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## RESPONDENTS TALK ABOUT THE

NATIONAL HEALTH SURVEY INTERVIEW

March, 1965

SURVEY RESEARCH CENTER

THE UNIVERSITY OF MICHIGAN

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This study was possible only through the cooperation of many people. Although it is not possible to mention all of them, we would like to particularly thank Hobert Yerkey, Director of the Detroit Regional Office of the Bureau of the Census, and Irene Monti, the field supervisor in Detroit, who helped us so much in the pretesting phase of the study and in the development of training materials for observers. George Kearns and Curtis Hill of the Bureau of the Census gave suggestions and did a great deal of the work required to organize and carry out the complex scheduling for this study. Leon Pritzger of the Bureau of the Census helped with his suggestions and support for the design of the study. Robert Fuchsberg of the United States Public Health Service was the contract officer and helped to coordinate the efforts of the three organizations involved in this project. Finally, the Census interviewers who came to Ann Arbor for training and served as observers in this study were Hilda Walker, Ruby Ver Strate, Kathleen Hartwel1, Doris Riddick, Gladys Bell, and Jeanne Johnson.

This report presents one part of the analyses made by the Survey Research Center of The University of Michigan to the National Health Survey, United States Public Health Service, as fulfillment of contract No. PH.86-64-37. The research reported here was a cooperative undertaking of the National Health Survey, the Bureau of the Census, and the Survey Research Center. The analysis presented was carried out by Charles F . Cannell, Floyd J. Fowler, Jr., and Kent H. Marquis, assisted by Sandra F. Myers, of the Survey Research Center. The statement below is a general overview of the research project which was the source of the data discussed in this report.

The objectives of this study were:

1. To identify major variables which are related to accuracy of reporting of health information in the National Health Survey, household interview.
2. To gain sufficient insight into the dynamics underlying those variables that they can be manipulated.

There were four steps in the data collection procedure. First, thirtyfive interviewers from six Bureau of the Census Regional offices were observed while carrying out their usual NHS-HIS interview assignments. The observers, using an observation form specifically designed for this study, were Census interviewers who had been specially trained to use the form. Second, after each interview, the health interviewer was asked to fill out a brief report on the respondent and the interview. Third, on the day following the health interview, a SRC interviewer who had been sworn in as
a Special Agent of the United States Public Health Service $\because$ returned to the home and interviewed the principal respondent about the health interview: the information and attitudes he had about it. Fourth, when all observations of a given health interviewer had been completed, this special interviewer interviewed her about various aspects of her job and her reactions to various procedures and types of interviewing situations.

FIGURE 1
Chronology of data collection in a typical week

| Monday |  | Tuesday |  | Wednes day |
| :--- | :--- | :--- | :--- | :--- |
| Health Interview | Group A | Group B | Group C | Rest of Group C <br> if necessary |
| Observation | Group A | Group B | None | None |
| Self-enumerative <br> form on respondent | Group A | Group B | None | None |
| Special Interview | None | Group A | Group B | None |
| Interview with <br> interviewer |  | Any time after observation of health <br> interviewer's work has been completed |  |  |

Group A Those respondents in regular NHS sample who could be contacted on Monday for health interview.

Group B Those respondents in regular NHS sample not contacted on Monday but contacted and interviewed on Tuesday.

Group C Those respondents in regular NHS sample who could not be reached on either Monday or Tuesday.

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FIGURE 1
Chronology of data collection in a typical week

| Monday |  | Tuesday | Wednesday | Thursday |
| :--- | :--- | :--- | :--- | :--- |
| Health Interview | Group A | Group B | Group C | Rest of Group C <br> if necessary |
| Observation | Group A | Group B | None | None |
| Self-enumerative <br> form on respondent | Group A | Group B | None | None |
| Special Interview | None | Group A | Group B | None |
| Interview with <br> interviewer |  | Any time after observation of health |  |  |
| interviewer's work has been completed |  |  |  |  |

Group A Those respondents in regular NHS sample who could be contacted on Monday for health interview.

Group B Those respondents in regular NHS sample not contacted on Monday but contacted and interviewed on Tuesday.

Group C Those respondents in regular NHS sample who could not be reached on either Monday or Tuesday.

[^1]Figure 1 presents the standard data collection procedure in a given week. Occasionally an observer or special interviewer worked an extra day if too few interviews were made during the allotted two days. As Figure 2 indicates, the study was carried out in six Regions for six weeks. The study was designed to obtain data on 12 respondents for each interviewer. In one case, however, the health interviewer became ill and no data were collected on her assignment. In several others, some dwelling units were unoccupied resuiting in a reduced number of obtained interviews.

FIGURE 2
Number of interviews obtained in final sample by week and region

| Week | Region |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | At lanta | Char lotte | Chicago | Detroit | New York | Philadelphia | Total |
| May 4-10 | 15 | 12 | 11 | 14 | 13 | 14 | 79 |
| May 11-17 | 12 | 14 | 8 | 12 | 9 | 11 | 66 |
| May 18-24 | 13 | 11 | 14 | 11 | 12 | 12 | 73 |
| May 25-31 | 9 | 9 | 9 | 12 | 15 | 13 | 67 |
| June 1-7 | 14 | $10^{*}$ | 10 | 14 | 0 | 15 | 63 |
| June 8-14 | 4 | 14 | 14 | 10 | 11 | 11 | 64 |
| Total | 67 | 70 | 66 | 73 | 60 | 76 | 412 |

[^2]A total of 478 interviews were observed. Thirteen of theserespondents refused to be reinterviewed and 53 could not be reached bythe special interviewer during the two days in which she was to work,leaving 412 respondents for whom complete information is available.Population estimates cannot be made from this sample for severalreasons. First, the sample was drawn only from the area east of theMississippi, with the extreme Northeast excluded. Second, thoserespondents who are most difficult to reach are somewhat underrepresented.However, the sample is quite comparable to the population in a numberof respects and is representative enough for the two purposes for whichit was designed: to suggest major tendencies in respondents and toprovide data for examining relationships between respondentcharacteristics and behavior.

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## INTRODUCTION

The U.S. Public Health Service conducts the continuing National Health Survey (NHS) of the nation. Interviewers from the Bureau of the Census carry out this survey in over 40,000 homes each year, asking questions about the family's illnesses and use of medical services. In this study, some of the regular NHS interviews were observed by specially trained observers from the Bureau of the Census. On the day following the observed NHS interviews, an interviewer from the University of Michigan's Survey Research Center returned to the household and asked respondents about their reactions to the health interview. This is a report of the answers given by those respondents.

The questions in the re-interview schedule covered the respondent's perceptions and feelings about various aspects of the interview, the procedures, and the interviewer. Within the total study design, an. important use of these data is the analysis of the relationships between respondent attitudes and the quality of their reporting. These relationships will be presented in a separate report. In this report, the responses given to the re-interview will be presented by themselves and in relationship to the demographic characteristics to provide insight into the meaning of the health interview to NHS respondents. Because a large body of data on this subject was collected for this study, and because of its intrinsic interest and importance, this special report on respondent reactions to the interview has been prepared.

## Procedures

For the observation part of the study, specially trained observers from the Bureau of the Census accompanied NHS interviewers carrying out their regular assignments. During each health interview in the sample, the observer watched the interview process and filled out a standardized observation form. In order that these interviews should be as similar as possible to other NHS interviews, the observers were instructed to interact as little as possible with respondents and, as much as possible, to observe the interview from an inconspicuous place. The effect of the study on the NHS interviewers' behavior was further minimized by the fact that they are used to being observed as part of the: Burean ${ }^{\text {t/ }}$ s standard quality control procedures, by the fact that the observers were fellow NHS interviewers (though from different Regional Offices) rather than supervisors, and because the NHS interviewers were not aware that their respondents were to be re-interviewed. Although the study procedures necessarily had some effect on these interviews, it seems likely that the present sample is quite comparable to regular NHS interviews in most ways.

At the end of each day the observer called the SRC interviewer and gave her the names and addresses of the respondents she had observed. On the following day, the $S R C$ interviewer returned to each address to re-interview the principal respondent. She introduced herself in the following way.

I am Mrs. from the Public Health Service:* Here is my identification. I would like to ask
*SRC interviewers were sworn in as Special Agents of the U.S. Public Health Service in order to insure the confidentiality of the data, and so that the initial interviewer and the follow-up interviewer would be identified with the same organization.
you some questions about the health interview you' had yesterday.

This introduction was to be as brief as possible. However, because good rapport was thought to be essential to the success of these interviews, interviewers were to explain, if necessary, that they were interested in the respondents' reactions and feelings about the interview as part of an effort to assess and improve procedures. They were to allay any respondent concern that they were checking up on particular interviewers.

## The sample

The Bureau of the Census has 12 Regional Offices throughout the country from which the National health Survey interviews are supervised. Between seven and ten interviewers work out of each Regional Office, and receive assignments every two or three weeks. An average assignment calls for interviews at eighteen households, all in the same Primary Sampling Unit. The interviewers are expected to complete their assignments as early in the week as possible, and usually complete ten or twelve interviews by Tuesday of the week in which an assignment is received.

The first sampling decision was to restrict the study to six Bureau of the Census Regions. The area supervised from the New York, Philadelphia, Charlotte, Atlanta, Detroit and Chicago Regional Offices (which includes all of the United States east of the Mississippi River except the extreme Northeast) was chosen because it includes a variety of types of PSUs (urban and rural, northern and southern), yet is compact enough so that travel costs for the field work would not be unreasonable. It was decided that at least six regions were needed to insure the heterogeneity of the sample and because the study made intensive demands on the field staff which they could not be expected to accept for more than a few weeks.

Within the six regions, the pre-arranged schedule of interviewer assignments was studied and six interviewers were selected from each region, so that during the six-week period a different interviewer from each region was included in the study each week.*

Six observers were used in the study. One was assigned to each Region. Each week the observer arranged to contact the participating interviewer in her Region, and observe all the NHS interviews taken on Monday and Tuesday. In many cases, Census interviewers were able to complete their assignments during that time. However, in those cases in which they did not complete their assignments, the respondents who were most difficult to reach could not be included in the sample.

In each observed interview, the observer had to select a "principal respondent." When only one adult was at home, he, of course, was chosen. When more than one adult was at home, the person who assumed major responsibility for answering questions for others in the family was chosen. If two adults seemed to be taking approximately equal responsibility, the female most closely related to the head was designated "principal respondent.". These were the persons who were re-interviewed on the following day.

SRC interviewers were instructed to try to re-interview every principle respondent who was observed. To minimize costs, however, she was to work for only two days, unless she failed to take ten interviews and had two or more respondents who had not been contacted. Again, efforts to minimize costs tended to exclude the respondents most difficult to contact. To counteract this, SRC interviewers

[^3]were instructed to make a special effort to interview those respondents who had required more than one call for the NHS interview.

Initially, some thought was given to offering respondents a cash honorarium for helping with the follow up interview. There is a problem, however, in knowing what effect such an honorarium will have on respondent motivation, and pretests in Detroit suggested that respondents were willing to cooperate without such an incentive. This seemed to be borne out in the study in which a response rate of just over ninety per cent was recorded for the re-interview procedures, despite the fact that the study design made it difficult for the interviewers to make more than about two callbacks. Only 13 respondents (three per cent) refused the re-interview.

Table 1 shows the composition of the sample that resulted from these procedures. The most noteworthy points are that the majority of respondents are female and that non-whites are slightly more highly represented in the sample than in the national population, probably because two of the six regions in the study were located in the South.

## The questionnaire

The main body of the questionnaire administered in the re-interview consisted for three types of questions.

1. A series of questions designed to measure what the respondent knew or thought he knew about the sponsorship of the survey, its purposes and its uses.
2. A series of questions designed to measure what the respondent thought and felt about different aspects of the interview, particularly focusing on the things about the interview experience which either appealed to or irritated him.
TABLE I
DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS
Demographiccharacteristics
Age
Under 35 ..... $27 \%$
35-54 ..... 39
55-74 ..... 28
75 or more ..... 6
Race
White ..... $85 \%$
Non-white ..... 15$100 \%$
Sex
Male ..... $20 \%$
Female ..... 80$100 \%$
Family income
\$0 - 1999 ..... $14 \%$
2000-3999 ..... 21
$4000-6999$ ..... 25
$7000-9999$ ..... 20
$\$ 10,000$ or more ..... 14
Not ascertained ..... $\frac{6}{100 \%}$
Education
$0-8$ years grade school ..... 31\%
1-3 years high school ..... 22
4 years high school ..... 30
I year or more college ..... 16
Not ascertained ..... $\frac{1}{100 \%}$
3. A set of direct questions about aspects of the interview experience which were hypothesized to be potential sources of irritation or which might impair performance. For example: 'Were there any questions which you found to be too personal or embarrassing?"

All of the above questions asked respondents to report on their own perceptions and feelings. However, because of resistance respondents have shown in the past to reporting negative reactions in interviews or interviewers, it was decided to employ another less direct method of assessing attitudes. Respondents were shown three pictures depicting an expressionless interviewer and. respondent at.three stages of the interviewer: The interviewer being received at the door, the question-answer process, and the interviewer leaving the house. Respondents were asked to report what they chought the person in the picture might be thinking and feeling and to guess at reasons for those feelings. This procedure had two purposes.

1. To permit respondents to express negative feelings about the interview by allowing them to attribute feelings to the person in the picture which they might be unwilling to attribute to themselves.
2. To obtain a more complete picture of the factors which respondents thought about in connection with the interview, regardless of how much effect respondents reported they had had.

The weight of evidence concerning this method is that respondents are most likely to attribute thoughts to others which are salient to their own thoughts. Further, when given the chance to attribute these ideas to others, respondents are more likely to mention those which are embarrassing or which are not socially valued.

## Interpretation of data

For both direct and indirect questions the data needs to be interpreted with caution. Respondents compensate or rationalize in their answer to some questions, while hiding their true feelings about others. For example, some respondents may be unvilling to criticize the interview or the interviewer, and may resist saying that they are hostile or unwilling to help with a worthy cause. Yet, at the same time, there is no reason to doubt that many of the answers ro these questions do reflect respondent feelings accurately; and as this is one of the few attempts ever made to thoroughly assess respondent reactions to an interview, there is every reason to try to glean as much information as possible from the data.

In this report, the data will be viewed in light of their consistency with data from other studies and the general trends of respondent reactions which they reflect. When the data are inconsistent with other findings or when two different measures of the same thing give differing pictures, the probable validity of the measures will be discussed in terms of what is known about response bias. When several measures give the same picture or when the data are consistent with other information about respondents, the answers given to the re-interview can provide solid guides and an important basis for further thought and research on interview procedures.

Is the NHS interview an important event for respondents? Are the feelings they have about it strong and intense? Are their thoughts about it well formed? Is it an occasion for the activation of deep or fundamental attitudes?

In a separate report*, data were presented on the information that respondents had about the National Health Survey. The findings indicate that the general level of respondent information is low. Aimost half of those who granted an interview and reported personal health information said they had no idea whom the interviewer worked for; only 10 per cent correctly said she worked for the Bureau of the Census. Almost 60 per cent could give no specific reason for the collection of the data. Sixty per cent said either that they had never heard of the United States Public Health Service or that, while they had heard of it, they had no idea of what USPHS does.

Clearly, many respondents cooperate with the NHS without having a very clear idea of what they are helping with or what good will come of it. Yet, although their information about the survey is not good, it need not be true that respondent attitudes are not strong and well developed. Several questions were asked particularly to measure the impact of the interview and the respondent's overall reaction.

Question 9. Now, in general, what is your feeling about the health interview you had yesterday?

Question 10. After the interviewer left your home, did you think about the interview or the interviewer? (If yes) What did you think about?
Question 11. Did you talk about the interview with your family or friends? (If yes) With whom? What did you talk about?

In the first question, respondents were asked to summarize their own reaction. In the latter two, the intent was to identify those aspects of the interview which stood out enough that the respondent would bother to give them further thought or discuss them with others. One of the best ways to give the reader some feeling for the results is to present some of of the answers given. The following answers to these three questions were chosen at random from the sample.
(9) Well, it it's beneficial, I think it was worth it, but if it isn't then it's a waste of time. If the U.S. government could benefit everyone's health, yes, it's worth it.

[^4](10) I told my husband -- he wasn't home at the time so I told him. I asked if my husband had an X-ray or not when he had his teeth fixed. I wasn't sure -- and I wasn't with him at the dentist's.
(11) I also told the girls at work, and they said no one had been there so they couldn't understand it. Told them it was a health survey. "Health survey? What do they take that for?" I said I didn't know why.
(9) Well, I dunno. I felt all right.
(10) No, didn't think much more about it.
(11) I ain't got so many kin people, but I reckon I did. I got a few friends around here. I just told them I didn't know much about it -- just all those questions. That's all.
(9) As far as the interview yesterday is concerned, I felt it was very precise. They were very nice. The questions asked were very logical.
(10) Yes. Because I didn't quite know whether I did the right thing or not. If Mr. R_hadn't called, I probably wouldn't have let them in. He is the manager and told me there were two woman from the Census and asked if I'd let them come up and interview me.
(11) No, I didn't talk to anyone.
(9) Negative, I'd say.
(10) No.
(ll) Well, yes. A neighbor. She had the same interview last year.
(9) All I can say is "wonderful". I was pleased about it.
(10) Not really.
(11) Well, yes. My sister. I just said they'd been here.
(9) I don't know as it done me any good, but if it was for the betterment of the health of the people, I'm in favor of it.
(10) I happened to think $I$ could have told her the date $I$ entered the hospital. I thought about it later, but I think I gave her the date.
(11) No, my husband and $I$, we just wondered how they picked this particular house.
(9) It it's going to benefit me later on or better any situation that needs improvement, I'm glad to go along with it.
(10) Very briefly. Wondering if $I$ had given her the right answers pertaining to my wife. Just in general.
(11) Very little. With my wife. We talked about the length of time it took mainly and the slight inconvenience resulting from the time element.
(9) She was all right, but $I$ think it is a bunch of nonsense about my health. I just think it's foolish of my nation to ask those questions.
(10) No.
(11) No, just the lady next door. I asked if she had been interviewed. -10-
(9) I was uncertain whether I should have done it. But the interviewer left me a letter, and after I read it $I$ felt all right about it.
(10) Yes, for a few minutes. That it was rather personal and that maybe I should not have told all those things about myself.
(11): Yes, the girl I work with. That I was surprised and that I didn't know any study like that was being conducted.
(9) I wondered what it was for.
(10) Yes, I wondered whether I should have answered all the questions.
(11) Yes, with my husband. Well, she had asked me to sign a statement about my husband's X-rays -- they wanted to talk to Insurance Company. I didn't know if I had done right in signing. He works for $\qquad$ (name of insurance company).

While each reader might form a slightly different set of conclusions about the above comments, several points seem to come out. First, several answers indicate that confusion, curiosity, or lack of understanding of what they had participated in was one of the dominant impressions of the interview experience. Few of the negative comments were specific criticisms, and the positive reactions were often contigent on whether or not the ideas the respondents have about the value or use of the study are correct. Only a few of the answers appear to reflect strong feeling or affect.

Turning to the distribution of answers given by the total sample, Table 2.1 shows that when asked whether or not they had thought about the interview after the interviewer left, 41 per cent of the respondents said they had not. For those who did think about the interview, the majority were concerned with the purpose or use of the interview and the content of the questions themselves. Only ten per cent of the respondents reported thinking about something which could be classified as either clearly pleasurable or clearly annoying.

A similar picture is given by Table 2.2. When asked whether or not they talked about the interview with anyone, 32 per cent said they did not. Of those who did talk about the interview, 49 percent said they simply mentioned the fact that an interviewer had come, with little or no discussion. Less than ten per cent reported discussing something they particularly liked or particularly did not like about the interview. When asked to state with whom they had discussed the interview, Table 2.3 shows that the most prevalent answer is that the respondent discussed it with his spouse or with other members of the family. Only 19 per cent of the respondents said they talked about the interview with anyone outside of the family, such as friends or neighbors.

# DISTRIBUTION OF WHAT RESPONDENTS REPORTED THINKING ABOUT AFTER NHS INTERVIEWER LEFT 

Respondent Thought About
Why he was selected ..... $3 \%$
Purpose of study ..... 15
Some question that was asked ..... 19
Something annoying ..... 3
Something pleasing ..... 7
Other ..... 7
Not ascertained ..... 5
Respopdent did not think about the interview ..... 41
$100 \%$
N ..... 412

## TABLE 2.2

DISTRIBUTION OF WHAT RESPONDENTS REPORTED TALKING ABOUT AFTER NHS INTERVIEWER LEFT
Respondent talked about
Why he was selected ..... $4 \%$
Purpose of study ..... 8
Some question that was asked ..... 8
Something annoying ..... 5
Something pleasing ..... 2
Just that interview occurred ..... 40
Other ..... 1
Not ascertained ..... 0
Respondent did not talk to anyone about the interview ..... 32
$100 \%$
$N=412$

## TABLE 2.3

DISTRIBUTION OF WHOM RESPONDENT TALKED TO ABOUT INTERVIEW AFTER INTERVIEWER LEFT

Respondent talked to:
Spouse only $32 \%$
Family only 17
Neighbors* 7
Friends * 12

Not ascertained 0
Did not talk to anyone $\underline{32}$
$100 \%$
*Possibly in addition to family members.
-14-

One methodological point might be raised at this time. Comparison of Tables 2.1 and 2.2.show that more people talked about the interview than thought about it after the interviewer had left. This reveals the ambiguity of the word "think"; for some respondents probably interpreted it as meaning serious or prolonged thought, while others were willing to mention any passing thought they might have given to the interview. "Talking;" on the other hand, is probably less susceptible to misunderstanding or differences in interpretation and is, therefore, likely to be a more reliable indication of the significance of the interview for respondents. In general, however, the two measures provide very similar pictures.

The feelings associated with the interviews were more directly measured by the following four questions.

Question 2. (Picture of interviewer at door.) What does the woman (man) of the house think when the person at the door says she is an interviewer? (If not mentioned) Is the woman (man) of the house feeling pleased, annoyed, happy, irritated, or what?

Question 3. In this picture, as you see, the interviewer was invited in and is starting to ask the questions. How is the woman (man) of the house feeling now?

Question 6. In this picture, the interview is over and the interviewer is leaving. Now how does the woman (man) of the house feel?

Question 9. Now, in general, what was your feeling about the heal th interview you had yesterday?

The coding of the answers to these questions is presented in Table 2.4. Several trends can be seen from these results. First, a large number of the responses could not be coded as being either positive or negative: about 50 per cent on the average. This is most true when respondents were asked how the person in the picture felt during the interview process itself (when over one third said the person probably had no feelings at all or was completely neutral) and when respondents were asked to summarize their own overall reaction to the interview in question 9. Perhaps because several attitudinal responses were suggested in Question 2 , the answers tended to be more easily coded into a positive or negative category; it may al so be that people are more aware of the way they feel when someone comes to the door. The clearest responses came in response to Question 6: "How did the person feel now that the interviewer is leaving?" Two answers stand out. Thirty per cent said that they were pleased that they had contributed or done something constructive; 45 per cent said they were relieved that the interview was over or were glad to see the interviewer go.

TABLE 2.4

CODING OF QUESTIONS ABOUT RESPONDENTS' GENERAL ATTITUDES

|  | Indirect Questions.- |  |  | Indirect Question. |
| :---: | :---: | :---: | :---: | :---: |
|  | ```Question 2 Beginning of interview``` | ```Question 3 Middle of interview``` | Question 6 <br> After <br> interview over | ```Question 9 Qverall reaction``` |
| Positive | 20\% | 11\% |  | 25\% |
| Qualified positive | 6 | 19 | 30\% | 10 |
| Neutral | 19 | 34 |  | 31 |
| Qualified negative | 6 | 11 | 45* | 7 |
| Negative | 24 | 10 | 4 | 7 |
| Depends, don't know | 23 | 9 | 10 | 11 |
| Not ascertained | 2 | 6 | 11 | 9 |
|  | 100\% | 100\% | 100\% | 100\% |
| $\dot{N}=412$ |  |  |  |  |

In general, the answers that could be coded, were more likely to be positive than negative -- only at the very first encounter with the interviewer do respondents say that the reaction is more likely to be negative than positive. Further, the high proportion of respondents saying the person in the picture is probably glad when the interview is over indicates a general uneasiness or a desire to return to other things more than a strong negative reaction.

Finally, two five-point scales were constructed of respondent reactions to the interview, one from the indirect questions and one from the direct questions. * In general, those who expressed the most positive reactions and the fewest negative feelings are in the most positive categories; those who expressed many negative feelings and few positive feelings are in the most negative categories. The scales were constructed so that there were about the same number of people in each of the five categories.

One would expect that having strong feelings -- whether negative or positive -- and thinking about the interview and talking about it should be related. Table 2.5 shows no apparent pattern between the indices of respondent feeling and whether or not the respondent reported thinking about the interview after the interviewer left. However, there is a clear relationship in Table 2.6 between the indices of respondent reaction and whe ther or not they talked about the interview after the interviewer left. Those who are rated strongly positive are no more likely than those who appear neutral or ambivalent to talk about the interview, but those who appear very negative are more likely than others to discuss it, particularly in relation to the direct index.

As the relationship appears only with one of the indices of the impact of the interview -- and is clear only for one of the indices of feeling -- the data must be interpreted with caution. However, the data suggest that those who are negative have stronger feelings than those who are positive.

To pull together these data, one would expect that an event which was important to a person would be the subject of subsequent thought and discussion, that it would be the object of distinct feelings, and that those feelings would be evident in their thoughts and discussions. Yet,

TABLE 2.5

WHETHER OR NOT RESPONDENT REPORTED THINKING OR TALKING ABOUT INTERVIEW BY INDIRECT QUESTION INDEX

| Respondent reported: | Indirect Question Index |  |  |  |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Very } \\ \text { positive } \\ \hline \end{gathered}$ | Somewhat positive | Neutral | Somewhat negative | $\begin{gathered} \text { Very } \\ \text { negative } \end{gathered}$ |  |
| thinking about interview | 59 | 57 | 66 | 54 | 63 | 282 |
| not thinking about interview | 41 | 43 | 34 | 46 | 37 | 130 |
| TOtal | 100 | 100 | 100 | 100 | 100 | 412 |
| Respondent reported: |  |  |  |  |  |  |
| talking about interviev | 69 | 68 | 65 | 67 | 75 | 244 |
| not talking <br> about interview | 31 | $\underline{32}$ | 35 | 33 | 25 | 168 |
| Total | 100 | 100 | 100 | 100 | 100 | 412 |

TABLE 2.6

WHETHER OR NOT RESPONDENT REPORTED THINKING OR TALKING ABOUT INTERVIEW BY DIRECT QUESTION INDEX

|  | Direct Question Index |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Respondent reported: | Very positive | Somewhat positive | Neutral | Somewhat negative | wery? <br> negative | N |
| thinking about interview | 69 | 63 | 52 | 61 | 54 | 282 |
| not thinking about interview | 31 | 37 | 48 | 39 | 46 | 130 |
| Total | 100 | 1003 | 100 | 100 | 100 | 412 |
| Respondent reported: |  |  |  |  |  |  |
| talking about interview | 66 | 61 | 68 | 60 | 95 | 244 |
| not talking about interview | 34 | 39 | 32 | 40 | 5 | 168 |
| Total | 100 | 100 | 100 | 100 | 100 | 412 |

only ten per cent of the respondents reported thinking about anything which implied a positive or negative reaction to the interview; less than 60 per cent said they thought about the interview at all after the interviewer left. Even more strikingly, over 70 per cent of the respondents eitherrdid not talk about the interview, or simply mentioned that it had occurred. Usually they mentioned it only to their families, with less than 20 per cent saying they discussed it with anyone outside of the immediate family.

Similarly, in question 2, an indirect question asked regarding feelings at the beginning of the NHS interview, 55 per cent of the responses were neither negative nor positive. In question 3, an indirect question asking about feelings during the interview, 49 per cent of the answers were neither negative nor positive. In question 6, an indirect question about feelings after the interview, the dominant response was that respondents were glad the interview was over, which is quite ambiguous as a reaction. In question 9, a direct question in which the respondent was asked to summarize his overall reaction to the interview, over 50 per cent were neither positive nor negative.

Further evidence on this topic is supplied by the following three questions.

Question 4. Is there anything about being interviewed that she (he) enjoys?
Fifty-four per cent of the respondents said "no."
Question 5. Is there anything about being interviewed that she (he) does not like?
Sixty per cent of the respondents said "no."
Question 14. Were there any things about the interview that you :especially liked?
Sixty-eight per cent of the respondents said "no."
These data suggest that for many respondents -- probably more than half -- the interview was not a particularly significant event, nor one which occasioned very strong feelings. Yet there clearly were some respondents who felt quite strongly about the interview. Some inconclusive evidence in Table 2.6 suggests that negative feelings were particularly likely to be strong; but most respondents mentioned one or two things which they either liked or did not like about the interview.

Perhaps a feeling for this balance and for the meaning of the data presented above can be best conveyed by some additional mandeatitarss. The
following are five answers coded "unqualified positive"; eight coded "neutral"; and five coded \&unqualified negative."
"Unqualified positive" responses
I think it's a wonderful thing. It's just real good to see that the government is concerned about the people.

I thought it was a good idea to ask questions about health.
I felt good. I was glad to do anything I could and hope it will help someone.
I feel fine about it. I 1 was nice.
I think it's a good idea for the government to be concerned with the people.
"Neutral" responses
I. juist: thought it was all right. I just answered the best I could. She asked questions about things I wasn't bothered too much with.

It was all right. I told them everything.
It was something that had to be done, and I did it. So I
feel all right about it.
It was all right.
I thought it was very good and concise. It didn't bother me.
It was OK, but I've been wondering why they asked to see the X-rays of my teeth. I had them out a while ago.

I guess it was something that had to be done -- a matter of routine.

After she explained her object $I$ felt all right. Yes, mam, all right.
"Unqualified negative" regponses
I don't think it is doing one bit of good. It is an added expense to the U.S. government or state, which did she say? State, wasn't it?

It was a waste of time. The interview was all right, but it was uncalled for.

I think it was long, and they could have found out all about it in about two general family health questions.
I feel like it is a lot of work that is not necessary -- a waste of time, really.

It was ridiculous, and they shouldn't spend the money.
In the next section, the respondents' attitudes toward different parts of the interview will be discussed. The reading of that section should be tempered by the data in the present section: many of the attitudes to be discussed were probably not strong enough to make the interview
experience a significant one or to produce strong feelings. On the other hand, it should also be recalled that some respondents do feel strongly and that, even for those who do not feel strongly, the attitudes which will be discussed may well have been important determinants of the feelings they had and the way they cooperated with the NHS interviewer.
experience a significant one or to produce strong feelings. On the other hand, it should also be recalled that some respondents do feel strongly and that, even for those who do not feel strongly, the attitudes which will be discussed may well have been important determinants of the feelings they had and the way they cooperated with the NHS interviewer.

## FORCES ACTING UPON RESPONDENTS

What factors influence respondents during their interview experience? In the previous section, the data have not shown respondents to be particularly affected by the interview or to have strong feelings about it. Yet, there were aspects of the interview which were bases for positive or negative reactions. These may be thought of as forces, with those aspects of the interview which the respondent reacts to favorably tending to make him more co-operative, and the negative features tending to make him less co-operative.

In this section, the relative prevalence of some of these forces will be considered.

## Which Forces Were Identified

Respondents had several opportunities to mention things about the interview which they did or did not like. Question 9 asked: "In general, what was your feeling about the health interview you had yesterday?" The respondent was then asked to explain the reason for the feelings he reported. For those who reported a generally favorable reaction, the primary reason for that favorable reaction was coded. For those reporting a generally negative reaction, the primary reason for the unfavorable reaction was coded. For those who were ambivalent, the primary negative and primary positive factor mentioned were coded. Table 3:1 shows the distribution of negative reasons given by those who mentioned anything negative in their response to question 9. Table 3.2 shows the frequency of the various positive aspects of the interview volunteered by respondents.

In comparing the two tables, one notes that more positive aspects of the interview were mentioned than negative. The most prevalent reason given for a negative reaction was that the respondent did not know enough about the purposes of the survey. A similar comment was second in prevalence: the respondent specifically said that he did not think the survey was worthwhile or served any useful purpose. Concern about the content of the interview or about the time taken by the interview were less freqently mentioned as the majox determinants of respondent feelings; but as shall be seen, they were sources of lesser concern for a number of respondents.

On the other side of the picture, the most prevalent basis for a positive reaction to the interview experience was that it was a constructive

TABLE 3.1

## DISTRIBUTION OF REASONS FOR NEGATIVE REACTIONS MENTIONED IN QUESTION 9.

## Negative Factors:

Busy - took too ..... 11\%
much time
Survey not worthwhile ..... 26
Don't know enough about ..... 42purpose.
Problem with questionnair. ..... 21N=98

TABLE 3.2
DISTRIBUTION OF REASONS FOR POSITIVE REACTIONS MENTIONED IN QUESTION 9.
Pngitive Factors
Being of help or ..... 59\%
service
Like talking to ..... 12
interviewer
Desire for personal ..... 6
benefit
Like chance to rest ..... 3
Enjoyed something about ..... 17
the questions
Other ..... $\frac{3}{100 \%}$

$$
N=187
$$

social act. Respandents said they were glad to help out or pleased because they had helped with a worthy project. Some respondents said the best thing about the interview was the chance to talk with someone; others said they enjoyed something about the questions. A small percentage of the sample stated that they believed they would derive some direct personal benefit from the survey or said that they enjoyed the chance to stop what they were doing and relax for a few minutes.

In the indirect section of the questionnaire, respondents had three opportunities to mention aspects of the interview which the "person in the picture" might like or not like. These answers were coded in the same way as those to question 9, and results of the codings are presented in Tables 3.3 and 3.4 .

It may be seen that, in contrast to the answers to the direct questions, these answers produced about twice as many negative comments as positive ones. Respondents mentioned almost two negative things about the interview for each positive thing. Also, the distribution of comments was somewhat different. On the negative side, 37 per cent of the comments concerned the time taken for the interview; and 20 per cent concerned the questions that were asked. However, the most prevalent area of negative comment was still the concern about whether the survey was important and useful; over half of the sample mentioned this at least once.

The desire for personal benefit and the opportunity to rest were, again, minor considerations. Enjoyment of the questions was slightly less prevalent in the indirect section than in question 9 . However, 35 per cent of the positive comments reflected pleasure in talking with the interviewer -- about the same number concerned with helping out and being constructive.

Despite the fact that respondents tend to summarize their reactions to the interview as positive, it is interesting that they mentioned so many negative aspects of the interview in the indirect section. The main reason for using the indirect questions was to make it easier to express negative attitudes; and these data attest that the procedure was successful. The most prevalent response to the direct questions was that the respondent liked being of help or service, which was mentioned almost three times as often as the next most prevalent response -- "don't know enough about the purpose of the study." In contrast, concern about time, concern about not knowing enough about the purpose, and concern

## TABLE 3.3

## REASONS FOR NEGATIVE REACTIONS MENTIONED

## IN INDIRECT @UESTIONS

|  | Per Cent of Total <br> Negative Factors <br> Negative Factors: | Per Cent of <br> Total Sample |
| :--- | :---: | :---: |
| Mentioned |  |  |
| Busy - took too much time |  |  |
| Survey not worthwhile | Least Once |  |
| Don't know enough about purpose | $37 \%$ | $37 \%$ |
| Problem with questionnaire | 14 | 24 |
| N | $\frac{29}{100}$ | 31 |

TABLE 3.4REASONS FOR POSITIVE REACTIONS MENTIONEDIN INDIRECT QUESTIONS
Positive Factors:
Per Cent of
Per Cent of Total Total Sample
Positive Factors Mentioning at Mentioned Least Once
Being of help or service ..... 35 ..... 25
Like talking with interviewer ..... 35 ..... 26
Desire for personal benefit ..... 5 ..... 4
Like chance to rest ..... 11 ..... 8
Enjoyed something about the questions ..... 14 ..... 11100
N(314)(412)
concern about the questions, were all mentioned more frequently in response to the indirect questions than the most prevalent positive response. It appears likely that the direct question gives a better picture of the positive forces on respondents, and the indirect questions give a better picture of the negative factors.

These data on specific forces felt by tespondents are supplemented by the results of two questions. Table 3.5 shows the distribution of answers to question 14: 'Were there any things about the interview you especially liked?'" Table 3.6 presents the answers to question 22: 'Why do you think people cooperate on these health surveys?" These questions differ in two respects. First, question 14 asks about the respondent himself, while question 22 asks respondents to speculate about forces acting on others, again in an attempt to evoke the less socially desirable answers. Second, question 14 asks about things which would make the respondent actually en;joy the interview experience, while question 22 asks only about forces which would lead him to grant the interview.

As Table 3.5 shows, 67 per cent of the sample could think of nothing about the interview that they "liked." Talking with the interviewer and enjoying the health questions were the only two responses which received any sustantial mention. Being of public service apparently is seen as an important reason for reacting positively to the interview but not for "enjoying" it.

In Table 3.6 , it may be seen that the desire to be of public service or to help a worthwhile cause is the primary reason for co-operation in the eyes of the respondents. The idea that co-operation will produce some direct personal benefit is cited as a positive consideration by ten per cent. In addition, two types of responses were given to this question which appeared nowhere else in the interview. The idea that they must co-operate with the government was siggested by eight per cent of the sample; seven per cent stated that co-operation was not contingent upon a =eason: "Why not," said one, "theres no harm in it." If the responses of those who said they "don't know" why people co-operate with surveys are added to the above, one finds that almost one fourth of the sample gave no positive reason for co-operating with the health survey.

In summary, while people are more likely to report a positive reaction tion to the interview for themselves, in the indirect section they are much more likely to mention things about the interview that would caase a

TABLE 3.5

# ANSWERS TO QUESTION 14: 'WERE THERE ANY THINGS ABOUT THE INTERVIEW YOU ESPECIALLY LIKED?" 

## Liked:

## Talking with interviewer $13 \%$

Being of help or service ..... 4
Personal benefit ..... 0
Chance to rest ..... 0
"Something enjoyed.sebout questions". ..... 12
Other ..... 2
Don't know ..... 1
Not ascertained ..... 1
Liked nothing ..... 67$100 \%$
N ..... 412

# ANSWERS TO QUESTION 22: 'WHY BO YOU THINK PEOPLE COOPERATE, ON THESE HEALTH SURVEYS?" 

People Cooperate Because:
Like talking to interviewer ..... 0\%
Like being of help or service ..... 62
Desire for personal benefit ..... 11
Chance to rest ..... 1
Can't refuse government ..... 8
No reason - might as well ..... 7
Other ..... 1
Don't know ..... 8
Not ascertained ..... 2100\%
$\mathrm{N}=912$
negative reaction. The most prominent positive force on respondents is said to be the desire to be a good citizen and to help with a worthy cause; the most prominent reasons for a negative reaction were being unable to see the value of the survey and concern about giving up the time required for the interview.

In the next section, the bases of the various forces mentioned will be considered.

## The Time Required for the Interview

A few respondents saw the interview as a break in their everyday routine and a chance to stop what they were doing and relax for a few minutes. For people such as the following, taking some time to give an interview was a pleasure.
"Well, it's a chance to take a little time from my ironing."
"I didn't mind doing it. I guess it gave me a chance to sit down for a while."

For others, however, the time required for the interview was less eagerly given. The following are some respondents who felt strongly enough to express some concern about giving up time for the interview in response to the direct question (Question 9 ):
"Oh, I wondered about it afterwards. It's something they have to do -- she caught me at lunchtime."
"I was feeding the baby, and it was too long. I don't mind ten or fifteen minutes but it was too long and I didn't appreciate it."
"Too lengthyy"
"It's according to what it was for. If it was for a good reason, then it's OK; but I wouldn't want to waste two hours for nothing."
"I don't think it's necessary to go through all that. Especially when they can see I'm busy. I was working on the straw. berries yesterday. I was up to my neck in work, and I just went on with it. I was relieved when it was over."
'Well, it was something new -- while I resented it at first, it was all right. I didn't know quite why it was being taken, and I was cleantagibiousecyesterday when they came."
"I didn't like it. It was a bother. If it was up to myself, I wouldn't mind; but I had to get my husband's supper."
"Too long."
"It was OK. I think that it lasted way too long."
"I didn't mind it. Only thing was it was late ard I wanted to go to bĕ. I never have people come that late tò my house:"

It is evident that the answers include two types of concerns. First, the fnterview occurred at an inconvenient time. Second, the interview lasted longer than was anticipated or deemed appropriate.

To obtain further data on the frequency with which interviews occurred at an inconvenient time, two questions were asked. Question 15 was: "Do you remember what you were doing when the interviewer came to your dcor?" (If remembers) 'What?" Table 4.1 presents the answers.

Perhaps the most striking aspect of the table is that about one third of the interviews occurred at times which are probably:inconvenient: during meals, when the respondent was resting, and when the respondent was preparing to go somewhere. The other activities mentioned, for example household chores, would be expected to vary more in their urgency.

A more direct measure of how inconvenient the respondent felt the interview was comes from the answers to question 16: "How did you feel about her coming, were you pleased when you knew someone was at the door or would you rather she hadn't come just then?" As Table $4 \vdots 2$ shows, about one third of the respondents said that the interview occurred at a very inconvenient time, and an additional 20 per cent said that it was slightly inconvenient -- i.e., they had something else to do, but they were willing to postpone it for the interview. About 40 per cent said that the interviewer came at an acceptable time, and only about 10 per cent said that she came at a very good or very convenient time.

It is probable that the answers reflect to some extent the general attitude of the respondent toward the interview. If a person must do something he is not interested in doing, he is likely to overestimate the attractiveness or importance of other things he might be doing. The frequency of interviews that occurred at inconvenient times, however, corresponds to the reports of what the respondents were doing when the interviewer came; and it is probable that at least a third of the interviews occur at fairly inconvenient times.

To measure the degree to which respondents thought the interview lasted longer than expected, several questions were asked. Question 18 asked: "How long did you think the interview would last when you first let the interviewer in?" The distribution of answers is given in Table 4.3.

Two points stand out in this table. First, over 40 per cent of the sample reported that they had no idea how long the interview would take.

TABLE 4.1

WHAT RESPONDENTS WAS DOING WHEN NHS INTERVIEWER ARRIVED

Respondent doing
Household cliores $31 \%$
Preparing or eating meals 18
Caring for children 3
Watching television or reading 13
Preparing to go somewhere 7
Resting or sleeping 8
Other 8
Nothing 10
Not scertained $\frac{2}{100 \%}$
$N=412$
-34-

## RESPONDENT'S REPORT OF CONVENIENCE OF TIME NHS INTERVIEW OCCURRED

Interview was:
Very convenient ..... $11 \%$
Convenient-all right ..... 38
Slightly inconvenient ..... 21
Quite inconvenient ..... 29
Don't know ..... 0
Not ascertained ..... $\frac{1}{100 \%}$
$N=412$

## TABLE 4.3

HOW LONG RESFONDENT EXPECTED INTERVIEW TO LAST
Expected it would last
Under 10 minutes ..... $15 \%$
10-20 ..... 26
21-45 ..... 11
Over 45 minutes ..... 3
Rad:no expectation ..... 40
Not ascertained ..... $\underline{-}$$100 \%$
$N=412$

Second, although interviews average almost 35 minutes in length, most uf those who report some expectation of length thought it would last less than twenty minutes. The tendency for respondents to feel that the interview lasted longer than expected is clearly shown in Table 4.4 , in which the respondent's expectation is compared with the number of minutes the respondent reported his interview lasted. About 30 per cent indicated that the interview lasted much longer than they had anticipated. This, again, may be partially the result of the respondents' general att-tude toward the interview; if a person does not like something, it may seem to last a long time. However, particularly because respondents have little prior information about the interview, it is likely that some respondents agree to be interviewed on the assumption that little time will be required. This might be especially true for the respondent who was in a hurry or had something else to do; for he would be unlikely to agree to an interview which was to take a long time. Table 4.5 tends to confirm this idea, as it shows that those who said the interview occurred at an inconvenient time are also more likely to indicate that the interview lasted longer than they expected.

Table 4.6 shows that mentioning "time concern" in the indirect questions is not related to the actual length of the interview. However, as Table 4.7 shows, those who report some expectation of the length of the interview and who found that lit lasted longer than expected are l-ikely to mention concern about the time required for the interview in the indirect section. Similarly, Table 4.8 shows that those who said the interview occurred at an inconvenfent time are most likely to mention concern about the time taken by the interview in the indirect section.

Thus, the measures of concern about time are all interrelated, suggesting that they are validly measuring a real force fedt by respondents.

While the majortty of those who are tuterviewed do not mind giving up their time, for almost a third the interviewer arrived when the respondent had something else to do. These people report concern about the time they gave -- soma of them quite forcefully -- and they report the interview lasted longer than they expected, For them, concern about contributing the time needed for the intervifew appears to be a significant problem which is consistentiy mentioned in the follow-up intervew.

## The Rurpose of the Study

The most prevalerit basis for positive reactions to the interview exper-lence was the bellef that co-operating with the interview was a
TABLE 4.4
RELATIONSHIP OF EXPECTED LENGTH TO REPORTED LENGTH OF INTERVIEW
Interview lasted:
Much longer than expected ( 15 minutes or more) ..... $29 \%$
Somewhat longer than expected (5-15 minutes) ..... 6
About the same as expected ..... 13
Somewhat less: than expected" (5\%15 ..minutes) ..... 2
Much less than expected (15 minutes or more) ..... 3
Inappropriate. Respondent had no expectation or dedid not know how long interview lasted ..... 47
100\%$\mathrm{N}=412$

## TABLE 4.5

## WHETHER OR NOT INTERVIEW LASTED LONGER THAN EXPECTED BY REPORTED CONVENIENCE OF NHS INTERVIEW <br> Interview lasted

| Interview wassom | Longer Than Expecteds: | Not Longer <br> Than Expected | Total | N |
| :---: | :---: | :---: | :---: | :---: |
| Very convenient | 20 | 80 | 100 | 46 |
| $\begin{aligned} & \text { Conveņient-all } \\ & \text { right } \end{aligned}$ | 28 | 72 | 100 | 157 |
| Slightly inconvenient: | 38 | 62 | 100 | 85 |
| Very inconvenient | 49 | 51 | 100 | 119 |
| Don't know or not ascertained | - | - | - | 5 |

[^5]
## WHETHER OR NOT RESPONDENT MENTIONS CONCERN ABOUT TIME IN INDIRECT QUESTIONS BY INTERVIEW LENGTH

| Minutes Interview |  |  |  |
| :---: | :---: | :---: | :---: |
| Lasted | Concern About Time |  |  |
| $0-19:$ | Mentioned | Not Mentioned | Total |
| $20-29$ | 37 | 63 | 87 |
| $30-39$ | 39 | 61 | 122 |
| 40 or more | 34 | 66 | 83 |

-40-

```
TABLE 4.7
MENTION OF CONCERN ABOUT TIME IN INDIRECT QUESTIONS BY WHETHER OR NOT INTERVIEW WAS SAID TO LAST LONGER THAN EXPECTED
Concern jbout time
Not mentioned Mentioned Total N
Interview:
\begin{tabular}{cccc}
\begin{tabular}{c} 
Longer than \\
expected
\end{tabular} \(56 \%\) & \(44 \%\) & \(100 \%\) & 143
\end{tabular}
\begin{tabular}{ccccc}
\begin{tabular}{c} 
Not longer \\
expected
\end{tabular} & 67 & 33 & \(100 \%\) & 269
\end{tabular}
*Includes those who reported having no idea how long interview would last.
```


## TABLE 4.8

## WHETHER OR NOT RESPONDNET MENTIONS CONCERN ABOUT TIME IN INDIRECT QUESTIONS BY REPORTED CONVENIENCE OF NHS INTERVIEW <br> Gonestm About Time

| Interview was | Mentioned | Not Mentioned | Total | N |
| :---: | :---: | :---: | :---: | :---: |
| Very convenient | 17 | 83: 3 | 1000 | 46 |
| Convenient-all right | 29 | 71 | 100 | 157 |
| Slightly inconvenient | 38 | 62 | 100 | 85 |
| Very inconvenient | 55 | 45 | 100 | 119 |
| Don't know or not ascertained | -- | -- | -- | 5 |

constructive social act. The following answers, for example, were given by people who were generally favorable to the interview because they thought it would help in some way.
"Well, I was pleased with interview in hopes that it would help them in some way."
"Just if it helps to get statistics I'm happy to help."
"I was glad to contribute -- always interested in statistics."
"I feel like it was for a good cause."
"I felt good. I was glad to do anything I could and $I$ hope it will benefit someone."
"If doing for statistical data, good."
"How can $I$ explain -- in general it's a good thing that the health department is interested in the people."
"I was glad that I did it if it can be of any use."
"I guess I felt it was really OK -- that perhaps I did help out."
"They asked questions which was their business and I answered to the best of my ability. I think it's an awful good thing."
'Well, I think it was a very good thing. I guess it's going to help the health department find out about diseases."
"I thought I was being at service by giving them information about the health of myself and my husband."
"I think it's a good thing that the government is interested in the health of the people in the country and I was glad to help out."

In reading these answers, one gets the feeling that some respondents are acting on faith rather than on concrete information about the uses of the survey; others, however, have enough information about the study to be certain that they are helping with a good cause. Respondents' information about the study was measured in several questions, and their answers were fairly consistent: those who knew little about one aspect of the study knew little about the other parts. The most relevant question for this analysis asked about knowledge of the purpose of the survey. As stated before, the quality of information demonstrated in the answers was generally very low. However, those who showed some knowledge of the purpose were coded "high": those who had a vague idea were coded "medium"; and those who had no idea were coded "low." As Table 5.1 shows, if respondents do have some idea of the purpose of the study, they are somewhat more likely to volunteer "helping others" as a positive force in the interview.

A very few, who were less well informed, seemed to be positively inclined toward the interview on the basis of their belief that they

TABLE 5.1

WHETHER OR NOT RESPONDENT MENTIONS THE APPEAL OF HELPING OTHERS IN THE INDIKECT QUESTIONS BY LEVEL OF INFORMATKOW ABOUT THE STUDY.

| Level of Information | Appeal of helping others |  | Total |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Mentioned | Not mentioned |  |  |
| High | 33 | 67 | 100 | 170 |
| Medium | 30 | 70 | 100 | 53 |
| Low | 14 | 86 | 100 | 173 |
| Not ascertained | - | - | - | 16 |

personally might "get something out of it," for example the following two.
"Great help -- in case you need help -- give you help particularly for poor people."
"I feel something satisfied -- something nice -- maybe it helps me -- we're two cripplessnow in this house and maybe this will give us a little help -- I need help now."

Other respondents were less willing to assume that the interview was a worthwhile way for them to spend their time. The following are some answers $:$ to question 9 which were coded as reflecting some concern about now knowing more about the reason for the survey.
"I don't suppose it is in connection with the Medicare program. I don't know whether there is any politics in it or not -- not partie.. san politics but propaganda for the government or the A.M.A.
"I really wondered what it was all about."
"I was nervous -- I didn't know what it was all about."
"Well, I tell you it is hard to visualize the necessity for some of the information in a PHS survey. Some of the questions had nothing to do with health, myself, or the community."
"There is a lot of questions. They ask the same questions over and over. I hope some good can come of it. I told them all I know. Just questions that are meaningless to most people; but to people who wrote this, they may have some reason."
"I was wondering what the importance of it was."
"I thought it would be very nice if everybody would cooperate. Maybe it's for the good of something, but I don't know what for."
'Well, I mean $I$ don't know what benefit anyone gets from my information concerning my husband's and my health. In what way does it help?"

Others were more outspoken, and were convinced that because they did not know the reason for the study, it probably was not worthwhile.
"I don't think it is doing one bit of good. It is an added expense to the U.S. government or to the state -- which did she say?"
"It was ridiculous and they shouldn't spend the money."
"It's a waste of time and the taxpayers money."
"She was all right, but $I$ think it is a bunch of nonsense about my health. I just think it's foolish, to my notion, to ask those questions."

The data presented previously indicate that the value or purpose of the research is the dominant issue for people discussing their reaction to the interview or the reactions of others. Yet, the above comments portray the vagueness of their ideas about this aspect of the survey. Some people think it is useful; others feel it is not. Those who have the highest level
of information about the study are more likely than others to see it as a good thing; but as Table 5.2 shows, there is no consistent relationship between respondent tevel of information and whether or not he expresses concern that he does not know enough about it.

After reading the above comments, perhaps it is not surprising to see the answers to question 30 : 'Would you have liked to have known more about the reason the survey was being done?" (Table 5.3) Sixty per cent of the respondents said they did want more information, usually about the purpose of the study and the way the results will be used.

It is clear that when questioned about the NHS interview, the majority of respondents see the critical issue to be the purpose of the survey. Some react positively because they feel the cause is good; others react in a qualified way, as they realize they do not know much about the survey; still others react negatively, feeling it is not useful. Yet, in general, the level of information about the study is low for all of these people. Those who said they wanted to help frequently did not know whom they were helping -- nor did they care enough to find out by reading the "Thank you" letter left by the NHS interviewer. Those who said they were concerned because they did not know the purpose of the study, or who said they wanted more information, similarly did not take advantage of the sources of information available to them. While the data show clearly that respondents know they ought to care about the purpose, and while they report wondering about it, it is not altogether clear how important their knowledge about the study was to their reaction to the interview. In a later section, this issue will be considered further.

## Interaction

As was shown earlier in this report, talking with the interviewer was the most frequently cited aspect of the interview that was "especially liked." Indeed, the NHS interviewers apparently make a very favorable impression on respondents. Past evidence indicates that it is difficult to evoke criticism of interviewers from respondents. The indirect questions were especially designed to identify respondent criticisms, however, and some of the evidence presented previously suggests they were successful. The answers to the following indirect question are thus, particularly interesting: "How does she(he) feel about the interviewer?" Table 6.1 presents the results.

Almost three-fourths of the respondents gave positive responses; less -46-

## TABLE 5.2



## TABLE 5.3

ANSWERS TO QUESTION 30: "WOULD YOU HAVE LIKED TO HAVEKNOWN MORE ABOUT THE REASON THE SUREEY WAS BEING DONE?"
Want to know more about:
Why chosen ..... 2\%
Purpose of study ..... 50
Who conducted study ..... 1
The study in general ..... 8
Do not want more information ..... 39$100 \%$
$N=412$

## TABLE 6.1

ANSWER TO QUESTION:
"HOW DOES SHE (HE) FEEL ABOUT THE INTERVIEWER?"

## How Respondent <br> Felt about Interviewer

## Very positive <br> $35 \%$

Positive 33
Neutral or indifferent $\quad 16$

Any criticism whatsoever 3
Don't know 5

Not ascertained $\quad 8$
100\%

$$
\mathrm{N}=412
$$

than three per cent volunteered any criticism or negative statements at all. Of course, for some respondents there was no issue of relating to interviewers as persons; the interviewers were simply there to complete a job. Yet for others the primary appeal of the interview was that it offered an opportunity to chat with someone or it offered a chance to meet someone whom they liked. For these people, it was the interaction with the interviewer which seemed to be the most important thing about the interview. For example, when asked why they like the interview, the following answers were coded as showing that the interaction or the impression made by the interviewer as a person was one of the most important things about the interview.
"I thought they were polite ladies."
"I thought the interviewers were pleasant. They made a fine impression, carried it through, and were very thorough."
"I liked her real well."
"She was nice and pleasant to talk to and doing her job best she could."
"I'll tell you the truth, I received a card that specified the reason for them coming. I expected them. They were very pleasant."
"They were very pleasant and courteous."
"I enjoyed it because they were pleasant. They came right when I was preparing lunch and had a house full of company, but they were relatives and cooked right on."
"I was glad to do it. I like to have people come to see me because $I$ get lonesome."
"I thought it was all right. She was nice to me."
Two viewpoints appear in these answers. Some respondents comment on the favorable impression made by the interviewer as a person, while others mention that they enjoyed the chance to talk with someone.

To examine the internal consistency of responses, one should look at Table 6.2, which shows the respondents' report of how "the person in the picture" felt about the interviewer in relation to whether or not they spontaneously mentioned talking with the interviewer as a positive aspect of the interview experience. It may be seen that those who reported positive reactions to the NHS interviewer are much more likely to mention the pleasure of interaction than those who reported neutral feelings or slightly negative feelings. This relationship might mean either than respondents who react positively to interviewers are more likely to talk with them, or that respondents who have a chance to talk with int erviewers

TABLE 6.2

## WHETHER OR NOT RESPONDENT MENTIONS LIKING TO TALK TO INTERVIEWER BY HOW RESPONDENT FELT ABOUT INTERVIEUER

| How kespondent Felt <br> About Interview | ked Talki | Interviewer | Total | N |
| :---: | :---: | :---: | :---: | :---: |
|  | Mentioned | Not Mentioned |  |  |
| Very nice | 29 | 71 | 100 | 146 |
| Nice | 34 | 66 | 100 | 137 |
| ```All right or any criticism``` | 8 | 91 | 100 | 75 |
| Don't know, not ascertained | 20 | 80 | 100 | 54 |

are more likely to react favorably to them.
Some data relevant to this issue is presented in Table 6.3. If the interviewer arrived at a convenient time, the respondent is likely to mention enjoyment of interacting with the interviewer as a person, and is less likely to mention this if the interviewer arrived at an inconvenient time. This suggests that the particular circumstances under which the interview occurs may have as much effect as the personality and behavior of the interviewer on whether or not the respondent will take pleasure in chatting with the interviewer.

In summary, disliking the interviewer is a negligible concern, but liking to talk with her is an appealing part of the interview experience for a moderate number of respondents. Those who mention this are likely to find the reaction to the interviewer favorable and also likely to say that the interview occurred at a convenient time.

## The Questions

Some respondents say that they enjoy the actual question and answer process that is involved in the NHS interview. They find the activity interesting; they think it is good to have their attention brought to the family's health. Eor example:
"I really enjoyed it. They should have it more often. It makes you check on yourself."
"I think it was very good. It kind of juggled my mind about the health of my family."
'Well, it's for statistics, isn't it? I didn't mind answering the questions. I was pleased to find that we're so healthy."
"Very interesting. It made me think about going to the doctor and getting a check-up and keeping in shape. Makes you think you better get on the ball about these things."
"I liked it all right. I didn't mind doing it, and I learned quite a lot about this sort of thing."
Yet, a larger number of respondents who volunteered comments about the questions in the interview did so in a negative context -- something about the questions that annoyed or bothered them.
'The questions didn't cover everything. They emphasized certain things more than others: the $X$-rays and how often you visited the doctor."
"It was much too lengthy. I don't like all the questions. i didn't like to be asked about the amount of money I made. There were too many personal questions."

TABLE 6.3

## WHETHEK OR NOT RESPONDENT MENTIONS LIKING TO TALK TO INTERVIEWER BY REPORTED CONVENIENCE CF NHS INTERVIEW

| Reported Convenience | Liked Talking to Interviewer |  | Total | N |
| :---: | :---: | :---: | :---: | :---: |
|  | Mentioned | Not. Mentioned |  |  |
| Very convenient | 41 | 59 | 100 | 46 |
| All right | 26 | 74 | 100 | 157 |
| Slightly convenient | 16 | 84 | 100 | $\varepsilon 5$ |
| Very inconvenient | 12 | 88 | 100 | 115 |
| $\begin{aligned} & \text { Don't know, } \\ & \text { not ascertained } \end{aligned}$ | 20 | 8 C | 100 | 5 |

"Well, I didn't mind answering questions, but the questions were all too much alike, too much repetition. I was asked questions about what happened before I was born. I didn't know the answers."
"I just wondered why they asked about every little thing. I didn't know why questions were asked about the last two weeks. What was important about the last two weeks?"
"I found it a little hard. Things leave you as far as time is concerned. I don't remember everything."
"Well, they asked me so many questions. They asked me about things I didn't know."
"It made me feel bad, some questions they asked me. Oh, about schooling. I never had much."
"I couldn't answer. I was so nervous. I wondered what they needed all the questions for. I just worry about things."
"I didn't mind the interview, but you know the questions about the $X$-rays and stuff -- I could have told them all the questions without having to go through each person."

There are three themes that appear in these answers. Some speak of questions which are too personal, such as the question on income. Others speak of the demands that are made on them, and of questions which were too difficult to answer. Still others mention the question format as an irritation, for example, the repetitiousness of questions.

Interviewers and researchers have worried about the question that is "too personal." Income is the item on most surveys to which the most resistance is expected, but education and age are also felt to be facts which some respondents would prefer not to report. Further, on a health survey, some respondents have a health event to report which they feel to be highly personal or embarrassing, such as a case of mental ỉiness or a problem of the reproductive system.

To obtain some measure of this, respondents were asked question 13: "Were there any things the interviewer asked about that you thought were too personal or embarrassing?" Table 7.1 presents the distribution of answers to this question.

As anticipated, asking about income'.was most likely to evoke a comment; about one in ten expressed some concern about reporting income. Nothing else on the questionnaire seems to have bothered respondents very much, however; about 85 per cent said there was nothing that they felt was too personal or embarrassing to report. It is possible that these figures are an underestimate of the degree to which respondents felt the interview

## TABLE 7.61

ANSWERS TO QUESTION 13: 'WERE THERE ANY
THINGS THE INTERVIEWER ASKED THAT YOU
THOUGHT WERE TOO PERSONAL OR EMBARRASSING?" "
Questions too personal
Income
Age or education
Health questions
The whole interview
Other
Not ascertained
Nothing too personal
N $=412$
*Less than one per cent.
touched on personal subjects. For example, if the respondent did not want to discuss his mental illness with the NHS interviewer, he was probably equally reluctant to discuss it with the follow-up interviewer. However, the data indicate that only a small minority find the interview too personal. As Table 7.2 shows, those who said that they found something too personal in response to question 13 were much more likely than others to mention some concern about the questions in the indirect section of the follow-up interview.

Questions $27,27 a$, and $27 b$ were asked to determine whether respondents felt that too much was demanded by the interview when they were asked to report small health events. A little over 20 per cent of the sample said they thought it was asking too much of respondents. As Table 7.3 shows, such people were also more likely to mention concern about it in the indirect section of the interview.

Finally, no questions were asked directly about the repetitiousness of the questionnaire or other format problems. However, the questionnaire is most repetitious for those who have to report for several people, because the interviewer has to ask several questions separately for each person. Table 7.4 shows the relationship between the number of persons the respondent reported for and mentioning concern about the questions in the indirect section. Also, people who report a number of conditions are asked about each condition in great detail; whereas those who report few conditions are asked fewer detailed questions. Hence, one might expect that those who reported the most conditions would be most likely to comment on the question format. Table 7.5 shows the effect of the total number of conditions reported by the respondent on the probability of mentioning problems with the questions in the indirect section.

Neither of these tables shows any consistent relationship. Those who report for several people are no more likely to comment on the questions than those who reported only for themselves. Those who are asked the most detailed questions, because: they reported a number of conditions, are, if anything, less likely than others to mention concern about the questions. This evidence and that previously presented leads one to conclude that negative comments about the questions may be a product of the respondent's personal predisposition toward the interview rather than of the objective characteristics of his interview experience.

## TABLE 7.2

WHETHER OR NOT RESPONDENT MENTIONS CONCERN ABOUTQUESTIONS IN INDIRECT QUESTIONS BY WHETHER OR NOTANY QUESTIONS WERE TOO PERSONAL OR EMBARRASSING.
Some questions:
Concern about questions
Mentioned Not mentioned ..... Total N
Too personal. ..... 66
34 ..... 10067
Not too personal ..... 26
74 ..... 100 ..... 345

## TABLE 7.3

| Reporting everything: | Concern about questions |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Mentioned | Not mentioned | Total | N |
| Too much | 45 | 55 | 100 | 100 |
| Not too much | 28 | 72 | 100 | 291 |
| Not ascertained | 14 | 86 | 100 | 21 |

## TABLE 7.4

WHE THER OR NOT RESPONDENT MENTIONS CONCERN ABOUT QUESTIONS IN INDIRECT QUESTIONS BY NUMBER OF PERSONS IN REPORTING UNIT*

| Number in Reporting Unit | Concern about Questions |  | Total |
| :---: | :---: | :---: | :---: |
|  | Mentioned | Not Mentioned |  |
| 1 | 33 | 67 | 100 |
| 2 | 25 | 75 | 100 |
| 3 or 4 | 37 | 63 | 100 |
| 5 or more | 33 | 67 | 100 |

[^6]
## TABLE 7.5

## WHETHER OR NOT RESPONDENT MENTIONS CONCERN ABOUT QUESTIONS IN INDIRECT QUESTIONS BY TOTAL NUMBER OF CONDITIONS REPORTED BY RESPONDENT

| Total Number.of Conditions Reported by Respondent | Concern about Questions |  | Total | N |
| :---: | :---: | :---: | :---: | :---: |
|  | Mentioned | Not Mentioned |  |  |
| 0 | 29 | 71 | 100 | 51 |
| 1 or 2 | 31 | 69 | 100 | 140 |
| 3 or 4 | 37 | 63 | 100 | 99 |
| 5 or more | 16 | 84 | 100 | 122 |

The forces discussed above were also the subject of direct questions in the re-interview. Three direct questions were asked about potentially negative aspects of the interview hich did not receive spontaneous mention by respondents.

First, it was thought that occasionally interviewers who have production schedules to meet might make the respondent feel that he should hurry or try to finish the interview quickly. Thus, the question was asked: "At any time during the interview did you feel rushed or hurried, or did you always have plenty of time to answer the questions?" Table 7.6 shows the results. Only 37 respondents answered this question by saying they felt hurried; and 34 of these said they were hurried because of some commitment they themselves had. Only three respondents said they sensed that the interviewer was in a hurry or felt at ail rushed by the interviewer. It is true that respondents are very reluctant to make any criticism of the interviewer, so that there may have been more than three respondents who sensed that the interviewer would prefer to finish the interview quickly. It seems safe to conclude, however, that very few respondents have any such perception.

Second, it was thought that some respondents might feel reluctant to ask the interviewer questions if they did not understand the questions. This would both make it hard to perform the task well and might be frustrating to the respondent. Consequently, respondents were asked: "When the meaning of a question or word was not clear to you, did you feel free or not to ask the interviewer what it meant?" Again, this is a difficult thing for respondents to admit, no doubt, and it would have been desirable to think of a question which would have made it easier for the respondent to admit this difficulty. However, as Table 7.7 shows, only five respondents mentioned any problem in asking the interviewer questions; and it is unlikely that any rewording of the question would have changed the data very much.

Similarly, it is clear that some respondents do not understand all of the medical terms that are used in the questionnaire; and it was desirable to find out if any of them felt a sense of confusion or did not essentially understand the words in the questionnaire. One suspects some respondents might feel threatened by the idea that they could not understand words or

TABLE 7.6
ANSWERS TO QUESTION 23: "AT ANY TIME DURING THE INTERVIEW DID YOU FEEL RUSHED OR HURRIED, OR DID YOU ALWAYS have plenty of time to answer the questions?"

Felt hurried because:
Respondent had something to do 8\%
Interviewer seemed hurried 1
Did not feel hurried 90
Not ascertained $\quad \frac{1}{100 \%}$

$$
\mathrm{N}=412
$$

TABLE 7.7

ANSWERS TO QUESTION 24: "WHEN THE MEANING OF A QUESTION WAS NOT CLEAR TO YOU, DID YOU FEEL FREE OR NOT TO ASK THE INTERVLEWER WHAT IT MEANT?"

Felt free $95 \%$

Did not feel free 1
Don't know 2

Not ascertained $\frac{2}{100 \%}$
$\mathrm{N}=412$
questions. Table 7.8 shows the distribution of answers to the question: "Did you and the interviewer have any trouble understanding each other or not?" Only 22 respondents gave an affirmative answer. Although this may not accurately represent the incidence of respondent misunderstanding, the data from the follow-up interview do not permit further exploration of this problem.

TABLE 7.8

ANSWERS TO QUESTION 25: "DID YOU AND THE INTERVIEWER HAVE ANY TROUBLE UNDERSTANDING EACH OTHER OR NOT? "

| Had some trouble | $5 \%$ |
| :---: | ---: |
| Did not have trouble | 94 |
| Not ascertained | $\frac{1}{100 \%}$ |
| $\mathrm{~N}=412$ |  |

The relative prevalence of comments about a force is one measure of its importance to respondents. Another measure is the relationship between mentioning a given force and the respondents' overall reaction to the interview.

Two measures of the respondents' attitudes toward the interview were constructed: one from the indirect questions and one from the direct questions. The relationship between these two indices is presented in Table 8.1.

It may be seen that the two indices are highly related. Sixty-six per cent of the respondents' scores on the indirect index can be predicted within one category by knowing the score on the direct index. Although, in general, respondents expressed more negative sentiments in the indirect section, it appears that relative to other respondents they were fairly consistent in the degree to which they expressed negative comments in the two sections. The difference between the two is the expected one: respondents who are positive on the direct index may appear less positive on the indirect index. If a respondent was negative on the direct index, however, it was highly probable that he would appear to be negative on the indirect index. As the differences between the two are not striking it is likely that both give a reasonably valid picture of respondent reaction.

Table 8.2 shows the respondent's rating on the direct index of respondent feeling by whether or not he mentioned each of several forces in the indirect section of the questionnaire. One would anticipate that the most important forces would be most highly related to the index of respondent reaction.

Two relationships stand out in the table. First, those who mention concern about the questions are quite likely to be negative. Second, those who mention concern about time are unlikely to appear positive on the direct index. This would suggest that these two negative considerations have the most effect on the respondents' overall reaction to the interview. However, the two positive forces also relate to the direct index in the expected way: those who mention either liking to talk with the interviewer or wanting to help or be of service in the indirect questions are more positive according to the direct index of respondent reactions. Only "concern about not knowing the purpose of the study" fails to relate to the index of respondent reaction.

TABLE 8.1

RELATIONSHIP BETWEEN DIRECT AND INDIRECT INDICES OF RESPONDENT REACTION TO THE INTERVIEW.

| Direct <br> Index | Indirect Index |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Very positive | Somewhat positive | Neutral | Somewhat Negative | Very <br> Negative | Total | N |
| Very positive | 32 | 20 | 27 | 14 | 7 | 100 | 116 |
| Somewhat positive | 18 | 18 | 34 | 13 | 17 | 100 | 67 |
| Neutral | 24 | 13 | 34 | 18 | 11 | 100 | 71 |
| Somewhat negative | 7 | 14 | 26 | 39 | 14 | 100 | 94 |
| Very negative | 3 | 12 | 16 | 27 | 42 | 100 | 64 |

Forces
Concern about question
Mentioned
Not mentioned

| $24 \%$ | $23 \%$ |  | $47 \%$ |
| :--- | :--- | :--- | :--- |
| 76 | -77 |  | -53 |
| 100 | 100 |  | 100 |

Concern about not knowing purpose
Mentioned
53
47
100

Concern about time
Mentioned 25
Not mentioned

| $\frac{75}{100}$ | $\frac{58}{100}$ | $\frac{51}{100}$ |
| :--- | :--- | :--- |

Like talking to interviewer

Mentione

Not mentioned
34
66

100

Appeal of helping or being of service

| Mentioned | 29 | 30 | 17 |
| :--- | :---: | :---: | :---: |
| Not mentioned | -71 | -70 | 83 |
|  | 100 | 100 | 100 |
|  | N | 183 | 71 |

* 

While the sample was drawn in such a way that strict use of inferential statistics is difficult, $2 \times \frac{\mathrm{pq}}{\mathrm{n}}$ is estimated to be a reasonable approximation of the sampling error. On this basis, these differences would occur less than 5 times in 100 by chance.

There are several conclusions to be drawn from this table. First, the relationships tend to increase confidence in the validity of the measurements: those who give responses which would lead to a favorable reaction in one. section of the interview tend to indicate that their reaction was favorable in another. Two of the relationships are statistically improbable, and two others are in the expected direction. Second, while both positive and negative forces relate to the index, the data tend to confirm evidence presented earlier that the negative forces are more significant determinants of the respondents' feelings about the interview than are the positive forces. Finally, it is interesting that expression of concern about not knowing the purpose of the study does not relate to the respondent's overall reaction to the interview. This is consistent with the fact that respondents generally go to very little trouble to find out what the study is about and seem willing to grant an interview with a minimum of information about it. This, of course, does not imply that the reaction of respondents would not be more favorable if they had more information. As has been shown, they are more likely to see the interview as a public service if they know something about it. Yet it does imply that not knowing about the survey is not an important barrier or source of concern to respondents.

## RESPONDENT PERCEPTIONS

Respondents were asked a number of questions about the way they perceived different aspects of the interview situation. The purpose of these questions was not to understand respondent feelings (discussed in the last section), but to measure certain cognitions which might affect directly the way the respondents behaved in the interview.

## Perception of the Task

An important part of the respondent's orientation to the interview is the way he perceives his task. Respondents were asked two questions on this subjects.

Did the interviewer want you to be exact in the answers you gave, or were general ideas good enough?
Did she want everything, no matter how small it was, or was sherinterested in fairly important things?

For either of two reasons, the answers a respondent gives to these questions may be an important clue to the quality of his reporting behavior.

1) If a respondent actually is misinformed and thinks all that is required is that he give general information about the most important health events, the quality of his reporting might well be expected to be low.
2) If a respondent is not trying to do a good job -- perhaps being more interested in getting through the interview quickly -- an effective way to justify a poor performance, without feeling guilty, it to misperceive the task as requiring less work than it really does.

Table 8.3 shows that about 57 per cent of the sample said that the interviewer wanted exact answers, while the rest said either that she wanted some general answers or primarily general answers. Table 8.4 shows the distribution of answers to the second question. It can be seen that almost 80 per cent of the sample said that the interviewer wanted everything -not just fairly important things.

These distributions are quite intriguing. Validity studies of the reporting of hospitalization have shown that less important events are less likely to be reported than serious and important events, and that there is considerable error due to misplacement of events in time: reporting events which occurred slightly before the period the questions ask about and not reporting events which occur early in the period covered. These

## TABLE 8.3

ANSWERS TO QUESTION 26: "DID THE INTERVIEWER WANT YOU TO BE EXACT INTHE ANSWERS YOU GAVE, OR WERE GENERAL IDEAS GOOD ENOUGH?"
Interviewer wanted:
Exact answers ..... $55 \%$
Some of each ..... 5
General ideas ..... 35
Not ascertained ..... $\underline{ }$$100 \%$
$N=412$

## TABLE 8.4

ANSWERS TO QUESTION 27: "DID SHE WANT EVERYTHING, NO MATTER HOW SMALL IT WAS, OR WAS SHE INTERESTED ONLY IN FAIRLY IMPORTANT THINGS?"

## Interviewer wanted:

Everything ..... 31276\%
Only important things ..... 80 ..... 19
Not ascertained ..... 20 ..... $\underline{5}$
100\%
$N=412$
are errors which would result from thinking that the interview did not require "exact" answers or only was concerned with the "fairly important" health events.

As was stated, it is not clear whether the answers to these questions reflect a cause or an effect of poor reporting. It is likely, however, that a moderate proportion of the sample perceives its task in the interview as being somewhat less rigorous than is desirable, and that this perception might be related to a lower level of performance in the interview.

## Perceptions of the Relationship to the Interviewer

Respondents were asked several questions about their perceptions of the interviewer and their relationship to her. The first two questions pertained to the perception of the amount of training and the level of education of the interviewer.

How far through school do you think the interviewer had gone -grade school, high school, or college?

How long do you suppose she had to receive special training in order to be an interviewer?

The purpose of these questions was to obtain some notion of the level of expertise and professional status the respondents attributed to the NHS interviewer. Table 8.5 presents the distribution of answers to the first question. In general, respondents tended to see the interviewers as somewhat better educated than they actually are, with 53 per cent of the respondents saying thatheir interviewer had had some college or had completed college, when in fact less than a third of the interviewers actually had that much education.

Similarly, Table 8.6 shows the tendency for respondents to perceive that it taices considerable special training to be an NHS interviewer. Over half the respondents think interviewers require at least six months of special training. These data would suggest that over half the respondents see the NHS interviewer as a highly educated, highly trained professional. Only a very few -- perhaps ten per cent -- see her job as one which can be mastered in a few days.

Further faformstion on the perception of the interviewer was obtained in a unique way. It has been found generally that it is very difficult for people to describe a relationship to another person. As an experimental attempt to measure the way the respondent perceived the

## TABLE 8.5

ANSWERS TO QUESTION 35: "HOW FAR THROUGH
SCHOOL DO YOU THINK THE INTERVIEWER HAD
GONE - GRADE SCHOOL, HIGH SCHOOL, COLLEGE?"
Perceived education of Interviewer
Grade school 1\%

High school 44
Some college 16
College graduate 35
Don't know 3
Not ascertained 1

100\%
$\mathrm{N}=412$

TABLE 8.6

ANSWERS TO QUESTION 36: "HOW LONG DO YOU SUPPOSE SHE HAD TO RECEIVE SPECIAL TRAINING TO BE AN INTERVIEWER?"

Special training received:
None 1\%
Less than one week 5
$1-4$ weeks 24
1-3 months 25
4-6 months 15
7-12 months 8
More than one year 15
Don't know 5
Not ascertained $\quad \frac{2}{100 \%}$
$N=412$
rexationship, the following question was asked.
What kind of a person would you say the interviewer was? Which of these remind you most of the interviewer; that is, which was it most like talking to?

Then the respondent was handed a card with the following list on it.
a. A close friend
b. A secretary or clerk in an office
c. A salesgirl in a department store
d. A nurse
e. A foor-to-door salesman
f. A neighbor
g. A social worker
h. A female doctor
i. A Community Chest Volunteer calling for contributions
j. A teacher
k. A female lawyer

The results are presented in Table 8.7. It can be seen that, by far, the most typical response was "social worker," endorsed by 46 per cent of the sample. Secretary, neighbor, nurse, and close friend were the only other answers endorsed by more than three per cent of the sample; and they were chosen by from seven to 14 per cent.

Perusal of the items which respondents said best depicted the inter-viewer-respondent relationship suggests two dominant dimensions. First, there is the dimension running from professional to non-professional. A social worker and a nurse are both people who are highly trained and who are supposed to be concerned about the health and welfare of the public. A teacher -- which was mentioned second by a number of respondents -- also has professional status, perhaps with an overtone of altruism, but does not have the specific connotation of public service and welfare. In all three professions, there is an element of trust in the relationships -all are people to whom it might be appropriate to divulge otherwise personal information. One would suspect that when an interviewer is viewed as most like a teacher, a social worker, or a nurse, a professional relationship has been established, in which the interviewer is respected, and that good reporting will result. The last conclusion will be tested in a later report.

In contrast, a secretary or clerk is not a professional. She is not engaged in any type of public service, nor is it particularly appropriate to divulge personal information to her. She may be seen as neither particue larly trustworthy nor particularly dishonest. Talking to her might be
DISTRIBUTION OF RESPONDENT REPORTS OF WHAT INTERVIEWER WAS MOST LIKE, NEXT MOST LIKE, AND LEAST LIKE.
Interviewer was:
Secretary or clerk in office ..... $14 \%$ ..... 15\% ..... 4\%
Salesgirl in store ..... 1 ..... 4 ..... 12
Nurse ..... 7 ..... 13 ..... 3
Door-to-door salesman ..... 3 ..... 12 ..... 9 ..... 6
Social Worker ..... 46 ..... 16 ..... 2
Female doctor ..... 2 ..... 5 ..... 6
Community Chest volunteer ..... 1 ..... 6 ..... 7
Teacher ..... 3
13 ..... 5
Close friend ..... 7
7 ..... 15
Female lawyer ..... 2 ..... 2 ..... 21
Not ascertained
$100 \%$ $100 \%$ ..... $100 \%$
$N=412$
very similar to talking to a tape recorder. Such a relationship would probably be fine for collecting some types of information, but might not be suitable for collecting information which is considered personal or embarrassing. It is not surprising that some interviewer-respondent relationships were reported to be like talking to a secretary. It is interesting, actually, that although it was the second most prevalent response, only 14 per cent gave "secretary" as the relationship which best depicted the interview experience. It is also interesting that the extreme end of this dimension -- the salesman who might be seen as untrustworthy and trying to take advantage of the respondent .- was almost never chosen.

All of the above-mentioned positions are fairly formal and impersonal-they are business relationships of one type or another. Those respondents who said that the interviewer was most like a "close friend" or "neighbor," however, apparently did not view their interaction with the interviewer as highly formal or as a business interaction. This suggests a second dimension in the answers, running from warm, friendly, and personal to formal and businesslike. Although the prevailing responses would indicate that most interviews were viewed as falling close to the latter end of this dimension, a moderate proportion of the respondents indicate that they felt the interview was fairly informal.

Some additional information on the degree to which respondents see the interview as a formal relationship is available. Respondents were asked two questions designed to obtain some idea of the way they wanted the interaction with the interviewer to go.

Some people said they would rather an interviewer be business-
I: : ":: - like - stick to her job -- while some say they would rather the interviewer visit a little. Which would you like best?

Would you have liked the interviewer who talked with you to have been more friendly, or more businesslike than she was?

The answers to the first question are presented in Table 8.8. It is clear that respondents do not agree on the answer to their question. Forty per cent stress their preference for some "visiting" during the interview, whiłe an equal number state that they feel it is most appropriate for the interviewer to stick to her job and finish her task efficiently. The other 20 per cent say they would like a mixture - an efficient interview in which there was some friendly interaction.
ANSWERS TO QUESTION 37: 'SOME PEOPLE SAY THEY WOULD RATHER AN INTERVIEWER BE BUSINESSLIKE - STICK TO HER JOB - WHILE SOME SAY THEY WOULD RATHER THE INTERVIENER VISIT A LITTLE. WHICH WOULD YOU LIKE BEST?"
How should interviewer behave
Only businesslike mentioned ..... $36 \%$
Businesslike stressed more ..... 3
Both equally stressed ..... 12
Visit stressed more ..... 5
Only visit mentioned ..... 39
Other ..... 0
Not ascertained ..... 5100\%N -412

Although no definite conclusions can be drawn, there probably is a difference among resp ondents in their perceptions of what is appropriate in an interview. Whatever their preferences, however, the interviewers apparently handle the situation well.

After the respandent had stated his own preferences for the interviewer's behavior, he was asked how his own interviewer should have changed her behavior. As Table 8.9 shows, respondents were overwhelmingly in favor of the interviewers behaving just as they did; very few said that interviewers should have behaved differently,

It is true that respondents are very reluctant to criticize interviewer behavior. Further, few respondents have a clear idea of the way that an interviewer aught to behave, as most have never before been interviewed. Hence they have no standards with which to decide that an interviewer should behave differently than she did. In any case, however, indications are that interviewers handle the interaction with the respondents very well, so that there is little residual dissatisfaction on the part of the respondent when she leaves. It is likely that if this were not the case -- even with the counter factors mentioned above -- more respondents would have taken the opportunity to suggest some changes in interviewer behavior.

TABLE 8.9

ANSWERS TO QUESTION 38: "WOULD YOU HAVE LIKED THE INTERVIEWER WHO TALKED WITH YOU TO HAVE BEEN MORE FRIENDLY OR MORE BUSINESSLIKE THAN SHE WAS?"

How should interviewer have been

| More friendly | $8 \%$ |
| :--- | ---: |
| Same as she was | 88 |
| More business like | 2 |
| Not ascertained | -2. |
|  | $100 \%$ |

$N=412$

The impact of the interview, the feelings about the interview, and the forces that respondents take into account differ with the demographic group to which the respondent belongs. One purpose of this study was to increase understanding of the feelings of people in different demegraphic groups, particularly those who have been found to report less accurately than others in the National Health Survey. * Thus, it is particularly appropriate to consider the relationships between demographic characteristics and the answers given in the follow-up interview with respondents. In addition, the degree to which the results conform to commonly accepted ideas about different demographic groups will be one indication of the amount of confidence one can have in the attitudinal measures. In this section, various demographic characteristics of the respondent will be considered in relation to the most important measures discussed in the preceding sections, and in the context of what has been learned from other studies about reporting. As this is an overview, only the more notable relationships will be discussed.

## Race

Non-whites have been found to report less accurately than whites in the National Health Survey. There are data from other types of studies which, while inconclusive, suggest that there are strong barriers to communication between the non-white respondent and the white interviewer, which could present a problem woth for the NHS and for the validity of the re-interview in this study.

Table 9.1 shows the relationship between the respondent's race and the two indices of respondent feeling about the interview. It may be seen that non-whites appear much more favorable than whites on the direct index, but are less favorable than whites according to the indirect index. The indirect procedure was designed specifically to overcome respondent resistance to talking about negative feelings, and the data in Table 9.1 lead one to think that it might have been successful. One would anticipate that the overall reaction of the non-whites would be less

[^7]TABLE 9.1
PERCENTAGE DISTRIBUTION OF SELECTED MEASURES FROM REINTERVIEW BY RACE OF RESPONDENT
Race
Direct index of respondent feeling Positive
White Non-white
32 ..... 52
Other ..... 68 ..... 48
Indirect index of respondent feeling
Positive ..... 32 ..... 22
Other ..... 68 ..... 78
Concern about not knowing purpose of study
Mentioned ..... 46 ..... 43
Not mentioned ..... 54 ..... 57
Concern about questions
Mentioned ..... 3421
Not mentioned ..... 66 ..... 79
Questions were
Too personal ..... 18 ..... 10
Not too personal ..... 82 ..... 90
Concern about time
Mentioned ..... 3831
Not mentioned ..... 62 ..... 69
Interviewer arrived at
Convenient time ..... 48 ..... 59
Inconvenient time ..... 52
Free time
Much ..... 48 ..... 26
Some ..... 22 ..... 31
Little ..... 30 ..... 43
Interview lasted
Longer than expected ..... 39 ..... 25
Not longer than expected ..... 61 ..... 75
Like helping or being of service
Mentioned ..... 26 ..... 15
Not mentioned ..... 74 ..... 85
Like talking with interviewer
Mentioned ..... 2716
Not mentioned ..... 73 ..... 84
Feeling about interviewer
Positive ..... 37 ..... 28
Other ..... 63 ..... 72
Done for personal benefit
Mentioned ..... 313
Not mentioned 97 ..... 87
Interviewer wanted
Exact answers ..... 6644
General answers ..... 34 ..... 56
Prefer interviewer
Businesslike ..... 36 ..... 42
Mixed ..... 7
To visit ..... 57
Special training needed to be interviewer
Less than one month ..... 9
1-6 months ..... 39
Over 6 months ..... 52
favorable than that of the white respondents.
The re-interviews with non-whites are noteworthy for the dearth of forces, both positive and negative, that are mentioned. Although the differences are not always large, the total picture is suggestive. They are as likely as whites to mention concern about not knowing the purpose of the study, but they are less likely to mention concern about the questions that were asked or about the timeirequired for the interview. Consistently, they were less likely to say that any questions were too personal or embarrassing and more likely to say that the interviewer arrived at a convenient time; they were less likely than whites to say that the interview took longer than expected. The data on concern about time are particularly interesting, because non-whites report having much less free time than do whites.

There is a similar tendency for non-whites to mention fewer positive forces. They are, for example, less likely than whites to mention the desire for public service or helping others in the indirect questions. Further, they are less likely to say that the "person in the picture" enjoyed talking with the interviewer or that he liked her very well. The only positive force which was more prevalent among non-whites than white reppondents was the desire for personal benefit; and that response was given by very few respondents of any race.

More striking differences between races occur in their perceptions of the interview and interviewer. Whites are much more likely than non-whites to say that the interviewer wanted exact answers; while nonwhites attribute more education and training to the interviewers than do white resp ondents. Non-whites are also somewhat more likely to say that they prefer an interview which includes some visiting, rather than a strictly businesslike interview.

With respect to the forces on the respondents, the differences between non-whites and whites are not large enough and the number of non-whites is too small to permit any definite conclusions. Perhaps the differences that occurred are due to verbal facility (which comes with education) and the relatively freer communication between white respondents and interviewers in the re-interview. The differences may be real, however, in which case one would look to the lower level of positive forces to help explain the relatively poorer reporting of non-whites.

The differences in the perception of the task and the interviewer are large enough to approach statistical significance and should be less subject to response error. Here, it was seen that the non-white respondents were much less likely to have the desired perception of the task -- that of reporting exactly to the interviewer -- and may be indicating a more casual approach to the task when they say they prefer to visit during the interview. It may also be signfficant that non-whites tend to increase the social distance between themselves and the interviewer by attributing very high levels of training and education to them -- thus increasing the barriers to communication. While the results of this pilot study cannot be conclusive, one is inclined to look at ther these latter tables for clues to the distinctively poor reporting of non-whites in the NHS.

## Age

There is some evidence that older respondents report less well than young respondents. Do the data give any clues as to why that might be?

First, respondents over 55 are much less likely than younger respondents to report either thinking or talking about the interview. If these are measures of the impact of the interview, that would suggest that the interview is less important to older respondents. According to the direct index, the reaction of older respondents is somewhat more favorable than that of young respondents; the picture from the indirect index is less clear, but generally in that direction.

The reason for the more positive reaction to the interview may lie in the fact that the interview was much more convenient for old people, according to their reports. Many, of course, are retired; and respondents over 55 are:much more likely than young respondents to report that they have a great deal of free time, and that the interview occurred at a good time. Further, they are unlikely to say that it lasted longer than expected or that they were concerned about the time it took.

In addition, older respondents were no more likely than others to mention any concern about the questions asked but slightly -- though only slightly -- more likely to mention some concern about not knowing the purpose of the study.

On the other hand, older respondents mention no more positive forces

than others. Neither the interest in public service nor the appeal of interacting with the interviewer are more prominent in the answers of those over 55 than of those under 55; and the interviewer, if anything, is said to be liked a bit less. This last finding is a bit surprising, as one might think that older respondents would particularly enjoy the opportunity to chat with someone.

In the perception of the task, the older people stand out because they are much more likely than others to say that the interviewer only wanted general answers, not exact answers. This may be because they tend to have more to report, and the task of reporting all of their health events exactly may seem a bit unrealistic; it may also reflect a more casual approach to the task of being a respondent. The latter view might be preferred to the former, because older respondents are no more likely than others to say that reporting "everything" is too much to ask.

Thus the picture that emerges of the respondent over 55 is a person who feels few negative forces, being particularly free of other time pressures, but who has no more positive forces on him than others. His reaction to the interview is favorable, but its impact on him may be low, and he may be a bit casual in his perception of what is expected of him. Such a person might well be expected to report less well than others.

## Sex

Validity studies have revealed no differences between the quality of reporting of males and females. Hence, it is not too surprising that there are only two noteworthy differences in their answe rs to the re-interview. First, the females are more concerned about the time required for the interview than are males. There are slight tendencies for them to be more likely to say the interview lasted longer than expected, that it did not occur at a convenient time, and to mention concern about time in the indirect questions. These differences can be primarily attributed to the fact that male respondents report having significantly more free time than do female respondents. This is probably because many of the males who were home to be respondents were retired. On the other hand, the females in the sample reacted more favorably to the interviewer. They were more likely to mention the appeal of talking with her in the indirect questions, and also reported a more favorable reaction to her as a person.
TABLE 9.3
PERCENTAGE DISTRIBUTION OF
SELECTED MEASURES ON RE-INTERVIEW BY SEX OF RESPONDENT
Male Female
Concern about time
Mentioned ..... 30 ..... 39
Not mentioned 70 ..... 61
Interview lasted
Longer than expected ..... 26 ..... 37
Not longer than expected 74 ..... 63
Interviewer came at:
Convenient time ..... 5948
Inconvenient time 41 ..... 52
Respondent's free time
Much ..... 4117
Some ..... 27 ..... 45
Little ..... 32 ..... 38
Liked talking to interviewer Mentioned ..... 15 ..... 28
Not mentioned 85 ..... 72
How felt about interviewer
Positive ..... 62 ..... 74
Other ..... 38 ..... 26

Except for the difference in reported amount of free time, however, none of these differences approaches statistical significance; and there is little basis from these answers to expect any difference between sexes in the quality of their reporting in the NHS.

Number in Reporting Unit*
It is known that respondents report better for themselves than they do for others; but there is no evidence that those who report for a number of people report any more poorly than those who report for a few. Table 9.4 shows the relationships between the important measures in the re-interview and the number of people the respondent reported for. Only one difference appears to be at all large: those who report for five : t : or more persons are more concerned about the time required for the interview than those who report for fewer people. As these respondents are most likely to be housewives with at least three children, oone can understand why they are busy. No other motivational or perceptual differences of note appear.

## Education

The relationship between accuracy of reporting and the respondent's level of education has not been consistent in all validity studies. In general, those who have attended college report best; and there is some evidence that those who begin high school but do not finish are the worst reporters -- worse than those who did not begin high school.

The better educated tend to mention more specific negative forces. For example, they are slightly more likely to mention concern about the questions, possibly because they have a fuller frame of reference within which to evaluate an interview. However, the only difference that approaches statistical significance is that those with more education more often mention reluctance to give up the time for the interview. Consistently, they report having less free time and are slightly more likely to say that the interviewer arrived at an inconvenient moment.

## +

All persons for whom principal respondent reported fully or in part.

TABLE 9.4

PERCENTAGE DISTRIBUTION OF SELECTED MEASURES ON RE-INTERVIEW BY NUMBER IN REPORTING UNIT

| Concern about time | Number In Reporting Unit |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | $\underline{2}$ | 3-4 | 5 or more |
| Mentioned | 34\% | 30\% | 40\% | 47\% |
| Not mentioned | 66 | 70 | 60 | 53 |
|  | 100 | 100 | 100 | 100 |
|  | , |  |  |  |
| Number of persons for whom principal respondent reported wholly or in part. |  |  |  |  |

TABLE 9.5
PERCENTAGE DISTRIBUTION OF SELECTED MEASURES ON REINTERVIEW BY EDUCATION OF RESPONDENT

| Respondent | Education of Respondent |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 0-8 years grade <br> school | 1-3 years high school | 4 years high school | 1 or more years college |
| Talked about interview | 64 | 60 | 74 | 79 |
| Did not talk about interview | 36 | 40 | 26 | 21 |
| Concern about time |  |  |  |  |
| Mentioned | 28 | 26 | 53 | 42 |
| Not mentioned | 72 | 74 | 47 | 58 |
| Interviewer came at: |  |  |  |  |
| Convenient time | 55 | 56 | 39 | 48 |
| Inconvenient time | 45 | 44 | 61 | 52 |
| Interview lasted |  |  |  |  |
| Longer than expected | 31 | 28 | 45 | 36 |
| Not longer than expected | d 69 | 72 | 55 | 64 |
| How much free time |  |  |  |  |
| Much | 26 | 25 | 16 | 19 |
| Some | 42 | 37 | 42 | 43 |
| Little | 32 | 38 | 42 | 38 |
| Concern about questions |  |  |  |  |
| Mentioned | 26 | 28 | 39 | 39 |
| Not mentioned | 74 | 72 | 61 | 61 |
| Liked helping or being |  |  |  |  |
| of service |  |  |  |  |
| Mentioned | 16 | 28 | 23 | 36 |
| Not mentioned | 84 | 72 | 77 | 64 |
| Interviewer wanted |  |  |  |  |
| Exact answers | 46 | 59 | 70 | 88 |
| General answers | 54 | 41 | 30 | 12 |
| Prefer interviewer |  |  |  |  |
| Businesslike | 42 | 24 | 48 | 49 |
| Mixed | 9 | 10 | 14 | 23 |
| To visit | 49 | 66 | 38 | 28 |
| Special training needed |  |  |  |  |
| to be interviewer |  |  |  |  |
| Less than one month | 25 | 23 | 41 | 40 |
| 1-6 months | 38 | 49 | 41 | 43 |
| Over 6 months | 37 | 28 | 18 | 17 |

There is a strong relationship between level of education and the likelihood of mentioning the desire to be of public service as a positive force on respondents. Because those with high education have the most information about the study and about research in general, this relationship was anticipated. Those with high educations should be much better able to see how cooperating with an interview is a public service.

One of the most striking findings is the direct relationship between level of education and the answer to the question: "Did the interviewer want you to be exact in the answers you gave, or were general ideas good enough?" The higher the education of the respondent, the greater the probability that he said the interviewers wanted exact answers. There is also a marked tendency for those with high education to prefer the interviewer to be primarily businesslike in conducting the interview. The latter relationship may be the result of the time pressure felt by these respondents. The two relationships together, however, show the high education respondent as one who knows what is expected of him and wants to do it efficiently; while the low education respondent may be unclear about what is expected and - perhaps consequently in part - more casual about doing it.

Finally, there is a marked tendency for respondents with little education to see the interviewer's job as more highly skilled - requiring considerable special training - than do those who have had more education. This would be expected, as the interviewer demonstrates skills which low education respondents have difficulty in mastering.

The data indicate that those with high educations are more conflicted than those with low educations: they mention more negative aspects to being interviewed - concern about the time required and the content of the questionnaire - and, yet, are more likely to see the interview as a public service. The impact of the interview seems high for them, perhaps as a result of the conflict, for they are more likely to talk about the interview after it is over. Yet, it may be that a respondent who has some criticisms of the interview, but sees it as a public service, is a better respondent than one who has no criticisms, but does not have any very positive reasons for cooperating either.

High education respondents also have a clearer perception of their task in the interview, and they tend to see it as a task rather than as a social event. Tbis clearer perception of the role of respondent may also play an important part in their generally better performance.

## Income

In general there is a direct relationship between the family income of a respondent and the quality of his reporting.

The reinterview data on income are fairly similar to those on education, except the negative forces are more marked and the positive ones less so. Concern about the questions was slightly more prevalent among high education respondents than low, but the relationship is much more striking with income. Also, those with high incomes are particularly likely to say that some questions in the interview are too personal. This augmentation in concern about the questions is primarily due to their sensitivity to reporting their incomes in an interview. Similarly, concern about the time given for the interview was very prevalent among high income respondents. Relationships which are statistically very improbable exist between income level and mentioning concern about time in the indirect questions, saying the interview occurred at an inconvenient time, and reporting that the interview lasted longer than expected. Respondents with high incomes also report they have less free time than low income respondents.

On the other hand, there are no differences of note between income groups in their perception of positive forces, except that high income respondents report a slightly more favorable reaction to the interviewer. Hence, as one would expect, the overall reaction of high income respondents is somewhat more negative than that of low income respondents.

If respondents with high incomes report feeling more negative forces and no more positive forces than those with low incomes, why do they report better? Although no definitive answer can be given, one again is led to look at their perceptions of their roles as respondents. Those with high incomes are more likely than others to see the interview as a businesslike task, in which their job is to give exact answers -- not just general ideas. All the demographic groups which excel at reporting in the NHS tend to have this orientation toward their task, and it may be important.

In addition, like those with high educations, the high income respondents see the interviewer's job as requiring less training than do those whose incomes are lower. It is interesting to speculate on the possible

TABLE 9.6
PERCENTAGE DISTRIBUTION OF SELECTED MEASURES FROM THE REINTERVIEW BY FAMILY INCOME OF THE RESPONDENT

Family Income

| Direct index of |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$0-1999 | \$2000-3999 | \$4000-6999 | \$7000-9999 | Over $\$ 10000$ |
| respondent |  |  |  |  |  |
| Feeling |  |  |  |  |  |
| Positive | 57 | 51 | 39 | 43 | 33 |
| Other | 43 | 49 | 61 | 57 | 67 |

$\frac{\text { Indirect index }}{\frac{\text { of respondent }}{\text { feeling }}}$

Positive
ositive
Other
Concern about
question
Mentioned
Not mentioned
$\frac{\text { Was any question }}{\text { too personal }} 9$
Mentioned 2
question
Mentioned
Not mentioned
$\frac{\text { Was any question }}{\text { too personal? }}$
question
Mentioned
Not mentioned
$\frac{\text { Was any question }}{\text { too personal }}$
question
Mentioned
Not mentioned
$\frac{\text { Was any question }}{\text { too personal }} 9$
Yes

No
Concern about time
Mentioned 37

Not mentioned 6
Interviewer
arrived at

| Convenient time | 62 | 5 |
| :--- | :--- | :--- |
| Inconvenient time | 38 |  |

Interview lasted


Not longer than expected


95

7
63
27
73
13
87
19
81
31
38
38
62
26
74
32 68 33
61
57 67

## Indirect index

 of respondent feeling5

24
$76 \quad 69$
33
45
67
55
significance of this relationship, for it, too, appears with each of the demographic variables markedly related to good reporting. If the interviewer is thought to be very highly trained and performing a highly specialized task which the respondent only vaguely grasps, the entire responsibility for producing a good interview may be placed on the shoulders of the interviewer by the respondent. On the other hand, the respondent who sees the interviewer's role as less specialized and more at his own level of competence may feel a greater sense of responsibility for producing a good interview.

Whether or not this speculation helps to account for the superior reporting of high income respondents will be explored in a later report. However, except for their clearer perception of the respondent's role, the reinterview provides little other basis for explaining why they report better than those with low incomes.

To summarize the main findings presented in this report:

1. The respondents'reported reactions are more likely to be positive than negative, but the majority seem to have trouble thinking of anything they either particularly liked or particularly did not like about the interview.
2. There is some indication that for many respondents the interview is not a significant event -- one that occasions much thought or is the subject of strong feelings.
3. The most frequently mentioned characteristic of the interview is the purpose it will serve. Those who react positively are most likely to say they do so in order to help or be of service; those who react negatively are most likely to say that it is not worthwhile or that they do not know enough about its purpose to be sure that it is worthwhile.
4. The most important correlates of respondent feelings are whether or not the respondent found it inconvenient to give up the time for the interview and whether or not he was bothered by something about the questions.
5. Many respondents report that they thought the interviewer only wanted general ideas -- not exact answers; and 20 per cent say that she was only interested in obtaining reports of the most importanc health events. These responses are most likely to come from those with little education and from non-whites.
6. The reaction to the interviewer tends to be positive, but respondents are divided on the degree to which they would like the task of the interview to be accompanied by some personal interaction. Those with most education are likely to stress that the interviewer should "stick to her job" and finish the interview efficiently.
7. There is considerable variance in how much training respondents feel is required in order to be a NHS interviewer. Those who are high in education or family income are most likely to say that it takes little training.

The conclusions to be drawn from these data are necessarily tentative, for this is an exploratory study in which the size of the sample is not very large and the meaning of the measures is not always clear. Yet there are some interesting ideas suggested by the data which may turn out to be fruitful.

First, the negative forces appear to be particularly important. The interview seems to have more impact for those who are most negative; and negative forces -- the inconvenience of the interview and something annoying about the questions -- were the most important correlates of the respondent's report of his overall impression of the interview. These negative forces probably can be controlled without major changes in NHS procedures. Most simply, there could be increased attempts by interviewers to call back when they contact a respondent at an inconvenient time. The problems with the questions might be somewhat more difficult to solve, but they appear to stem from the respondents' inability to understand the reason for certain questions and certain question formats rather than from the content of the questionnaire itself. Of course, there is no way to completely eliminate the embarrassment of reporting a socially unacceptable disease. Some steps might be taken to assure the respondent that the NHS interview is an appropriate place to discuss such an illness, but the data indicate such problems arise for only a very small percentage of the population in any case.

Second, most respondents say that the primary reason for cooperation with the NHS is that it is a socially constructive act. Yet their information about the study tends to be very vague, with close to a majority saying they do not even know who is conducting the study. Consequently, perhaps it is not surprising that the respondent who says he wanted to help out is not very different from the respondent who does not say this in his overall reaction to the interview experience. If the need to reduce certain negative forces is clear, the need to increase to positive forces on respondents is even clearer. Although respondents are generally positive about the interview, it is almost a case of their being not negative rather than actively positive. Information about the study seems to increase the
probability that a respondent will think he is helping with a worthy cause; and that is the only force which could be directly conducive to good reporting. It therefore appears desirable to increase this force, and a considerabie increase in respondents' general level of information about the study may be needed in order to do this.

Finally, although some respondents feel very strongly about the interview, there is some evidence that most respondent feelings are not intense or well defined. If they were, it would be unlikely that significant changes in respondent reactions to the interview would be feasible within the range of practical field procedures. However, the fact that the attitudes most respondents report do not appear to be very firmly grounded provides some basis for hope that procedures can be developed which will make respondent reactions more clearly positive and, perhaps, raise the general level of respondent cooperation.

APPENDIX

## THREE INTERVIEWS

Three interviews are reproduced in their entirety in the following pages: one from a respondent who reacted favorably to the interview, one who seemed fairly neutral, and one who reacted somewhat unfavorably. Clearly three interviews cannot give a representative view of what 412 respondents said, but they can convey some of the flavor and color of the respondents' answers which are difficult to convey in tables or with isolated quotations.

The interviews began with the presentation of three pictures of an expressionless interviewer and respondent. Picture 1 shows the interviewer being greeted at the door; picture 2 shows the interview in progress; picture 3 shows the interviewer leaving. These pictures and the questionnaire can be found in the Appendix.

## Respondent A

Respondent $A$ is a 51 year old woman who lives in New Jersey. She did not complete the eighth grade; her husband makes $\$ 4,000-7,000$ annually. In the health interview, she reported for herself, her husband, and her son, and she said that no one in the family had any conditions, any visits to doctors in the last two weeks, or any hospitalizations during the last year.

In the report that she filled out after the interview, the NHS interviewer rated her as a respondent who was somewhat more cooperative than average, who understood the questions very well, was very willing to give the time for the interview, and who appeared to have reported accurately.

## INTERVIEWER SHOWS RESPONDENT PICTURE 非1.

Interviewer: What does the woman think when she first opens the door, and sees the person like the one in the picture standing there?

Respandent: Kind of salesman or saleslady, I think.
I: What does the woman of the house think when the person says she is an interyiewer?
R: I'd ask her what she's interviewing for.
I: What would the woman:of the house think?
R: What will she ask me?

I: Is the woman of the house feeling pleased, annoyed, happy, irritated, or what?

R: Sometimes one is irritated when someone comes and you're busy doing some thing.

I: Why does she feel like that?
R: You don't like to stop what you're doing.
SHOWING PICTURE 非2 TO RESPONDENT . . .
I: In this picture, as you see, the interviewer was invited in and is starting to ask the questions. How is the woman of the house feeling now?

R: Well, she's answering as best, you know.
I: Can you tell me more?
R: What would you say? I mean, if the interview is going to help, she feels all right about it.

I: Is there anything about being interviewed that she enjoys?
R: I don't think she's enjoying it.
I: Is there anything about being interviewed which she doesn't like?
R: I don't know.
SHOWING PICTURE 非3, OF INTERVIEWER LEAVING HOUSE. . .
I: In this picture the interview is over and the interviewer is leaving. Now, how does the woman of the house feel?
R: Well, it's over! You know, relieved,
I: Does she feel pleased or not about the interview?
R: I think she's pleased.
I: Why?
$R$ : She had nothing to hide.
I: Does she feel that she has reported all the information that the interviewer wanted, or did she leave out some things?

R: She reported everything they asked her.
I: Why?
$R$ : She was supposed to, wasn't she?
I: How does she feel about the interviewer?
R: Very pleasant person.
I: Now, in general, what is your feeling about the health interview you had yesterday?
R: Well, I really couldn't say. I thought it was a census, finding out about the sick, and all that.

I: After the interviewer left your home, did you think about the interview or the interviewer?

R: Yes, I did.
I: What kinds of things did you think about?

R: What was it about? Where was it going? How many people did they interview?

I: Did you talk about the interview with your family or friends?
R: Yes.
I: With whom?
R: My husband, last night.
I: What did you talk about?
R: I told him all the questions I could remember. He asked what it was for. I told him about the census and all the sickness around.

I: Did you feel that there was any pressure on you to give the interview or not?

R: No.
I: Were there any things the interviewer asked about that you thought wire were too personal or embarrassing?

R: No.
I: Were there any things about the interview you especially liked?
R: No.
I: Do you remember what you were doing when the interviewer came to your door?

R: Yes.
I: What?
R: I was cooking supper.
I: How did you feel about her coming, were you pleased when you knew someone was at the door, or would you rather she hadn't come just then?

R: It would have been better if she had come earlier. I was cooking supper.

I: How did you feel about giving up your time to answer the questions?
R: I didn't mind.
I: During the day, do you usually have some free time to read, watch television, or do what you want to do, or are you busy most of the time?

R: I usually have free time.
I: How long did you think the interview would last when you first let the interviewer in?

R: I never gave it a thought.
I: By the way, how long did it last?
R: Let's see -- I don't remember, perhaps fifteen minutes.
I: Do you remember getting a letter through the mail telling you about the survey?
$R$ : I don't remember. No, I can't say I did.
I: We're interested in how much people who are interviewed know about the survey. For instance, do you know about why surveys like this are conducted?

R: Well, to find out different things and certain matters and take an average of that.

I: Why do you think people cooperate on these health surveys?
R: A lot of people are interested in them.
I: At any time during the interview did you feel rushed or hurried, or did you always have plenty of time to answer the questions?

E: I had plenty of time.
I: When the meaning of a question or a word was not clear to you, did you feel free or not to ask the interviewer what it meant?

R: Yes, I did feel free.
I: Did you and the interviewer have any trouble understanding each other or not?

R: No.
I: Did the interviewer want you to be exact in the answers you gave, or were general ideas good enough?

R: General ideas good enough.
I: How about the kind of health information she was asking about. Did she want everything, no matter how small it was, or was she interested anly in fairly important things?
R: She asked everything -- no matter how small it was.
I: Is this something that you could do without trouble, or do you think this is too much to expect a person to be able to do?

R: Yes, I could do it without trouble.
I: In most families one person looks after the health of the other members of the family. Who does this in your family?

R: Me.
I: Do you know who the interviewer worked for?
R: She was from the Census Bureau and health -- something like that.
I: Can you tell me why the information was being collected, what the information was used for?

R: She said it was being used to make a census of health.
I: Would you have liked to have known more about the reason the survey was being done?

R: Yes.
I: What would you have liked to know more about?
R: Who was making it? The government? or what? I took it for granted it was the government.

I: Do you know or have any idea who is going to use the information you gave?
R: No.
I: Do you know what part of the Government?
R: No

I: One of the groups the information was collected for is the United States Public Health Service. Have you ever heard of this part of the Government?
R: I don't recall.
HANDING CARD TO RESPONDENT. . .
I: What kind of a person would you say the interviewer was? Which of these remind you most of the interviewer: that is, which was it most like talking to?

R: A social worker.
I: Which was it next most like?
R: A Community Chest Volunteer.
I: Which was it least like?
R: A door-to-door salesman.
I: How far thraugh school do you think the interviewer had gone -- grade school, high school, college?

R: High school.
I: How long do you suppose she had to received special training to be an interviewer?

R: One to four weeks.
I: Some people said they would rather an interviewer be businesslike -stick to her job -- while some say they would rather the interviewer visit a little. Which would you like best?
E: I think she should do what she has to do - stick to her job.
I: Would you have liked the interviewer who talked with you to have been more friendly, or more businesslike than she was?

R: I liked her the wạy she was.
I: How was that?
R: She was nice -- nice and_friendly but;also businesslike.
I: Would you like to do the kind of work an interviewer does?
R: I don't think I could.
I: Why?
R: I don't like going door to door. Even if $I$ have to collect money for my church I get nervous.

I: Did the interviewer miss anything at all about your family's health, even though it was very small and not important?

R: I don't think she did.

## Respondent $B$

Respondent $B$ did not complete the eighth grade and has a family income of less than $\$ 2,000$ per year. This 41 year old woman lives with her two young daughters in their home in Virginia, and she reported for the entire family. She reported that the family had had neigher a visit to a doctor nor a hospitalization during the periods the interview asked about, but
reported two conditions for the family，one for herself and one for a daughter．

In her post－interview rating of this respondent，the Census inter－ viewer said that she was much more cooperative than average，very relaxed， and very willing to give the time required for the interview．According to the interviewer，she also understood the questions very well and appeared to have reported accurately．

## INTERVIEWER SHOWS RESPONDENT PICTURE 非1．

I：What does the woman think when she first opens the door，and sees the person like the one in the picture standing there？

ㅍ：I imagine she＇s wondering what she wants - －and what $I$ can help her with．
I：What does the woman of the house think when the person says she is an interviewer？

R：She thinks perhaps the interviewer wants to help her with something．
I：Is the woman of the house feeling pleased，annoyed，happy，irritated， or what？

R：I feel like she＇s real pleased．
I：Why does she feel like that？
R：Well－－I would think she＇s coming to help her．
I：How might she be helpful？
R：Well，I have arthritis so bad－－maybe she could help me．I can＇t leave my children and all．

SHOWING PICTURE OF INTERVIEWER AND RESPONDENT IN HOUSE（PICTURE 非2）．
I：In this picture，as you see，the interviewer was invited in and is starting to ask the questions．How is the woman of the house feeling now？
R：She＇s feeling right pleased．
I：Why？
R：She thinks if she needs help maybesshe can get it．
I：Is there anything about being interviewed that she enjoys？
R：Yes．
I：What does she enjoy？
I：I guess just having her visit her．
I：Why？
R：She loves to have people come to see her．
II：Is there anything about being interviewed which she doesn＇t like？
R：No ma＇am，I don＇t think so．
SHOWING PICTURE OF INTERVIEWER LEAVING HOUSE（PICTURE 非3）．
I：In this picture the interview is over and the interviewer is leaving． Now，how does the woman of the house feel？

R：She＇s hoping she＇ll come back some day to see her again．

I: Does she feel pleased or not about the interview?
R: Yes.
I: Why?
R: To think someone's interested enough to come and see her -- I reckon -that's how I feel.

I: Does she feel that she has reported all the information that the interviewer wanted, or did she leave out some things?

R: She told her everything.
I: Why?
R: 'Cause she wanted to answer as best she could.
I: How does she feel about the interviewer?
R: She liked her real well.
I: Now, in general, what is your feeling about the health interview you had yesterday?
R: I just felt it was a wonderful thing -- asking all those questions and finding out how you were and what you could do.

I: After the interviewer left your home, did you think about the interview or the interviewer?

R: No ma'am -- not 'til you came along. I didn't think no more about it.
I: Did you feel that there was any pressure on you to give the interview or not?
R: No ma'am.
I: Were there any things the interviewer asked about that you thought were too personal or embarrassing?
R: No ma'am.
I: Were there any"things about the interview you especially liked?
R: Yes.
I: What kinds of things?
R: I think it's real good that they asked about X-rays and if you'd took them and all things like that.

I: Do you remember what you were doing when the interviewer came to your door?
R: Yes, ma'am. IRespondent laughs.I Sure do.
I: What?
R: I had the water all in the machine and was fixin' to wash.
I: How did you feel about her coming, were you pleased when you knew someone was at the door, or would you rather she hadn't come just then?
R: Real pleased.
I: Why?
R: I'm glad to see anyone -- when people come to my door I've always got time for them.

I: How did you feel about giving up your time to answer the questions?
R: Oh, I was willing to. I didn't mind.it.
I: During the day, do you usually have some free time to read, watch television, or do what you want to do, or are you busy most of the time?

R: I'm mostly always busy $-\cdots$ sometimes I'll take just a few minutes for TV.
I: How long did you think the interview would last when you first let the interviewer in?

R: I didn't have no idea.
I: By the way, how long did it last?
R: About a half hour, I imagine.
I: Do you remember getting a letter through the mail telling you about the survey?

R: No, ma'am.
I: We're interested in how much people who are interviewed know about the survey. For instance, do you know about why surveys like this are conducted?

R: No ma'am, unless it's for people who are sick and don't know how to get some help.

I: Why do you think people cooperate on these health surveys?
R: People, most people, like to help out, to help people who are sick and that.

I: At any time during the interview did you feel rushed or hurried, or did you always have plenty of time to answer the questions?

R: I had plenty of time.
I: When the meaning of a question or a word was not clear to you, did you feel free or not to ask the interviewer what it meant?
R: Yes ma'am, I felt free.
I: Did you and the interviewer have any trouble understanding each o ther or not?
R: No ma'am.
I: Did the interviewer want yơu to be exact in the answers you gave, or were general ideas good enough?
R: Exact, I believe.
I: How about the kind of health information she was asking about. Did she want everything, no matter how small it was, or was she interested only
in fiarly important things?
R: She wanted to know about everything.
I; Is this something that you could do without trouble, or do you think this is too much to expect a person to be able to do?

R: It was no trouble.
I: In most families one person looks after the health of the other members of the family. Who does this in your family?
$\mathrm{R}: \quad \mathrm{I}$ do.

I: Do you know who the interviewer worked for?
R: No ma'am, I don't.
I: Can you tell me why the information was being collected, what the information was used for?
R: No ma'am, unless she told me and I forgot.
I: Would you have liked to have known more about the reason the survey was being doné?
R: Yes, I would.
I: What would you haverliked to know more about?
R: Just what they can do for a person who really needs help.
I: Do you know or have any idea who is going to use the information you gave?
R: No ma'am.
I: One of the groups the information was collected for is the United states Public Health Service. Have you ever heard of this part of the Government?
R: Yes ma'am.
I: Do you know what kinds of things it does?
R : It helps in many ways.
I: In what ways?
R: Well, if you need an operation or childbirth -- like a clinic in a hospital.

HANDING CARD TO RESPONDENT.
I: What kind of a person would you say the interviewer was? Which of these remind you most of the interviewer: that is, which was it most like talking to?

R: A close friend.
I: Which was it next most like?
R: A nurse.
I: Which was it least like?
R: A secretary or clerk in an office.
I: How far through school do you think the interviewer had gone -- grade school, high school, college?

R: I believe she went through college.
I: How long do you suppose she had to receive special training to be an interviewer?

R: Seven to twelve months. She was really smart and bright and could read real well and answer things.

I: Some people said they would rather an interviewer be businesslike -- stick to her job -- while some say they would rather the interviewer visit a little. Which would you like best?

R: Well, I like them to visit a little.
I: Would you have liked the interviewer who talked with you to have been more friendly, or more businesslike than she was?

R: She was real friendly.
I: Would you have liked the interviewer who talked with you to have beena more friendly, or more businesslike than she was?

R: I wouldn't have changed her none.
I: Would you like to do the kind of work an interviewer does?
R: Yes, I would.
I: Why?
R: Getting out and being among people.
I: Did the interviewer miss anything at all about your family's health, even' though it was very small and not important?
$R$ : No, ma' am.

## Respondent $C$

Respondent $C$ is a severely crippled arthritic, who lives in Ohio with his mother and brother. A high school graduate and 48 years old, he reported a total of nine conditions for himself and for his mother, and he reported one visit to a doctor in the two weeks prior to the interview.

The NHS interviewer rated him as more cooperative than average and very willing to give his time for the interview. He was said to have understood the questions only "fairly well," but the interviewer thought that he had reported accurately.

SHOWING RESPONDENT PICTURE 非1.
I: What does the man think when he first opens the door, and sees the person like the one in the picture standing there?

R: Well, it looks like it's going to be an interview.
I: What does the man of the house think when the person says she is an interviewer?

R: Well, miy frank opinion?
I: Yes.
R: A lot of bother, a nuisance.
I: Is the man of the house feeling pleased, annoyed, happy, irritated, or what?

R: Well, I'd say annoyed.
I: Why does he feel like that?
R: Well, I don't know. I just think it's a bunch of nothing, it goes down the drain, it's all no use, in my opinion.

SHOWING RESPONDENT PICTURE NUMBER \#2, OF INTERVIEWER AND RESPONDENT IN THE HOUSE .
I: 'In this picture, as you see, the interviewer was invited in and is starting to ask the questions. How is the man of the house feeling now?
R: Well, he wondered if he did the right thing.

I: Why?
R: Well, a lot about the information he wasn't about to give out, is how I feel.

I: Is there anything about being interviewed that ine enjoys?
R: Well, I wouldn't say so.
I: Anything?
R: Maybe the conversation. That's all.
I: Why?
$R$ : Pass the time. Just like having a neighbor next door come over.
I: Is there anything about being interviewed which he doesn't like?
R: Well, you mean yesterday - I'll tell you about that -- too many per-

I: What doesn't he like?
R: Can I give you an example?
I: Yes!
R: She :asked me about my mother, staying in bed for one disease, then asked me about another disease and she is already in bed for one so she's in bed for both or all, asked me about her being in bed for each thing -can't separate it like that. It was all silly -- too repetitious.
SHOWING: PCITURE 非3 OFF INTERVIEWER LEAVING HOUSE.
I: In this picture the interview is over and the interviewer is leaving. Now, how does the man of the house feel?
R: Well, I'll tell you -- he feels relieved.
I: Does he feel pleased or not about the interview?
R: Well, about some parts, some of the information he gave out, he $s$ pleased, but other parts he's not pleased about.

I: More?
R: I don't think sio.
I: Does he feel that he has reported all the information that the interviewer wanted, or did he leave out some things?

R: I think he reported too much information.
I: Why?
R: Just my opinion -- I figure some information $I$ reported was of no value.
I: How does he feel about the interviewer?
R: I don't have nothing against the interviewer --that's his job - I'm against the U.S. Health Department who financed this survey.
I: Now, in general, what is your feeling about the health interview you had yesterday?
R: Ve11, my opinion?
I: Yes!
R: Comme ci, comme ca. Can't see what they're going to get out of it. If
they go to thousands of houses, i'can't see how they' 11 compute what they have and come up with some kind of answer.
I: After the interviewer left your home, did you think about the interview or the interviewer?
R: I thought about the interview, not the interviewer.
I: What kinds of things did you think about?
R: Told you -- them questions. Half of them didn't make any sense. If you're in bed you're in bed. If you are in bed for 20 hours with one illness, you're in bed for all. All those questions should automatically not have been asked.

I: Did you talk about the interview with your family or friends?
R: Well --
I: With whom?
R: My mother, my brother.
I: What did you talk about?
R: About the questions that were asked.
I: Anything else?
R: Nope.
I: Did you feel that there was any pressure on you to give the interview or not?

R: I think if I hadn't wanted to give the interview, I wouldn't have.
I: Were there any things the interviewer asked about that you thought were too personal or embarrassing?
R: I thought the income question was too personal.
I: Were there any things about the interview you especially liked?
R: I didn't like nothing about it.
I: Do you remember what you were doing when the interviewer came to your door?

R: I think $I$ was reading -- and listening to the ball game.
I: How did you feel about her coming, were you pleased when you knew someone was at the door, or would you rather she hadn't come just then?

R: I knew they was going to come because they sent a letter -- if not today, then tomorrow -- didn't make no difference to me.
I: How did you feel about giving up your time to answer the questions?
R: I got a lot of time -- didn't make no difference to me.
I: During the day, do you usually have some free time to read, watch television, or do what you want to do, or are you busy most of the time?
R: Yep, all the time free.
I: How long did you think the interview would last when you first let the interviewer in?

R: Well, according to the letter, I thought five or Zen minutes.
I: By the way, how long did it last?

R: I think it lasted nearly an hour -- I'm not sure.
I: Do you remember getting a letter through the mail telling you about the survey?
R: We got the letter last week.
I: Did you look at it quickly or read it fairly carefully?
R: Read it, read it thoroughly I think.
I: Was there a folder or leaflet with the letter?
R: Yep.
I: Did you read that carefully or just glance at it?
R: I glanced through it because I thought the letter said it would tell me about the questions. The letter said it would be a simple interview and I don't think it was.

I: Do you remember how you felt when you found out you were going to be interviewed?
R: Well, I didn't feel one way or the other. The letter wasn't addressed to anyone in particular, just a form letter.
I: We're interested in how much people who are interviewed know about the survey. For instance, do you know about why surveys like this are conducted?

R: Well, I think I know. I read the papers so I oughta. They take an average household to see how many times they see the doctor and have X-rays -- and then compile surveys and get answers. I know what they do. They'11 just take about ten interviews out of all they take, and then come to a conclusion.from those. That's what you read. Some people, pollsters, just call certain kinds of people and then they get biased answers. They don't have time to go over all those surveys!
I: Why do you think people cooperate on these health surveys?
R: I don't know if they do -- balf do and half don't. I don't think they tell the truth.
I: Why do the ones that do cooperate?
R: They think the information will help the Health Service to come to some lind of conclusion.

I: Any particular conclusion?
R: About the health in the U.S.
I: At any time during the interview did you feel rushed or hurried, or did you always have plenty of time to answer the questions?
$\mathbb{R}$ : I had a lot of time. I had to wait on them, they didn't wait on me.
I: When the meaning of a question or a word was not clear to you, did you feel free or not to ask the interviewer what it meant?

R : I knew the meaning of the words.
I: If not?
R: I probably would, I think!
I: Did you and the interviewer have any trouble understanding each other or not?

R: Nope.
I: Any trouble or not?
R: Nope.
I: Did the interviewer want you to be exact in the answers you gave, or were general ideas good enough?

R: More exact than general.
I: How about the kind of health information she was asking about. Did she want everything, no matter how small it was, or was she interested only in fairly important things?
R: She asked, I think, about everything. That's why the interviewtook so long.

I: Is this something that you could do without trouble, or do you think this is too much to expect a person to be able to do?

R: I thought there was too much work for her.
I: You?
R: Not for me, she did the writing.
I: In most families one person looks after the health of the other members of the family. Who does this in your family?

R: Everybody looks after everyone.
I: Anyone in particular?
R: No.
I: Do you know who the interviewer worked for?
R: I thought U.S. Census Bureau.
I: Can you tell me why the information was being collected, what the information was used for?

R: All I know is what I read in the papers and in the booklet. They work up some conclusion on health of the people in the U.S. They have surveys on it every once in a while.

I: Nould you have liked to have known more about the reason the survey was being done?
R: I don't think so.
I: Do you know or have any idea who is going to use the information you gave?

R: The U.S. Health Bureau in Washington, D.C.
I: One of the groups the information was collected for is the United States Public Heafth Service. Have you ever heard of this part of the Government?保保 hent
R: I've heard of it, sure.
I: Do you know what kinds of things it does?
R: Well, a lot of things -- want me to tell you?
I: Yes.
R: Pollution of rivers, air. People's health, wisereever people go and whatever they use that helps or hinders their health.

HANDING CARD TO RESPONDENT.
I: What kind of a person would you say the interviewer was? Which of these
remind you most of thejinterviewer: that is, which was it most like talking
to?

R: A female doctor.
I: Which was it next most like?
R: A social worker.
I: Which was it least like?
R: A neighbor, who wouldn't ask all those questions.
I: How far through school do you think the interviewer had gone -- grade school, high school, college?

R: Well, yesterday?
I: Yes.
R: Two years of college, at least.
I: How long do you suppose she had to receive special training to be an interviewer?

R: One to three months. I'd say 30 days.
I: Some people said they would rather an interviewer be businesslike -stick to her job -- while some say they would rather the interviewer visit a little. Which would you like best?

R: I'd say second one.
I: Which?
R: Visit a little.
I: Why?
R: Too much hullabaloo yesterday with all those questions.
I: Would you have liked the interviewer who talked with you to have been more friendly, or more businesslike than she was?

R: Onelhere yesterday was all right in my books. I'd recommend her.
I: Would you have liked the interviewer to have been more businesslike or morè frieñly?

R: All right the way she was.
I: Would you like to do the kind of work an interviewer does?
R: Nope.
I: Why?
R: I think they ask too many personal questions. Not any particular interviewer, just in general -- it's too personal a job.

I: Did the interviewer miss anything at all about your family's health, even though it was very small and not important?

R: I don't think she missed a thing -- she went down the whole list.

## CONSTRUCTION OF INDICES OF RESPONDENT REACTION

It was desirable to classify each respondent on his feeling toward the interview. In addition to those instances in which the respondent summarized his general feelings, he had several opportunities to criticize or praise the interview experience. In order to obtain a comprehensive index of respondent reactions, it was felt that these, too, should be taken into account. Two indices were constructed -- one from the answers to the direct questions and one from the answers to the indirect questions.

In constructing the indices, an additional consideration was response style. Some people are outspoken in expressing their feelings, while others are more cautious and express negative feelings simply by the avoidance of positive responses. Thus a person who feels positively can state positive feelings, avoid stating negative feelings, or do both. The procedure for constructing the indices was designed to take into account all of these response patterns.

For each question in which the respondent had the opportunity to express a feeling about the interview, he obtained one point for:

1. Each time he stated a positive feeling or reaction;
2. Each time he avoided stating a positive feeling when he had the opportunity to do so;
3. Each time he stated a negative feeling or reaction;
4. Each time he avoided stating a negative feeling when he had the opportunity to do so.
In the indirect section, the following questions were scored:
(to picture of interviewer at door):
Question 2. "How does the person in the picture feel now?"
Question 2a. 'Why does she feel that way?"
(to picture of interview taking place):
Question 3: "How does the person in the picture feel now?"
Question 3a. "Why is that?"
Question 4: "What does the respondent enjoy about the interview?" (scored only for stating and avoiding positive comments.)
Question 5: "What does the respondent not enjoy about the interview?" (scored only for stating and avoiding negative comments.)
(to picture of interviewer leaving)
Question 6: "How does the respondent feel now that the interview is over?"

For each index, a respondent was able to get a score from 0 to 6 .
In the direct section of the interview, the following questions were scored in the same way:

Question 9: "In general, how do you feel about the interview you had yesterday?"
Question 9a: "Why is that?"
Question 11b: (if respondent talked to anyone about the interview) "What did you talk about?"

Question 14: "What did you like about the interview?" (scored only for stating positive and avoiding negative)
Question 15: "How did you feel about her coming just then?"
Question 17: "How did you feel about giving up your time for the interview?"

It might be noted that the last two items deal specifically with concern about time. It was thought that for busy respondents expression of concern about time could be taken as an index of a generally favorable or unfavorable reaction to the interview experience and toward participating in it.

Again four indices were constructed, two with a range of 0-5 and two of $0-6$

Then the results of the four indices were combined separately for the indirect and the direct questions. Respondents were divided into five approximately equal groups on the basis of their scores on each of the four indices. These combined indices, it was hoped, would be free from spurious effects.



[^0]:    ${ }^{*}$ The reason for this was the need to maintain the confidentiality of the NHS interview.

[^1]:    * 

    The reason for this was the need to maintain the confidentiality of the NHS interview.

[^2]:    *Interviewer from Chicago region substituted, no Charlotte interviewer available.

[^3]:    *One interviewer from the Chicago region had to be substituted for a Charlotte interviewer to fit this study schedule.

[^4]:    *A Report on Respondents' Reading of the Brochure and Letter and an Analysis of Respondents' Level of Information.

[^5]:    * Includes those who said they had no expectation of interview length.

[^6]:    *"Reporting unit" includes all those for whom the principal respondent reported wholly or in part.

[^7]:    *See Health Statistics, Series D-4 and Series D-8.

