Developing Standardized Paradata and Dashboards for Use Across Multiple Surveys

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Overview

• Background
• Adaptive Total Design
• Paradata
• System Architecture
• Demonstration
• Next Steps
Background

• RTI funded an initiative to improve use of paradata for monitoring survey production, cost, and quality
  – Supports adaptive total design
  – Facilitates cross-survey methods research
• Two-year project involving multidisciplinary team (statisticians, survey directors, web designers, research programmers)
• Companion initiative to develop ATD education program
Adaptive Total Design

- Identifies major contributors to total survey error (TSE)
- Provides means for monitoring costs and errors during implementation
- Allocates resources to maximally control errors and costs
- Monitors results of embedded experiments to inform later phases or survey rounds
How is ATD Different?

• Focuses on *total* survey error, not just cost, production and response rates
  – Will be expanded to include specification error, non-response error, frame error, measurement error, and data processing error
  – Will include model-based metrics that predict outcomes
• Paradata includes:
  – Record of calls data
  – Cost and productivity data
  – Sample frame and sample information
  – Data quality measures
  – Interviewer characteristics
  – Interviewer observations

• Critical step: make paradata comparable across surveys and create central repository
ATD data is processed nightly; web dashboards are generated on demand.
Adaptive Total Design System

Project Name
Production and Cost

Hours per completed interview
% Complete of released cases
% Refused of released cases
% Accepted Incentive
Number of completed interviews by interviewer
Number of completed interviews by day

CATI
Hours per complete by hour of day
Hours per complete by day of week
Hours per complete by time zone

CAPI
Costs per completed interview
Transmission status
Timing

Overall timing
Section timing
Item timing
Record of Calls

% of cases by broad status
(Broad status = completes, untouched, active, inactive, refusal)

CATI

Calls per complete by hour
Calls per complete by day of week
Calls per complete by time zone

CAPI

Number of contact attempts by broad status
## Sample Status

### Screener
- **Contact rates**
  - Located, not contacted
  - Not located
- **Eligibility rates**
- **Completion rates**
- **Refusal rates**
- **Propensity to respond by broad status**

### Interview
- **Contact rates**
  - Located, not contacted
  - Not located
- **Completion rates**
- **Refusal rates**
- **Propensity to respond by broad status**

### Overall
- **Response rate**
- **Response rates by subgroup**
- **Response rates by interviewer**
- **Contact rate**
- **Eligibility rate**
- **Propensity to respond**

Note: Graphs will display weighted and unweighted rates by selected subgroups and sample geography.
Data Quality

**Item non-response rates**

**Key statistics**

**CARI error rates**
Hours per Completed Interview

Comparison with prior period
Outlier interviewers
Statistics by interviewer
Statistics by day

Hours per completed interview
% Complete of released cases
% Refused of released cases
% Accepted Incentive
Number of completed interviews by interviewer

CATI
Hours per complete by hour of day
Hours per complete by day of week
Hours per complete by time zone

CAPI
Costs per completed interview
Transmission status
Comparison with Prior Period

- Hours per completed interview
- % Complete of released cases
- % Refused of released cases
- % Accepted Incentive
- Number of completed interviews by interviewer

CATI
- Hours per complete by hour of day
- Hours per complete by day of week
- Hours per complete by time zone

CAPI
- Costs per completed interview
- Transmission status

Comparison with prior period
- Outlier interviewers
- Statistics by interviewer
- Statistics by day
Outlier Interviewers

Hours per completed interview
% Complete of released cases
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Hours per complete by hour of day
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Hours per complete by time zone

CAPI
Costs per completed interview
Transmission status

Comparison with prior period
Outlier interviewers
Statistics by interviewer
Statistics by day
### Statistics by Interviewer

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<th>Day of quarter</th>
<th>End date for 7-day period</th>
<th>Sum of interviewer hrs over 7 days</th>
<th>Sum of completes over 7 days</th>
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Percent Accepted Incentive

**Production and Cost** > Percent Accepted Incentive

- **Hours per completed interview**
- **% Complete of released cases**
- **% Refused of released cases**
- **% Accepted Incentive**
- **Number of completed interviews by interviewer**

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- **Hours per complete by hour of day**
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**Comparison with prior period**
- **Outlier interviewers**
- **Statistics by interviewer**
- **Statistics by day**

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RTI International is a trade name of Research Triangle Institute.
Overall timing

- Section timing
  - Item timing

Timing > Section Timing

Section Timing

- Section H
- Section PA
- Section SV
- Section Int
- Section PV
- Section S
Section on Physical Violence

Physical Violence
Outlier Interviewers
7-Day Moving Average

Comparison with prior period
Outlier interviewers
Statistics by interviewer
Statistics by day
Next Steps

• Expand to other survey modes (web, mail, multi-mode)
• Expand to other survey types (establishment surveys – schools, hospitals, prisons)
• Expand to cover total survey error and include model-based metrics
• Integrate with locating
• Train staff
More Information

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This presentation is available on the RTI web site