

Session 12

Obtaining Respondent Cooperation

Response Rate Achieved in Government Surveys: Results from an OMB Study

Ruey-Pyng Lu
Energy Information Administration

Purpose of Report

The purpose of this report is to make recommendations to OMB for processing information collection Requests (ICRs) from the Agencies. We recommend that OMB adopt a formula based on historical experience for calculating expected response rates. When a proposed collection has a predicted response rate of 80% or less, the sponsor must provide detailed information showing why it expects a higher response rate and must identify specific steps it will take to maximize the response rate, also a plan of assessing the nonresponse bias.

Introduction

This study is to gain an understanding of the achieved response rate in federal government surveys. A proper response rate form is used to calculate actual response rate of surveys approved by Office of Management and Budget (OMB) in 1998. After analyzing the response rates characterized and tabulated by various factors, a standard for OMB use in reviewing information collection requests (ICRs) is recommended. These analyses also provide recommendations to agencies predicting response rates and how to assess nonresponse bias.

Predicting the Response Rate

This section estimates a rule for predicting a proposed survey's response rate based on the response rate of similar surveys conducted in the past. The rule is restricted to general-purpose statistics for individuals and organizations within the United States. The basic idea is the predicted response rate depends upon the kind of organizations collecting the data, whether it is a survey or Census, voluntary or mandatory and the target population (individuals/households, establishments or government), how the data is collected (personal interviews, mail, telephone, or multimode).

The Sample

This project studies the "unit response rates" of statistical Information Collection Requests (ICRs) approved in 1998. When an agency submits an ICR to OMB for review, there are several items in the OMB Form 83-I (see Appendix A-1) to be completed by the agency to fulfill the requirements of Paperwork Reduction Act. The ICRs, except customer surveys, with following three characteristics were selected to make up the universe of this study:

1. "**General purpose statistics**" was marked as "primary" in item 15 - Purpose of information collection.

2. **"Individuals or households", "Establishment** (Business or other for-profit, Not-for-profit institutions, Farms)" or "State, Local or Tribal **Government**" was marked as "primary" in item 11 - Affected public.
3. **"Voluntary"** or **"Mandatory"** was marked as "primary" in item 12 - Obligation to respond.

There were 130 Information Collection Requests (ICRs) that met this criteria, see table 1.

Table 1. Item 12: Obligation to respond			
Item 11: Affected public	Voluntary	Mandatory	Total
Individuals or households	26	5	31
Establishments (Business or other for-profit, Not-for-profit institutions, Farms)	38	40	78
State, Local or Tribal Government	19	2	21
Total	83	47	130

The agency contact of all these ICRs were asked to provide the information in the OMB Response Evaluation Form (see Appendix A-2) and Data Collection Mode Form (see Appendix A-3). Several agencies (Census Bureau, NCHS, NCES, and EIA) bundled similar collections together in one ICR, in fact we have a final 216 potential information collections and they are used to evaluate response rates. See table 2.

Table 2:	Information collections
Eligible and returned	199
Ineligible	17
Total	216

Among these 216 collections, 10 were classified as ineligible by the agency, because they did not have the characteristics specified in this study; And the analyst excluded another 7 collections from this study. Detailed information about these ineligible collections is provided in Appendix B. Finally, a total of 199 information collections were analyzed in this study.

Methods

Factors impact the Response rate

The following six items were collected for each survey,

1. c = Number of respondents completing the survey.
2. e = Number of potential respondents that were eligible but did not respond.

3. i = Number of potential respondents that were identified as being ineligible.
4. u = Number of potential respondents of unknown eligibility.
5. x = Estimated proportion of potential respondents of unknown eligibility that are eligible.
6. n = Total number of potential respondents in the survey (or population, if for census)

where $n = c + e + i + u$; If x is not provided, then the best estimate of $x = (c + e) / (c + e + i)$ will be used to calculate response rate, and our target variable, the response rate, RR , is calculated as $c / (c + e + xu)$.

If a weighted response rate was used in the information collection, the weighted response rate formula was provided for further research. Response rates were computed separately for several different characteristics:

1. **Primary function of the agency submitting the ICR** (ICSP: Interagency Council of Statistical Policy vs Non-ICSP);
2. **ICR type** (Census vs Survey);
3. **Obligation to respond** (Voluntary vs Mandatory);
4. **Affected public** (Households vs Establishments vs Government).
5. **Collection mode:** (Self-administered questionnaires; Personal or group interviews [including CAPI]; Mail survey; Telephone interview [including CATI]; Multi-mode [combination of the above and other methods].)

The combination of these factors will also be used to investigate their impact on response rate.

Across these 199 surveys, the mean unweighted response rate is 82.2%; and the median unweighted response rate is 84.7%.

The distribution of calculated unweighted response rate is displayed as

Table 3: Calculated unweighted response rate	Percentage achieved
Above 90%	37.7%
Above 80%	65.8%
Above 75%	73.4%
Above 70%	80.4%
Above 60%	90.0%
Above 50%	95.5%

There are 68 Surveys have the calculated response rate below 80 percentage. The above tables show that

65.8% (131/199) of ICRs have the calculated response rate above 80 percent;
 73.4% (146/199) of ICRs have the calculated response rate above 75 percent; and
 80.4% (160/199) of ICRs have the calculated response rate above 70 percent.

Single factor analysis

Six factors were characterized to evaluate their impacts on response rates. They are

I. Primary function of the agency submitting the ICR: ICSP (Agency is a member of Interagency Council of Statistical Policy) or Non-ICSP. The Members of the Interagency Council on Statistical Policy are: Economic Research Service (ERS); National Agricultural Statistical Service (NASS); Bureau of Economic Analysis (BEA); Bureau of Census (BOC); National Center of Education Statistics (NCES); Energy Information Administration (EIA); National Center of Health Statistics (NCHS); Bureau of Justice Statistics (BJS); Bureau of Labor Statistics (BLS); Bureau of Transportation Statistics (BTS); Statistics of Income (SOI); Environmental Protection Agency (EPA); National Science Foundation (NSF); and Social Security Administration (SSA).

The distribution of the Response Rate by "Primary function of the agency submitting the ICR" is

RR (no decimal)	ICSP	Non-ICSP	Total
[30%, 40%)	2	0	2
[40%, 50%)	5	2	7
[50%, 60%)	6	5	11
[60%, 70%)	17	2	19
[70%, 75%)	11	3	14
[75%, 80%)	13	2	15
[80%, 90%)	49	7	56
[90%, 100%]	56	19	75
Total	159	40	199
Average response rate	82%	82.8%	82.2%

II. ICR type: Census vs Survey; The distribution of the Response Rate by (Census or Survey) is

RR (no decimal)	Census	Sample	Total
[30%, 40%)	0	2	2
[40%, 50%)	0	7	7
[50%, 60%)	0	11	11
[60%, 70%)	0	19	19
[70%, 75%)	2	12	14
[75%, 80%)	1	14	15
[80%, 90%)	2	54	56
[90%, 100%]	13	62	75
Total	18	181	199
Average response rate	92.5%	81.8%	82.2%

III. Obligation to respond: Voluntary vs Mandatory; the distribution of the Response Rate is

RR (no decimal)	Mandatory	Voluntary	Total
[30%, 40%)	2	0	2
[40%, 50%)	5	2	7
[50%, 60%)	2	9	11
[60%, 70%)	10	9	19
[70%, 75%)	4	10	14
[75%, 80%)	7	8	15
[80%, 90%)	18	38	56
[90%, 100%]	39	36	75
Total	87	112	199
Average response rate	82.8%	81.7%	82.2%

IV. Affected public: Households vs Establishments vs Government; the distribution of the Response Rate is

RR (no decimal)	Individuals or households	Establishments	Government	Total
[30%, 40%)	0	2	0	2
[40%, 50%)	1	5	1	7
[50%, 60%)	6	5	0	11
[60%, 70%)	4	15	0	19
[70%, 75%)	5	9	0	14
[75%, 80%)	4	11	0	15
[80%, 90%)	13	34	9	56
[90%, 100%]	16	51	8	75
Total	49	132	18	199
Average response rate	79.6%	82.2%	88.9%	82.2%

V. Data collection mode:

The categories of "Data collection mode" are:

- Self-administered questionnaires;
- Personal or group interviews (including CAPI);
- Mail survey;
- Telephone interview (including CATI);
- Multi-mode (combination of the above and other methods)

The distribution of the Response Rate by "Data collection mode" is

RR (no decimal)	Self-administered questionnaire	Personal Interview	Mail Survey	Telephone interview	Multi-mode	Total
[30%, 40%)	0	0	2	0	0	2
[40%, 50%)	0	0	7	0	0	7
[50%, 60%)	0	1	4	2	4	11
[60%, 70%)	0	0	14	0	5	19
[70%, 75%)	0	3	3	1	7	14
[75%, 80%)	0	3	6	3	3	15
[80%, 90%)	4	3	29	2	18	56
[90%, 100%]	0	10	26	3	36	75
Total	4	20	91	11	73	199
Average response rate	85.3%	84.7%	78.2%	80.2%	86.6%	82.2%

Conclusion

Recommendation to OMB about Response Rates

From the above analyses, the following statement about response rate is recommended to OMB in reviewing information collection requests:

1. Agencies that submit ICRs with expected response rate of 80% or more should provide a complete description of how they arrived at the expected response rate.
2. Agencies that submit ICRs with expected response rates between 60% and 79% should provide a complete description of how they arrived at the expected response rate, a detailed description on steps they will take to maximize the response rate; and a discussion of how they plan to evaluate nonresponse bias.
3. Agencies that submit ICRs with expected response rate of less than 60% should generally not expect the ICR to be approved. However, agencies can, on occasion, justify conducting the information collection depending on the purpose of the study, the population being studied, past experience with response rates when studying this population, plans to evaluate nonresponse bias, and plans for an aggressive survey methodology to achieve at least 60%.

Maximizes response rates

Sponsors of surveys with predicted response rates of less than 80% should describe what they are doing to increase response by specific reference to the listed attributes of high response surveys. A sample of efforts is summarized from those information collectors achieved RR above 90%. Some tips for accomplishing this include:

For any survey:

- (1) Send a letter in advance to inform respondents of what, why, who, and how.
- (2) Provide a toll-free phone number for respondents to verify legitimacy of survey.
- (3) Provide information about the survey on the agency's website.
- (4) Address confidentiality and anonymity.
- (5) Use more than 1 collection mode: e.g. face-to-face interviews in non-telephone households.
- (6) A threat of fines for noncompliance is mentioned in the mailout letter (for mandatory surveys only).
- (7) Keep the survey brief.
- (8) Make sure the survey is easily understood by respondents.
- (9) Try to make the content of the survey relevant to respondents.
- (10) Offer small incentives up front or a prize for responding (see Incentives FASQ).
- (11) Identify strategies for contacting hard-to-reach populations.
- (12) Obtain endorsement of the survey by relevant organizations.
- (13) Conduct outreach sessions with presentations in several cities.
- (14) Provide news releases to trade journals, state associations, and other interested parties.
- (15) Maintain contact with respondents between waves in a longitudinal survey through birthday cards and postcards to be used in case of address changes.

For personal visit and telephone surveys:

- (16) Increase the number and timing of contact attempts.
- (17) Increase the length of the field period.
- (18) Enhance interviewer training.
- (19) Use senior, experienced interviewers to do "refusal conversion."

For mail surveys:

- (20) Follow-up the first mailout with a phone contact (or a Fax if a business).
- (21) Use Priority mail.
- (22) Address letters to specific individuals.
- (23) Send reminder/Thank you cards.
- (24) Send replacement questionnaires as part of nonresponse follow-up.
- (25) Follow-up phone calls to second mailing (or a Fax if a business).
- (26) Allow respondents to complete the survey on the web or via phone.

For internet surveys:

- (27) Use e-mail for advance notification, reminders, and follow-ups.
- (28) Allow respondents to complete the survey on a hardcopy (to mail in) or via phone.
- (29) Follow-up nonresponses with phone contact (or Fax if a business).

The evaluations conducted to assess the impact of possible non-response bias were requested in the OMB response rate evaluation form. A number of statements were reported and summarized. These are recommendations to agencies how to assess nonresponse bias.

Evaluations conducted to assess the impact of possible non-response bias

Examples of activities for information collectors that failed to meet agency's target response rate:

A large-scale evaluation was performed to examine nonresponse bias in the 1998 NAMCS. It used information from the master files to compare respondents with nonrespondents and it used information from a nonresponse mail back follow-up to compare respondents and nonrespondents. The study found several interesting results. (1) Break off was most likely to occur at the stage of the telephone screener (43 percent) and that often the refusal is from the office staff rather than the physician. This is consistent with information from the nonresponse follow-up that shows that a majority of nonresponding physicians do not remember being contacted about NAMCS. (2) A comparison of cooperation rates for many variables including physician specialty, gender, age, geographical region, board certification, MSA status, and type of practice found that only type of practice had varying cooperation rates. Physicians in group practices where the physician was part-owner were less likely to participate compared with solo practice physicians or physicians in group practices where they were an employee or contractor. (3) Effects of the observed differential nonresponse were not found to have much effect on the visit statistics produced by the survey as the nonresponse adjustment factor which takes physician specialty, region, and MSA status into account, reduced the nonresponse bias for most of the visit statistics examined.

Considerable resources were committed to studying potential nonresponse bias. A summary has been provided. 1. A comparison of estimates to extant data sources was conducted. 2. A Chi-square automatic Interaction Detection (CHAID) analysis was conducted on an extensive set of variables to determine which, if any, were significantly related to nonresponse.

(1) Use of the nonresponse methods discussed in item 7 (i.e., prioritizing nonresponse to follow-up on larger companies) of Appendix A-2 results in a weighted response rate much higher than the unweighted response rate. While the unweighted response rate is approximately 80% of the eligible companies, the respondents are estimated to account for over 95% of the data of interest; (2) For the nonrespondents, Agency imputes using previously reported data adjusted for changes and general trends in the industry.

Two types of analyses were done on the faculty data to assess the impact of possible nonresponse bias in the faculty data. First we compared respondents to non-respondents by various frame variables such as sex, race, and employment status. Here we found that there was no significant difference in the unweighted response rates of men (70%) and women (72%). There were small differences by race: the highest response rate was for Asian/Pacific Islander (68%) and the lowest was for Black, non-Hispanic (64%). The largest difference in response rates was between full time (76%) and part time faculty (60%). In addition to this analysis we also compared the survey responses for early responders and late responders, using late responders as proxy for non-respondents. We picked eight variables to analyze. Out of the eight, six had consistent responses regardless of how many days after the initial mailing they were completed. For two questions (mean age, and tenure status) there were slight declines in the mean age and the likelihood of having tenure status over the response period. The declines were substantially small

and concentrated in respondents from private doctoral school. In this stratum, late responders were on average about a year younger than early responders and 3% less likely to have tenure.

Usage of weighted response rate:

The distribution of the Response Rate by "Usage of weighted response rate" is

RR (no decimal)	Weighted RR used	Weighted RR not used	Unknown	Total
[30%, 40%)	0	0	2	2
[40%, 50%)	0	1	6	7
[50%, 60%)	2	6	3	11
[60%, 70%)	0	5	14	19
[70%, 75%)	4	6	4	14
[75%, 80%)	1	8	6	15
[80%, 90%)	14	20	22	56
[90%, 100%]	3	47	25	75
Total	24	93	82	199
Average response rate	80.9%	85.7%	78.5%	82.2%

"Used" means this type of response rate was used in the ICR or in publication.

Recommendation to OMB on multi-stage and longitudinal surveys

When agencies submit ICR with multi-stage or longitudinal surveys, the following statement is recommended to OMB in reviewing those information collection requests:

1. Ask agency to provide expected response rate at each stage of sample.
2. Ask agency the expected total response rate taking into account of all stages.
3. Agency should always describe the steps to improve response rate.
4. Agency should include a discussion of how they plan to evaluate nonresponse bias.

The final recommendation to Form 83-I revision is to add one item for expected response rate, and ask agency to provide supporting material when submitting Information Collection Requests.

References

American Association for Public Opinion Research (May 1998). *Standard Definitions*.

Couper, M. & Groves, R. (1996). Household-Level Determinants of Survey Nonresponse. . *New Directions for Evaluation: Advances in Survey Research*, 70, 63-80.

Appendix A-1

PAPERWORK REDUCTION ACT SUBMISSION

Please read the instructions before completing this form. For additional forms or assistance in completing this form, contact your agency's Paperwork Clearance Officer. Send two copies of this form, the collection instrument to be reviewed, the Supporting Statement, and any additional documentation to: Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17th Street NW Washington, DC 20503.

<p>1. Agency/Subagency originating request</p>	<p>2. OMB control number ? None</p>
<p>3. Type of information collection (check one)</p> <p>a. ? New Collection</p> <p>b. ? Revision of a currently approved collection</p> <p>c. ? Extension of a currently approved collection</p> <p>d. ? Reinstatement, without change, of a previously approved collection for which approval has expired.</p> <p>e. ? Reinstatement, with change, of a previously approved collection for which approval has expired</p> <p>f. ? Existing collection in use without OMB control number</p> <p>For b-f, note item A2 of Supporting Statement instructions</p>	<p>4. Type of review requested (check one)</p> <p>a. ? Regular</p> <p>b. ? Emergency – Approval requested by ___/___/___</p> <p>c. ? Delegated</p> <p>5. Small entities Will this information collection have a significant economic impact on a substantial number of small entities? ? Yes ? No</p> <p>6. Requested expiration date</p> <p>a. ? Three years from approval date b. <input type="checkbox"/> Other specify ___/___</p>
7. Title	
8. Agency form number(s) (if applicable)	
9. Keywords	
10. Abstract	
<p>11. Affected public (Mark primary with "P" and all others that apply with "X")</p> <p>a. ___ Individuals or households d. ___ Farms</p> <p>b. ___ Business or other for Profit e. ___ Federal Government</p> <p>c. ___ Not-for-profit institutions e. ___ State, Local or Tribal Government</p>	<p>12. Obligation to respond (Mark primary with "P" and all others that apply with "X")</p> <p>a. ___ Voluntary</p> <p>b. ___ Required to obtain or retain benefits</p> <p>c. ___ Mandatory</p>
<p>13. Annual reporting and recordkeeping hour burden</p> <p>a. Number of respondents _____</p> <p>b. Total annual responses _____</p> <p> 1. Percentage of these responses collected electronically _____</p> <p>c. Total annual hours requested _____</p> <p>d. Current OMB inventory _____</p> <p>e. Difference _____</p> <p>f. Explanation of difference _____</p> <p> 1. Program Change _____</p> <p> 2. Adjustment _____</p>	<p>14. Annual reporting and recordkeeping cost burden (in thousands of dollars)</p> <p>a. Total annualized capital/startup costs _____</p> <p>b. Total annual costs (O&M) _____</p> <p>c. Total annualized cost requested _____</p> <p>d. Current OMB inventory _____</p> <p>e. Difference _____</p> <p>f. Explanation of difference _____</p> <p> 1. Program change _____</p> <p> 2. Adjustment _____</p>
<p>15. Purpose of information collection (Mark primary with "P" and all others that apply with "X")</p> <p>a. ___ Application for benefits e. ___ Program planning or Mgmt.</p> <p>b. ___ Program Evaluation f. ___ Research</p> <p>c. ___ General purpose statistics g. ___ Regulatory or compliance</p> <p>d. ___ Audit</p>	<p>16. Frequency of recordkeeping or reporting (check all that apply)</p> <p>a. <input type="checkbox"/> Recordkeeping b. <input type="checkbox"/></p> <p>Third party disclosure</p> <p>c. ? Reporting</p> <p> 1. <input type="checkbox"/> On Occasion 2. <input type="checkbox"/> Weekly 3. <input type="checkbox"/> Monthly</p> <p> 4. <input type="checkbox"/> Quarterly 5. <input type="checkbox"/> Semi-annually 6. ? Annually</p> <p> 7. <input type="checkbox"/> Biennially 8. <input type="checkbox"/> Other (describe) _____</p>
<p>17. Statistical Methods</p> <p>Does this information collection employ statistical methods?</p> <p style="text-align: center;"><input type="checkbox"/> Yes ? No</p>	<p>18. Agency contact (person who can best answer questions regarding the content of the submission)</p> <p>Name:</p> <p>Phone:</p>

19. Certification for Paperwork Reduction Act Submissions

On behalf of this Federal agency, I certify that the collection of information encompassed by this request complies with 5 CFR 1320.9

Note: The text of 5 CFR 1320.9, and the related provisions of 5 CFR 1320.8 (b) (3), appear at the end of the instructions. Their certification is to be made with reference to those regulatory provisions as set forth in the instructions.

The following is a summary of the topics, regarding the proposed collection of information, that the certification covers:

- (a) It is necessary for the proper performance of agency functions;
- (b) It avoids unnecessary duplication;
- (c) It reduces burden on small entities;
- (d) It uses plain, coherent, and unambiguous terminology that is understandable to respondents;
- (e) Its implementation will be consistent and compatible with current reporting and recordkeeping practices;
- (f) It indicates the retention periods for recordkeeping requirements;
- (g) It informs respondents of the information called for under 5 CFR 1320.8 (b) (3):
 - (i) Why the information is being collected;
 - (ii) Use of information;
 - (iii) Burden estimate;
 - (iv) Nature of response (voluntary, required for a benefit, or mandatory);
 - (v) Nature and extent of confidentiality; and
 - (vi) Need to display currently valid OMB control number;
- (h) It was developed by an office that has planned and allocated resources for the efficient and effective management and use of the information to be collected (see note in Item 19 of the instructions);
 - (i) It uses effective and efficient statistical survey methodology; and
 - (j) It makes appropriate use of information technology.

If you are unable to certify compliance with any of these provisions, identify the items below and explain the reason in Item 18 of the Supporting Statement.

Signature of Program Official	Date
Signature of Senior Official or Designee	Date

Appendix A-2
OMB Response Evaluation Form

OMB control number _ _ _ _ - _ _ _ _

Survey ID

This survey was (mark one)

- A. Completed
- B. Not conducted
- C. Other – please describe

If you marked “A” above, please provide the following information for the completed survey.

1. Number of respondents completing the survey.
 2. Number of potential respondents that were eligible but did not respond.
 3. Number of potential respondents that were identified as being ineligible.
 4. Number of potential respondents of unknown eligibility.
 5. Estimated proportion of potential respondents of unknown eligibility that are eligible.
 6. Total number of potential respondents in the survey (or population, if for census)
 7. Describe all efforts to maximize the response rate.
-
8. Describe evaluations conducted to assess the impact of possible nonresponse bias.

Appendix A-3

OMB Response Evaluation Form - data collection mode

OMB control number _____ - _____

Survey ID

1. The data collection mode in this ICR:

The data collection mode was (mark one)

- A. Personal or group interview (including CAPI)
- B. Mail Survey
- C. Telephone interview (including CATI)
- D. Some other methods (e.g. Fax, ...) , please specify

- E. Multi-mode (combination of the above)

2. Weighted response rate:

Yes, a weighted response rate was used in this ICR and the weighted response rate formula was _____ .
and the calculated weighted response rate in 1998 was _____ .

No, we did not use weighted response rate in this ICR.

Appendix B

I. Ineligibles as identified by agency

0581-0033: The program inadvertently checked the wrong purpose in box 15 on the OMB 83-1 form. This collection is not for "general purpose statistics" but "program evaluation". This collection is not a survey. The collection has only one form and the form is used to collect info from commercial dried egg products plants. The information is then assembled and summarized and distributed monthly to interested parties. This information is used by industry as an aid in making knowledgeable marketing decisions.

0607-0350: This form is just used on an "as needed" basis to collect information about new building permit issuing jurisdictions, places that may have changed their permit issuing requirements, or potential nonpermit places that may now be issuing permits.

0607-0809: The activities that were covered under the OMB generic clearance from 1998 were listing activities for the 2000 decennial census. Activities such as Address Listing and Block Canvassing were operations undertaken with the objective of building a complete address list of the United States for Census 2000. Since the activities performed under the generic clearance were listing activities and not survey related activities, there is no pertinent information to deliver regarding survey response rates.

0938-0741: This collection is a form, not a survey. Beneficiaries fill it out when they "disenroll" from a Medicare+Choice plan.

0970-0183: This is a voluntary program which provides States' Child Support Enforcement agencies upon their request access to all of the earned and unearned income information reported to IRS by employers and financial institutions. The IRS 1099 information is used to locate noncustodial parents and to verify income and employment. It is not a general purpose survey.

1110-0002: Voluntary; The Supplemental Homicide Report (SHR) is a form disseminated to the Nation's law enforcement community for the voluntary submission of detailed homicide information pertaining to their monthly homicide counts. The document is not designed to enhance the characteristics associated with each homicide reported. Response to the request for information on this form is voluntary on the part of the law enforcement community. Block 15 on OMB Form 83-I, was identified by the FBI in the option of "general purpose statistics" because the information collected is used by criminologists, sociologists, and academia for this purpose. At no time has this form been used to survey law enforcement's needs or interests in participating in the national Uniform Crime Reporting Program.

1875-0134: This is not a "survey"; it is the performance report form for the Safe and Drug-Free Schools (SDFS) State Grants program, which includes the State Education Agency and Governor's programs. The form has been used by states to provide their annual performance reports to the U.S. Department of Education for their SDFS programs.

1905-0129(3): EIA-417R; Electric Power System Emergency Reporting Procedures. This is not a statistical survey per se. Reporting is required when an electric power system undergoes one of the following types of incidents: interruption in firm power, voltage reductions, public appeals to reduce use of electricity, vulnerability actions, and fuel supply emergencies.

2040-0180: Part 132 requirements are part of already existing State Water Quality Programs. Thus, the ICR that was prepared tried to estimate any increase in burden to respondents regulated by existing State programs that may result from Part 132. As such, there is no way to determine or identify if the Part 132 burden estimated by the ICR actually resulted from Part 132 because Part 132 did not have any specific information or data collection requirements.

3045-0043: *Note that this is not a “survey”. It is a Project Progress Report (PPR). AmeriCorps*VISTA sponsors (approximately 1,200) submit a PPR on a regular and ongoing basis. Required of all Sponsors, the PPR is an opportunity to document progress towards meeting the goals and objectives of their Project Work Plan. Only active AmeriCorps*VISTA project Sponsors submit the report.

II. Ineligibles identified by analyst

1505-0010, RR=0%; The purpose of the form is to provide an opportunity to comment on proposed revisions to the Foreign Currency Form FC-2.

1505-0012, RR=0%; The purpose of the form is to provide an opportunity to comment on proposed revisions to the Foreign Currency Form FC-1.

1505-0014, RR=0%; The purpose of the form is to provide an opportunity to comment on proposed revisions to the Foreign Currency Form FC-3.

1505-0088, RR=0%; The purpose of the form is to strengthen compliance with other TIC reporting requirements.

0420-0513 (1), RR=1%; This is a rolling continuous use enrollment form and is not a statistical survey. U.S. Teacher and Peace Corps Volunteer Enrollment Form.

0420-0513 (2), RR=0.46%; This is a rolling continuous use enrollment form and is not a statistical survey.

0607-0850, RR= 30.2%, United States Census 2000 Dress Rehearsal Large Household Followup; Public awareness campaign in targeted Dress Rehearsal sites.

The 2002 Response Rate Summit: Recommendations from an Expert Panel³²

Nancy Bates
U.S. Census Bureau

Introduction

In the Spring of 1997, the Census Bureau and several of its sponsoring agencies formed a new interagency committee to address current nonresponse issues. The committee (the Interagency Household Survey Nonresponse Group or IHSNG) is a subcommittee of the Federal Committee on Statistical Methodology. The group maintains members from the Bureau of Transportation Statistics, the Energy Information Administration, the Bureau of Labor Statistics, the U.S. Census Bureau, the Office of Management and Budget, the National Center for Health Statistics, the National Center for Education Statistics, and the Bureau of Justice Statistics (see www.fcsm.gov/committees/ihsng/ihsng.htm for more information).

As a means of stimulating new ideas for how best to research and evaluate nonresponse in government surveys, the IHSNG sponsored an expert panel. A Response Rate Summit convened on February 21st and 22nd in Arlington, Virginia. The purpose of the summit was to provide a forum for discussion among experts in the field about how to address concerns related to the decreasing response rate trend in household surveys. The subcommittee chose two national surveys, the National Health Interview Survey (NHIS) and the Consumer Expenditure Quarterly (CEQ) survey, as the basis for discussion during the summit because they represent a cross-sectional and a longitudinal household survey, respectively.

In this paper, we summarize the discussions and recommendations of the expert panel and conclude with a preliminary follow-up of the panel's number one recommendation: the collection and analysis of detailed contact history/call record data.

The Summit

The Summit lasted two days and included eleven panel members with expertise in survey methodology, survey sampling, and survey operations³³. In addition, staff from the Census Bureau, Bureau of Labor Statistics, and National Center for Health Statistics also attended and

³²This paper reports the results of research and analysis undertaken by Census Bureau staff. It has undergone a more limited review than official Census Bureau publications. This report is released to inform interested parties of research and to encourage discussion.

³³ Expert panel members included: Roger Tourangeau (JPSM), Paul Biemer (Research Triangle Institute), David Cantor (Westat), Ed Cohen (Arbitron), Robert Groves (Univ. of Michigan), Graham Kalton (Westat), Daniel Kasprzyk (Mathematica Policy Research), Paul Lavrakas (Nielsen Media Research), Stanley Presser (Univ. of Maryland), Eleanor Singer (Univ. of Michigan) and Brian Williams (Statistics Canada).

participated in the discussions. On the first day, representatives from the data collection and sponsoring agencies made a series of presentations to familiarize panel members with the NHIS and CEQ methodologies and response rate histories. At the end of the day, a Census Bureau interviewer and a survey supervisor made presentations to describe the challenges of gaining respondent cooperation in the field.

On the second day, the panel members engaged in open discussion to brainstorm ways to increase the surveys' response rates. They looked at the system used to administer the survey, the organization of the survey itself, and the workload of the field representatives. Using open discussion, reviews of current literature, and field experience, the group thought of a variety of different ways in which response rates can be increased for the NHIS and the CEQ.

The discussions revolved around two main questions: How can we get a higher response rate and how can we lower noncontact rates? During the course of the day, panel members offered various solutions and techniques for reducing nonresponse. Some topics of discussion included front loading cases for more efficient field assignments, better use of call record histories during contact attempts, use of respondent and interviewer incentives, refusal aversion training for interviewers, changes to the advance contact materials, and changes to the life-cycle of the survey itself. At the end of the day, the Summit facilitator presented a list of twenty-two recommendations and suggestions. Each panel member was asked to prioritize the most important ideas of the day and rank them one through three. The top five recommendations in order of rank are presented briefly below.

#1 - Call Records

In the context of the panel conversations, the term "call records" was used loosely to refer to any means of gathering histories on contact and contact attempts. It was noted by some that the practice of collecting good contact histories was lost (or at least diminished) in some organizations during the transition from paper and pencil interviewing (PAPI) to computer assisted personal interviewing (CAPI).

There was unanimous agreement that the collection of call record information would benefit interviewers, regional offices, and headquarters. Some panel members were concerned about when interviewers should open their laptops and if they would bother to open them if the respondent was not at home. Every member of the panel seemed to agree that more specific outcome codes for noninterviews needed to be developed. For example, was initial contact never made or was there initial contact but no follow-up? Would you call a follow-up contact that was never reached a "not-at-home," a "broken appointment," or a "temporarily unavailable"? Data collection on refusals was another recommendation. Classifying refusals by demographic and attitudinal variables of those who refused and by physical and social environment variables about the living unit and the neighborhood could provide valuable information for reducing refusals.

By and large, the group found call records to be very valuable tools to better discern refusals and noncontact, develop an interview history of contacts, design targeted materials, and understand motivations for noncooperation. Consequently, the number one recommendation from the

Summit was to collect and analyze detailed contact/call record data. Such data have a twofold purpose: (1) for analytic purposes, and (2) as a feedback mechanism for regional offices and interviewers. It was suggested that agencies devise an automated system to capture case histories—including number of contacts, interim outcomes (outcome of each contact/attempt), reasons for refusals, day of week and time of contact/attempt, and demographics of refusal/noncontact households. The data could also be used in real time by the supervisory staff and senior interviewers to quickly identify and aid interviewers having problems and to determine optimal callback patterns.

#2 - Refusal Aversion Training

The second-ranked idea was that of refusal aversion training. This training promotes a transfer of the skills from the very best interviewers to less experienced interviewers providing a strong knowledge of the survey and explanations for specific concerns that reluctant respondents have. It teaches interviewers how to listen for these concerns and immediately counter them (see Groves and McGonagle, 2001). There was a consensus reached that interviewers would be better off and more prepared if they were trained in how to respond effectively to refusals from respondents in an effort to persuade them to participate. The panel agreed that training interviewers how to react was better than sending them into the field with a pre-scripted list of responses to possible refusals. Most of the group liked this idea; however, some speculated that it would only help the lower-tier interviewers and waste the time of the more experienced interviewers.

The panel recommended expanding the use of this training method beyond an experiment conducted in 2001 in the NHIS³⁴. The panel suggested building a model that allows senior interviewers in the regions to administer the actual training. Additionally, members recommended continual tracking of interview-level response rates to further refine the training and test whether the training has a diminishing effect over time.

#3 - Incentives and Motivators

The topic of incentives ranked third among the top five recommendations. Many panel members were of the mind that incentives would generate increased response rates, however there was considerable debate as to how incentives should be applied. Another general observation made was the most motivated interviewers also had a propensity to be the best interviewers. Thus incentives and motivators must work in the direction of both the respondent and the interviewer. While thinking about incentives and motivators, members of the group were able to narrow their focus to the perspective of the respondent and ask, “What’s in it for me?” A general outline of the dialogue follows.

34 (For more information on this experiment, see O’Brien, Mayer, Groves and O’Neill, 2002)

Here is what we know about incentives:

1. There are two types: conditional and unconditional.
2. There are two subtypes: monetary and nonmonetary.
3. Incentives are more complicated to give in government surveys (because of OMB approval).
4. Incentives are applicable for both respondents and interviewers.

Suggestions as to what conditional and unconditional incentives should be used for respondents included:

1. Give a little up front, the rest upon completion (e.g., split incentives).
2. Only give incentives to refusals to get them to convert.
3. Give everyone an incentive in the advance letter.
4. Only give to those who complete the survey.

Suggestions as to what incentives/motivators could be used for interviewers:

1. Goal sharing.
2. Performance statistics based on response rates, consent rates, refusals, etc.
3. Exponential bonuses (especially for refusal conversions).
4. Training for refusal conversion.

Suggestions made as to what the monetary and nonmonetary incentives could include:

1. Social and personal benefits derived from uses of the data collected.
2. Civic duty.
3. Material goods such as patriotic paraphernalia.
4. Fixed dollar amounts.
5. Variable compensation schemes.
6. Debit card in the advance letter and the four-digit code at completion.

One argument raised against refusal conversion incentives was the frustration it causes interviewers. They consider it paradoxical to reward someone for being a problem case, thus lowering morale. The panel recommended conducting experiments with the CEQ and the NHIS to explore unconditional incentives for respondents. The incentives do not necessarily have to be monetary but should be survey-specific. For example, provide respondent bonus for full compliance (complete entire diary, successful completion of all survey sections) or provide up-front monetary incentive with promise of more to come if they cooperate. At the same time, consideration should be given to developing an incentive program to motivate interviewers.

#4 - Changes in the Survey Design

The fourth-ranked recommendation involved specific changes to the CEQ and NHIS survey design. Discussion began with an analysis of the life cycle of NHIS. There were two general groups: those who thought that NHIS should maintain its weekly sampling procedures for comparability and those who thought that it would decrease burden to do a monthly or biweekly sample. Some NCHS staff argued the sampling process should remain as it is for comparability across years.

The next major life cycle discussion was about the length of the field period and its impact on response rates and noncontact rates for NHIS. Everyone agreed that the field period was short, which led to decreased response rates and increased noncontact rates. To lengthen the field period, a suggestion to add an extra weekend to the field period was made.

Someone suggested that both the CEQ and NHIS should reduce the complexity and length of their questionnaires. A panel member remarked that it had been his experience that too many surveys were designed without taking into account the concerns of the survey takers. Introducing matrix sampling was one idea mentioned to decrease the length and complexity of the surveys. Evaluating the usefulness of each question was another suggestion to reach the same goals.

In summary, the panel suggested the NHIS should experiment with a monthly or biweekly sample design. It could also expand the interview period to include a third weekend and/or spread out the caseload. For the CEQ, consider using a clustered sample design, then estimate impact of clustering on response rates. Additionally, consider a redesigned coordination of sampling and workload.

#5 - Improve Advance Contacts and Other Materials

The fifth ranked suggestion was to make improvements to the advance materials. The discussion began with a thorough examination of the current methods used for advanced contacts. Most of the group agreed that an advance letter is helpful but the panel strongly recommended that instead of a “face lift” to the materials, we revolutionize the advance contact protocol.

Citing low readership of advance letters, most agreed that if there are required statements (like collection authority statutes), these should be kept in the letter. Cosmetic changes suggested to increase readership included adding jazzy graphics and changing the font.

It was agreed that the more detailed information should be displayed in a brochure or Frequently Asked Question (FAQ) format rather than the advance letter. Content changes suggested including more personalization—such as the business card of the field representative, making the language of the letter less bureaucratic, and tailoring the letter to dispel possible objections.

Other issues about advance letters that were raised included who should sign the letter, the sponsor or the Census Bureau? Should multiple advance letters be sent? Should letters be customized for each region? Should we use FedEx to deliver advance letters? No decisive consensus was reached on the aforementioned questions. Everyone agreed that experiments should be conducted before reaching a conclusion.

The importance of the advance letter to the response rate and the interviewers' comfort level was discussed as well. It was unanimous an advance letter is important for interviewer comfort because it makes the house calls seem less like "cold calls." In the words of one interviewer, "It gives us a reason to be there."

Additionally, panel members deliberated over whether having phone numbers of respondents would help get a leg up on advance contacts. Those against advance contacts argued that the advance phone call or letter could give the respondent more time to think of reasons not to participate. Most agreed that if someone is going to refuse, they do so regardless of the advance contact. The panel suggested conducting a controlled experiment to best understand the impact that advance phone calls might have on unit nonresponse.

Moving Forward on Call History Recommendation

Following the Summit, the co-chairs of the IHSNG presented the recommendations to their subcommittee and at the Census Bureau survey sponsors quarterly meeting. Several initiatives are underway to follow-through on the Summit suggestions generated. For example, efforts are underway to get a program of refusal aversion training implemented nationwide in the NHIS. Additionally, the Census Bureau is currently developing a stand-alone prototype instrument designed to collect detailed call record data in the NHIS. This system, deemed the Contact History Instrument or CHI, hopes to be in production for the NHIS by 2004 with additional personal-visit demographic surveys to follow. A CHI steering committee has been formed to oversee the development of CHI for longitudinal/panel surveys and to ensure that the IHSNG and agency sponsors provide adequate input during development (see Oneto, 2002 for more information on both initiatives).

SIPP Methods Panel Contact History Logs

Shortly after the Summit, the Survey of Income and Program Participation Methods Panel (SIPP MP) decided to sponsor a short-term research project to explore the use of contact history logs. The SIPP MP is an experimental survey sponsored by the Census Bureau and carried out in six regional offices. It is designed to test improvements and alternative measurement approaches for the core SIPP instrument. For each experiment, a random sample of approximately 1,500 addresses receive the experimental MP instrument and another 1,500 receive the control SIPP instrument (the production SIPP). The majority of MP interviews are conducted in-person by computer assisted personal interview (approximately 80%) and the remainder are completed by telephone.

Based largely on discussions from the Summit, we decided to introduce a paper and pencil contact history log into the MP field procedures. This allowed a quick means of collecting detailed information on contact and contact attempts during a Census Bureau personal-visit survey. The contact logs were printed front and back on heavy weight colored paper. One side contained a grid for interviewers to record the date, time and mode of contacts along with the interim and final contact outcomes and comments from each contact or contact attempt. The

other side contained instructions for completing the logs and a list of final outcome codes (see attachment 1).

Interviewers were instructed to complete a record of the personal visit or telephone call each time they attempted to contact a household. Interim outcome codes were divided into Contact and Non-Contact categories and included subcategories such as: eligible household member not home, language problem, respondent too busy, respondent refused, household did not answer door, unable to reach - gated community, telephoned - busy signal, telephoned - answering machine, etc. When the case was deemed 'complete' the final outcome code was also recorded on the contact history logs (e.g., completed interview, no one home, household refused) along with the date and time.

Interviewers used the logs for the first time during Replicate 3 Wave 1 of the 2002 SIPP MP which took place in July and August, 2002. At the time of writing, most of the July logs were available for analysis, but the August cases had not yet been keyed. Additional analyses of both months are planned once all data become available. The July SIPP MP sample consisted of a total of 1,587 cases and at the time of writing, we had contact log data from approximately 91% of these cases. A series of random 20% sample checks of the data entry suggest an error rate of approximately 0.8% for the July logs.

In the discussion that follows, we set about answering a few basic questions previously unknown in the absence of interim contact histories. Namely, we want to know the average number of contacts/contact attempts for completed interviews and non-interviews, the workload distribution and status after each successive contact/contact attempt, and the interim status distributions leading up to cases resulting in an interview, a 'no one home', and a refusal. We also sought to answer basic questions about the time of day and day of week interviewers are making contacts resulting in successful interviews versus 'no one home'. These represent only a fraction of the potential research questions the contact logs will eventually yield.

To set the context for the contact log analysis, it is important to first report the overall response rates for the 2002 SIPP MP. In the month of July, the survey achieved a response rate of 87.2%³⁵. Nonresponse cases were comprised of 7.5% refusals, 2.1% 'no one home' and 3.2% residual nonresponse comprised of unable to locate, language problems, and an 'other' noninterview category.

Chart 1 illustrates the mean number of contact/contact attempts by region for cases ultimately classified as a completed interview, no one home, or refusal. This average reflects both personal visit and telephone contacts. The bar chart clearly shows a trend whereby completed interviews required the lowest number of contacts. There is some variation across regions but for the most part, the average number of contacts is around 3.5 for cases resulting in an interview.

Cases that ultimately got classified as a refusal required more effort – here the overall average

35 The response rate is calculated using the American Association for Public Opinion Research Response Rate 2 (RR2) definition (AAPOR, 2000).

number of contacts was closer to 6. In the Charlotte region, the average number of contacts for refusals climbed above 7 (7.4 contacts). However, the number of refusals is rather small when broken out by region (approximately 17 cases per region), so it will be important to re-visit these means once the August data are available. Likewise, while the trend appears that ‘no one home’ cases required by far the greatest amount of contacts (8.6 overall), these cases are relatively rare and, in fact, means are not shown for the Atlanta and Seattle regions as they each had only one such case. But, regardless of the limitations, the chart begins to tell the story of how much time and effort is being expended for different classes of outcomes.

Chart 2 illustrates the case status by each successive contact/contact attempt. The base for the chart is restricted to cases determined to be in-scope and eligible for the survey (i.e. placed in the denominator of the response rate formula). According to Chart 2, around 22% of the eligible workload became completed interviews after just one contact (noted by the blue band on the first bar). The majority of cases remain active after one visit and a small fraction are deemed non-interviews after just one visit (lightest portion of the bars). At twenty visits, all of the active cases finally became classified as an interview or non-interview.

Chart 3 graphs the number of completed interviews by contact number. Of all interviews eventually conducted, the greatest number are performed during the first and only visit, the number drops steadily with each successive contact/contact attempt until the line starts to flatten out around the eighth contact. Chart 4 illustrates the percentage of completed interviews relative to the cases attempted at each contact. The horizontal red line illustrates the average percent of completed interviews across all contact attempts (21%). The percent of completed interviews are slightly above average during contacts 1-3 and slightly below during the fourth and fifth contact. A simple ‘eyeball’ of the chart suggests the average starts to drop around the sixth or eighth visit – roughly the same points we saw the number of interviews start to flatten out on Chart 3. Additional analysis should be performed to explore the cost/benefits of extending the maximum number of contacts beyond the 6-8 contact range. In their study of call record data from a face-to-face survey in the UK, Purdon, Campanelli, and Sturgis (1999) report that contact becomes less likely as the number of calls increases. The trick is finding the point at which additional calls begin to result in diminished returns, that is, the likelihood of getting a completed interview drops significantly.

Charts 5 and 6 explore what is occurring at the contact/contact attempts leading up to a final case code disposition. Chart 5 combines the 31 interim status codes into 6 major categories:

- \$ Personal Visit Contact - no interview,
- \$ Personal Visit - no one home,
- \$ Personal Visit - fluttering curtain,
- \$ Personal Visit - physical/environmental barrier,
- \$ Telephone Attempt - no contact, and
- \$ Other - noncontact.

The ‘fluttering curtain’ pertains to personal visit attempts where a respondent did not answer the door but interviewers reported evidence that someone was at home. Such situations represent a

grey area – should a no one home or a soft refusal be recorded? The ‘barrier’ category refers to those situations where a personal visit was attempted but contact was not made due to a physical barrier (gatekeeper, buzzer entry, gated community) or an unsafe environmental element (dogs, crime, drugs).

Far and away the most common outcome leading up to a final disposition is to make a personal visit but find no one at home (accounted for approximately 50% of all interim outcomes). Second behind the no one home category is the situation of finding someone at home, but not obtaining an interview due to a variety of reasons including no eligible member available, respondent too busy, or respondent initially refuses. Both the ‘fluttering curtain’ and barrier situations occurred far less frequently.

Chart 6 presents the distribution of selected interim situations by final disposition of the case. For example, the blue line graphs the frequency of situations leading up to cases that ultimately became successful interviews. The pink line charts cases that were classified as ‘no one home’ and the green line charts cases finally transmitted as refusals. The most common scenario leading up to all three cases was a personal visit, no one home, albeit it was more common in cases that received a final code of no one home. In fact, the top three interim outcomes for no one home cases are not very surprising with the most frequent being personal visit, no one home; the second being telephone, no contact; and the third a personal visit, environmental/physical barrier.

The most common scenario leading up to a completed interview was a personal visit, no one home followed by a personal visit, respondent too busy followed by telephone, no contact. Prior to classifying a case as a refusal, the most common contact attempt was a personal visit, no one home followed by telephone call, no contact followed by personal visit, respondent too busy. It is interesting to note that the interim category of ‘respondent refused’ was reported in less than 10% of the attempts leading up to cases ultimately determined to be refusals. It is also noteworthy to mention that environmental/physical barriers rarely appear to predict cases that ultimately became refusals. More likely, these impediments increase the number of contacts and lengthen the time needed to either secure an interview or close out a case as a ‘no one home.’

Chart 7 graphs the distribution of contacts by day of week and time of day. Specifically, it illustrates the day/time distribution when interviews were successfully completed (the blue line) contrasted with the distribution of attempts that resulted in an interim ‘no one home’ status (pink line). Day of week and time of day are combined into 7 categories separating weekdays from weekends and dividing time of day into four major spans. The most successful day/time combination for interviews was weekdays between 5:00-9:00 pm (36%) followed by weekdays between noon and 5:00 pm (28%). Saturdays and Sundays between noon and 5:00 pm yielded another 10% of interviews.

Contact attempts resulting in ‘no one home’ were tried most often during a weekday between noon and 5:00 pm. Considering this is the second most successful time/day combination for interviews, the data suggest interviewers are being pretty efficient with their visits. However, additional efficiencies might be gained if field representatives shifted slightly away from this slot

and concentrated more visits in the 5-9:00 pm weekday period.

Conclusion

The Response Rate Summit proved to be a good catalyst for formulating research initiatives to deal with nonresponse. While many of the ideas were not new, the panel provided a forum for academia, survey managers, production staff, and field personnel to discuss a common problem and possible solutions. As a result of the Summit, the participating agencies are moving forward on at least two of the top five recommendations. These include the design of an automated call history instrument for face-to-face surveys and the wider implementation of a special refusal aversion training for interviewers. We are grateful to the panel members who were willing to attend the Summit and lend their expertise on the vital topic of increasing participation in government surveys.

Acknowledgments: I would like to thank Pat Doyle, Adele Alvey, Elaine Hock and Liz Griffin for technical assistance with the data and help in conducting this research. I would also like to acknowledge Nancy Cioffi for keying the contact history logs.

References

- American Association for Public Opinion Research (2000). *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Survey*. Ann Arbor, Michigan: AAPOR.
- Groves, R. M. And McGonagle, K. (2001). A Theory-Guided Interview Training Protocol Regarding Survey Participation. *Journal of Official Statistics*, Vol. 17, No. 2, pp. 249-265.
- O'Brien, E.M., Mayer, T., Groves, R.M., and O'Neill, G.E. (2002). Interviewer Training to Increase Survey Participation. A paper presented at the American Statistical Association annual meetings, New York, N.Y.
- Oneto, A. (2003). National Health Interview Survey Response Rates: Influences and Interviews. A paper presented at the FCSM 2002 Statistical Policy Seminar, November 6-7, Bethesda, MD.
- Purdon, S., Campanelli, P. And Sturgis, P. (1999). Interviewers' Calling Strategies on Face-to-Face Surveys. *Journal of Official Statistics*. Vol. 15, No. 2, pp. 199-216.

Chart 1: Mean Number of Contacts/Contact Attempts

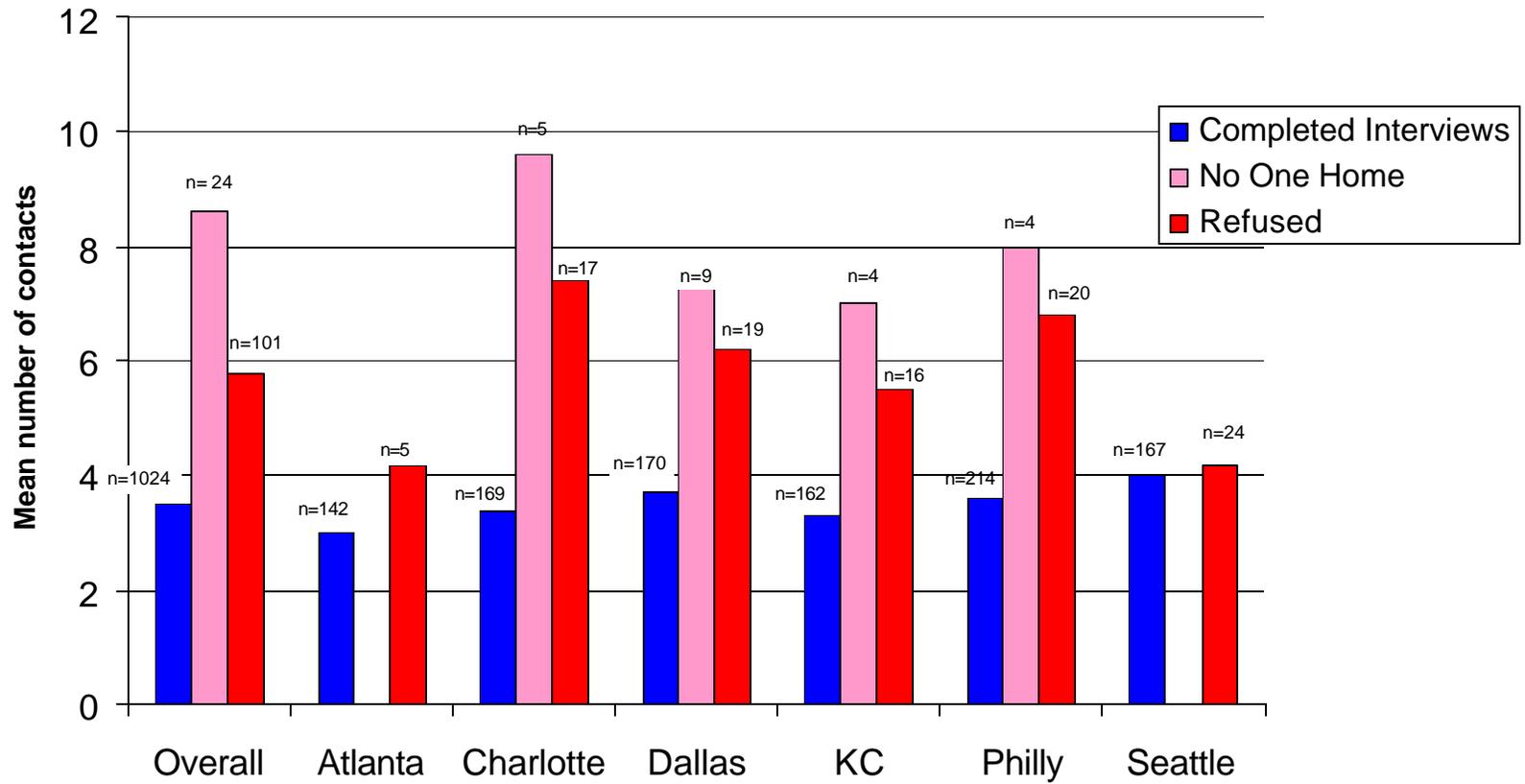


Chart 2: SIPP Methods Panel, 2002, Wave 1: Case Status by Contact Number/Contact Attempt (n=1304 cases)

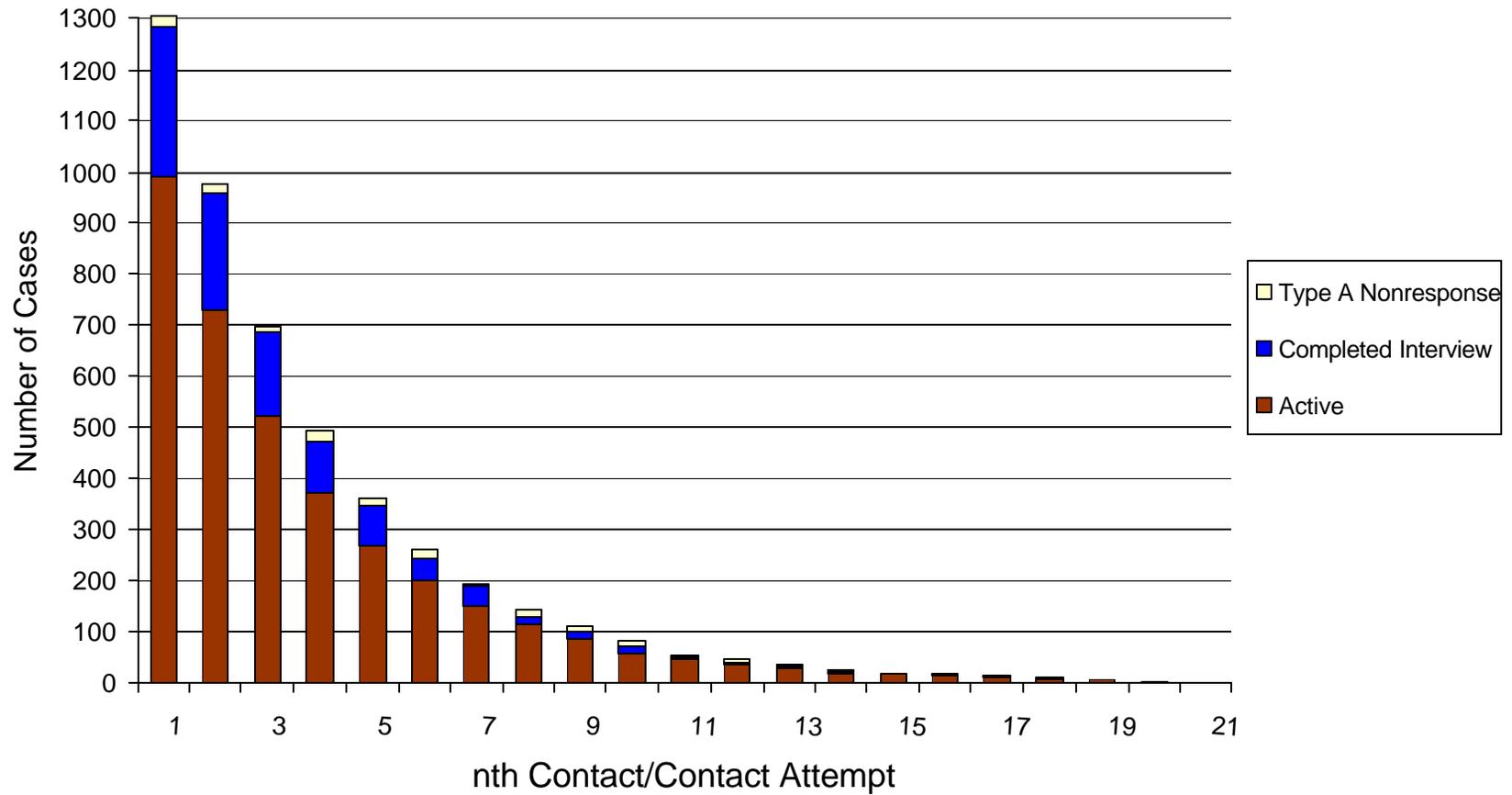


Chart 3: Number of Completed Interviews by Contact Number
(n=1024)

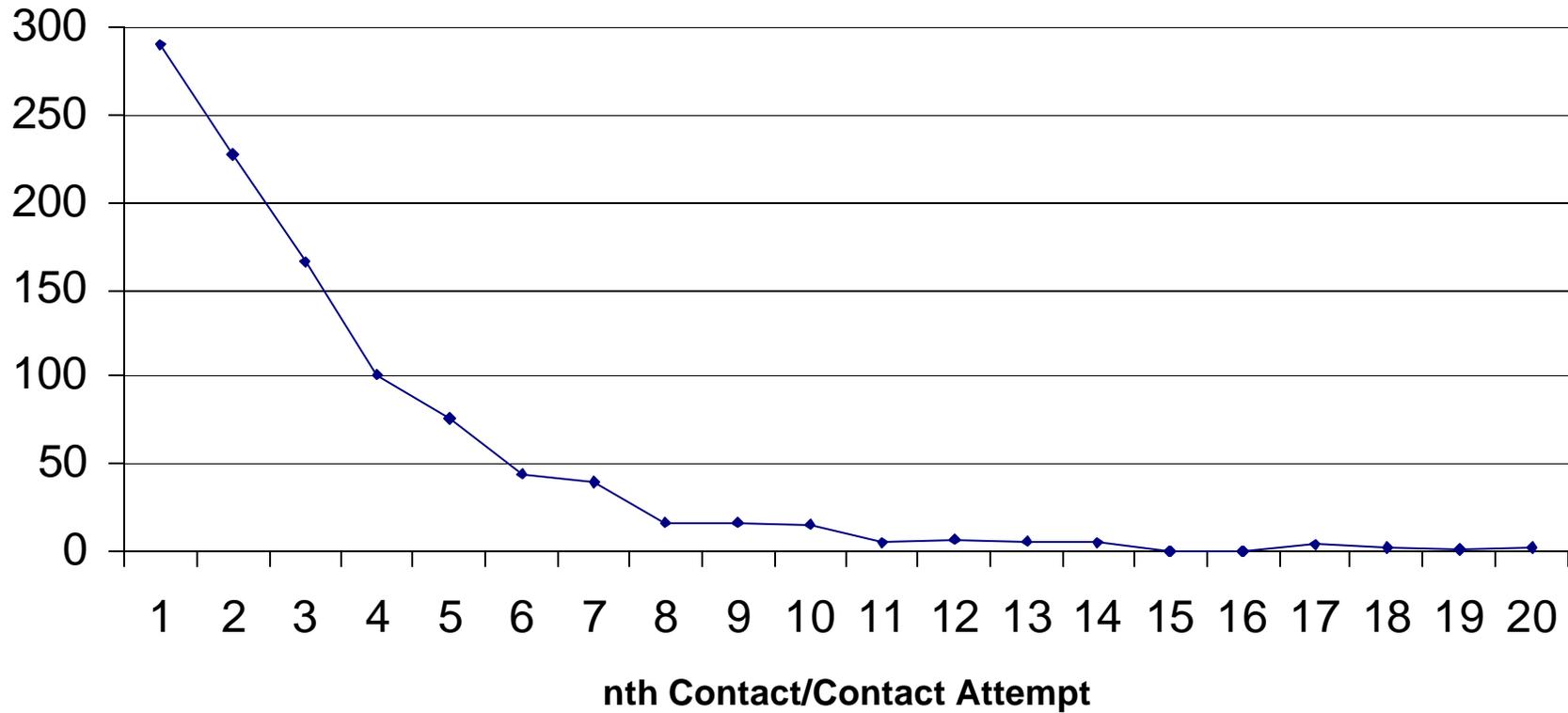


Chart 4: Percentage of Successfully Completed Interviews Based on Number of Cases Attempted by Contact Number

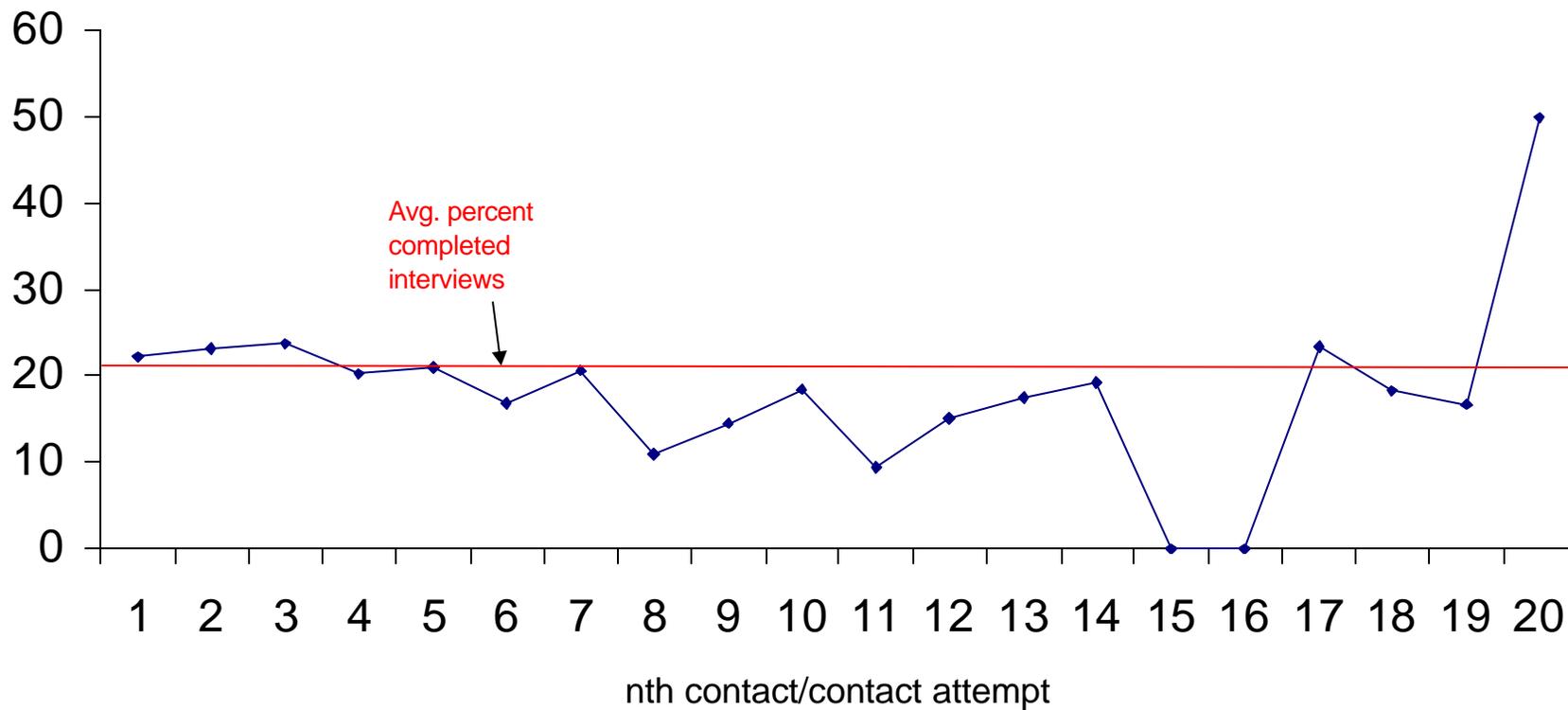


Chart 5: SIPP Methods Panel, 2002 Wave 1:
Interim Status Distribution Prior to Final Disposition
(n=3,821 interim contacts)

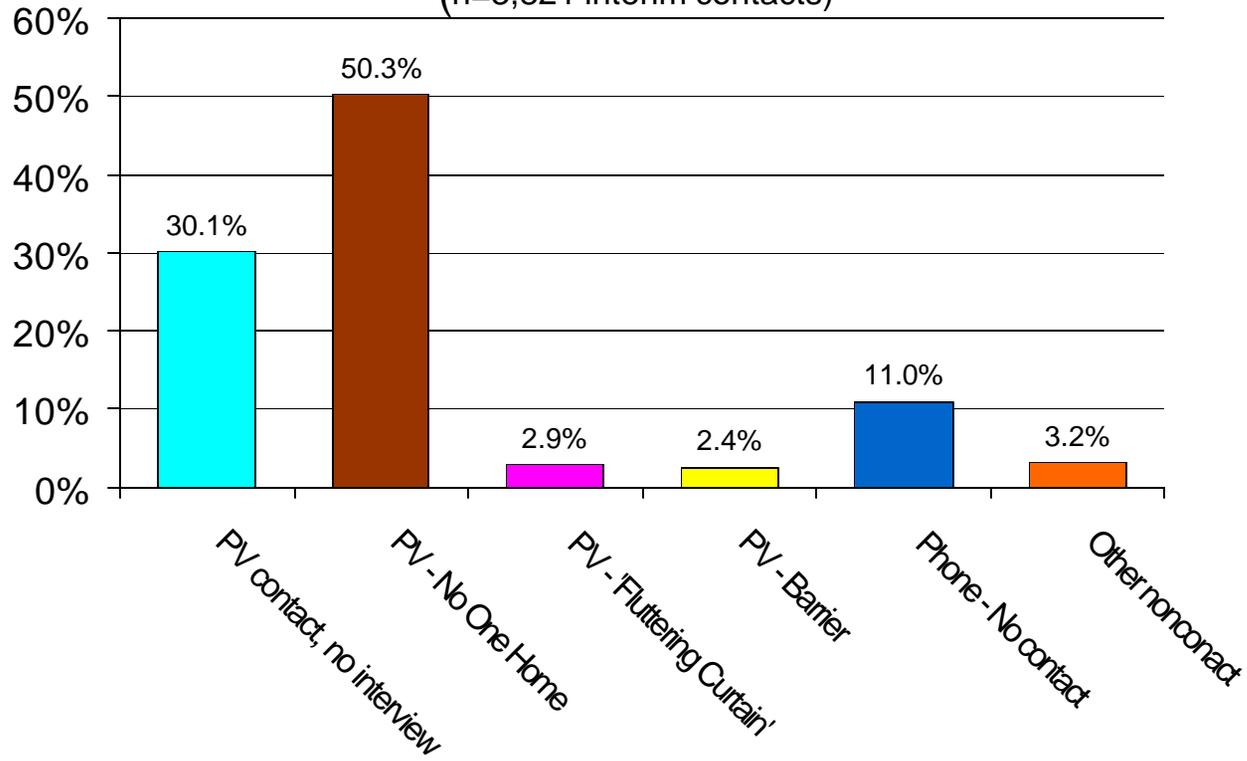


Chart 6: SIPP Methods Panel, 2002 Wave 1:
Interim Outcome by Final Disposition
(n=3306 interim contacts)

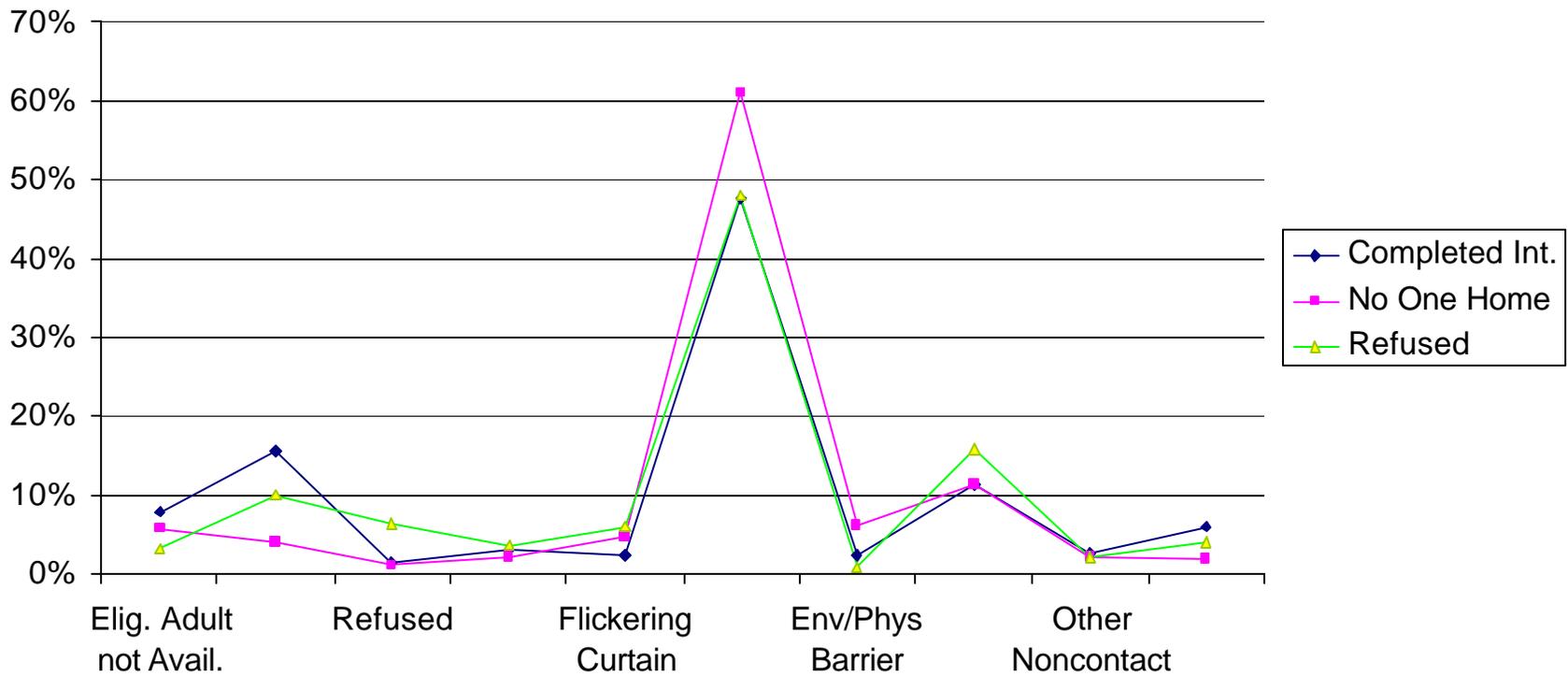
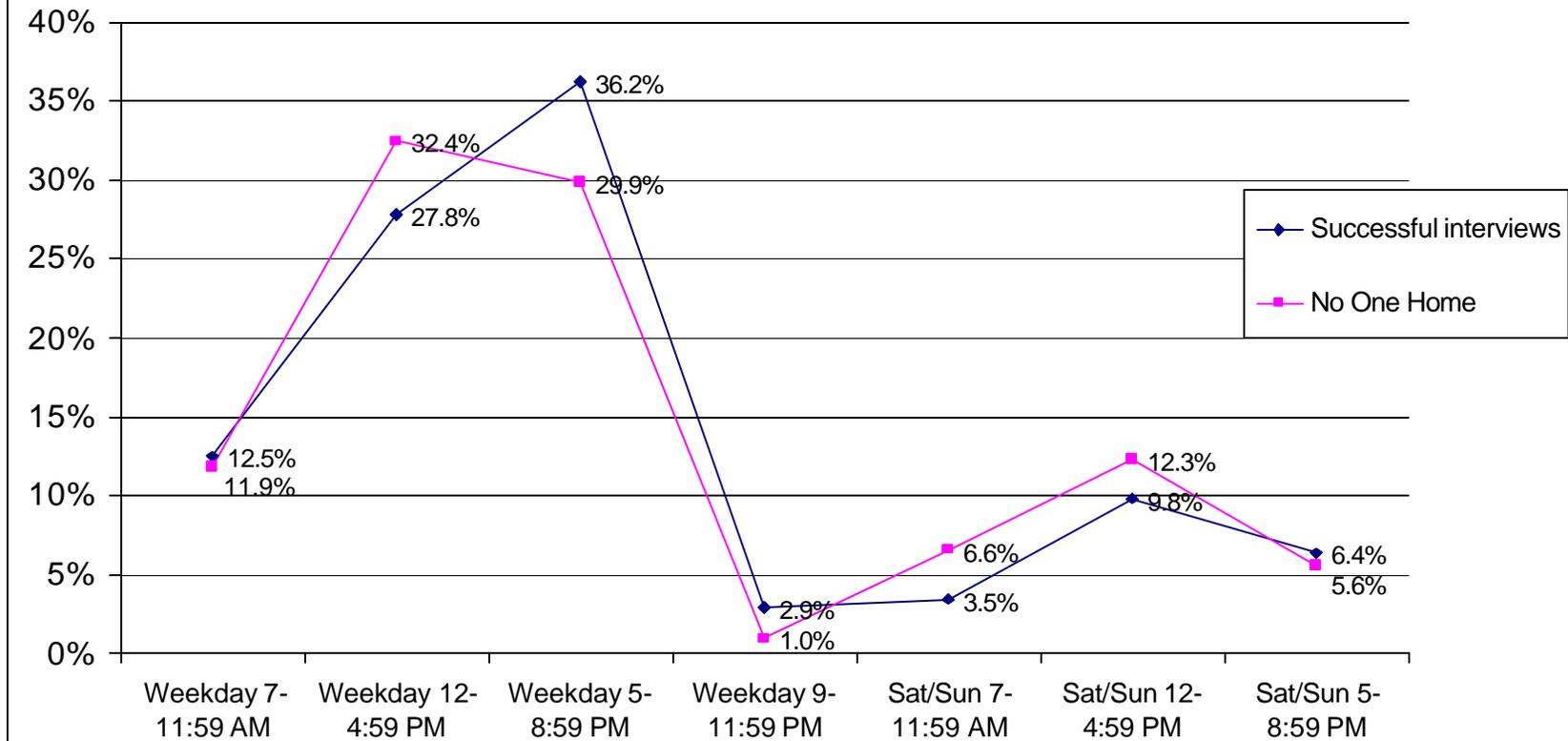


Chart 7: Time/Day of Contact for: Successful Interviews and No One Home



MPSIPP WAVE 1 INTERIM OUTCOME CODES

<u>Contact</u>		<u>Contact</u>		<u>Contact</u>	
<u>Code</u>	<u>Definition</u>	<u>Code</u>	<u>Definition</u>	<u>Code</u>	<u>Definition</u>
01	Eligible HH Member Not Home	06	Respondent too Busy, Appointment Set	11	Respondent Refused - Followup Required
02	Language Problem - No Translator in HH	07	Respondent too Busy, Unable to Set Appointment	12	Partial Interview - Followup Required
03	Eligible HH Member Hospitalized	08	Appointment Broken - Rescheduled	13	Instrument Problems
04	Eligible HH Member has Mental Problems	09	Appointment Broken - Not Rescheduled	14	Other [Specify in Column (e)]
05	Death in the HH	10	Respondent Refused - Requested Survey Info		

<u>Non-Contact</u>		<u>Non-Contact</u>		<u>Non-Contact</u>	
<u>Code</u>	<u>Definition</u>	<u>Code</u>	<u>Definition</u>	<u>Code</u>	<u>Definition</u>
15	HH did not answer door, even though there is evidence someone is at home	20	Informed that HH is Seldom Home	26	Telephoned - Got a Busy Signal
16	No One Home, Left a Note	21	Unable to Reach - Unsafe Area (Drugs/Crime)	27	Telephoned - Left a Message on Machine
17	No One Home, No Note left	22	Unable to Reach - Unsafe Area (Dogs/Animals)	28	Telephoned - Disconnected, Wrong #, FAX
18	Informed that HH is on Vacation	23	Unable to Reach - Gated Community	29	Telephoned - No Answer
19	Informed that HH is on Business Travel	24	Unable to Reach - Locked Gate	30	Telephoned - Call Blocked
		25	Unable to Reach - Buzzer Entry	31	Other [Specify in Column (e)]

INSTRUCTIONS FOR COMPLETING THE CONTACT LOG

<u>ITEM</u>	<u>SPECIFIC INSTRUCTIONS</u>	<u>ITEM</u>	<u>SPECIFIC INSTRUCTIONS</u>
1	Enter your (S)FR code.	7a	Enter today's date.
2	Enter the control number from the "Control Number" column on the case list screen.	7b	Enter the time that you visited or telephoned the case. Then circle the appropriate time of day: if before noon, circle "am" OR if after noon, circle "pm."
3	Enter the HU address from the "Address" column on the case list screen.	7c	Circle "PV" if you made a personal visit to the case. Circle "Tele" if you contacted the case by telephone.
4	Circle the appropriate regional office. (<i>Only circle one.</i>)	7d	For each contact (other than the final contact), enter the two-digit interim outcome code from the list at the <u>bottom of the Contact Log Form</u> . On the final contact line, enter the three-digit outcome code from the list <u>below</u> .
5	Circle "Test" if the case has a "T" in the T/C column on the case list screen. Circle "Control" if the case has a "C" in the T/C column on the case list screen.	7e	Further explain interim outcome codes 14 and 31, or any additional comments you feel are necessary.
6	Enter the case ID number. Highlight the appropriate address on the case list screen and press the F3 function key. The case ID number is in the upper, right-hand corner of the F3 screen.		

Note that you must complete a line on the contact log every time you visit or telephone a case.

MPSIPP WAVE 1 FINAL OUTCOME CODES

Code Definition

INCOMPLETE CASES

200	New case - not started
202	Started - no interview or insufficient partial
204	Partial - Missing data (callback items)
206	Partial - 1 or more persons incomplete (not missing callback items)

COMPLETED CASES

201	Completed interview
203	Complete partial - Missing data; No Type Zs; No followup
207	Complete partial - Type Zs; No further followup

TYPE A NONINTERVIEWS

213	Language problem
214	Unable to locate
215	Insufficient partial
216	No one home (NOH)
217	Temporarily absent (TA)
218	HH Refused
219	Other occupied (specify)

Code Definition

TYPE B NONINTERVIEW

223	Entire HH Armed Forces
224	Entire HH age 14 or under
225	Temporarily occupied by persons with URE
226	Vacant - Regular
227	Vacant - storage of household furniture
228	Unfit, to be demolished
229	Under construction, not ready
230	Converted to temp. business or storage
231	Unoccupied tent or trailer site
232	Permit granted, construction not started
233	Other (specify)

TYPE C NONINTERVIEWS

240	Demolished
241	House or trailer moved
242	Outside segment
243	Converted to perm. business or storage
244	Merged
245	Condemned (and unoccupied)
246	Built after April 1, 1990 (does not apply to Area frame - Non-Permit)
247	Unused serial number or listing sheet line
248	Other (specify)

National Health Interview Survey Response Rates: Influences and Interventions

Adrienne Oneto
U.S. Census Bureau

and

Lindsey Dougherty
U.S. Census Bureau

Introduction

The National Health Interview Survey (NHIS) is a national, cross-sectional household interview of the United States noninstitutionalized civilian population. The NHIS, which has been conducted annually since 1957, obtains information about the health status, the amount and distribution of illness, its effects in terms of disability and chronic impairments, and the kind of health services people receive. Annually rotated supplements gather data on special, emerging topics such as: AIDS, cancer risk factors, immunization, disability, family resources, access to care, health care coverage, mental health, and alternative medicines. The NHIS is sponsored by the National Center for Health Statistics (NCHS).

The survey has extensive field activities, operating out of 12 regional offices (ROs) across the nation. A new data collection cycle begins every January. Refresher training for the NHIS Field Representatives (FRs) is conducted during the first two weeks of January every year. New hires are trained throughout the year to replace attriting FRs. The NHIS sample is distributed to the FRs weekly, with a nationwide average of 1460 cases per week, or approximately 122 cases per RO. Each FR works two assignments each month, and the average assignment size is 20 cases. The “interview week” begins on a Monday and spans 16 days.

In 1990, the NHIS household response rate was 95.6%, compared with the 2001 response rate of 89.3% (Table 1). To analyze this trend, we concentrate on the “Type A” rate, which measures nonresponse for households that are eligible to be interviewed. The “Type A” nonresponse rates over the same time period have inclined from 4.4% in 1990 to 10.7% in 2001 (Table 2). A larger portion of that increase is attributable to refusals rather than the “no one home” or “temporarily absent” rates, or other traditional “Type A” reasons (Table 3).

Most of our demographic survey response rates reflect the complexities of an increasingly difficult survey environment and a more challenging respondent landscape. Contributing to the problem is a nationwide disenchantment with surveys, a somewhat negative perception of the federal government, a greater number of gated communities, heightened concerns about security and privacy, and the economic challenges of personal visit interviewing. A number of different influences have contributed to NHIS nonresponse, and multiple interventions are being put in place to address response rate issues.

The National Health Interview Survey Response Rates: Influences

A series of events have influenced NHIS response rates throughout this period spanning 1990 through 2001 (Table 4). For example, in 1993 six alternating weeks of interviewing were cancelled in the third quarter, enabling FRs to concentrate more on lighter workloads. In 1994 and 1995, FRs dealt with two large supplements resulting in an interview that averaged an hour and a half; stacks of paper questionnaires proved daunting for FRs and respondents. Also in 1995, the survey switched to a 1990-based sample design, the government was shutdown for four weeks, and the NHIS implemented a screening operation in order to increase the reliability of certain minority statistics.

The NHIS saw major operational changes in 1996 when it began the switch from Paper Assisted Personal Interview (PAPI) to Computer Assisted Personal Interview (CAPI). The CAPI pretesting took place in 1996, and the NHIS was in dual-mode PAPI/CAPI interviewing for the entire year. Nationwide CAPI interviewing was introduced in 1997, replete with a revamped instrument, computerized random sample person selection, and navigational complexities. An Informed Consent Process was introduced in 1999 by the NCHS' Institutional Review Board. The procedure calls for all survey respondents to sign a consent form - indicating that they have been fully informed about the NHIS prior to the beginning of the interview - and agree to participate. Many FRs report that the Informed Consent Process detracts from techniques they are trained to use to be persuasive in capturing an interview during that tenuous initial contact episode. The 2000 Census provided added publicity and a heightened sense of civic duty. Most recently, the events of September 11, 2001, imbued Americans with a pronounced sense of patriotism but also an increased need for security.

The National Health Interview Survey Response Rates: Interventions

Several initiatives are being discussed and implemented to ensure that, given the current survey environment, positive response rate influences are operationalized for the NHIS.

A. The Inter-agency Household Survey Nonresponse Group

The Inter-agency Household Survey Nonresponse Group (IHSNG) was formed in 1997, under the directive of Chet Bowie of the U.S. Census Bureau and Clyde Tucker of the Bureau of Labor Statistics. The mandate of the IHSNG is to examine nonresponse in major U.S. Governmental Surveys, including: the NHIS, the Consumer Expenditures Surveys, the Current Population Survey, the Survey of Income and Program Participation, the National Crime Victimization Survey, and more recently, the American Community Survey. Specifically, the goals of the IHSNG are to document nonresponse trends, quantify the consequences of nonresponse for the quality of survey estimates, and identify nonresponse causes and their potential solutions. The IHSNG maintains multi-agency participation, and is an extremely effective conduit for keeping nonresponse issues center stage.

B. Regional Office Remedies

In 2001, headquarters staff consulted with the Regional Directors to discuss concerns about household and sample adult response rates, partial interview rates, and survey costs. A series of

suggestions and recommendations resulted in a summary of ideas for our sponsor, NCHS, to consider (Table 4). Some of the suggestions for increasing response require less lead time to implement, while others require significant lead time and would incur additional costs. In addition, some of the long-term proposals involve changing unique features of the survey design. A Response Rate Summit in 2002 provided expert discussion of these remedies and recommended strategies for prioritization and implementation.

C. Response Rate Summit

Under the sponsorship of the U.S. Census Bureau and the IHSNG, a Response Rate Summit was convened in 2002. The purpose of the summit was to provide a forum for discussion among experts in the field about how to address concerns related to the decreasing response rate trend in household surveys. The NHIS was one of the two surveys chosen, since it represents national, cross-sectional household surveys. The following discussion summarizes NHIS progress on the top five summit recommendations.

1. Collect and Analyze Detailed Contact Record Data. The Response Rate Summit panel of experts gave a strong recommendation for the Census Bureau to develop a system that collects a case history of contact. Although case history information is reported for CATI surveys and for many prior PAPI surveys, the data are scattered in various files or not captured at all, and analysis has been sporadic at best. A Contact History Instrument (CHI) is being designed that can be called from case management as an external program, or automatically launched from the data collection instrument. The CHI routinely and systematically captures detailed quantitative and qualitative information on the nature of each contact attempt for survey cases. The program will automatically update dates, day, time, and maintain a cumulative counter of contacts. There will be a composite CHI record available as a management tool for both survey supervisors and supervisory field representatives during real-time data collection, to identify and assist FRs experiencing problems. CHI data will also be available for post-data collection analysis, to help survey managers better discern the patterns and reasons for nonresponse, and to design materials and procedures that support response achievement. Eventually, CHI is expected to be enhanced through an evolutionary process as it is implemented for longitudinal and mixed-mode surveys.

2. Implement Refusal Aversion Training. In 2001, we piloted the Census Response Achievement Field Training (CRAFT) for the NHIS, out of the Dallas and New York ROs. First, a round of teleconferences was conducted to generate a list of environmental cues, respondent characteristics, visual nonverbal cues, and verbatim respondent concerns that are associated with respondent reluctance specific to the NHIS. A second round of focus groups was conducted in person, and successfully generated situation-specific, tailored rebuttals that are effective in addressing respondent reluctance. Training materials were developed in August of 2001. A handbook was created to describe theory, list themes of reluctance, and provide examples of verbatim respondent concerns along with appropriate verbatim rebuttals. Exercises were created that involved active listening, role playing, and more. Training in both ROs focused on five steps to encourage survey response: prepare for the visit; engage in active listening; diagnose the respondent's main concern; quickly identify a situation appropriate response; and then quickly deliver a clear and brief response. In November, a Dallas and New

York debriefing teleconference produced recommendations for several training modifications: less lecture, more time and flexible use of exercises, small groups, and follow-up.

Census staff are currently coordinating a nationwide implementation of CRAFT for NHIS. An hour-long Computer Based Training “home study” lecture component will precede the condensed version of the classroom training. CRAFT is scheduled for a pretest in June 2003, train-the-trainer sessions in November 2003, and nationwide implementation in January 2004.

In June 2000, a Blue Ribbon Task Force was convened to reengineer FR training to better equip our FRs to be successful in the current survey environment. The Interviewer Curriculum was developed as a series of generic modules using a short mock survey that all demographic surveys can use for initial training. This Blue Ribbon Interviewer Training will be piloted in 2003 for all Consumer Expenditure Survey new hires.

3. Promote Incentives for Respondents...Motivators for Interviewers. Monetary incentives were suggested as response motivators for NHIS interviews, particularly to address the partial response rate. Concerns about this recommendation are financial: the NHIS interview can have up to four respondents, and the control process for distributing and tracking incentives poses an additional cost. Still, incentives may be more cost effective than repeated callback attempts to reach sample adult or sample child respondents. Further research is needed to determine the optimum scenario for awarding incentives to respondents. Also, the NHIS budget is currently constrained by an ongoing reengineering project, and the upcoming 2000-based sample redesign.

An often repeated request from the Field staff to modify the way we currently handle screener cases in our production measures would certainly boost FR morale. Households targeted for screening and appropriately screened out could be included in a revised calculation as a screener/response measure. We need to further discuss whether this should represent an additional or a replacement calculation of completed cases, and the appropriate time to introduce this revised calculation.

The true impact of Informed Consent on the NHIS is difficult to measure, although our Field staff believes the process has negatively affected both response rates and cost. The sponsor’s Institutional Review Board has agreed to discontinue the consent process in 2003 – a decision extremely well received by NHIS FRs.

4. Consider Changes in Sample Design...Survey Design. Recommendations for improving response rates involve sample design and survey design issues. Panelists agreed that the current weekly sample design creates a short field period, which can increase noncontact rates and lead to decreased response rates. We did a preliminary test in the Atlanta Regional Office for the fourth quarter of 2001 to add an additional weekend for NHIS interviewing. More specifically, we delayed the start of the NHIS interviewing week from a Monday to a Wednesday, which introduced a third weekend into the 2½-week interviewing period. Our FRs continue to report a heavy reliance on weekends to obtain a large portion of their interviews. While Atlanta FRs were very appreciative of the additional weekend, the desired increase in response rates was not achieved. Also, this reconfigured interviewing week with the additional weekend increases interviewing costs.

Another more significant sample design change recommended the substitution of a monthly sample design for the current weekly sample design. Although interviewing would occur all through the month, this design would enable our field staff to plan their itineraries more efficiently, particularly when overnight travel and per diem are involved. We would attempt to balance the work across weeks, but the flexibility to interview adjacent units that would normally be assigned in different weeks could result in significant economies of scale. A monthly sample design also mitigates the conflicts posed by multiple survey assignments. This is not an insignificant sample control change, however, and we would need adequate lead time to modify and test our systems. During initial discussions, the sponsor was not in favor of such a radical sample design change, citing data comparability for trend analysis, the periodic need to cut weeks of sample, and preservation of their ability to make weekly estimates.

Survey design recommendations addressed the length and complexity of the NHIS interview. We get feedback that respondents break off because the survey is too long, that many of the questions are too wordy and confusing, and that some question series are redundant. The longer and more complex the interview, the harder it is to deal with respondents' frustration and irritation and maintain their participation. Our FRs continue to urge us to move income and other sensitive questions to the end of the interview, to replace very detailed income questions with fewer and more straightforward questions, and to provide respondents the option of selecting from a broader income range up-front. Instrument design and interview length issues require more evaluations and proposed solutions from both agencies.

5. Redesign the Advance Contact Materials. The Response Summit panelists recommended that we revolutionize our initial contact materials. We believe that a proposed series of revisions to the Advance Letter—in style, format, and content—would result in a more favorable first contact with prospective respondents. Suggested changes include the following: a friendlier tone, a larger font, substituting median for average length of interview and moving it to the back of the letter, curtailing the emphasis given to the voluntary nature of the survey, moving the discussion of the Social Security and Medicare numbers to the back of the letter (with questions and answers), and directing all questions and concerns about the survey to the appropriate RO rather than to NCHS' Institutional Review Board's voice messaging service. We continue to work with the sponsor to improve the Advance Letter.

Panelists also suggested that engaging publications that discuss data uses would help boost respondent interest. The NHIS Promotional Packet is being revamped for 2003. The sponsor has also begun to issue early releases of their data, which we quickly get into the hands of our FRs.

D. Response Rate Summit Recommendations: Charting Our Progress

Clearly our progress on these Response Rate Summit recommendations is more advanced in some areas than others (Table 5). Both the CHI and the CRAFT endeavors are scheduled to be implemented in January 2004, coincidental with the introduction of the reengineered NHIS. We are confident with our progress on both of these initiatives. Respondent incentive initiatives are currently in conflict with budgetary concerns, particularly at this time, with both 2004 NHIS

reengineering and 2000 based sample redesign competing for funds. Clearly, the decision on the issue of incentives lies with our sponsor. The Response Rate Summit panelists made a number of excellent suggestions regarding the motivating of FRs. While we have taken some action here, we could do more. Recommendations regarding sample design and survey design require further discussion and research. Steps are being taken to improve NHIS advance contacts, but we realize that much more could be done to improve the format and contact of these advance contact materials. Under consideration are: a colorful brochure with frequently asked questions, FR business card inclusion in the advance mailed letter, issuance of thank you cards for all FRs to use, advance letters tailored to the needs of each region, and more frequent dissemination of early release data newsletters to our FRs. Response rate problems continue to challenge NHIS operations and we are appreciative of the direction and guidance provided by the Response Rate Summit panel of experts.

Obtaining Respondent Cooperation Discussion

Richard L. Bitzer
U.S. Census Bureau

Response Rate Achieved in Government Surveys: Results from an OMB Study (Ruey-Pyng Lu, Energy Information Administration)

This remarkable paper summarized the results of a survey of over 200 data collection activities submitted to the OMB for clearance in 1998. The author used an easily understood, descriptive, consistent, and straightforward response rate definition which resulted in meaningful comparisons among the selected programs. The author is congratulated for having a 100% response rate and collecting/organizing a wealth of valuable data.

These data collections were conducted, generally speaking, through 2001, but it must always be kept in mind that the interviewing landscape changes constantly as evidenced by the recent shootings in the greater District of Columbia metropolitan area and the resulting impact on respondents and interviewers. This event was concurrent with the monthly administration of the Current Population Survey and served as a reminder of the spontaneous complexities of survey administration.

The author provided a complete distribution of unweighted response rates that showed 65.8% of ALL data collections achieved a response rate of 80% or more, the recommended standard for minimal documentation to the OMB for approval. He then selected relevant factors to describe the differences in response rates according to the components of these factors, such as the survey/census design, type, and data collection medium. The author provided great insight by displaying the number of data collections within these components by the response rates achieved in 10% increments from 30% to 100%. He also provided the average response rate for the total of all data collections by factor component, but did not calculate the percentage that achieved a specific response rate as he did for ALL surveys. The percentage (by my calculation) of a selected data collections in the study that had the lowest percentage achieving at least an 80% response rate, reveals that 59% of the Individual or Households Component (Household versus Establishment versus Government Factor), 60% of the Mail Survey Component (Data Collection Mode Factor) and 45% of the Telephone Interview Component (Data Collection Mode Factor) meet the 80% standard. Others across the balance of factors/components ranged from 64% up to the high of 94% of those meeting the 80% standard by my calculation. The 94% was the Government Component (Household versus Establishments versus Government Factor). This distribution of response rates might add an interesting bit of additional information to the evaluation.

The interventions to improve response rates were comprehensive and well stated. However, with the exception of the suggestion for improved training, these suggestions were geared primarily toward program design and respondent motivation but not specifically toward interviewer motivation, morale, and support. Additional support for interviewer management strategies would complement an already impressive list of tips to improve response rates.

The 2002 Response Rate Summit: Recommendations from an Expert Panel (Nancy Bates, US Census)

The author did a detailed job summarizing the results of the summit and the relative priorities. One of the most impressive things about the summit is the involvement of the field staff that work with the survey instruments and respondents on a daily basis.

In the final analysis, it is the responsibility of managers to provide the best system for employees who do the actual work. There is no better way to get feedback to improve the system than to ask those doing the task to explain the difficulties they encounter and suggest methods to overcome them. This is exactly what done in the presence of the experts who could put this into context.

The Call Record Information was listed as the highest priority and this, certainly, deserves such a ranking. The three most important pieces of information that are needed for optimal use in managing surveys (other than actual case data during the interviewing period) are:

1. The average number of calls to complete a case by interviewer,
2. The outcomes by attempt by interviewer and,
3. The successful outcomes by interviewer by day and time.

Using these data, a survey manager can easily determine what interviewers are making too many attempts and determine how those are distributed by call attempt. Combining this with the day and time by successful outcome by interviewer, the survey manager can diagnose potential problems and suggest ways to modify interviewer behaviors to be more productive. Later in the paper, the results of call history data from the MPSIPP Survey, show these data in the aggregate and provide a great starting place for developing a system to monitor interviewer performance.

The Refusal Aversion Training (RAT) listed second is another high priority area. Interviewers constantly ask for new ways to “convert” reluctant respondents. With the design based on feedback from experienced interviewers, this is another application of using feedback from those who are actually doing the work to promote continuous improvement.

The last three priorities, Survey Design, Improve Advance Contacts and Other Materials are good responses to common suggestions from interviewers. The very fact that interviewers suggestions are considered is a motivator by itself. In particular, interviewers always ask for simplified advance letters that are made possible by the suggestion to add a brochure with detailed information and a brief cover letter.

The Contact History data displays were invaluable. It was encouraging is see that the statistical results of the average number of contacts by final outcome (complete, refusal, and no one home) were confirmed by previous research (Purdon, S., Campanelli,P., and Sturgis,P. (1999)). The author suggested in her presentation that it would be valuable to try to determine the optimum average number of calls that should be made to a household before resulting in diminishing returns. The data seem to suggest 6-8 visits. However, I would suggest that 9-10 visits be given

some study to account for variation in different geographic areas and to preserve the highest possible response rate possible within resource constraints. The data also suggest that about 40% of completed interviews are done during the normal workday, another 40% during the weekday evenings and the balance on weekends. While the significant percentage of daytime interviews may be a function of how interviewers prefer to schedule their visits, one must remember that interviewers (US Government employees) who work after 6:00PM receive a 10% night differential salary premium. And, if an interviewer's productive time were limited to selected night/weekend hours, more staffing may be required to complete surveys by prescribed deadlines increasing training, recruiting, and administrative costs.

The author is commended for creating an excellent record of the expert proceedings and data analysis. The emphasis on input from field staff is the highlight.

National Health Interview Survey Response Rates: Influences And Interventions (Adrienne Oneto and Lindsey Dougherty, US Census)

The authors are to be commended for an excellent summary of the recent evolution of the National Health Interview Survey (NHIS). While the decline in survey response rates in general have decreased, the NHIS survey response rate decline from 95.6% in 1990 to 89.3% in 2001 may be related to other influences, both positive and negative. The authors pointed out the major influences:

1. The cancellation of six alternating weeks of interviewing in 1993,
2. The addition of two large (paper) supplements in 1994-1995,
3. The 1995 survey redesign (resulting from the previous Decennial Census),
4. The 1995 government wide shutdown,
5. The 1996 transition from paper to Computer Assisted Personal Interviewing(CAPI),
6. The completion of the CAPI transition in 1997,
7. The introduction of a written informed consent process in 1999,
8. The 2000 Decennial Census publicity, and
9. The historic 9/11tragedy.

Looking at these events along with the graph of response rates is a very compelling demonstration of how internal/external factors could easily be related to response outcomes. In all of these events, since interviewers and respondents were affected both must be considered in any treatment of response analysis.

Many of the interventions mentioned were already discussed in previous papers, particularly the primary importance of the Census Response Achievement Field Training (CRAFT referred to as RAT in the Bates paper) and the Contact History Instrument. On a specific note, caution must be used in the case of magnetic "trinkets" as respondent incentives, since they may cause problems with magnetic hard disks and other storage devices that interviewers rely on to perform their daily activities.

The author is congratulated for her research and presentation.

Reports Available in the Statistical Policy Working Paper Series

1. *Report on Statistics for Allocation of Funds*, 1978 (NTIS PB86-211521/AS)
2. *Report on Statistical Disclosure and Disclosure-Avoidance Techniques*, 1978 (NTIS PB86-211539/AS)
3. *An Error Profile: Employment as Measured by the Current Population Survey*, 1978 (NTIS PB86-214269/AS)
4. *Glossary of Nonsampling Error Terms: An Illustration of a Semantic Problem in Statistics*, 1978 (NTIS PB86-211547/AS)
5. *Report on Exact and Statistical Matching Techniques*, 1980 (NTIS PB86-215829/AS)
6. *Report on Statistical Uses of Administrative Records*, 1980 (NTIS PB86-214285/AS)
7. *An Interagency Review of Time-Series Revision Policies*, 1982 (NTIS PB86-232451/AS)
8. *Statistical Interagency Agreements*, 1982 (NTIS PB86-230570/AS)
9. *Contracting for Surveys*, 1983 (NTIS PB83-233148)
10. *Approaches to Developing Questionnaires*, 1983 (NTIS PB84-105055)
11. *A Review of Industry Coding Systems*, 1984 (NTIS PB84-135276)
12. *The Role of Telephone Data Collection in Federal Statistics*, 1984 (NTIS PB85-105971)
13. *Federal Longitudinal Surveys*, 1986 (NTIS PB86-139730)
14. *Workshop on Statistical Uses of Microcomputers in Federal Agencies*, 1987 (NTIS PB87-166393)
15. *Quality in Establishment Surveys*, 1988 (NTIS PB88-232921)
16. *A Comparative Study of Reporting Units in Selected Employer Data Systems*, 1990 (NTIS PB90-205238)
17. *Survey Coverage*, 1990 (NTIS PB90-205246)
18. *Data Editing in Federal Statistical Agencies*, 1990 (NTIS PB90-205253)
19. *Computer Assisted Survey Information Collection*, 1990 (NTIS PB90-205261)
20. *Seminar on Quality of Federal Data*, 1991 (NTIS PB91-142414)
21. *Indirect Estimators in Federal Programs*, 1993 (NTIS PB93-209294)
22. *Report on Statistical Disclosure Limitation Methodology*, 1994 (NTIS PB94-165305)
23. *Seminar on New Directions in Statistical Methodology*, 1995 (NTIS PB95-182978)
24. *Electronic Dissemination of Statistical Data*, 1995 (NTIS PB96-121629)
25. *Data Editing Workshop and Exposition*, 1996 (NTIS PB97-104624)
26. *Seminar on Statistical Methodology in the Public Service*, 1997 (NTIS PB97-162580)
27. *Training for the Future: Addressing Tomorrow's Survey Tasks*, 1998 (NTIS PB99-102576)
28. *Seminar on Interagency Coordination and Cooperation*, 1999 (NTIS PB99-132029)
29. *Federal Committee on Statistical Methodology Research Conference (Conference Papers)*, 1999 (NTIS PB99-166795)
30. *1999 Federal Committee on Statistical Methodology Research Conference: Complete Proceedings*, 2000 (NTIS PB2000-105886)
31. *Measuring and Reporting Sources of Error in Surveys*, 2001 (NTIS PB2001-104329)
32. *Seminar on Integrating Federal Statistical Information and Processes*, 2001 (NTIS PB2001-104626)
33. *Seminar on the Funding Opportunity in Survey Research*, 2001 (NTIS PB2001-108851)
34. *Federal Committee on Statistical Methodology Research Conference (Conference Papers)*, 2001 (NTIS PB)

Copies of these working papers may be ordered from NTIS Document Sales, 5285 Port Royal Road, Springfield, VA 22161; telephone: 1-800-553-6847. The Statistical Policy Working Paper series is also available electronically from FCSM's web site <<http://www.fcsm.gov>>.