MANAGING DATA QUALITY IN CAPI SURVEYS

HOUSEHOLD SURVEYS IN A CHANGING DATA LANDSCAPE:
CHALLENGES, OPPORTUNITIES AND AN AGENDA FOR THE FUTURE

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BACKGROUND

1946
Bureau of Statistics created for the 1st “Modern Census” in Jamaica

1956
Department of Statistics created with expanded work programme

1984
Autonomous NSO created as a statutory body

2013
Introduction of CAPI for routine surveys (Application developed in-house)

2018
Transition to World Bank’s Survey Solution platform

2021
1st Census using CAPI
BEFORE DATA COLLECTION
IF YOU fail to PLAN, YOU’VE PLANNED to fail!

Plan

- Design and document the intended survey process end-to-end

Decide

- Document the decision points and courses of action

Strategize

- Have redundancies and a strategy

**Design the Questionnaire with the Results in Mind**

- Use simple language
- Ask exactly what you want?
- Include probing questions where possible?
- Be mindful of the limitations of:
  - The interviewers who will administer the questionnaire
  - The respondent
  - The environment for field work
  - The device being used
Have an enumeration plan!

2/28/2020

UN Statistics Commission 2020: Side Event
### DECISIONS! DECISIONS! DECISIONS!

<table>
<thead>
<tr>
<th>What are the data quality checks to be applied?</th>
<th>At what level should quality checks be applied?</th>
<th>Where should the quality checks be applied?</th>
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</thead>
<tbody>
<tr>
<td>• Range checks, consistency checks, outliers etc.</td>
<td>• Unit, group, PSU etc.</td>
<td>• Within CAPI, data processing, data analysis</td>
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<tr>
<th>Who is responsible for each quality check?</th>
<th>Document the most plausible scenarios, and the mitigating strategies?</th>
<th>How do you define a completed interview?</th>
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<tbody>
<tr>
<td>• Interviewer, supervisor, headquarter user, analyst etc.</td>
<td>• If X then Y</td>
<td>• % of questions, or key questions?</td>
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STRATEGIZE

Define escalation procedures and strategies for field issues

Have a strategy for HQ users
  • When do they start?
  • How many are needed and how will they be supervised?

Have a communication strategy!
  • How does information flow to and from the field?
  • What should be communicated to the public, how, when and by whom?
DURING DATA COLLECTION
CHECK, ANALYZE AND DISCUSS

- Check the questionnaires and Paradata
- Speak to Supervisors and Interviewers
- Analyze performance metrics
All interview data submitted by the interviewers must be approved by 2 persons: supervisor and HQ
NECESSARY ACTIONS DURING COLLECTION

• Supervise the Interviewers!
  • Monitor Completion Rates
  • Monitor Rejection Rates
  • Monitor data quality of questionnaires

• The Survey Solutions Approach
  • Quick access to common problems: not answered or erroneous questions.
  • Interview-specific bookmarks for follow up after corrections.
  • Comments of interviewers and supervisors are recorded and preserved for analysis.
NECESSARY ACTIONS DURING COLLECTION

- Supervise the Supervisors!
  - Monitor Completion Rates
    - Are teams lagging?
    - Are interviewers moving too fast
  - Monitor Rejection Rates
  - Monitor data quality of approved questionnaires

- The Survey Solutions Approach
  - HQ approves Questionnaires approved by Supervisors
  - Standard Reports
    - Map Reports
    - Teams and Statuses
    - Quantity
    - Speed
    - Other standard reports
NECESSARY ACTIONS DURING COLLECTION

- Analyze Key variables
  - Location
  - Date and Time
  - Time between responses (Paradata is a Gold Mine!)

- The Survey Solutions Approach
  - Produced automatically.
  - Shows who changed the data, when and to what value.
  - Allows low-level quality control and check of interviewers’ behavior:

**Survey Solutions: ParaData**
**SURVEY SOLUTIONS: LISTEN TO THE FIELD TEAMS**

- Listen to the Field Teams, take corrective action and provide feedback
- Get regular updates from the field staff regarding:
  - questionnaire logic and skips;
  - false or missing error messages and their interpretation;
  - limits and formats;
  - navigation/ergonomics;
  - software bugs/updates.
- Introduce corrections and updates to improve.
AFTER DATA COLLECTION
UNDERSTAND WHAT HAPPENED?

Debrief
- Field Teams
- Survey Managers
- Analysts

Assess
- Rejection percentages
- Location, Date and Time of Interviews
- Key variables

Document
- What worked?
- What Didn’t?
- Lessons Learned
Thank You for Your Attention