliability.
 - ACS labor force estimates will be compared to CPS labor force estimates to determine if they are more closely aligned using the revised questions.