Development of a CARI Research Plan

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Outline

A. Overview – CE and CARI

B. Research Process
   1. Initial Stages (Identifying Research Questions)
   2. Final Selection
   3. Item Types
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C. CARI Interactive Data Access System (CIDA) Overview
   1. Quantitative 'behavior coding' screens
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CE and CARI

Consumer Expenditure (CE) Survey involves Census collecting spending data from U.S. population, sponsored by BLS

Computer Audio Recorded Interviewing (CARI), an application originally developed by RTI to record interviews

CE and CARI

■ Initial questions:

1. Can CE staff obtain or listen to recordings (or does everything remain 'off-site')?

2. How much can be recorded?

3. Are there storage limitations?

4. What burdens does this place on interview process?

CE and CARI

- Initial questions:

  1. Can CE staff obtain or listen to recordings (or does everything remain 'off-site')? No and yes [listen not obtain, within Census Virtual Desktop Infrastructure (VDI)]

  2. How much can be recorded? [limited to recording by survey item]

  3. Are there storage limitations? [practically, no]

  4. What burdens does this place on interview process? [few: recordings triggered automatically, invisibly by interviewers' computers; does involve respondent consent]

Initial Stages

- CE solicited ideas for survey Research Questions (RQs) from survey experts:
  - ▶ Staff in charge of data processing
  - ▶ Staff monitoring changes in interview content
- Requirements:
  - ▶ RQs can be addressed via spoken questions/responses
  - ▶ RQs involve specific survey items (not sections nor entire interviews)

Final Research Question (RQ) Selection

- Solicitation and prior research informed RQs:
  - ▶ Items flagged by data editing

    [homeowners insurance amounts, new vehicle purchase components, private pension deductions] & record use

  - ▶ New/revised survey items

    [new items about health insurance coverage, 'extended recall' purchases, 'outlet' location of purchases]

  - ▶ Representative items

    [vehicle services item with 'laundry list' style of response options]

Item Types

■ Seven (Initial) RQs with different characteristics

RQ1 Health Insurance Coverage

What [other] kind of health insurance or health care coverage [do/does] [you/your household] have or pay for? INCLUDE those that pay for only one type of service (nursing home care, vision care, or dental care). EXCLUDE private plans that only provide extra cash while hospitalized.

1. Private health insurance, including employer and healthcare exchange plans?
2. Medicare
3. Medicare Supplemental Insurance (Medi-Gap)?
4. Medicaid
5. SCHIP
6. Military
7. HIS
8. Single service plan (e.g., dental, vision, long-term care)?
9. No coverage of any type

[if #2 not selected and respondent age 65+]

Are you [is anyone in this household] covered by Medicare?

Item Types (cont.)

RQ8 Private Pension Deductions

Does the respondent have a paper or electronic pay check record present for [Hishernames] last paycheck? [PAYSTUB]
1. Yes
2. No

Was there any money deducted from [your / name's] pay for – Private pension fund? [PRIVPENS]
1. Yes
2. No

How much? [PRIVPENX]

Item Types (cont.)

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    1. Yes
    2. No

Was there any money deducted from [your / name's] pay for – Private pension fund? [PRIVPENS]
    1. Yes
    2. No

How much? [PRIVPENX]

RQ Evaluation Methods

- Quantitative (behavior coding)
  - Inductive coding
  - Test data, code refinement

- Qualitative

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Categorizing Methods

Quantitative

1. Analyst can identify specific, objective behaviors/comments that would address the research question.

2. Behaviors/comments can be captured by a code that is generic and could be applicable to survey items for other research questions.
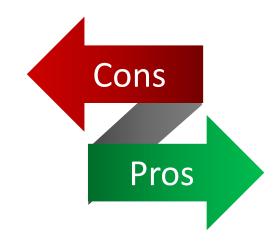
Qualitative

1. Analyst is listening for more general problematic issues that might be subjective.

2. The analyst must listen and synthesize information across multiple survey items.

Quantitative Evaluation

- May require double-coding or coder calibration for quality control
- Significant work needed to develop and test codes to ensure capture of needed information
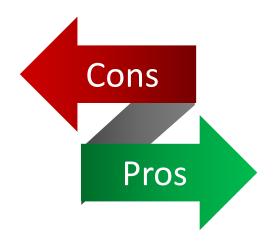- Does not automatically result in illustrative examples

Cons

Pros

- Easily output into reports (via CIDA)
- Standardized codes can pinpoint specific issues affecting response process
- Allows answering 'how often' (context for issues)

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Qualitative Evaluation

- May not permit quantifying if observed issue is widespread
- Requires more user effort to interpret and summarize findings

Cons

Pros

- Does not require as much background information into response process for the question
- Allows answering 'why'
- Produces illustrative explanatory output

Quantitative: Inductive Coding

- Iterative: test data informative

  - ▶ Record use difficult subject for coding

  - ▶ Want to capture rapport-building dialogue (they digress to discussion of gas stations and prices)

  - ▶ Need to create codes informed by common behaviors (e.g., code for if interviewer represented each laundry list concept and not if they read every word of laundry list of responses as scripted)
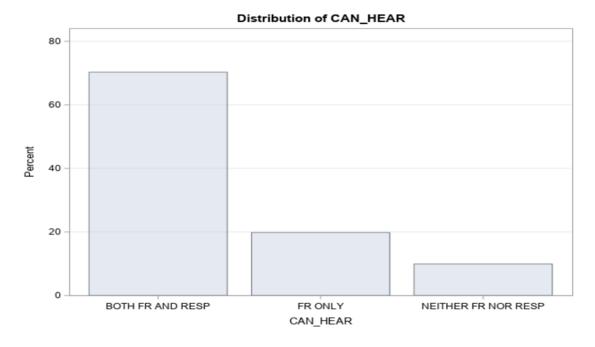
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CIDA

CARI Interactive Data Access System

☑ Pulls in survey item recordings within Census VDI application

☑ Accessible by multiple users simultaneously

☑ Functionality: Pages permit summarizing cases, subsampling cases to output, assignment of codes to survey items, display of codes and scripted survey items, filtering to specific cases or cases with certain items, managing coding workload, and reporting on code analysis

☒ Not accessible directly from non-Census workstations (requires Census credentials, VDI)

☒ Not geared for sporadic users (account deactivates after 30 days of non-access)

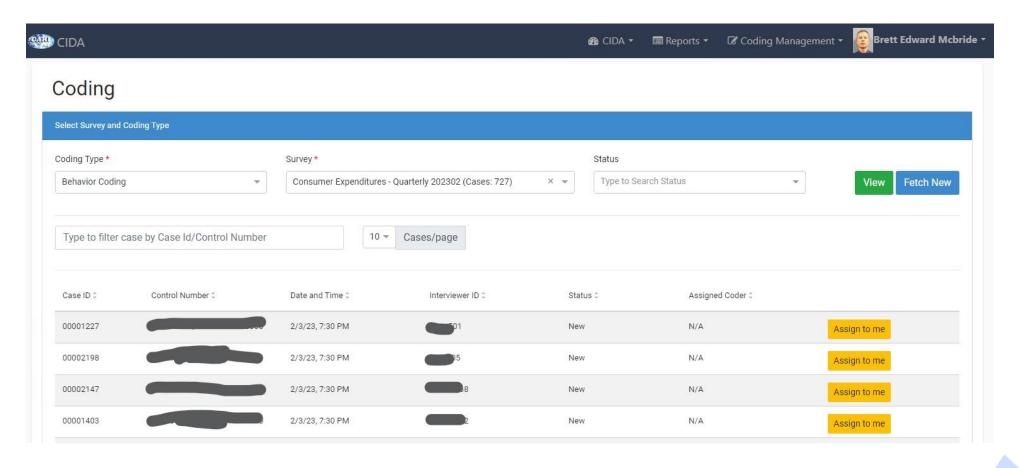☒ Subject to the recording variabilities of the devices used by interviewers (i.e., audibility varies)

Initial Audibility Findings

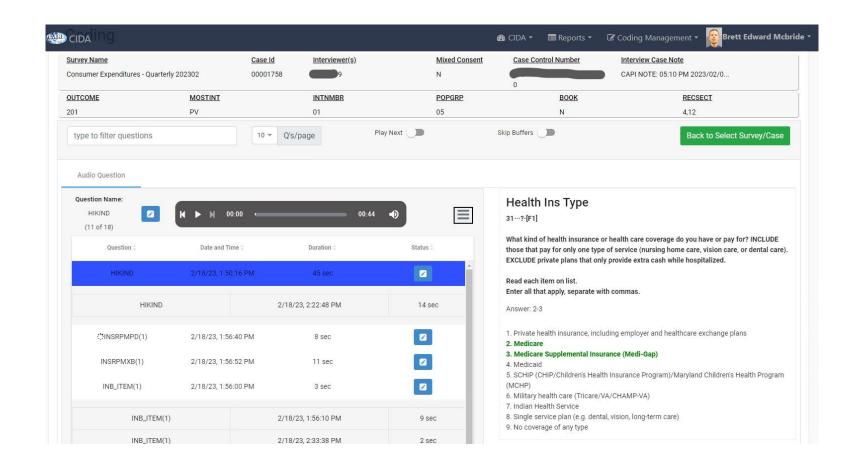■ Examined how often both interviewer and respondent could be heard (n=212)

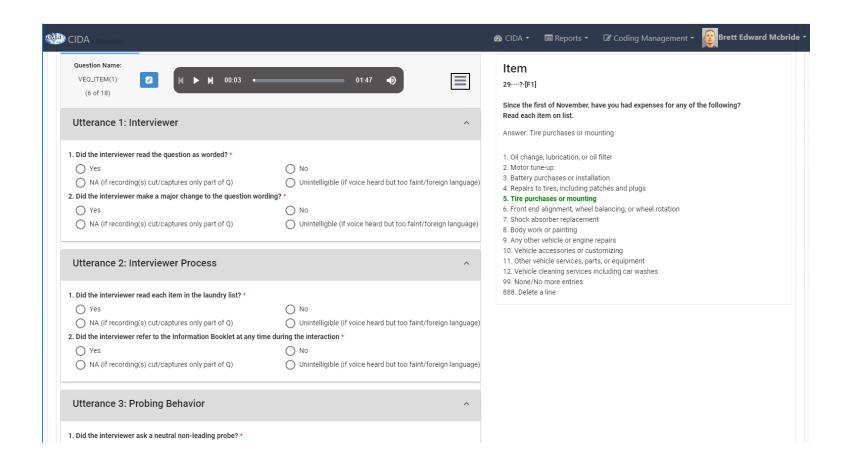**Distribution of CAN_HEAR**

Selecting a Case to Code

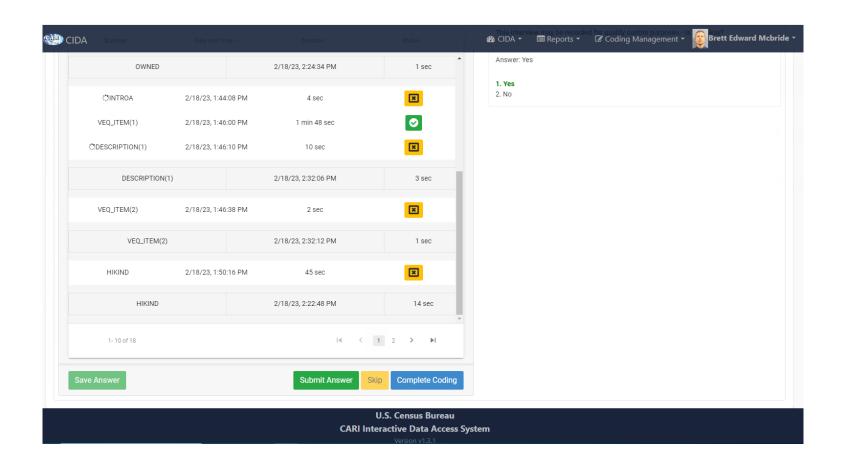# Recorded Survey Items and Responses
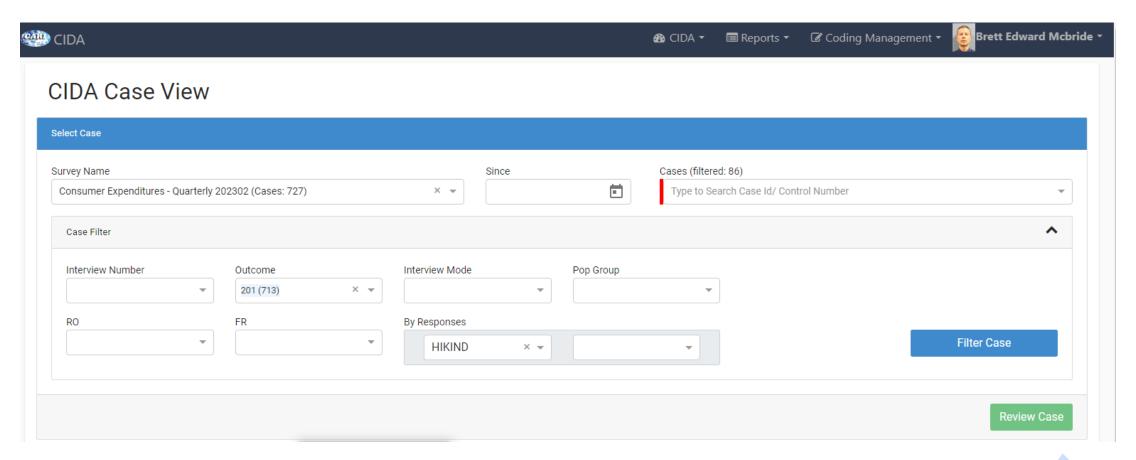
Entering Code Responses

Completing Coding

Qualitative: Filtering to a Specific Case

Lessons Learned

- Importance of having buffers (sometimes even before question asked)

- Timestamps (shed light onto interviewer progression across items)

- Listening for certain behaviors not as feasible

- Need to gain expertise in subject matter

Contact Information

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