Non-Response Reduction Methods in Establishment Surveys

Carl Ramirez and Jaki S. McCarthy
Interagency Group on Establishment Non-response (IGEN)

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Interagency Group on Establishment Non-response (IGEN)

- Members include US Federal agencies that conduct establishment surveys
- Meets quarterly to share information, exchange ideas and promote good practices to reduce non-response in member agency surveys

Agencies represented on IGEN:

- Agency for Healthcare Research and Quality (AHRQ)
- Bureau of Economic Analysis (BEA)
- Bureau of Justice Statistics (BJS)
- Bureau of Labor Statistics (BLS)
- Bureau of Transportation Statistics (BTS)
- Census Bureau (CB)
- Energy Information Agency (EIA)
- Federal Highway Administration (FHA)
- Government Accountability Office (GAO)
- Internal Revenue Service (IRS)
- National Agricultural Statistics Service (NASS)
- National Center for Education Statistics (NCES)
- National Center for Health Statistics (NCHS)
- National Science Foundation (NSF)
- Office of Management and Budget (OMB)
- Social Security Administration (SSA)

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Note the decentralized US statistical system. Unlike other countries with centralized systems, US agencies are within individual “subject area” departments.

We will refer to agencies by acronyms throughout presentation.

Some Types of Establishments Surveyed by IGEN agencies:

- Hospitals
- Businesses
- Farms and Ranches
- Government Agencies
- Buildings
- Schools and Universities

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*All types of institutions and businesses are surveyed by the federal government. Gov includes federal, state and local entities including prisons.

*Also institutions like prisons.

For establishment survey response, respondents must have:

- Authority,
  - Data reporter may need higher level permission to release establishment data
- Capacity,
  - Data must be available in existing information systems/records
  - Data reporter must be person(s) with access to information
- Motivation to respond
  - Providing data may not be high priority for the establishment
  - Establishments may not want to release data that is considered proprietary or sensitive
  - Companies may have policies against providing data

*Tomaskovic-Devey, etal 1994 5

•CARL: I left this in since part of the point of this session is that establishment surveys are different from HH

•In addition to the characteristics of the individual respondent, there are additional factors affecting survey participation: factors relating to the business or other organization itself, such as company policy and the availability of resources, and the external environment of the business, such as legal and regulatory requirements that may constrain or compel response. (Willimack, Nichols and Sudman, 2002)

*In addition to some unique respondent requirements for establishment surveys, there is also a slightly different response process, compared to household surveys.

*Establishments differ from HH in that more records may be available

*Also respondent is always a proxy for establishment, multiple respondents may be necessary

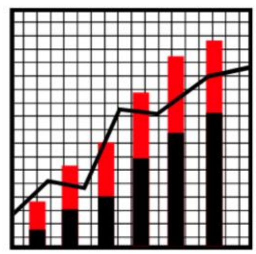
*Company policies may impact decision to report, survey reporting may not be a business priority

*Data can often be proprietary and consequently more sensitive (i.e. provide competitive advantage) than HH data

This talk is really not about the response process, though. But these things will impact and relate to the items discussed.

Why Bother with Non-Response Reduction?

- Higher levels of non-response increase potential for survey bias
- Unlike household surveys, size and other characteristics of establishments may vary widely, with the potential for extreme non-response bias
- Establishments can be selected for many different surveys over time
- Establishments are often sampled for panel surveys involving multiple contacts



*If key establishments are non-respondents this can have major impacts on estimates.

*Establishment surveys often involve frequent longitudinal contacts. Chronic nonrespondents are particularly threatening to the quality of such surveys.

*Non-response in one survey may prompt non-response in later surveys

*Non-response is due to BOTH refusals and non-contacts. They have different causes and solutions.

Most surveys use multiple non-response reduction techniques

- Before Data Collection
  - – Survey infrastructure
  - – Survey planning and design
- During Data Collection
  - – Techniques focused on respondents
  - – Techniques focused on interviewers
- After Data Collection
  - – Review and assessments
  - – Changes intended for future data collections

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*This is one way to classify activities that survey organizations might undertake to reduce nonresponse. This is a loose organizational structure, some is overlapping and the breaks between items are not always clean.

Post survey activities are important in establishment surveys because so many are on-going and will be repeated.

This is really a circular process, since data collection is often ongoing.

Practices employed by IGEN agencies

- Multiple techniques are used by all agencies
- Some are more common than others
  - Green: often employed by most agencies
  - Yellow: employed some of the time
  - Red: rarely employed

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*The practices described in the following slides are based on an informal "poll" of IGEN member agencies.

*Along the way, we'll also point out where member agencies have done some research in the development of these activities, or to evaluate whether they're effective. We're mentioning this because, besides the rough idea of how common or rare these activities are, this gives us a little information about how well-established the practices are.

Activities Before Data Collection

- Survey Organization Management
- Public Relations and Publicity
- Frame Management and Sample Design
- Questionnaire Design

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Switch to Carl here

*1st bullet is “infrastructure”

Survey Organization Management

- Agencies promote resource sharing to encourage use of in house expertise and best practices
- Many agencies actively develop and promote cross program information sharing
- Other agencies are structured with functional units serving all program areas

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*aka “infrastructure”

*at this point remind audience of color coding scheme – yellow means there is variation-some do, some don’t. Not very common.

*Some agencies are not structured according to programs – for example, NASS is organized primarily along functional lines, with functional units serving all programs

Some Examples:

Census Bureau has developed Customer Relationship Management Program for largest companies to manage on-going contacts across surveys; similar activities in BLS

Refusal avoidance training and techniques shared across programs at BLS

EIA database of organizational reporters, shared by two families of surveys that sample those organizations

US GAO underwent significant organizational restructuring to centralize survey expertise and functions

NASS is organized along functional lines with units (i.e. sampling, training, survey administration) supporting all programs

Survey Organization Management

- Some agencies have mandatory reporting requirements for individual surveys

Your Response is Required By Law

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*One additional organizational-level practice: mandatory reporting requirement

*Literature (including some Census studies) suggests mandatory reporting requirement improves response rates.

Some Examples

EIA has mandatory reporting for most surveys and emphasizes this in data collection; response rates typically exceed 90%

Census generally has lower response rates for surveys without mandatory reporting authority

Public Relations and Publicity

- Outreach events to target population
- Promotion to industry to publicize or promote positive views of surveys
- Senior Management contacts to certainty units

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Examples and Research:

NASS research has shown that survey respondents are more familiar with and have more positive attitudes toward the agency than survey refusals

BLS and others provide brochures or other materials to promote importance of survey to respondents

Most agencies attend relevant industry tradeshows to promote the agency and its surveys

BLS has Assistant Regional or Regional Commissioners contact the very largest businesses if they are reluctant to respond

Frame Management and Sample Design

- Frame maintenance and clean up
  - Updated contact information
  - Auxiliary data
  - Pre-survey screening
  - Reporter continuity/succession planning
- Sample Design
  - Sample redesigns
  - Definition of the reporting unit

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*Good information on the frame can reduce the number of non-contacts, particularly true for time series

*Auxiliary data on sampled institutions can be useful for nonresponse bias analysis, too.

*Definition of the reporting unit refers to the actively defining reporting unit to minimize burden

Some Examples:

Agencies (NASS, Census, EIA and others) routinely conduct surveys to collect up to date frame data

BLS field offices will review survey samples before data collection to verify validity of postal addresses

Rotation of sample units to reduce burden (EIA, Census, BLS)

NASS samples jointly across several independent surveys to reduce burden on individual operations

Agencies may define the reporting unit to more closely match units available in establishment records

Questionnaire Design

- Question testing and improvements
- Design of forms to match company records
- Revising instructions
- Extraction of information directly from company records

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*Most agencies attempt to make reporting as clear and easy as possible, hard questions mean less motivation

*Questionnaire redesign and forms design are broad subjects: can be related to question, answer and instruction text, or visual layout and design. Some form redesign efforts include using color coded paper for complex instruments. Census has begun to use graphical elements such as organizational charts to communicate complex concepts in questionnaires.

*EDI or extraction of info directly from computerized company records would in theory allow responding organizations to use existing information systems to meet survey needs, instead of adapting to the researcher's questionnaire format. In practice, we'll later explain that it is very difficult and rarely done.

Some Examples:

Many agencies use cognitive testing to determine if questions match company records

BLS has a usability lab for testing forms

Financial questions will often be aligned to Generally Accepted Accounting

Practices

Shortened version of instructions

Many agencies always include a contact phone number for respondent questions; respondent websites are also becoming more common

Questionnaire Design

- Allowing/aiding estimation or explicit use of previous reports
- Carrying over previously reported data into current wave
- Customized questionnaires for individual establishments

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*Many surveys allow or explicitly encourage estimates to quantitative questions.

*Some agencies routinely carry over data, some never do. Some concerns are due to data sensitivity or biasing effects of PRD.

Some Examples:

Census has done debriefings where respondents report wanting previous data to aid current response

Forms may be tailored to industry, but it is rare that they are tailored to individual respondents

EDI is rarely done due to the excessive amount of additional (and idiosyncratic) processing and translation necessary

During Data Collection

- Techniques focused on respondents
- Techniques focused on interviewers

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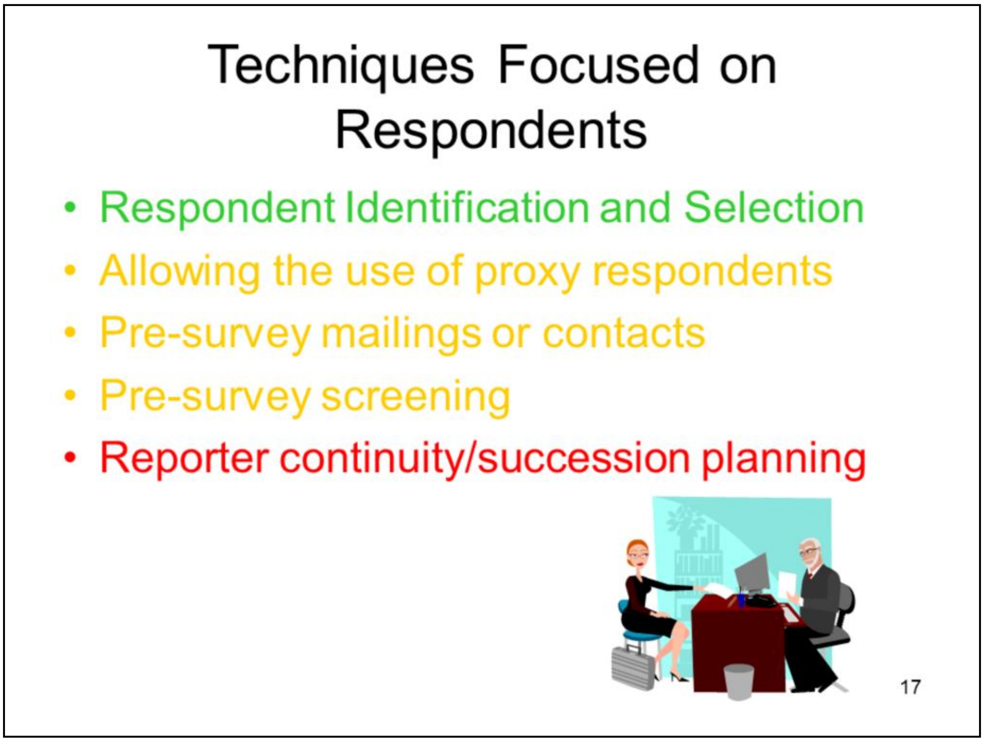
Switch back to Jaki here



*Pre-survey contacts are almost always done by some agencies, others never or rarely (not much in between)

Examples and Research:

GAO will often do extensive pre-survey work to identify the reporting unit

One GAO experiment suggested more personalization (specific person or role) increased response over generic “high authority informant”

Census is using pre-survey mailings to ask companies to identify appropriate contact for the upcoming Economic Census

NSF Director will make initial contacts with University Presidents/Chancellors to have them appoint a survey coordinator

Proxy reporters: NASS asks for the “person making day to day decisions for this operation” to act as respondent, but will also allow operators’ spouse, partners, accountants, etc. to report if necessary

Techniques Focused on Respondents

- "Bundled" reporting for multiple surveys
- Technical support for reporters
- Use of external administrative data in data collection

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*By bundled reporting, I mean that surveys are combined for respondents (from simplest to most sophisticated: questionnaires physically bundled, single access (to online instruments), or transparent multi-survey data collection)

*Very few ever provide external data to respondents (i.e. pre-filling cells), some will use administrative data for imputation (in the absence of reporting), or validation

*An unusual example of instructions/support for reporters: EIA schedules sessions in key cities for respondents to ask questions about its surveys.

Examples:

The degree of "bundling" varies across agencies from physically bundling multiple forms for mailing to redesign of instruments for transparent multi-survey data collection

"Look and Feel" of survey instruments is standardized across programs within many agencies

"Single sign-in" used for web access to multiple surveys (EIA, NASS, BLS)

NASS creates a special combined questionnaire for operations selected for the Agricultural Resource Management Survey in the Census year; this way they do not have to complete a survey form and the separate Census form

Census research found that establishment respondents wanted to know well in advance about upcoming survey contacts and timing

NASS conducted analysis of NASS imposed burden and response. No clear relationship between burden and non-response

Techniques Focused on Respondents

- Confidentiality assurances
- Incentives

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*Confidentiality for US Federal Statistical agencies is always backed by legal authority. But can vary by agency and even survey.

Examples and Research:

Confidentiality assurances are routinely used to motivate response

Limits to access of data may be reinforced by having data collection done by other agencies

Some agencies have experimented with monetary incentives (NASS, NCHS)

Techniques Focused on Respondents

- Provision of alternative modes / multi-mode administration
- Customization of fieldwork, including "special handling" of key operations
- Break large request into multiple smaller data requests

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*Multimode can refer to alternative modes used simultaneously or offered in sequence

Most if not all agencies offer more than one mode for data collection

Examples:

BLS uses Mail, CATI, Touchtone Data Entry (TDI), Electronic Data Interchange (EDI), Fax, and Web based Internet reporting for the Current Employment Survey

For some small surveys, BLS will have staff visit and use company records to complete the survey

Techniques Focused on Respondents

- Adjusting timing of data collection
- Third party sponsorship/collaborations
- Identifying data users within establishment to help encourage response

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*Respondents may better appreciate the value of reporting and resultant statistics if they know of users within their organization.

Requests for financial records can be scheduled to coincide with business tax reporting schedule

Third parties such as professional associations or trade groups have provided endorsements of surveys to their membership

Non-response Follow Up

- Follow up reminders
- Refusal conversion
- Extension of field period
- Use of abbreviated questionnaire for non-respondents

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*Field periods typically exceed the due date stated to respondents, but extension of field period beyond that in an agency's original schedule is rare.

*Related to the extension of the field period is the possibility of revising estimates

Examples and Research:

Many agencies will follow mailings with phone calls to non-respondents

GAO study of response curves after follow up mailings shows significant but declining effect over time

Few agencies use abbreviated questionnaires, anecdotes from those who do cite respondents questioning the worth of all original questions on initial questionnaire

Techniques Focused on Interviewers

- Use of alternative staff for follow up (i.e. subject matter analysts, management)
- Refusal avoidance training
- Interviewer matching

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*Refusal avoidance training is used by several agencies, but not consistently

Examples:

GAO and others use program analysts (subject matter experts) or other staff for follow-up

BLS and Census have developed training specifically focusing on refusal avoidance; this topic is also frequently included in other interviewer training programs

NASS has plans to recruit interviewers from Indian Reservations to collect data from Indian agricultural operations.

After Data Collection

- Post survey activities
- Changes intended for future data collections

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Switch back to Carl

Post Survey Activities

- Self Assessments, lessons learned
- Respondent Reinforcement
  - Demonstration of value of participation
  - Expressions of Thanks
  - Customized data products and survey results for respondents
- Research into reasons for past non-response
- Response analyses

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Examples:

Census Bureau routinely perform “Lessons Learned” sessions at the end of survey cycles which may include non-response

Census also convened 12 focus groups of internal staff following the 2002 Census to review all steps of the process.

NSF, Census, BLS, NASS others have convened data users and outside “experts” to evaluate survey programs; non-response is one area covered

NASS routinely compiles and sends survey results to survey participants (this may include a special abbreviated brochure explicitly tying the results to their survey participation)

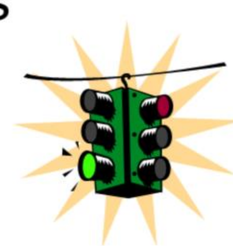
BJS, BLS, others design tables to specifically be useful to survey participants in addition to other data users

NASS has provided respondents with customized data summaries comparing their operation with survey estimates, but it does not appear to increase response

NSF Director sends Thank You letters to University Presidents/Chancellors for some surveys

BLS and NCHS conduct Response Analyses; these can include analysis of non-response and analysis of data from “soft” refusals

Most Common Non-response Reduction Activities



- Publicity and Public Relations
- Follow up contact strategies
- Question comprehension improvements
- Assisting reporters during fieldwork
- Respondent selection enhancements

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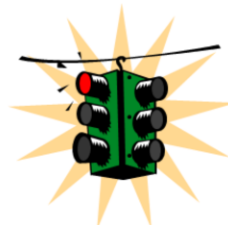
*Again, not a very quantitative measure, and this is NOT ranked in order of frequency, but a general conclusion based on what we've heard from member agencies on some of their surveys

Less Common Non-response Reduction Activities



- Incentives
- Utilizing mandatory reporting requirements
- Electronic Data Interchange or other extraction directly from establishment records

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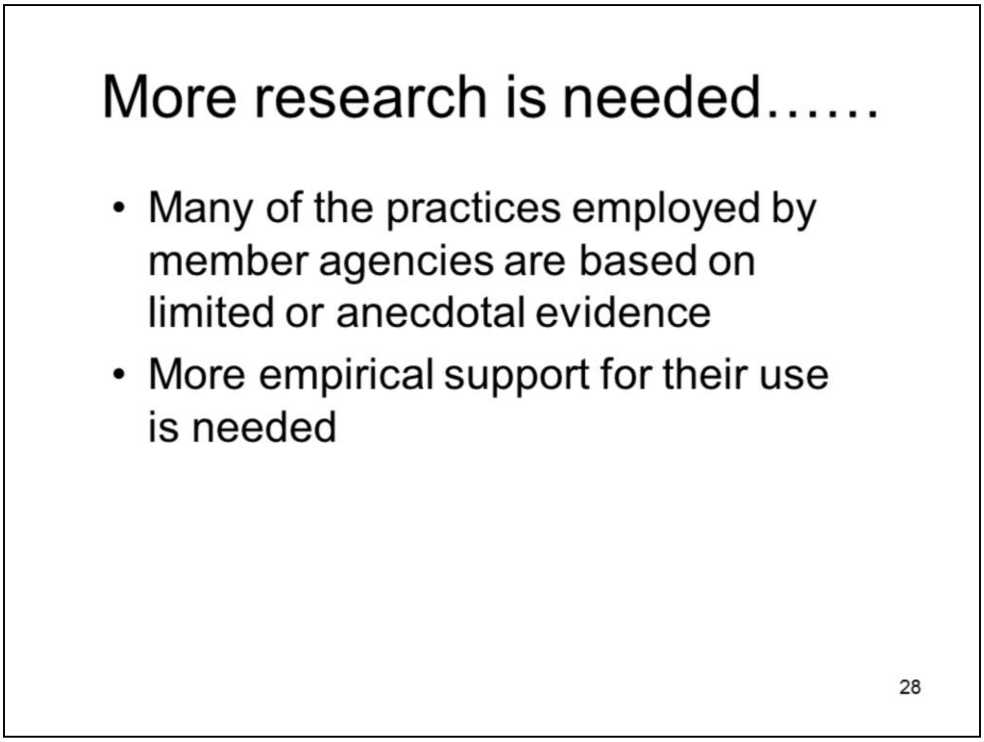

*Research is needed to determine whether practices are really increasing response, whether they are cost effective, and how they impact non-response bias.

IGEN Contacts

- Carl Ramirez, Co-chair ramirezc@gao.gov
- Kathy Downey, Co-chair downey_k@bls.gov
- Jaki McCarthy, jaki_mccarthy@nass.usda.gov

- http://www.fcsm.gov/committees/igen/igen.html

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*website for this committee, a clearinghouse of NR info