STRIKING THE BALANCE BETWEEN PRIVACY AND PRODUCTION IN DEMOGRAPHIC SURVEYS: IMPLEMENTATION OF THE RESPONDENT IDENTIFICATION POLICY[1]

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Abstract: As a data collection agency, the U.S. Census Bureau is in the business of gathering information about individuals and households. Some topic areas are more sensitive than others and issues of confidentiality may arise when, for a variety of reasons, interviewers share information from an earlier interview with someone in the household other than the original respondent. To address potential privacy concerns about these practices, the Census Bureau instituted a Respondent Identification Policy (RIP) in 1998. The policy requires all demographic surveys to obtain respondent permission before disclosing any personal information to household members other than the original respondent during follow-up interviews. In this paper, we analyze data from two surveys and report on the willingness of respondents to allow disclosure of information to other respondents during subsequent visits. We also examine the characteristics of those who object to within-household disclosure. We acknowledge that the results included here are not the full impact of the RIP policy for two reasons. First, the RIP question is not always interpreted by the respondents as asking exclusively about privacy concerns. Second, a lack of willingness to allow disclosure of information only has an impact if the respondent for a set of questions changes between two rounds of interviewing.

Keywords: Dependent Interviewing, Within-Household Disclosure, Confidentiality

Introduction

In 1998, the U.S. Census Bureau developed a Respondent Identification Policy (RIP) for household surveys to better control and protect the sharing of personal information among members of an interview unit (Gates, 1998). Longitudinal surveys and data quality reinterviews use dependent interviewing techniques where interviewers reveal personal information from a previous interview to the current respondent during the process of reviewing, updating, or clarifying answers. If the current respondent is not the same as the prior respondent, information sharing results.

The Census Bureau's policy requires that interviewers can reveal information provided by one unit member (from a previous interview) to a different member of the same unit only if the original respondent has given authorization to do so. This authorization is determined at the end of the first interview, by asking if we may contact others in the interview unit to update information, in the event that the original respondent is not available. If the original respondent does not agree to this request, then dependent interviewing can be used in subsequent interviews only if conducted with the original

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[1]This paper reports the results of research and analysis undertaken by Census Bureau staff. It has undergone a Census Bureau review more limited in scope than that given to official Census Bureau publications. This report is released to inform interested parties of ongoing research and to encourage discussion of work in progress.

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respondent. In the absence of the original respondent, the subsequent interview can continue, but it cannot take advantage of any information obtained from the prior interview. This policy applies only to person-level data–household-level data, including composition, are exempt.

In this paper, we analyze the willingness of respondents to allow disclosure of information to other household members in the context of dependent interviewing. We begin this report with a summary of how the policy was developed and follow with a discussion of the context of the research, including concerns for the impact of RIP on data quality, a review of related research, and a description of the implementation of the RIP questions in two surveys. The potential implications of this policy are presented in the subsequent section where we analyze the number and characteristics of those who decline to share their information with another household member. We emphasize "potential" because respondents may interpret the RIP question more broadly than intended and because we have not yet analyzed the interaction between those who decline to share their information and those who are in a position to have their information shared. These issues are deferred to future research, as discussed in the concluding section.

The Policy

In 1997, staff expressed concerns to the Policy Office about a situation observed during an interview. The concerns centered around the fact that some information, including some thought not to be sensitive, was harming respondents when provided in subsequent interviews to another household member. One example involved a household where the wife reported a prior marriage to the field representative in the first interview. The field representative reported this fact to the husband in the subsequent interview as part of the roster update of household members' demographic information. The husband was unaware of his wife's first marriage.

Although the Census Bureau has traditionally recognized and protected privacy for <u>all</u> members of the household, it had not considered the importance of privacy for <u>each</u> household member until this point. The need for a policy review was clear given that dependent interviewing was likely to grow in use, that household relationships were likely to continue to be complex, and that privacy concerns were growing in the era of the Internet (Zeller, 2001)

The decision on the current policy was made after careful analysis of the various uses of dependent interviewing—roster updates, quality checks, and the use of feedback. Business surveys were excluded since it was determined that establishment-provided information is not disclosed to the parent company or another establishment within the company. Further, it was decided that quality control checks involving only name and address would not be subject to the policy given that this information was routinely checked in the census and was not considered sensitive. The policy was limited to information on individuals, thus not applying to household characteristics, such as number of rooms or telephones. Information provided by non-household members could not be revealed in subsequent interviews with household members.

Operational considerations were important to the policy. A blanket decision to prohibit dependent interviewing for certain survey operations or sensitive questions did not seem warranted or appropriate. However, we needed to provide a means of instructing field representatives about who

provided the prior information and who was authorized to see it in subsequent interviews. After careful analysis and considerable internal discussion, a compromise solution was reached where the field representative would ask the respondent that provided information for himself or for another household member, who in the household we may contact to update the information if they are not available. Only those persons so identified may be provided prior information.

To facilitate implementation, and not disrupt current survey operations, adherence to the policy was subject to the status of the survey. The 2000 Census and all new demographic surveys were immediately subject to the policy. Existing surveys would be subject to the policy when their samples were redesigned following Census 2000. This was important to minimize operational and methodological disruption that could negatively affect important time series. Further, it allowed for evaluations related to the characteristics of those persons who declined to permit dependent interviewing and how they differed from those who agreed. This would be important in understanding what bias might be introduced as a result.

The process that led to the RIP was hard but quite successful. While maintaining the status quo is easy and least disruptive in the short term, all parties recognized that this issue was important and worked together to find a solution that met legal requirements, supported Census Bureau policy, and was operationally attainable. The Census Bureau's respect for respondent's privacy was the overriding issue and the policy was successful in meeting that goal.

Context of the Research

Quality Concerns. The introduction of this policy has been of some concern to cognitive survey researchers and to data users, because of its potential lack of clarity to respondents and its potential impact on data quality. One area of concern is whether the respondents understand questions or concepts like the RIP and are answering the questions we are trying to ask. The Census Bureau conducted two cognitive tests of the RIP question wording for this study, resulting in wording that conveyed the intent of the question and that was flexible enough to accommodate use for surveys with different field periods (DeMaio and Hughes, 2001). However, concern still remains that respondents interpret the context of the question in a broader context than the RIP policy.

Another area of concern is the impact of this policy on the use of dependent interviewing, which reduces certain types of measurement error, reduces respondent burden and increases the efficiency of the interview (Mathiowetz and McGonagle, 2000, U.S. Department of Labor and U.S. Department of Commerce, 2000, and Dibbs, et al., 1995). For example, the Survey of Income and Program Participation (SIPP) uses dependent interview questions like the following: "Last time we recorded that [name] got disability income. Does [name] still receive it?" The objective is to reduce spurious changes in how income is classified from one interview to the next and to help the respondents pinpoint the timing of a change in recipiency, should that occur. The introduction of the RIP will likely be accompanied by a reduction in the use of dependent interviewing such as that used in SIPP and with that an expected increase in measurement error and reduction in data quality.

Dependent interviewing increases interviewing efficiency by reducing repetitions of questions over time and thus lowering respondent burden. For example, the Current Population Survey (CPS) uses

dependent interviewing to avoid repeating industry and occupation questions over time, for a person with the same job (U.S. Department of Labor and U.S. Department of Commerce, 2000).

As noted, not all information used in dependent interviewing is covered by the RIP policy. In particular, information about the unit as a whole (which is expected to be known to all persons in the unit) is exempt. This includes answers that establish who was present in the unit at the time of the prior interview, and who (of those present in the prior interview) has left.

The interesting feature about this policy, which many find confusing, is its interaction with the policy of collecting proxy interviews. If we want to interview person *A* at time *t* and that person is absent, many surveys will allow us to collect person *A*'s characteristics from person *B* (acting as a proxy). If person *B* says that none of the information he provided in time *t* can be revealed to anyone in time *t*+1 or later, then we cannot recall person *A*'s characteristics from time *t*, when interviewing person *A* in time *t*+1 (unless, of course, person B is the proxy for person A again in the latter interview).

Related Research. In 1999, the Census Bureau's Questionnaire Design Experimental Research Survey (QDERS) tested respondent reaction to the RIP policy. The QDERS was a random-digit-dialing (RDD) survey that collected data to study questionnaire design issues. The survey asked questions on a variety of topics, including health insurance coverage, physical disabilities, asset ownership, and income recipiency. The QDERS response rate was about 40 percent. At the end of the survey, interviewers asked the following question (in households with two or more adults): "The Census Bureau sometimes recontacts households, for quality control or to update information. If we do that and talk to someone else in the household, is it OK to refer back to the answers you gave today?"

If the answer was "no" or "don't know," interviewers asked what concerns the respondent had about the procedure. Of the population eligible for the question, 6% did not agree to the request for disclosure (Loomis, 1999). Those who would not allow disclosure often refused on the basis of something other than privacy concerns. In fact, write-in entries suggested some lack of comprehension of the RIP question; that is, respondents answered "no" because they did not believe any other household members could or would participate in future surveys, or because they believed the question asked about their willingness to participate in follow-up surveys.

Data. We used two data sources in the conduct of this study, the American Housing Survey (AHS) and an experimental survey conducted as part of the SIPP. In each case a RIP question was administered to respondents in households that had two or more adults present, or would have by the time of a subsequent interview. The AHS collects data on the nation's housing—including apartments, single-family homes, mobile homes, and vacant housing units. National (AHS_N) data are collected every other year, and household units remain in the sample over time (Demographic Surveys Division, 2001). This study uses data collected for the AHS-N during August through November 1999, with a sample of approximately 61,000 addresses and a response rate of 91 percent. The interview lasted about 35 minutes on average and consisted of a series of questions on selected housing and demographic characteristics. At the end of the survey, interviewers asked the following question of all respondents in households with two or more adults: "We contact households every

two years for this survey. If we talk to someone else in your household next time, instead of you, is it OK if we use your answers as a starting point?"

The SIPP is a longitudinal survey conducted by the Census Bureau to provide data on the distribution of income, wealth, and poverty in the United States—and on the effects of federal and state programs on families and individuals (U.S. Census Bureau, 2001). Of particular note for this paper, it is primarily a person-based survey, administering a battery of question to each person age 15 or older (or their proxy) in interviewed households.

In 2000, the SIPP program initiated a research and development project—called the Methods Panel Project—to develop and test changes to the instrument, and to improve data quality and the administration of the instrument (Doyle, Moore, and Martin, 1999). We used the SIPP methods panel Wave 1 instrument fielded in the summer of 2000 to analyze the impact of RIP. That survey included 854 households and 2170 persons in a treatment group with a response rate of 83 percent and 842 households and 2122 persons in the control group with a response rate of 85 percent. Both the treatment and control instruments incorporated the following question: "....The Census Bureau sometimes recontacts households for quality control or to update information. If we do that and talk to someone else in the household, is it OK to refer back to the answers you gave today?"

The Potential Implications of the Policy

The analysis in this paper is of individuals' responses to the initial question on whether it would be "ok" to share information with another household member, should another respondent be asked to update information in a subsequent interview. This is not the full impact of RIP because the policy only has an effect if the respondent changes between two rounds of interviewing. Analysis of the full impact will be included in a future research project, once we have the data to analyze the interaction of RIP and changes in respondents. This is also not a measure of the true impact of the policy because the question as now posed is not strictly a question about privacy concerns. It also encompasses concerns for the ability or willingness of other household members to respond.

Table 1 reveals that a large majority of respondents agreed to the disclosure request. In AHS, approximately 8 percent declined and close to 4 percent answered "don't know" or "refused." Thus, there are about 12 percent of sample units in AHS where field representatives cannot use dependent interviewing techniques in subsequent visits, should the original respondent not be available. In the 2000 SIPP Methods Panel, where we classified households as declining the disclosure request if the household respondent declined, we found 17 percent declined. Among adults (i.e. persons age 15 or older) in the methods panel project, we found 17 percent of the sample declined and 5 percent for whom their opinions were not stated. Thus, there is up to 22 percent of the sample for whom interviewers cannot recall information in follow-up interviews. As noted, the figures in Table 1 overstate the limitations on the use of follow-up interviews, as the limitation only applies if the respondent for a given set of questions changes from one interview to the next.

The percent of those in AHS who did not agree to dependent interviewing with a different household member was close to, but slightly higher than that reported in Loomis (1999). The methods panel results were significantly higher than that for the Loomis study and AHS. Neither survey asked

follow-up questions for those declining the request, so they lack any qualitative information regarding why people objected and whether their reasons were related to privacy concerns.

Table 1. Response Distribution to RIP Question

	Percent		
In households with two or more adults:	**AHS N = 32,514**	**Methods Panel Households N=1,204**	**Methods Panel Adults N=2,784**
Agreed to disclosure	88.5	78.5	78.5
Declined disclosure request	8.1	16.8	16.6
Answered "Don't know"[3]	3.2	4.6	4.6
Refused	0.2	0.2	.2
Total	100.0	100.0	100.0

To explore whether those who objected to disclosure share certain characteristics, we conducted a series of chi-square tests on selected respondent characteristics and response to the RIP question. (See Table 2.) We restricted the universe to units with responses to the RIP question.

Table 2. Respondent Characteristics by Percent Declining RIP Request

Characteristic		AHS		Methods Panel			
				Households		Adults	
		Declining	**N**	**Declining**	**N**	**Declining**	**N**
Age	<65	8.2%*	31,228	17.7%	1141	17.0%	2593
	>65	9.3%		17.5%		20.4%	
Sex	Male	7.7%***	31,277	17.3%	1145	17.2%	2647
	Female	8.9%		18.0%		17.6%	
Marital Status	Married	6.7%***	31,264	15.5%***	1145	16.0%*	2647
	Not married	13.2%		22.4%		19.7%	
Race	White	7.7%***	31,277	16.6%*	1142	16.9%	2641
	Non-White	11.7%		21.3%		19.0%	
Ethnicity	Hispanic origin	11.1%***	31,277	11.7%	1134	12.5%*	2628
	Not Hispanic	8.1%		17.8%		17.6%	
Education	Less than high school	10.0%***	31,264	18.9%**	1145	20.2%***	2647
	High school degree	8.0%		19.2%		17.4%	
	Some college or more	8.1%		16.4%		16.2%	
X^2 significant at *.10, **.01, or ***.005 level							

The AHS results indicate that respondents who are elderly, female, not married, non-White, of Hispanic origin, or who have less than a high school education are more likely to decline the RIP request, compared to respondents not having these attributes. In spite of the much smaller sample

[3] "Don't know" includes persons who could not be asked the question because they were no longer available to be interviewed when the question was posed or the interview was discontinued before the RIP questions were administered.

size, methods panel results confirm the AHS results for marital status and education and to a lesser extent for race. The results for ethnicity are reversed in methods panel and AHS but the methods panel differences are not highly significant. Of the characteristics examined, marital status appears to have the strongest relationship, with significantly more single respondents objecting across both surveys and across household respondents and all adults. This might suggest that single, unrelated adults sharing a household are less inclined to want previous information revealed to other members.

The relationships reported here between respondent characteristics and reaction to the RIP are similar to those of Loomis (1999), who also found that respondents who were age 65 or older, female, not married, non-White, or Hispanic were more likely to decline the RIP request. These similarities are noteworthy, considering the differences in mode, subject matter, and response rate between the QDERS, the AHS-N, and the SIPP methods panel project.

Table 3 contains the percent of respondents declining the RIP request, broken out by various household-level variables—including indicators of low-income status, type of income receipt, housing tenure, household size, and the presence of nonrelatives. Both surveys reveal the same patterns in the rate of declining the RIP request but there is less significance to the differences in the methods panel results due to the small sample sizes, particularly for characteristics that impact a relatively small proportion of the population. For example, there are only 23 households in the methods panel sample with welfare benefits who qualified for inclusion in table 3.

Of note, the presence of nonrelatives in the household does not appear related to the likelihood of disclosure objection. This finding is consistent with the QDERS, where the difference between households with and without nonrelatives was not significant. Consequently, the previously offered explanation for the difference between married and single persons is not supported. The number of adults in the household was also not found to be associated with disclosure objection.

Several items were selected to reflect degree of wealth, as were indicators of low income or poverty status. In general, households with higher income and asset ownership appear more likely to consent to the RIP request, compared to those with fewer assets and evidence of low income/poverty status (see Table 3). For example, households in public housing and households with subsidized rent are more likely to decline the RIP request. Renter households are more likely than owners to decline and, those residing in the lowest housing value units are more likely to decline. Similarly, households with lower household income declined more often than wealthier households. Finally, those who reported receiving alimony, child support payment, or welfare income (for example, SSI or AFDC), declined the RIP request more often than those who did not receive these types of income.

Conversely, households who reported receiving income from a farm or business, or from stock dividends, are less likely to decline (compared to those who did not report these types of income). Receipt of unemployment compensation, veteran's payment, rental income, workman's compensation, or disability, was not found to be significantly related to the RIP question. These results are similar to those from the QDERS, where households reporting interest income or dividends were less likely to decline the RIP request, while households receiving welfare income (for example, SSI, food stamps, or AFDC) were more likely to object (Loomis, 1999).

Table 3. Household Characteristics by Percent Declining Request

Household Characteristic:		AHS		Methods Panel			
				Households		Adults	
		Declining	N	Declining	N	Declining	N
Nonrelatives present	Yes	8.8%	31,277	N/A		N/A	
	No	8.3%					
Number of Adults	Two	8.4%	31,275	18.7%	1,067	N/A	
	Three	8.4%		16.3%			
	Four +	8.3%		11.7%			
Tenure	Own	7.9%***	31,277	16.7%	1,108	N/A	
	Rent	9.9%		20.6%			
	No cash rent	7.5%		6.6%			
Public Housing	Yes	18.1%***	31,236	8.8%	230	N/A	
	No	8.3%		20.2%			
Subsidized Rent	Yes	15.3%***	31,168	18.2%	210	N/A	
	No	8.3%		20.1%			
House Value	<$70,000	9.1%***	31,277	N/A		N/A	
	$70-114,999	7.5%					
	$115-175,000	7.7%					
	>$175,000	8.2%					
Household Income	<18,5000	12.3%***	31,243	20.8%***	1,111	N/A	
	$18,5-36,999	9.5%		8.3%			
	$37-67,000	7.1%		12.6%			
	>$67,000	6.6%		13.7%			
Alimony/ Child Support	Yes	11.4%***	31,277	19.1%	1,111	22.1%	2617
	No	8.2%		17.3%		17.1%	
Business/farm income	Yes	6.6%***	31,277	16.8%	1,111	17.7%	2617
	No	8.6%		17.5%		17.2%	
Dividends	Yes	7.1%***	31,277	14.5%	1,111	15.3%	2617
	No	8.7%		18.5%		17.7%	
Unemployment or veteran's	Yes	7.2%*	31,277	9.1%	1,111	14.2%	2617
	No	8.4%		17.6%		17.3%	
Rental income	Yes	8.0%	31,277	14.5%	1,111	14.6%	2617
	No	8.4%		17.6%		17.4%	
Social security or pensions	Yes	8.6%	31,277	19.2%	1,111	20.2%*	2617
	No	8.3%		16.9%		16.7%	
Welfare	Yes	12.6%***	31,277	13.2%	1,111	18.6%	2617
	No	8.2%		17.5%		17.2%	
Disability income	Yes	7.6%	31,277	N/A	1,111	N/A	2617
	No	8.4%					
Interview Mode	Personal Visit	9.5%***	31277	17.6%	1,111	17.0%	2617
	Telephone	7.5%		16.5%		15.1%	

X^2 significant at *.10, **.01, or ***.001 level

Unlike the AHS data, the SIPP data show a higher likelihood to decline the RIP request among social

security and pension recipients than among nonrecipients. This parallels the higher concentration of decliners among elderly persons in table 2. Note however, this is only weakly significance at the person level so we do not place a high weight on this finding.

The tendency to decline the RIP request varied significantly by mode of interview with respondents in personal visit interviews more likely to decline, compared to those in telephone interviews. In AHS this is likely related to the fact that personal visits are required for cases that are prior year noninterviews and thus are more reluctant or difficult cases, compared to those completed by phone.

While the bivariate analysis presented in Tables 2 and 3 provide some insight as to which respondents are more likely to object to having previous answers revealed, it is likely the individual relationships are not independent of one another and should be controlled simultaneously. To better understand any existing covariation between the characteristics, (Bates, 2000) ran two sets of logistic regression models on AHS data where the response variable was defined as "Agreement to the RIP"= 0; "Disagreement" =1. Responses of "don't know" and "refused" were excluded from the models. For the most part, the logistic models confirm the conclusions from the bivariate analysis with the principle exception being housing value. The coefficient for housing value is positive and significant, indicating that as housing value increases, the odds of declining the RIP request also increase. This is opposite of the earlier finding, where it appeared that those in the lowest housing value category were more likely to decline (see Table 3).

Conclusion and Future Research

Analysis from the AHS-N and the methods panel indicates that a majority of respondents are comfortable with having information they reported revealed to other adult household members during follow-up interviews. Approximately 8 to 17 percent, however, would not approve this practice, the latter number being significantly higher than the 6 percent reported in a previous study. When the percent who declined the request is added to those who answered either "don't know" or "refused," the total percent of nondisclosure households increases to around 12 percent in AHS and 22 percent in the methods panel (although this reflects the absolute maximum since the original respondent would presumably be located in many of these cases).

By analyzing respondent-level and household-level characteristics, the study suggests that those likely to decline a RIP request are those households with the lowest income and fewest assets. This is consistent with previous privacy and data sharing research, which reports that persons with low socioeconomic status feel they have little control over how information they provide is used (Bates, 1995; Singer, 1993; Singer and Miller, 1993). When given the opportunity to choose, these individuals appear most likely to take back "control" of their information, by requesting restrictions on who can see it. These findings have implications for surveys that over-sample low income areas (like the SIPP) and, more generally, for follow-up surveys the Census Bureau conducts, for quality control or to measure response bias.

The primary impact of the RIP policy occurs only in repeated interviews that use dependent interviewing, and only when the status of the interview changes—such as a change from proxy- to self-interview, or a change in the person providing the proxy. To more fully understand the impact

of RIP we will investigate the extent to which the respondent changes from one round of interviewing to the next, and how that interacts with the person's declining the RIP. This analysis will be conducted on the methods panel experiment currently in the field, where both Wave 1 and Wave 2 instruments include the RIP question. We will also study the interaction between sample attrition and RIP to see if those who decline the RIP question are more or less likely to attrite (and thus not provide an opportunity to use dependent interviewing.)

The Census Bureau is also planning a cognitive study to review the use of dependent interviewing and the impact of the RIP policy on this practice. This project will provide a more in-depth analysis of how the RIP question is viewed and understood by respondents.

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