

A Household Survey Perspective on Re-Engineering an Establishment Survey

Adam Safir

Bureau of Labor Statistics

Re-Engineering and Modernizing the 2017 U.S. Economic Census

Federal Committee on Statistical Methodology

March 9, 2018





Re-engineering and Modernizing the 2017 Economic Census

Discussant Remarks

- Consumer Expenditure Surveys
- CE Redesign Process
- High-Level Challenges of Redesign/Re-engineering
- Comments on Presentations



Consumer Expenditure Surveys

- Ongoing survey which collects detailed expenditure information from a national sample of households
- Conducted by the Census Bureau on behalf of the Bureau of Labor Statistics
- Interview Survey
 - ▶ 1-hour interview, 4 waves, 3 months apart
 - ▶ Collect 'big ticket' and recurring expenses
 - ▶ Approximately 26,000 completed interviews per year, 63 percent response rate (2016)
- Diary Survey
 - ▶ 2 one-week self-administered paper diaries
 - ▶ Collect daily, small and easily forgotten expenses
 - ▶ Approximately 13,000 completed diaries per year, 61 percent response rate (2016)



Data from the CE Program

- Provide the only source of information on the complete range of consumers' expenditures & incomes in the United States, as well as consumer characteristics
- Provide budget shares (i.e., weights) for detailed expenditure categories in the Consumer Price Index (CPI)
- Provide data essential for administering certain federal and state government programs
- Provide critical information for policy and economic analyses



CE Redesign Process

■ Motivation

- ▶ Evidence of measurement error
- ▶ Changes in technology and spending behaviors
- ▶ Need for greater methodological and operational flexibility

■ Constraints

- ▶ Meet user requirements (w/in reason, i.e. not being all things to all users)
- ▶ Operationally be cost neutral (aside from start-up costs)

■ Stages

- ▶ Gather (2009-13): Identify user needs, collecting external input, define data quality for us
- ▶ Decide (2014): Data requirements, design decisions, research roadmap
- ▶ Implement (2014-): Test, implement, evaluate

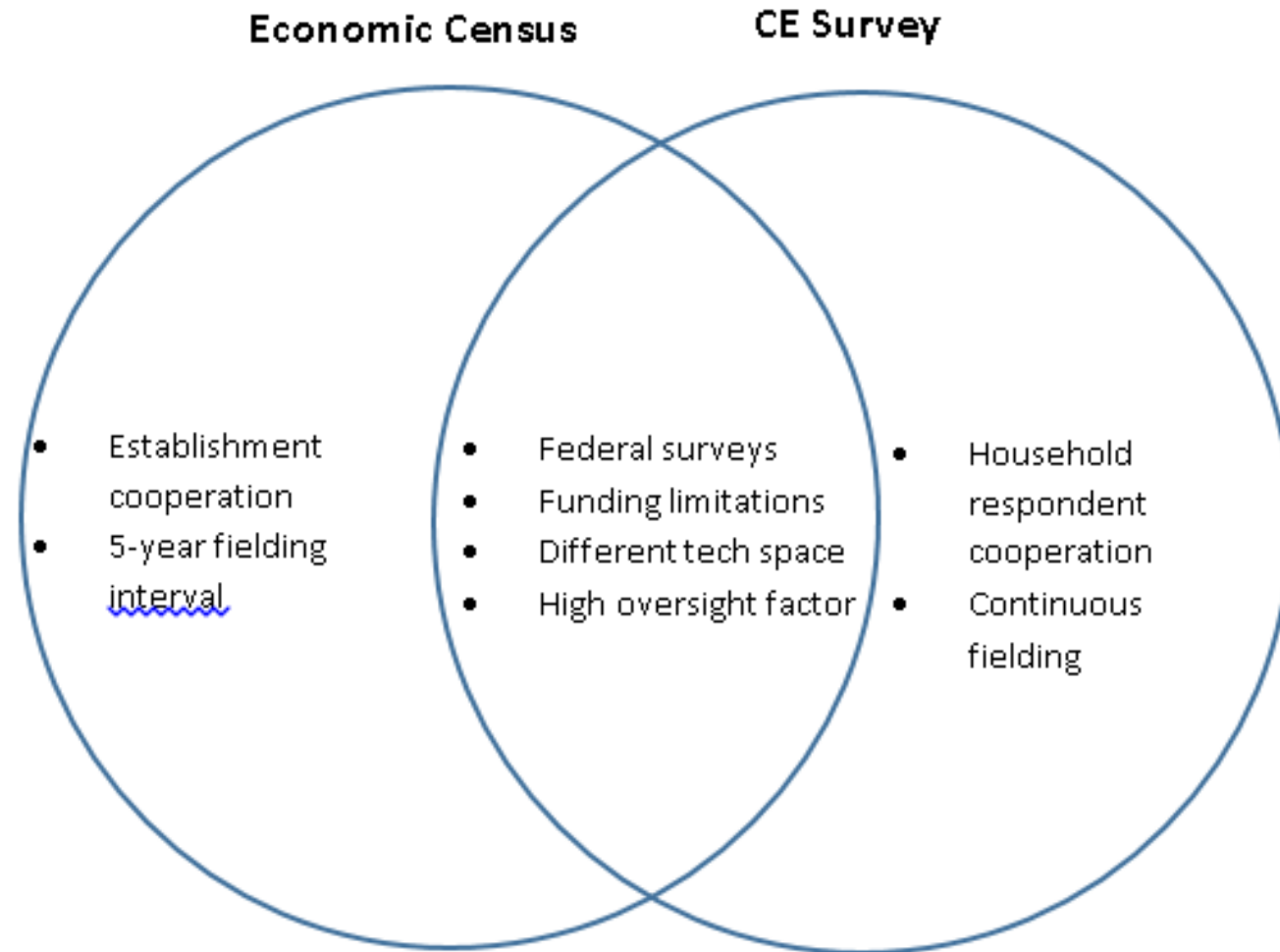


Key Inputs

- Expert panels (e.g., CNSTAT)
- External events
 - ▶ Outreach with stakeholders
 - ▶ Collecting information and advice
- Ongoing research and testing on key topics



Similarities/Differences in Redesign/Re-Engineering



Comparison of Redesign Goals

Economic Census	CE Surveys
Transition to 100 percent electronic collection	{Transition to online diary}
Reduce overall respondent burden	Reduce measurement error
Automate operations to increase productivity	Improve methodological and operational flexibility
Improve data products to reflect changing economy	Respond to changes in technology and spending behaviors

Comparison of Redesign Goals

Goals	Economic Census	CE Surveys
<i>Increase online collection</i>	Transition to 100 percent electronic collection	{Transition to online diary}
<i>Increase data quality</i>	Reduce overall respondent burden	Reduce measurement error
<i>Improve operations</i>	Automate operations to increase productivity	Improve methodological and operational flexibility
<i>Respond to environmental changes</i>	Improve data products to reflect changing economy	Respond to changes in technology & spending behaviors



Redesign Challenges (1)

- 1. Requirements.** Defining survey requirements, e.g., in terms of varied user needs AND balancing those requirements against respondent task burden
- 2. Resource Uncertainties.** Managing uncertainties regarding funding and staffing, which limit research, testing (sample sizes), evaluation, and implementation
- 3. Stakeholder Communication.** Reinforcing purpose (e.g., meas. error vs. burden/RRs)
- 4. Decision making.** Accommodating top-down decision making
- 5. Synthesizing results.** Managing ongoing research efforts while making redesign decisions , i.e., synthesizing test results into ongoing redesign testing & implementation

Redesign Challenges (2)

- 1. “Federal” technology.** Negotiating the promises and pitfalls of emergent commercial technologies, many of which have limitations that are not yet fully understood or well suited to the federal government environment – e.g., data security login requirements for online forms
- 2. Pace of technology.** Keeping pace with technology; not attempting to predict the future but not also committing to the present (moving target)
- 3. Trend lines.** Managing breaks in trend lines , i.e., accuracy vs. consistent measurement
- 4. Comparison point.** Managing a sometimes higher bar for redesign vs. design
- 5. Expectations.** Managing stakeholder expectations (i.e., bang for buck, results)

An Overview of the Improved 2017 Economic Census (Moore & Samples)

1. Data serve as a benchmark for PFEIs (slide 4)... how important is accuracy vs. maintaining consistency in trend lines or avoiding breaks in data series?
2. Move to 100% electronic data collection (slide 6)... was this based on testing, or more driven by a need to meet respondent or stakeholder expectations?
3. Reporting via secure online portal (slide 9)... were there any significant issues with login burden/complexity?



Executing a Multi-Year Multi-Method Electronic Data Collection Re-engineering (Riemer)

1. Requirements gathering from internal stakeholders (slide 10); noted some issues in the logistics of multiple stakeholders... were there also challenges in compromising conflicting stakeholder needs, or sometimes just saying no?
2. Trade-offs in paper mock-ups vs. semi/fully functioning sites (slide 12)... were expectations met for the purpose and implementation of each through the testing process?
3. Evolving research plans and coordinating research plans is difficult when faced with tight timelines, as well as managing and coordinating separate research threads (slide 19)... additional thoughts on improving that process?



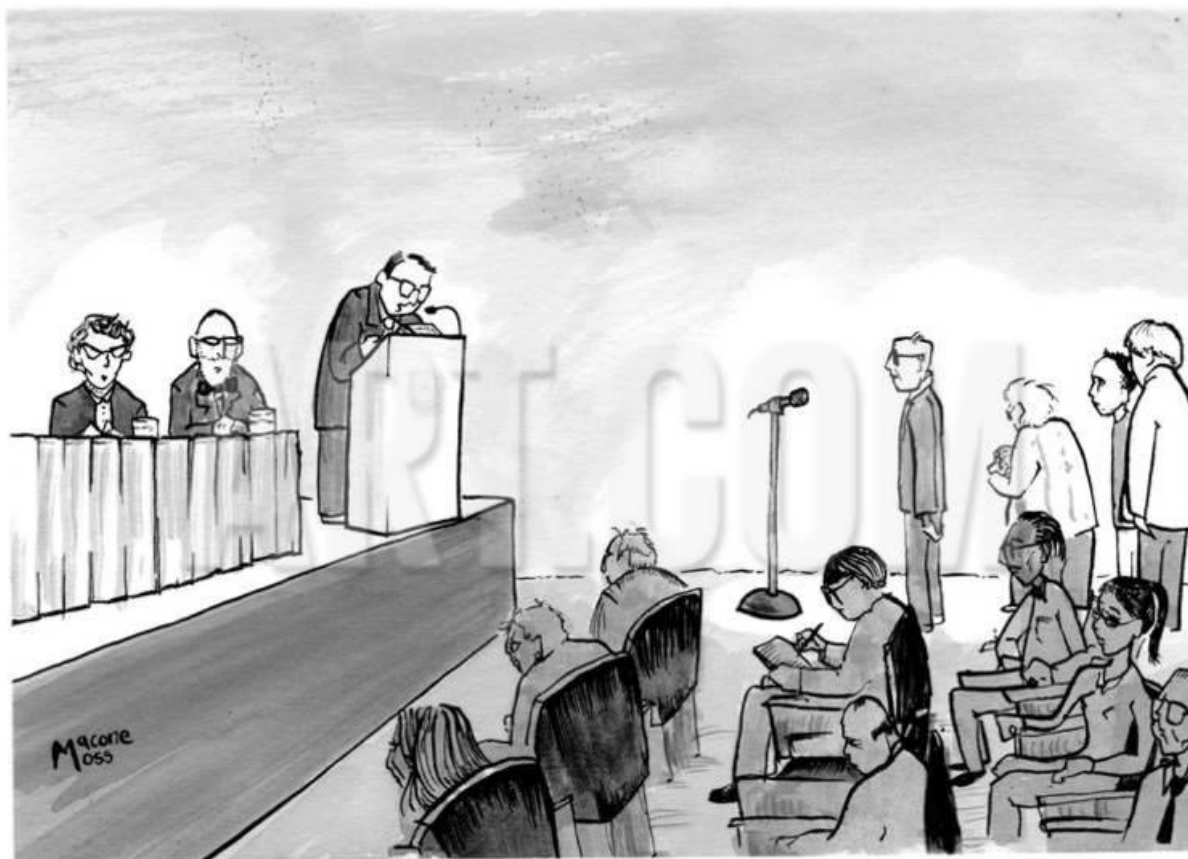
2017 Economic Census Contact Strategy: Using Data to Make Decisions (Johnson)

1. Noting the estimated savings of 24.3 percent over prior year (slide 3) in the annual surveys, what are cost savings expectations for the Economic Survey?
2. Any unexpected issues in transferring test results from the annual surveys to the Economic Census?

From Research to Implementation of Product Est. in the 2017 Economic Census (Davie et al.)

1. Any unexpected issues in the communication and/or cooperation of the research and implementation teams (slide 9), and how were those addressed?
2. In terms of reaching consensus for group decisions (slide 26), was any negotiating requirement for top-down requests/demands from stakeholders?
3. How were unexpected results in implementation testing (slide 35) addressed?
4. To what degree did not having time for detailed investigations (slide 35) affect confidence in results?

Presenter Comments & Audience Questions



"We'd now like to open the floor to shorter speeches disguised as questions."