

## INTERVIEWER CHARACTERISTICS AND NONRESPONSE

Floyd J. Fowler, Jr. and Thomas W. Mangione, Center for Survey Research

One of the most perplexing problems in survey research is how to reduce nonresponse. Although surveys carried out by government agencies, such as the Bureau of the Census or the Department of Agriculture, often are able to achieve rates of response over 90 percent, surveys of general populations carried out by academic, nonprofit, and commercial survey organizations generally achieve rates of response that are much lower.

The rate of response on any particular study is affected by many things. The subject of the study, the respondent burden, the nature of the sample population, and characteristics of the data collection organization are all potential contributors. The steps taken to enlist cooperation and the diligence with which efforts are made to enlist cooperation from initially reluctant respondents and difficult to find respondents also matter.

Nonresponse in general population surveys comes from failure to contact respondents and refusals. Of these, certainly refusals are usually the largest source (Marquis, 1978). Moreover, within any interviewing staff there tends to be a range of effectiveness in enlisting cooperation. Some interviewers consistently get higher response rates than others.

To our knowledge, there are virtually no well-documented generalizations about which interviewers are best. There are at least four plausible hypotheses about what would make an interviewer have a good response rate.

1) Communications skills. It is reasonable to think that interviewers who are effective at communicating the purposes of a project and answering people's questions would be effective in enlisting cooperation. A corollary is that better informed interviewers may be more effective.

2) Demographic characteristics. Some people may be accepted more readily than others. The most common form of this hypothesis is that females, and possibly those who are more mature, will be more readily accepted into people's homes.

3) Interpersonal style. It is plausible that the way interviewers relate to respondents affects the likelihood of cooperation. Being friendly, relaxed, personable, and professional in appearance and manner are all possible characteristics that might be related to a good response rate.

4) Orientation to the job. How interviewers see their job may affect how effectively the "sell" a survey. The hypothesis would be that interviewers who like their work and their employer and those who think that high response rates are important would be among those who would be most effective.

A large-scale experiment designed to study the effects of training and supervision on

interviewer performance provided a unique opportunity to address these hypotheses and possibly gain useful information about correlates of interviewer effectiveness in this area. This paper presents those results.

### METHODS

This analysis focuses on 57 newly hired and trained interviewers; none had had previous professional interviewing experience. Of the 57, 48 were female, 9 were male. All had cars, had at least some college experience, and reported a willingness to work flexible hours, including evenings and weekends, over a six-week period for an average of about 20 hours per week.

Each interviewer received a set of 40 specific addresses, part of an area probability sample, in six suburban Boston communities. Their job was to visit the households, after an advance letter had been sent, identify a specific adult in the household to be the respondent, using selection tables modelled after those designed by Kish (1949), and carry out an interview that lasted about half an hour. The interview topics included utilization of health services, health behaviors, some mental health issues, and background characteristics.

Several features of the design help to make it ideal for studying interviewers and response rates. First, each interviewer's assignment was a random subsample of the total sample. Hence, differences in response rates obtained by an interviewer could not be attributed to differences in the samples to which they were assigned. Second, because we wanted to study interviewer effects on data, we did not permit transferring addresses between interviewers. Each interviewer was completely responsible for the disposition of his or her assignment. Third, the level of effort was controlled; interviewers were instructed to make six calls to contact a difficult-to-reach respondent, with at least three of those calls being after five or on a weekend. A seventh call was to be made only if a specific appointment had been made on the sixth call. Hence, interviewers had basically the same guidelines for coverage and were paid to expend approximately the same level of effort for contacting people. As a result, differences in response rate were largely attributable to differences in their effectiveness in enlisting cooperation.

Another feature of the design adds a dimension to these data which is seldom found and is very valuable for the purposes at hand: each health interview respondent was reinterviewed by telephone about the interview experience, including reactions to the interviewer. Included in the reinterview were questions about the way the interviewer conducted him or her self and the impression that was made. As a result, while we do not have information about how nonrespondents

themselves felt, we do have a good deal of information about how those people who were interviewed reacted to and described each interviewer.

In addition, after completing all work on the project each interviewer filled out a questionnaire about his or her reactions to the job.

An analytic problem is that we have a large number of variables to examine, and a sample of only 57 interviewers. While for many purposes that is a very large sample of interviewers, we quickly run out of degrees of freedom, and the detection of interactions, and sorting out confounding variables, is very difficult to do. As a result, we recognize that our findings are likely to be suggestive rather than definitive.

#### RESULTS

The overall response rate for the project, the percentage of occupied housing units at which an interview was completed, was 67 percent. Twenty-two percent of the selected households were contacted but refused to be

interviewed; the other 11 percent were not interviewed for other reasons.

We focused on refusals, rather than overall response rate, because we were most interested in interviewer characteristics associated with successfully enlisting cooperation. We recognize that some of the "other" noninterviews, reportedly resulting from not finding the selected respondent at home or the respondent being too ill to be interviewed, also may reflect a failure on the part of the interviewer to enlist cooperation. However, we believe the "refusal rate" is probably the best measure for our purposes. The measure we use in this paper is the number of sampled persons who refused to be interviewed divided by the sum of the number of refusals plus the number of persons that interviewer interviewed. Such a rate was calculated for each of the 57 interviewers in the study.

There were many potential predictive or independent variables that we could study. As noted previously, the potential analyses far outstripped the ability of our sample size to

Table 1

Refusal Rate by Selected Characteristics of Interviewers

<u>Interviewer Characteristics</u>	<u>Refusal Rate*</u>			<u>N</u>	<u>p</u>
	<u>&lt;25%</u>	<u>25% or Higher</u>	<u>Total %</u>		
<u>Rs' Average Rating of How Well Understand Survey Purpose **</u>					
High	30%	70%	100%	23	.006
Low	68%	32%	100%	34	
<u>Interviewer Test Score on Info. re Survey</u>					
High	45%	55%	100%	33	
Low	63%	37%	100%	24	.20
<u>Gender</u>					
Male	11%	89%	100%	9	
Female	60%	40%	100%	48	.007
<u>Age</u>					
30 or younger	50%	50%	100%	22	
31 or older	55%	45%	100%	35	.75
<u>Rs' Average Rating of Interviewer Friendliness**</u>					
High	63%	37%	100%	38	
Low	32%	68%	100%	19	.02

\* Refusal rate calculated as refusals / (refusals plus interviews).

\*\* A single score was assigned to each interviewer based on the average rating given by his or her respondents when they were reinterviewed about the health interview experience.

sustain analysis. We organized our analysis into four classes of interviewer characteristics. The highlights of the relationships between these characteristics and the refusal rate are represented in Table 1.

1) One hypothesis was that being effective in communicating information about a project would be a good predictor of refusal rate. We had three relevant measures. First, respondents were asked how well they felt they understood the purposes of the survey. Second, they were asked how well their interviewer answered questions. Third, one part of the post-project interviewer questionnaire was a brief test on which interviewers were asked to answer questions of information about the survey as they would have had they been asked by a respondent. The quality of their answers was coded from the point of view of the accuracy and completeness of the points they made. This "test score" is another measure of the ability of interviewers to be informative, or the extent to which their answers to respondents tended to be information laden.

The top of Table 1 shows the somewhat surprising results when we related these measures to each interviewer's refusal rate. Although respondent ratings of how well interviewers answered questions were unrelated to the refusal rate, the respondent ratings of how well they understood the purposes of the survey were significantly related to refusal

rate, but not in the expected direction: those interviewers whose respondents thought they understood the purposes of the survey least well tended to have the lowest rates of refusals. Moreover, when we related the interviewers' test scores to their refusal rates, the relationship was in the same direction, though not statistically significantly so; those interviewers who had higher test scores, showing a higher level of information, tended to have higher rates of refusals.

2) Interviewer demographic characteristics could be important. The middle of Table 1 presents the refusal rate by the age and sex of interviewers. There was no indication that age of interviewer was related to refusals; interviewers 30 or younger had virtually the same rate of refusals as those interviewers who were older. However, gender was very strongly related to refusal rate. Females had much lower rates of refusals than did males. Even though there were only 9 males in the study, the results were unambiguous from a statistical point of view.

3) The third set of analyses dealt with the personal impression interviewers made on their respondents. From among several such ratings, we looked at friendliness, nervousness (or how relaxed interviewers were), being professional, and appearing interested in the research. Respondents' average ratings of

Table 2

Selected Interviewer Characteristics by Gender

<u>Interviewers Characteristics</u>	<u>Gender</u>		p
	<u>Male</u>	<u>Female</u>	
<u>Rs' Average Rating of How Well Understand Survey Purpose**</u>			
High	44%	40%	
Low	56%	60%	.79
<u>Interviewer Test Score on Info. re Survey</u>			
High	67%	44%	
Low	33%	56%	.56
<u>Rs' Average Rating of Interviewer Friendliness **</u>			
High	33%	73%	
Low	67%	27%	.02
	100%	100%	
N	9	48	

\* Refusal rate calculated as refusals / (refusals plus interviews).

\*\* A single score was assigned to each interviewer based on the average rating given by his or her respondents when they were reinterviewed about the health interview experience.

interviewers in these respects tended to be positively intercorrelated and all tended to have a positive relationship to refusal rates. Interviewers that were rated more highly by the respondent tended to do a bit better with respect to refusals. However, only one of the ratings showed statistical significance: Interviewers who were rated as being distinctively "friendly" were also distinctively more successful in enlisting respondent cooperation; they had fewer refusals.

4) We also explored several interviewer answers regarding their orientation toward their job. Specifically, we looked at whether interviewers who liked the job of interviewing better, who rated the Center for Survey Research more highly, or who thought the priority of response rates was higher tended to have lower rates of refusals. None of these relationships was statistically significant.

Table 2 presents data examining whether or not the success of females can be tied to any of the findings in Table 1. It can be seen that the extent to which respondents felt they understood the purposes of the study and the interviewer's test score were not significantly related to gender, though male test scores did tend to be higher. However, there was a very significant relationship between gender and perceived friendliness; females were perceived as being much more friendly

than males.

Table 3 then looks at the effect of the three best predictors of refusal rate for female interviewers only. It can be seen that the pattern of relationship is maintained, as one would expect, for all three, though only one relationship, the relationship between the interviewers' respondents' rating of their understanding of study purposes and refusal rate, reaches the .05 level of significance. A regression analysis that includes these three variables plus gender also showed the overlapping of gender and friendliness but that the other two variables had significant effects on refusal rates independent of gender. A three-way crosstabulation showed that if an interviewer was rated less friendly and more informative, 75 percent had refusal rates over 25 percent; if he or she was rated more friendly and less informative, only 17 percent had refusal rates that high.

#### DISCUSSION

Although our ability to reach firm conclusions is limited by the number of cases, this study provides a unique opportunity to look at interviewer characteristics associated with effectiveness in enlisting respondent cooperation.

The fact that females were more successful in enlisting cooperation than males may not come as a surprise to seasoned field supervisors. However, to our knowledge, this

Table 3  
Refusal Rate by Selected Interviewer Characteristics  
(Female Interviewers Only)

Interviewers Characteristics	Refusal Rate*				
	<25%	25% or Higher	% Total	N	p
Rs' Average Rating of How <u>Well Understand Survey Purpose**</u>					
High	37%	63%	100	19	.007.
Low	76%	24%	100	29	
Interviewer Test Score <u>on Info. re Survey</u>					
High	52%	48%	100	27	.17
Low	71%	29%	100	21	
Rs' Average Rating of <u>Interviewer Friendliness **</u>					
High	66%	34%	100	35	.22
Low	46%	54%	100	13	

\* Refusal rate calculated as refusals / (refusals plus interviews).

\*\* A single score was assigned to each interviewer based on the average rating given by his or her respondents when they were reinterviewed about the health interview experience.

is the first clear statistical documentation of that fact. Moreover, although one would have liked a larger sample of males, the results from a variety of ratings from respondents show that females are better received and more highly rated as interviewers than the males in this study. One of the realities that affects this finding is that the pool of males who apply for jobs as interviewers is more limited than the comparable pool of females; thus, we may be seeing a more restricted and less talented segment of the male population. Nonetheless, when one is recruiting interviewers, such self-selection factors are real. This was a carefully controlled and, we think, fair test.

The data with respect to friendliness and information are particularly intriguing. Clearly the best positive predictor of being good at enlisting cooperation is appearing to be friendly to people. It is hard to believe that being informed and informative actually works against an interviewer. However, it is not difficult to think that some interviewers emphasize information as a way of enlisting cooperation, while others focus on relating interpersonally and establishing rapport as a basis for enlisting cooperation. Among our pool of interviewers, these two styles were not mutually exclusive, but they were negatively correlated; respondents' ratings of how well they understood the purposes of the study were lower for interviewers rated most friendly ( $r = -.29$ ). Some interviewers focus on the interpersonal side of the relationship to get an interview, while others emphasize information. The former is a better way to go.

These results are consistent with other studies that have shown that, as a group, respondents are not very well informed about the purposes of surveys (Cannell, 1968). Agreeing to do an interview is more of an interpersonal than a cognitive decision for many respondents, particularly those with less education. When one thinks about training interviewers to be more effective in enlisting respondent cooperation, the easy first step is to give interviewers more information. Our data would push in the direction, instead, of choosing interviewers who come across as interpersonally attractive, and working with interviewers to develop their abilities to develop rapport.

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