

Calling All Stakeholders: Developing a Statistical Redesign Research Agenda

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Overview

- What is Redesign?
 - History
 - Scope
- Developing the Redesign Agenda
 - Challenges
 - Opportunities
 - Building the agenda
- Lessons and suggestions for redesign efforts

Why redesign?

- Sample adjustment
- Innovations (statistical methods, technology)
- Research
- Evaluation

Redesign History

- Began in 1940s – sample survey of unemployment
- Historically tied to each census
- Redesigns updated frame development, business, and sampling processes
 - e.g., Automated listing, oversampling
- Most recent redesign eliminated two expensive frames

Redesign – Current Scope

Five major demographic surveys:

Survey	Sponsor
American Housing	Housing and Urban Development
Consumer Expenditures	Bureau of Labor Statistics
Current Population	Bureau of Labor Statistics
Income and Program Participation	Direct Congressional appropriation
National Crime Victimization	Bureau of Justice Statistics

Survey characteristics

Each survey has unique:

- Purposes
- Sponsor
- Design (rotating panel versus longitudinal)
- Periodicity
- Key estimates

**Challenge to Research and Develop
Common Innovations Across Surveys**

Redesign -- Scope

- Survey design
- Frame development
- Sample design
- Estimation
- Data collection (instrument, response strategies)
- Quality and quality measures

Developing the Redesign Agenda – External Challenges and Opportunities

- Budget constraints
- Declining response rates
- Alternative data sources
- Confidentiality and privacy concerns

Developing the Redesign Agenda – Internal Challenges and Opportunities

- Innovation versus continuity of estimates
- New technology and methods
 - Move towards enterprise solutions
- Balancing statistical design with workforce constraints

Building the Redesign Agenda

- Identified stakeholders
- Solicited ideas from:
 - All affected supervisory (mathematical) statisticians within division sponsoring redesign
 - Survey director teams
 - Sponsors as directed by survey director teams
 - Participants in prior Redesign
- Customized approach for each survey team

Building the Redesign Agenda

- Gathered ideas for projects and for processes (i.e., lessons learned)
- Documented ideas
- Verified and shared ideas with stakeholders
- Prioritized initial research ideas based on merit, cost, and feasibility
- Shared results of prioritization with stakeholders
- Began work!

Determining the Redesign Vision

- Conducted a kickoff visioning meeting with a range of stakeholders
- Conducted subsequent brainstorming meetings with division experts on topics identified in kickoff
- Met with stakeholders and potential partners across the bureau
- No clear vision emerged, as of yet...a vision in progress

Selected Redesign Projects

- Alternate methods for stratifying primary sampling units in first-stage of two-stage sample design
- Determining optimal first- and second-stage sample sizes
- One-stage sample design?
- Developing customized frames
- Measuring and quantifying response error

Lessons to Share

- Build administrative infrastructure, even if provisional (infrastructure is always in progress, anyway)
- Engagement – Identify and include all participants, and keep updated
- Reach out to those engaged in similar or complementary efforts
- Build consensus – seek first to understand
 - Acknowledge areas of disagreement

Future Directions

- Conduct sample-based research within division
- Collaborate across divisions and agencies on areas of interest (addressing survey nonresponse, measuring total survey error, using supplemental data)
- Revise or develop new samples
- Continue to grow the redesign research agenda

Questions?

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